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Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Language Reference

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About This PeopleBook

PeopleSoft Enterprise PeopleBooks provide you with the information that you need to implement and use PeopleSoft Enterprise applications from Oracle.

This preface discusses:

- PeopleSoft Enterprise application prerequisites.
- Application fundamentals.
- Documentation updates and printed documentation.
- Additional resources.
- Typographical conventions and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

Note. PeopleBooks document only elements, such as fields and check boxes, that require additional explanation. If an element is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common elements for the section, chapter, PeopleBook, or product line. Elements that are common to all PeopleSoft Enterprise applications are defined in this preface.

PeopleSoft Enterprise Application Prerequisites

To benefit fully from the information that is covered in these books, you should have a basic understanding of how to use PeopleSoft Enterprise applications.

You might also want to complete at least one introductory training course, if applicable.

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft Enterprise menus, pages, or windows. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

These books do not review navigation and other basics. They present the information that you need to use the system and implement your PeopleSoft Enterprise applications most effectively.

Application Fundamentals

Each application PeopleBook provides implementation and processing information for your PeopleSoft Enterprise applications.

For some applications, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals PeopleBook. Most product lines have a version of the application fundamentals PeopleBook. The preface of each PeopleBook identifies the application fundamentals PeopleBooks that are associated with that PeopleBook.

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The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft Enterprise applications. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of the appropriate application fundamentals PeopleBooks. They provide the starting points for fundamental implementation tasks.

Documentation Updates and Printed Documentation

This section discusses how to:

- Obtain documentation updates.
- Download and order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on Oracle's PeopleSoft Customer Connection website. Through the Documentation section of Oracle's PeopleSoft Customer Connection, you can download files to add to your PeopleBooks Library. You'll find a variety of useful and timely materials, including updates to the full line of PeopleSoft Enterprise documentation that is delivered on your PeopleBooks CD-ROM.

Important! Before you upgrade, you must check Oracle's PeopleSoft Customer Connection for updates to the upgrade instructions. Oracle continually posts updates as the upgrade process is refined.

See Also

Oracle's PeopleSoft Customer Connection, http://www.oracle.com/support/support_peoplesoft.html

Downloading and Ordering Printed Documentation

In addition to the complete line of documentation that is delivered on your PeopleBook CD-ROM, Oracle makes PeopleSoft Enterprise documentation available to you via Oracle's website. You can:

- Download PDF files.
- Order printed, bound volumes.

Downloading PDF Files

You can download PDF versions of PeopleSoft Enterprise documentation online via the Oracle Technology Network. Oracle makes these PDF files available online for each major release shortly after the software is shipped.

See Oracle Technology Network, http://www.oracle.com/technology/documentation/psftent.html.

Ordering Printed, Bound Volumes

You can order printed, bound volumes of selected documentation via the Oracle Store.

See Oracle Store, http://oraclestore.oracle.com/OA_HTML/ibeCCtpSctDspRte.jsp?section=14021

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Additional Resources

The following resources are located on Oracle's PeopleSoft Customer Connection website:

Resource	Navigation
Application maintenance information	Updates + Fixes
Business process diagrams	Support, Documentation, Business Process Maps
Interactive Services Repository	Support, Documentation, Interactive Services Repository
Hardware and software requirements	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Hardware and Software Requirements
Installation guides	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Installation Guides and Notes
Integration information	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Pre-Built Integrations for PeopleSoft Enterprise and JD Edwards EnterpriseOne Applications
Minimum technical requirements (MTRs)	Implement, Optimize + Upgrade; Implementation Guide; Supported Platforms
Documentation updates	Support, Documentation, Documentation Updates
PeopleBooks support policy	Support, Support Policy
Prerelease notes	Support, Documentation, Documentation Updates, Category, Release Notes
Product release roadmap	Support, Roadmaps + Schedules
Release notes	Support, Documentation, Documentation Updates, Category, Release Notes
Release value proposition	Support, Documentation, Documentation Updates, Category, Release Value Proposition
Statement of direction	Support, Documentation, Documentation Updates, Category, Statement of Direction
Troubleshooting information	Support, Troubleshooting
Upgrade documentation	Support, Documentation, Upgrade Documentation and Scripts

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Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.
- Country, region, and industry identifiers.
- Currency codes.

Typographical Conventions

This table contains the typographical conventions that are used in PeopleBooks:

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, business function names, event names, system function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Italics	Indicates field values, emphasis, and PeopleSoft Enterprise or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. We also use italics when we refer to words as words or letters as letters, as in the following: Enter the letter *O*.
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press the W key.
`Monospace font`	Indicates a PeopleCode program or other code example.
“ ” (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).

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Typographical Convention or Visual Cue	Description
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.

Visual Cues

PeopleBooks contain the following visual cues.

Notes

Notes indicate information that you should pay particular attention to as you work with the PeopleSoft Enterprise system.

Note. Example of a note.

If the note is preceded by *Important!,* the note is crucial and includes information that concerns what you must do for the system to function properly.

Important! Example of an important note.

Warnings

Warnings indicate crucial configuration considerations. Pay close attention to warning messages.

Warning! Example of a warning.

Cross-References

PeopleBooks provide cross-references either under the heading "See Also" or on a separate line preceded by the word *See.* Cross-references lead to other documentation that is pertinent to the immediately preceding documentation.

Country, Region, and Industry Identifiers

Information that applies only to a specific country, region, or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a country-specific heading: "(FRA) Hiring an Employee"

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

Country Identifiers

Countries are identified with the International Organization for Standardization (ISO) country code.

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Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in PeopleBooks:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in PeopleBooks:

- USF (U.S. Federal)
- E&G (Education and Government)

Currency Codes

Monetary amounts are identified by the ISO currency code.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other Oracle reference and training materials. Please send your suggestions to your product line documentation manager at Oracle Corporation, 500 Oracle Parkway, Redwood Shores, CA 94065, U.S.A. Or email us at appsdoc@us.oracle.com.

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions.

Common Elements Used in PeopleBooks

As of Date	The last date for which a report or process includes data.
Business Unit	An ID that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.
Description	Enter up to 30 characters of text.
Effective Date	The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when you can view and change the information. Pages or panels and batch processes that use the information use the current row.

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Once, Always, and **Don't Run**	Select Once to run the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to Don't Run. Select Always to run the request every time the batch process runs. Select Don't Run to ignore the request when the batch process runs.
Process Monitor	Click to access the Process List page, where you can view the status of submitted process requests.
Report Manager	Click to access the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).
Request ID	An ID that represents a set of selection criteria for a report or process.
Run	Click to access the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.
SetID	An ID that represents a set of control table information, or TableSets. TableSets enable you to share control table information and processing options among business units. The goal is to minimize redundant data and system maintenance tasks. When you assign a setID to a record group in a business unit, you indicate that all of the tables in the record group are shared between that business unit and any other business unit that also assigns that setID to that record group. For example, you can define a group of common job codes that are shared between several business units. Each business unit that shares the job codes is assigned the same setID for that record group.
Short Description	Enter up to 15 characters of text.
User ID	An ID that represents the person who generates a transaction.

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PeopleCode Language Reference Preface

This preface includes typographical conventions used in PeopleCode and discusses the uses of this book.

PeopleCode Language Reference

This PeopleBook covers the language elements of PeopleCode, such as the built-in functions, meta-SQL, system variables, and so on. PeopleCode is the proprietary language used in the development of PeopleSoft applications. Its chapters contain reference material for the PeopleCode language.

There are two accompanying books, the PeopleCode API Reference and the PeopleCode Developer's Guide. The API reference contains information about the classes delivered with PeopleCode, for example, all the methods and properties of the rowset class, the field class, and so on. Its chapters describe the syntax and fundamental elements of this part of the PeopleCode language. The PeopleCode Developer's Guide contains conceptual information about the PeopleCode language, the PeopleCode APIs, the component processor, and so on.

The "About These PeopleBooks" preface contains general product line information, such as related documentation, common page elements, and typographical conventions. This preface also contains a glossary with useful terms that are used in PeopleBooks.

See also *PeopleTools 8.49 PeopleBook: PeopleCode API Reference* and *PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*.

PeopleCode Typographical Conventions

Throughout this book, we use typographical conventions to distinguish between different elements of the PeopleCode language, such as bold to indicate function names, italics for arguments, and so on.

Please take a moment to review the following typographical cues:

Font Type	Description
`monospace font`	Indicates a PeopleCode program or other example
Keyword	In PeopleCode syntax, items in **keyword** font indicate function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Variable	In PeopleCode syntax, items in *variable* font are placeholders for arguments that your program must supply.

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Font Type	Description
...	In PeopleCode syntax, ellipses indicate that the preceding item or series can be repeated any number of times.
{*Option1*|*Option2*}	In PeopleCode syntax, when there is a choice between two options, the options are enclosed in curly braces and separated by a pipe.
[ ]	In PeopleCode syntax optional items are enclosed in square brackets.
&Parameter	In PeopleCode syntax an ampersand before a parameter indicates that the parameter is an already instantiated object.

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CHAPTER 1

PeopleCode Built-in Functions

This chapter provides a reference to PeopleCode built-in functions and language constructs and discusses:

- PeopleCode typographical conventions
- Functions by category
- PeopleCode built-in functions and language constructs

PeopleCode Typographical Conventions

Throughout this book, we use typographical conventions to distinguish between different elements of the PeopleCode language, such as bold to indicate function names, italics for arguments, and so on.

Please take a moment to review the following typographical cues:

Font Type	Description
`monospace font`	Indicates a PeopleCode program or other example
Keyword	In PeopleCode syntax, items in **keyword** font indicate function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Variable	In PeopleCode syntax, items in *variable* font are placeholders for arguments that your program must supply.
...	In PeopleCode syntax, ellipses indicate that the preceding item or series can be repeated any number of times.
{*Option1*|*Option2*}	In PeopleCode syntax, when there is a choice between two options, the options are enclosed in curly braces and separated by a pipe.

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Font Type	Description
[ ]	In PeopleCode syntax optional items are enclosed in square brackets.
&Parameter	In PeopleCode syntax an ampersand before a parameter indicates that the parameter is an already instantiated object, or is a parameter variable that will receive a value during the execution of the function.

Functions by Category

The following topics subdivide the PeopleCode built-in functions by functional category and provide links from within each category to the reference entries.

Analytic Calculation Engine

Chapter 1, “PeopleCode Built-in Functions,” CreateAnalyticInstance, page 105

Chapter 1, “PeopleCode Built-in Functions,” GetAnalyticInstance, page 259

Chapter 1, “PeopleCode Built-in Functions,” GetAnalyticGrid, page 258

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Chapter 1, “PeopleCode Built-in Functions,” CreateObject, page 116

Chapter 1, “PeopleCode Built-in Functions,” GetSession, page 306

Chapter 3, “System Variables,” %Session, page 626

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Chapter 1, “PeopleCode Built-in Functions,” CollectGarbage, page 76

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Chapter 1, “PeopleCode Built-in Functions,” CallAppEngine, page 61

Chapter 1, “PeopleCode Built-in Functions,” CommitWork, page 76

Chapter 1, “PeopleCode Built-in Functions,” GetAESection, page 257

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Chapter 1, “PeopleCode Built-in Functions,” WriteToLog, page 557

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Chapter 1, “PeopleCode Built-in Functions,” Split, page 486

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Chapter 1, “PeopleCode Built-in Functions,” AddAttachment, page 32

Chapter 1, “PeopleCode Built-in Functions,” CopyAttachments, page 98

Chapter 1, “PeopleCode Built-in Functions,” DeleteAttachment, page 151

Chapter 1, “PeopleCode Built-in Functions,” DetachAttachment, page 162

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Chapter 1, “PeopleCode Built-in Functions,” PutAttachment, page 397

Chapter 1, “PeopleCode Built-in Functions,” ViewAttachment, page 544

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Chapter 1, “PeopleCode Built-in Functions,” BulkDeleteField, page 52

Chapter 1, “PeopleCode Built-in Functions,” BulkInsertField, page 55

Chapter 1, “PeopleCode Built-in Functions,” BulkModifyPageFieldOrder, page 57

Chapter 1, “PeopleCode Built-in Functions,” BulkUpdateIndexes, page 60

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Chapter 1, “PeopleCode Built-in Functions,” GetInterlink, page 277

Chapter 3, “System Variables,” %MaxInterlinkSize, page 619

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Chapter 1, “PeopleCode Built-in Functions,” ContainsCharType, page 83

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Chapter 1, “PeopleCode Built-in Functions,” ConvertChar, page 89

Chapter 1, “PeopleCode Built-in Functions,” DBCSTrim, page 145

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Chapter 1, “PeopleCode Built-in Functions,” CreateObject, page 116

Chapter 1, “PeopleCode Built-in Functions,” GetChart, page 266

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Chapter 1, “PeopleCode Built-in Functions,” RenameDBField, page 413

Chapter 1, “PeopleCode Built-in Functions,” RenamePage, page 415

Chapter 1, “PeopleCode Built-in Functions,” RenameRecord, page 416

Chapter 1, “PeopleCode Built-in Functions,” SetDBFieldAuxFlag, page 449

Chapter 1, “PeopleCode Built-in Functions,” SetDBFieldCharDefn, page 451

Chapter 1, “PeopleCode Built-in Functions,” SetDBFieldFormat, page 452

Chapter 1, “PeopleCode Built-in Functions,” SetDBFieldFormatLength, page 454

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Chapter 2, “Meta-SQL,” %CurrentDateTimeIn, page 572

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PeopleCode Built-in Functions and Language Constructs

The following are the PeopleCode Built-In functions.

Abs

Syntax

Abs(*x*)

Description

Use the Abs function to return a decimal value equal to the absolute value of a number *x*.

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Parameters

Parameter	Description
x	Specify the number you want the decimal value for.

Example

The example returns the absolute value of the difference between &NUM_1 and &NUM_2:

```
&RESULT = Abs(&NUM_1 - &NUM_2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Sign, page 483 and Chapter 2, "Meta-SQL," %Abs, page 569.

AccruableDays

Syntax

AccruableDays(*StartDate*, *EndDate*, *Accrual_Conv*)

Description

Use the AccruableDays function to return the number of days during which interest can accrue in a given range of time according to the *Accrual_Conv* parameter.

Parameters

Parameter	Description
StartDate	The beginning of the time period for determining the accrual. This parameter takes a date value.
EndDate	The end of the time period for determining the accrual. This parameter takes a date value.
Accrual_Conv	The accrual convention. This parameter takes either a number or a constant value. Values for this parameter are:

Numeric Value	Constant Value	Description
0	%Accrual_30DPM	30/360: all months 30 days long according to NASD rules for date truncation
1	%Accrual_30DPME	30E/360: all months 30 days long according to European rules for date truncation
2	N/A	30N/360: all months but February are 30 days long according to SIA rules
3	%Accrual_Fixed360	Act/360: months have variable number of days, but years have fixed 360 days
4	%Accrual_Fixed365	Act/365: months have variable number of days, buy years have fixed 365 days
5	%Accrual_ActualDPY	Act/Act: months and years have a variable number of days

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Returns

An integer representing a number of days.

See Also

Chapter 1, "PeopleCode Built-in Functions," AccrualFactor, page 30

AccrualFactor

Syntax

```
AccrualFactor(StartDate, EndDate, Accrual_Conv)
```

Description

Use the AccrualFactor function to compute a factor that's equal to the number of years of interest accrued during a date range, according to *Accrual_Conv* parameter.

Parameters

Parameter	Description
StartDate	The beginning of the time period for determining the accrual. This parameter takes a date value.
EndDate	The end of the time period for determining the accrual. This parameter takes a date value.
Accrual_Conv	The accrual convention. This parameter takes either a number or constant value. Values for this parameter are:

Numeric Value	Constant Value	Description
0	%Accrual_30DPM	30/360: all months 30 days long according to NASD rules for date truncation
1	%Accrual_30DPME	30E/360: all months 30 days long according to European rules for date truncation
2	N/A	30N/360: all months but February are 30 days long according to SIA rules
3	%Accrual_Fixed360	Act/360: months have variable number of days, but years have fixed 360 days
4	%Accrual_Fixed365	Act/365: months have variable number of days, buy years have fixed 365 days
5	%Accrual_ActualDPY	Act/Act: months and years have a variable number of days

Returns

A floating point number representing a number of years.

See Also

Chapter 1, "PeopleCode Built-in Functions," AccruableDays, page 29

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Acos

Syntax

Acos(*value*)

Description

Use the Acos function to calculate the arccosine of the given value, that is, the size of the angle whose cosine is that value.

Parameters

Parameter	Description
value	Any real number between **-1.00** and **1.00** inclusive, the range of valid cosine values. If the input value is outside this range, an error message appears at runtime ("Decimal arithmetic error occurred. (2,110)"). Adjust your code to provide a valid input value.

Returns

A value in radians between **0** and **pi**.

Example

The following example returns the size in radians of the angle whose cosine is **0.5**:

```
&MY_ANGLE = Acos(0.5);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Atan, page 49, Chapter 1, "PeopleCode Built-in Functions," Cos, page 104, Chapter 1, "PeopleCode Built-in Functions," Cot, page 105, Chapter 1, "PeopleCode Built-in Functions," Degrees, page 150, Chapter 1, "PeopleCode Built-in Functions," Radians, page 401, Chapter 1, "PeopleCode Built-in Functions," Sin, page 484 and Chapter 1, "PeopleCode Built-in Functions," Tan, page 502.

ActiveRowCount

Syntax

ActiveRowCount(*Scrollpath*)

Where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD**.*target_recname*

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the ActiveRowCount function to return the number of active (non-deleted) rows for a specified scroll area in the active page.

Note. This function remains for backward compatibility only. Use the ActiveRowCount Rowset class property instead.

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ActiveRowCount is often used to get a limiting value for a For statement. This enables you to loop through the active rows of a scroll area, performing an operation on each active row. Rows that have been marked as deleted are not affected in a For loop delimited by ActiveRowCount. If you want to loop through all the rows of a scroll area, including deleted rows, use TotalRowCount.

Use ActiveRowCount with CurrentRowNumber to determine whether the user is on the last row of a record.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," ActiveRowCount

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.

Returns

Returns a Number value equal to the total active (non-deleted) rows in the specified scroll area in the active page.

Example

In this example **ActiveRowCount** is used to delimit a **For** loop through a level-one scroll:

```
&CURRENT_L1 = CurrentRowNumber(1);
&ACTIVE_L2 = ActiveRowCount(RECORD.ASSIGNMENT, &CURRENT_L1, RECORD.ASGN_HOME_HOST);
&HOME_HOST = FetchValue(RECORD.ASSIGNMENT, &CURRENT_L1,
ASGN_HOME_HOST.HOME_HOST, 1);
If All(&HOME_HOST) Then
   For &I = 1 To &ACTIVE_L2
      DeleteRow(RECORD.ASSIGNMENT, &CURRENT_L1, RECORD.ASGN_HOME_HOST, 1);
   End-For;
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CurrentRowNumber, page 133, Chapter 1, "PeopleCode Built-in Functions," TotalRowCount, page 508 and Chapter 1, "PeopleCode Built-in Functions," For, page 215.

AddAttachment

Syntax

```
AddAttachment(URLDestination, DirAndFilename, FileType, UserFile[, MaxSize]
[, PreserveCase, UploadPageTitle]
```

where *URLDestination* can have *one* of the following forms:

```
URL.URLname
```

Or a string URL, such as

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```
ftp://user:password@ftp.ps.com/
```

Note. You cannot specify a different port for an attachment when using an FTP server. You can only use the default port of 21.

Note. If you're copying from a database table, you can either create an entry for this record (URL) in the URL Maintenance page, or specify it in your PeopleCode, as follows:

record://RESUMES_DB

Note. The file attachment functionality does not support SFTP or FTPS.

Description

Use the AddAttachment function to transfer a file from one server to another. You could use this to associate a file with a row in a record, or with a page of data.

Note. If the specified subdirectories don't exist this function tries to create them.

File Name Considerations

When the file is transferred, the following characters are replaced with an underscore:

- space
- semicolon
- plus sign
- percent sign
- ampersand
- apostrophe
- exclamation point
- @ sign
- pound (#) sign
- dollar sign

Note. The AddAttachment function does not guarantee the uniqueness of the file names that get uploaded. If your application requires unique file name, you must write code to test the file names before they are uploaded.

Restrictions on Use in PeopleCode Events

AddAttachment is a "think-time" function, which means that it should not be used in any of the following PeopleCode events:

- SavePreChange
- SavePostChange
- Workflow
- RowSelect

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- Any PeopleCode event that initiates as a result of a Select or SelectNew method, or any of the ScrollSelect functions.

If you want to transfer files in a "non-interactive" mode, with functions that aren't think-time, see the GetAttachment and PutAttachment functions.

Security Considerations

The *FileType* parameter is only a suggestion. Specifying it does *not* enforce specific file types. If you do not want specific file types (such as .exe or .bat) you must write PeopleCode to discern the name and file type of the attached file and delete it.

You may not be able to filter files by file type due to browser limitations. You may have to write your own PeopleCode to do this filtering before you call the browser.

When the end user views attachments using the ViewAttachment function, some browsers treat documents as HTML *regardless of file extension*, and thus execute embedded Java script. You may want to write a PeopleCode program to only allow specific file extensions to be viewed.

See Also

Chapter 1, "PeopleCode Built-in Functions," GetAttachment, page 261 and Chapter 1, "PeopleCode Built-in Functions," PutAttachment, page 397.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," Select

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," SelectNew

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Think-Time Functions

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Parameters

Parameter	Description
URLDestination	A reference to a URL. This can be either a URL name, in the form **URL**.*URLName*, or a string. This is where the file is transferred to. When you specify a name for the FTP server, the FTP server name can be longer than 30 characters. However, the length of the full URL is limited to 120 characters.
DirAndFileName	A directory and filename. This is appended to the *URLDestination* to make up the full URL where the file is transferred to. **Note.** The *URLDestination* requires "/" (forward) slashes. Because the *DirAndFileName* parameter is appended to the URL, it also requires only "/" slashes. "\" (backward) slashes are *not* supported for either the *URLDestination* or the *DirAndFileName* parameter.
FileType	A string to use as a suggestion for the extension file type, such as ".doc", ".gif", ".properties" and so on. The user may still type in a filename of a different extension. The value given for this parameter is *not* enforced. Passing in a null string (that is, two double-quotes with no space ("")) invokes all files (*.*).
UserFile	The name of the file on the source system. **Note.** You cannot specify a file name greater than 64 characters.
MaxSize	Specify, in kilobytes, the maximum size of the attachment. If you specify if 0, it indicates “no limit,” so any filesize can be added. This includes files with zero bytes. This is the default value. **Note.** *MaxSize* is *not* checked before the file is transferred to the web server.
PreserveCase	Specify a Boolean value to indicate whether the case of the directory and file name specified with *DirAndFileName* are preserved or not; true, preserve the case, false, convert the filename extension to all lower case letters. The default value is false.
UploadPageTitle	Specify a string value to be displayed on the File Upload page. This string is embedded in the HTML above the file input box. The string can contain HTML elements, and these are visible on the page. Only simple HTML elements should be used, and they should only be incorporated to do basic formatting of the actual data in the string. **Note.** The parameter does *not* automatically handle localization issues. The string passed into the function is the exact string embedded in the page. You and your application are responsible for any translation issues.

Returns

You can check for either an integer or a constant value:

Numeric Value	Constant Value	Description
0	%Attachment_Success	File was transferred successfully.
1	%Attachment_Failed	File was not successfully transferred.
2	%Attachment_Cancelled	File transfer didn’t complete because the operation was canceled by the user.
3	%Attachment_FileTransferFailed	File transfer didn’t succeed.
4	%Attachment_NoDiskSpaceAppServ	No disk space on the application server.
5	%Attachment_NoDiskSpaceWebServ	No disk space on the web server.

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Numeric Value	Constant Value	Description
6	%Attachment_FileExceedsMaxSize	File exceeds maximum size.
7	%Attachment_DestSystNotFound	Cannot locate destination system for ftp.
8	%Attachment_DestSystFailedLogin	Unable to login to destination system for ftp.
9	%Attachment_FileNotFound	Cannot locate file.
10	%Attachment_DeleteFailed	Cannot delete file.
11	%Attachment_NoFileName	Attachment failed because no file name was specified.
12	%Attachment_FileNameTooLong	Attachment failed because the file name is too long. You can only specify a filename of 64 characters (using the *UserFile* parameter.)

Example

The following example is how to specify a URL for use with AddAttachment, with encryption, de-referencing the parameter for use with AddAttachment:

The following is for creating the password:

```
If All(&OPERPSWD) Then
    OPERPSWD = Encrypt("some value", RTrim(LTrim(&WRKOPERPSWD)));
End-If;
```

The following code example shows how to access the password and enclose it in a URL:

```
SQLExec("select ftpid, operpswd, ftpaddress, ftpdirectory from PS_CDM_DIST_NODE⇒
 where distnodename = 'HRFTP'", &FTPID, &OPERPSWD,
&ftpaddress, &ftpdirectory);

If All(&OPERPSWD) Then
    &OPERPSWD = Decrypt("some value", RTrim(LTrim(&OPERPSWD)));
End-If;
```

Here is another example.

```
&uniquefilename = "";
&REC = GetRecord();
For &I = 1 To &REC.FieldCount
   &Fld = &REC.getfield(&I);
   If (&Fld.IsKey = True) Then
      If (&Fld.value = "" And
            &Fld.IsRequired = True) Then
         MessageBox(0, "File Attachment Status", 0, 0, "Please attach the file⇒
 after filling out the required fields on this page.");
         Return;
      Else
         &uniquefilename = &uniquefilename | &Fld.value;
      End-If;
   End-If;
End-For;
&temp = Substitute(&uniquefilename, " ", ""); /* delete spaces */
```

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```
ATTACHSYSFILENAME = Left(&uniquefilename, 64);
/* make uniq part a max of 64 chars */

/* If you have created a subdirectory on the ftp server for this page,
prepend it here:

   ATTACHSYSFILENAME = "HR/ABSENCEHIST/" | ATTACHSYSFILENAME;

*/

&retcode = AddAttachment(URL.MYFTP, ATTACHSYSFILENAME, "", ATTACHUSERFILE, 0);

/* The actual name on the ftp file server is the following */

ATTACHSYSFILENAME = ATTACHSYSFILENAME | ATTACHUSERFILE;
&temp = Substitute(ATTACHSYSFILENAME, " ", ""); /* delete spaces */
ATTACHSYSFILENAME = &temp;

If (&retcode = %Attachment_Success) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment succeeded");
   Hide(ATTACHADD);
   UnHide(ATTACHVIEW);
   UnHide(ATTACHDELETE);
End-If;
If (&retcode = %Attachment_Failed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment failed");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;
If (&retcode = %Attachment_Cancelled) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment cancelled");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;
If (&retcode = %Attachment_FileTransferFailed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment failed: File⇒
 Transfer did not succeed");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;

If (&retcode = %Attachment_NoDiskSpaceAppServ) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment failed: No disk⇒
 space on the app server");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;

If (&retcode = %Attachment_NoDiskSpaceWebServ) Then
```

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```
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment failed: No disk⇒
 space on the web server");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;
If (&retcode = %Attachment_FileExceedsMaxSize) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment failed: File⇒
 exceeds the max size");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;
If (&retcode = %Attachment_DestSystNotFound) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment failed: Cannot⇒
 locate destination system for ftp");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;
If (&retcode = %Attachment_DestSysFailedLogin) Then
   MessageBox(0, "File Attachment Status", 0, 0, "AddAttachment failed: Unable to⇒
 login into destination system for ftp");
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DeleteAttachment, page 151, Chapter 1, "PeopleCode Built-in Functions," GetAttachment, page 261, Chapter 1, "PeopleCode Built-in Functions," PutAttachment, page 397 and Chapter 1, "PeopleCode Built-in Functions," ViewAttachment, page 544.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding File Attachments and PeopleCode," Using File Attachments in Applications

AddEmailAddress

Syntax

AddEmailAddress(*Type*, *Address* [, *Primary*])

Description

Use the AddEmailAddress function to add an email address for the current user. You can only add *one* email address of a specific type for a user. If you try to add an email address for a type that is already associated with an email address, you receive an error.

Parameters

Parameter	Description
Type	Specify the type of email address being added. This parameter takes a string value. The valid values are:

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Value	Description
BB	Blackberry email address
BUS	Business email address
HOME	Home email address
OTH	Other email address
WORK	Work email address

Parameter	Description
Address	Specify the email address that you want to add as a string.
Primary	Specify whether this email address is the primary address for the user. This parameter takes a Boolean value: True, this email address is the primary email address, False otherwise. If not specified, the default is False.

Returns

None.

See Also

Chapter 1, "PeopleCode Built-in Functions," ChangeEmailAddress, page 67, Chapter 1, "PeopleCode Built-in Functions," DeleteEmailAddress, page 153 and Chapter 1, "PeopleCode Built-in Functions," MarkPrimaryEmailAddress, page 358.

AddKeyListItem

Syntax

```
AddKeyListItem(field, value)
```

Description

Use the AddKeyListItem to add a new key field and its value to the current list of keys. It enables PeopleCode to help users navigate through related pages without being prompted for key values. A common use of AddKeyListItem is to add a field to a key list and then transfer to a page which uses that field as a key.

Parameters

Parameter	Description
field	The field to add to the key list.
value	The value of the added key field used in the search.

Returns

Returns a Boolean value indicating whether it completed successfully.

Example

The following example creates a key list using AddKeyListItem and transfers the user to a page named VOUCHER_INQUIRY_FS.

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```
AddKeyListItem(VNDR_INQ_VW_FS.BUSINESS_UNIT, ASSET_ACQ_DET.BUSINESS_UNIT_AP);
AddKeyListItem(VNDR_INQ_VW_FS.VOUCHER_ID, ASSET_ACQ_DET.VOUCHER_ID);
TransferPage("VOUCHER_INQUIRY_FS");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ClearKeyList, page 73, Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524 and Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509.

AddSystemPauseTimes

Syntax

AddSystemPauseTimes(*StartDay*, *StartTime*, *EndDay*, *EndTime*)

Description

Use the AddSystemPauseTimes function to set when pause times occur on your system by adding a row to the system pause-times tables.

This function is used in the PeopleCode for the Message Monitor. Pause times are set up in the Message Monitor.

Parameters

Parameter	Description
StartDay	Specify a number from 0-6. Values are:

Value	Description
0	Sunday
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday

Parameter	Description
StartTime	Specify a time, in seconds, since midnight.
EndDay	Specify a number from 0-6. Values are:

Value	Description
0	Sunday
1	Monday

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Value	Description
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday

Parameter	Description
EndTime	Specify a time, in seconds, since midnight.

Returns

A Boolean value: True if the system pause time specified was added, False otherwise.

Example

```
Declare Function SetTime PeopleCode REFRESH_BTN FieldFormula;

Component Boolean &spt_changed;

Function GetSecond(&time) Returns number ;
   Return Hour(&time) * 3600 + Minute(&time) * 60 + Second(&time);
End-Function;

/* initialize; */

STARTDAY = "0";
AMM_STARTTIME = SetTime(0);
ENDDAY = "0";
AMM_ENDTIME = SetTime(0);

If DoModal(Panel.AMM_ADD_SPTIMES, MsgGetText(117, 13, ""), - 1, - 1) = 1 Then
   If AddSystemPauseTimes(Value(STARTDAY), GetSecond(AMM_STARTTIME), Value⇒
(ENDDAY), GetSecond(AMM_ENDTIME)) Then
      &spt_changed = True;
      DoSave();
   Else
      MessageBox(16, MsgGetText(117, 13, ""), 117, 14, "");
   End-If;
End-If;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” DeleteSystemPauseTimes, page 159

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, “Using the Service Operations Monitor”

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AddToDate

Syntax

AddToDate(*date*, *num_years*, *num_months*, *num_days*)

Description

Use the AddToDate function to add the specified number of years, months, and days to the *date* provided.

Suppose, for example, that you want to find a date six years from now. You could not just multiply 6 times 365 and add the result to today's date, because of leap years. And, depending on the current year, there may be one or two leap years in the next six years. AddToDate takes care of this for you.

You can subtract from dates by passing the function negative numbers.

Considerations Using AddToDate

When you are adding one month to the date provided, and the date provided is the last day of a month, and the next month is shorter, the returned result is the last day of the next month.

For example, in the following, &NewDate is 29/02/2004:

```
&NewDate = AddToDate("31/01/2004", 0, 1, 0);
```

When you are adding one month to the date provided, and the date provided is the last day of a month, and the next month is longer, the returned result is *not* the last day of the next month.

For example, in the following, &NewDate is 29/03/2004.

```
&NewDate = AddToDate("29/02/2004", 0, 1, 0)
```

Parameters

Parameter	Description
date	The input date to be adjusted.
num_years	The number of years by which to adjust the specified *date*. *num_years* can be a negative number.
num_months	The number of months by which to adjust the specified *date*. This parameter can be a negative number.
num_days	The number of days by which to adjust the specified *date*. This parameter can be a negative number.

Returns

Returns a Date value equal to the original date plus the number of years, months, and days passed to the function.

Example

The following example finds the date one year, three months, and 16 days after a field called BEGIN_DT:

```
AddToDate(BEGIN_DT, 1, 3, 16);
```

This example finds the date two months ago prior to BEGIN_DT:

```
AddToDate(BEGIN_DT, 0, -2, 0);
```


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See Also

Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days, page 144, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369 and Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552.

AddToDateTime

Syntax

AddToDateTime(*datetime*, *years*, *months*, *days*, *hours*, *minutes*, *seconds*)

Description

Use the AddToDateTime function to add the specified number of years, months, days, hours, seconds, and minutes to the *datetime* provided. You can subtract from datetimes by passing the function negative numbers.

Parameters

Parameter	Description
datetime	The Datetime value to which you want to add.
years	An integer representing the number of years.
months	An integer representing the number of months to add to *datetime*.
days	An integer representing the number of days to add to *datetime*.
hours	An integer representing the number of hours to add to *datetime*.
minutes	An integer representing the number of minutes to add to *datetime*.
seconds	An integer representing the number of seconds to add to *datetime*.

Returns

Returns a Datetime value equal to the original date plus the number of years, months, days, hours, minutes, and seconds passed to the function.

Example

The following example postpones an interview scheduled in the INTRTime field by two days and two hours:

```
INTRTIME = AddToDateTime(INTRTIME, 0, 0, 2, 2, 0, 0);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddToTime, page 43, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," DateTimeValue, page 141 and Chapter 1, "PeopleCode Built-in Functions," TimeValue, page 507.

AddToTime

Syntax

AddToTime(*time*, *hours*, *minutes*, *seconds*)

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Description

Use the AddToTime function to add *hours*, *minutes*, and *seconds* to *time*. This function returns the result as a Time value. To subtract from *time*, use negative numbers for *hours*, *minutes*, and *seconds*. The resulting value is always adjusted such that it represents an hour less than 24 (a valid time of day.)

Parameters

Parameter	Description
time	A time value that you want to subtract from or add to.
hours	An integer representing the number of hours to add to *time*.
minutes	An integer representing the number of minutes to add to *time*.
seconds	An integer representing the number of seconds to add to *time*.

Returns

A Time value equal to time increased by the number of hours, minutes, and seconds passed to the function.

Example

Assume that a time, &BREAKTime, is 0:15:00. The following moves the time &BREAKTime back by one hour, resulting in 23:15:00:

```
&BREAKTime = AddToTime(&BREAKTime, -1, 0, 0);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddToDateTime, page 43, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," DateTimeValue, page 141 and Chapter 1, "PeopleCode Built-in Functions," TimeValue, page 507.

All

Syntax

All(*fieldlist*)

Where *fieldlist* is an arbitrary-length list of field names in the form:

[*recordname.*]*fieldname1* [, [*recordname.*]*fieldname2*] ...

Description

Use the All function to verify if a field contains a value, or if all the fields in a list of fields contain values. If any of the fields are Null, then All returns False.

A blank character field, or a zero (0) numeric value in a required numeric field is considered a null value.

Related Functions

None Checks that a field or list of fields have no value.

AllOrNone Checks if either all the field parameters have values, or none of them have values. Use this in examples where if the user fills in one field, she must fill in all the other related values.

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OnlyOne	Checks if exactly one field in the set has a value. Use this when the user must fill in only one of a set of mutually exclusive fields.
OnlyOneOrNone	Checks if no more than one field in the set has a value. Use this in examples when a set of fields is both optional and mutually exclusive; that is, if the user can put a value into one field in a set of fields, or leave them all empty.

Returns

Returns a Boolean value based on the values in *fieldlist*. The All function returns True if all of the specified fields have a value; it returns False if any one of the fields does not contain a value.

Example

The All function is commonly used in SaveEdit PeopleCode to ensure that a group of related fields are all entered. For example:

```
If All(RETURN_DT, BEGIN_DT) and
    8 * (RETURN_DT - BEGIN_DT) (DURATION_DAYS * 8 + DURATION_HOURS)
Then
    Warning MsgGet(1000, 1, "Duration of absence exceeds standard hours for number⇒
 of days absent.");
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AllOrNone, page 45, Chapter 1, "PeopleCode Built-in Functions," None, page 377, Chapter 1, "PeopleCode Built-in Functions," OnlyOne, page 389, Chapter 1, "PeopleCode Built-in Functions," OnlyOneOrNone, page 390, Chapter 1, "PeopleCode Built-in Functions," SetDefault, page 459 and Chapter 1, "PeopleCode Built-in Functions," SetDefaultAll, page 460.

AllOrNone

Syntax

AllOrNone(*fieldlist*)

Where *fieldlist* is an arbitrary-length list of field references in the form:

[*recordname.*]*fieldname1* [, [*recordname.*]*fieldname2*] ...

Description

The AllOrNone function takes a list of fields and returns True if either of these conditions is true:

- All of the fields have values (that is, are not Null).
- None of the fields has a value.

For example, if field1 = 5, field2 = "Mary", and field3 = null, AllOrNone returns False.

This function is useful, for example, where you have a set of page fields, and if any one of the fields contains a value, then all of the other fields are required also.

A blank character field, or a zero (0) numeric value in a required numeric field is considered a null value.

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Related Functions

All	Checks to see if a field contains a value, or if all the fields in a list of fields contain values. If any of the fields is Null, then **All** returns False.
None	Checks that a field or list of fields have no value. None is the opposite of All.
OnlyOne	Checks if exactly one field in the set has a value. Use this when the user must fill in only one of a set of mutually exclusive fields.
OnlyOneOrNone	Checks if no more than one field in the set has a value. Use this in cases when a set of fields is both optional and mutually exclusive; that is, if the user can put a value into one field in a set of fields, or leave them all empty.

Returns

Returns a Boolean value: True if all of the fields in fieldlist or none of the fields in fieldlist has a value, False otherwise.

Example

You could use AllOrNone as follows:

```
If Not AllOrNone(STREET1, CITY, STATE) Then
   WinMessage("Address should consist of at least Street (Line 1), City, State,⇒
 and Country.");
End-if;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” All, page 44, Chapter 1, “PeopleCode Built-in Functions,” None, page 377, Chapter 1, “PeopleCode Built-in Functions,” OnlyOne, page 389 and Chapter 1, “PeopleCode Built-in Functions,” OnlyOneOrNone, page 390.

AllowEmplIdChg

Syntax

AllowEmplIdChg(*is_allowed*)

Description

By default, the Component Processor does not allow an user to make any changes to a record if a record contains an EMPLID key field and its value matches the value of the user’s EMPLID. In some situations, though, such changes are warranted. For example, you would want employees to be able to change information about themselves when entering time sheet data.

The AllowEmplIdChg function enables the user to change records whose key matches the user’s own EMPLID, or prevents the user from changing these records. The function takes a single Boolean parameter that when set to True allows the employee to update their own data. When the parameter is set to False, the employee is prevented from updating this data.

After permission is granted, it stays through the life of the *component*, not the page. After a user switches to another component, the default value (not being able to make changes) is reapplied.

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Parameters

Parameter	Description
is_allowed	A Boolean value indicating whether the user is permitted to change the user's own data.

Returns

Optionally returns a Boolean value: True if the function executed successfully, False otherwise.

Example

```
If Substring (%Page, 1, 9) = Substring(PAGE.TimeSHEET_PNL_A, 1, 9) Then
   AllowEmplIdChg(true);
End-if;
```

Amortize

Syntax

Amortize(*intr*, *pb*, *pmt*, *pmtnbr*, *payintr*, *payprin*, *balance*)

Description

Use the Amortize function to compute the amount of a loan payment applied towards interest (*payintr*), the amount of the payment applied towards principal (*payprin*), and the remaining balance *balance*, based on the principal balance (*pb*) at the beginning of the loan term, the amount of one payment *pmt*, the interest rate charged during one payment period (*intr*), and the payment number *pmtnbr*.

Parameters

Note that *payintr*, *payprin,* and *balance* are "outvars": you must pass variables in these parameters, which the Amortize function then fills with values. The remaining parameters are "invars" containing data the function needs to perform its calculation.

Parameter	Description
intr	Number indicating the percent of interest charged per payment period.
pb	Principal balance at the beginning of the loan term (generally speaking, the amount of the loan).
pmt	The amount of one loan payment.
pmtnbr	The number of the payment.
payintr	The amount of the payment paid toward interest.
payprin	The amount of the payment paid toward principal.
balance	The remaining balance after the payment.

Returns

None.

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Example

Suppose you want to calculate the principal, interest, and remaining balance after the 24th payment on a loan of $15,000, at an interest rate of 1% per loan payment period, and a payment amount of $290.

```
&INTRST_RT=1;
&LOAN_AMT=15000;
&PYMNT_AMNT=290;
&PYMNT_NBR=24;
Amortize(&INTRST_RT, &LOAN_AMT, &PYMNT_AMNT, &PYMNT_NBR, &PYMNT_INTRST, &PYMNT_⇒
PRIN, &BAL);
&RESULT = "Int=" | String(&PYMNT_INTRST) | " Prin=" | String(&PYMNT_PRIN) | "   ⇒
 Bal=" | String(&BAL);
```

This example sets &RESULT equal to "Int=114 Prin=176 Bal=11223.72".

Asin

Syntax

Asin(*value*)

Description

Use the Asin function to calculate the arcsine of the given value, that is, the size of the angle whose sine is that value.

Parameters

Parameter	Description
value	Any real number between -1.00 and 1.00 inclusive, the range of valid sine values. If the input value is outside this range, an error message appears at runtime ("Decimal arithmetic error occurred. (2,110)"). Adjust your code to provide a valid input value.

Returns

A value in radians between -pi/2 and pi/2.

Example

The following example returns the size in radians of the angle whose sine is 0.5:

```
&MY_ANGLE = Asin(0.5);
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Acos, page 31, Chapter 1, “PeopleCode Built-in Functions,” Atan, page 49, Chapter 1, “PeopleCode Built-in Functions,” Cos, page 104, Chapter 1, “PeopleCode Built-in Functions,” Cot, page 105, Chapter 1, “PeopleCode Built-in Functions,” Degrees, page 150, Chapter 1, “PeopleCode Built-in Functions,” Radians, page 401, Chapter 1, “PeopleCode Built-in Functions,” Sin, page 484 and Chapter 1, “PeopleCode Built-in Functions,” Tan, page 502.

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Atan

Syntax

Atan(*value*)

Description

Use the Atan function to calculate the arctangent of the given value, that is, the size of the angle whose tangent is that value.

Parameters

Parameter	Description
value	Any real number.

Returns

A value in radians between -pi/2 and pi/2.

Example

The following example returns the size in radians of the angle whose tangent is 0.5:

```
&MY_ANGLE = Atan(0.5);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Acos, page 31, Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Cos, page 104, Chapter 1, "PeopleCode Built-in Functions," Cot, page 105, Chapter 1, "PeopleCode Built-in Functions," Degrees, page 150, Chapter 1, "PeopleCode Built-in Functions," Radians, page 401, Chapter 1, "PeopleCode Built-in Functions," Sin, page 484 and Chapter 1, "PeopleCode Built-in Functions," Tan, page 502.

BlackScholesCall

Syntax

BlackScholesCall(*Asset_Price*, *Strike_Price*, *Interest_Rate*, *Years*, *Volatility*)

Description

Use the BlackScholesCall function to return the value of a call against an equity underlying according to the Black-Scholes equations.

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Parameters

Parameter	Description
Asset_Price	The asset price. This parameter takes a decimal value.
Strike_Price	The strike price. This parameter takes a decimal value.
Interest_Rate	The risk-free interest rate. This parameter takes a decimal value.
Years	The number of years to option expiration. This parameter takes a number value (decimal).
Volatility	The volatility of underlying. This parameter takes a decimal value.

Returns

A number representing the value of a call against an equity.

See Also

Chapter 1, "PeopleCode Built-in Functions," BlackScholesPut, page 50

BlackScholesPut

Syntax

```
BlackScholesPut(Asset_Price, Strike_Price, Interest_Rate, Years, Volatility)
```

Description

Use the BlackScholesPut function to return the value of a put against an equity underlying according to the Black-Scholes equations.

Parameters

Parameter	Description
Asset_Price	The asset price. This parameter takes a decimal value.
Strike_Price	The strike price. This parameter takes a decimal value.
Interest_Rate	The risk-free interest rate. This parameter takes a decimal value.
Years	The number of years to option expiration. This parameter takes a number (decimal) value.
Volatility	The volatility of underlying. This parameter takes a decimal value.

Returns

A number representing the value of a call against an equity.

See Also

Chapter 1, "PeopleCode Built-in Functions," BlackScholesCall, page 49

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BootstrapYTMs

Syntax

BootstrapYTMs(*Date*, *MktInst*, *Accrual_Conv*)

Description

Use the BootstrapYTMs function to create a zero-arbitrage implied zero-coupon curve from a yield-to-maturity curve using the integrated discount factor method, based on the *Accrual_Conv*.

Parameters

Parameter	Description
Date	The trading date of the set of market issues. This parameter takes a date value.
MktInst	The market instrument properties. This parameter takes an array of array of number. The elements in the array specify the following:

Elements	Description
1	tenor in days
2	yield in percent
3	price per 100 par
4	coupon rate (zero for spot instruments)
5	frequency of coupon payments
6	unit of measure for coupon frequency, 0 for days, 1 for months, and 2 for years
7	coefficient **a** of a curve interpolating the dataset
8,9,10	coefficients **b**, **c**, and **d** of a curve interpolating the dataset

Returns

An array of array of number. The elements in the array have the same type as the elements in the array for the *MktInst* parameter.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

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Break

Syntax

Break

Description

Use the Break statement to terminate execution of a loop or an Evaluate function. The program resumes execution immediately after the end of the statement. If the loop or Evaluate is nested in another statement, only the innermost statement is terminated.

Parameters

None.

Example

In the following example, Break is used to terminate the Evaluate statement, while staying within the outermost If statement:

```
If CURRENCY_CD = PriorEffdt(CURRENCY_CD) Then
      Evaluate ACTION
      When = "PAY"
         If ANNUAL_RT = PriorEffdt(ANNUAL_RT) Then
            Warning MsgGet(1000, 27, "Pay Rate Change action is chosen and Pay⇒
 Rate has not been changed.");
         End-if;
         Break;
      When = "DEM"
         If ANNUAL_RT >= PriorEffdt(ANNUAL_RT) Then
            Warning MsgGet(1000, 29, "Demotion Action is chosen and Pay Rate has⇒
 not been decreased.");
         End-if;
        Break;
      When-other
      End-evaluate;
      WinMessage("This message appears after executing either of the BREAK⇒
 statements or after all WHEN statements are false");
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Evaluate, page 193, Chapter 1, "PeopleCode Built-in Functions," Exit, page 199, Chapter 1, "PeopleCode Built-in Functions," For, page 215 and Chapter 1, "PeopleCode Built-in Functions," While, page 553.

BulkDeleteField

Syntax

BulkDeleteField(*ProjectName*, **Field.***FieldName* [, *ExclProj*])

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Description

Use the BulkDeleteField function to delete fields from records and pages, as well as the associated PeopleCode programs and modify the SQL either on the record, or, if the record is a subrecord, on the parent records.

Note. You must have the role Peoplesoft Administrator assigned to your UserId in order to use this function.

If you specify a project that contains objects such as fields which have an upgrade action of delete, those objects are ignored.

The field is removed from the page regardless of where the field exists on the page, whether on a grid or not.

If the field is in the SELECT clause of the SQL, the removal is straightforward. However, if the field is also used in a WHERE clause, or if the field is the only item in the SELECT clause, the record isn't modified and is instead inserted into a project called BLK_*FieldName*. The record should be examined and any additional changes made as necessary.

Deleting fields from records and pages does *not* remove the field definition itself and it does not remove the field from other areas, such as Projects, Crystal Reports, or message definitions.

In addition, this function does *not* delete the references to the field in the PeopleCode. You must manually remove the references to the deleted field. Use the Find In. . . tool to search for the field name you deleted.

Note. Because performing this operation changes records, you must subsequently rebuild the project (alter tables).

Using the Log File

Information about this operation is stored in a log field. The directory where the log file is placed depends on where the function is run from:

- If the function is run in two-tier, the log file is located at *PS_HOME*/BulkOps.txt. This is also the default location if the system cannot find the other paths.
- If the function is run from an application server, the log file is located at:

  PS_HOME/APPSERV/*Domain_Name*/LOGS/BulkOps.txt
- If the function is run from an Application Engine program, the log file is written to the process' output log directory, that is:

  PS_HOME/APPSERV/prcs/*Domain_Name*/log_output/*Process_Name_Instance*/BulkOps.txt

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on a currently loaded component. In general, changes aren't recognized until the component is reloaded.

Bulk operations are time consuming, therefore, referencing the log file to see the progress of an operation is recommended. These operations accommodate errors and continue processing, logging the overall progress of the operation.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

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Considerations Using the Exclusion Project

If you specify *ExclProj*, the following items that are both in *ProjectName* and *ExclProj* are *not* changed, that is, the field specified is *not* removed from these items:

- pages
- records
- associated SQL with records of type View
- any PeopleCode associated with those items.

Individual SQL or PeopleCode items are not ignored by themselves, only as associated with records or pages.

Parameters

Parameter	Description
ProjectName	The name of a project that is the source of records and pages to use. **Note.** When passing the project name as a parameter, if the project contains definitions with an upgrade action of delete, the system ignores those definitions.
FieldName	The name of the field to be deleted. This name must be prefixed with the reserved word **Field**.
ExclProj	The name of a project that has pages that should be ignored by this function.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.

Example

```
&pjm = "MYPROJ";
&ret =  BulkDeleteField(&pjm, Field.OrgId, "EXCLPROJ");

If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "BulkDeleteField succeeded");
Else
MessageBox(0, "Metadata Fn Status", 0, 0, "BulkDeleteField failed");
End-If;
```


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See Also

Chapter 1, "PeopleCode Built-in Functions," BulkInsertField, page 55 and Chapter 1, "PeopleCode Built-in Functions," BulkModifyPageFieldOrder, page 57.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Debugging Your Application," Using the Find In Feature

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Performing Bulk Operations"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Administering Data"

BulkInsertField

Syntax

```
BulkInsertField(ProjectName, Field.FieldName, ModelName, ClonePCode [, ExclProj])
```

Description

Use the BulkInsertField function to insert a source field into records and pages in a project if and only if the model field specified by *ModelName* exists on those records and pages.

If you specify a project that contains objects such as fields which have an upgrade action of delete, those objects are ignored.

Note. You must have the role Peoplesoft Administrator assigned to your UserId in order to use this function.

Using the Log File

Information about this operation is stored in a log field. The directory where the log file is placed depends on where the function is run from:

- If the function is run in two-tier, the log file is located at *PS_HOME*/BulkOps.txt. This is also the default location if the system cannot find the other paths.
- If the function is run from an application server, the log file is located here:

  PS_HOME/APPSERV/*Domain_Name*/LOGS/BulkOps.txt
- If the function is run from an Application Engine program, the log file is written to the process' output log directory, that is:

  PS_HOME/APPSERV/prcs/*Domain_Name*/log_output/*Process_Name_Instance*/BulkOps.txt

Considerations Inserting Fields into Records

In records, the source field is assigned the same record field properties as the model field on each record, and is inserted directly after the model field.

If the model field has a prompt table, a prompt table is created for the source field using the name of the source field with TBL appended to it.

If the record is either a SQL View or Dynamic View type, the associated SQL is modified by having the SELECT clause expanded to include the new field.

If the record is a subrecord, the parent records of type SQL View or Dynamic View that contain this subrecord are updated.

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If the SQL contains the model field in the WHERE clause, or the SQL is complex, the associated record is inserted into a project called BLK_*FieldName*. You should examine this record and make any necessary changes.

If the model field has PeopleCode associated with it on the record or in a component, and *ClonePCode* has been set to True, this PeopleCode is cloned to the new field, with all references to the model field changed to refer to the new field.

Note. Because using this function changes records that are used to build application tables, you must rebuild (alter) the specified project before these changes can be used.

Considerations Inserting Fields into Pages

If the model field is in a grid, the system inserts the new field into the grid next to the model field and assigns it the same page field properties.

If the model field is not in a grid, the system inserts the new field onto the page to the right of the model field (in the first open space) and assigns it the same page field properties. If the system detects a questionable field position, it inserts the page into a project called BLK_*FieldName*. The page will work as-is, however, the GUI layout may not be optimal, so you should examine these pages by hand.

The page field name property isn't cloned if it exists on the model field. Instead, the field name of the new field is used, since the page field name should be a unique identifier for page elements.

Note. If the project you specified only contained pages and not records, you do not need to rebuild the project after using this function. The changes take affect when the component containing the page is reloaded.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Bulk operations are time consuming, therefore, referencing the log file to see the progress of an operation is recommended. These operations accommodate errors and continue processing, logging the overall progress of the operation.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Considerations Using the Exclusion Project

If you specify *ExclProj*, the following items that are both in *ProjectName* and *ExclProj* are *not* changed, that is, the field specified is *not* inserted to these items:

- pages
- records
- associated SQL with records of type View
- any PeopleCode associated with those items.

Individual SQL or PeopleCode items are not ignored by themselves, only as associated with records or pages.

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Parameters

Parameter	Description
ProjectName	The name of a project that is the source of records and pages to use. **Note.** When passing the project name as a parameter, if the project contains definitions with an upgrade action of delete, the system ignores those definitions.
FieldName	The name of the field to be inserted. This name must be prefixed with the reserved word **Field**.
ModelName	The name of a field on which to model the inserted field. Attributes are cloned from it for records and pages, PeopleCode is modified, and SQL inserted.
ClonePCode	Specify whether to clone the PeopleCode from the model to this field. This parameter takes a Boolean value: True, clone the PeopleCode programs, False, don't.
ExclProj	The name of a project that has pages that should be ignored by this function.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.

Example

```
&pjm = "MYPROJ";

&ret =  BulkInsertField(&pjm, Field.OrgId, Field.DeptId, TRUE, "EXCLPROJ");

If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "BulkInsertField succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "BulkInsertField failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," BulkModifyPageFieldOrder, page 57 and Chapter 1, "PeopleCode Built-in Functions," BulkDeleteField, page 52.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Performing Bulk Operations"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Administering Data"

BulkModifyPageFieldOrder

Syntax

BulkModifyPageFieldOrder({*ProjectName* | *PageList*}, *ColNames*, *RequireAll*, [*ColWidths*])

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Description

Use the BulkModifyPageFieldOrder function to reorder the grid columns as specified by *ColNames*. If *ColWidths* is specified, the columns are also resized. This can also be used to modify a single columns width.

Note. You must have the role Peoplesoft Administrator assigned to your UserId in order to use this function.

If you specify a project name as a parameter, and if that project contains objects such as fields which have an upgrade action of delete, those objects are ignored.

The reordering algorithm "bunches" these fields together at the first instance of any of these fields in a target page grid, and forces the remaining fields into the order specified.

This function only reorders fields inside a grid.

If the fields occur twice or more in a grid, from two or more records, such as work records, the fields are bunched together in record groupings before being sorted into the order specified. For example, the two records ABS_HIST and PERSONAL_HISTORY both contain the fields DURATION_DAYS and DURATION_HOURS. The following is an example of how the records are fields would be bunched together first:

- ABS_HIST, DURATION_DAYS
- ABS_HIST, DURATION_HOURS
- PERSONAL_HISTORY, DURATION_DAYS
- PERSONAL_HISTORY, DURATION_HOURS

Note. These changes take affect after components are reloaded.

Using the Log File

Information about this operation is stored in a log field. The directory where the log file is placed depends on where the function is run from:

- If the function is run in two-tier, the log file is located at *PS_HOME*/BulkOps.txt. This is also the default location if the system cannot find the other paths.
- If the function is run from an application server, the log file is located here:

  PS_HOME/APPSERV/*Domain_Name*/LOGS/BulkOps.txt
- If the function is run from an Application Engine program, the log file is written to the process' output log directory, that is:

  PS_HOME/APPSERV/prcs/*Domain_Name*/log_output/*Process_Name_Instance*/BulkOps.txt

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Bulk operations are time consuming, therefore, referencing the log file to see the progress of an operation is recommended. These operations accommodate errors and continue processing, logging the overall progress of the operation.

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Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
ProjectName | *PageList*	Specify either the name of a project that is the source of pages to use or an array of page names. **Note.** When passing the project name as a parameter, if the project contains definitions with an upgrade action of delete, the system ignores those definitions.
ColNames	Specify an array of string that indicate which fields and the desired order of those fields.
RequireAll	Specify whether all the fields in *ColNames* must be present before changes are made or not. This parameter takes a Boolean value: True, all fields must be present.
ColWidths	Specify an array of number that gives the pixel widths of the grid columns. Use a -1 to indicate that the width of a column shouldn't change.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.

Example

```
Local Array of String &ColOrder;
Local Array of Number &ColWidth;
Local String &pjm, &ret;

&pjm = "MYPROJ";
&ColWidth = CreateArray(50, 100, -1);
&ColOrder = CreateArray("DEPTID", "ORGID", "PROJECT");

&ret =  BulkModifyPageFieldOrder(&pjm, &ColOrder, TRUE, &ColWidth);

If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "BulkModifyPageFieldOrder⇒
 succeeded");
Else
      MessageBox(0, "Metadata Fn Status", 0, 0, "BulkModifyPageFieldOrder⇒
 failed");
End-If;
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," BulkInsertField, page 55 and Chapter 1, "PeopleCode Built-in Functions," BulkDeleteField, page 52.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Performing Bulk Operations"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Administering Data"

BulkUpdateIndexes

Syntax

```
BulkUpdateIndexes([StringFieldArray])
```

Description

Use BulkUpdateIndexes to update indexes (PSINDEXDEFN table) for records that contain a field whose NotUsed setting has changed.

A field whose NotUsed flag has been set to True does *not* show up in indexes. The only way to modify a field's NotUsed setting is through an API call such as in the following example:

```
SetDBFieldNotUsed(FIELD.OrgId, True);
```

The indexes of records that contain this field need to be updated to reflect the new settings.

Information about this operation can be logged by turning on PeopleCode tracing of internal functions (value 256.)

Considerations Using this Function

Do *not* invoke this function from runtime pages, as it modifies all records, including the records used to support the page it is invoked from. This function should be invoked from a PeopleSoft Application Engine program.

Note. If you do call this function from a page the operation completes successfully, but the page returns an error message. Switching to a new component clears up this error, however, any changes not saved to the database are lost.

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Bulk operations are time consuming, therefore, referencing the log file to see the progress of an operation is recommended. These operations accommodate errors and continue processing, logging the overall progress of the operation.

Calling this function without any parameter rebuilds the indexes for *all* records, an operation that may take hours. By indicating a list of fields whose NotUsed flag has changed, only the affected records have their indexes updated, reducing the time required to run this function.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

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Parameters

Parameter	Description
StringFieldArray	Specify an array of field names (as strings), such as DEPTID, representing the fields whose NotUsed flag has been modified. Only the records containing these fields are updated. If you don't specify a value for this parameter, the indexes for *all* records are rebuilt.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.

Example

The following example uses the function without the optional array of field names:

```
&ret =  BulkUpdateIndexes();
If (&ret = %MDA_Success) Then
MessageBox(0, "MetaData Fn Status", 0, 0, "BulkUpdateIndexes succeeded");
Else
MessageBox(0, "MetaData Fn Status", 0, 0, "BulkUpdateIndexes failed");
End-If;
```

The following example uses the function with an array of two field names passed to it:

```
&ret =  BulkUpdateIndexes(CreateArray("DEPTID","PROJECT"));
If (&ret = %MDA_success) Then
MessageBox(0, "MetaData Fn Status", 0, 0, "BulkUpdateIndexes succeeded");
Else
MessageBox(0, "MetaData Fn Status", 0, 0, "BulkUpdateIndexes failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," BulkDeleteField, page 52, Chapter 1, "PeopleCode Built-in Functions," BulkInsertField, page 55 and Chapter 1, "PeopleCode Built-in Functions," BulkModifyPageFieldOrder, page 57.

CallAppEngine

Syntax

CallAppEngine(*applid* [, *statereclist*, *processinstance*]);

Where *statereclist* is list of record objects in the form:

&staterecord1 [, *&staterecord2*] . . .

There can be only as many record objects in *statereclist* as there are state records for the Application Engine program. Additional record objects are ignored.

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Description

Use the CallAppEngine function to start the PeopleSoft Application Engine program named *applid*. This is how to start your Application Engine programs synchronously from a page. (Prior to PeopleTools 8, you could do only this using the RemoteCall function.) Normally, you won't run PeopleSoft Application Engine programs from PeopleCode in this manner. Rather, the bulk of your Application Engine execution will be run using the Process Scheduler, and the exception would be done using CallAppEngine.

The *staterecord* can be the hard-coded name of a record, but generally you use a record object to pass in values to seed particular state fields. The record name must match the state record name exactly.

The *processinstance* allows you to specify the process instance used by the Application Engine runtime. In your PeopleCode program this parameter must be declared of type integer since that is the only way the runtime can tell whether the last parameter is to be interpreted as a process instance. For more details see the Application Engine documentation.

Note. If you use this function, you shouldn't use the %TruncateTable or %Execute meta-SQL statement in any of your Application Engine steps. This is because on some platforms an implicit commit occurs after these statements, and all online processing should be done as a single logical unit of work.

After you use CallAppEngine, you may want to refresh your page. The Refresh method, on a rowset object, reloads the rowset (scroll) using the current page keys. This causes the page to be redrawn. `GetLevel0().Refresh()` refreshes the entire page. If you want only a particular scroll to be redrawn, you can refresh just that part.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine*, "Using Meta-SQL and PeopleCode," Using PeopleCode in Application Engine Programs.

Note. If you supply a non-zero process instance, all message logging is done under the process instance. You *must* build your own PeopleSoft Pure Internet Architecture page to access or delete the messages, since there is no Process Monitor entry for the process instance you used.

PeopleCode Event Considerations

You must include the CallAppEngine PeopleCode function within events that allow database updates because generally, if you're calling Application Engine, you're intending to perform database updates. This includes the following PeopleCode events:

- SavePreChange (Page)
- SavePostChange (Page)
- Workflow
- FieldChange

If CallAppEngine results in a failure, all database updates is rolled back. All information the user entered into the component is lost, as if the user pressed ESC.

Application Engine Considerations

You can use the CallAppEngine function in a PeopleSoft Application Engine program, either directly (in a PeopleCode action) or indirectly (using a Component Interface). This functionality must be used carefully, and you should only do this once you have a clear understanding of the following rules and restrictions.

- Dedicated cursors are *not* supported inside a "nested application engine instance" (meaning an application engine program invoked using CallAppEngine from within another application engine program). If a

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nested application engine instance has any SQL actions with ReUse set to Yes or Bulk Insert, those settings are ignored.

- As in any other type of PeopleCode event, no commits are performed within the called application engine program. This is an important consideration. If a batch application engine program called another program using CallAppEngine, and that child program updated many rows of data, the unit-of-work might become too large, resulting in contention with other processes. A batch application engine program should invoke such child programs using a Call Section action, not CallAppEngine.
- Temp tables are *not* shared between a batch application engine program and child program invoked using CallAppEngine. Instead, the child program is assigned an "online" temporary table instance, which is used for all temp tables in that program. In addition, if that child program invokes another program using CallAppEngine, that grandchild shares the online temp instance with the caller. In other words, only one online temp instance is allocated to a process at any one time, no matter how many nested CallAppEngine's there might be.
- The lock on an online temp instance persists until the next commit. If the processing time of the called program is significant (greater than a few seconds), this would be unacceptable. As a general rule, application engine programs that make use of temp tables and have a significant processing time should be called from other application engine programs using a Call Section action, not CallAppEngine.

Save Events Considerations

To execute the Application Engine program based on an end user Save, use the CallAppEngine function within a Save event. When you use CallAppEngine, you should keep the following items in mind:

- No commits occur during the entire program run.
- During SavePreChange, any modified rows in the page have not been written to the database.
- During SavePostChange, the modified rows have been written to the database. The Page Process issues one commit at the end of the Save cycle.

FieldChange Considerations

If you don't want the CallAppEngine call to depend on a Save event, you can also initiate CallAppEngine from a FieldChange event. When having a FieldChange event initiate CallAppEngine, keep the following items in mind:

- No commits occur within the program called by CallAppEngine. The called program remains a synchronous execution in the same unit of work.
- The Component Processor commits all updates done in a FieldChange at the end of the event, which frees any locks that the Application Engine program might have acquired.
- Do not include a DoSave function in the same FieldChange event. Not only is this not allowed, but it also indicates that you should be including the CallAppEngine within a Save event.
- You can use the DoSaveNow function in the same FieldChange event, but it must be called prior to the first CallAppEngine function, but not afterward.

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Parameters

Parameter	Description
applid	Specify the name of the Application Engine program you want to start.
statereclist	Specify an optional record object that provides initial values for a state record.
processinstance	Specify the process instance used by the Application Engine runtime.

Returns

None.

Example

The following calls the Application Engine program named MYAPPID, and passes initialization values.

```
&REC = CreateRecord(RECORD.INIT_VALUES);
&REC.FIELD1.Value = "XYZ";
   /* set the initial value for INIT_VALUES.FIELD1 */
CallAppEngine("MYAPPID", &REC);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DoSaveNow, page 176

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "AESection Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," Refresh

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Using Meta-SQL and PeopleCode," Using PeopleCode in Application Engine Programs

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Creating Application Engine Programs," Specifying Call Section Actions

CancelPubHeaderXmlDoc

Syntax

CancelPubHeaderXmlDoc(*PubID, PubNode, ChannelName, VersionName*)

Description

Use the CancelPubHeaderXmlDoc function to programmatically cancel the message header of a publication contract, much the same as you can do in the message monitor.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class Cancel method instead.

The message header, also known as the message instance, is the published message *before* the system performs any transformations.

The function is only available when the message has one of the following statuses:

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- Error
- New
- Retry
- Timeout
- Edited

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," Cancel

Parameters

Parameter	Description
PubID	Specify the PubID of the message.
PubNode	Specify the Pub Node Name of the message.
ChannelName	Specify the channel name of the message.
VersionName	Specify the version name of the message.

Returns

A Boolean value: True if the function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubHeaderXmlDoc, page 419

CancelPubXmlDoc

Syntax

```
CancelPubXmlDoc(PubID, PubNode, ChannelName, VersionName, MessageName, SubNode[, Segment])
```

Description

Use the CancelPubXmlDoc function to programmatically cancel a message publication contract, much the same as you can do in the message monitor.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class Cancel method instead.

This is the publication contract that exists *after* any transformations have been preformed.

The function is only available when the message has one of the following statuses:

- Error
- New
- Retry
- Timeout
- Edited

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," Cancel

Parameters

Parameter	Description
PubID	Specify the PubID of the message.
PubNode	Specify the Pub Node Name of the message.
ChannelName	Specify the channel name of the message.
VersionName	Specify the version name of the message.
MessageName	Specify the name of the message.
SubNode	Specify the subnode of the message.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A Boolean value: True if the function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubXmlDoc, page 420

CancelSubXmlDoc

Syntax

```
CancelSubXmlDoc(PubID, PubNode, ChannelName, VersionName, MessageName,
SubscriptionName[, Segment])
```

Description

Use the CancelSubXmlDoc function to programmatically cancel a message subscription contract, much the same as you can do in the message monitor.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class Cancel method instead.

The function is only available when the message has one of the following statuses:

- Error
- New
- Retry
- Timeout
- Edited

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," Cancel

Parameters

Parameter	Description
PubID	Specify the PubID as a string.
PubNode	Specify the Pub Node name as a string.
ChannelName	Specify the Channel name as a string.
VersionName	Specify the version name as a string.
MessageName	Specify the message name as a string.
SubscriptionName	Specify the subscription name as a string.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A Boolean value: True if function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitSubXmlDoc, page 421

ChangeEmailAddress

Syntax

```
ChangeEmailAddress(Type, Address)
```

Description

Use the ChangeEmailAddress function to change the type of an email address that you've already added for the current user. You can only have *one* email address of a specific type for a user. If you try to use a type that already has an email address associated with it, you receive an error.

Parameters

Parameter	Description
Type	Specify the type that you want to change the email address to. This parameter takes a string value. The valid values are:

Value	Description
BB	Blackberry email address
BUS	Business email address
HOME	Home email address

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Value	Description
OTH	Other email address
WORK	Work email address

Parameter	Description
Address	Specify the email address that you want to add as a string.

Returns

None.

See Also

Chapter 1, "PeopleCode Built-in Functions," AddEmailAddress, page 38, Chapter 1, "PeopleCode Built-in Functions," DeleteEmailAddress, page 153 and Chapter 1, "PeopleCode Built-in Functions," MarkPrimaryEmailAddress, page 358.

Char

Syntax

Char(*n*)

Description

Use the Char function to convert a decimal numeric value *n* to the corresponding Unicode character.

Parameters

Parameter	Description
n	The numeric value to be converted expressed as a decimal Unicode UTF-16 value.

Returns

Returns a String representing the Unicode character corresponding to the number *n*.

Example

This example sets &STRING1 to the Latin string "PS" (U+0050, U+0053), &STRING2 to the Unified Han (Japanese, Chinese and Korean) string "&#x65e5&#x672c" (U+65E5, U+672C) and &STRING3 to the Unicode Plane 2 Han character "&#d842&#xdd79" (surrogate pair U+D842, U+DD79 which is equivalent to the UTF-32 scalar value U+20797).

It should be noted that the single character in &STRING3 requires two calls to the Char function as it is a non-BMP Unicode character and therefore is represented by UTF-16 high and low surrogates.

```
&STRING1 = Char(80) | Char(83);&STRING2 = Char(26085) | Char(26412);
&STRING3 = Char(55362) | Char(56697);
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," Code, page 75 and Chapter 1, "PeopleCode Built-in Functions," String, page 497.

Chapter 2, "Meta-SQL," %Substring, page 596

CharType

Syntax

CharType(*source_str, char_code*)

Description

Use the CharType function to determine whether the first character in *source_str* is of type *char_code* . The *char_code* parameter is a numeric value representing a character type (see the following Parameters section for details). Most character types supported by this function equate to specific Unicode character blocks or are based on Unicode character properties.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output"

Parameters

Parameter	Description
source_str	A String, the first character of which will be tested.
char_code	A Number representing the character type to be tested for.

The following table shows valid values for *char_code*. You can specify either a Character Code or a Constant:

Numeric Value	Constant	Character Set
0	%CharType_AlphaNumeric	Basic Latin — Alphanumeric (printable range of 7-bit US-ASCII), Unicode characters in the range U+0020 — U+007E
1	%CharType_ExtendedLatin1	Extended Latin-1 characters (ISO 8859-1 accents for Western European languages), Unicode characters in the range U+00BF — U+07E
2	%CharType_HankakuKatakana	Hankaku Katakana (half-width Japanese Katakana)
3	%CharType_ZenkakuKatakana	Zenkaku Katakana (full-width Japanese Katakana)

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Numeric Value	Constant	Character Set
4	%CharType_Hiragana	Hiragana (Japanese)
5	%CharType_Kanji	Chinese, Japanese and Korean ideographic characters. Includes Japanese Kanji, Chinese Hanzi and Korean Hancha.
6	%CharType_DBAlphaNumeric	Full-width Latin Alphanumeric characters, primarily used for Japanese. Excludes
7	None	Korean Hangul syllables, excluding Hangul Jamo.
8,9	None	Reserved for future use.
10	%CharType_JapanesePunctuation	Full- and half-width punctuation, including space (U+0020) and Fullwidth / Ideographic Space (U+3000).
11	None	Greek
12	None	Cyrillic
13	None	Armenian
14	None	Hebrew
15	None	Arabic
16	None	Devanagari
17	None	Bengali
18	None	Gurmukhi
19	None	Gujarati
20	None	Oriya

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Numeric Value	Constant	Character Set
21	None	Tamil
22	None	Telugu
23	None	Kannada
24	None	Malayalam
25	None	Thai
26	None	Lao
27	None	Tibetan
28	None	Georgian
29	None	Bopomofo

Returns

CharType returns one of the following Number values. You can check for the constant values instead of the numeric values if you prefer:

Numeric Value	Constant Value	Description
1	%CharType_Matched	Character is of type *char_code*.
0	%CharType_NotMatched	Character is not of type *char_code*.
-1	%CharType_Unknown	UNKNOWN: unable to determine whether character is of set *char_code*. This occurs if the character being checked is an unallocated Unicode codepoint, or was added in a version of Unicode greater than that supported by PeopleTools.

Example

This example tests to see if a character is Hiragana:

```
&ISHIRAGANA = CharType(&STRTOTEST, %CharType_Hiragana);
If &ISHIRAGANA = 1 Then
   WinMessage("Character type is Hiragana");
Else
   If &ISHIRAGANA = 0 Then
      WinMessage("Character type is not Hiragana");
   Else
```

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```
         WinMessage("Character type is UNKNOWN");
      End-If;
   End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ContainsCharType, page 83, Chapter 1, "PeopleCode Built-in Functions," ContainsOnlyCharType, page 86 and Chapter 1, "PeopleCode Built-in Functions," ConvertChar, page 89.

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output"

ChDir

Syntax

ChDir(*path*)

Description

Use the ChDir function to change the current directory on a drive. This is similar to the DOS ChDir command. The drive and the directory are both specified in a *path* string.

Note. This function has been deprecated.

ChDrive

Syntax

ChDrive(*str_dr*)

Description

Use the ChDrive function to change the current disk drive to the drive specified by *str_dr*, which is a string consisting of a valid drive letter followed by a colon, for example "C:".

Note. This function has been deprecated.

CheckMenuItem

Syntax

CheckMenuItem(**BARNAME**.*menubar_name*, **ITEMNAME**.*menuitem_name*)

Description

Use the CheckMenuItem function to change the menu state by placing a check mark beside the menu item.

Note. This function has been deprecated.

Clean

Syntax

Clean(*string*)

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Description

Use the Clean function to remove all non-printable characters, such as control codes, end of line marks, and unpaired Unicode combining marks, from a text *string* and returns the result as a String value. It is intended for use on text imported from other applications that contains characters that may not be printable. Frequently, low-level characters appear at the beginning and end of each line of imported data, and they cannot be printed.

Returns

Returns a String value purged of non-printable characters.

Example

Because `Char(7)` (U+0007) is a non-printable character, the following Clean function returns a null string:

```
&CLEANSTR = Clean(Char(7));
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Char, page 68 and Chapter 1, "PeopleCode Built-in Functions," String, page 497.

Chapter 2, "Meta-SQL," %Substring, page 596

ClearKeyList

Syntax

ClearKeyList()

Description

Use the ClearKeyList function to clear the current key list. This function is useful for programmatically setting up keys before transferring to another component.

Returns

Optionally returns a Boolean value indicating whether the function succeeded.

Example

The following example sets up a key list and then transfers the user to a page named PAGE_2.

```
ClearKeyList( );
AddKeyListItem(OPRID, OPRID);
AddKeyListItem(REQUEST_ID, REQUEST_ID);
SetNextPage("PAGE_2");
TransferPage( );
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddKeyListItem, page 39

ClearSearchDefault

Syntax

ClearSearchDefault([*recordname*.]*fieldname*)

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Description

Use the ClearSearchDefault function to disable default processing for the specified field, reversing the effects of a previous call to the SetSearchDefault function.

Note. This function remains for backward compatibility only. Use the SearchDefault Field class property instead.

If search default processing is cleared for a record field, the default value specified in the record field properties for that field will not be assigned when the field appears in a search dialog box. This function is effective only when used in SearchInit PeopleCode.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," SearchDefault

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Parameters

Parameter	Description
[*recordname* **.**]*fieldname*	The name of the target field, which is a search key or alternate search key that is about to appear in a search dialog box. The *recordname* prefix is required if the call to ClearSearchDefault is in a record definition other than *recordname*.

Returns

Optionally returns a Boolean value indicating whether the function succeeded.

See Also

Chapter 1, "PeopleCode Built-in Functions," ClearSearchEdit, page 74, Chapter 1, "PeopleCode Built-in Functions," SetSearchDefault, page 473, Chapter 1, "PeopleCode Built-in Functions," SetSearchEdit, page 475 and Chapter 1, "PeopleCode Built-in Functions," SetSearchDialogBehavior, page 474.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Search Processing in Update Modes

ClearSearchEdit

Syntax

```
ClearSearchEdit([recordname.]fieldname)
```

Description

Use the ClearSearchEdit function to reverse the effects of a previous call to the SetSearchEdit function. If ClearSearchEdit is called for a specific field, the edits specified in the record field properties will not be applied to the field when it occurs in a search dialog.

Note. This function remains for backward compatibility only. Use the SearchEdit Field class property instead.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," SearchEdit

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Parameters

Parameter	Description
[*recordname* **.**]*fieldname*	The name of the target field, which is a search key or alternate search key about to appear in a search dialog box. The *recordname* prefix is required if the call to ClearSearchEdit is in a record definition other than *recordname*.

Returns

Optionally returns a Boolean value indicating whether the function succeeded.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetSearchEdit, page 475, Chapter 1, "PeopleCode Built-in Functions," SetSearchDefault, page 473, Chapter 1, "PeopleCode Built-in Functions," ClearSearchDefault, page 73 and Chapter 1, "PeopleCode Built-in Functions," SetSearchDialogBehavior, page 474.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Search Processing in Update Modes

Code

Syntax

Code(*str*)

Description

Use the Code function to return the numerical Unicode UTF-16 value for the first character in the string *str*. (Normally you would pass this function a single character.) If the string starts with a non-BMP Unicode character, the value returned will be that of the Unicode high surrogate of the character (the first value of the surrogate pair).

Returns

Returns a Number value equal to the character code for the first character in *str*.

See Also

Chapter 1, "PeopleCode Built-in Functions," Char, page 68 and Chapter 1, "PeopleCode Built-in Functions," String, page 497.

Chapter 2, "Meta-SQL," %Substring, page 596

Codeb

Syntax

Codeb(*str*)

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Description

Note. This function has been deprecated and is no longer supported.

See Also

Chapter 1, "PeopleCode Built-in Functions," Code, page 75

CollectGarbage

Syntax

```
CollectGarbage()
```

Description

Use the CollectGarbage function to remove any unreachable application objects created by the Application Classes.

Sometimes there may be unrecoverable application objects that are can no longer be referenced from PeopleCode, but which have not been reclaimed and so are still taking up computer memory. Generally this situation arises only if you have application objects that form into loops of references.

This function is automatically invoked by the application server as part of its end-of-service processing, so generally you don't need to call it for online applications. However, in Application Engine (batch), it is possible that a long-running batch job could grow in memory usage over time as these unreferencable Application Objects accumulate. The solution to such a problem is to call CollectGarbage periodically to reclaim these objects.

Parameters

None.

Returns

None.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Application Classes"

CommitWork

Syntax

```
CommitWork()
```

Description

Use the CommitWork function to commit pending changes (inserts, updates, and deletes) to the database.

Considerations for Using CommitWork

The following are the considerations for using CommitWork.

- This function is available in Application Engine PeopleCode, the FieldChange and SavePreChange events. If you use it anywhere else, you'll receive a runtime error.

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- When used with an Application Engine program, this function only applies to those Application Engine programs that run in batch (not online). If the program is invoked using the CallAppEngine function, the CommitWork call is ignored. The same is true for commit settings at the section or step level.
- This function can only be used in an Application Engine program that has restart disabled. If you try to use this function in a program that doesn't have restart disabled, you'll receive a runtime error.
- Component interfaces that rely on CommitWork to save data cannot be used in the Excel to Component Interface utility.
- When CommitWork is called in the context of a component interface (such as, during a SavePreChange PeopleCode program that's associated with the component), if the caller of the component interface already has an open cursor (such as an active SQL object) the Commit does *not* take effect immediately, but only when the last cursor is closed.

See Chapter 1, "PeopleCode Built-in Functions," CallAppEngine, page 61.

FieldChange and SavePreChange Considerations

The following are the FieldChange and SavePreChange considerations:

- All updates done in FieldChange (including those using CallAppEngine) should be considered a *single database transaction*. This is a fundamental change: previously, a single transaction was represented by a page or a component.
- A consequence of this is that a message requiring a reply, or any other think-time action, causes a *fatal* error if located in FieldChange *after* a database update that has *not* been committed to the database using the CommitWork function. So it is possible for an application to update the database in FieldChange, then do a think-time action, by preceding the think-time action with a call to CommitWork.
- CommitWork commits the updates and closes the database transaction (that is, the unit of work). The consequence of using CommitWork is that because it closes the database transaction, any subsequent rollback calls will *not* rollback the committed updates.
- Just as any database updates in FieldChange required careful application design to ensure that the transaction model is appropriate, so too does the use of CommitWork.
- When using CommitWork in the Component Processor environment (as opposed to using it in an Application Engine program) CommitWork produces an error if there are any open cursors, such as any open PeopleCode SQL objects.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "PeopleCode and the Component Processor," FieldChange Event.

Application Engine Considerations

The CommitWork function is useful only when you are doing row-at-a-time SQL processing in a single PeopleCode program, and you must commit without exiting the program. In a typical Application Engine program, SQL commands are split between multiple Application Engine actions that fetch, insert, update, or delete application data. Therefore, you would use the section or step level commit settings to manage the commits. This is the recommended approach.

However, with some types of Application Engine programs that are PeopleCode intensive, it can be difficult to exit the PeopleCode in order to perform a commit. This is the only time when the CommitWork function should be used.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine*, "Managing Application Engine Programs," Restarting Application Engine Programs.

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Restart Considerations

Disabling restart on a particular program means that the application *itself* is intrinsically self-restartable: it can be re-run from the start after an abend, and it performs any initialization, cleanup, and filtering of input data to ensure that everything gets processed once and only once, and that upon successful completion, the database is in the same state it would have been if no abend occurred.

Set-based applications should always use Application Engine's restart. Only row-by-row applications that have restart built into them can benefit from disabling Application Engine's restart.

Consider the following points to managing restarts in a self-restarting program:

- Locking input transactions (optional).

  If the input data can change, and if it's important not to pick up new data during a restart, there should be logic to lock transactions at the start of the initial run (such as updating rows with current Process Instance). The program should first check whether any rows have the current Process Instance (that is, is the process being restarted from the top after an abend?). If no rows found, do the update.

  In some cases it is acceptable for a restarted process to pick up new rows, so that locking is not necessary. It depends on your application.

  Also, if you don't lock transactions, you must provide some other way to manage concurrent processing of the same program. You don't want two simultaneous runs of the same program to use the same data, so you must have some strategy for dividing up the data such that there is no overlap.

- Filtering input transactions (required).

  After an input transaction is processed, the row should be updated accordingly (that is, setting a "processed" flag). The SELECT statement that drives the main processing loop should include a WHERE condition to filter out rows that have already been processed.

Returns

A Boolean value, True if data was successfully committed, False otherwise.

Example

The following example fetches rows and processes them one at a time, committing every 100 iterations. Because restart is disabled, you must have a marker indicating which rows have been processed, and use it in a conditional clause that filters out those rows.

```
Local SQL &SQL;
Local Record &REC;
Local Number &COUNT;

&REC = CreateRecord(RECORD.TRANS_TBL);
&SQL = CreateSQL("%SelectAll(:1) WHERE PROCESSED <> 'Y'");
&COUNT = 0;

&SQL.Execute(&REC);
While &SQL.Fetch(&REC)
   If (&COUNT > 99) Then
      &COUNT = 0;
      CommitWork();   /* commit work once per 100 iterations */
   End-if;
   &COUNT = &COUNT + 1;
```

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```
      /* do processing */
      ...

      /* update transaction as "processed" */
      &REC.PROCESSED.Value = 'Y';
      &REC.Update();
   End-While;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Using Meta-SQL and PeopleCode," Using PeopleCode in Application Engine Programs

CompareLikeFields

Syntax

CompareLikeFields(*from*, *to*)

where *from* and *to* are constructions that reference rows of data on specific source and target records in the component buffer; each have the following syntax:

level, *scrollpath*, *target_row*

and where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD**.*target_recname*

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the CompareLikeFields function to compare fields in a row on a specified source record to similarly named fields on a specified target record.

Note. This function remains for backward compatibility only. Use the CompareFields record class method instead.

If all of the like-named fields have the same data value, CompareLikeFields returns True; otherwise it returns False.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Record Class," CompareFields

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

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Parameters

Parameter	Description
from	A placeholder for a construction (*level*, *scrollpath*, *target_row*) that references the first row in the comparison.
to	A placeholder for a construction (*level, scrollpath, target_row*) that references the second row in the comparison.
level	Specifies the scroll level for the target level scroll.
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	Specifies the row number of each target row on its scroll level.

Returns

Returns a Boolean value indicating whether all of the like-named fields in the two records have the same data value.

Example

The following example compares the like-named fields in two rows on levels 1 (&L1_ROW) and 2 (&L2_ROW) and returns True if all of the like-named fields in the two rows have the same value.

```
&L1_ROW = 1;
&L2_ROW = 1;
if CompareLikeFields(1, RECORD.BUS_EXPENSE_PER, &L1_ROW, 2, RECORD.BUS_EXPENSE_⇒
PER, 1, RECORD.BUS_EXPENSE_DTL, &L2_ROW) then
   WinMessage("The fields match.");
end-if;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” CopyFields, page 99

Component

Syntax

Component *data_type* &*var_name*

Description

Use the Component statement to declare PeopleCode component variables. A component variable, after being declared in any PeopleCode program, remains in scope throughout the life of the component.

The variable must be declared with the Component statement in every PeopleCode program in which it is used.

Declarations appear at the beginning of the program, intermixed with function declarations.

Note. Because a function can be called from anywhere, you cannot declare any variables within a function. You receive a design time error if you try.

The system automatically initializes temporary variables. Declared variables always have values appropriate to their declared type. Undeclared variables are initialized as null strings.

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Not all PeopleCode data types can be declared as Component.

Parameters

Parameter	Description
data_type	Specify a PeopleCode data type.
&var_name	A legal variable name.

Example

```
Component string &PG_FIRST;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Local, page 354 and Chapter 1, "PeopleCode Built-in Functions," Global, page 317.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding the PeopleCode Language," Data Types

ComponentChanged

Syntax

ComponentChanged()

Description

Use the ComponentChanged function to determine whether a component has changed since the last save, whether by the user or by PeopleCode.

Returns

Returns a Boolean value: True if the component has changed.

Example

```
If ComponentChanged() Then
   /* do some stuff */
End-if;
```

ConnectorRequest

Syntax

ConnectorRequest(*&Message*)

Description

Use the ConnectorRequest function to send data to the connector using a message, when the connector properties are assigned in the message.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class ConnectorRequest method instead.

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In general, you would build a message, add the specific connector properties, then use ConnectorRequest.

You do not need to set up any transaction or relationship when you use this function. It is a direct call to the gateway.

The response to the message is returned as a nonrowset-based message. Use the GetXmlDoc message class method to retrieve the content data. The data is wrapped in the CDATA tag.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," ConnectorRequest

Parameters

Parameter	Description
&Message	Specify an already instantiated message.

Returns

A nonrowset-based message object.

See Also

Chapter 1, "PeopleCode Built-in Functions," ConnectorRequestURL, page 82

ConnectorRequestURL

Syntax

ConnectorRequestURL(*ConnectorStringURL*)

Description

Use the ConnectorRequestURL function to go directly to the gateway for accessing information.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class ConnectorRequestURL method instead.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," ConnectorRequestUrl

Parameters

Parameter	Description
ConnectorStringURL	Specify the URL of the gateway as a string. This is a fully formed URL.

Returns

A string containing the URL information returned from the message.

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Example

The following is the type of URL that could be returned if you were trying to get a PSFT stock quote:

```
http://finance.yahoo.com/d/quotes.txt/?symbols=PSFT&format=l1c1d1t1
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ConnectorRequest, page 81

ContainsCharType

Syntax

ContainsCharType(*source_str, char_code*)

Description

Use the ContainsCharType function to determine if any of the characters in *source_str* are of type *char_code.* The *char_code* is a numerical value representing a character type (see the following Parameters section for details). Most character types supported by this function equate to specific Unicode character blocks or are based on Unicode character properties.

Parameters

Parameter	Description
source_str	String to be examined.
char_code	A number value representing the character type to be tested for. The following table shows valid values. You can specify either a character code numeric value or a constant:

Numeric Value	Constant	Character Set
0	%CharType_AlphaNumeric	Basic Latin — Alphanumeric (printable range of 7-bit US-ASCII), Unicode characters in the range U+0020 — U+007E
1	%CharType_ExtendedLatin1	Extended Latin-1 characters (ISO 8859-1 accents for Western European languages), Unicode characters in the range U+00BF — U+07E
2	%CharType_HankakuKatakana	Hankaku Katakana (half-width Japanese Katakana)
3	%CharType_ZenkakuKatakana	Zenkaku Katakana (full-width Japanese Katakana)

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Numeric Value	Constant	Character Set
4	%CharType_Hiragana	Hiragana (Japanese)
5	%CharType_Kanji	Chinese, Japanese and Korean ideographic characters. Includes Japanese Kanji, Chinese Hanzi and Korean Hancha.
6	%CharType_DBAlphaNumeric	Full-width Latin Alphanumeric characters, primarily used for Japanese. Excludes
7	None	Korean Hangul syllables, excluding Hangul Jamo.
8,9	None	Reserved for future use.
10	%CharType_JapanesePunctuation	Full- and half-width punctuation, including space (U+0020) and Fullwidth / Ideographic Space (U+3000).
11	None	Greek
12	None	Cyrillic
13	None	Armenian
14	None	Hebrew
15	None	Arabic
16	None	Devanagari
17	None	Bengali
18	None	Gurmukhi
19	None	Gujarati
20	None	Oriya

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Numeric Value	Constant	Character Set
21	None	Tamil
22	None	Telugu
23	None	Kannada
24	None	Malayalam
25	None	Thai
26	None	Lao
27	None	Tibetan
28	None	Georgian
29	None	Bopomofo

Returns

ContainsCharType returns one of the following Number values. You can check for the constant instead of the numeric value if you prefer:

Numeric Value	Constant Value	Description
1	%CharType_Matched	String contains at least one character of set *char_code*.
0	%CharType_NotMatched	String contains no characters of set *char_code*.
-1	%CharType_Unknown	UNKNOWN: unable to determine whether character is of set *char_code*. This occurs if the character being checked is an unallocated Unicode codepoint, or was added in a version of Unicode greater than that supported by PeopleTools.

Example

This example tests to see if the string contains any Hiragana:

```
&ANYHIRAGANA = ContainsCharType(&STRTOTEST, 4);
If &ANYHIRAGANA = 1 Then
   WinMessage("There are Hiragana characters");
Else
   If &ANYHIRAGANA = 0 Then
```

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```
      WinMessage("There are no Hiragana characters");
   Else
      WinMessage("UNKNOWN");
   End-If;
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ContainsCharType, page 83, Chapter 1, "PeopleCode Built-in Functions," ContainsOnlyCharType, page 86 and Chapter 1, "PeopleCode Built-in Functions," ConvertChar, page 89.

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output"

ContainsOnlyCharType

Syntax

ContainsOnlyCharType(*source_str, char_code_list*)

Where *char_code_list* is a list of character set codes in the form:

char_code_1 [, *char_code_2*]. . .

Description

Use the ContainsOnlyCharType function to determine whether every character in *source_str* belongs to one or more of the character types in *char_code_list*. See the following Parameters section for a list of valid character code values. Most character types supported by this function equate to specific Unicode character blocks or are based on Unicode character properties.

Parameters

Parameter	Description
Source_str	String to be examined.
char_code_list	A comma-separated list of character set codes.
char_code_n	Either a Number value identifying a character set, or a constant. The following table shows valid values. You can specify either a character code numeric value or a constant:

Numeric Value	Constant	Character Set
0	%CharType_AlphaNumeric	Alphanumeric (7-bit ASCII codes; A-Z, a-z, 1-9, punctuation)
1	%CharType_ExtendedLatin1	Extended Latin-1 characters (ISO8859-1 accents for Spanish, French, etc.)

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Numeric Value	Constant	Character Set
2	%CharType_HankakuKatakana	Hankaku Katakana (single-byte Japanese Katakana)
3	%CharType_ZenkakuKatakana	Zenkaku Katakana (double-byte Japanese Katakana)
4	%CharType_Hiragana	Hiragana (Japanese)
5	%CharType_Kanji	Kanji (Japanese)
6	%CharType_DBAlphaNumeric	Double-byte Alphanumeric (Japanese)
7,8,9		Reserved for future use
10	%CharType_JapanesePunctuation	Japanese punctuation

Returns

ContainsOnlyCharType returns one of the following Number values. You can check for the constant instead of the numeric value, if you prefer:

Numeric Value	Constant Value	Description
1	%CharType_Matched	String contains only characters belonging to the sets listed in *char_code_list*.
0	%CharType_NotMatched	String contains one or more characters that do not belong to sets listed in *char_code_list*.
-1	%CharType_Unknown	UNKNOWN: unable to determine whether character is of set *char_code*. This occurs if the character being checked is an unallocated Unicode codepoint, or was added in a version of Unicode greater than that supported by PeopleTools.

Note. If any character in the string is determined to be UNKNOWN, the return value is UNKNOWN.

Example

This example tests to see is the string is only Hiragana or Punctuation:

```
&ONLYHIRAGANA = ContainsOnlyCharType(&STRTOTEST, 4, 10);
If &ONLYHIRAGANA = 1 Then
   WinMessage("There are only Hiragana and Punctuation characters");
Else
```

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```
   If &ONLYHIRAGANA = 0 Then
      WinMessage("Mixed characters");
   Else
      WinMessage("UNKNOWN");
   End-If
End-If
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CharType, page 69, Chapter 1, "PeopleCode Built-in Functions," ContainsCharType, page 83 and Chapter 1, "PeopleCode Built-in Functions," ConvertChar, page 89.

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output"

Continue

Syntax

Continue

Description

Use the Continue statement to continue execution in a loop. How the statement performs depends on the type of loop:

- In For loops, this statement continues to do the next step of the iteration
- In While loops, this statement continues to the top of the loop and the test of the condition
- In Repeat-Until loops, this statement continues to the Until check at the bottom of the loop.

Parameters

None.

Example

The following are tests of the continue statement in various types of loops:

```
SetTracePC(%TracePC_List);
/* tests of continue statement */
&N = 0;
For &I = 1 To 10;

   If &I > 5 Then
      Continue;
   End-If;
   &J = &I + 1;
   &K = 0;
   /* now a while loop in here */
   While &J <= 10;
      &J = &J + 1;
      If &J = 7 Then
         Continue;
      End-If;
```

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```
      For &A = 0 To 5;
         &K = &K + 2;
      End-For; /* no continue statement */
      &Barf = 2;
      Repeat
         &Barf = &Barf;
         If &Barf = 1 Then
            Continue;
         End-If;
      Until &Barf = &Barf;
      &K = &K + 1;
   End-While;
   MessageBox(0, "", 0, 0, "K=" | &K);
   If &I < 2 Then
      Continue;
   End-If;
   &N = &N + 1;
End-For;
MessageBox(0, "", 0, 0, "N=" | &N);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Break, page 52 and Chapter 1, "PeopleCode Built-in Functions," Exit, page 199.

ConvertChar

Syntax

ConvertChar(*source_str*, *source_str_category*, *output_str*, *target_char_code*)

Description

Use the ConvertChar function to convert every character in *source_str* to type *target_char_code,* if possible, and place the converted string in *output_str*. ConvertChar supports the following conversions:

- Conversion among Japanese Hankaku (half-width) Katakana, Zenkaku (full-width) Katakana, and Hiragana .
- Conversion of Japanese Hankaku (half-width) Katakana, Zenkaku (full-width) Katakana, and Hiragana to Hepburn Romaji (Latin representation).
- Conversion of full-width alphanumeric characters to their half-width equivalents.
- Conversion of full-width punctuation characters to their half-width equivalents.

Other *source_str* and *target_char_code* combinations are either passed through without conversion, or not supported. Character types 0 and 1 (alphanumeric and extended Latin-1) are always passed through to *output_str* without conversion. See the Supported Conventions section later in this reference entry for details.

If ConvertChar is unable to determine whether the characters in *source_str* belong to the specified character set, the function returns a value of UNKNOWN (-1). If *source_str* can be partially converted, ConvertChar will partially convert string, echo the remaining characters to the output string as-is, and return a value of -2 (Completed with Issues).

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Parameters

Parameter	Description
Source_str	String to be converted.
Source_str_category	Language category of input string. You can specify either a number or a constant.

Numeric Value	Constant Value	Description
0	%ConvertChar_AlphaNumeric	Half-width AlphaNumeric
1	%ConvertChar_ExtendedLatin1	Extended Latin-1 Characters (ISO8859-1 accents, Spanish, French etc.)
2	%ConvertChar_Japanese	Japanese (any)

Parameter	Description
Output_str	A String variable to receive the converted string.
Target_char_code	Either a Number or a constant representing the conversion target character type. You can specify either a character code numeric value or a constant:

Numeric Value	Constant Value	Description
0	%CharType_AlphaNumeric	Half-width AlphaNumeric — results in a Hepburn Romaji conversion when the input string contains Hiragana or Katakana
2	%CharType_HankakuKatakana	Hankaku Katakana (half—width Japanese Katakana)
3	%CharType_ZenkakuKatakana	Zenkaku Katakana (full-width Japanese Katakana)
4	%CharType_Hiragana	Hiragana (Japanese)
6	%CharType_DBAlphaNumeric	Full-width AlphaNumeric (Japanese)

The following target values are not supported; if the source string is of the same type as any of these values, then the string is passed through without conversion.

Numeric Value	Constant Value	Description
1	%CharType_ExtendedLatin1	Extended Latin-1 characters (ISO8859-1 accents for Spanish, French, etc.)
5	%CharType_Kanji	Chinese, Japanese and Korean ideographic characters.
10	%CharType_JapanesePunctuation	Full- and half-width punctuation, including space (U+0020) and Fullwidth / Ideographic Space (U+3000).

Supported Conversions

The following table shows which conversions are supported, which are passed through without conversion, and which are not supported:

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Source	Target	Conversion
0 (Alphanumeric US-ASCII)	0-6 (All supported character types)	Pass through without conversion
1 (Extended Latin-1 characters)	0-6 (All supported character sets)	Pass through without conversion
2 (Hankaku Katakana)	0 (Alphanumeric — Hepburn romaji)	Conversion supported
	1 (Extended Latin)	Not supported
	2 (Hankaku Katakana)	Pass through without conversion
	3 (Zenkaku Katakana)	Conversion supported
	4 (Hiragana)	Conversion supported
	5 (Kanji)	Not supported
	6 (Full-width alphanumeric)	Not supported
3 (Zenkaku Katakana)	0 (Alphanumeric)	Conversion supported
	1 (Extended Latin)	Not supported
	2 (Hankaku Katakana)	Conversion supported
	3 (Zenkaku Katakana)	Pass through without conversion
	4 (Hiragana)	Conversion supported
	5 (Kanji)	Not supported
	6 (Full-width alphanumeric)	Not supported
4 (Hiragana)	0 (Alphanumeric- Hepburn Romaji)	Conversion supported
	1 (Extended Latin)	Not supported
	2 (Hankaku Katakana)	Conversion supported

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Source	Target	Conversion
	3 (Zenkaku Katakana)	Conversion supported
	4 (Hiragana)	Pass through without conversion
	5 (Kanji)	Not supported
	6 (Full-width alphanumeric)	Not supported
5 (Kanji)	0-4, 6	Not supported
	5 (Kanji)	Pass through without conversion
6 (Full-width alphanumeric)	0 (Alphanumeric)	Conversion supported
	1-5	Not supported
	6 (Full-width alphanumeric)	Pass through without conversion
10 (Japanese punctuation)	0 (Alphanumeric)	Conversion supported
	1 (Extended Latin)	Not supported
	3-6, 10	Pass through without conversion

Returns

Returns either a Number or a constant with one of the following values, depending on what you're checking for:

Numeric Value	Constant Value	Description
1	%ConvertChar_Success	String successfully converted.
0	%ConvertChar_NotConverted	String not converted.
-1	%ConvertChar_Unknown	UNKNOWN: unable to determine whether character is of set *char_code*. This occurs if the character being checked is an unallocated Unicode codepoint, or was added in a version of Unicode greater than that supported by PeopleTools.
-2	%ConvertChar_Issues	Completed with issues. Conversion executed but there were one or more characters encountered that were either not recognized, or whose conversion is not supported.

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Note. If any character cannot be translated, it is echoed as-is to *output_str*. *output_str* could therefore be a mixture of converted and non-converted characters.

Example

This example attempts to convert a string to Hiragana:

```
&RETVALUE = ConvertChar(&INSTR, 2, &OUTSTR, 4);
If &RETVALUE = 1 Then
   WinMessage("Conversion to Hiragana successful");
Else
   If &RETVALUE = 0 Then
      WinMessage("Conversion to Hiragana failed");
   Else
      If &RETVALUE = - 1 Then
         WinMessage("Input string is UNKNOWN character type.");
      Else
         WinMessage("Some characters could not be converted.");
      End-If
   End-If
End-If
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CharType, page 69, Chapter 1, "PeopleCode Built-in Functions," ContainsCharType, page 83 and Chapter 1, "PeopleCode Built-in Functions," ContainsOnlyCharType, page 86.

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output"

ConvertCurrency

Syntax

ConvertCurrency(*amt*, *currency_cd*, *exchng_to_currency*, *exchng_rt_type*, *effdt*, *converted_amt* [, *error_process* [, *round*] [, *rt_index*]])

Description

Use the ConvertCurrency function to convert between currencies. The result of the conversion is placed in a variable passed in *converted_amt*.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Controlling Currency Display Format"

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Parameters

Parameter	Description
Amt	The currency amount to be converted.
Currency_cd	The currency in which the *amt* is currently expressed.
Exchng_to_currency	The currency to which the *amt* should be converted.
Exchng_rt_type	The currency exchange rate to be used. This is the value of the RT_TYPE field in the RT_RATE table of RT_DFLT_VW.
Effdt	The effective date of the conversion to be used.
Converted_amt	The resulting converted amount. You must supply a variable for this parameter. If a conversion rate cannot be found, *converted_amt* is set equal to *amt.*
Error_process	An optional string that, if specified, contains one of the following values: • "F" - Produce a fatal error if a matching conversion rate is not found. • "W" - Produce a warning message box if a matching conversion rate is not found. • "I" - Or other−return without producing a message box If *error_process* is not specified, it defaults to Fatal ("F").
Round	Optional Boolean value indicating whether to round *converted_amt* to the smallest currency unit. If omitted, round defaults to False.
rt_index	An optional string to indicate which exchange rate index should be used to retrieve the exchange rate. If omitted, the Default Exchange Rate index (as specified on the Market Rate index definition) is used.

Note. If the currency exchange rate is changed in a PeopleSoft table, this change will *not* be reflected in an already open page until the user closes the page, then opens it again.

Returns

ConvertCurrency returns a Boolean value where True means a conversion rate was found and *converted_amt* calculated, and False means a conversion rate was not found and a value of one (1) was used.

Example

```
rem **-----------------------------------------------**;
rem *  Convert the cost & accum_depr fields if books *;
rem * use different currencies.  *;
rem **-----------------------------------------------**;
rem;
   If &FROM_CUR <> &PROFILE_CUR_CD Then
      &CON_COST_FROM = &COST_COST;
      &CON_ACC_DEPR_FROM = &COST_ACCUM;
      ConvertCurrency(&CON_COST_FROM, &FROM_CUR, &PROFILE_CUR_CD, RT_TYPE,TRANS_⇒
DT, &CON_COST_TO, "F");
      UpdateValue(COST_NON_CAP.COST, &COST_ROW_CUR, &CON_COST_TO);
   Else
      UpdateValue(COST_NON_CAP.COST, &COST_ROW_CUR, &COST_COST);
```


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```
      End-If;
      UpdateValue(COST_NON_CAP.FROM_CUR, &COST_ROW_CUR, &PROFILE_CUR_CD);
   UpdateValue(COST_NON_CAP.OPRID, &COST_ROW_CUR, %UserIdId);
```

ConvertDatetimeToBase

Syntax

ConvertDatetimeToBase(*textdatetime*, {*timezone* | **"Local"** | **"Base"**});

Description

Use the ConvertDatetimeToBase function to convert the text value *textdatetime* to a datetime value, then further converts it to the base time. This function automatically calculates whether daylight savings time is in effect for the given *textdatetime*.

The system's base time zone is specified on the PSOPTIONS table.

Parameters

Parameter	Description
textdatetime	Specify a datetime value represented as text (for example, "01/01/1999 3:00 PM")
timezone | **Local** | **Base**	Specify a value for converting *textdatetime*. Values are: • *timezone* - a time zone abbreviation or a field reference to be used for converting *textdatetime* • **Local** - use the local time zone for converting *textdatetime.* • **Base** - use the base time zone for converting *textdatetime*.

Returns

Returns a datetime value in the base time zone.

Example

In the following example, &DATETIMEVAL would have a datetime value of "01-01-1999-07:00:00.000000", assuming the Base time (as defined in PSOPTIONS) was PST.

```
&DATETIMEVAL= ConvertDateTimeToBase("01/01/1999 10:00:00AM", "EST");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertTimeToBase, page 97, Chapter 1, "PeopleCode Built-in Functions," FormatDateTime, page 215, Chapter 1, "PeopleCode Built-in Functions," IsDaylightSavings, page 340, Chapter 1, "PeopleCode Built-in Functions," DateTimeToTimeZone, page 140, Chapter 1, "PeopleCode Built-in Functions," TimeToTimeZone, page 506 and Chapter 1, "PeopleCode Built-in Functions," TimeZoneOffset, page 507.

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ConvertRate

Syntax

ConvertRate(*Rate, In_Frequency, Out_Frequency*)

Description

Use the ConvertRate function to convert a rate between various compounding frequencies.

Parameters

Parameter	Description
Rate	The rate to be converted. This parameter takes a number value.
In_Frequency	The frequency of the rate to be converted from. This parameter takes an array of number, with two elements. The first element is periodicity, (for example, if you chose daily compounding, 1 would represent daily while 7 would represent weekly.) The second element is the unit of measure of frequency. The values for the second element are:

Value	Description
0	continuous compounding
1	daily compounding
2	monthly compounding
3	yearly compounding

Parameter	Description
Out_Frequency	The frequency of the rate to be converted to. This parameter takes an array of number, with two elements. The first element is periodicity, (for example, if you chose daily compounding, 1 would represent daily while 7 would represent weekly.) The second element is the unit of measure of frequency. The values for the second element are:

Value	Description
0	continuous compounding
1	daily compounding
2	monthly compounding
3	yearly compounding

Returns

A number representing the converted rate.

Example

The following example converts the specified values from days to years.

```
Local array of number &In, &Out;
```

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```
Local number &rate, &NewRate;

&rate = 0.01891;
&In = CreateArray(0, 0);
&In[1] = 1; /* daily */
&In[2] = 1; /* compound_days */
&Out = CreateArray(0, 0);
&Out[1] = 1; /* one year */
&Out[2] = 3; /* compound_years */

&NewRate = ConvertRate(&rate, &In, &Out);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RoundCurrency, page 428

ConvertTimeToBase

Syntax

ConvertTimeToBase(*texttime*,{*timezone* | **"Local"** | **"Base"**});

Description

Use the ConvertTimeToBase function to convert the text value *texttime* to a Time value and converts it to the base time. This function automatically calculates whether daylight savings time is in effect for the given *texttime*.

This function is useful for users to convert constant times in specific time zones into database time. For example, there is a deadline for completing Federal Funds transfers by 3:00 PM Eastern Time. ConvertTimeToBase does this conversion, taking into account daylight savings time. The date used to calculate whether daylight savings time is in effect is the current date.

The system's base time zone is specified on the PSOPTIONS table.

Parameters

Parameter	Description
texttime	Specify a time value represented as text (e.g., "3:00 PM")
timezone | **Local** | **Base**	Specify a value for converting *textdatetime*. Values are: • *timezone* - a time zone abbreviation or a field reference to be used for converting *textdatetime* • **Local** - use the local time zone for converting *textdatetime.* • **Base** - use the base time zone for converting *textdatetime*.

Returns

Returns a time value in the base time zone.

Example

In the following example, &TIMEVAL would have a time value of "07:00:00.000000", assuming the Base time (as defined in PSOPTIONS) was PST.

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```
&TEXTTIME = ConvertTimeToBase("01/01/99 10:00:00AM", "EST");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertDatetimeToBase, page 95, Chapter 1, "PeopleCode Built-in Functions," FormatDateTime, page 215, Chapter 1, "PeopleCode Built-in Functions," IsDaylightSavings, page 340, Chapter 1, "PeopleCode Built-in Functions," DateTimeToTimeZone, page 140, Chapter 1, "PeopleCode Built-in Functions," TimeToTimeZone, page 506 and Chapter 1, "PeopleCode Built-in Functions," TimeZoneOffset, page 507.

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CopyAttachments

Syntax

CopyAttachments(*URLSource*, *URLDestination* [, *Record_Names* [, *PreserveCase*]])

where *URLSource* and *URLDestination* can have *one* of the following forms:

URL.*URLname*

or a string URL, such as

```
ftp://user:password@ftp.ps.com/
```

Note. You cannot specify a different port for an attachment when using an FTP server. You can only use the default port of 21.

Note. The file attachment functionality does not support SFTP or FTPS.

Description

Use the CopyAttachments function to copy files from one system to another.

Note. If the specified subdirectories do not exist this function tries to create them.

Parameters

Parameter	Description
Source	Specify the source location of the files to be moved. This parameter can either be a URL name in the form **URL** .*URLName*, or a string.
Destination	Specify the destination of the files being moved. This parameter can either be a URL name in the form **URL** .*URLName*, or a string.
Record_Names	Specify an array of record names that store valid references to files located on the system specified by *Source*. If you don't specify this parameter, all the records that contain the field ATTACHSYSFILENAME are used (that is, this function tries to get the attachments based on all those references from *Source*).
PreserveCase	Specify a Boolean value to indicate whether the case of the directory and file name specified with *DirAndFileName* are preserved or not; true, preserve the case, false, convert the filename extension to all lower case letters. The default value is false.

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Returns

You can check for either a constant or a number value. The values are:

Numeric Value	Constant Value	Description
0	%Attachment_Success	File was transferred successfully.
1	%Attachment_Failed	File was not successfully transferred.
3	%Attachment_FileTransferFailed	File transfer didn't succeed.
7	%Attachment_DestSystNotFound	Cannot locate destination system.
8	%Attachment_DestSystFailedLogin	Unable to login to destination system.
9	%Attachment_FileNotFound	Cannot locate file.
10	%Attachment_DeleteFailed	Cannot delete file.

Example

```
&aRecs = CreateArray("HRATTS", "MFGATTS", "CRMATTS");

&ret = CopyAttachments("ftp://user:pass@system/HR/", "record://HRARCHIVE", &a⇒
Recs);

If (&ret = %Attachment_Success) Then
   MessageBox(0, "Copy Archive Status", 0, 0, "CopyAttachmentArchive succeeded");
Else
   MessageBox(0, "Copy Archive Status", 0, 0, "CopyAttachmentArchivefailed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddAttachment, page 32, Chapter 1, "PeopleCode Built-in Functions," DeleteAttachment, page 151, Chapter 1, "PeopleCode Built-in Functions," GetAttachment, page 261, Chapter 1, "PeopleCode Built-in Functions," PutAttachment, page 397 and Chapter 1, "PeopleCode Built-in Functions," ViewAttachment, page 544.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding File Attachments and PeopleCode," Using File Attachments in Applications

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," Copy File Attachments

CopyFields

Syntax

CopyFields(*from*, *to*)

where *from* and *to* are constructions that reference rows of data on specific source and target records in the component buffer; each have the following syntax:

level, *scrollpath*, *target_row*

and where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD**.*target_recname*

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To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the CopyFields function to copy like-named fields from a row on the specific source record to a row on the specific target record.

Note. This function remains for backward compatibility only. Use the CopyFieldsTo or CopyChangedFieldsTo record class methods instead.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Record Class," CopyFieldsTo, *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Record Class," CopyChangedFieldsTo and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," CopyTo.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
from	A placeholder for a construction (*level*, *scrollpath*, *target_row*) that references the first row in the comparison.
to	A placeholder for a construction (*level*, *scrollpath, target_row*) that references the second row in the comparison.
level	Specifies the scroll level for the target level scroll.
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	Specifies the row number of each target row on its scroll level.

Returns

Optionally returns a Boolean value indicating whether the function succeeded.

Example

The following example copies fields from PO_RECEIVED_INV (level 1 scroll) from row &ROW to PO_RECV_INV_VW (level 1 scroll), row &LOC_ROW:

```
CopyFields(1, RECORD.PO_RECEIVED_INV, &ROW, 1, RECORD.PO_RECV_INV_VW, &LOC_ROW);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CompareLikeFields, page 79

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

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CopyFromJavaArray

Syntax

CopyFromJavaArray(*JavaArray*, *&PeopleCodeArray* [, *&RestrictionArray*])

Description

Use the CopyFromJavaArray function to copy the array specified by *JavaArray* into one-dimensional PeopleCode array *&PeopleCodeArray*.

Note. The Java array must be at least the same size as the PeopleCode array.

The optional *&RestrictionArray* parameter is a PeopleCode array that contains the index elements of the elements to copy. For example if *&RestrictionArray* contains the indexes 3, 5 and 7, only elements 3, 5 and 7 in the PeopleCode array are copied to the Java array, and they are copied to the elements 3, 5 and 7. This allows you to minimize the copying when you have arrays that don't require a full element by element copy. If *&RestrictionArray* is not specified, a complete array copy is done.

The array types between the PeopleCode array and the Java array must match the standard type mapping between Java and PeopleCode types. For example, trying to copy a PeopleCode array of Any into a Java array of int will fail because the Any PeopleCode type doesn't map onto the Java int type.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class," PeopleCode and Java Data Types Mapping

Parameters

Parameter	Description
JavaArray	Specify the name of the Java array that you want to copy data from.
&PeopleCodeArray	Specify the name of an already instantiated PeopleCode array that you want to copy the data into.
&RestrictionArray	Specify an already instantiated and populated PeopleCode array that contains the set of elements the copy is restricted to. This array should be of type number.

Returns

None.

Example

```
Local array of any &x = CreateArrayAny();

&x.Push("First bit");
&x.Push(1);
&x.Push(%Datetime);
&x.Push(%Date);
&x.Push("Final bit");
```

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```
Local array of number &selection = CreateArray(1, 3, 5);
Local JavaObject &Jarray = CreateJavaArray("java.lang.Object[]", &x.Len);
/* Full copy to a Java array */
CopyToJavaArray(&x, &Jarray);
/* Full copy from Java array to PeopleCode array */
Local array of any &y = CreateArrayAny();
&y [5] = Null; /* make sure it's the right length */
CopyFromJavaArray(&Jarray, &y);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CopyToJavaArray, page 103 and Chapter 1, "PeopleCode Built-in Functions," CreateJavaArray, page 112.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class"

CopyRow

Syntax

CopyRow(*destination_row, source_row*)

Description

Use the CopyRow function to copy data from one row to another row.

Note. This function remains for backward compatibility only. Use the CopyTo row class method instead.

---

destination_row is the row number to which you want the *source _row* data values copied. The two rows, and the PeopleCode function call, must all be located on the same scroll level.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Row Class," CopyTo, *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Record Class," CopyFieldsTo and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Record Class," CopyChangedFieldsTo.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Parameters

Parameter	Description
destination_row	Row number of row to which to copy data.
source_row	Row number of row from which to read data.

Example

This example uses CopyRow to give an inserted row the same values as the previous row:

```
/*  Get the row number of the inserted row and the previous row */
&NEW_ROW_NUM = CurrentRowNumber();
```

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```
&LAST_ROW_NUM = &NEW_ROW_NUM - 1;
/*  Copy the data from the previous row into the inserted row */
CopyRow(&NEW_ROW_NUM, &LAST_ROW_NUM);
```

CopyToJavaArray

Syntax

CopyToJavaArray(*&PeopleCodeArray*, *JavaArray* [, *&RestrictionArray*])

Description

Use the CopyToJavaArray function to copy the one-dimensional array specified by *&PeopleCodeArray* into the Java array *JavaArray*. The Java array must be at least as large as the PeopleCode array.

The optional *&RestrictionArray* parameter is a PeopleCode array that contains the index elements of the elements to copy. For example if *&RestrictionArray* contains the indexes 3, 5 and 7, only elements 3, 5 and 7 in the PeopleCode array are copied to the Java array, and they are copied to the elements 3, 5 and 7. This allows you to minimize the copying when you have arrays that don't require a full element by element copy. If *&RestrictionArray* is not specified, a complete array copy is done.

The array types between the PeopleCode array and the Java array must match the standard type mapping between Java and PeopleCode types. For example, trying to copy a PeopleCode array of Any into a Java array of int will fail because the Any PeopleCode type doesn't map onto the Java int type.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class," PeopleCode and Java Data Types Mapping

Parameters

Parameter	Description
&PeopleCodeArray	Specify an already instantiated and populated one-dimentional PeopleCode array that contains the information you want to copy to a Java array.
JavaArray	Specify the Java array that you want to copy information into.
&RestrictionArray	Specify an already instantiated and populated PeopleCode array that contains the set of elements the copy is restricted to. This array should be of type number.

Returns

None.

Example

The following example creates an array, then shows both copying the full array, as well as only copying elements of it.

```
Local array of any &x = CreateArrayAny();

&x.Push("First bit");
```

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```
&x.Push(1);
&x.Push(%Datetime);
&x.Push(%Date);
&x.Push("Final bit");

Local array of number &selection = CreateArray(1, 3, 5);

Local JavaObject &Jarray = CreateJavaArray("java.lang.Object[]", &x.Len);

/* Full copy to a Java array */
CopyToJavaArray(&x, &Jarray);

/* Only copy elements 1, 3 and 5 */
CopyToJavaArray(&x, &Jarray, &selection);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CopyFromJavaArray, page 101 and Chapter 1, "PeopleCode Built-in Functions," CreateJavaArray, page 112.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class"

Cos

Syntax

Cos(*angle*)

Description

Use the Cos function to calculate the cosine of the given angle (adjacent / hypotenuse).

Parameters

Parameter	Description
angle	A value in radians.

Returns

A real number between -1.00 and 1.00.

Example

The following example returns the cosine of an angle measuring 1.2 radians:

```
&MY_RESULT = Cos(1.2);
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," Acos, page 31, Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Atan, page 49, Chapter 1, "PeopleCode Built-in Functions," Cot, page 105, Chapter 1, "PeopleCode Built-in Functions," Degrees, page 150, Chapter 1, "PeopleCode Built-in Functions," Radians, page 401, Chapter 1, "PeopleCode Built-in Functions," Sin, page 484 and Chapter 1, "PeopleCode Built-in Functions," Tan, page 502.

Cot

Syntax

Cot(*angle*)

Description

Use the Cot function to calculate the cotangent of the given angle (adjacent / opposite, that is, the reciprocal of the tangent).

Parameters

Parameter	Description
angle	A value in radians, excluding 0. If the input value is 0, you receive an error message at runtime ("Decimal arithmetic error occurred. (2,110)"). Adjust your code to provide a valid input value.

Note. In theory, all values of *angle* such that `mod(angle, pi)` equals 0 are not valid for this function, because inputs approaching such values produce results that tend toward infinity. In practice, however, no computer system can represent such values exactly. Thus, for example, the statement `Cot(Radians(180))` produces a number close to the largest value PeopleCode can represent, rather than an error.

Returns

A real number.

Example

The following example returns the cotangent of an angle measuring 1.2 radians:

```
&MY_RESULT = Cot(1.2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Acos, page 31, Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Atan, page 49, Chapter 1, "PeopleCode Built-in Functions," Cos, page 104, Chapter 1, "PeopleCode Built-in Functions," Degrees, page 150, Chapter 1, "PeopleCode Built-in Functions," Radians, page 401, Chapter 1, "PeopleCode Built-in Functions," Sin, page 484 and Chapter 1, "PeopleCode Built-in Functions," Tan, page 502.

CreateAnalyticInstance

Syntax

CreateAnalyticInstance(*AnalyticType, ID, Descr, &RecordRef, ForceDelete*)

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Description

Use the CreateAnalyticInstance function to create an analytic instance as identified by the analytic *ID*. If *ID* is an empty string, the system automatically generates a unique ID.

This function only creates the metadata for the ID. It doesn't load the instance into an analytic server.

If this analytic instance already exists in the system, and you specify *ForceDelete* as false, the analytic instance is not created. If you specify *ForceDelete* as true, the existing analytic instance is deleted and the new one is created.

Every analytic type definition is defined with an application package that contains three methods: Create, Delete, and Copy. The values in *&RecordRef* are passed to the Create method.

Parameters

Parameter	Description
AnalyticType	Specify the name of the analytic type definition to be used.
ID	Specify the analytic instance identifier as a string. This parameter must be 20 characters or less.
Descr	Specify a description for this analytic instance as a string.
&RecordRef	Specify an already instantiated record object to pass values to the application package Create method that's associated with the analytic type definition. If you don't want to specify a record, you can specify NULL.
ForceDelete	Specify the behavior if the specified analytic *ID* already exists. This parameter takes a boolean value. If *ForceDelete* is set to false and the specified ID exists, this function terminates without creating a new analytic instance. If *ForceDelete* is set to true and the specified ID exists, the analytic instance is deleted and then recreated.

Returns

An AnalyticInstance object if successful, null otherwise.

Example

```
Local AnalyticInstance &pi;

/* Create a brand new analytic instance */
&pi = CreateAnalyticInstance("BusinessPlanning", "Test", "PopulateTables",⇒
 &argrec, True);
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," GetAnalyticInstance, page 259

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Analytic Calculation Engine Classes," Understanding the Analytic Calculation Engine Classes

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Application Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Optimization Framework, "Designing Analytic Type Definitions," Creating Analytic Type Definitions

CreateArray

Syntax

CreateArray(*paramlist*)

Where *paramlist* is an arbitrary-length list of values in the form:

param1 [, *param2*] ...

Description

Use the CreateArray function to construct an array and returns a reference to it.

The type of the first parameter determines the type of array that is built. That is, if the first parameter is of type NUMBER, an array of number is built. If there is no first parameter an empty array of ANY is built.

The CreateArray function uses flattening and promotion as required to convert subsequent values into suitable elements of the array.

Parameters

Parameter	Description
paramlist	Specify a list of values to be used as the elements of the array.

Returns

Returns a reference to the array.

Example

```
Local Array of Array of Number &AAN;
Local Array of Number &AN;

&AAN = CreateArray(CreateArray(1, 2), CreateArray(3, 4), 5);
&AN = CreateArray(6, &AAN[1]);
```

&AAN is a two dimensional array with three elements:

- A one-dimensional array with 1 and 2 as elements.
- A one-dimensional array with 3 and 4.
- A one-dimensional array with only the element 5.

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The last parameter to Array was promoted to a one-dimensional array. &AN is a one-dimensional array with 3 elements: 6, 1, and 2. The last parameter to Array in the last line was flattened into its two elements.

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateArrayRept, page 109 and Chapter 1, "PeopleCode Built-in Functions," Split, page 486.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class," Using Flattening and Promotion

CreateArrayAny

Syntax

CreateArrayAny([*paramlist*])

Where *paramlist* is an arbitrary-length list of values in the form:

param1 [, *param2*] ...

Description

Use the CreateArrayAny function to construct an array whose elements are of data type ANY and returns a reference to it.

The CreateArrayAny function uses flattening and promotion as required to convert subsequent values into suitable elements of the array.

If you don't specify any parameters with CreateArrayAny, it's the same as using the CreateArray function without any parameters.

If you don't know how many values are needed in a SQL statement until runtime, you can use an array of any to supply the values.

Parameters

Parameter	Description
paramlist	Specify a list of values to be used as the elements of the array.

Returns

Returns a reference to an array of ANY.

Example

```
local Array of Any &ArrayAny = CreateArrayAny(1, 2, "hi", "there");
local Array of Array of Any &AAAny = CreateArray(CreateArrayAny(1, 2), CreateArray⇒
Any("hi"), "there");
```

&ArrayAny is a two dimensional array with four elements: 1, 2, "hi" and "there". All the elements have the data type Any.

&AAAny is a two-dimensional array with three elements: a one-dimensional array with 1 and 2 as elements, a one-dimensional array with "hi" as its element, and a one-dimensional array with only the element "there". The last parameter to the array was promoted to a one-dimensional array.

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See Also

Chapter 1, "PeopleCode Built-in Functions," CreateArrayRept, page 109, Chapter 1, "PeopleCode Built-in Functions," CreateArray, page 107 and Chapter 1, "PeopleCode Built-in Functions," Split, page 486.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class," Using Flattening and Promotion

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

CreateArrayRept

Syntax

CreateArrayRept(*val, count*)

Description

Use the CreateArrayRept function to create an array that contains *count* copies of *val*. If *val* is itself an array, the created array has one higher dimension, and each element (sub-array) is the array reference *val*.

The type of the first parameter (*val*) determines the type of array that is built. That is, if the first parameter is of type NUMBER, an array of number is built. If *count* is zero, CreateArrayRept creates an empty array, using the *val* parameter for the type.

If you are making an array that is multi-dimensional, *val* will be the subarray used as the elements.

To make the subarrays distinct, use the Clone method. For example:

```
&A = CreateArrayRept(&AN, 4).Clone();
```

Parameters

Parameter	Description
val	A value of any type.
count	The number of copies of *val* contained in the array.

Returns

Returns a reference to the array.

Example

The following code sets &A to a new empty array of string:

```
&A = CreateArrayRept("", 0);
```

The following code sets &A to a new array of ten zeroes:

```
&A = CreateArrayRept(0, 10);
```

The following code sets &AAS to a new array of array of strings, with two subarrays:

```
&AAS = CreateArrayRept(CreateArray("one", "two"), 2);
```

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Note that in this case, both elements (rows) of &AAS contain the *same* subarray, and changing the value of an element in one of them changes it in *both* of them. To get distinct subarrays, use the Clone method:

```
&AAS = CreateArrayRept(CreateArray("one", "two"), 2).Clone();
```

The following example shows how to create a two-dimension array using CreateArrayRept and Push. In addition, it shows how to randomly assigns values to the cells in a two-dimension array.

```
Local array of array of string &ValueArray;

&Dim1 = 10;
&Dim2 = 5;
&ValueArray = CreateArrayRept(CreateArrayRept("", 0), 0);
For &I = 1 To &Dim1
   &ValueArray.Push(CreateArrayRept("", &Dim2));
End-For;
&ValueArray[1][1] = "V11";
&ValueArray[2][1] = "V21";

WinMessage("&ValueArray[1][1] = " | &ValueArray[1][1] | " " | "&ValueArray[2][1] =⇒
 " | &ValueArray[2][1], 0);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateArray, page 107 and Chapter 1, "PeopleCode Built-in Functions," Split, page 486.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class," Clone

CreateDirectory

Syntax

CreateDirectory(*path*, [, *pathtype*])

Description

Use the CreateDirectory function to create the directory specified by *path* and any non-existent directories specified in *path*.

On UNIX systems, the directory has the mode 755, that is, read-write-execute permission for the owner, while group and other have only read and execute permission.

```
drwxr-xr-x
```

Working with Relative Paths

If you specify a relative path, that path is appended to the path specified by an environmental variable, if the variable exists, in a particular order. This means if the first environmental variable in order is found, that is the one that's used. If it isn't found, the next one is searched for, and if found, is used, and so on.

The environmental variables that get used are different, depending on whether the machine where the code is running is an application server or not. If the code is running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]

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2. PS_SERVDIR\Files[\relative_path]

If the code is *not* running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]
3. TEMP[\relative_path]

The PS_FILEDIR environmental variable is *not* initialized and set to a path automatically. To use this environmental variable, you must set it yourself.

Note. Your system security should verify if a user has the correct permissions before allowing access to a drive (for example, if a user changes their **TEMP** environmental variable to a network drive they don't normally have access to, your system security should detect this.)

Parameters

Parameter	Description
path	Specify the path to be created.
pathtype	Specify whether the path is an absolute or relative path. The values for this parameter are: • %FilePath_Relative (default) • %FilePath_Absolute If you don't specify *pathtype* the default is %FilePath_Relative. If *pathtype* is an absolute path, whatever path you specify is used verbatim. You *must* specify a drive letter and the complete path. You can't use any wildcards when specifying a path. The PeopleCode runtime automatically converts platform-specific separator characters to the appropriate form for where your PeopleCode program is executing. On a WIN32 system, UNIX "/" separators are converted to "\", and on a UNIX system, WIN32 "\" separators are converted to "/".

Note. The syntax of the path only depends on the platform where your PeopleCode is executing.

Returns

None.

Example

```
CreateDirectory("D:\Resumes\New_Hires", %FilePath_Absolute);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," FileExists, page 208, Chapter 1, "PeopleCode Built-in Functions," FindFiles, page 212, Chapter 1, "PeopleCode Built-in Functions," GetFile, page 270, Chapter 1, "PeopleCode Built-in Functions," GetAttachment, page 261, Chapter 1, "PeopleCode Built-in Functions," PutAttachment, page 397 and Chapter 1, "PeopleCode Built-in Functions," RemoveDirectory, page 411.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class"

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CreateException

Syntax

```
CreateException(message_set, message_num, default_txt [, subslist])
```

where *subslist* is an arbitrary-length list of substitutions of undetermined (Any) data type to be substituted in the resulting text string, in the form:

```
substitution1 [, substitution2]. . .
```

Description

Use the CreateException function to create an exception object with the given properties. You can use this in your exception handling. Use this function either in conjunction with the Throw statement, or on its own to get more information of a message.

Parameters

Parameter	Description
message_set	Specify the message set number of the message you want associated with this exception.
message_num	Specify the message number of the message you want associated with this exception.
default_txt	Specify the text you want associated with the exception if the message specified by *message_set* and *message_num* isn't found.
subslist	A comma-separated list of substitutions; the number of substitutions in the list is arbitrary. The substitutions are referenced in the message text using the % character followed by an integer corresponding to the position of the substitution in the *subslist*. The number of substitutions specified with this parameter are what get counted with the exception class SubsitutionCount property.

Returns

A reference to an exception object if successful, NULL otherwise.

Example

```
Function t2
   throw CreateException(2, 160, "'%1' doesn't support property or method '%2'",⇒
 "SomeClass", "SomeMethod");
End-Function;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Exception Class"

CreateJavaArray

Syntax

```
CreateJavaArray(ElementClassName[], NumberOfElements)
```

Description

Use the CreateJavaArray function to create a Java array without knowing the number or value of the elements.

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When you create an array in Java, you already know the number of elements in the array. If you don't know the number of elements in the array, but you want to use a Java array, use the CreateJavaArray function in PeopleCode. This creates a Java object that is a Java array, and you can pass in the number of elements that are to be in the array.

The first index in a Java array is 0. PeopleCode arrays start at 1.

Do the following to specify this type of array in Java:

```
new ElementClassName[NumberOfElements];
```

Parameters

Parameter	Description
ElementClassName[]	Specify the array class name. This parameter takes a string value.
NumberOfElements	Specify the number of elements in the array. This parameter takes a number value.

Returns

A Java object

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateJavaObject, page 113 and Chapter 1, "PeopleCode Built-in Functions," GetJavaClass, page 279.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class"

CreateJavaObject

Syntax

```
CreateJavaObject(ClassName [ConstructorParams])
```

Where *ConstructorParams* has the form

```
Arguement1 [, arguement2] . . .
```

Description

Use the CreateJavaObject function to create a Java object that can be manipulated in PeopleCode.

Note. If you create a class that you want to call using CreateJavaObject, it must be located in a directory specified in the PS_CLASSPATH environment variable or in the <*PS_HOME*>/appserv/classes directory.

Use the CreateJavaObject function to create a Java array when you know how many values it should contain. If *ClassName* is the name of an array class (ending with [ ]), *ConstructorParams* are used to initialize the array.

In Java, do the following to initialize an array:

```
intArray = new int[]{1, 2, 3, 5, 8, 13};
```

Do the following to initialize such a Java array from PeopleCode:

```
&IntArray = CreateJavaObject("int[]", 1, 2, 3, 5, 8, 13);
```

To initialize a Java array without knowing the number of parameters until runtime, use the CreateJavaArray function.

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Parameters

Parameter	Description
ClassName	Specify the name of an already existing class.
ConstructorParams	Specify any construction parameters required for the class. Constructors are matched by construction parameter type and placement.

Returns

A Java object.

Example

The following is an example of using dot notation and CreateJavaObject.

```
&CHARACTER.Value = CreateJavaObject(&java_path).GetField(&java_newchar).Value;
&NUMBER.Value = CreateJavaObject(&java_path).GetField(&java_newnum).Value;
&DATE.Value = CreateJavaObject(&java_path).GetField(&java_newdate).Value;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateJavaArray, page 112 and Chapter 1, "PeopleCode Built-in Functions," GetJavaClass, page 279.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class"

CreateMCFIMInfo

Syntax

CreateMCFIMInfo(*UserID, Network*)

Description

Use the CreateMCFIMInfo function to create an instance of the MCFIMInfo class. This is used to initiate the instant messaging session.

Parameters

Parameter	Description
UserID	Specify the PeopleSoft user as a string. This is the source user, or the user issuing the presence requests.
NetworkID	Specify which network to use for instant messaging. The values are: • AOL • Yahoo

Returns

An MCFIMInfo object if successful, a null value otherwise.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "MCFIMInfo Class"

CreateMessage

Syntax

```
CreateMessage(OPERATION.messagename [, message_type])
```

Description

Use the CreateMessage function to instantiate a message object that refers to a message definition associated with a service operation. The CreateMessage function sets the following properties for the resulting message object, based on the values set for the message definition:

- Name
- QueueName
- Active

Other properties are set when the message is published or subscribed to (TransactionID and so on,) or are dynamically generated at other times (Size, EditError, and so on.)

For rowset-based messages, CreateMessage also sets the LANGUAGE_CD field in the level 0 PSCAMA record for a message based on the USERID default language group. If the message is being published from a component, the language code is set to the USERID language code for the component. If CreateMessage is called from a PeopleSoft application engine program, the language code of the user who started the batch process is used.

Parameters

Parameter	Description
OPERATION. *messagename*	Specify the name of the message definition you want to create a message object for.
message_type	Specify the type of message that you want to create. Valid values are:

Value	Description
%IntBroker_Request	A request message. This is the default.
%IntBroker_Response	A response message.
%IntBroker_Fault	A fault message.

Returns

Returns a reference to a message object.

Example

The following example creates a request message &MSG assocaited with the service operation PURCHASE_ORDER.

```
Local message &MSG;
```

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```
&MSG = CreateMessage(OPERATION.PURCHASE_ORDER);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetMessage, page 282, Chapter 1, "PeopleCode Built-in Functions," GetPubContractInstance, page 299 and Chapter 1, "PeopleCode Built-in Functions," GetSubContractInstance, page 311.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes"

CreateObject

Syntax

CreateObject(*str_class_name, create_par, . . .*)

Where *str_class_name* either:

—identifies a class by class name

—identifies a class of OLE Automation object in the form:
app_name.object_name

Description

Use the CreateObject function to return an instance of a class. You can use this function to access an Application Class, a PeopleCode built-in object (like a chart), or an OLE Automation object.

If the class you are creating requires values to be passed, use the *create_par* parameters to supply them, or use the CreateObjectArray function.

Considerations Using Application Classes

You can use the CreateObject function to access an Application Class. You would want to do this when you were programming at a high-level, when you might not know the name of the class you wanted to access until runtime. You must specify a fully-qualified class name. In addition, the class name is case-sensitive.

The returned object has the type of class you specified.

Considerations Using PeopleCode Built-in Objects

For example, to generate a Peoplesoft chart object without using a chart control (that is, without using the GetChart function.) you could use:

```
&MyChart = CreateObject("Chart");
```

The returned object has the type of class you specified.

Note. The only way to instantiate a crypt object is using the CreateObject function.

Considerations Using OLE Automation Objects

CreateObject returns an instance of an OLE Automation object as a variable of type Object.

The *str_class_name* argument uses the syntax *app_name.object_type*, which consists of: *app_name* (the name of the application providing the object) and *object_type* (the class or type of the object to create), separated by a period (dot).

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Any application that supports OLE Automation exposes at least one type of object. For example, a spreadsheet application may provide an application object, a worksheet object, and a toolbar object.

To create an OLE Automation object, you assign the object returned by CreateObject to a variable of type Object:

```
local object &WORKSHEET;

&WORKSHEET = CreateObject("Excel.Sheet");
```

After an object is created, you can reference it using the object variable. In the previous example, you access properties and methods of the new object using the ObjectGetProperty, ObjectSetProperty, and ObjectDoMethod functions.

Note. If an object has registered itself as a single-instance object, only one instance of the object can be created, even if CreateObject is executed more than once. Note also that an object assigned to a global variable is not valid across processes: that is, the scope and lifetime of the global is the same as the scope and lifetime of the instance of PeopleTools in which the object was created.

Parameters

Parameter	Description
str_class_name	Specify the name of the class that you want to instantiate an object from.
create_par	Specify the parameters required by the class for instantiating the object.

Example

This example instantiates an Excel worksheet object, makes it visible, names it, saves it, and displays its name. Note the use of ObjectGetProperty in the example to return the Excel.Sheet.Application object.

```
&WORKAPP = CreateObject("COM", "Excel.Application");
&WORKBOOKS = ObjectGetProperty(&WORKAPP, "Workbooks");
ObjectDoMethod(&WORKBOOKS, "Add", "C:\TEMP\INVOICE.XLT"); /* This associates the⇒
 INVOICE template w/the workbook */
ObjectDoMethod(&WORKAPP, "Save", "C:\TEMP\TEST1.XLS");
ObjectSetProperty(&WORKAPP, "Visible", True);
```

This following example illustrates the creation of an application class object. This code assumes that MyBaseClass is the superclass of both MySubclass1 and MySubclass2 classes.

```
local MyBaseClass &mbobj;
local String &ClassName = "MySubclass1";
if &test then
&ClassName = "MySubclass2";
end-if;
&mbobj = CreateObject(&ClassName);
```

The following example creates a chart in an iScript, using the CreateObject function to generate a reference to a chart object.

```
Function IScript_GetChartURL()

   Local Chart &oChart;
   Local Rowset &oRowset;
```

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```
   Local string &sMap;
   Local string &sURL;

   &oChart = CreateObject("Chart");

   &oRowset = CreateRowset(Record.QE_CHART_RECORD);
   &oRowset.Fill("where QE_CHART_REGION= :1", "MIDWEST");
   &oChart.SetData(&oRowset);

   &oChart.Width = 400;
   &oChart.Height = 300;

   &oChart.SetDataYAxis(QE_CHART_RECORD.QE_CHART_SALES);
   &oChart.SetDataXAxis(QE_CHART_RECORD.QE_CHART_PRODUCT);
   &oChart.SetDataSeries(QE_CHART_RECORD.QE_CHART_REGION);

   &oChart.HasLegend = True;
   &oChart.LegendPosition = %ChartLegend_Right;

   &sURL = %Response.GetChartURL(&oChart);
   &sMap = &oChart.ImageMap;

   %Response.Write("<HTML><IMG SRC=");
   %Response.Write(&sURL);
   %Response.Write("  USEMAP=#THEMAP></IMG><MAP NAME=THEMAP>");
   %Response.Write(&sMap);
   %Response.Write("</MAP></HTML>");

End-Function;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” ObjectDoMethod, page 385, Chapter 1, “PeopleCode Built-in Functions,” ObjectGetProperty, page 387, Chapter 1, “PeopleCode Built-in Functions,” ObjectSetProperty, page 388, Chapter 1, “PeopleCode Built-in Functions,” CreateObjectArray, page 118 and Chapter 1, “PeopleCode Built-in Functions,” ObjectDoMethodArray, page 386.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, “Chart Class”

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, “Internet Script Classes (iScript)”

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer’s Guide, “Using Methods and Built-In Functions,” Using OLE Functions

CreateObjectArray

Syntax

CreateObjectArray(*Class_Name, Array_of_Args*)

Description

Use the CreateObjectArray function to return an instance of a class.

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Use this function when you must pass in parameters to create the object and you don't know when you write the code how many parameters are required. If you can create the object without passing in additional values, or if you know how many parameters are required, use the CreateObject function instead.

The array of parameters is an array of Any. It *must* be a one-dimensional array, that is, you cannot pass in an array of array of Any. You cannot pass in field references, that is, you cannot pass in references of the form:

```
RECORD.FIELDNAME
```

If you do not want to supply any parameters, you can use an empty array, or a reference to a Null array.

Parameters

Parameter	Description
Class_Name	Specify the name of the class you want to create an instance of, as a string.
Array_Of_Args	Specify an Array of Any containing all parameters for creating an instance of the class.

Returns

A reference to newly created object.

Example

The following is an example of the creation of an Application Class object where the number of parameters used to create the object varies, depending on data in the database.

```
local String &ClassName, &RecName;
local Record &Rec;

/* Read class name and parameter record name from the database. */
SQLExec("SELECT CLASSNAME, RECNAME FROM %TABLE(RECORD.CLASSDATA)", &ClassName,⇒
 &RecName);

local Record &Rec = CreateRecord(@ ("RECORD." | &RecName));

/* Read the parameters from the database. */
local Array of Any &Params = CreateArrayAny();

SQLExec("%SelectAll(:1)", &Rec, &Params);

/* Create the object. */
local MyPackage:BaseClass &Obj = CreateObjectArray(&ClassName, &Params);
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," CreateObject, page 116, Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethod, page 385, Chapter 1, "PeopleCode Built-in Functions," ObjectGetProperty, page 387, Chapter 1, "PeopleCode Built-in Functions," ObjectSetProperty, page 388 and Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethodArray, page 386.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Using OLE Functions

CreateProcessRequest

Syntax

```
CreateProcessRequest([ProcessType, ProcessName])
```

Description

Use the CreateProcessRequest function to create a ProcessRequest object. After you've created this object, you can assign values to its properties then use the Schedule method to submit the process request for scheduling.

If you specify PSJob for the process type, the ProcessRequest object contains all the items of the job.

Parameters

Parameter	Description
ProcessType	Specify the process type as a string. Values depend on the process types defined for your system.
ProcessName	Specify the name of the process as a string.

Returns

A reference to a ProcessRequest object.

Example

```
Local ProcessRequest &MYRQST;

&MYRQST = CreateProcessRequest("PSJOB", &MyJobName);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "ProcessRequest Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "ProcessRequest Class," Schedule

CreateRecord

Syntax

```
CreateRecord(RECORD.recname)
```

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Description

Use the CreateRecord function to create a *standalone* record definition and its component set of field objects. The specified record must have been defined previously, that is, it must have a record definition. However, if you are calling this function from PeopleCode associated with a page, the record does not have to be included on the current page.

The record and field objects created by this function are accessible only within PeopleCode. They can be used with any of the record and field object methods and properties. The record and field objects are automatically deleted when there are no remaining references to them stored in any variables.

The fields created by this function are initialized to null values. Default processing is not performed. No data associated with the record definition's SQL table is brought in: only the record definition.

You can select into a record object created this way using the SelectByKey record class method. You can also select into it using the SQLExec function.

Parameters

Parameter	Description
RECORD. *recname*	Specify a record definition that already exists.

Returns

This function returns a record object that references a new record buffer and set of fields.

Example

```
Local Record &REC2;

&REC2 = CreateRecord(RECORD.OPC_METH);
```

In the following example, a free-standing record is created (&PSBATREPREQRES). Values are assigned to the fields associated with the record. Then a second record is created (&PUBHDR), and the values from the first record are used to populate the second record.

```
&PSBATREPREQRES = CreateRecord(RECORD.PSBATREPREQRES);
   &PSBATREPREQRES.BATREPID.Value = &BATREPID;
   &PSBATREPREQRES.PUBID.Value = &MSG.Pubid;
   &PSBATREPREQRES.CHNLNAME.Value = &MSG.ChannelName;
   &PSBATREPREQRES.PUBNODE.Value = &MSG.PubNodeName;
   &PSBATREPREQRES.MSGNAME.Value = &MSG.Name;

   &PUBHDR = CreateRecord(RECORD.PSAPMSGPUBHDR);
   &PSBATREPREQRES.CopyFieldsTo(&PUBHDR);
```

To create a PeopleCode record object for a record whose name is unknown when the PeopleCode is written, do the following.

Suppose a record name is in the PeopleCode variable &RECNAME. Use the @ operator to convert the string to a component name. The following code creates a corresponding record object:

```
&RECNAME = "RECORD." | Upper(&RECNAME);
&REC = CreateRecord(@ &RECNAME);
```

The following example uses SQLExec to select into a record object, based on the effective date.

```
Local Record &DST;
```

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```
&DST = CreateRecord(RECORD.DST_CODE_TBL);
&DST.SETID.Value = GetSetId(FIELD.BUSINESS_UNIT, DRAFT_BU, RECORD.DST_CODE_TYPE,⇒
 "");
&DST.DST_ID.Value = DST_ID_AR;
SQLExec("%SelectByKeyEffDt(:1,:2)", &DST, %Date, &DST);
/* do further processing using record methods and properties */
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetRecord, page 301 and Chapter 1, "PeopleCode Built-in Functions," GetField, page 269.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Record Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

CreateRowset

Syntax

CreateRowset({**RECORD**.*recname* | *&Rowset*} [, {**FIELD**.*fieldname*, **RECORD**.*recname* | *&Rowset*}] . . .)

Description

Use the CreateRowset function to create an *unpopulated*, standalone rowset.

A standalone rowset is a rowset that has the specified structure, but is not tied to any data (that is, to the component buffer or to a message.) In addition, a standalone rowset isn't tied to the Component Processor. When you fill it with data, no PeopleCode runs (like RowInsert, FieldDefault, and so on.)

The first parameter determines the structure of the rowset to be created.

If you specify a record as the first parameter, it's used as the primary level 0 record. If you don't specify any other parameters, you create a rowset containing one row, with one unpopulated record. To populate this type of rowset with data, you should only use:

- the Fill or FillAppend rowset class methods
- a record method (SelectByKey)
- the SQLExec function

If you specify a rowset object, you are creating a new rowset based on the structure of the specified rowset object, including any child rowsets. It will not contain any data. If you want to populate this type of rowset with data, use the CopyTo method or a SQL statement.

Note. You should *not* use the rowset Select or SelectNew methods for populating rowsets created using CreateRowset. Use Fill or FillAppend instead.

Restrictions on Using CreateRowset

The following methods and properties don't work with a rowset created using CreateRowset:

- Select
- SelectNew

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- Any GUI methods (like HideAllRows)
- Any effective date methods or properties (like EffDt, EffSeq, or GetCurrEffRow)

In addition, rowsets created using CreateRowset are *not* automatically tied to the database. This means if you insert or delete rows, the rows will *not* be inserted or deleted in the database when you save the page.

Parameters

Parameter	Description
RECORD.*recname* | *&Rowset*	Specify either a record name or an existing rowset object.
FIELD.*fieldname*, **RECORD**.*recname* | *&Rowset*	Use **FIELD**.*fieldname*, **RECORD**.*recname* to specify a related display *record*. **FIELD**.*fieldname* refers to the controlling field, (not the related display field) while **RECORD**.*recname* refers to the related display record. If you specify *&rowset*, you are adding a child rowset object to the newly created rowset. This must be an existing rowset object.

Returns

An unpopulated, standalone rowset object.

Example

The following creates a simple rowset of just a single record per row:

```
&RS = CreateRowset(RECORD.QA_MYRECORD);
```

The following creates a rowset with the same structure as the specified rowset:

```
&RS2 = CreateRowset(&RS);
```

The following code creates a rowset structure composed of four records in an hierarchical structure, that is,

```
QA_INVEST_HDR
   QA_INVEST_LN
      QA_INVEST_TRANS
         QA_INVEST_DTL
```

Note that you have to start at the *bottom* of the hierarchy, and add the upper levels, not the other way around.

```
Local Rowset &RS, &RS2, &RS_FINAL;

&RS2 = CreateRowset(RECORD.QA_INVEST_DTL);
&RS = CreateRowset(RECORD.QA_INVEST_TRANS, &RS2);
&RS2 = CreateRowset(RECORD.QA_INVEST_LN, &RS);
&RS_FINAL = CreateRowset(RECORD.QA_INVEST_HDR, &RS2);
```

The following example reads all of the QA_MYRECORD records into a rowset, and returns the number of rows read:

```
&RS = CreateRowset(RECORD.QA_MYRECORD);
&NUM_READ = &RS.Fill();
```

To make a clone of an existing rowset, that is, to make two distinct copies, you can do the following:

```
&RS2 = CreateRowset(&RS);
&RS.CopyTo(&RS2);
```

The following code example is used for creating multiple children in a standalone rowset:

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```
Local Rowset &rsBOCMRole, &rsBOCMRel, &rsBOCMUse;

   &rsBOCMRole = CreateRowset(Record.BO_CM_ROLE);
   &rsBOCMRel = CreateRowset(Record.BO_CM_REL);
   &rsBOCMUse = CreateRowset(Record.BO_CM_USE);
   &rsBOCM = CreateRowset(Record.BO_CM, &rsBOCMUse, &rsBOCMRole, &rsBOCMRel);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetRowset, page 304, Chapter 1, "PeopleCode Built-in Functions," GetLevel0, page 280, Chapter 1, "PeopleCode Built-in Functions," GetRecord, page 301 and Chapter 1, "PeopleCode Built-in Functions," GetField, page 269.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Using Standalone Rowsets

CreateRowsetCache

Syntax

CreateRowsetCache(*&Rowset*, [**Rowset.**]*Name*, *Description*)

Description

Use the CreateRowsetCache function to create a new RowsetCache object with the given name if it doesn't already exist.

Parameters

Parameter	Description
&Rowset	Specify an already instantiated and populated rowset that you want to use for creating a RowsetCache object. The RowsetCache object will have the same format and data as *&Rowset*.
Record. *Name*	Specify the name of the created RowsetCache object. If you just specify *name*, you must enclose the name in quotation marks.
Description	Specify a description of the RowsetCache as a string.

Returns

A reference to the new RowsetCache object if there is not already a RowsetCache object of the given name.

Example

```
Local RowsetCache &Cache;
Local Rowset &RS;

&RS = CreateRowset(Record.PSLANGUAGES);
&NUM_READ = &RS.Fill();

&Cache = CreateRowsetCache(&RS, "AAROWSET1", "ROWSET_AAROWSET1");
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," GetRowsetCache, page 305

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "RowsetCache Class"

CreateSOAPDoc

Syntax

```
CreateSOAPDoc()
```

Description

Use the CreateSOAPDoc function to create an empty SOAPDoc object. Then use the SOAPDoc class methods and properties, as well as the XmlDoc class methods and properties to populate the SOAPDoc object.

Parameters

None.

Returns

A reference to a SOAPDoc object.

Example

```
Local SOAPDoc &MyDoc;
&MyDoc = CreateSOAPDoc();
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SOAPDoc Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

CreateSQL

Syntax

```
CreateSQL([{sqlstring | SQL.SqlName}[, paramlist]])
```

Where *paramlist* is an arbitrary-length list of values in the form:

```
inval1 [, inval2] ...
```

Description

Use the CreateSQL function to instantiate a SQL object from the SQL class and opens it on the given *sqlstring* and input values. *sqlstring* is a PeopleCode string value giving the SQL statement.

Any errors in the SQL processing cause the PeopleCode program to be terminated with an error message.

You can use CreateSQL with no parameters to create an empty SQL object that can be used to assign properties before being populated and executed.

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Opening and Processing sqlstring

If *sqlstring* is a SELECT statement, it is immediately bound with the *inval* input values and executed. The SQL object should subsequently be the subject of a series of Fetch method calls to retrieve the selected rows. If you want to fetch only a single row, use the SQLExec function instead. If you want to fetch a single row into a PeopleCode record object, use the record Select method.

If *sqlstring* is not a SELECT statement, and *either* there are some *inval* parameters, *or* there are no bind placeholders in the SQL statement, the statement is immediately bound and executed. This means that there is nothing further to be done with the SQL statement and the IsOpen property of the returned SQL object will be False. In this case, using the SQLExec function would generally be better. If you want to delete, insert or update a record object, use the record Delete, Insert, or Update methods.

If *sqlstring* is not a SELECT statement, there are no *inval* parameters, *and* there are bind placeholders in the SQL statement, the statement is neither bound nor executed. The resulting SQL object should subsequently be the subject of a series of Execute method calls to affect the desired rows.

Using Arrays with paramlist

You can use a parameter of type "Array of Any" in place of a list of bind values or in place of a list of fetch result variables. This is particularly useful when fetching an unknown number of results.

```
&Sql1 = CreateSql("Select * from " | &TableName);
&AAny = CreateArrayAny();

While &Sql1.Fetch(&AAny)
   /* Process the row in &AAny. */
   ...
End-While;
```

Because the Array of Any promotes to absorb any remaining select columns, it must be the last parameter for the SQL object Fetch method or (for results) SQLExec. For binding, it must be the only bind parameter, as it is expected to supply all the bind values needed.

Parameters

Parameter	Description
sqlstring| **SQL**.*SqlName*	Specify either a SQL string containing the SQL command to be created or a reference to an existing SQL definition. This string can include bind variables, inline bind variables, and meta-SQL.
paramlist	Specify input values for the SQL string.

Returns

None.

Example

This SQL object should be used in a series of Fetch method calls:

```
Local SQL &SQL;

&SQL = CreateSQL("%SelectAll(:1) where EMPLID = :2", RECORD.ABSENCE_HIST, &EMPLID);
```

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This SQL object has been opened, bound, and is already closed again:

```
&SQL = CreateSQL("Delete from %Table(:1) where EMPLID = :2", RECORD.ABSENCE_HIST,⇒
 &EMPLID);
```

This SQL object should be used in a series of Execute method calls:

```
&SQL = CreateSQL("Delete from %Table(:1) where EMPLID = :2");
```

This SQL object is created as an empty object in order to set properties before being executed:

```
&Sql = CreateSQL();
&Sql.Tracename = "SQL1";
&Sql.ReuseCursor = True;
&Sql.Open(......); /* do the deed */
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DeleteSQL, page 157, Chapter 1, "PeopleCode Built-in Functions," FetchSQL, page 204, Chapter 1, "PeopleCode Built-in Functions," GetSQL, page 308, Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487 and Chapter 1, "PeopleCode Built-in Functions," StoreSQL, page 495.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class," Open

CreateWSDLMessage

Syntax

CreateWSDLMessage(*MessageName, ChannelName*)

Description

Use the CreateWSDLMessage function to create an unstructured message. This function creates both the message as well as the channel.

This function has been deprecated. It is no longer supported.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Consuming Services"

CreateXmlDoc

Syntax

CreateXmlDoc(*XmlString, DTDValidation*)

Description

Use the CreateXmlDoc function to create an XmlDoc object. If you specify a Null string for *XmlString* (""), you create an empty XmlDoc object.

Considerations Using CreateXmlDoc

The following coding is either ignored or removed from the XmlDoc object that is created with this function:

- encoding attributes

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PeopleSoft only supports UTF-8 encoding. Any specified encoding statement is removed, as all XmlDoc objects are considered UTF-8.

- version attributes

  Regardless of what version is specified in *XmlString*, the version attribute in the generated XmlDoc object is 1.0.

Parameters

Parameter	Description
XmlString	Specify an XML string that you want to convert into an XmlDoc object that you can then manipulate using PeopleCode. You can also specify a Null string ("") to generate an empty XmlDoc object.
DTDValidation	Specify whether a DTD should be validated. This parameter takes a boolean value. If you specify true, the DTD validation occurs if a DTD is provided. If you specify false, and if a DTD is provided, it is ignored and the XML isn't validated against the DTD. False is the default value. In the case of application messaging, if a DTD is provided, it's always ignored and the XML isn't validated against the DTD. If the XML cannot be validated against a DTD, an error is thrown saying that there was an XML parse error.

Returns

A reference to the newly created XmlDoc object.

Example

The following creates an empty XmlDoc object.

```
Local XmlDoc &MyDoc;
&MyDoc = CreateXmlDoc("");
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

CubicSpline

Syntax

CubicSpline(*DataPoints*, *Control_Option*, *Left_Constraint*, *Right_Constraint*)

Description

Use the CubicSpline function to compute a cubic spline interpolation through a set of at least four datapoints.

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Parameters

Parameter	Description
DataPoints	This parameter takes an array of array of number. The array's contents are an array of six numbers. The first two of these six numbers are the x and y points to be fit. The last four are the four coefficients to be returned from the function: **a**, **b**, **c** and **d**. **a** is the coefficient of the x^0 term, **b** is the coefficient of the x^1 term, **c** is the coefficient of the x^2 term, and **d** is the coefficient of the x^3 term.
Control_Option	Specifies the control option. This parameter takes either a number or constant value. The values are:

Numeric Value	Constant Value	Description
0	%SplineOpt_SlEstEst	Generate an internal estimate of the beginning and ending slope of the cubic piecewise equations
1	%SplineOpt_SlSetEst	Use the user-specified value for the slope of the leftmost point, and generate an estimate for the rightmost point
2	%SplineOpt_SlEstSet	Use the user-specified value for the slope of the rightmost point, and generate an estimate for the leftmost point
3	%SplineOpt_SlSetSet	Use the user-specified values for the slopes of the leftmost and rightmost points
4	%SplineOpt_CvEstEst	Generate an internal estimate of the beginning and ending curvature of the cubic piecewise equations
5	%SplineOpt_CvSetEst	Use the user-specified value for the curvature of the leftmost point, and generate an estimate for the rightmost point
6	%SplineOpt_CvEstSet	Use the user-specified value for the curvature of the rightmost point, and generate an estimate for the leftmost point
7	%SplineOpt_CvSetSet	Use the user-specified values for the curvatures of the leftmost and rightmost points
8	%SplineOpt_ClEstEst	Generate an internal estimate of the beginning and ending curl of the cubic piecewise equations
9	%SplineOpt_ClSetEst	Use the user-specified value for the curl of the leftmost point, and generate an estimate for the rightmost point
10	%SplineOpt_ClEstSet	Use the user-specified value for the curl of the rightmost point, and generate an estimate for the leftmost point
11	%SplineOpt_ClSetSet	Use the user-specified values for the curls of the leftmost and rightmost points
12	%SplineOpt_Natural	Generate a "natural" spline

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Numeric Value	Constant Value	Description
13	%SplineOpt_ContCurl	Generate a spline wherein the equation for the first segment is the exact same equation for the second segment, and where the equation for the penultimate segment is the same as the equation for the last segment.

Parameter	Description
Left_Constraint	A single number for the constraint for the left point. Specify a zero if this parameter isn't needed.
Right_Constraint	A single number for the constraint for the right point. Specify a zero if this parameter isn't needed.

Returns

A modified array of array of numbers. The elements in the array correspond to the elements in the array used for *DataPoints*.

See Also

Chapter 1, "PeopleCode Built-in Functions," HermiteCubic, page 320 and Chapter 1, "PeopleCode Built-in Functions," LinearInterp, page 353.

CurrEffDt

Syntax

```
CurrEffDt([level_num])
```

Description

Use the CurrEffDt function to return the effective date of the specified scroll level as a Date value.

Note. This function remains for backward compatibility only. Use the EffDt rowset class property instead.

If no level is specified, CurrEffDt returns the effective date of the current scroll level.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," EffDt, *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," GetCurrEffRow and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," EffSeq.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Returns

Returns a Date value equal to the current effective date of the specified scroll level.

Example

```
If INSTALLATION.POSITION_MGMT = "P" Then
   If All(POSITION_NBR) Then
      If (EFFDT = CurrEffDt(1) and
```

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```
            EFFSEQ >= CurrEffSeq(1)) or
            (EFFDT > CurrEffDt(1) and
               EFFDT = %Date) Then
          Gray_employment( );
        End-if;
      End-if;
   End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CurrEffRowNum, page 131, Chapter 1, "PeopleCode Built-in Functions," CurrEffSeq, page 131 and Chapter 1, "PeopleCode Built-in Functions," CurrentLevelNumber, page 132.

CurrEffRowNum

Syntax

CurrEffRowNum([*level_num*])

Description

Use the CurrEffRowNum function to return the effective row number of the selected scroll level.

Note. This function remains for backward compatibility only. Use the RowNumber row class property, in combination with the GetCurrEffRow rowset method, instead.

If no level is specified, it returns the effective row number of the current level.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Row Class," RowNumber and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," GetCurrEffRow.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Example

```
&ROW = CurrEffRowNum(1);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CurrEffSeq, page 131, Chapter 1, "PeopleCode Built-in Functions," CurrentLevelNumber, page 132 and Chapter 1, "PeopleCode Built-in Functions," CurrEffRowNum, page 131.

CurrEffSeq

Syntax

CurrEffSeq([*level_num*])

Description

Use the CurrEffSeq function to determine the effective sequence of a specific scroll area.

Note. This function remains for backward compatibility only. Use the EffSeq rowset class property instead.

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If no level is specified, CurrEffSeq returns the effective sequence of the current scroll level.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," EffSeq, *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," GetCurrEffRow and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," DeleteEnabled.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Returns

Returns a Number representing the effective sequence of the specified scroll level.

Example

```
If INSTALLATION.POSITION_MGMT = "P" Then
   If All(POSITION_NBR) Then
      If (EFFDT = CurrEffDt(1) and
            EFFSEQ >= CurrEffSeq(1)) or
            (EFFDT > CurrEffDt(1) and
               EFFDT = %Date) Then
         Gray_employment( );
       End-if;
   End-if;
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CurrEffDt, page 130, Chapter 1, "PeopleCode Built-in Functions," CurrentLevelNumber, page 132 and Chapter 1, "PeopleCode Built-in Functions," CurrEffRowNum, page 131.

CurrentLevelNumber

Syntax

CurrentLevelNumber()

Description

Use the CurrentLevelNumber function to return the scroll level where the function call is located.

Returns

Returns a Number value equal to the scroll level where the function is being called. The function returns 0 if the field where the function is called is not in a scroll area.

Example

```
&LEVEL = CurrentLevelNumber();
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CurrentRowNumber, page 133 and Chapter 1, "PeopleCode Built-in Functions," FetchValue, page 205.

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CurrentRowNumber

Syntax

CurrentRowNumber([*level*])

Description

Use the CurrentRowNumber function to determine the row number of the row currently displayed in a specific scroll area.

Note. This function remains for backward compatibility only. Use the RowNumber row class property instead.

This function can determine the current row number on the level where the function call resides, or on a higher scroll level. It won't work on a scroll level below the one where the PeopleCode program resides.

See Also

Chapter 1, "PeopleCode Built-in Functions," GetRow, page 303 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Row Class," RowNumber.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Parameters

Parameter	Description
level	A Number specifying the scroll level from which the function returns the current row number. If the level parameter is omitted, it defaults to the scroll level where the function call resides.

Returns

Returns a Number value equal to the current row number on the specified scroll level. The current number is the row where the PeopleCode program is being processed, or, if level specifies a higher level scroll, CurrentRowNumber returns the row number of the parent or grandparent row.

Example

CurrentRowNumber is typically used in component buffer functions to return the current row of the parent scroll of the target:

```
&VAL = FetchValue(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(), BUS_EXPENSE_⇒
DTL.CHARGE_DT, &COUNT);
```

The following example checks if the current row number is equal to the active row count (that is, whether the active row is the last record on the scroll):

```
If CurrentRowNumber() = ActiveRowCount(EMPLID) Then
   det_employment_dt();
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ActiveRowCount, page 31, Chapter 1, "PeopleCode Built-in Functions," CurrentLevelNumber, page 132 and Chapter 1, "PeopleCode Built-in Functions," FetchValue, page 205.

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Date

Syntax

Date(*date_num*)

Description

The **Date** function takes a number in the form YYYYMMDD and returns a corresponding Date value. If the date is invalid, Date displays an error message.

Warning! Make sure that you pass a four-digit year in the year parameter of this function. Two-digit values are interpreted literally: 93, for example, represents the year 93 AD.

Returns

Returns a date equal to the date specified in *date_num*.

Example

Set the temporary variable &HIREDate to a date field containing the date July 1, 1997:

```
&HIREDate = Date(19970701);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

Date3

Syntax

Date3(*year, month, day*)

Description

The Date3 function accepts a date expressed as three integers: *year*, *month*, and *day*. It returns a corresponding Date value. If the date is invalid, the Date3 displays an error message.

Warning! Make sure that you pass a four-digit year in the year parameter of this function. Two-digit values will be interpreted literally: 93, for example, represents the year 93 AD.

Parameters

Parameter	Description
year	An integer for the year in the form YYYY.
month	An integer from 1 to 12 designating the month.
day	An integer from 1 to 31 designating the day of the month.

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Returns

Returns a Date value equal to the date specified in the function parameters.

Example

The following PeopleCode Date3 function returns the first day of the year in which the employee was hired:

```
Date3(HIRE_YEAR, 1, 1);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144 and Chapter 1, "PeopleCode Built-in Functions," Days365, page 145.

DatePart

Syntax

DatePart(*datetime_value*)

Description

Use the DatePart function to determine a date based on a provided DateTime value.

Returns

Returns a Date value equal to the date part of a specified DateTime value.

Example

The following statement sets &D2 to a Date value for 11/12/1997:

```
&D1 = DateTimeValue("11/12/1997 10:23:15 AM");
&D2 = DatePart(&D1);
```

DateTime6

Syntax

DateTime6(*year*, *month*, *day*, *hour*, *minute*, *second*)

Description

The DateTime6 function returns a DateTime value based on integer values for the *year*, *month*, *day*, *hour*, *minute*, and *second*. If the result of this function is not an actual date, there is a runtime error.

Warning! Make sure that you pass a four-digit year in the year parameter of this function. Two-digit values will be interpreted literally: 93, for example, represents the year 93 AD.

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Parameters

Parameter	Description
year	A four-digit number representing the year.
month	A number between 1 and 12 representing the month.
day	A number representing the day of the month.
hour	A number from 0 to 23 representing the hour of the day.
minute	A number from 0 to 59 representing the minute of the hour.
second	A number from 0 to 59.999999 representing seconds.

Returns

Returns a DateTime value based on the integers provided.

Example

The following example sets &DT to a DateTime value equal to 10:09:20 on March 15, 1997:

```
&DT = DateTime6(1997, 3, 15, 10, 9, 20);
```

DateTimeToHTTP

Syntax

DateTimeToHTTP(*datetime*)

Description

Use the DateTimeToHTTP function to convert any datetime value to a datetime string in the format specified by HTTP 1.0 and 1.1 standards.

Note. Because the HTTP protocol is used to interchange information between diverse computing systems, the value returned from this function is always the ”US English” form of weekdays and months. If you want the value to use the localized form, use the DateTimeToLocalizeString function instead.

The standard HTTP datetime has the following fixed length format:

```
<dow><,><sp><dd><sp><mon><sp><year><sp><hh><:><mm><:><ss><sp><GMT>
```

where:

Value	Description
<dow>	a 3-character day of week name, one of Sun, Mon, Tue, Wed, Thu, Fri, Sat.
<,>	a literal comma character
<sp>	a literal space character
<dd>	a 2-digit day of month, such as 02 or 22.

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Value	Description
<mon>	is a 3-character month name, one of Jan, Feb, Mar, and so on.
<year>	a 4-digit year number
<hh>	a 24-hour hour number, such as 00 or 13
<mm>	a 2-digit minute number, such as 01 or 56
<ss>	a 2-digit second number, such as 03 or 59
<GMT>	a literal 3-character GMT.

As indicated by the trailing GMT, this datetime format is always expressed in GMT (or UTC, which is declared to be the same for the purposes of HTTP).

Parameters

Parameter	Description
datetime	Specify the datetime value you want converted to HTTP format. This datetime is assumed to be in the base timezone of the installation.

Returns

A string containing the converted datetime.

Example

```
&gmtdate = DateTimeToHTTP(AddToDateTime(%DateTime, 0,0,0,0,600,0));
%Response.setHeader("Last-Modified", &gmtdate);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddToDateTime, page 43, Chapter 1, "PeopleCode Built-in Functions," DateTimeToLocalizedString, page 137 and Chapter 1, "PeopleCode Built-in Functions," FormatDateTime, page 215.

DateTimeToLocalizedString

Syntax

DateTimeToLocalizedString({*datetime* | *date*}, [*Pattern*])

Description

Use the DateTimeToLocalizedString function to convert either *datetime* or *date* to a localized string. You can also specify a particular pattern to convert *datetime* or *date* to.

The *Pattern* is optional. Only specify *Pattern* if necessary.

If you need to change the pattern for each language, change the first message in Message Catalog set number 138. This is a format for each language.

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Parameters

Parameter	Description
Datetime | *Date*	Specify either the datetime or date that you want to convert.
Pattern	Specify the pattern you want to the localized datetime or date to be converted to.

Using the Pattern Parameter

Pattern takes a string value, and indicates how you want the date or datetime converted.

The valid values for *Pattern* are as follows.

Note. The values for pattern are case-sensitive. For example, if you specify a lowercase m, you get minutes, while an uppercase M displays the month.

Symbol	Definition	Type	Example
G	Era designator	Text	AD
y	Year	Number	1996
M	Month in year	Text&Number	July&07
d	Day in month	Number	10
h	Hour in am/pm	Number (1-12)	12
H	Hour in day	Number (0-23)	0
m	Minute in hour	Number	30
s	Second in minute	Number	55
S	Millisecond	Number	978
E	Day in week	Text	Tuesday
a	am/pm marker	Text	PM
k	Hour in day	Number (1-24)	24
K	Hour in am/pm	Number (0-11)	0

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Symbol	Definition	Type	Example
’	Escape for text	Delimiter	
’’	Single quote	Literal	’

The number of pattern letters determine the format.

Type	Pattern Format
Text	If 4 or more pattern letters are used, the full form is used. If less than 4 pattern letters are used, the short or abbreviated form is used if one exists.
Number	Use the minimum number of digits. Shorter numbers are zero-padded to this amount. The year is handled specially; that is, if the count of ’y’ is 2, the year is truncated to 2 digits.
Text&Number	If 3 or more pattern letters are used, text is used, otherwise, a number is used.

Any characters in *Pattern* are not in the ranges of [’a’..’z’] and [’A’..’Z’] are treated as quoted text. For instance, characters like ’:’, ’.’, ’ ’, ’#’ and ’@’ appear in the resulting string even they’re not within single quotes.

A pattern containing any invalid pattern letter results in a runtime error.

Examples using a United States locale:

Pattern	Result
"yyyy.MM.dd G ’at’ hh:mm:ss"	1996.07.10 AD at 15:08:56
"EEE, MMM d, ’’yy"	Wed, July 10, ’96
"h:mm a"	12:08 PM
"hh ’o’’clock’ a"	12 o’clock PM
"K:mm a"	0:00 PM
"yyyyy.MMMMM.dd GGG hh:mm aaa"	1996.July.10 AD 12:08 PM

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Returns

A string.

Example

```
REM************************************************************;
Function ConvertDateToDTTM(&Date As date) Returns datetime ;
REM ************************************************************;
   &String = DateTimeToLocalizedString(&Date, "M/d/y");
   &String = &String | " 00:00:00.000000";
   &DateTime = DateTimeValue(&String);
   Return &DateTime;
End-Function;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," FormatDateTime, page 215 and Chapter 1, "PeopleCode Built-in Functions," DateTimeToHTTP, page 136.

DateTimeToTimeZone

Syntax

DateTimeToTimeZone(*OldDateTime, SourceTimeZone, DestinationTimeZone*)

Description

Use the DateTimeToTimeZone function to convert datetimes from the datetime specified by *SourceTimeZone* to the datetime specified by *DestinationTimeZone*.

Considerations Using this Function

Typically, this function is used in PeopleCode, *not* for displaying time. If you take a datetime value, convert it from base time to client time, then try to display this time, depending on the user settings, when the time is displayed the system might try to do a *second* conversion on an already converted datetime. This function could be used as follows: suppose a user wanted to check to make sure a time was in a range of times on a certain day, in a certain timezone. If the times were between 12 AM and 12 PM in EST, these resolve to 9 PM and 9 AM PST, respectively. The start value is *after* the end value, which makes it difficult to make a comparison. This function could be used to do the conversion for the comparison, in temporary fields, and not displayed at all.

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Parameters

Parameter	Description
OldDateTime	Specify the datetime value to be converted.
SourceTimeZone	Specify the time zone that *OldDateTime* is in. Valid values are: • *timezone* - a time zone abbreviation or a field reference to be used for converting *OldDateTime*. • **Local** - use the local time zone for converting *OldDateTime*. • **Base** - use the base time zone for converting *OldDateTime*.
DestinationTimeZone	Specify the time zone that you want to convert *OldDateTime* to. Valid values are: • *timezone* - a time zone abbreviation or a field reference to be used for converting *OldDateTime*. • **Local** - use the local time zone for converting *OldDateTime*. • **Base** - use the base time zone for converting *OldDateTime*.

Returns

A converted datetime value.

Example

The following example. TESTDTTM, is a datetime field with a value 01/01/99 10:00:00. This example converts TESTDTTM from Pacific standard time (PST) to eastern standard time (EST).

```
&NEWDATETIME = DateTimeToTimeZone(TESTDTTM, "PST", "EST");
```

&NEWDATETIME will have the value 01/01/99 13:00:00 because EST is three hours ahead of PST on 01/01/99, so three hours are added to the datetime value.

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertDatetimeToBase, page 95, Chapter 1, "PeopleCode Built-in Functions," ConvertTimeToBase, page 97, Chapter 1, "PeopleCode Built-in Functions," FormatDateTime, page 215, Chapter 1, "PeopleCode Built-in Functions," IsDaylightSavings, page 340, Chapter 1, "PeopleCode Built-in Functions," TimeToTimeZone, page 506 and Chapter 1, "PeopleCode Built-in Functions," TimeZoneOffset, page 507.

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities"

DateTimeValue

Syntax

DateTimeValue(*string*)

where *string* has the format:

MM/*DD*/*YY*[*YY*] *hh*:*mm*:*ss.ssssss* [{**AM**|**PM**}]

or

MM.*DD*.*YY*[*YY*] *hh*:*mm*:*ss.ssssss* [{**AM**|**PM**}]

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Description

Use the DateTimeValue function to derive a DateTime value from a string representing a date and time.

Using this Function in Fields Without a Default Century Setting

This function may derive the wrong century setting if passed a 2-character year *and* DateTimeValue is executing in a PeopleCode event not associated with a field that has a default century setting.

For example, assume that TEST_DATE is a date field with a default century setting of 10. TEST_FIELD is a field with *no* default century setting. If the following PeopleCode program is executing in TEST_FIELD, the date will be calculated incorrectly:

```
TEST_DATE = DateTimeValue("10/13/11 15:34:25");
```

Though TEST_DATE has a century setting, it isn't used because the PeopleCode fired in TEST_FIELD. Instead, DateTimeValue uses the 50/50 rule and calculates the year to be 2011 (instead of 1911).

Returns

Returns a DateTime value.

Example

Both of the following examples set &Date_TIME to a Datetime value equal to October 13, 1997 10:34:25 PM.

```
&Date_TIME = DateTimeValue("10/13/97 10:34:25 PM");
&Date_TIME = DateTimeValue("10/13/97 22:34:25");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

DateValue

Syntax

DateValue(*date_str*)

Description

Use the DateValue function to convert a date string and returns the result as a Date type. *date_str* must be a string in the active date format user's current personalization date format.

If the user's Date Format personalization setting is set to DDMMYY (or it is defaulted to this from their browser locale or the system-wide personalization defaults) then the following code returns a Datetime value equal to September 10, 1997.

```
&DTM = DateValue("10/09/97");
```

If the user's Date Format personalization setting is set to MMDDYY (or it is defaulted to this from their browser locale or the system-wide personalization defaults) then the same function call returns a value equal to October 9, 1997.

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Using this Function in Fields Without a Default Century Setting

This function may derive the wrong century setting if passed a 2-character year *and* DateValue is executing in a PeopleCode event not associated with a field that has a default century setting.

For example, assume that TEST_DATE is a date field with a default century setting of 10. TEST_FIELD is a field with *no* default century setting. If the following PeopleCode program is executing in TEST_FIELD, the date will be calculated incorrectly:

```
TEST_DATE = DateValue("10/13/11");
```

Though TEST_DATE has a century setting, it isn't used because the PeopleCode fired in TEST_FIELD. Instead, DateValue uses the 50/50 rule and calculates the year to be 2011 (instead of 1911).

Returns

Returns a Date value.

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateTimeValue, page 141, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

Day

Syntax

Day(*dt_val*)

Description

Use the Day function to determine an integer representing the day of the month based on a Date or DateTime value.

Returns

Returns a Number value equal to the day of the month for *dt_val*. The return value is an integer from 1 to 31.

Example

If HIRE_DATE is November, 1, 1997, the following Day function returns the integer 1:

```
&FIRST_DAY = Day(HIRE_DATE);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Days, page 144, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

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Days

Syntax

Days(*dt_val*)

Description

Use the Days function to returns the Julian date for the *dt_val* specified. This function accepts a Date, DateTime, or Time value parameter.

Returns

Returns a Number value equal to the Julian date for *dt_val*.

Example

To find the number of days between two dates, use the Days function on both dates, and subtract one from the other:

```
&NUM_DAYS = Abs(Days(HIRE_Date) - Days(RELEASE_Date));
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

Days360

Syntax

Days360(*date_val1*, *date_val2*)

Description

Use the Days360 function to return the number of days between the Date values *date_val1* and *date_val2* using a 360-day year (twelve 30-day months). Use this function to help compute payments if your accounting system is based on twelve 30-day months.

If *date_val2* occurs before *date_val1*, Days360 returns a negative number.

Example

The following example sets &NUMDAYS to the number of days between TERM_START_DT and PMT_DT based on a 360-day calendar:

```
&NUMDAYS = Days360(TERM_START_DT, PMT_DT);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

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Days365

Syntax

Days365(*date_val1, date_val2*)

Description

Use the Days365 function to return the number of days between the Date values *date_val1* and *date_val2* using a 365-day year. Use this function to help compute payments if your accounting system is based on a 365-day year.

If *date_val2* occurs before *date_val1*, Days365 returns a negative number.

Returns

Returns a Number value equal to the number of days between the two dates in a 365-day calendar.

Example

The following example sets &NUMDAYS to the number of days between and TERM_START_DT and PMT_DT, based on a 365-day calendar:

```
&NUMDAYS = Days360(TERM_START_DT, PMT_DT);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Month, page 369, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

DBCSTrim

Syntax

DBCSTrim(*source_str*)

Description

Note. This function has been deprecated.

Use the DBCSTrim function to remove a trailing DBCS lead byte at the end of the string.

DBPatternMatch

Syntax

DBPatternMatch(*Value, Pattern, CaseSensitive*)

Description

Use the DBPatternMatch function to match the string in *Value* to the given pattern.

You can use wildcard characters % and _ when searching. % means find all characters, while _ means find a single character. For example, if you wanted to find if the string in *Value* started with the letter M, you'd use "M%" for *Pattern*. If you wanted to find either DATE or DATA, use "DAT_" for *Pattern*.

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These characters can be escaped (that is, ignored) using a \. For example, if you want to search for a value that contains the character %, use \% in *Pattern*.

If *Pattern* is an empty string, this function retrieves the value just based on the specified case-sensitivity (that is, specifying "" for *Pattern* is the same as specifying "%").

Parameters

Parameter	Description
Value	Specify the string to be searched.
Pattern	Specify the pattern to be used when searching.
CaseSensitive	Specify whether the search is case-sensitive. This parameter takes a Boolean value: True, the search is case-sensitive, False, it is not.

Returns

Returns a Boolean value. True if the string matches the pattern, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," Find, page 209 and Chapter 1, "PeopleCode Built-in Functions," Findb, page 210.

Declare Function

Syntax

PeopleCode Function Syntax

```
Declare Function function_name PeopleCode record_name.field_name event_type
```

External Function Syntax

```
Declare Function function_name Library lib_name
   [ALIAS module_name ]
   [paramlist]
   [RETURNS ext_return_type [As pc_type]]
```

Where *paramlist* is:

```
([ext_param1 [, ext_param2] . . .)
```

and where *ext_paramn* is:

```
ext_datatype [{REF|VALUE}] [As pc_return_type]
```

Description

PeopleCode can call PeopleCode functions defined in any field on any record definition. You can create special record definitions whose sole purpose is to serve as function libraries. By convention, PeopleCode functions are stored in FieldFormula PeopleCode, in record definitions with names beginning in FUNCLIB_.

PeopleCode can also call external programs that reside in dynamic link libraries. You must declare either of these types of functions at the top of the calling program using the Declare Function statement.

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To support processes running on an application server, you can declare and call functions compiled in dynamic link libraries on windows (*.DLL files) and shared libraries on UNIX (lib*.so files.) The PeopleCode declaration and function call syntax is the same regardless of platform, but UNIX libraries must be compiled with an interface function.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "PeopleCode and PeopleSoft Pure Internet Architecture," Calling DLL Functions on the Application Server.

PeopleCode Functions

You can call a PeopleCode function defined on any record definition, provided you declare it at the top of the calling program. The declaration identifies the function name, as well as the record, field, and event type where the function definition resides. The function parameters and return type are not declared; they are determined from the function definition.

Note. You can define functions only in Record Field PeopleCode. You can't define functions in Component PeopleCode, Component Record Field PeopleCode, and so on.

External Library Functions

Function declarations define routines in an external (C-callable) library. The function declaration provides the name of the library, an optional alias *module_name*, a list of parameters to pass to the function, an optional Returns clause specifying the type of any value returned by the external function, and the PeopleCode data type into which to convert the returned value. The library must be a DLL accessible by Windows or a shared library accessible by UNIX.

After you have declared an external library function, you can call it the same way as an external PeopleCode function. Like PeopleCode functions, you must pass the number of parameters the library function expects. Calls to external functions suspend processing: this means that you should exercise caution to avoid "think-time" errors when calling the function in the following PeopleCode events:

- SavePreChange.
- SavePostChange.
- Workflow.
- RowSelect.
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using Methods and Built-In Functions," Think-Time Functions.

Parameters

The following are the parameters for the PeopleCode Function syntax:

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Parameter	Description
function_name	Name of the function.
PeopleCode	Reserved word that identifies the function as a PeopleCode function.
recordname.fieldname	Specifies the record and field where the function is located.
event_type	Component Processor event with which the function is associated.

Note. *event_type* can be used to specify *record field* events only. You can't specify a component record field event, a component record event, and so on.

The following are the parameters for the External Function syntax:

Parameter	Description
function_name	Name of the function.
Library	Reserved word that identifies the function as an external library function.
lib_name	A string representing the name of the external library. The external routine must be located in a DLL named *lib_name* accessible by Windows, or an equivalent shared library in a UNIX system.
Alias *module_name*	Optionally specifies the name of the function's entry point within the shared library. This is needed only if the C function name differs from *function_name* in the PeopleCode external function declaration. The external module is invoked using the __stdcall calling convention on Windows.
Paramlist	List of parameters expected by the function, each in the form:
	ext_datatype [{**Ref**|**Value**}] [**As** *pc_type*]
ext_type	The datatype of the parameter expected by the function. To specify the type you can use any of the following: • BOOLEAN • INTEGER • LONG • UINTEGER • ULONG • STRING • STRING • FLOAT • DOUBLE
Ref | **Value**	Optionally use one of these two reserved words to specify whether the parameter is passed by reference or by value. If Ref is specified, it is passed by pushing a reference (pointer) on the stack. If Value is specified the value is pushed on the stack (for integers, and so on.) If neither is specified, Ref is assumed.
AS *pc_type*	Specifies PeopleCode data type of the value passed to the function. You can choose between PeopleCode data types String, Number, Date, Boolean, and Any.

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Parameter	Description
Returns *ext_return_type*	Specifies the data type of any value returned by the function. The Returns clause is omitted if the function is void (returns no value.) To specify the return type you can use any of the following: • BOOLEAN • INTEGER • LONG • UINTEGER • ULONG • FLOAT • DOUBLE
	The types String and LString are not allowed for the result type of a function.
As *pc_return_type*	Specifies the PeopleCode data type of the variable or field into which to read the returned value. You can choose between PeopleCode data types String, Number, Date, Boolean, and Any. If the As clause is omitted, PeopleTools selects an appropriate type based on the type of value returned by the external function (for example, all integer and floating point types are converted to Number).

Example

Assume you have defined a PeopleCode function called VerifyZip. The function definition is located in the record definition FUNCLIB_MYUTILS, in the record field ZIP_EDITS, attached to the FieldFormula event. You would declare the function using the following statement:

```
declare function verifyzip PeopleCode FUNCLIB_MYUTILS.ZIP_EDITS FieldFormula;
```

Now assume you want to declare a function called **PCTest**, in PSUSER.DLL. It takes an integer and returns an integer. You would write this declare statement:

```
declare function pctest library "psuser.dll" (integer value as number) returns⇒
 integer as number;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Function, page 219

Decrypt

Syntax

Decrypt(*KeyString*, *EncryptedString*)

Description

Use the Decrypt function to decrypt a string previously encrypted with the Encrypt function. This function is generally used with merchant passwords. For this function to decrypt a string successfully, you must use the same *KeyString* value used to encrypt the string.

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Parameters

Parameter	Description
KeyString	Specify the key used for encrypting the string. You can specify a NULL value for this parameter, that is, two quotation marks with no blank space between them ("").
EncryptedString	Specify the string you want decrypted.

Returns

A clear text string.

Example

Encrypt and Decrypt support only strings.

```
&AUTHPARMS.WRKTOKEN.Value = Decrypt("", RTrim(LTrim(&MERCHANTID_⇒
REC.CMPAUTHNTCTNTOKEN.Value)));
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Encrypt, page 181 and Chapter 1, "PeopleCode Built-in Functions," Hash, page 319.

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

Degrees

Syntax

Degrees(*angle*)

Description

Use the Degrees function to convert the given angle from radian measurement to degree measurement.

Parameters

Parameter	Description
angle	The size of an angle in radians.

Returns

The size of the given angle in degrees.

Example

The following example returns the equivalent size in degrees of an angle measuring 1.2 radians:

```
&DEGREE_SIZE = Degrees(1.2);
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," Acos, page 31, Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Atan, page 49, Chapter 1, "PeopleCode Built-in Functions," Cos, page 104, Chapter 1, "PeopleCode Built-in Functions," Cot, page 105, Chapter 1, "PeopleCode Built-in Functions," Radians, page 401, Chapter 1, "PeopleCode Built-in Functions," Sin, page 484 and Chapter 1, "PeopleCode Built-in Functions," Tan, page 502.

DeleteAttachment

Syntax

```
DeleteAttachment(URLSource, DirAndFileName[, PreserveCase])
```

where *URLSource* can have *one* of the following forms:

```
URL.URLname
```

Or a string URL, such as

```
ftp://user:password@ftp.ps.com/
```

Note. You cannot specify a different port for an attachment when using an FTP server. You can only use the default port of 21.

Note. The file attachment functionality does not support SFTP or FTPS.

Description

Use the DeleteAttachment function to delete a file on a specified system.

DeleteAttachment does *not* generate any type of "Are you sure" message. If you want the user to verify the deletion before it's performed, you must write your own checking code in your application.

File Name Considerations

When the file is transferred, the following characters are replaced with an underscore:

- space
- semicolon
- plus sign
- percent sign
- ampersand
- apostrophe
- exclamation point
- pound sign
- dollar sign

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Parameters

Parameter	Description
URLSource	A reference to a URL. This can be either a URL name, in the form URL.*URLName*, or a string. This is where the file will end up.
DirAndFileName	A directory and filename. This is appended to the *URLSource* to make up the full URL of the file.
PreserveCase	Specify a Boolean value to indicate whether the case of the directory and file name specified with *DirAndFileName* are preserved or not; true, preserve the case, false, convert the filename extension to all lower case letters. The default value is false.

Note. The *URLSource* requires "/" slashes. Because the *DirAndFileName* parameter is appended to the URL, it also requires only "/" slashes. "\" are *not* supported in anyway for either the *URLSource* the *DirAndFileName* parameter.

Returns

An integer value. You can check for either the integer or the constant:

Numeric Value	Constant Value	Description
0	%Attachment_Success	File was attached successfully.
1	%Attachment_Failed	File was not successfully attached.
2	%Attachment_Cancelled	File attachment didn't complete because the operation was canceled by the user.
7	%Attachment_DestSystNotFound	Cannot locate destination system for ftp.
8	%Attachment_DestSystFailedLogin	Unable to login to destination system for ftp.
9	%Attachment_FileNotFound	Cannot locate file.
10	%Attachment_DeleteFailed	Cannot delete file.

Example

```
&retcode = DeleteAttachment(URL.BKFTP, ATTACHSYSFILENAME);

If (&retcode = %Attachment_Success) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment succeeded");
   UnHide(ATTACHADD);
   Hide(ATTACHVIEW);
   Hide(ATTACHDELETE);
   ATTACHUSERFILE = "";
   ATTACHSYSFILENAME = "";
End-If;

If (&retcode = %Attachment_Failed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment failed");
End-If;
If (&retcode = %Attachment_Cancelled) Then
```

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```
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment cancelled");
End-If;
If (&retcode = %Attachment_FileTransferFailed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment failed: File⇒
 Transfer did not succeed");
End-If;

/* following error message only in PeopleSoft Pure Internet Architecture */

If (&retcode = %Attachment_NoDiskSpaceAppServ) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment failed: No disk⇒
 space on the app server");
End-If;

/* following error message only in PeopleSoft Pure Internet Architecture */

If (&retcode = %Attachment_NoDiskSpaceWebServ) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment failed: No disk⇒
 space on the web server");
End-If;

If (&retcode = %Attachment_FileExceedsMaxSize) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment failed: File⇒
 exceeds the max size");
End-If;
If (&retcode = %Attachment_DestSystNotFound) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment failed: Cannot⇒
 locate destination system for ftp");
End-If;
If (&retcode = %Attachment_DestSysFailedLogin) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DeleteAttachment failed: Unable⇒
 to login into destination system for ftp");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddAttachment, page 32, Chapter 1, "PeopleCode Built-in Functions," GetAttachment, page 261, Chapter 1, "PeopleCode Built-in Functions," PutAttachment, page 397 and Chapter 1, "PeopleCode Built-in Functions," ViewAttachment, page 544.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding File Attachments and PeopleCode," Using File Attachments in Applications

DeleteEmailAddress

Syntax

DeleteEmailAddress(*Type*)

Description

Use the DeleteEmailAddress function to delete the email address associated with the specified type for the current user. You can only have one email address of a specific type for a user.

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Note. You can only delete the Primary Email Address if it's the only address. If the email address you want to delete is marked as the primary email address, and it is *not* the only email address, you must mark another email address as primary before you can delete the email address you want to delete. Use the MarkPrimaryEmailAddress function to set the primary email address.

Parameters

Parameter	Description
Type	Specify the type that you want to change the email address to. This parameter takes a string value. The valid values are:

Value	Description
BB	Blackberry email address
BUS	Business email address
HOME	Home email address
OTH	Other email address
WORK	Work email address

Returns

None.

See Also

Chapter 1, "PeopleCode Built-in Functions," AddEmailAddress, page 38, Chapter 1, "PeopleCode Built-in Functions," ChangeEmailAddress, page 67 and Chapter 1, "PeopleCode Built-in Functions," MarkPrimaryEmailAddress, page 358.

DeleteImage

Syntax

```
DeleteImage(scrollpath, target_row, [recordname.]fieldname)
```

where *scrollpath* is:

```
[SCROLL.level1_recname, level1_row, [SCROLL.level2_recname, level2_row,]]
SCROLL.target_recname
```

Description

Use the DeleteImage function to remove an image associated with a record field.

Note. To update an image field using this function, be sure that PSIMAGEVER field is also on the same record as the image field being updated.

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Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll area in the component buffer.
target_row	The row number of the target row.
[*recordname* **.**]*fieldname*	The name of the field associated with the image file. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the function call is in a record definition other than *recordname*.

Returns

Returns a Boolean value: True if image was successfully deleted, False otherwise.

Example

```
&Rslt = DeleteImage(EMPL_PHOTO.EMPLOYEE_PHOTO);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," InsertImage, page 333

DeleteRecord

Syntax

DeleteRecord(*level_zero_recfield*)

Description

Use the DeleteRecord function to remove a high-level row of data and all dependent rows in other tables from the database.

Note. This function remains for backward compatibility only. Use the Delete record class method instead.

DeleteRecord deletes the component's level-zero row from the database, deletes any dependent rows in other tables from the database, and exits the component.

This function, like DeleteRow, initially marks the record or row as needing to be deleted. At save time the row is actually deleted from the database and cleared from the buffer.

This function works only if the PeopleCode is on a level-zero field. It cannot be used from SavePostChange or WorkFlow PeopleCode.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Record Class," Delete and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Accessing the Data Buffer".

Parameters

Parameter	Description
level_zero_recfield	A *recordname.fieldname* reference identifying any field on the level-zero area of the page.

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Returns

Optionally returns a Boolean value indicating whether the deletion was completed successfully.

Example

The following example, which is in SavePreChange PeopleCode on a level-zero field, deletes the high-level row and all dependent rows in other tables if the current page is EMPLOYEE_ID_DELETE.

```
if %Page = PAGE.EMPLOYEE_ID_DELETE then
     &success = DeleteRecord(EMPLID);
end-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DeleteRow, page 156

DeleteRow

Syntax

DeleteRow(*scrollpath*, *target_row*)

Where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD**.*target_recname*

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the DeleteRow function to delete rows programmatically.

Note. This function remains for backward compatibility only. Use the DeleteRow rowset class method instead.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," DeleteRow.

A call to this function causes the RowDelete event sequence to fire, as if an user had manually deleted a row.

DeleteRow cannot be executed from the same scroll level where the deletion will take place, or from a lower scroll level. Place the PeopleCode in a higher scroll level record.

When DeleteRow is used in a loop, you have to process rows from high to low to achieve the correct results, that is, you must delete from the *bottom up* rather than from the top down. This is necessary because the rows are renumbered after they are deleted (if you delete row one, row two becomes row one).

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," DeleteRow, *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Accessing the Data Buffer" and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation.

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Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number of the row to delete.

Returns

Boolean (optional). DeleteRow returns a Boolean value indicating whether the deletion was completed successfully.

Example

In the following example DeleteRow is used in a **For** loop. The example checks values in each row, then conditionally deletes the row. Note the syntax of the For loop, including the use of the -1 in the **Step** clause to loop from the highest to lowest values. This ensures that the renumbering of the rows will not affect the loop.

```
For &L1 = &X1 To 1 Step - 1
    &SECTION = FetchValue(AE_STMT_TBL.AE_SECTION, &L1);
    &STEP = FetchValue(AE_STMT_TBL.AE_STEP, &L1);
    If None(&SECTION, &STEP) Then
       DeleteRow(RECORD.AE_STMT_TBL, &L1);
    End-If;
 End-For;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," InsertRow, page 335 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation.

DeleteSQL

Syntax

DeleteSQL([**SQL.**]*sqlname*[, *dbtype*[, *effdt*]])

Description

Use the DeleteSQL function to programmatically delete a SQL definition. The SQL definition must have already been created and saved, either using the CreateSQL and StoreSQL functions, or by using Application Designer.

When you create a SQL definition, you must create a base statement before you can create other types of statements, that is, one that has a *dbtype* as GENERIC and *effdt* as the null date (or Date(19000101)). If you specify a base (generic) statement to be deleted, *all* statements as well as the generic statement are deleted.

If you specify a non-generic statement that ends up matching the generic statement, DeleteSQL does *not* delete anything, and returns False.

You must commit all database changes prior to using this function. This is to avoid locking critical Tools tables and hence freezing all other users. You receive a runtime error message if you try to use this function when there are pending database updates, and your PeopleCode program terminates. You need to commit any database updates prior to using this function. The CommitWork PeopleCode function has been enhanced to allow this.

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Parameters

Parameter	Description
sqlname	Specify the name of a SQL definition. This is either in the form **SQL**.*sqlname* or a string value giving the *sqlname*.
dbtype	Specify the database type associated with the SQL definition. This parameter takes a string value. If *dbtype* isn't specified or is null (""), it set by default to the current database type (the value returned from the %DbName system variable.) Valid values for *dbtype* are as follows. These values are not case sensitive: • APPSRV • DB2ODBC • DB2UNIX • INFORMIX • MICROSFT • ORACLE • SYBASE **Note.** Database platforms are subject to change.
effdt	Specify the effective date associated with the SQL definition. If *effdt* isn't specified, it is set by default to the current as of date, that is, the value returned from the %AsOfDate system variable.

Returns

A Boolean value: True if the delete was successful, False if the specified SQL statement wasn't found, and terminates with an error message if there was another problem (that is, date in incorrect format, and so on.)

Example

The following code deletes the ABCD_XY SQL definition for the current DBType and as of date:

```
&RSLT = DeleteSQL(SQL.ABC_XY);
If NOT(&RSLT) Then
   /* SQL not found - do error processing */
End-if;
```

The following code deletes the ABCD_XY SQL Definition for the current DBType and November 3, 1998:

```
&RSLT = DeleteSQL(SQL.ABCD_XY, "",Date(19981103));
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateSQL, page 125, Chapter 1, "PeopleCode Built-in Functions," FetchSQL, page 204, Chapter 1, "PeopleCode Built-in Functions," GetSQL, page 308, Chapter 1, "PeopleCode Built-in Functions," StoreSQL, page 495 and Chapter 1, "PeopleCode Built-in Functions," CommitWork, page 76.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

Chapter 3, "System Variables," %DbName, page 614

Chapter 3, "System Variables," %AsOfDate, page 610

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DeleteSystemPauseTimes

Syntax

DeleteSystemPauseTimes(*StartDay*, *StartTime*, *EndDay*, *EndTime*)

Description

Use the DeleteSystemPauseTimes function to delete pause times that occur on your system by adding a row to the system pause times table.

This function is used in the PeopleCode for the Message Monitor. Pause times are set up in the Message Monitor.

Parameters

Parameter	Description
StartDay	Specify a number from 0-6. The values are:

Value	Description
0	Sunday
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday

Parameter	Description
StartTime	Specify a time, in seconds, since midnight.
EndDay	Specify a number from 0-6. The values are:

Value	Description
0	Sunday
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday

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Parameter	Description
EndTime	Specify a time, in seconds, since midnight.

Returns

A Boolean value: True if the system pause time specified was deleted, False otherwise.

Example

```
Component Boolean &spt_changed;

/* deleting a system pause time interval; */

If Not DeleteSystemPauseTimes(PSSPTIMES.STARTINGDAY, PSSPTIMES.STARTINGSECOND,⇒
 PSSPTIMES.ENDINGDAY, PSSPTIMES.ENDINGSECOND) Then
   Error MsgGetText(117, 15, "");
Else
   &spt_changed = True;

/* to force a save; */

   PSSPTIMES.MSGSPTNAME = " ";

   DoSave();
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddSystemPauseTimes, page 40

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Using the Service Operations Monitor"

DeQueue

Syntax

DeQueue(*physical queue ID*, *task type*, *task number*, *agent ID*)

Description

Once a task that has been placed in a queue by the EnQueue function and has been completed by the agent, use the DeQueue function to notify the queue server. The queue server removes the task from the queue and subtracts the cost of that task from the agent's workload.

Note. The queue server does not allow a task to be dequeued if the agent who owns that task is not logged on to that particular queue server. PeopleSoft recommends that you only use the DeQueue function in application pages that the MultiChannel Framework Console launches when agents accept or activate assigned tasks.

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Parameters

Parameter	Description
physical queue ID	The physical queue is the internal representation of the logical queue that the agent signs onto and to which the task currently belongs. This is a string value, such as "sales3" or "marketing2." You retrieve the current physical queue from the query string in the URL of the page launched by the MultiChannel Framework console, using the GetParameter request class method with the value `ps_qid`.
task type	Specifies the type of task that an agent completed. It is a string value. The valid values are: • email • generic **Note.** This parameter is valid only for persistent tasks (email and generic). It is not valid for chat or voice tasks. You can retrieve the value from the query string in the URL of the application page launched by the MultiChannel Framework console. Use the GetParameter request class method with the value `ps_tasktype`.
task number	Uniquely identifies a particular task. This is the task number returned by the Enqueue function when the system first inserted the task into a queue. This is a string value. You can retrieve the value from the query string in the URL of the application page launched by the MultiChannel Framework console. Use the GetParameter request class method with the value `ps_tasknum`.
agent ID	Identifies the agent who processed the task. This is a string value. You can retrieve the value from the query string in the URL of the application page launched by the MultiChannel Framework console. Use the GetParameter request class method with the value `ps_agentid`.

Returns

Returns 0 for success. Otherwise, it returns a message number. The message set ID for MultiChannel Framework is 162.

For example, 1302 is returned when an invalid task type or no value is provided.

Example

```
PSMCFFUNCLIB.MCF_QUEUE.Value = %Request.GetParameter("ps_qid");
PSMCFFUNCLIB.MCF_TASKTYPE.Value = %Request.GetParameter("ps_tasktype");
PSMCFFUNCLIB.MCF_TASKNUM.Value = %Request.GetParameter("ps_tasknum");
PSMCFFUNCLIB.MCF_AGENTID.Value = %Request.GetParameter("ps_agentid");

&nret = DeQueue(PSMCFFUNCLIB.MCF_QUEUE, PSMCFFUNCLIB.MCF_TASKTYPE,⇒
 PSMCFFUNCLIB.MCF_TASKNUM, PSMCFFUNCLIB.MCF_AGENTID);

If &nret = 0 Then
      MessageBox(0, "", 0, 0, "Successfully dequeued.");
      End-If
```

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See Also

Chapter 1, “PeopleCode Built-in Functions,” EnQueue, page 186

DetachAttachment

Syntax

```
DetachAttachment(URLSource, DirAndFileName, UserFile [,PreserveCase])
```

where *URLSource* can have one of the following forms:

```
URL.URLname
```

Or a string URL, such as

```
ftp://user:password@ftp.ps.com/
```

Note. You cannot specify a different port for an attachment when using an FTP server. You can only use the default port of 21.

Note. The file attachment functionality does not support SFTP or FTPS.

Description

Use the DetachAttachment function to enable a user to make a copy of an attached file on their local client system. The file is sent to the browser with appropriate HTTP headers to cause the browser to display a save dialog box to the user.

The detached file may have a different name than the name the user typed in.

Security Considerations

The *FileType* parameter used with the AddAttachment function is only a suggestion. Specifying it does not enforce specific file types. If you do not want specific file types detached (such as .exe or .bat) you must write PeopleCode to discern the name and file type of the attached file and delete it before detaching it.

Restrictions on Use in PeopleCode Events

DetachAttachment is a "think-time" function, which means that it shouldn’t be used in any of the following PeopleCode events:

- SavePreChange
- SavePostChange
- Workflow
- RowSelect
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) rowset class method.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer’s Guide*, “Using Methods and Built-In Functions,” Think-Time Functions.

File Name Considerations

When the file is transferred, the following characters are replaced with an underscore:

- space

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- semicolon
- plus sign
- percent sign
- ampersand
- apostrophe
- exclamation point
- pound sign
- dollar sign

File Size Considerations

You may need to increase the heap size of your server if you are trying to detach files that are approximately five MB or larger. This size may differ depending on your servers and configuration. If the heap size is too small, you may receive an out of memory error.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Testing Utilities and Tools*, "Using the Simple Post Utility," Increasing the Java Heap Size to Accommodate Posting Large Files.

Parameters

Parameter	Description
URLSource	A reference to a URL. This can be either a URL name, in the form **URL**.*URLName*, or a string.
DirAndFileName	A directory and filename. This is appended to the *URLSource* to make up the full URL of the file.
PreserveCase	Specify a Boolean value to indicate whether the case of the directory and file name specified with *DirAndFileName* are preserved or not; true, preserve the case, false, convert the filename extension to all lower case letters. The default value is false.

Note. The *URLSource* requires "/" slashes. Because the *DirAndFileName* parameter is appended to the URL, it also requires only "/" slashes. "\" are NOT supported in anyway for either the *URLSource* the *DirAndFileName* parameter.

Returns

An integer value. You can check for either the integer or the constant:

Numeric Value	Constant Value	Description
0	%Attachment_Success	File was attached successfully.
1	%Attachment_Failed	File was not successfully attached.
2	%Attachment_Cancelled	File attachment didn't complete because the operation was canceled by the user.
3	%Attachment_FileTransferFailed	File transfer didn't succeed.
5	%Attachment_NoDiskSpaceWebServ	No disk space on the web server.
7	%Attachment_DestSystNotFound	Cannot locate destination system for ftp.

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Numeric Value	Constant Value	Description
8	%Attachment_DestSystFailedLogin	Unable to login to destination system for ftp.
9	%Attachment_FileNotFound	Cannot locate file.
10	%Attachment_DeleteFailed	Cannot delete file.
11	%Attachment_NoFileName	Attachment failed because no file name was specified.

Example

```
&retcode = DetachAttachment(URL.MYFTP, ATTACHSYSFILENAME, ATTACHUSERFILE);

If (&retcode = %Attachment_Failed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment failed");
End-If;
If (&retcode = %Attachment_Cancelled) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment cancelled");
End-If;
If (&retcode = %Attachment_FileTransferFailed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment failed: File⇒
 Transfer did not succeed");
End-If;

/* following error message only in PeopleSoft Pure Internet Architecture */

If (&retcode = %Attachment_NoDiskSpaceAppServ) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment failed: No disk⇒
 space on the app server");
End-If;

/* following error message only in PeopleSoft Pure Internet Architecture */

If (&retcode = %Attachment_NoDiskSpaceWebServ) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment failed: No disk⇒
 space on the web server");
End-If;

If (&retcode = %Attachment_FileExceedsMaxSize) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment failed: File⇒
 exceeds the max size");
End-If;
If (&retcode = %Attachment_DestSystNotFound) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment failed: Cannot⇒
 locate destination system for ftp");
End-If;
If (&retcode = %Attachment_DestSysFailedLogin) Then
   MessageBox(0, "File Attachment Status", 0, 0, "DetachAttachment failed: Unable⇒
 to login into destination system for ftp");
End-If;
```

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In the following example, using the file object, a file is written on the application server. Because the absolute path isn't specified, the file is written to PS_SERVDIR/files directory.

The function PutAttachment takes the file from PS_SERVDIR/files directory and puts it on the ftp server specified in URL.GRADEBOOK.

The DetachAttachment function downloads the file into the user's machine.

```
/* Data buffer */
Component Rowset &Level0, &Students_Hdr, &Student_Grade;
Component Row &Level0_Row;

/* standalone rowset - populate from LAM_CLASS_ACTV */
Component Rowset &Class_Activity;
Component number &Class_Act_No;

Local File &Export_File;
Local string &Export_Line;

DoSaveNow();

&File_Name = %OperatorId | "_" | String(CLASS_SCTN_SCTY.STRM) | "_" | String(CLASS_⇒
⇒
⇒
⇒
⇒
SCTN_SCTY.CLASS_NBR) | ".txt";

&Export_File = GetFile(&File_Name, "W");

If &Export_File.IsOpen Then
   &Export_Line = "Last,First,Emplid,";
   For &i = 1 To &Class_Activity.ActiveRowCount
      &Export_Line = &Export_Line | &Class_Activity(&i).LAM_CLASS_⇒
ACTV.DESCRSHORT.Value | ",";
   End-For;
   &Export_File.WriteLine(&Export_Line);

   For &i = 1 To &Students_Hdr.ActiveRowCount
      &Export_Line = &Students_Hdr(&i).GetRecord(Record.PERSONAL_DTA_VW).GetField⇒
(Field.NAME).Value | ",";
      &Export_Line = &Export_Line | &Students_Hdr(&i).STDNT_GRADE_HDR.EMPLID.Value⇒
 | ",";
      &Student_Grade = &Level0_Row.GetRowset(Scroll.STDNT_GRADE_HDR)(&i).GetRowset⇒
(Scroll.STDNT_GRADE_DTL);
      For &j = 1 To &Student_Grade.ActiveRowCount
         &Export_Line = &Export_Line | String(&Student_Grade(&j).STDNT_GRADE_⇒
DTL.STUDENT_GRADE.Value) | ",";
      End-For;
      &Export_File.WriteLine(&Export_Line);
   End-For;
   &Export_File.Close();
```

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```
End-If;

&Put_File_Name = "files/" | &File_Name;
&ret = PutAttachment(URL.GRADEBOOK, &File_Name, &Put_File_Name, "PS_SERVDIR");
&ret = DetachAttachment(GetURL(URL.GRADEBOOK), &File_Name, &File_Name);
```

DisableMenuItem

Syntax

DisableMenuItem(**BARNAME.***menubar_name*, **ITEMNAME.***menuitem_name*)

Description

Use the DisableMenuItem function to disable (make unavailable) the specified menu item. To apply this function to a pop-up menu, use the PrePopup Event of the field with which the pop-up menu is associated.

If you're using this function with a pop-up menu associated with a page (not a field), the earliest event you can use is the PrePopup event for the first "real" field on the page (that is, the first field listed in the Order view of the page in PeopleSoft Application Designer.)

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Parameters

Parameter	Description
menubar_name	Name of the menu bar that owns the menu item, or, in the case of pop-up menus, the name of the pop-up menu that owns the menu item.
menuitem_name	Name of the menu item.

Returns

None.

Example

```
DisableMenuItem(BARNAME.MYPOPUP1, ITEMNAME.DO_JOB_TRANSFER);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," EnableMenuItem, page 178 and Chapter 1, "PeopleCode Built-in Functions," HideMenuItem, page 322.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," PrePopup Event

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DiscardRow

Syntax

```
DiscardRow()
```

Description

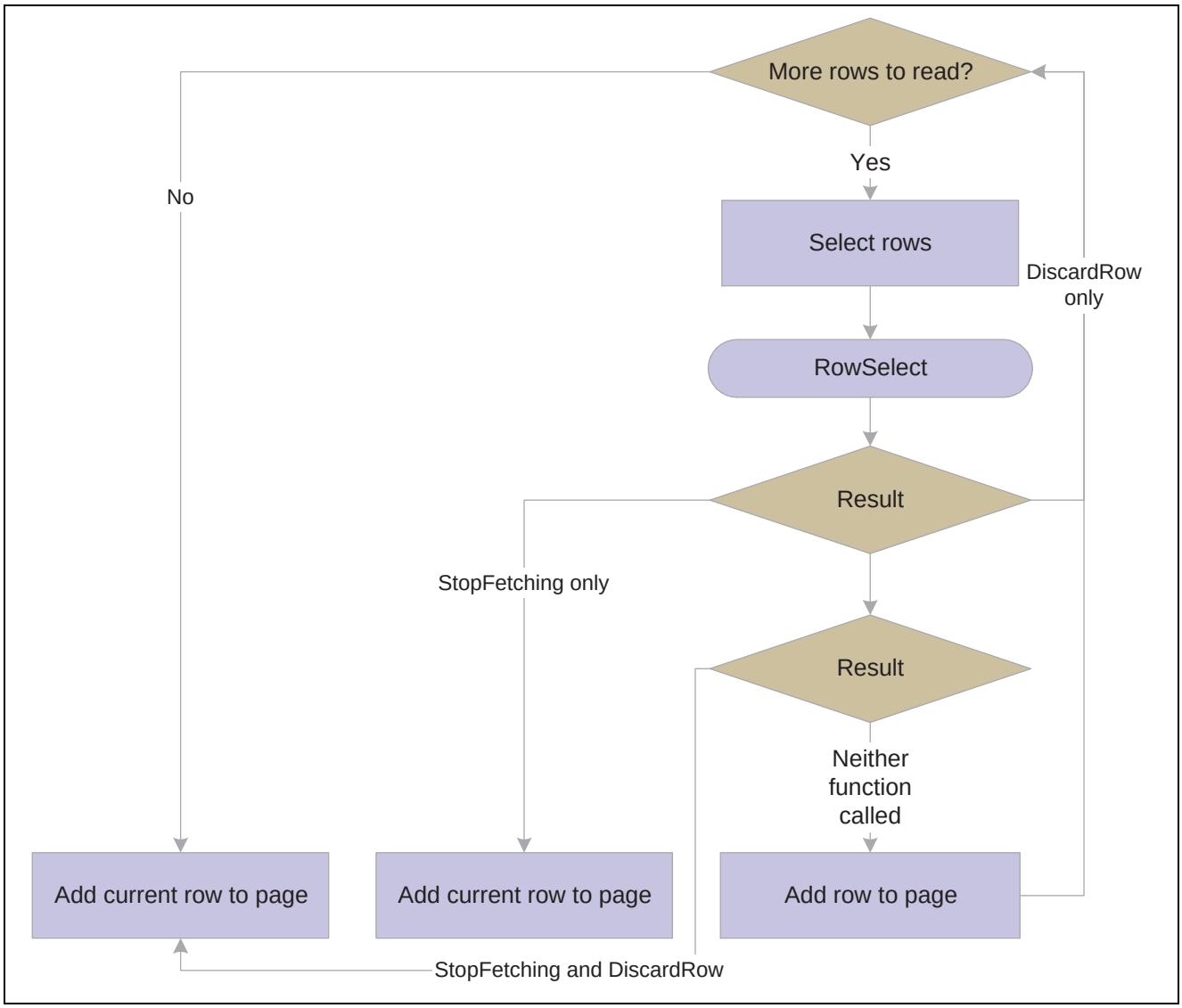
Use the DiscardRow function to prevent a row from being added to a page scroll during Row Select processing. This function is valid only in RowSelect PeopleCode. When DiscardRow is called during RowSelect processing, the current row is skipped (not added to the scroll). Processing then continues on the next row, unless the StopFetching function has also been called, in which case no more rows are added to the page.

If you try to discard a row and it's the only row in the scroll, the row is not discarded. You will still have one blank row in your scroll.

DiscardRow has the same functionality as the Warning function in the RowSelect event. The anomalous behavior of Warning is supported for compatibility with previous releases of PeopleTools.

Note. RowSelect processing is used infrequently, because it is more efficient to filter out rows of data using a search view or an effective-dated record before the rows are selected into the component buffer from the database server.

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RowSelect Processing Logic

Parameters

None.

Returns

None.

See Also

Chapter 1, "PeopleCode Built-in Functions," StopFetching, page 494 and Chapter 1, "PeopleCode Built-in Functions," Warning, page 551.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Row Select Processing

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DoCancel

Syntax

```
DoCancel( )
```

Description

Use the DoCancel function to cancel the current page.

- In the Page Applet, the DoCancel function terminates the current component and returns the user to the search dialog box.
- In the Menu Applet, the DoCancel function terminates the current component and returns the user to the current menu with no component active.

DoCancel terminates any PeopleCode programs executing prior to a save action. It does not stop processing of PeopleCode in SaveEdit, SavePreChange, and SavePostChange events.

Returns

None.

See Also

Chapter 1, "PeopleCode Built-in Functions," DoSave, page 175, Chapter 1, "PeopleCode Built-in Functions," DoSaveNow, page 176, Chapter 1, "PeopleCode Built-in Functions," DoModal, page 169, Chapter 1, "PeopleCode Built-in Functions," EndModal, page 184 and Chapter 1, "PeopleCode Built-in Functions," WinEscape, page 553.

DoModal

Syntax

```
DoModal(PAGE.pagename, title, xpos, ypos,
        [level, scrollpath, target_row])
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the DoModal function to display a secondary page. Secondary pages are modal, meaning that the user must dismiss the secondary page before continuing work in the page from which the secondary page was called.

If you call DoModal without specifying a level number or any record parameters, the function uses the current context as the parent.

You can alternately specify a secondary page in a command push button definition without using PeopleCode. This may be preferable for performance reasons, especially with PeopleSoft Pure Internet Architecture.

DoModal can display on a single page. To display an entire component modally, use DoModalComponent.

Any variable declared as a Component variable will still be defined after using a DoModal function.

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See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer*, "Using Page Controls," Using Secondary Pages.

Restrictions on Use in PeopleCode Events

Control does not return to the line after DoModal until after the user has dismissed the secondary page. This interruption of processing makes DoModal a "think-time" function, which means that it shouldn't be used in any of the following PeopleCode events:

- SavePreChange.
- SavePostChange.
- Workflow.
- RowSelect.
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

In addition, you can't use this function in the SearchInit event.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using Methods and Built-In Functions," Think-Time Functions.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Considerations Using Exceptions and the DoModal Function

Using the DoModal function inside a try block *not* catch PeopleCode exceptions thrown in the new component. Starting a new component starts a brand new PeopleCode evaluation context. Catches are only caught for exceptions thrown within the *current* component.

In the following code example, the catch statement only catches exceptions thrown in the code *prior to* the DoModal, but not any exceptions that are thrown within the new component.

```
/* Set up transaction */
If %CompIntfcName = "" Then
   try
      &oTrans = &g_ERMS_TransactionCollection.GetTransactionByName(RB_EM_⇒
WRK.DESCR);
      &sSearchPage = &oTrans.SearchPage;
      &sSearchRecord = &oTrans.SearchRecord;
      &sSearchTitle = &oTrans.GetSearchPageTitle();
      If Not All(&sSearchPage, &sSearchRecord, &sSearchTitle) Then
         Error (MsgGetText(17834, 8081, "Message Not Found"));
      End-If;
      &c_ERMS_SearchTransaction = &oTrans;

      /* Attempt to transfer to hidden search page with configurable filter */
      &nModalReturn = DoModal(@("Page." | &sSearchPage), &sSearchTitle, - 1, - 1);
   catch Exception &e
      Error (MsgGetText(17834, 8082, "Message Not Found"));
   end-try;
```

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Parameters

Parameter	Description
pagename	The name of the secondary page.
title	The text that displays in the caption of the secondary page.
xpos	The pixel coordinates of the top left corner of the secondary page, offset from the top left corner of the parent page (the default of -1, -1 means centered).
ypos	The pixel coordinates of the top right corner of the secondary page, offset from the top right corner of the parent page (the default of -1, -1 means centered).
level	Specifies the level of the scroll level on the parent page that contains the row corresponding to level 0 on the secondary page.
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number of the row in the parent page corresponding to the level 0 row in the secondary page.

Returns

Returns a number that indicates how the secondary page was terminated. A secondary page can be terminated by the user clicking a built-in OK or Cancel button, or by a call to the EndModal function in a PeopleCode program. In either case, the return value of DoModal is one of the following:

- 1 if the user clicked OK in the secondary page, or if 1 was passed in the EndModal function call that terminated the secondary page.
- 0 if the user clicked Cancel in the secondary page, or if 0 was passed in the EndModal function call that terminated the secondary page.

Example

```
DoModal(PAGE.EDUCATION_DTL, MsgGetText(1000, 167, "Education Details - %1",⇒
 EDUCATN.DEGREE), - 1, - 1, 1, RECORD.EDUCATN, CurrentRowNumber());
```

See Also

Chapter 1, "PeopleCode Built-in Functions," EndModal, page 184, Chapter 1, "PeopleCode Built-in Functions," IsModal, page 346 and Chapter 1, "PeopleCode Built-in Functions," DoModalComponent, page 171.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

DoModalComponent

Syntax

DoModalComponent(**MENUNAME.***menuname*, **BARNAME.***barname*, **ITEMNAME.***menuitem_name*, **PAGE.***component_item_name*, *action*, **RECORD.***shared_record_name* [, *keylist*])

where *keylist* is a list of field references in the form:

[*recordname.*]*field1* [, [*recordname.*]*field2*]. . .

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Or

&RecordObject1 [, *&RecordObject2*]. . .

Description

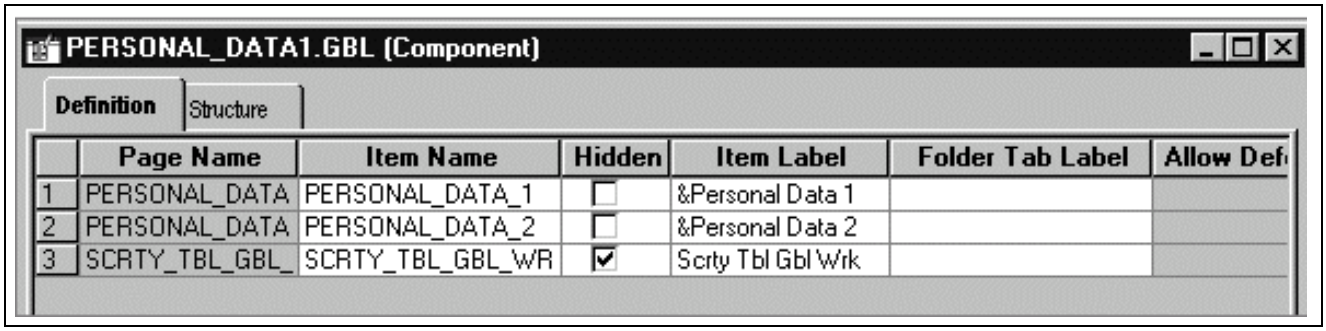
Use the DoModalComponent function to launch a modal component. The modal component launches from within an originating component. After the modal component displays, the user can't proceed with changes to the originating component until either accepting or canceling the modal component.

Modal components can be displayed in any of the following action modes: Add, Update/Display, Update/Display All, Correction. A modal component can be launched from any component, including another modal component. You can use DoModalComponent from a secondary page.

The originating component and the modal component share data, including search keys, using a Shared Work Record or the values in the *fieldlist* parameter. If valid search keys are provided in the shared work record and populated with valid values before launching the modal component, the search is conducted using the provided search key values. If the *fieldlist* parameter isn't used and no search keys are provided, or if search key fields contain invalid values, the user accesses the modal component using a search dialog box.

Note. The user may see a different title for a search page if they enter the search page using this function versus from the regular navigation.

In the *component_item_name* parameter, make sure to pass the component item name for the page, not the page name. The component item name is specified in the Component Definition, in the Item Name column on the row corresponding to the specific page, as shown here:



Component Item Name parameter

Shared Work Records

The originating component and the modal component share fields in a Derived/Work record called a *shared work record*. Shared fields from this record must be placed at level zero of both the originating component and the modal component.

You can use the shared fields to:

- Pass values that are assigned to the search keys in the modal component search record. If these fields are missing or not valid, the search dialog box appears, enabling the user to enter search keys.
- Optionally pass other values from the originating component to the modal component.
- Pass values back from the modal component to the originating component for processing.

To do this, you have to write PeopleCode that:

- Assigns values to fields in the shared work record in the originating page at some point before the modal transfer takes place.

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- Accesses and changes the values, if necessary, in the modal component.
- Accesses the values from the shared work record from the originating component after the modal component is dismissed.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Restrictions on Use With SearchInit Event

You can't use this function in a SearchInit PeopleCode program.

Considerations Using Exceptions and the DoModalComponent Function

Using the **DoModalComponent** function inside a try block *not* catch PeopleCode exceptions thrown in the new component. Starting a new component starts a brand new PeopleCode evaluation context. Catches are only caught for exceptions thrown within the *current* component.

In the following code example, the catch statement only catches exceptions thrown in the code *prior to* using a DoModal function, but not any exceptions that are thrown within the new component.

```
/* Set up transaction */
If %CompIntfcName = "" Then
   try
      &oTrans = &g_ERMS_TransactionCollection.GetTransactionByName(RB_EM_⇒
WRK.DESCR);
      &sSearchPage = &oTrans.SearchPage;
      &sSearchRecord = &oTrans.SearchRecord;
      &sSearchTitle = &oTrans.GetSearchPageTitle();
      If Not All(&sSearchPage, &sSearchRecord, &sSearchTitle) Then
         Error (MsgGetText(17834, 8081, "Message Not Found"));
      End-If;
      &c_ERMS_SearchTransaction = &oTrans;

      /* Attempt to transfer to hidden search page with configurable filter */
      &nModalReturn = DoModal(@("Page." | &sSearchPage), &sSearchTitle, - 1, - 1);
   catch Exception &e
      Error (MsgGetText(17834, 8082, "Message Not Found"));
   end-try;
```

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Parameters

Parameter	Description
menuname	Name of the menu through which the modal component is accessed.
barname	Name of the menu bar through which the modal component is accessed.
menuitem_name	Name of the menu item through which the modal component is accessed.
component_item_name	The component item name of the page to be displayed on top of the modal component when it displays. The component item name is specified in the component definition.
action	String representing the action mode in which to start up the component. You can use either a character value (passed in as a string) or a constant:

Numeric Value	Constant Value	Description
A	%Action_Add	Add
U	%Action_UpdateDisplay	Update/Display
L	%Action_UpdateDisplayAll	Update/Display All
C	%Action_Correction	Correction
E	%Action_DataEntry	Data Entry
P	%Action_Prompt	Prompt

Parameter	Description
	If only one action mode is allowed for the component, that action mode is used. If more than one action mode is allowed, the user can select which mode to come up in.
shared_record_name	The record name of the shared work record (preceded by the reserved word **Record**). This record must include: • Fields that are search keys in the modal component search record; if search key fields are not provided, or if they are invalid, the user accesses the modal component using the search dialog box. • Other fields to pass to the modal component. • Fields to get back from the modal component after it has finished processing.
keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record* for the destination component is added to *keylist*. The keys in *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, the search dialog box appears. If the *keylist* parameter is not supplied then the destination components' search key must be found as part of the source component's level 0 record buffer.

Returns

Returns a Boolean that indicates how the secondary page was terminated. A secondary page can be terminated by the user clicking a built-in OK or Cancel button, or by a call to the EndModalComponent function in a PeopleCode program. In either case, the return value of DoModalComponent is one of the following:

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- True if the user clicked OK in the secondary page, or if 1 was passed in the EndModal function call that terminated the secondary page.
- False if the user clicked Cancel in the secondary page, or if 0 was passed in the EndModal function call that terminated the secondary page.

Example

The following example shows how to structure a DoModalComponent function call:

```
DoModalComponent(MENUNAME.MAINTAIN_ITEMS_FOR_INVENTORY, BARNAME.USE_A,⇒
 ITEMNAME.ITEM_DEFINITION, COMPONENT.ESTABLISH_AN_ITEM, "C", RECORD.NEW7_WRK);
```

Supporting PeopleCode is required if you must assign values to fields in the shared work record or access those values, either from the originating component, or from the modal component.

See Also

Chapter 1, "PeopleCode Built-in Functions," IsModalComponent, page 347, Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509, Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524 and Chapter 1, "PeopleCode Built-in Functions," EndModalComponent, page 185.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Implementing Modal Transfers

DoModalPanelGroup

Syntax

DoModalPanelGroup(**MENUNAME.***menuname*, **BARNAME.***barname*, **ITEMNAME.***menuitem_name*, **PANEL.***panel_group_item_name*, *action*, **RECORD.***shared_record_name*)

Description

Use the DoModalPanelGroup function to launch a modal component.

Note. The DoModalPanelGroup function is supported for compatibility with previous releases of PeopleTools. Future applications should use DoModalComponent instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," DoModalComponent, page 171

DoSave

Syntax

DoSave()

Description

Use the DoSave function to save the current page. DoSave defers processing to the end of the current PeopleCode program event, as distinct from DoSaveNow, which causes save processing (including SaveEdit, SavePreChange, SavePostChange, and Workflow PeopleCode) to be executed immediately.

DoSave can be used only in FieldEdit, FieldChange, or MenuItemSelected PeopleCode.

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Parameters

None.

Returns

None.

Example

The following example sets up a key list with AddKeyListItem, saves the current page, and then transfers the user to a page named PAGE_2.

```
ClearKeyListItem( );
AddKeyListItem(OPRID, OPRID);
AddKeyListItem(REQUEST_ID, REQUEST_ID);
SetNextPage("PAGE_2");
DoSave( );
TransferPage( );
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DoCancel, page 169, Chapter 1, "PeopleCode Built-in Functions," DoSaveNow, page 176, Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524 and Chapter 1, "PeopleCode Built-in Functions," AddKeyListItem, page 39.

DoSaveNow

Syntax

DoSaveNow()

Description

The DoSaveNow function is designed primarily for use with remote calls. It enables a PeopleCode program to save page data to the database before running a remote process (most frequently a COBOL process) that will access the database directly. It is generally necessary to call DoSaveNow before calling the RemoteCall function.

DoSaveNow causes the current page to be saved immediately. Save processing (including SaveEdit, SavePreChange, SavePostChange, and Workflow PeopleCode) is executed before continuing execution of the program where DoSaveNow is called. DoSaveNow differs from the DoSave function in that DoSave defers saving the component until after any running PeopleCode is completed.

DoSaveNow can only be called from a FieldEdit or FieldChange event.

If you call DoSaveNow and there are no changes to save, save processing is skipped entirely. You can call SetComponentChanged right before you call DoSaveNow. The SetComponentChanged function makes the Component Processor think there are changes and so will force full save processing.

See Chapter 1, "PeopleCode Built-in Functions," RemoteCall, page 409 and Chapter 1, "PeopleCode Built-in Functions," DoSave, page 175.

Errors in DoSaveNow Save Processing

DoSaveNow initiates save processing. It handles errors that occur during save processing as follows:

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- If save processing encounters a SaveEdit error, it displays the appropriate message box. DoSaveNow immediately exits from the originating FieldChange or FieldEdit program. The user can correct the error and continue.
- If save processing encounters a fatal error, it displays the appropriate fatal error. DoSaveNow handles the error by immediately exiting from the originating FieldChange or FieldEdit program. The user must then cancel the page.
- If save processing completes with no errors, PeopleCode execution continues on the line after the DoSaveNow call in FieldChange or FieldEdit.

Restrictions on Use of DoSaveNow

The following restrictions apply:

- DoSaveNow can be executed only from a FieldEdit or FieldChange event.
- DoSaveNow is only allowed prior to the first CallAppEngine function in a FieldChange event, but not afterward.
- Deferred operations should not be called before the DoSaveNow. Deferred operations include the DoSave, TransferPage, SetCursorPos, and EndModal functions.
- Components that use DoSaveNow must not use the DoCancel, Transfer, TransferPage, or WinEscape functions in PeopleCode attached to save action events (SaveEdit, SavePreChange, and SavePostChange), because these functions terminate the component, which would cause the program from which DoSaveNow was called to terminate prematurely.

Note. You should be aware that DoSaveNow may result in unpredictable behavior if PeopleCode in save events deletes rows or inserts rows into scrolls. PeopleCode that runs after DoSaveNow must be designed around the possibility that rows were deleted or inserted (which causes row number assignments to change). Modifying data on a deleted row may cause it to become “undeleted.”

Parameters

None.

Returns

None.

Example

The following example calls DoSaveNow to save the component prior to running a remote process in the remote_depletion declared function:

```
Declare Function remote_depletion PeopleCode FUNCLIB_ININTFC.RUN_DEPLETION Field⇒
Formula;

/*
Express Issue Page - run Depletion job through RemoteCall()
*/
If %Component = COMPONENT.EXPRESS_ISSUE_INV Then
   DoSaveNow();
   &BUSINESS_UNIT = FetchValue(SHIP_HDR_INV.BUSINESS_UNIT, 1);
   &SHIP_OPTION = "S";
   &SHIP_ID = FetchValue(SHIP_HDR_INV.SHIP_ID, 1);
```

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```
   remote_depletion(&BUSINESS_UNIT, &SHIP_OPTION, &SHIP_ID, &PROGRAM_STATUS);
End-If
```

EnableMenuItem

Syntax

EnableMenuItem(**BARNAME.***menubar_name*, **ITEMNAME.***menuitem_name*)

Description

Use the EnableMenuItem function to enable (make available for selection) the specified menu item. To apply this function to a pop-up menu, use the PrePopup Event of the field with which the pop-up menu is associated.

If you're using this function with a pop-up menu associated with a page (not a field), the earliest event you can use is the PrePopup event for the first "real" field on the page (that is, the first field listed in the Order view of the page in PeopleSoft Application Designer.)

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Parameters

Parameter	Description
menubar_name	Name of the menu bar that owns the menu item, or, in the case of pop-up menus, the name of the pop-up menu that owns the menu item.
menuitem_name	Name of the menu item.

Returns

None.

Example

```
EnableMenuItem(BARNAME.MYPOPUP1, ITEMNAME.DO_JOB_TRANSFER);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DisableMenuItem, page 166 and Chapter 1, "PeopleCode Built-in Functions," HideMenuItem, page 322.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," PrePopup Event

EncodeURL

Syntax

EncodeURL(*URLString*)

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Description

Use the EncodeURL function to apply URL encoding rules, including escape characters, to the string specified by *URLString*. The method used to encode the *URLString* is the standard defined by W3C. This function returns a string that contains the encoded URL. All characters outside the Unicode Basic Latin block (U+0020 — U+007F) are encoded, with the exception of the characters in the table below which are not encoded as they may represent valid components of URL or protocol syntax. If you need to encode such characters, use the EncodeURLForQueryString function.

The following table lists the punctuation characters in the Unicode Basic Latin block that are not encoded by the URLEncode function.

Punctuation Character	Description
Glyph	Unicode Character Name
!	Exclamation mark
#	Number sign
$	Dollar sign
&	Ampersand
(	Left parenthesis
)	Right parenthesis
*	Asterisk
+	Plus sign
,	Coma
-	Hyphen, minus
.	Full stop, period
/	Solidus, slash
:	Colon
;	Semi-colon
=	Equals sign
?	Question mark
_	Underscore

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Parameters

Parameter	Description
URLString	Specify the string you want encoded. This parameter takes a string value.

Returns

An encoded string.

Example

The example below returns the following encoded URL:

```
http://corp.office.com/human%20resources/benefits/401kchange_home.htm?FirstName=⇒
Gunter&LastName=D%c3%9crst
&MYSTRING = EncodeURL("http://corp.office.com/hr/benefits/401k/401k_home.htm");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," EncodeURLForQueryString, page 180 and Chapter 1, "PeopleCode Built-in Functions," Unencode, page 533.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

EncodeURLForQueryString

Syntax

EncodeURLForQueryString(*URLString*)

Description

Use the EncodeURLForQueryString function to encode *URLString* for use in a query string parameter in an URL. All characters outside the Unicode Basic Latin block (U+0020 — U+007F) are encoded, with the exception of the characters in the table below which are not encoded as they are typically valid in a query string.

If the link is constructed in a page, and the value is a link field, you should not call EncodeURL to encode the entire URL, as the PeopleSoft Pure Internet Architecture does this for you. You still need to unencode the parameter value when you retrieve it, however.

Always encode each field value being added directly to query strings using EncodeURLForQueryString.

The following table lists punctuation characters in the Unicode Basic Latin block that are not encoded by the URLEncodeForQueryString function.

Punctuation Character	Description
(	Left parenthesis
)	Right parenthesis
*	Asterisk
-	Hyphen, minus

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Punctuation Character	Description
.	Full stop, period
_	Underscore, low line

Parameters

Parameter	Description
URLString	Specify the string you want encoded. This parameter takes a string value.

Returns

An encoded URL string.

Example

In an Internet Script, to construct an anchor with a URL in a query string parameter, do the following:

```
&url = "http://host/psp/ps/EMPLOYEE/HRMS/s/EMPL_INFO.FieldFormula.IScript_EMPL_⇒
INFO?emplid=1111&mkt=usa"

&href = %Request.RequestURI | "?" | %Request.QueryString | "&myurl=" | Encode⇒
URLForQueryString(&url);

%Response.WriteLine("<a href= " | EncodeURL(&href) | ">My Link</a>");
```

The following uses a generic method to find, then encode, the URL, for the external link:

```
&StartPos = Find("?", &URL, 1);
&CPColl = &Portal.ContentProviders;
&strHREF = EncodeURLForQueryString(Substring(&URL, &StartPos + 1, Len(&URL)  -⇒
&StartPos));
&LINK = &Portal.GetQualifiedURL("PortalServlet", "PortalOriginalURL=" |⇒
 &CPColl.ItembyName(&CP_NAME).URI | "?" | &strHREF);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," EncodeURL, page 178, Chapter 1, "PeopleCode Built-in Functions," Unencode, page 533, Chapter 1, "PeopleCode Built-in Functions," EscapeHTML, page 190, Chapter 1, "PeopleCode Built-in Functions," EscapeJavascriptString, page 191 and Chapter 1, "PeopleCode Built-in Functions," EscapeWML, page 192.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

Encrypt

Syntax

Encrypt(*KeyString*, *ClearTextString*)

Description

Use the Encrypt function to encrypt a string. This function is generally used with merchant passwords.

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The value you use for *KeyString* must be the same for Decrypt and Encrypt.

Size Considerations with Encrypt

The Encrypt function uses 56 bit DES. The size of the output string is grown to the nearest multiple of 8 bytes, encrypted (which doesn't modify the size), then encoded, which grows the resulting size to the next multiple of 3, then the system multiplies the size by 4/3.

For example, a 20 character field is 40 bytes long (unicode), which is an even multiple of 8. After it is encrypted, it is rounded up to 42 bytes (the next multiple of 3), then multiplied by 4/3 to get 56 bytes.

Parameters

Parameter	Description
KeyString	Specify the key used for encrypting the string. You can specify a NULL value for this parameter, that is, two quotation marks with no blank space between them ("").
ClearTextString	Specify the string you want encrypted.

Returns

An encrypted string.

Example

The following encrypts a field if it contains a value. It also removes any blanks either preceding or trailing the value.

```
If All(PSCNFMRCHTOKEN.WRKTOKEN) Then
   CMPAUTHTOKEN = Encrypt("", RTrim(LTrim(PSCNFMRCHTOKEN.WRKTOKEN)));
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Decrypt, page 149 and Chapter 1, "PeopleCode Built-in Functions," Hash, page 319.

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

EncryptNodePswd

Syntax

EncryptNodePswd(*Password*)

Description

Use the EncryptNodePswd function to encrypt an Integration Broker node password.

Note. This function is generally used with Integration Broker node password encryption. This function should not be used casually, as once you encrypt your node password, there is no decrypt PeopleCode method.

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Parameters

Parameter	Description
Password	Specify the Integration Broker node password that you want encrypted, as a string.

Returns

An encrypted password as a string.

Example

In the following example, the password is stored in the database in an encrypted form instead of as plain text:

```
PSMSGNODEDEFN.IBPASSWORD = EncryptNodePswd(RTrim(LTrim(PSNODE_WRK.WRKPASSWORD)));
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Adding and Configuring Nodes"

EndMessage

Syntax

EndMessage(*message, messagebox_title*)

Description

Note. The EndMessage function is obsolete and is supported only for backward compatibility. The MessageBox function, which can now be used to display informational messages in any PeopleCode event, should be used instead.

Use the EndMessage function to display a message at the end of a transaction, at the time of the database COMMIT. This function can be used only in SavePostChange PeopleCode.

When an EndMessage function executes, PeopleTools:

- Verifies that the function is in SavePostChange; if it is not, an error occurs and the function terminates.
- Displays the message.
- Terminates the SavePostChange PeopleCode program.

Because it terminates the SavePostChange program, EndMessage is always be the last statement executed in the program on the specific field and row where the EndMessage is called. For this reason, you must write the SavePostChange program so that all necessary processing takes place before the EndMessage statement. PeopleCode programs on other fields and rows execute as usual.

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Parameters

Parameter	Description
message	A string that must be enclosed in quotes containing the message text you want displayed.
messagebox_title	A string that must be enclosed in quotes containing the title of the message. It appears in the message box title bar.

Returns

None.

Example

The following example is from SavePostChange event PeopleCode. It checks to see whether a condition is true, and if so, it displays a message and terminates the SavePostChange program. If the condition is false, then processing continues in the Else clause:

```
If BUSINESS_UNIT = BUS_UNIT_WRK.DEFAULT_SETID Then
         EndMessage(MsgGet(20000, 12, "Message not found in Message Catalog")," ");
      Else
/* any other SavePostChange processing in Else clause */
```

See Also

Chapter 1, "PeopleCode Built-in Functions," MessageBox, page 362 and Chapter 1, "PeopleCode Built-in Functions," WinMessage, page 554.

EndModal

Syntax

EndModal(*returnvalue*)

Description

Use the EndModal function to close a currently open secondary page. It is required only for secondary pages that do not have OK and Cancel buttons. If the secondary page has OK and Cancel buttons, then the function for exiting the page is built in and no PeopleCode is required.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

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Parameters

Parameter	Description
returnvalue	A Number value that determines whether the secondary page data is copied back to the parent page. A positive value runs SaveEdit PeopleCode and copies the data (this is the same as clicking the OK button). A value of zero skips SaveEdit and discards buffer changes made in the secondary page (this is the same as clicking the Cancel button). This value becomes the return value of the DoModal function that started the secondary page, and it can be tested after the secondary page is closed.

Returns

None.

Example

The following statement acts as an OK button:

```
EndModal(1);
```

The following statement acts as a Cancel button:

```
EndModal(0);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DoModal, page 169 and Chapter 1, "PeopleCode Built-in Functions," IsModal, page 346.

EndModalComponent

Syntax

EndModalComponent(*ReturnValue*)

Description

Use the EndModalComponent function to close a currently open secondary component. You could use this for creating your own links to exit a modal component.

Restrictions on Use With a Component Interface

This function can't be used by a PeopleCode program that's been called by a Component Interface, and is ignored.

Parameters

Parameter	Description
ReturnValue	A Number value that determines whether the modal component data is saved and copied back to the parent page. A positive value saves the data in the component to the database, including all save processing and PeopleCode (this is the same as pressing the OK button). It also copies the data in the shared work record, if any, back to the primary component. A value of zero skips save processing discards buffer changes made in the modal component (this is the same as pressing the Cancel button).

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Returns

A Boolean value: True if a non-zero value was used, False if zero was used.

Example

```
EndModalComponent(0);  /* cancels the component without saving */
EndModalComponent(1); /* saves and closes the component */
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DoModalComponent, page 171, Chapter 1, "PeopleCode Built-in Functions," EndModal, page 184 and Chapter 1, "PeopleCode Built-in Functions," IsModal, page 346.

EnQueue

Syntax

EnQueue(*logical queue*, *task type*, *Relative URL*, *Language_Code* [,*subject*][, *agent ID*][, *overflow timeout*][, *escalation timeout*][, *cost*][, *priority*][, *skill level*])

Description

Use the EnQueue function to assign a task to one of the active, physical queues belonging to the specified logical queue. The physical queue to which the system assigns the task is chosen randomly to balance load across the queues.

Note. PeopleSoft recommends that you always follow the EnQueue function with the NotifyQ function.

See Chapter 1, "PeopleCode Built-in Functions," NotifyQ, page 378.

Parameters

Parameter	Description
logical queue ID	Specifies the logical queue in which the task should be queued. It is a string value. The logical queue ID is a case-sensitive value. The case used in the EnQueue function must exactly match the case used when creating the logical queue ID with the MultiChannel Framework administration pages.
task type	Specifies the type of task to be inserted. It is a string value. The valid values are: • email • generic **Note.** This parameter does not apply to voice or chat. Chat tasks are enqueued using the InitChat function. Voice queueing is managed by PeopleSoft CTI.
Relative URL	The system uses this relative URL to generate the URL of the appropriate application page for the MultiChannel Framework console to launch when an agent accepts this task. The application page should contain the logic to enable the agent to resolve the task and either forward the task using the Forward function or dequeue the task using the DeQueue function.

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Parameter	Description
Language_Code	This is the language code associated with the task to be enqueued. It is a string value that must exist in the PeopleSoft language table. The queue server only assigns this task to an agent whose list of languages contains this value. For example if an email to be enqueued is written in English, the language code would be "ENG", and this email would only be assigned to agents whose language list contains English.
subject	This is an optional parameter. It is a string value describing the purpose of the request. This value appears on the agent's console when the system assigns the task.
agent ID	Specifies the assigned agent. This is an optional, string parameter. If specified, the system holds the task until the specified agent is available to take this task. If this parameter is left blank, the queue server assigns it to the first available agent. **Note.** For better performance, PeopleSoft recommends not specifying the target agent as this has a processing overhead for the queue servers and does not allow the system to balance workload across all available agents.
overflow timeout	This is an optional parameter. It is an integer value expressing the overflow timeout in minutes. The overflow timeout is the time period within which a queue server has to find an agent who accepts the task (clicks on the flashing icon on the MultiChannel console). If the task is not accepted within this time, the task is removed from the queue and placed in the MultiChannel overflow table. If you do not specify a value, the system uses the default value specified for that task type in the Task Configuration page.
escalation timeout	This is an optional parameter. It is an integer value expressing the escalation timeout in minutes. The escalation timeout is the time period within which a task must be completed by the agent and closed with DeQueue. If the task is not closed within this time, the task is removed from the queue and from the agent's accepted task list, which means the task becomes unassigned. Then the task is placed in the MultiChannel Framework escalation table. If no value is specified, the system uses the default specified for that task type in the Task Configuration pages.
cost	This is an optional parameter. It is an integer value measuring the workload each task places on an agent. The cost of a task is an estimate of the tasks's expected complexity and of the time required to resolve the task. The minimum value is 0, and there is no maximum value. The cost of a task is added to an agent's workload after accepting a task on the MultiChannel Framework console. A task can't be assigned to an agent if the difference between the current workload and the maximum workload defined for that agent on the Agent configuration page is less than the cost of this task. If you do not specify a value, the system uses the default value specified for that task in the Task Configuration pages. **Note.** If the required skill level or cost submitted exceeds the highest skill level or maximum workload of any of the agents on that queue, the task cannot be assigned.

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Parameter	Description
priority	This is an optional parameter. It is an integer value expressing the priority level of the request. The minimum value is 0 and there is no maximum value. A higher value means a higher priority. Tasks are ordered on a physical queue based on their assigned priority. That is, the system assigns a task of a higher priority before it assigns a task of a lower priority. If no value is specified, the system uses the default value specified for that task type in the Task Configuration page. When tasks have the same priority, the system orders the tasks according to the time they were created. For example, suppose the following tasks exist: Priority 2 created at 11:15 AM and Priority 2 created at 11:16 AM. In this case, the system assigns the task created at 11:15 AM before the task created at 11:16 AM.
skill level	This is an optional parameter. It is an integer value expressing the minimum skill level required of the agent to whom the system routes the request. You set an agent's skill level in the Agent configuration page. The queue server assigns this task type to an available agent on that queue whose lowest skill level is greater than or equal to the skill level required by the task. If no value is specified, the system uses the default value specified for that task type in the Task Configuration page. **Note.** If the required skill level or cost submitted exceeds the highest skill level or maximum workload of any of the agents on that queue, the task cannot be assigned.

Returns

If the insert was successful, the function returns a task number in the form of a string.

If unsuccessful, it returns a message number. The message set ID for MultiChannel Framework is 162.

For example, 1302 is returned when an invalid task type or no value is provided.

Example

```
&PortalValue = Portal.EMPLOYEE;
   &NodeValue = Node.QE_LOCAL; /*If running in Application Engine, this code
assumes CONTENT URI has been set in node defn admin page*/

   &MyCompURL = GenerateComponentContentRelURL(&PortalValue, &NodeValue,
MenuName.PT_MCF, "GBL", Component.MCFEM_DEMOERMS_CMP, Page.MCFEM_ERMSMN, "");
   &MyCompURL = &MyCompURL | "&ps_emailid=" | &emailid; /*Query string
dependent on component. Our demo comonent just needs email id*/

rem The URL to be passed will look something like;
rem "/psc/ps/EMPLOYEE/QE_LOCAL/c/PT_MCF.MCF_DEMOERMS_CMP.GBL?Page=MCFEM_ERMSMN";

&strtasknum = EnQueue(&queueID, "email", &MyCompURL, &langcode,
&subject, "QEDMO", 15, 60, &cost, &priority, &minskill);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DeQueue, page 160

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Error

Syntax

Error *str*

Description

Use the Error function in FieldEdit or SaveEdit PeopleCode to stop processing and display an error message. It is distinct from Warning, which displays a warning message, but does not stop processing. Error is also used in RowDelete and RowSelect PeopleCode events.

Warning! The behavior of the Error function in the RowSelect event is very different from its normal behavior.

See the Error in RowSelect section for more details.

The text of the error message (the *str* parameter), should always be stored in the Message Catalog and retrieved using the MsgGet or MsgGetText functions. This makes it much easier for the text to be translated, and it also enables you to include more detailed Explain text about the error.

When Error executes in a PeopleCode program, the program terminates immediately and no statements after the Error are executed. In other respects behavior of Error differs, depending on which PeopleCode event the function occurs in.

Errors in FieldEdit and SaveEdit

The primary use of Error is in FieldEdit and SaveEdit PeopleCode:

- In FieldEdit, Error stops processing, displays a message, and highlights the relevant field.
- In SaveEdit, Error stops all save processing and displays a message, but does not highlight any field. You can move the cursor to a specific field using the SetCursorPos function, but be sure to call SetCursorPos *before* calling Error, otherwise Error stops processing before SetCursorPos is called. Note that an Error on any field in SaveEdit stops all save processing, and no page data is saved to the database.

Errors in RowDelete

When the user attempts to delete a row of data, the system first prompts for confirmation. If the user confirms, the RowDelete event fires. An Error in the RowDelete event displays a message and prevents the row from being deleted.

Error in RowSelect

The behavior of Error in RowSelect is totally anomalous, and is supported only for backward compatibility. It is used to filter rows that are being added to a page scroll after the rows have been selected and brought into the component buffer. *No message is displayed.* Error causes the Component Processor to add the current row (the one where the PeopleCode is executing) to the page scroll, then stops adding any additional rows to the page scroll.

The behavior of Error in the RowSelect event enables you to filter out rows that are above or below some limiting value. In practice this technique is rarely used, because it is more efficient to filter out rows of data before they are brought into the component buffer. This can be accomplished with search views or effective date processing.

Errors in Other Events

Do not use the Error function in any of the remaining events, which include:

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- FieldDefault
- FieldFormula
- RowInit
- FieldChange
- Prepopup
- RowInsert
- SavePreChange
- SavePostChange

Parameters

Parameter	Description
Str	A string containing the text of the error message. This string should always be stored in the Message Catalog and retrieved using the MsgGet or MsgGetText function. This makes translation much easier and also enables you to provide detailed Explain text about the error.

Returns

None.

Example

The following example, from SaveEdit PeopleCode, displays an error message, stops all save processing, and places the cursor in the QTY_ADJUSTED field. Note that SetCursorPos must be called before Error.

```
If PAGES2_INV_WRK.PHYS_CYC_INV_FLG = "Y" Then
      SetCursorPos(%Page, PHYSICAL_INV.INV_LOT_ID, CurrentRowNumber(1), QTY_⇒
ADJUSTED, CurrentRowNumber());
      Error MsgGet(11100, 180, "Message not found.");
   End-If;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” MsgGet, page 370, Chapter 1, “PeopleCode Built-in Functions,” MsgGetText, page 372, Chapter 1, “PeopleCode Built-in Functions,” SetCursorPos, page 448, Chapter 1, “PeopleCode Built-in Functions,” Warning, page 551 and Chapter 1, “PeopleCode Built-in Functions,” WinMessage, page 554.

EscapeHTML

Syntax

EscapeHTML(*TextString*)

Description

Use the EscapeHTML function to replace all characters in *TextString* that would otherwise be interpreted as markup sequences.

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The characters that are replaced are ones that would cause the browser to interpret them as HTML tags or other markup if they aren't encoded, and therefore pre-formatted HTML should not be passed to this function unless the output desired is a rendering of the HTML code itself as opposed to it's interpretation. This function is intended to make the text "browser safe".

This function is for use with strings that display in an HTML area.

Either HTML character entities (eg. &lt) or Numeric Character Representations (e.g. &#039) are output by the EscapeHTML function, depending on the character passed. The table below shows the escaping that is performed by EscapeHTML.

In addition to escaping characters that could be misinterpreted as HTML tags or other elements, EscapeHTML escapes the percentage sign (%) as this could interfere with meta HTML processing. As all PeopleTools HTML is generated in Unicode, it is not necessary to escape other Unicode characters — their value may be passed directly to the browser instead of a character entity or in Numeric Character Representation.

The following table lists the Unicode characters that are escaped by the EscapeHTML function.

For example, the less-than symbol (<) is replaced with `&lt.`, a single quotation mark (') is replaced with `&#039.`, and so on.

Unicode Character Name	Glyph	Escape Sequence
Quotation mark	"	"
Ampersand	&	&
Less than sign	<	<
Apostrophe, single quote	'	'
Percentage sign	%	%
New line	Not applicable	

Parameters

Parameter	Description
TextString	Specify a string of HTML that contains characters that must be replaced with HTML escape sequences.

Returns

A string containing the original text plus HTML escape sequences.

See Also

Chapter 1, "PeopleCode Built-in Functions," EscapeJavascriptString, page 191 and Chapter 1, "PeopleCode Built-in Functions," EscapeWML, page 192.

EscapeJavascriptString

Syntax

`EscapeJavascriptString``(`*`String`*`)`

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Description

Use the EscapeJavascriptString function to replace the characters in *String* that have special meaning in a JavaScript string as escape sequences.

For example, a single quotation mark‘ (’) is replaced by \’, a new line character is replaced by \n, and so on.

This function is for use with text that becomes part of a JavaScript program.

The characters that are replaced are ones that cause the browser to misinterpret the JavaScript if they aren’t encoded. This function is intended to make the text “browser safe.” The table below shows the strings that are replaced by this function, and their replacement character sequence.

Character Name	Glyph	Description
Apostrophe, single quote	’	\’
Quotation mark	"	\"
New line	Not applicable	\n
Carriage return	Not applicable	Deleted
Double backslash	\\	\\\\

Parameters

Parameter	Description
String	Specify a string that contains character that need to be replaced with JavaScript escape sequences.

Returns

A string containing the original text plus JavaScript escape sequences.

See Also

Chapter 1, “PeopleCode Built-in Functions,” EscapeHTML, page 190 and Chapter 1, “PeopleCode Built-in Functions,” EscapeWML, page 192.

EscapeWML

Syntax

EscapeWML(*String*)

Description

Use the EscapeWML function to escape special characters that are significant to WML. This includes <, >, $ (escaped as $$), &, ’ and ".

This function is for use with strings that display on an WML browser.

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Parameters

Parameter	Description
String	Specify a string that contains characters that need to be replaced with WML escape sequences.

Returns

A string containing the original plus text plus WML escape sequences.

See Also

Chapter 1, "PeopleCode Built-in Functions," EscapeHTML, page 190 and Chapter 1, "PeopleCode Built-in Functions," EscapeJavascriptString, page 191.

Evaluate

Syntax

```
Evaluate left_term
   When [relop_1] right_term_1
     [statement_list]
   .
   .
   .
  [When [relop_n] right_term_n
     [statement_list]]
   [When-other
      [statement_list]]
End-evaluate
```

Description

Use the Evaluate statement to check multiple conditions. It takes an expression, *left_term*, and compares it to compatible expressions (*right_term*) using the relational operators (*relop*) in a sequence of When clauses. If *relop* is omitted, then = is assumed. If the result of the comparison is True, it executes the statements in the When clause, then moves on to evaluate the comparison in the following When clause. It executes the statements in all of the When clauses for which the comparison evaluates to True. If and only if none of the When comparisons evaluates to True, it executes the statement in the When-other clause (if one is provided).

To end the Evaluate after the execution of a When clause, you can add a Break statement at the end of the clause.

Considerations Using When Clause

Generally, you use the When clause without a semicolon at the end of the statement. However, in certain circumstances, this can cause an error. For example, the following PeopleCode produces an error because the PeopleCode compiler cannot separate the end of the Where clause with the beginning of the next statement:

```
When = COMPONENT.GARBAGE
     (create BO_SEARCH:Runtime:BusinessContact_Contact(&fBusObjDescr, Null, &f⇒
DerivedBOID, &fDerivedBORole, &fBusObjDescr1, Null, &fContactBOID, &fContactRole⇒
ID, &fCustBOID, &fCustRoleID, "")).SearchItemSelected();
End-Evaluate;
```

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If you place a semicolon after the When clause, the two expressions are read separately by the compiler. For example:

```
When = COMPONENT.GARBAGE;
```

Example

The following is an example of a When statement taken evaluates ACTION and performs various statements based on its value:

```
&PRIOR_STATUS = PriorEffdt(EMPL_STATUS);
Evaluate ACTION
When  "HIR"
   If %Mode = "A" Then
      Warning MsgGet(1000, 13, "You are hiring an employee and Action is not set⇒
 to Hire.");
   End-if;
   Break;
When = "REH"
   If All(&PRIOR_STATUS) and
         not (&PRIOR_STATUS = "T"  or
            &PRIOR_STATUS = "R" ) Then
      Error MsgGet(1000, 14, "Hire or Rehire action is valid
        only if employee status is Terminated or Retired.");
   End-if;
   Break;
When-Other
/* default code */
End-evaluate;
```

Exact

Syntax

Exact(*string1*, *string2*)

Description

Use the Exact function to compare two text strings and returns True if they are the same, False otherwise. Exact is case-sensitive because it uses the internal character codes.

Returns

Returns a Boolean value: True if the two strings match in a case-sensitive comparison.

Example

The examples set &MATCH to True, then False:

```
&MATCH = Exact("PeopleSoft", "PeopleSoft");
&MATCH = Exact("PeopleSoft", "Peoplesoft");
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," Len, page 353 and Chapter 1, "PeopleCode Built-in Functions," String, page 497.

Chapter 2, "Meta-SQL," %Substring, page 596

Exec

Syntax

```
Exec(command_str [, parameter])
```

where *parameter* has one of the following formats:

```
Boolean constant
Exec_Constant + Path_Constant
```

Description

Exec is a cross-platform function that executes an external program on either UNIX or Windows.

This function has two parameter conventions in order to maintain upward compatibility with existing programs.

Note. All PeopleCode is executed on the application server. So if you're calling an interactive application, you receive an error. There shouldn't be any application interaction on the application server console.

The function can make either a synchronous or asynchronous call. Synchronous execution acts as a "modal" function, suspending the PeopleSoft application until the called executable completes. This is appropriate if you want to force the user (or the PeopleCode program) to wait for the function to complete its work before continuing processing. Asynchronous processing, which is the default, launches the executable and immediately returns control to the calling PeopleSoft application.

If Exec is unable to execute the external program, the PeopleCode program terminates with a fatal error. You may want to try to catch these exceptions by enclosing such statements in a try-catch statement (from the Exception Class).

Using an Absolute Path

If you don't specify anything for the second parameter, or if you specify a Boolean value, the path to PS_HOME is prefixed to the *command_str*.

If you specify constant values for the second parameter, PS_HOME may or may not be prefixed, depending on the values you select.

You can use the GetEnv function to determine the value of PS_HOME.

Restrictions on Use in PeopleCode Events

When Exec is used to execute a program synchronously (that is, if its *synch_exec* parameter is set to True) it behaves as a think-time function, which means that it can't be used in any of the following PeopleCode events:

- SavePreChange.
- SavePostChange.
- Workflow.
- RowSelect.

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- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Think-Time Functions

Parameters

Parameter	Description
command_str	Specify a string containing the path and name of the executable file.
Boolean | *Constants*	If you specify a Boolean value, it indicates whether to execute the external program synchronously or asynchronously. Values are: • True - Synchronous • False - Asynchronous (default) If you don't specify a value, the program executes asynchronously. If you use this style, PS_HOME is always prefixed to *command_str*. If you specify constant values, you're specifying a numeric value composed of an *exec_constant* and a *path_constant*. The *exec_constant* specifies whether to execute the external program synchronously or not. The *path_constant* specifies how the path name is to be treated. The value specified is made up of the addition of these predefined constants. The function automatically converts the first token on *command_str* platform-specific separator characters to the appropriate form for where your PeopleCode program is executing, regardless of the *path_constant*. On a WIN32 system, a UNIX "/" separator is converted to "\", and on a UNIX system, a WIN32 "\" separator is converted to "/". This is only done for the first token on *command_str* assuming it to be some sort of file specification. This allows you to put file or program names in canonical form (such as, Unix style) as the first token on the exec command. For example: `&ExitCode = Exec("/ourbin/magicprogram ....", %Exec_⇒ Synchronous + %FilePath_Absolute);` Values are:

Exec Constant	Description
%Exec_Asynchronous	Program executes asynchronously (the default)
%Exec_Synchronous	Program executes synchronously.

Path Constant	Description
%FilePath_Relative	PS_HOME is prefixed to *command_str*.
%FilePath_Absolute	Nothing is prefixed to *command_str*.

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Returns

What is returned depends on what you specified for the second parameter.

If you specified a Boolean, a Number value equal to the process ID of the called process is returned.

If you specify constant values, the returned value contains the value of the exit code of the program executed using this function, unless you have executed the program asynchronously.

Example

```
&ExitCode = Exec("sh -c " | &scriptFile, %Exec_Synchronous + %FilePath_Absolute);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Declare Function, page 146, Chapter 1, "PeopleCode Built-in Functions," RemoteCall, page 409, Chapter 1, "PeopleCode Built-in Functions," WinExec, page 554, Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435, Chapter 1, "PeopleCode Built-in Functions," ScrollSelectNew, page 437, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelectNew, page 431 and Chapter 1, "PeopleCode Built-in Functions," GetEnv, page 268.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," Select

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Exception Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Think-Time Functions

ExecuteRolePeopleCode

Syntax

ExecuteRolePeopleCode(*RoleName*)

Description

Use the ExecuteRolePeopleCode function to execute the PeopleCode Rule for the Role *RoleName*. This function returns an array of string containing dynamic members (UserIds).

Typically, this function is used by an Application Engine process that runs periodically and executes the role rules for different roles. It could then write the results of the rules (a list of users) into the security tables, effectively placing users in certain roles based on the rule.

Parameters

Parameter	Description
RoleName	Specify the name of an existing role.

Returns

An array of string containing the appropriate UserIds.

Example

The following saves valid users to a temporary table:

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```
Local array of string &pcode_array_users;

SQLExec("delete from ps_dynrole_tmp where ROLENAME=:1", &ROLENAME);
   If &pcode_rule_status = "Y" Then
      SQLExec("select RECNAME, FIELDNAME, PC_EVENT_TYPE, PC_FUNCTION_NAME from⇒
 PSROLEDEFN where ROLENAME= :1", &ROLENAME, &rec, &fld, &pce, &pcf);
      If (&rec <> "" And
            &fld <> "" And
            &pce <> "" And
            &pcf <> "") Then
         &pcode_array_users = ExecuteRolePeopleCode(&ROLENAME);
         &pcode_results = True;
      Else
         &pcode_results = False;
      End-If;
      &comb_array_users = &pcode_array_users;
   End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ExecuteRoleQuery, page 198, Chapter 1, "PeopleCode Built-in Functions," ExecuteRoleWorkflowQuery, page 199, Chapter 1, "PeopleCode Built-in Functions," IsUserInPermissionList, page 350 and Chapter 1, "PeopleCode Built-in Functions," IsUserInRole, page 351.

Chapter 3, "System Variables," %Roles, page 625

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

ExecuteRoleQuery

Syntax

ExecuteRoleQuery(*RoleName*, *BindVars*)

where *BindVars* is an arbitrary-length list of bind variables that are stings in the form:

bindvar1 [, *bindvar2*]. . .

Description

Use the ExecuteRoleQuery function to execute the Query rule for the role *rolename*, passing in *BindVars* as the bind variables. This function returns an array object containing the appropriate user members (UserIds).

Parameters

Parameter	Description
RoleName	Specify the name of an existing role.
BindVars	A list of bind variables to be substituted in the query. These bind variables must be strings. You can't use numbers, dates, and so on.

Returns

An array object containing the appropriate UserIds.

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See Also

Chapter 1, "PeopleCode Built-in Functions," ExecuteRolePeopleCode, page 197, Chapter 1, "PeopleCode Built-in Functions," ExecuteRoleWorkflowQuery, page 199, Chapter 1, "PeopleCode Built-in Functions," IsUserInPermissionList, page 350 and Chapter 1, "PeopleCode Built-in Functions," IsUserInRole, page 351.

Chapter 3, "System Variables," %Roles, page 625

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ExecuteRoleWorkflowQuery

Syntax

```
ExecuteRoleWorkflowQuery(RoleName, BindVars)
```

where *BindVars* is an arbitrary-length list of bind variables in the form:

```
bindvar1 [, bindvar2]. . .
```

Description

Use the ExecuteRoleWorkflowQuery function to execute the Workflow Query rule for the role *rolename*, passing in *BindVars* as the bind variables. This function returns an array object containing the appropriate user members (UserIds).

Parameters

Parameter	Description
RoleName	Specify the name of an existing role.
BindVars	A list of bind variables to be substituted in the query.

Returns

An array object containing the appropriate UserIds.

See Also

Chapter 1, "PeopleCode Built-in Functions," ExecuteRolePeopleCode, page 197, Chapter 1, "PeopleCode Built-in Functions," ExecuteRoleQuery, page 198, Chapter 1, "PeopleCode Built-in Functions," IsUserInPermissionList, page 350 and Chapter 1, "PeopleCode Built-in Functions," IsUserInRole, page 351.

Chapter 3, "System Variables," %Roles, page 625

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

Exit

Syntax

```
Exit([1])
```

Description

Use the Exit statement to immediately terminate a PeopleCode program. If the Exit statement is executed within a PeopleCode function, the main program terminates.

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Note. `Exit(1)` does *not* rollback iScript transactions. To rollback in an iScript, you can use the SqlExec built-in function with the parameter of ROLLBACK (`SQLEXEC("ROLLBACK")`) or the MessageBox built-in function with a message error severity of error. You can also use the built-in function Error, but only if you are not sending HTML or XML in the error text itself.

Parameters

Parameter	Description
1	Use this parameter to rollback database changes. Generally, this parameter is used in PeopleCode programs that affect messages. When used with a message, all database changes are rolled back, errors for the subscription contract are written to the subscription contract error table, and the status of the message is marked to Error. All errors that have occurred for this message are viewable in the message monitor: even those errors detected by the ExecuteEdits method.

Note. This function takes only numeric values. It fails if you use a Boolean value, True or False.

Returns

None.

Example

The following example terminates the main program from a For loop:

```
For &I = 1 To ActiveRowCount(RECORD.SP_BUIN_NONVW)
  &ITEM_SELECTED = FetchValue(ITEM_SELECTED, &I);
  If &ITEM_SELECTED = "Y" Then
      &FOUND = "Y";
      Exit;
  End-If;
End-For;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Break, page 52 and Chapter 1, "PeopleCode Built-in Functions," Return, page 422.

Exp

Syntax

Exp(*n*)

Description

Exp returns the constant *e* raised to the power of *n* where *n* is a number. The constant *e* equals 2.71828182845904, the base of natural logarithms. The number *n* is the exponent applied to the base *e*.

Exp is the inverse of the Ln function, which is the natural logarithm of x.

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Returns

Returns a Number value equal to the constant *e* raised to the power of *n*.

Example

The examples set &NUM to 2.71828182845904, then 7.389056099(e2):

```
&NUM = Exp(1);
&NUM = Exp(2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Ln, page 354 and Chapter 1, "PeopleCode Built-in Functions," Log10, page 357.

ExpandBindVar

Syntax

ExpandBindVar(*str*)

Description

Inline bind variables can be included in any PeopleCode string. An inline bind variable is a field reference (in the form *recordname.fieldname*), preceded by a colon. The inline bind variable references the value in the field.

Use the ExpandBindVar function to expand any inline bind variables that it finds in *str* into strings (converting the data type of non-character fields) and returns the resulting string. This works with inline bind variables representing fields containing any data type except Object. It also expands bind variables specified using additional parameters.

See Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487.

Parameters

Parameter	Description
str	A string containing one or more inline bind variables.

Returns

Returns a String value equal to the input string with all bind variables expanded.

Example

A bind variable is included in the string &TESTSTR, which is then expanded into a new string containing the current value of BUS_EXPENSE_PER.EMPLID in place of the bind variable. If this program runs on the row for EMPLID 8001, the message displayed reads "This is a test using EmplID 8001".

```
&TESTSTR = "This is a test using EmplID :bus_expense_per.emplid";
&RESULT = ExpandBindVar(&TESTSTR);
WinMessage(&RESULT);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," MessageBox, page 362 and Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487.

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ExpandEnvVar

Syntax

ExpandEnvVar(*string*)

Description

Use the ExpandEnvVar function to convert any environment variables that it finds within *string* into String values and returns the entire resulting string.

Parameters

Parameter	Description
string	A string containing an environment variable.

Returns

Returns a string equal to *string* with any enclosed environment variables expanded to their values.

Example

Assume that the environment variable %NETDRIVE% is equal to "N:". The following PeopleCode sets *&newstring* equal to "The network drive is equal to N:":

```
&newstring = ExpandEnvVar("The network drive is equal to %netdrive%.");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ExpandBindVar, page 201, Chapter 1, "PeopleCode Built-in Functions," GetEnv, page 268 and Chapter 1, "PeopleCode Built-in Functions," GetCwd, page 268.

ExpandSqlBinds

Syntax

ExpandSqlBinds(*string*)

Description

Prior to PeopleTools 8.0, the PeopleCode replaced runtime parameter markers in SQL strings with the associated literal values. For databases that offer SQL statement caching, a match was never found in the cache so the SQL had to be re-parsed and re-assigned a query path.

To process skipped parameter markers, each parameter marker is assigned a unique number. This doesn't change the values associated with the parameter markers.

However, *some SQL statements can't contain parameter markers because of database compatibility*.

To process these exceptions, use the ExpandSqlBinds function. This function does the bind variable reference expansion, and can be used within a SQLExec statement or on its own.

You should use ExpandSQLBinds *only* for those parts of the string that you want to put literal values into. The following code shows how to use ExpandSQLBinds with %Table:

```
SQLExec(ExpandSqlBinds("Insert....  Select A.Field, :1, :2 from ", "01", "02") |⇒
 "%table(:1)", Record.MASTER_ITEM_TBL);
```

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Parameters

Parameter	Description
string	Specify the string you want to do the bind variable reference expansion on.

Returns

A string.

Example

The following example shows both the original string and what it expands to.

```
&NUM = 1;
&STRING = "My String";
&STR2 = ExpandSqlBinds("This :2 is an expanded string(:1)", &STRING, &NUM);
```

The previous code produces the following value for &STR2:

```
This 1 is an expanded string(My String)
```

If you're having problems with an old SQL statement binds, you can use ExpandSqlBinds with it. For example, if your SQLExec is this:

```
SQLExec("String with concatenated bindrefs 'M':2, 'M':1", &VAR1, &VAR2),⇒
 &FETCHRESULT1, &FETCHRESULT2);
```

you can make it work by expanding it as follows:

```
SQLExec(ExpandSqlBinds("String with concatenated bindrefs 'M':2, 'M':1", &VAR1,⇒
 &VAR2), &FETCHRESULT1, &FETCHRESULT2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

Fact

Syntax

Fact(*x*)

Description

Use the Fact function to return the factorial of a positive integer *x*. The factorial of a number *x* is equal to 1*2*3*...**x*. If *x* is not an integer, it is truncated to an integer.

Returns

Returns a Number equal to the factorial of x.

Example

The example sets &X to 1, 1, 2, then 24. Fact(2) is equal to 1*2; Fact(4) is equal to 1*2*3*4:

```
&X = Fact(0);
&X = Fact(1);
```

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```
&X = Fact(2);
&X = Fact(4);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Product, page 394

FetchSQL

Syntax

FetchSQL([**SQL.**]*sqlname*[, *dbtype*[, *effdt*]])

Description

Use the FetchSQL function to return the SQL definition with the given *sqlname* as SQL.*sqlname or* a string value, matching the *dbtype* and *effdt*. If *sqlname* is a literal name, it must be in quotes.

Parameters

Parameter	Description
sqlname	Specify the name of a SQL definition. This is either in the form **SQL**.*sqlname* or a string value giving the *sqlname.*
dbtype	Specify the database type associated with the SQL definition. This parameter takes a string value. If *dbtype* isn't specified or is null (""), it is set by default to the current database type (the value returned from the %DbType system variable.) Values for *dbtype* are as follows. These values are not case-sensitive: • APPSRV • DB2ODBC • DB2UNIX • INFORMIX • MICROSFT • ORACLE • SYBASE **Note.** Database platforms are subject to change.
effdt	Specify the effective date associated with the SQL definition. If *effdt* isn't specified, it is set by default to the current as of date, that is, the value returned from the %AsOfDate system variable.

Returns

The SQL statement associated with *sqlname* as a string.

Example

The following code gets the text associated with the ABCD_XY SQL Definition for the current DBType and as of date:

```
&SQLSTR = FetchSQL(SQL.ABC_XY);
```

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The following code gets the text associated with the ABCD_XY SQL Definition for the current DBType and November 3, 1998:

```
&SQLSTR = FetchSQL(SQL.ABCD_XY, "", Date(19981103));
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateSQL, page 125, Chapter 1, "PeopleCode Built-in Functions," DeleteSQL, page 157, Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487, Chapter 1, "PeopleCode Built-in Functions," GetSQL, page 308 and Chapter 1, "PeopleCode Built-in Functions," StoreSQL, page 495.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"
Chapter 3, "System Variables," %AsOfDate, page 610 and Chapter 3, "System Variables," %DbName, page 614.

FetchValue

Syntax

FetchValue(*scrollpath*, *target_row*, [*recordname*.]*fieldname*)

where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD.***target_recname*

To prevent ambiguous references, you can also use **SCROLL**.*scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the FetchValue function to return the value of a buffer field in a specific row of a scroll level.

Note. This function remains for backward compatibility only. Use the Value field class property instead.

This function is generally used to retrieve the values of buffer fields outside the current context; if a buffer field is in the current context, you can reference it directly using a [*recordname*.]*fieldname* expression.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Value

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," LongTranslateValue

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," ShortTranslateValue

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

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Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	An integer specifying the row on the target scroll level where the referenced buffer field is located.
[*recordname*.]*fieldname*	The name of the field where the value to fetch is located. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to FetchValue is in a record definition other than *recordname*.

Returns

Returns the field value as an Any data type.

Example

The following example retrieves the value from field DEPEND_ID in record DEPEND on row &ROW_CNT from scroll level one:

```
&VAL = FetchValue(SCROLL.DEPEND, &ROW_CNT, DEPEND.DEPEND_ID);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ActiveRowCount, page 31, Chapter 1, "PeopleCode Built-in Functions," CopyRow, page 102, Chapter 1, "PeopleCode Built-in Functions," CurrentRowNumber, page 133, Chapter 1, "PeopleCode Built-in Functions," PriorValue, page 393 and Chapter 1, "PeopleCode Built-in Functions," UpdateValue, page 540.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer"

FieldChanged

Syntax

The syntax of the FieldChanged function varies depending on whether you want to use a scroll path reference or a contextual reference to specify the field.

If you want to use a scroll path reference, the syntax is:

```
FieldChanged(scrollpath, target_row, [recordname.]fieldname)
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL**.*scrollname*, where *scrollname* is the same as the scroll level's primary record name.

If you want to use a contextual reference, the syntax is:

```
FieldChanged([recordname.]fieldname)
```

In this construction the scroll level and row number are determined based on the current context.

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Description

The FieldChanged function returns True if the referenced buffer field has been modified since being retrieved from the database either by a user or by a PeopleCode program.

Note. This function remains for backward compatibility only. Use the IsChanged field class property instead.

This is useful during SavePreChange or SavePostChange processing for checking whether to make related updates based on a change to a field.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," IsChanged

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
[*recordname*.]*fieldname*	The name of the field where the value to check is located. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to FieldChanged is in a record definition other than *recordname*.
target_row	The row number of the target row. If this parameter is omitted, the function assumes the row on which the PeopleCode program is executing.

Related Functions

Save PeopleCode programs (SaveEdit, SavePreChange, SavePostChange) normally process each row of data in the component. The following four functions enable you to control more precisely when the Component Processor should perform save PeopleCode:

- FieldChanged
- RecordChanged
- RecordDeleted
- RecordNew

These functions enable you to restrict save program processing to specific rows.

Example

The following example checks three fields and sets a flag if any of them has changed:

```
/* Set the net change flag to 'Yes' if the scheduled date, scheduled */
/*  time or quantity requested is changed */
If FieldChanged(QTY_REQUESTED) Or
      FieldChanged(SCHED_DATE) Or
      FieldChanged(SCHED_TIME) Then
   NET_CHANGE_FLG = "Y";
```

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```
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RecordChanged, page 402, Chapter 1, "PeopleCode Built-in Functions," RecordDeleted, page 404 and Chapter 1, "PeopleCode Built-in Functions," RecordNew, page 406.

FileExists

Syntax

FileExists(*filename* [, *pathtype*])

Description

Use the FileExists function to determine whether a particular external file is present on your system, so you can decide which mode to use when you open the file for writing.

Note. If you want to open a file for reading, you should use the GetFile function or the Open File Class method with the "e" mode, which prevents another process from deleting or renaming the file between the time you tested for the file and when you open it.

Working With Relative Paths

If you specify a relative path, that path is appended to the path specified by an environmental variable, if the variable exists, in a particular order. This means if the first environmental variable in order is found, that is the one that's used. If it isn't found, the next one is searched for, and if found, is used, and so on.

The environmental variables that get used are different, depending on whether the machine where the code is running is an application server or not. If the code is running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]

If the code is *not* running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]
3. TEMP[\relative_path]

The PS_FILEDIR environmental variable is *not* initialized and set to a path automatically. If you want to use this environmental variable, you must set it yourself.

Note. Your system security should verify if a user has the correct permissions before allowing access to a drive (for example, if a user changes their **TEMP** environmental variable to a network drive they don't normally have access to, your system security should detect this.)

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Parameters

Parameter	Description
filespec	Specify the name, and optionally, the path, of the file you want to test.
pathtype	If you have prepended a path to the file name, use this parameter to specify whether the path is an absolute or relative path. The valid values for this parameter are: • %FilePath_Relative (default) • %FilePath_Absolute If you don't specify *pathtype* the default is %FilePath_Relative. If the path is an absolute path, whatever path you specify is used verbatim. You must specify a drive letter as well as the complete path. You can't use any wildcards when specifying a path. The function automatically converts platform-specific separator characters to the appropriate form for where your PeopleCode program is executing. On a WIN32 system, UNIX "/" separators are converted to "\", and on a UNIX system, WIN32 "\" separators are converted to "/".

Note. The syntax of the file path does *not* depend on the file system of the platform where the file is actually stored; it depends only on the platform where the PeopleCode is executing.

Returns

A Boolean value: True if the file exists, False if it doesn't.

Example

The following example opens a file for appending if it exists on the system:

```
If FileExists("c:\work\item.txt", %FilePath_Absolute) Then
   &MYFILE = GetFile("c:\work\item.txt", "A");
   /* Process the file */
   &MYFILE.Close();
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," FindFiles, page 212 and Chapter 1, "PeopleCode Built-in Functions," GetFile, page 270.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class," Open

Find

Syntax

```
Find(string, within_string [, number])
```

Description

Use the Find function to locate one string of text within another string of text and returns the character position of the string as an integer. Find is case-sensitive and does not allow wildcards.

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If you need to do either case-sensitive search or pattern matching, just to find if a string matches a pattern, use the DBPatternMatch function.

If you need to find a quotation mark, you need to double it in a string.

```
&find = Find("""", PSOPRDEFN_SRCH.OPRID);
```

Parameters

Parameter	Description
string	The text you are searching for. A tilde character (~) used in the *string* parameter stands for an arbitrary number of white spaces.
within_string	The text string you are searching within.
number	The position of *within_string* at which you want to start your search. If you omit *number*, Find starts at the first character of *within_string*.

Returns

Returns a Number value indicating the starting position of *string* in *within_string*.

Find returns with 0 if *string* does not appear in *within_string*, if *number* is less than or equal to zero, or if *number* is greater than the length of *within_string*.

Example

In the following example, the first statement returns 1; the second statement returns 6.

```
&POS = Find("P", "PeopleSoft")
&POS = Find("e", "PeopleSoft", 4)
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Exact, page 194, Chapter 1, "PeopleCode Built-in Functions," Len, page 353 and Chapter 1, "PeopleCode Built-in Functions," DBPatternMatch, page 145.

Findb

Syntax

Findb(*string, within_string [, number]*)

Description

Note. This function has been deprecated and is no longer supported.

FindCodeSetValues

Syntax

FindCodeSetValues(*CodesetName, &NameValuePairs, SourceNodeName, TargetNodeName*)

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Description

Use the FindCodeSetValues function to find a list of code set name-value pairs. Code sets are primarily used with data value translations as part of a transformation.

Parameters

Parameter	Description
CodeSetName	Specify the name of the code set you want to find, as a string.
&NameValuePairs	Specify a 2 dimensional array containing the name value pairs in the specified code set that you want to use.
SourceNodeName	Specify the name of the source (initial) node used in the data transformation.
TargetNodeName	Specify the name of the target (result) node used in the data transformation.

Returns

A two-dimensional array of any.

Example

This example checks the specified CodeSet values, with the name value pairs of "locale/en_us" and "uom/box". It takes the returned array and adds XML nodes to the document. The XML nodes names are the unique names of the CodeSet value, and the XML node value is the corresponding return value.

```
/* Get the data from the AE Runtime */
Local TransformData &incomingData = %TransformData;

/* Set a temp object to contain the incoming document */
Local XmlDoc &tempDoc = &incomingData.XmlDoc;

/* Declare the node */
Local XmlNode &tempNode;

/* Create an array to hold the name value pairs */
   Local array of array of string &inNameValuePairsAry;

/* Clear out the doc and put in a root node */
If (&tempDoc.ParseXmlString("<?xml version=""1.0""?><xml/>")) Then

   /* Load the array with some values */
   &inNameValuePairsAry = CreateArray(CreateArray("locale", "en_us"), CreateArray⇒
("uom", "box"));

   /* Find the codeset values */
   &outAry = FindCodeSetValues("PS_SAP_PO_01", &inNameValuePairsAry, "SAP_SRC",⇒
 "PSFT_TGT");

/*    Local XmlNode &tempNode; */
```

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```
   /* Make sure something was returned */
   If &outAry.Len > 0 Then

      /* Loop through the quantities and make sure they are all above 5 */
      For &i = 1 To &outAry.Len

         /* Add the current system date to the working storage*/
         &tempNode = &tempDoc.DocumentElement.AddElement(&outAry [&i][1]);
         &tempNode.NodeValue = &outAry [&i][2];

      End-For;
   End-If;
End-If;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Applying Filtering, Transformation and Translation"

FindFiles

Syntax

FindFiles(*filespec_pattern* [, *pathtype*])

Description

Use the FindFiles function to return a list of the external filenames that match the filename pattern you provide, in the location you specify.

Working With Relative Paths

If you specify a relative path, that path is appended to the path specified by an environmental variable, if the variable exists, in a particular order. This means if the first environmental variable in order is found, that is the one that's used. If it isn't found, the next one is searched for, and if found, is used, and so on.

The environmental variables that are used are different, depending on whether the machine where the code is running is an application server. If the code is running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]

If the code is *not* running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]
3. TEMP[\relative_path]

The PS_FILEDIR environmental variable is *not* initialized and set to a path automatically. To use this environmental variable, you must set it yourself.

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Note. Your system security should verify if a user has the correct permissions before allowing access to a drive (for example, if a user changes their **TEMP** environmental variable to a network drive they don't normally have access to, your system security should detect this.)

Parameters

Parameter	Description
filespec_pattern	Specify the path and filename pattern for the files you want to find. The path can be any string expression that represents a single relative or absolute directory location. The filename pattern, but not the path, can include two wildcards: ***** (Asterisk): matches zero or more characters at its position. **?** (Question mark): matches exactly one character at its position.
pathtype	If you have prepended a path to the file name, use this parameter to specify whether the path is an absolute or relative path. The valid values for this parameter are: • %FilePath_Relative (default) • %FilePath_Absolute If you don't specify *pathtype* the default is %FilePath_Relative. If the path is an absolute path, whatever path you specify is used verbatim. You must specify a drive letter as well as the complete path. You can't use any wildcards when specifying a path. The function automatically converts platform-specific separator characters to the appropriate form for where your PeopleCode program is executing. On a WIN32 system, UNIX "/" separators are converted to "\", and on a UNIX system, WIN32 "\" separators are converted to "/".

Note. The syntax of the file path does *not* depend on the file system of the platform where the file is actually stored; it depends only on the platform where the PeopleCode is executing.

Returns

A string array whose elements are filenames qualified with the same relative or absolute path you specified in the input parameter to the function.

Example

The following example finds all files in the system's TEMP location whose names end with ".txt", then opens and processes each one in turn:

```
Local array of string &FNAMES;
Local file &MYFILE;

&FNAMES = FindFiles("\*.txt");
while &FNAMES.Len > 0
   &MYFILE = GetFile(&FNAMES.Shift(), "R");  /* Open each file */
      /* Process the file contents */
   &MYFILE.Close();
end-while;
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," FileExists, page 208 and Chapter 1, "PeopleCode Built-in Functions," GetFile, page 270.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

FlushBulkInserts

Syntax

```
FlushBulkInserts()
```

Description

Use the FlushBulkInserts function to move the bulk inserted rows from the bulk insert buffers of the PeopleSoft process to the physical tables on the database. This flushes all open SQL objects that have pending bulk inserts, but performs no COMMITs. If the flush fails, the PeopleCode program terminates.

When executing a SQL insert using a SQL object with the BulkMode property set to True, the rows being inserted cannot be selected by this database connection until the bulk insert is flushed. For another connection to the database to be able to select those rows, both a flush and a COMMIT are required. To have your process see the bulk inserted rows without committing and without closing the SQL object or its cursor (that is, maintaining reuse for the SQL object), use FlushBulkInserts.

An example of using this function would be in preparation for a database commit where you do not want to close the SQL insert statement, but need to ensure that all the rows you have inserted up to this point are in fact in the database and not in the buffer.

Another example would be when another SQL statement in the same PeopleSoft process needs to select rows that have been inserted using bulk insert and you do not want to close the SQL insert statement. The SELECT cannot read rows in the bulk insert buffer, so you need to flush them to the table from which the SELECT is reading.

Parameters

None.

Returns

None. If the flush fails, the PeopleCode program terminates.

Example

```
&CM_DEPLETION_REC = CreateRecord(Record.CM_DEPFIFO_VW);
&CM_DEPLETE_REC = CreateRecord(Record.CM_DEPLETE);
&DEPLETE_FIFO_SEL = GetSQL(SQL.CM_DEPLETE_FIFO_SEL);
&ONHAND_FIFO_SEL = GetSQL(SQL.CM_ONHAND_FIFO_SEL);
DEPLETE_INS = GetSQL(SQL.CM_DEPLETE_INS);
&DEPLETE_INS.BulkMode = True;

&DEPLETE_FIFO_SEL.Execute(&CM_DEPLETION_REC, CM_COSTING_AET.BUSINESS_UNIT, CM_⇒
COSTING_AET.CM_BOOK);
While &DEPLETE_FIFO_SEL.Fetch(&CM_DEPLETION_REC);
```

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```
      /* Call functions that populate &CM_DEPLETE_REC.values */
      . . .
      &DEPLETE_INS.Execute(&CM_DEPLETE_REC);
      .  .  .
      If &CM_DEPLETION_REC.CM_COST_PROC_GROUP.Value = "BINTOBIN" Then
         /* Bin to Bin transfers are both a deplete and receipt, call functions to⇒
    create the receipt */
         .  .  .
            /* Flush Bulk Insert to be able to see the current on hand quantities in⇒
    CM_ONHAND_VW */
            FlushBulkInserts();
      End-if;
   End-While;
   .  .  .
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Applying Filtering, Transformation and Translation"

For

Syntax

```
For count = expression1 To expression2
    [Step i];
    statement_list
End-for
```

Description

Use the For loop to cause the statements of the *statement_list* to be repeated until *count* is equal to *expression2*. Step specifies the value by which *count* will be incremented each iteration of the loop. If you do not include Step, *count* is incremented by 1 (or -1 if the start value is greater than the end value.) Any statement types are allowed in the loop, including other loops.

A Break statement inside the loop causes execution to continue with whatever follows the loop. If the Break occurs in a nested loop, the Break does not apply to the outside loop.

Example

The following example loops through all of the rows for the FIELDNAME scroll area:

```
&FIELD_CNT = ActiveRowCount(DBFIELD_VW.FIELDNAME);
For &I = 1 to &FIELD_CNT;
   WinMessage(MsgGetText(21000, 1, "Present Row Number is: %1", &I));
End-for;
```

FormatDateTime

Syntax

```
FormatDateTime(datetime, {timezone | "Local" | "Base"}, displayTZ)
```

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Description

Use the FormatDateTime function to take a *datetime* value and convert it to text. If a specific time zone abbreviation, or a field reference, is passed in *timezone*, FormatDateTime adjusts the datetime to the user's local time zone instead of the specified time zone. The system's base time zone is specified on the PSOPTIONS table. The value *datetime* is assumed to be in base time.

See *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*, "Using PeopleTools Utilities".

If **Local** is specified for time zone, FormatDateTime adjusts the datetime to the user's local time zone instead of a specific time zone.

If True is specified for *displayTZ*, FormatDateTime appends the time zone abbreviation to the returned string.

Parameters

Parameter	Description
datetime	Specify the datetime value to be formatted.
timezone | **Local** | **Base**	Specify a value for converting *datetime*. The values are: • *timezone* - a time zone abbreviation or a field reference to be used for converting *textdatetime*. • **Local** - use the local time zone for converting *textdatetime.* • **Base** - use the base time zone for converting *textdatetime*.
displayTZ	Specify whether the time zone abbreviation should be appended to the returned string. This parameter takes a Boolean: True if the abbreviation should be appended, False, otherwise.

Returns

A formatted string value.

Example

The following example populates the &DISPDATE variable with a string containing the datetime value in the ORDER_DATE field adjusted to the user's local time zone, and with the time zone abbreviation.

```
&DISPDATE=FormatDateTime(ORDER_DATE, "Local", True);
```

The following example populates the &DISPDATE variable with a string containing the datetime value in the SHIP_DATE field adjusted to the time zone stored in the SHIP_TZ field, and does not include the time zone abbreviation in the output.

```
&DISPDATE=FormatDateTime(SHIP_DATE, SHIP_TZ, False);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertDatetimeToBase, page 95, Chapter 1, "PeopleCode Built-in Functions," ConvertTimeToBase, page 97, Chapter 1, "PeopleCode Built-in Functions," DateTimeToLocalizedString, page 137, Chapter 1, "PeopleCode Built-in Functions," IsDaylightSavings, page 340, Chapter 1, "PeopleCode Built-in Functions," DateTimeToTimeZone, page 140, Chapter 1, "PeopleCode Built-in Functions," TimeToTimeZone, page 506, Chapter 1, "PeopleCode Built-in Functions," TimeZoneOffset, page 507 and Chapter 1, "PeopleCode Built-in Functions," DateTimeToHTTP, page 136.

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Forward

Syntax

```
Forward(from physical queue ID, from agent ID, task number, task type, to
logical queue ID[, to agent ID])
```

Description

Use the Forward function to transfer a task from one agent to another agent or from one agent's logical queue to another logical queue. This enables agents to reroute tasks that are not appropriate for their skill level or functional expertise.

Keep the following in mind when using Forward:

- The queue server subtracts the task's cost from the transferring agent's workload.
- The system cannot forward tasks to logical queues that do not have active physical queues on the same MultiChannel Framework cluster as the physical queue to which the task currently belongs. That is, you can't forward tasks *across* MultiChannel Framework clusters.
- A queue server does not allow a task to be transferred if the agent who owns that task is not logged on to that queue server. PeopleSoft recommends that you only use Forward for application pages that the MultiChannel Framework console launches when agents accept or activate assigned tasks.
- Forward only applies to email and generic task types.

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Parameters

Parameter	Description
from physical queue ID	The physical queue is the internal representation of the logical queue that the agent signs onto and to which the task currently belongs. This is a string value, such as "sales3" or "marketing2." You retrieve the current physical queue from the query string in the URL of the page launched by the MultiChannel Framework console. Use the GetParameter request class method with the value `ps_qid`
from agent ID	Specifies the current agent, as in the agent that "accepted" the task. This is a string value. You retrieve the current physical queue from the query string in the URL of the page launched by the MultiChannel Framework console. Use the GetParameter request class method with the value `ps_agentid`.
task number	Identifies the task to be forwarded. The EnQueue function returns this value. This is a string value. You retrieve the current physical queue from the query string in the URL of the page launched by the MultiChannel Framework console. Use the GetParameter request class method with the value `ps_tasknum`.
task type	Identifies the task type. This value is provided by the queue. This is a string value. Valid values are: • email • generic You retrieve the current physical queue from the query string in the URL of the page launched by the MultiChannel Framework console. Use the GetParameter request class method with the value `ps_tasktype`.
to logical queue ID	Specifies the logical queue to which the system forwards the task. This is a string value. The queue ID is case sensitive and must match the case used when you created the queue using the Queues page.
to agent ID	This is an optional parameter. It is a string value specifying a particular agent ID to receive the forwarded task. If this value is specified, the system holds the task until the specified agent is available on the new queue to take this task. This means that the specified agent must be able to log in to one of the physical queues belonging to the destination logical queue. The system determines which physical queue the specified agent has access to and assigns the task to that queue for that agent. If the agent ID is not specified, the physical queue is chosen at random from the active physical queues. **Note.** For better performance, PeopleSoft recommends not specifying the target agent as this has a processing overhead for the queue servers and does not allow the system to balance workload across all available agents.

Returns

Returns 0 on success.

If unsuccessful, it returns a message number. The message set ID for MultiChannel Framework is 162.

For example, 1302 is returned when an invalid task type or no value is provided.

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Example

```
Forward("SALES5", "TSAWYER", "email_2145", "email", "MARKETING", "GSALMON");
```

The following example shows how to retrieve parameters from the application page using the GetParameter request class method.

```
PSMCFFUNCLIB.MCF_QUEUE.Value = %Request.GetParameter("ps_qid");
PSMCFFUNCLIB.MCF_TASKTYPE.Value = %Request.GetParameter("ps_tasktype");
PSMCFFUNCLIB.MCF_TASKNUM.Value = %Request.GetParameter("ps_tasknum");
PSMCFFUNCLIB.MCF_AGENTID.Value = %Request.GetParameter("ps_agentid");

&nret = Forward(PSMCFFUNCLIB.MCF_QUEUE, PSMCFFUNCLIB.MCF_AGENTID, PSMCFFUNCLIB.MCF_⇒
⇒
⇒
⇒
⇒
TASKNUM, PSMCFFUNCLIB.MCF_TASKTYPE, &ToQueue);

If &nret = 0 Then
      MessageBox(0, "", 0, 0, "Successfully forwarded.");
      End-If
```

Function

Syntax

```
Function name [(paramlist)] [Returns data_type]
   [statements]
End-function
```

Where *paramlist* is:

```
&param1 [As data_type] [, &param2 [As data_type]]...
```

Where *data_type* is any valid data type, including Number, String, Date, Rowset, SQL, Record, and so on.

Where *statements* is a list of PeopleCode statements.

Description

PeopleCode functions can be defined in any PeopleCode program. Function definitions must be placed at the top of the program, along with any variable and external function declarations.

Functions can be called from the program in which they are defined, in which case they don't need to be declared, and they can be called from another program, in which case they need to be declared at the top of the program where they are called.

Any variables declared within a function are valid for the scope of the function.

By convention, external PeopleCode functions are stored in records whose names begin in FUNCLIB_, and they are always placed in the FieldFormula event (which is convenient because this event should no longer be used for anything else).

Note. Functions can be stored in the FieldFormula event only for record fields, *not* for component record fields.

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A function definition consists of:

- The keyword Function followed by the name of the function and an optional list of parameters. The name of the function can be up to 100 characters in length.
- An optional Returns clause specifying the data type of the value returned by the function.
- The statements to be executed when the function is called.
- The End-function keyword.

The parameter list, which must be enclosed in parentheses, is a comma-separated list of variable names, each prefixed with the & character. Each parameter is optionally followed by the keyword As and the name for one of the conventional PeopleCode data types (Number, String, Date, and so on) or any of the object data types (such as Rowset, SQL, and so on.) If you specify data types for parameters, then function calls are checked to ensure that values passed to the function are of the appropriate type. If data types are not specified, then the parameters, like other temporary variables in PeopleCode, take on the type of the value that is passed to them.

PeopleCode parameters are always passed by reference. This means that if you pass the function a variable from the calling routine and change the value of the variable within the function, the value of the variable is changed when the flow of execution returns to the calling routine.

If the function is to return a result to the caller, the optional Returns part must be included to specify the data type of the returned value. You have seven choices of value types: Number, String, Date, Time, DateTime, Boolean, or Any.

PeopleCode internal subroutines are part of the enclosing program and can access the same set of variables as the other statement-lists of the program, in addition to local variables created by the parameters and local variable declarations within the function.

Returning a Value

You can optionally return a value from a PeopleCode function. To do so, you must include a **Return** statement in the function definition, as described in the preceding section. For example, the following statement returns a Number value:

```
function calc_something(&parm1 as number, &parm2 as number) returns number
```

In the code section of your function, use the Return statement to return a value to the calling routine. When the Return statement executes, the function ends and the flow of execution goes back to the calling routine.

Example

This example returns a Boolean value based on the return value of a SQLExec:

```
function run_status_upd(&PROCESS_INSTANCE, &RUN_STATUS) returns Boolean;
   &UPDATEOK = SQLExec("update PS_PRCS_RQST set run_status = :1  where process_⇒
instance = :2", &RUN_STATUS, &PROCESS_INSTANCE);
   If &UPDATEOK Then
      Return True;
   Else
      Return False;
   End-if;
End-function;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Declare Function, page 146 and Chapter 1, “PeopleCode Built-in Functions,” Return, page 422.

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GenerateActGuideContentUrl

Syntax

GenerateActGuideContentlUrl(**PORTAL.***portalname*, **NODE.***nodename*, **MENUNAME.***menuname*, *Marketname*, **COMPONENT.***componentname*, *ActivityGuide*)

Description

Use the GenerateActGuideContentUrl function to create a URL string that represents an absolute reference to the specified activity guide (life event) for the content servlet. The ContentURI of the node that hosts the specified portal is used in the generated URL. The URL contains a reference to the content service (*psc*) servlet.

If you want to generate a URL for the portal service (*psp*) servlet, use the GenerateActGuidePortalURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the activity guide, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the activity guide, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
ActivityGuide	Specify the name of the Activity Guide, as a string.

Returns

A string with the following format:

http://*Content URI of node/portal/node/***l**/*ActivityGuide.component.market*

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&AGURL = GenerateActGuideContentUrl(%Portal, %Node, MENUNAME.MAINTAIN_SECURITY,⇒
 "GBL", COMPONENT.CHANGE_PASSWORD, "QE_ACTIVITY_GUIDE_DEMO");
```

might produce the following URL string:

```
http://boynten8700/psc/ps/EMPLOYEE/QE_LOCAL/l/QE_ACTIVITY_GUIDE_DEMO.MAINTAIN_⇒
SECURITY.CHANGE_PASSWORD.GBL
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateActGuidePortalUrl, page 222 and Chapter 1, "PeopleCode Built-in Functions," GenerateActGuideRelativeUrl, page 223.

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Designing Activity Guides"

GenerateActGuidePortalUrl

Syntax

```
GenerateActGuidePortalUrl(PORTAL.portalname, NODE.nodename, MENUNAME.menuname,
Marketname, COMPONENT.componentname, ActivityGuide)
```

Description

Use the GenerateActGuidePortalUrl function to create a URL string that represents an absolute reference to the specified activity guide (life event) for the portal servlet. The PortalURI of the node that hosts the specified portal is used in the generated URL. The URL contains a reference to the portal service (*psp*) servlet.

If you want to generate a URL for the portal content (*psc*) servlet, use the GenerateActGuideContentURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the activity guide, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the activity guide, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
ActivityGuide	Specify the name of the Activity Guide, as a string.

Returns

A string with the following format:

```
http://Portal URI of node/portal/node/1/ActivityGuide.component.market
```

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&AGURL = GenerateActGuidePortalUrl(%Portal, %Node, MENUNAME.MAINTAIN_SECURITY,⇒
 "GBL", COMPONENT.CHANGE_PASSWORD, "QE_ACTIVITY_GUIDE_DEMO");
```

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might create the following URL string:

```
http://boynte700/psp/ps/EMPLOYEE/QE_LOCAL/l/QE_ACTIVITY_GUIDE_DEMO.MAINTAIN_⇒
SECURITY.CHANGE_PASSWORD.GBL
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateActGuideContentUrl, page 221 and Chapter 1, "PeopleCode Built-in Functions," GenerateActGuideRelativeUrl, page 223.

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Designing Activity Guides"

GenerateActGuideRelativeUrl

Syntax

GenerateActGuideRelativeUrl(**PORTAL.***portalname*, **NODE.***nodename*, **MENUNAME.***menuname*, *Marketname*, **COMPONENT.***componentname*, *ActivityGuide*)

Description

Use the GenerateActGuideContentUrl function to create a URL string that represents an relative reference to the specified activity guide (life event). The relative reference is suitable for use on any page that itself has the simple URL format.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the activity guide, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the activity guide, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
ActivityGuide	Specify the name of the Activity Guide, as a string.

Returns

A string with the following format:

```
../../../Portal/node/1/ActivityGuide.menu.component.market
```

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&AGURL = GenerateActGuideRelativeUrl(%Portal, %Node, MENUNAME.MAINTAIN_SECURITY,⇒
```

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```
 "GBL", COMPONENT.CHANGE_PASSWORD, "QE_ACTIVITY_GUIDE_DEMO");
```

might produce the following URL string:

```
../../../EMPLOYEE/QE_LOCAL/l/QE_ACTIVITY_GUIDE_DEMO.MAINTAIN_SECURITY.CHANGE_⇒
PASSWORD.GBL
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateActGuideContentUrl, page 221 and Chapter 1, "PeopleCode Built-in Functions," GenerateActGuidePortalUrl, page 222.

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Designing Activity Guides"

GenerateComponentContentRelURL

Syntax

```
GenerateComponentContentRelURL(PORTAL.portalname,
NODE.nodename,MENUNAME.menuname, MARKET.marketname,
COMPONENT.componentname, PAGE.pagename, action, [, keylist])
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2].  .  .
```

Description

Use the GenerateComponentContentRelURL function to create a URL string that represents a relative reference to the specified component for the content servlet. The relative reference is suitable for use on any page that itself has the simple URL format.

If you want to generate an absolute URL for a component, use the GenerateComponentContentURL function.

Note. PeopleSoft recommends using the Transfer function for opening new windows, not this function, as there may be problems maintaining state and window count.

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Parameters

Parameter	Description
PortalName	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value. This parameter is ignored by the content service, but is a required part of the `psc` URL format.
NodeName	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
MenuName	Specify the name of the menu containing the content, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component, prefixed with the reserved word **MARKET**. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
Pagename	Specify the name of the page that contains the content. If you specify a page name, it must be prefixed with the keyword **PAGE**. You can also specify an empty string ("") for this value.
Action	Specify a single-character code. Valid actions are: • "A" (add) • "U" (update) • "L" (update/display all) • "C" (correction) • "E" (data entry) You can also specify an empty string ("") for this value.
Keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record for the destination component is added to keylist*. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, of if Force Search Processing has been selected, the search dialog appears. If the *keylist* parameter is not supplied the destination component's search key must be found as part of the source components level 0 record buffer.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
../../../Portal/node/c/menu.component.market?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
../../../portal/node/?ICType=Panel&Menu=menu&Market=market&PanelGroupName=component⇒
⇒
⇒
⇒
⇒
```

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?*parameters*

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&MyCompURL = GenerateComponentContentRelURL("EMPLOYEEPORTAL", "CRM", MenuName.SFA,⇒
 "GBL", Component.CUSTOMERINFO, Page.CUST_DATA1, "U", EMPLID);
```

Might create the following URL:

```
../../../psc/PS84/EMPLOYEEPORTAL/CRM/c/SFA.CUSTOMERINFO.GBL?page=CUST_⇒
DATA1&&Action=U&emplid=00001
```

Because this function terminates if the portal or node name is invalid, it's enclosed in a try-catch section so if an exception gets raised, it can be handled.

```
try
   &MyURL = GenerateComponentContentRelURL(%Portal, "HRMS", Menuname.ADMIN_⇒
WORKFORCE, "GBL", Component.ABSENCE_HISTORY, Page. ABSENCE_HISTORY, "U", EMPLID)

   catch ExceptionPortal &Ex1
      /* error handling portal name not valid */
   catch ExceptionNode &Ex2
      /* error handling Node name not valid */

end-try;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentURL, page 226, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalRelURL, page 228, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalURL, page 230 and Chapter 1, "PeopleCode Built-in Functions," GenerateComponentRelativeURL, page 232.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateComponentContentURL

Syntax

GenerateComponentContentURL(**PORTAL**.*portalname*, **NODE**.*nodename*, **MENUNAME**.*menuname*, **MARKET**.*marketname*, **COMPONENT**.*componentname*, **PAGE**.*pagename*, *action*, [, *keylist*])

where *keylist* is a list of field references in the form:

[*recordname*.]*field1* [, [*recordname*.]*field2*]. . .

OR

&RecordObject1 [, *&RecordObject2*]. . .

Description

Use the GenerateComponentContentURL function to create a URL string that represents an absolute reference to the specified component for the content servlet.

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The ContentURI of the specified node is used in the generated URL. The URL contains a reference to the portal content (*psc*) servlet. If you want to generate a URL for the portal service (*psp*), use the GenerateComponentPortalURL function.

Parameters

Parameter	Description
PortalName	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value. This parameter is ignored by the content service, but is a required part of the `psc` URL format.
NodeName	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
MenuName	Specify the name of the menu containing the content, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component, prefixed with the reserved word **MARKET**. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
Pagename	Specify the name of the page that contains the content. If you specify a page name, it must be prefixed with the keyword **PAGE**. You can also specify an empty string ("") for this value.
Action	Specify a single-character code. Valid actions are: • "A" (add) • "U" (update) • "L" (update/display all) • "C" (correction) • "E" (data entry) You can also specify an empty string ("") for this value.
Keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object that is also a *field of the search record for the destination component* is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, of if Force Search Processing has been selected, the search dialog appears. If the *keylist* parameter is not supplied the destination component's search key must be found as part of the source components level 0 record buffer.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
http://Content URI of host node/Portal/node/c/menu.component.market?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
http://Content URI of host node/portal/node/?ICType=Panel&Menu=menu&Market=market⇒
```

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&PanelGroupName=*component***?***parameters*

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&MyCompURL = GenerateComponentContentURL("EMPLOYEEPORTAL", "CRM", MenuName.SFA,⇒
 "GBL", Component.CUSTOMERINFO, Page.CUST_DATA1, "U", EMPLID);
```

Might create the following URL:

```
http://serverx/servlets/psc/PS84/EMPLOYEEPORTAL/CRM/c/SFA.CUSTOMERINFO.GBL?page=⇒
CUST_DATA1&&Action=U&emplid=00001
```

Because this function terminates if the portal or node name is invalid, it's enclosed in a try-catch section so if an exception gets raised, it can be handled.

```
try
   &MyURL = GenerateComponentContentURL(%Portal, "HRMS", Menuname.ADMIN_WORKFORCE,⇒
 "GBL", Component.ABSENCE_HISTORY, Page. ABSENCE_HISTORY, "U", EMPLID)

   catch ExceptionPortal &Ex1
      /* error handling portal name not valid */
   catch ExceptionNode &Ex2
      /* error handling Node name not valid */

end-try;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentRelURL, page 224, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalRelURL, page 228, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalURL, page 230 and Chapter 1, "PeopleCode Built-in Functions," GenerateComponentRelativeURL, page 232.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateComponentPortalRelURL

Syntax

GenerateComponentPortalRelURL(**PORTAL**.*portalname*, **NODE**.*nodename*, **MENUNAME**.*menuname*, **MARKET**.*marketname*, **COMPONENT**.*componentname*, **PAGE**.*pagename*, *action*, [, *keylist*])

where *keylist* is a list of field references in the form:

[*recordname*.]*field1* [, [*recordname*.]*field2*]. . .

OR

&RecordObject1 [, *&RecordObject2*]. . .

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Description

Use the GenerateComponentPortalRelURL function to create a URL string URL string that represents a relative reference the specified content (component). The relative reference is suitable for use on any page that itself has the simple URL format.

If you want to generate an absolute URL for a component, use the GenerateComponentPortalURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the content, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component, prefixed with the reserved word **MARKET**. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
pagename	Specify the name of the page that contains the content. If you specify a page name, it must be prefixed with the keyword **PAGE**. You can also specify a Null string ("") for this value.
action	Specify a single-character code. Valid actions are: • "A" (add) • "U" (update) • "L" (update/display all) • "C" (correction) • "E" (data entry) You can also specify a Null string ("") for this value.
keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record for the destination component* is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, of if Force Search Processing has been selected, the search dialog appears. If the *keylist* parameter is not supplied the destination component's search key must be found as part of the source components level 0 record buffer.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
../../../portal/node/c/menu.component.market?parameters
```

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If the node has a Node Type of ICType, a string of the following format is returned:

```
../../../portal/node/?ICType=Panel&Menu=menu&Market=market&PanelGroupName=component⇒
⇒
⇒
⇒
⇒
?parameters
```

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&MyCompURL = GenerateComponentPortalRelURL("EMPLOYEEPORTAL", "CRM", MenuName.SFA,⇒
 "GBL", Component.CUSTOMERINFO, , "", "");
```

Might create the following URL:

```
../../../EMPLOYEEPORTAL/CRM/c/sfa.customerinfo.gbl
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentRelURL, page 224, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentURL, page 226, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalURL, page 230, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentRelativeURL, page 232 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Internet Script Classes (iScript)".

GenerateComponentPortalURL

Syntax

```
GenerateComponentPortalURL(PORTAL.portalname, NODE.nodename, MENUNAME.menuname,
MARKET.marketname, COMPONENT.componentname, PAGE.pagename, action, [, keylist])
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2].  .  .
```

Description

Use the GenerateComponentPortalURL function to create a URL string that represents an absolute reference to the specified component for the portal servlet. The PortalURI of the node that hosts the specified portal is used in the generated URL. The URL contains a reference to the portal service (*psp*) servlet.

If you want to generate a URL for the portal content (*psc*) servlet, use the GenerateComponentContentURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the content, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component, prefixed with the reserved word **MARKET**. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
pagename	Specify the name of the page that contains the content. If you specify a page name, it must be prefixed with the keyword **PAGE**. You can also specify a Null string ("") for this value.
action	Specify a single-character code. Valid actions are: • "A" (add) • "U" (update) • "L" (update/display all) • "C" (correction) • "E" (data entry) You can also specify a Null string ("") for this value.
keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record for the destination component* is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, of if Force Search Processing has been selected, the search dialog appears. If the *keylist* parameter is not supplied the destination component's search key must be found as part of the source components level 0 record buffer.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
http://Portal URI of host node/portal/node/c/menu.component.market?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
http://Portal URI of host node/portal/node/?ICType=Panel&Menu=menu&Market=market⇒
&PanelGroupName=component?parameters
```

Note. If the host node is local, then *Portal URI of host node* will always be the one you're currently logged in as.

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The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&MyCompURL = GenerateComponentPortalURL("EMPLOYEEPORTAL", "CRM", MenuName.SFA,⇒
 "GBL", Component.CUSTOMERINFO, , "", "");
```

Might create the following URL:

```
http://mike.com/servlets/psp/testsite/EMPLOYEEPORTAL/CRM/c/sfa.customerinfo.gbl
```

The following example uses a de-referenced name for the component.

```
&sComponent = "Component." | &sComponent;
&sPage = "Page.EM_VCHR_PYMNT_CLN";

&rwCurrent = GetRow();
/*- The Search Record keys -*/
&sQueryString = &sQueryString | "&BUSINESS_UNIT=" | &rwCurrent.EM_VCHR_INQ_VW.EM_⇒
BUSINESS_UNIT.Value;
&sQueryString = &sQueryString | "&VOUCHER_ID=" | &rwCurrent.EM_VCHR_INQ_VW.VOUCHER_⇒
⇒
⇒
⇒
⇒
ID.Value;

&sQueryString = GenerateComponentPortalURL(%Portal, %Node, MenuName.EM_BILL_⇒
PRESENTMENT, %Market, @&sComponent, @&sPage, "U") | &sQueryString;

%Response.RedirectURL(&sURL);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentRelURL, page 224, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentURL, page 226, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalRelURL, page 228 and Chapter 1, "PeopleCode Built-in Functions," GenerateComponentRelativeURL, page 232.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateComponentRelativeURL

Syntax

GenerateComponentRelativeURL(**PORTAL**.*portalname*, **NODE**.*nodename*, **MENUNAME**.*menuname*, **MARKET**.*marketname*, **COMPONENT**.*componentname*, **PAGE**.*pagename*, *action*, [, *keylist*])

where *keylist* is a list of field references in the form:

[*recordname*.]*field1* [, [*recordname*.]*field2*]. . .

OR

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```
&RecordObject1 [, &RecordObject2]. . .
```

Description

Use the GenerateComponentRelativeURL function to create a URL string that represents a relative reference the specified content (component). The relative reference is suitable for use on any page that itself has the simple URL format.

If you want to generate an absolute URL for a component, use either the GenerateComponentContentURL or GenerateComponentPortalURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the content, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
Marketname	Specify the name of the market of the component, prefixed with the reserved word **MARKET**. You can also use a string, such as %Market, for this value.
ComponentName	Specify the name of the component, prefixed with the reserved word **COMPONENT**. You can also use a string, such as %Component, for this value.
Pagename	Specify the name of the page that contains the content. If you specify a page name, it must be prefixed with the keyword **PAGE**. You can also specify a Null string ("") for this value.
Action	Specify a single-character code. Valid actions are: • "A" (add) • "U" (update) • "L" (update/display all) • "C" (correction) • "E" (data entry) You can also specify a Null string ("") for this value.
Keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record for the destination component* is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, of if Force Search Processing has been selected, the search dialog appears. If the *keylist* parameter is not supplied the destination component's search key must be found as part of the source components level 0 record buffer.

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Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
../../../portal/node/c/menu.component.market?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
../../../portal/node/?ICType=Panel&Menu=menu&Market=market&PanelGroupName=component⇒
⇒
⇒
⇒
⇒
?parameters
```

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code example:

```
&MyCompURL = GenerateComponentRelativeURL("EMPLOYEEPORTAL", "CRM", MenuName.SFA,⇒
 "GBL", Component.CUSTOMERINFO, "", "");
```

Might yield the following:

```
../../../EMPLOYEEPORTAL/CRM/c/sfa.customerinfo.gbl
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentRelURL, page 224, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentContentURL, page 226, Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalRelURL, page 228 and Chapter 1, "PeopleCode Built-in Functions," GenerateComponentPortalURL, page 230.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateExternalPortalURL

Syntax

```
GenerateExternalPortalURL(PORTAL.portalname, NODE.nodename, URL)
```

Description

Use the GenerateExternalPortalURL function to create a URL string that represents an absolute reference the specified external content (URL) on the portal servlet.

The PortalURI of the node that hosts the specified portal is used in the generated URL. The generated URL contains a reference to the portal service (*psp*) servlet.

If you want to generate a relative URL, use the GenerateExternalRelativeURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
NodeName	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
URL	Specify the URL to be used for this content.

Returns

A string of the following format is returned:

```
http://Portal URI of host node/Portal/node/e/encodedURL
```

When the portal servlet evaluates an external URL, the Node is ignored, so %Node can always be passed in for the Node parameter.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&url = GenerateExternalPortalURL("EMPLOYEEPORTAL", "CRM", "http://www.excite.com");
```

Might create the following URL:

```
http://myserver/psp/ps/EMPLOYEEPORTAL/CRM/e/http%3a%2f%2fwww.excite.com
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateExternalRelativeURL, page 235

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateExternalRelativeURL

Syntax

GenerateExternalRelativeURL(**PORTAL**.*portalname*, **NODE**.*nodename*, *EncodedURL*)

Description

Use the GenerateExternalRelativeURL function to create a URL string that represents a relative reference the specified external content (URL). The relative reference is suitable for use on any page that itself has the simple URL format and which is served by the portal servlet (psp).

If you want to generate an absolute URL, use the GenerateExternalPortalURL function.

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Parameters

Parameter	Description
PortalName	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
NodeName	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
EncodedURL	Specify the URL to be used for this content.

Returns

A string of the following format is returned:

```
../../../Portal/node/e/encodedURL
```

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&url = GenerateExternalRelativeURL("EMPLOYEEPORTAL", "CRM", "http:⇒
//www.excite.com");
```

Might create the following URL:

```
../../../EMPLOYEEPORTAL/CRM/e/http%3a%2f%2fwww.excite.com
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateExternalRelativeURL, page 235

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateHomepagePortalURL

Syntax

```
GenerateHomepagePortalURL(PORTAL.portalname, NODE.nodename, Tabname)
```

Description

Use the GenerateHomepagePortalURL function to create a URL string that represents an absolute reference the specified homepage tab on the portal servlet.

The PortalURI of the node that hosts the specified portal is used in the generated URL. The generated URL contains a reference to the portal service (*psp*) servlet.

If you want to generate a relative URL, use the GenerateHomepageRelativeURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value. **Note.** The value specified for this parameter is ignored. The node name that is used is automatically calculated. However, you must still specify a value for this parameter.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value. This should be the node that hosts the specified portal.
Tabname	Specify the name of the tab on the homepage that you want to generate a URL for. If you specify a null string (""), the default tab is used.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
http://Portal URI of host node/Portal/node/h/?tab=tabname
```

This function returns a Null string if you specify an invalid portal or node.

Example

Specifying the following code:

```
&HomePage = GenerateHomepagePortalURL(%Portal, NODE.North_Asia, "");
```

Might generate the following string:

```
http://bejing/psp/psoft/crm/North_Asia/h/?tab=DEFAULT
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateHomepageRelativeURL, page 237

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateHomepageRelativeURL

Syntax

```
GenerateHomepageRelativeURL(PORTAL.portalname, NODE.nodename, Tabname)
```

Description

Use the GenerateHomepageRelativeURL function to create a URL string that represents a relative reference the specified homepage on the portal servlet. The relative reference is suitable for use on any page that itself has the simple URL format.

If you want to generate an absolute URL, use the GenerateHomepagePortalURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value. . This should be the node that hosts the specified portal.
Tabname	Specify the name of the tab on the homepage that you want to generate a URL for. If you specify a null string (""), the default tab is used.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
../../../Portal/node/h/?tab=tabname
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
./?cmd=start
```

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&HomePage = GenerateHomepageRelativeURL(%Portal, NODE.North_Asia, "");
```

Might generate the following string:

```
../../../crm/North_Asia/h/?tab=DEFAULT
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateHomepagePortalURL, page 236

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateMobileTree

Syntax

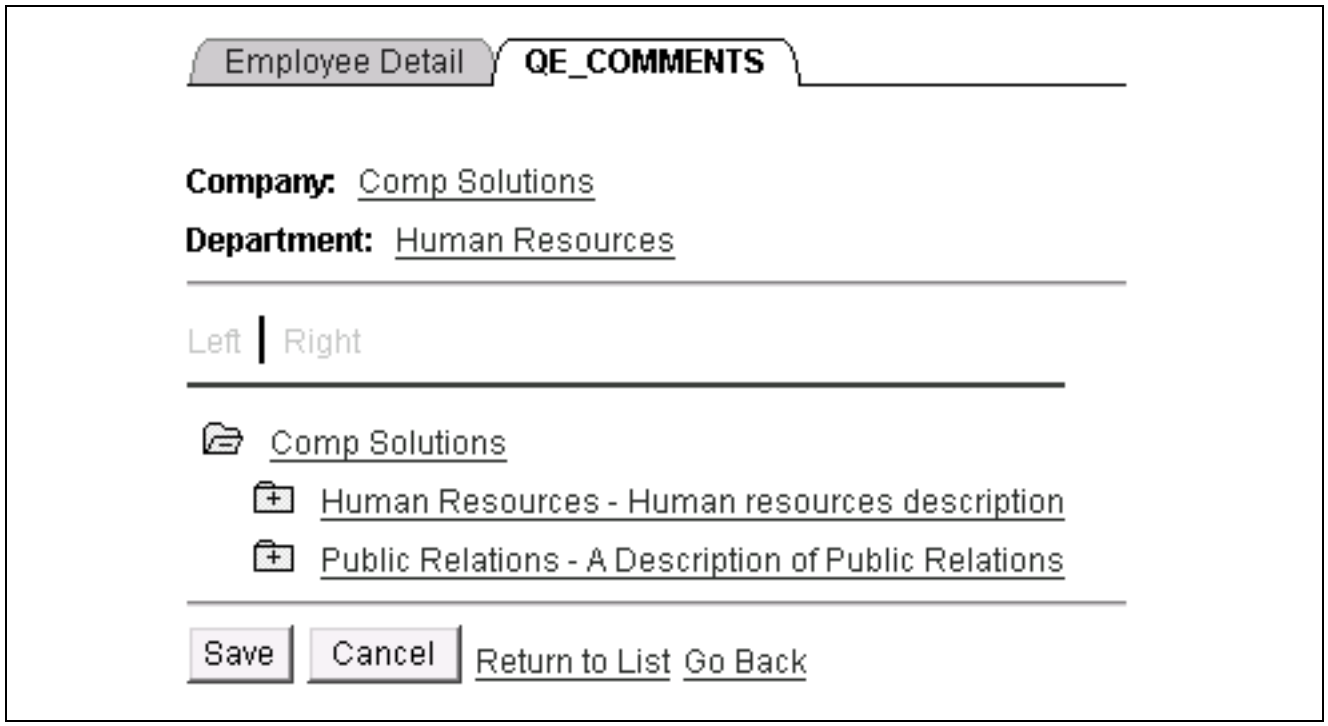
```
GenerateMobileTree(&CIObject [,CIObject_property])
```

Description

Use the GenerateMobileTree function to display data in a tree format, with nodes and leaves. The result of the GenerateMobileTree function is an HTML string, which can be displayed in an HTML area control.

Use this function in the OnInit event to display the mobile tree, and on the OnChange event for programs related to expanding, collapsing or selecting nodes.

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Mobile HTML Tree

The positional links at the top of the page (First, Previous, Next, Last, Left, Right) enable the user to navigate around the tree. These links are automatically generated as part of the execution of GenerateTree.

The icon next to a node can have a + sign or a - sign in it, depending on whether the node is collapsed or expanded. When a node is collapsed, none of the nodes that report to the collapsed node are displayed, and the icon has a + sign. When a node is expanded, all the nodes that report to it are displayed, and the icon has a - sign. You can collapse and expand a node by clicking in the icon. This enables you to view the tree at different levels of detail. When the icon for a node has no + or − sign in it, it is a terminal node, and cannot be expanded or collapsed.

Using the GenerateMobileTree Function

The GenerateMobileTree function is similar to the GenerateTree function, however, there are several important differences.

- The GenerateMobileTree function does not take a standalone rowset for data. Mobile does not support standalone rowsets, so you must populate your tree data one item at a time.
- You cannot use the Tree Classes with the GenerateMobileTree function.

To use the GenerateMobileTree function:

1. Define the Component Interface.

   You must use a Component Interface that is created from a component that contains the TREECTL_HDR and TREECTL_NODE records. When the Component Interface is synched to the device, these records do not have to contain any data, they can be populated using PeopleCode.

   See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Understanding HTML Trees and the GenerateHTML Function," Using HTML Tree Rowset Records.

2. Add an HTML area to the mobile page.

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This involves adding a long text field to the Component Interface, specifying how it displays on the mobile page, and so on. The value of the Component Interface long text field is what is displayed in the HTML area.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Mobile Agent*, "Creating Mobile Pages," Setting Mobile Page Content Properties.

3. Determine what property on the Component Interface is going to contain the OnChange PeopleCode used to evaluate the end user action and call the appropriate PeopleCode programs.

   The action an end user takes (selecting a row, or expanding or collapsing a node) is accessible to this property.

   This property must be a character field that is at least 46 characters long. The field can be made invisible.

4. Specify this property as the value for the PAGE_FIELD_NAME field on the TREECTRL_HDR_SBR record.
5. Populate the tree, specify values for the nodes, leaves, images, and so on.

Parameters

Parameter	Description
&CIObject	This is the mobile object that is to be viewed in a hierarchy tree view. This object is from a peer reference.
CIObject_property	This is a property on the mobile object that is to be viewed in a hierarchy tree view.

Returns

None.

Example

In the OnInit event, generate the mobile tree.

```
Local ApiObject &ob;

&ob = %ThisMobileObject;

&MyCI = %Session.GetCompIntfc(ComIntfc.RDM_RELTREE);
&MyCI.Key_01 = "2";
&MyCI.Create();

&MyCI.PAGE_FIELD_NAME = "TREELEVELNT";

&MyCI.RDM.RELTREE_NDE.InsertItem(1);
&MyCI.RDM.RELTREE_NDE.Item(1).TREE_NODE = "NAME 1";
&MyCI.RDM.RELTREE_NDE.Item(1).DESCR = "Descr 1";
&MyCI.RDM.RELTREE_NDE.Item(1).PARENT_FLAG = "Y";
&MyCI.RDM.RELTREE_NDE.Item(1).TREE_LEVEL_NUM = 1;
&MyCI.RDM.RELTREE_NDE.Item(1).LEAF_FLAG = "N";

&MyCI.RDM.RELTREE_NDE.InsertItem(2);
```

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```
&MyCI.RDM.RELTREE_NDE.Item(2).TREE_NODE = "NAME 3";
&MyCI.RDM.RELTREE_NDE.Item(2).DESCR = "Descr 2";
&MyCI.RDM.RELTREE_NDE.Item(2).PARENT_FLAG = "Y";
&MyCI.RDM.RELTREE_NDE.Item(2).TREE_LEVEL_NUM = 2;
&MyCI.RDM.RELTREE_NDE.Item(2).LEAF_FLAG = "N";

&MyCI.RDM.RELTREE_NDE.InsertItem(3);
&MyCI.RDM.RELTREE_NDE.Item(3).TREE_NODE = "NAME 1";
&MyCI.RDM.RELTREE_NDE.Item(3).DESCR = "Descr 3";
&MyCI.RDM.RELTREE_NDE.Item(3).PARENT_FLAG = "Y";
&MyCI.RDM.RELTREE_NDE.Item(3).TREE_LEVEL_NUM = 1;
&MyCI.RDM.RELTREE_NDE.Item(3).LEAF_FLAG = "N";

&OB.QE_COMMENTS = GenerateMobileTree(&MyCI);
```

The following PeopleCode is used in the OnChange event (used for when a user selects a node, expands a node or closes a node):

```
Local ApiObject &ob;

&ob = %ThisMobileObject;

&MyCI = %Session.GetCompIntfc(ComIntfc.RDM_RELTREE);
&MyCI.Key_01 = "2";
&MyCI.Get();

&MyCI.PAGE_FIELD_NAME = "TREECTLEVENT"

If Left(%ThisMobileObject.TREELEVENT, 1) = "S" Then
     Warning ("This node has been selected");
End-If;

&ob.QE_COMMENTS = GenerateMobileTree(&MyCI, %ThisMobileObject.TREELEVENT);
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” GenerateTree, page 253

GenerateQueryContentURL

Syntax

GenerateQueryContentURL(**PORTAL.***portalname*, **NODE.***nodename*, *QueryName*, *IsPublic* [, *IsNewWindow*])

Description

Use the GenerateQueryContentURL function to create a URL string that represents an absolute reference the specified query (URL) on the content servlet.

The PortalURI of the node that hosts the specified portal is used in the generated URL. The generated URL contains a reference to the portal content (*psc*) servlet.

If you want to generate a relative URL, use the GenerateQueryRelativeURL function.

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If you want to generate a URL for the portal service (*psp*) servlet, use the GenerateQueryPortalURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the query, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
Queryname	Specify the name of the query you want to generate a URL for. This parameter takes a string value.
IsPublic	Specify whether the query is public or private. This parameter takes a Boolean value: True, the query is public, False otherwise.
IsNewWindow	Specify whether the URL is for a new browser instance. This parameter takes a Boolean value: True, the URL is for a new browser instance, False otherwise. The default is False. If the value is True this function generates a new state block for use in a separate browser instance. This does *not* automatically open a new browser instance. It just supports it.

Note. When Query is being run on a PeopleTools version prior to 8.16, the query URL does *not* include the ability to specify if a query is public or private. On PeopleTools versions 8.16 and higher, the generated URL contains either the keyword PUBLIC or PRIVATE prepended to the query name. If you are building a URL for a portal node that is on a PeopleTools release prior to 8.16, you *must* remove the public or private keyword before trying to use the URL.

Returns

If *IsPublic* is specified as True, and the node has a Node Type of PIA, a string of the following format is returned:

```
http://PortalURI/Portal/node/q/?ICAction=ICQryNameURL=PUBLIC.QueryName
```

If *IsPublic* is specified as False, and the node has a Node Type of PIA, a string of the following format is returned:

```
http://PortalURI/Portal/node/q/?ICAction=ICQryNameURL=PRIVATE.QueryName
```

This function returns a Null string if you specify an invalid portal or node.

Example

The following code example:

```
&url = GenerateQueryContentURL(%Portal, "RMTNODE", "QUERYNAME", True);
```

might produce a string as follows:

```
http://bsto091200/psc/ps/EMPLOYEE/RMTNODE/q/?ICAction=ICQryNameURL=PUBLIC.QUERYNAME
```

The following code example uses the optional parameter to produce a URL that supports a new browser instance:

```
&url = GenerateQueryContentURL(%Portal, "RMTNODE", "QUERYNAME", True, True);
```

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might produce a string as follows:

```
http://bsto091200/psc/ps_newwin/EMPLOYEE/RMTNODE/q/?ICAction=ICQryNameURL=⇒
PUBLIC.QUERYNAME
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateQueryPortalURL, page 243 and Chapter 1, "PeopleCode Built-in Functions," GenerateQueryRelativeURL, page 244.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Query Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Query, "Getting Started with PeopleSoft Query"

GenerateQueryPortalURL

Syntax

```
GenerateQueryPortalURL(PORTAL.portalname, NODE.nodename, QueryName,
IsPublic [, IsNewWindow])
```

Description

Use the GenerateQueryPortalURL function to create a URL string that represents an absolute reference the specified query (URL) on the portal servlet.

The PortalURI of the node that hosts the specified portal is used in the generated URL. The generated URL contains a reference to the portal service (*psp*) servlet.

If you want to generate a relative URL, use the GenerateQueryRelativeURL function.

If you want to generate a URL for the portal content (*psc*) servlet, use the GenerateQueryContentURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the query, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
Queryname	Specify the name of the query you want to generate a URL for. This parameter takes a string value.
IsPublic	Specify whether the query is public or private. This parameter takes a Boolean value: True, the query is public, False otherwise.
IsNewWindow	Specify whether the URL is for a new browser instance. This parameter takes a Boolean value: True, the URL is for a new browser instance, False otherwise. The default is False. If the value is True this function generates a new state block for use in a separate browser instance. This does *not* automatically open a new browser instance. It just supports it.

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Note. When Query is being run on a PeopleTools version prior to 8.16, the query URL does *not* include the ability to specify if a query is public or private. On PeopleTools versions 8.16 and higher, the generated URL contains either the keyword PUBLIC or PRIVATE prepended to the query name. If you are building a URL for a portal node that is on a PeopleTools release prior to 8.16, you *must* remove the public or private keyword before trying to use the URL.

Returns

If *IsPublic* is specified as True, and the node has a Node Type of PIA, a string of the following format is returned:

```
http://PortalURI/Portal/node/q/?ICAction=ICQryNameURL=PUBLIC.QueryName
```

If *IsPublic* is specified as False, and the node has a Node Type of PIA, a string of the following format is returned:

```
http://PortalURI/Portal/node/q/?ICAction=ICQryNameURL=PRIVATE.QueryName
```

This function returns a Null string if you specify an invalid portal or node.

Example

The following code example:

```
&url = GenerateQueryPortalURL(%Portal, "RMTNODE", "QUERYNAME", True);
```

might produce a string as follows:

```
http://bsto091200/psp/ps/EMPLOYEE/RMTNODE/q/?ICAction=ICQryNameURL=PUBLIC.QUERYNAME
```

The following code example uses the optional parameter to produce a URL that supports a new browser instance:

```
&url = GenerateQueryPortalURL(%Portal, "RMTNODE", "QUERYNAME", True, True);
```

might produce a string as follows:

```
http://bsto091200/psp/ps_newwin/EMPLOYEE/RMTNODE/q/?ICAction=ICQryNameURL=⇒
PUBLIC.QUERYNAME
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” GenerateQueryContentURL, page 241 and Chapter 1, “PeopleCode Built-in Functions,” GenerateQueryRelativeURL, page 244.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, “Internet Script Classes (iScript)”

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, “Query Classes”

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Query, “Getting Started with PeopleSoft Query”

GenerateQueryRelativeURL

Syntax

```
GenerateQueryRelativeURL(PORTAL.portalname, NODE.nodename, QueryName,
IsPublic [, IsNewWindow])
```

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Description

Use the GenerateQueryRelativeURL function to creates a URL string that represents a relative reference to the specified query on the portal servlet. The relative reference is suitable for use on any page that itself has the simple URL format.

If you want to generate an absolute URL, use either the GenerateQueryPortalURL or GenerateQueryContentURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the query, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
Queryname	Specify the name of the query you want to generate a URL for. This parameter takes a string value.
IsPublic	Specify whether the query is public or private. This parameter takes a Boolean value: True, the query is public, False otherwise.
IsNewWindow	Specify whether the URL is for a new browser instance. This parameter takes a Boolean value: True, the URL is for a new browser instance, False otherwise. The default is False. If the value is True this function generates a new state block for use in a separate browser instance. This does *not* automatically open a new browser instance. It just supports it.

Note. When Query is being run on a PeopleTools version prior to 8.16, the query URL does *not* include the ability to specify if a query is public or private. On PeopleTools versions 8.16 and higher, the generated URL contains either the keyword PUBLIC or PRIVATE prepended to the query name. If you are building a URL for a portal node that is on a PeopleTools release prior to 8.16, you *must* remove the public or private keyword before trying to use the URL.

Returns

If *IsPublic* is specified as True, and the node has a Node Type of PIA, a string of the following format is returned:

```
../../../portal/node/q/?ICAction=ICQryNameURL=PUBLIC.QueryName
```

If *IsPublic* is specified as False, and the node has a Node Type of PIA, a string of the following format is returned:

```
../../../portal/node/q/q/?ICAction=ICQryNameURL=PRIVATE.QueryName
```

This function returns a Null string if you specify an invalid portal or node.

Example

The following code example:

```
&url = GenerateQueryRelativeURL(%Portal, "RMTNODE", "QUERYNAME", True);
```

might produce a string as follows:

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```
../../../EMPLOYEE/RMTNODE/q/?ICAction=ICQryNameURL=PUBLIC.QUERYNAME
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateQueryContentURL, page 241 and Chapter 1, "PeopleCode Built-in Functions," GenerateQueryPortalURL, page 243.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Query Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Query, "Getting Started with PeopleSoft Query"

GenerateScriptContentRelURL

Syntax

```
GenerateScriptContentRelURL(PORTAL.portalname, NODE.nodename, RECORD.recordname,
FIELD.fieldname, event_name, function_name, [, keylist])
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2].  .  .
```

Description

Use the GenerateScriptContentRelURL function to create a URL string that represents a relative reference to the specified iScript. The generated URL contains a reference to the portal content (*psc*) servlet.

If you want to generate an absolute URL for an iScript for the portal content servlet, use the GenerateScriptContentURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the iScript, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
recordname	Specify the name of the record containing the iScript, prefixed with the reserved word **RECORD**.
fieldname	Specify the name of the field containing the iScript, prefixed with the reserved word **FIELD**.
event_name	Specify the name of the event containing the iScript. This is generally the FieldFormula event.
function_name	Specify the name of the iScript function.
keylist	An optional list of parameters used with the function. It can also be an already instantiated record object.

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Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
/psc/s/recname.fieldname.event_name.function_name?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
/portal/node/?ICType=Script&ICScriptProgramName=recname.fieldname.event_⇒
name.function_name?parameters
```

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&MyScriptURL = GenerateScriptContentRelURL("EMPLOYEEPORTAL", "CRM", Record.WEBLIB_⇒
CRM, Field.SFASCRIPTS, "FieldFormula", "Iscript_SFAHOME ");
```

Might yield the following URL:

```
/psc/s/WEBLIB_CRM.SFASCRIPTS.FieldFormula.IScript_SFAHOME
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentURL, page 247, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalRelURL, page 249, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalURL, page 250 and Chapter 1, "PeopleCode Built-in Functions," GenerateScriptRelativeURL, page 252.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateScriptContentURL

Syntax

```
GenerateScriptContentURL(PORTAL.portalname, NODE.nodename, RECORD.recordname,
FIELD.fieldname, event_name, function_name, [, keylist])
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2].  .  .
```

Description

Use the GenerateScriptContentURL function to create a URL string that represents an absolute reference to the specified iScript for the content servlet.

The ContentURI of the specified node is used in the generated URL. The URL contains a reference to the portal content (*psc*) servlet.

If you want to generate a URL for an iScript for the portal servlet, use the GenerateScriptPortalURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the iScript, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
recordname	Specify the name of the record containing the iScript, prefixed with the reserved word **RECORD**.
fieldname	Specify the name of the field containing the iScript, prefixed with the reserved word **FIELD**.
event_name	Specify the name of the event containing the iScript. This is generally the FieldFormula event.
function_name	Specify the name of the iScript function.
keylist	An optional list of parameters used with the function. It can also be an already instantiated record object.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
http://Content URI of host node/portal/node/s/recname.fieldname.event_⇒
name.function_name?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
http://Content URI of host node/portal/node/?ICType=Script&ICScriptProgramName=⇒
recname.fieldname.event_name.function_name?parameters
```

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&MyScriptURL = GenerateScriptContentURL("EMPLOYEEPORTAL", "CRM", Record.WEBLIB_⇒
CRM, Field.SFASCRIPTS, "FieldFormula", "Iscript_SFAHOME ");
```

Might yield the following URL:

```
http://mike.com/servlets/psc/testsite/EMPLOYEEPORTAL/CRM/s/WEBLIB_⇒
CRM.SFASCRIPTS.FieldFormula.IScript_SFAHOME
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentRelURL, page 246, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalRelURL, page 249, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalURL, page 250 and Chapter 1, "PeopleCode Built-in Functions," GenerateScriptRelativeURL, page 252.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

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GenerateScriptPortalRelURL

Syntax

GenerateScriptPortalRelURL(**PORTAL**.*portalname*, **NODE**.*nodename*, **RECORD**.*recordname*, **FIELD**.*fieldname*, *event_name*, *function_name*, [, *keylist*])

where *keylist* is a list of field references in the form:

[*recordname*.]*field1* [, [*recordname*.]*field2*]. . .

OR

&RecordObject1 [, *&RecordObject2*]. . .

Description

Use the GenerateScriptPortalRelURL function to create a URL string that represents a relative reference to the specified iScript. The generated URL contains a reference to the portal service (*psp*) servlet.

If you want to generate an absolute URL for an iScript for the portal service servlet, use the GenerateScriptPortalURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the iScript, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
recordname	Specify the name of the record containing the iScript, prefixed with the reserved word **RECORD**.
fieldname	Specify the name of the field containing the iScript, prefixed with the reserved word **FIELD**.
event_name	Specify the name of the event containing the iScript. This is generally the FieldFormula event.
function_name	Specify the name of the iScript function.
keylist	An optional list of parameters used with the function. It can also be an already instantiated record object.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

*/psp/***s**/*recname.fieldname.event_name.function_name***?***parameters*

If the node has a Node Type of ICType, a string of the following format is returned:

*/portal/node/***?ICType=Script&ICScriptProgramName=***recname.fieldname.event_⇒ name.function_name***?***parameters*

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

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Example

The following code:

```
&MyScriptURL = GenerateScriptPortalRelURL("EMPLOYEEPORTAL", "CRM", Record.WEBLIB_⇒
CRM, Field.SFASCRIPTS, "FieldFormula", "IScript_SFAHOME");
```

Might yield the following:

```
/psp/s/WEBLIB_CRM.SFASCRIPTS.FieldFormula.IScript_SFAHOME
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentRelURL, page 246, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentURL, page 247, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalURL, page 250 and Chapter 1, "PeopleCode Built-in Functions," GenerateScriptRelativeURL, page 252.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateScriptPortalURL

Syntax

GenerateScriptPortalURL(**PORTAL**.*portalname*, **NODE**.*nodename*, **RECORD**.*recordname*, **FIELD**.*fieldname*, *event_name*, *function_name*, [, *keylist*])

where *keylist* is a list of field references in the form:

[*recordname*.]*field1* [, [*recordname*.]*field2*]. . .

OR

&RecordObject1 [, *&RecordObject2*]. . .

Description

Use the GenerateScriptPortalURL function to create a URL string that represents an absolute reference to the specified iScript for the portal servlet. The PortalURI of the node that hosts the specified portal is used in the generated URL. The URL contains a reference to the portal service (*psp*) servlet.

If you want to generate a URL for an iScript for the portal content (*psc*) servlet, use the GenerateScriptContentURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the iScript, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
recordname	Specify the name of the record containing the iScript, prefixed with the reserved word **RECORD**.
fieldname	Specify the name of the field containing the iScript, prefixed with the reserved word **FIELD**.
event_name	Specify the name of the event containing the iScript. This is generally the FieldFormula event.
function_name	Specify the name of the iScript function.
keylist	An optional list of parameters used with the function. It can also be an already instantiated record object.

Returns

If a node has a Node Type of PIA, a string of the following format is returned:

```
http://Portal URI of host portal/portal/node/s/recname.fieldname.event_⇒
name.function_name?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
http://Portal URI of host node/portal/node/?ICType=Script&ICScriptProgramName=⇒
recname.fieldname.event_name.function_name?parameters
```

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

Example

The following code:

```
&MyScriptURL = GenerateScriptPortalURL("EMPLOYEEPORTAL", "CRM", Record.WEBLIB_CRM,⇒
 Field.SFASCRIPTS, "FieldFormula", "IScript_SFAHOME");
```

Might yield the following:

```
http://mike.com/servlets/psp/testsite/EMPLOYEEPORTAL/CRM/s/WEBLIB_⇒
CRM.SFASCRIPTS.FieldFormula.IScript_SFAHOME
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentRelURL, page 246, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentURL, page 247, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalRelURL, page 249 and Chapter 1, "PeopleCode Built-in Functions," GenerateScriptRelativeURL, page 252.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

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GenerateScriptRelativeURL

Syntax

```
GenerateScriptRelativeURL(PORTAL.portalname, NODE.nodename, RECORD.recordname,
FIELD.fieldname, event_name, function_name, [, keylist])
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2]. . .
```

Description

Use the GenerateScriptRelativeURL function to create a relative URL string that represents a relative reference to the specified iScript. The relative reference is suitable for use on any page that has the simple URL format.

If you want to generate an absolute URL for an iScript, use either the GenerateScriptContentURL or GenerateScriptPortalURL function.

Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the iScript, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
recordname	Specify the name of the record containing the iScript, prefixed with the reserved word **RECORD**.
fieldname	Specify the name of the field containing the iScript, prefixed with the reserved word **FIELD**.
event_name	Specify the name of the event containing the iScript. This is generally the FieldFormula event.
function_name	Specify the name of the iScript function.
keylist	An optional list of parameters used with the function. It can also be an already instantiated record object.

Returns

If the node has a Node Type of PIA, a string of the following format is returned:

```
portal/node/s/recname.fieldname.event_name.function_name?parameters
```

If the node has a Node Type of ICType, a string of the following format is returned:

```
portal/node/?ICType=Script&ICScriptProgramName=recname.fieldname.event_⇒
name.function_name?parameters
```

The question mark and the text following the question mark may or may not be included, depending on whether or not you specified a page and action or not.

This function returns a Null string if you specify an invalid portal or node.

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Example

The following code:

```
&MyScriptURL = GenerateScriptRelativeURL("EMPLOYEEPORTAL", "CRM", Record.WEBLIB_⇒
CRM, Field.SFASCRIPTS, "FieldFormula", "IScript_SFAHOME");
```

Might yield the following:

```
../../../EMPLOYEEPORTAL/CRM//s/WEBLIB_CRM.SFASCRIPTS.FieldFormula.IScript_SFAHOME
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentRelURL, page 246, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentURL, page 247, Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalRelURL, page 249 and Chapter 1, "PeopleCode Built-in Functions," GenerateScriptPortalURL, page 250.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

GenerateTree

Syntax

GenerateTree(*&rowset* [, *TreeEventField*])

Description

Use the GenerateTree function to display data in a tree format, with nodes and leaves. The result of the GenerateTree function is an HTML string, which can be displayed in an HTML area control. The tree generated by GenerateTree is called an *HTML tree*.

The GenerateTree function can be used in conjunction with the Tree Classes to display data from trees created using Tree Manager.

The GenerateTree function works with both an HTML area control and a hidden field. The *TreeEventField* parameter contains the contents of the invisible character field used to process the HTML tree events.

When an end-user selects a node, expands a node, collapses a node, or uses one of the navigation links, that event (end-user action) is passed to the invisible field, and the invisible field's FieldChange PeopleCode is executed.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding HTML Trees and the GenerateHTML Function," Using HTML Tree Actions (Events)

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding HTML Trees and the GenerateHTML Function," Building HTML Tree Pages

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Parameters

Parameter	Description
&rowset	Specify the name of the rowset you've populated with tree data.
TreeEventField	Specify the contents of the invisible character field used to process the HTML tree events. The first time the GenerateTree function is used, that is, to generate the initial tree, you don't need to include this parameter. Subsequent calls require this parameter.

Returns

A string that contains HTML code that can be used with the HTML control to display a tree.

Example

In the following example, TREECTLEVENT is the name of the invisible control field that contains the event string that was passed from the browser.

```
HTMLAREA = GenerateTree(&TREECTL, TREECTLEVENT);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding HTML Trees and the GenerateHTML Function," Using the GenerateTree Function

GenerateWorklistPortalURL

Syntax

GenerateWorklistPortalURL(**PORTAL.***portalname*, **NODE.***nodename*, *BusProc*, *Activity*, *Event*, *Worklist*, *Instance*)

Description

Use the GenerateWorklistPortalURL function to create a URL string that represents an absolute reference the specified Worklist (URL) on the portal servlet.

The PortalURI of the node that hosts the specified portal is used in the generated URL. The generated URL contains a reference to the portal service (*psp*) servlet.

If you want to generate a relative URL, use the GenerateWorklistRelativeURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
BusProc	Specify the business process of the Worklist.
Activity	Specify the activity of the Worklist.
Event	Specify the event of the Worklist.
Instance	Specify the instance of the Worklist.

Returns

A string of the following format:

```
http://PortalURI/Portal/node/w/BusProc.Activity.Event.Worklist.Instance
```

This function returns a Null string if you specify an invalid portal or node.

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateWorklistRelativeURL, page 255

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Understanding PeopleSoft Workflow"

GenerateWorklistRelativeURL

Syntax

```
GenerateWorklistRelativeURL(PORTAL.portalname, NODE.nodename, BusProc,
Activity, Event, Worklist, Instance)
```

Description

Use the GenerateWorklistRelativeURL function to create a URL string that represents a relative reference to the specified Worklist on the portal servlet. The relative reference is suitable for use on any page that itself has the simple URL format.

If you want to generate an absolute URL, use the GenerateWorklistPortalURL function.

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Parameters

Parameter	Description
portalname	Specify the name of the portal used for this request, prefixed with the reserved word **PORTAL**. You can also use a string, such as %Portal, for this value.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
BusProc	Specify the business process of the Worklist.
Activity	Specify the activity of the Worklist.
Event	Specify the event of the Worklist.
Instance	Specify the instance of the Worklist.

Returns

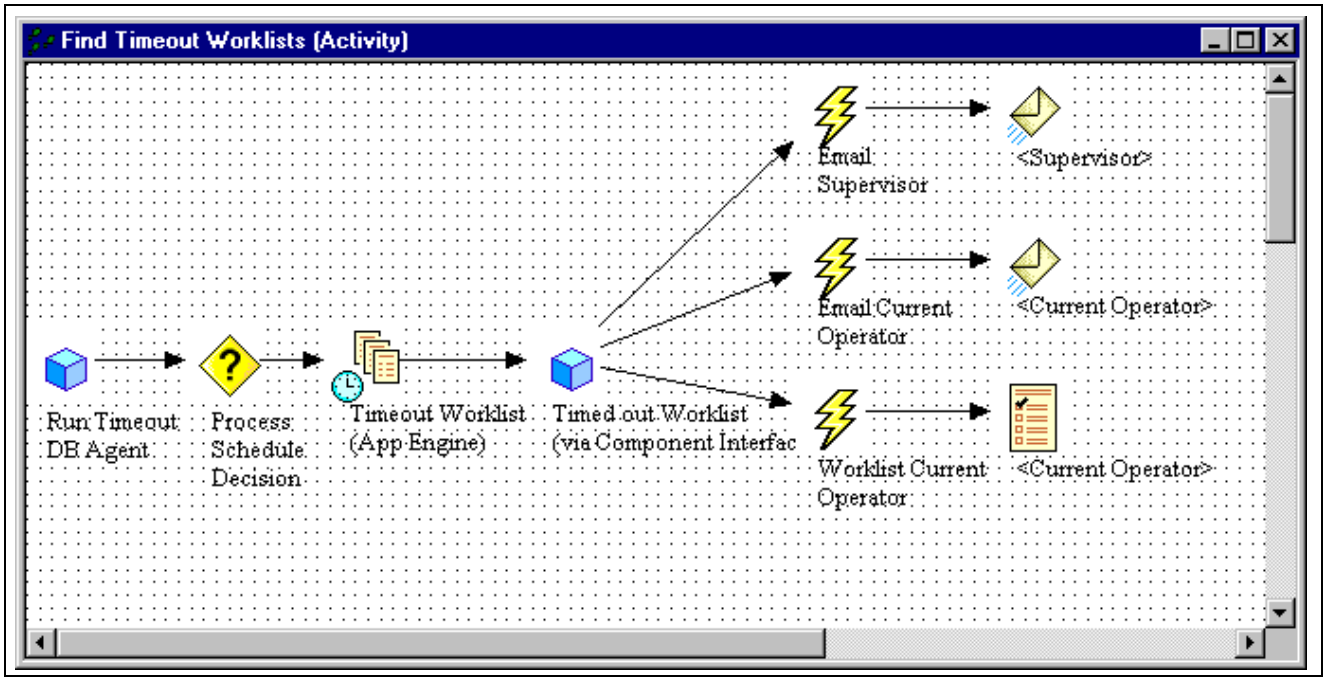
A string of the following format:

```
../../../Portal/Node/w/BusProc.Activity.Event.Worklist.Instance
```

This function returns a Null string if you specify an invalid portal or node.

Example

Given the following activity:



Example activity

The following is an example PeopleCode statement used to access this activity:

```
GenerateWorklistRelativeURL(%Portal, %Node, "Administer Workflow", "Find Timeout⇒
 Worklists", "Worklist Current Operator", "Timeout Notification", 1);
```


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See Also

Chapter 1, “PeopleCode Built-in Functions,” GenerateWorklistPortalURL, page 254

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, “Internet Script Classes (iScript)”

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, “Understanding PeopleSoft Workflow”

GenToken

Syntax

```
GenToken()
```

Description

Use the GenToken function to create an authentication token for the user currently logged in, as a string.

Generally this function is used in an application engine program when an authentication token is not automatically generated. However, it can be used anytime. The token that is generated is usually passed to another process that has no token.

Parameters

None.

Returns

A string containing the authentication token.

See Also

Chapter 3, “System Variables,” %AuthenticationToken, page 610

GetAESection

Syntax

```
GetAESection(ae_applid, ae_section [, effdt])
```

Description

Use the GetAESection function to open and associate an AESection PeopleCode object with the base section, as specified. If no base section by the specified name is found, one is created. This enables you to create base sections as needed.

Warning! When you open or get an AESection object, (that is, the base section) any existing steps in the section are deleted.

After you’ve instantiated the AESection object, set the template section using the SetTemplate AESection class method. You can copy steps from the template section to the base section before you start the PeopleSoft Application Engine program. This is useful for applications that let users input their "rules" into a user-friendly page, then convert these rules, at save time, into Application Engine constructs.

When an AESection is opened (or accessed), the system first looks to see if it exists with the given input parameters. If such a section doesn’t exist, the system looks for a similar section based on market, database platform, and effective date.

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The AESection Object is designed for use within an online program. Typically, dynamic sections should be constructed in response to an end user action.

Note. Do not call an AESection object from an Application Engine PeopleCode Action. If you need to access another section, use the CallSection action instead.

Parameters

Parameter	Description
ae_applid	Specifies the application ID of the section you want to modify.
ae_section	Specifies the section name of the base section you want to modify. If no base section by the specified name is found, one is created.
effdt	Specifies the effective date of the section you want to modify (optional).

Returns

An AESection object is returned.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "AESection Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "AESection Class," Open

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "AESection Class," AESection Example

GetAnalyticGrid

Syntax

```
GetAnalyticGrid(PAGE.pagename, gridname)
```

Description

Use the GetAnalyticGrid function to instantiate an analytic grid object from the AnalyticGrid class, and populates it with the grid specified by *gridname*, which is the Page Field Name on the General tab of that analytic grid's page field properties.

Specify a grid name consisting of any combination of uppercase letters, digits and "#", "$", "@", and "_".

Note. PeopleSoft builds a page grid one row at a time. Because the AnalyticGrid class applies to a complete grid, you can't attach PeopleCode that uses the AnalyticGrid class to events that occur before the grid is built; the earliest event you can use is the page Activate event.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "PeopleCode and the Component Processor," Activate Event.

Using the Grid Name

When you place an analytic grid on a page, the grid is automatically named the same as the name of the primary record of the scroll for the grid (in the Page Field Name.)

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Note. If the name of the record changes, the Page Field Name is *not* automatically updated. You must change this name if you want the name of the grid to reflect the name of the record.

This is the name you use with the GetAnalyticGrid function. You can change this name on the General tab of the Analytic Grid control properties.

To change a grid name:

1. Open the page in PeopleSoft Application Designer, select the analytic grid and access the Analytic Grid control properties.
2. On the General tab, type the new grid name in Page Field Name.

Note. Every grid on a page must have a unique name.

Parameters

Parameter	Description
PAGE. *pagename*	Specify the name of the page definition containing the grid you want to access.
gridname	Specify the Page Field Name on the General tab of the grid's page field properties.

Returns

A reference to an AnalyticGrid object.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Analytic Grid Classes"

GetAnalyticInstance

Syntax

```
GetAnalyticInstance(ID)
```

Description

Use the GetAnalyticInstance function to return a reference to the AnalyticInstance object as specified by the *ID*.

The analytic instance specified by *ID* must already be created before using this function.

Parameters

Parameter	Description
ID	Specify the analytic instance identifier that you want to access.

Returns

An AnalyticInstance object if successful, null otherwise.

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See Also

Chapter 1, "PeopleCode Built-in Functions," CreateAnalyticInstance, page 105

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Analytic Calculation Engine Classes," CheckStatus

GetArchPubHeaderXmlDoc

Syntax

```
GetArchPubHeaderXmlDoc(PubID, PubNode, ChannelName, VersionName[, Segment])
```

Description

Use the GetArchPubHeaderXMLDoc function to retrieve an archived message header from the message queue.

This function has been deprecated. You will receive an error if you use this function.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Consuming Services"

GetArchPubXmlDoc

Syntax

```
GetArchPubXmlDoc(PubID, PubNode, ChannelName, VersionName, MessageName,
SubNode[, Segment])
```

Description

Use the GetArchPubXmlDoc function to retrieve an archived message from the message queue.

This function has been deprecated. You will receive an error if you use this function.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Managing Error Handling, Logging, Tracing, and Debugging"

GetArchSubXmlDoc

Syntax

```
GetArchSubXmlDoc(PubID, PubNode, ChannelName, VersionName, MessageName[, Segment])
```

Description

Use the GetArchSubXmlDoc function to retrieve an archived message from the message queue.

This function has been deprecated. You will receive an error if you use this function.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Understanding PeopleSoft Integration Broker"

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GetAttachment

Syntax

GetAttachment(*URLSource*, *SysFileName*, *LocalFile* [, *LocalDirEnvVar*[, *PreserveCase*]])

where *URLSource* can have one of the following forms:

URL.*URLname*

OR a string URL, such as

`ftp://user:password@ftp.ps.com/`

Note. You cannot specify a different port for an attachment when using an FTP server. You can only use the default port of 21.

Note. The file attachment functionality does not support SFTP or FTPS.

Description

Use the GetAttachment function to transfer a file from the file server to the application sever.

File Name Considerations

When the file is transferred, the following characters are replaced with an underscore:

- space
- semicolon
- plus sign
- percent sign
- ampersand
- apostrophe
- exclamation point
- pound sign
- dollar sign

Note. The @ sign is *not* changed to an underscore on files transferred with this function.

Considerations Using DB2 UDB for OS/390 and z/OS Databases

When you use the GetAttachment function on either the DB3 UDB for OS/390 or z/OS databases, you may need to convert the file for the transfer to complete correctly.

For example, you can use the following conversion, and place it in a shell script named convert.sh:

```
dd if=$1 of=$1.temp conv=ebcdic
tr -d '\045' < $1.temp > $1.temp2
tr '\015' '\n' < $1.temp2 > $1.temp3
```

At this point $1.temp3 contains the file that GetFile can use.

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Parameters

Parameter	Description
URLSource	A reference to a URL. This can be either a URL name, in the form URL.*URLName*, or a string. This is where the file is transferred to.
SysFileName	The relative path and filename of the file on the file server. This is appended to *URLSource* to make up the full URL where the file is transferred from. This parameter takes a string value. **Note.** The *URLSource* requires "/" slashes. Because *SysFileName* is appended to the URL, it also requires only "/" slashes. "\" are NOT supported in anyway for either the *URLSource* or the *SysFileName* parameter.
LocalFile	The name, and possible full path, to the destination file on the application server. This parameter takes a string value. If you specify only a file name, the file is assumed to be in the directory specified by the **TMP** environment variable or the directory specified by *LocalDirEnvVar*. If the file is *not* in the **TMP** directory and you don't specify *LocalDirEnvVar* you must use the full path name as appropriate to the operating system (that is, on Unix use "\").
LocalDirEnvVar	The name of the environment variable containing path information. If specified, the path value in the environment variable is prepended to *LocalFile*. Use this if you don't want to hard code path names in the *LocalFile* parameter. This parameter takes a string value. **Note.** Only operating system environment variables are recognized with this parameter, rather than variables defined in configuration files.
PreserveCase	Specify a Boolean value to indicate whether the case of the directory and file name specified with *DirAndFileName* are preserved or not; true, preserve the case, false, convert the filename extension to all lower case letters. The default value is false.

Returns

An integer value. You can check for either the integer or the constant:

Numeric Value	Constant Value	Description
0	%Attachment_Success	File was transferred successfully.
1	%Attachment_Failed	File was not successfully transferred.

Example

The following transfers the file "resume.txt" from the file server to the application server using ftp.

```
GetAttachment("ftp://anonymous:hobbit1@ftp.ps.com/HRarchive/", "NewHire⇒
/11042000resume.txt", "c:/NewHires/resume.txt";
```

In this example, all resumes are in the directory NewHires, which is pointed to by the environment variable RESUMES.

```
&SysFileName = %DATE  | &LASTNAME;
GetAttachment(URL.MYFTP, &SysFileName, "resume.txt", "RESUMES");
```

The following example gets employee photos from an ftp archive, and writes them to a record.

```
Local File &FILE;
Local Record &REC;
```

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```
Local SQL &SQL;

&REC = CreateRecord(Record.EMPL_PHOTO);
&SQL = CreateSQL("%SelectAll(:1)", Record.EMPL_PHOTO);

While &SQL1.Fetch(&REC)

/* photos are stored in FTP archive by EmplID */
   &EmplId = &REC.EmplId.Value;
   &SysFileName = &EmplId | "_PHOTO.GIF";

/* Store files with same name on local system */
   GetAttachment(URL.FTPARCHIVE, &SysFileName, &SysFileName, "PHOTOS");

/* get the file */
   &FileName = "C:\HRArchive\Photos" | &SysFileName;
   &FILE = GetFile(&FileName, "w", "a", %FilePath_Absolute);

/* Write file to record */
   &FILE.WriteRaw(&REC.EMPLOYEE_PHOTO.Value);

End-While;

&FILE.Close();
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddAttachment, page 32, Chapter 1, "PeopleCode Built-in Functions," DeleteAttachment, page 151, Chapter 1, "PeopleCode Built-in Functions," PutAttachment, page 397 and Chapter 1, "PeopleCode Built-in Functions," ViewAttachment, page 544.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding File Attachments and PeopleCode," Using File Attachments in Applications

GetBiDoc

Syntax

GetBiDoc(*XMLstring*)

Description

Use the GetBiDoc function to create a BiDocs structure. You can populate the structure with data from *XMLstring*. This is part of the incoming Business Interlink functionality, which enables PeopleCode to receive an XML request and return an XML response.

Parameters

Parameter	Description
XMLstring	A string containing XML. You can specify a NULL string for this parameter, that is, two quotation marks ("") without a space between them.

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Return Value

A BiDocs object.

Example

The following example gets an XML request, puts it into a text string, and puts that into a BiDoc. After this is done, the GetDoc method and the GetValue method can get the value of the skills XML element, which is contained within the postreq XML element in the XML request.

```
Local BIDocs &rootInDoc, &postreqDoc;
Local string &blob;
Local number &ret;

&blob = %Request.GetContentBody();
/* process the incoming xml(request)- Create a BiDoc and fill with the request*/
&rootInDoc = GetBiDoc(&blob);
&postreqDoc = &rootInDoc.GetDoc("postreq");
&ret = &postreqDoc.GetValue("skills", &skills);
```

You can also create an empty BiDoc with GetBiDoc, as in the following example.

```
Local BIDocs &rootInDoc, &postreqDoc;
Local string &blob;
Local number &ret;

&blob = %Request.GetContentBody();
/* process the incoming xml(request)- Create a BiDoc and fill with the request*/
&rootInDoc = GetBiDoc("");
&ret = &rootInDoc.ParseXMLString(&blob);
&postreqDoc = &rootInDoc.GetDoc("postreq");
&ret = &postreqDoc.GetValue("skills", &skills);
```

See Also

Business Interlinks documentation on Customer Connection

GetCalendarDate

Syntax

GetCalendarDate(*comparedate*, *periods*, *periodadjustment*,
outfieldname, *company*, *paygroup*)

Description

Use the GetCalendarDate function to return the value of a Date field from the PS_PAY_CALENDAR table. If a table entry is not found, GetCalendarDate returns 1899-01-01.

Processing Rules

The following are the processing rules for GetCalendarDate:

1. The function SELECTs all the values for *outfieldname*, PAY_BEGIN_DT and PAY_END_DT from PS_PAY_CALENDAR. The result set is sorted in increasing PAY_END_DT order.
2. A SQL SELECT statement is generated in the following form:

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3. SELECT outfieldname, PAY_BEGIN_DT, PAY_END_DT FROM PS_PAY_CALENDAR WHERE COMPAny=:1 AND PAYGROUP=:2 ORDER BY PAY_END_DT;
4. Rows are fetched from the result set until the value of *comparedate* falls between PAY_BEGIN_DT and PAY_END_DT. The value of *outfieldname* is stored in a storage stack.
5. A work variable equal to the value in *periods* is set.
6. If the value of *outfieldname* in the located result row is equal to *comparedate,* then the value in *periodadjustment* is added to the work variable. Because *periodadjustment* may be negative, the result may be negative.
7. If the work variable is negative then the saved value of *outfieldname* is returned from the storage stack at the level specified by the work variable. If the work variable is positive then fetch forward the number of times specified by the work variable. The value of *outfieldname* is returned from the most recently fetched (current) row.

Parameters

Parameter	Description
comparedate	A date field set by the caller as the date of interest, for example, "1997-02-17."
periods	A numeric variable set by the caller specifying the number of periods forward or backward to be returned.
periodadjustment	A numeric variable that adjusts the *periods* if the *comparedate* equals the period end date. This is typically used to adjust for period end dates. Usually the *periodadjustment* is either -1, 0, or 1.
outfieldname	The name of a date field in the PS_PAY_CALENDAR table. For example PAY_BEGIN_DT. The value of this field is not referenced or modified by the routine, but the name of the field is used to build a SQL SELECT statement and to indicate which value from the table to return in the return date.
company	A field set by the caller to be equal to the company code of interest, for example, "CCB".
paygroup	A variable set by the caller to be equal to the PayGroup code of interest, for example, "M01".

Returns

Returns a Date value from the PS_PAY_CALENDAR table.

Example

The following examples use the sample PS_PAY_CALENDAR entries in the following table. In the example, *comparedate* and the result date are Date type fields defined in some record.

COMPANY	PAYGROUP	PAY_END_DT	PAY_BEGIN_DT	CHECK_DT
CCB	MO1	1997-01-31	1997-01-01	1997-01-31
CCB	MO1	1997-02-28	1997-02-01	1997-02-28

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COMPANY	PAYGROUP	PAY_END_DT	PAY_BEGIN_DT	CHECK_DT
CCB	MO1	1997-03-31	1997-03-01	1997-03-29
CCB	MO1	1997-04-30	1997-04-01	1997-04-30
CCB	MO1	1997-05-31	1997-05-01	1997-05-31
CCB	MO1	1997-06-30	1997-06-01	1997-06-28
CCB	MO1	1997-07-31	1997-07-01	1997-07-31
CCB	MO1	1997-08-31	1997-08-01	1997-08-30
CCB	MO1	1997-09-30	1997-09-01	1997-09-30
CCB	MO1	1997-10-31	1997-10-01	1997-10-31
CCB	MO1	1997-11-30	1997-11-01	1997-11-27
CCB	MO1	1997-12-31	1997-12-01	1997-12-31
CCB	SM1	1997-01-15	1997-01-01	1997-01-15

Find the begin date of the pay period containing the date 1997-05-11 (the value of &COMPAREDate). The result date returned would be 1997-05-01.

```
&RESULT_Date = GetCalendarDate(&COMPAREDate, 0, 0,
   PAY_BEGIN_DT, COMPAny, PAYGROUP);
```

Or:

```
&RESULT_Date = GetCalendarDate(&COMPAREDate, 1, -1,
   PAY_BEGIN_DT, COMPAny, PAYGROUP);
```

GetChart

Syntax

GetChart(*RecordName.FieldName*)

Description

Use the GetChart function to get a reference to a chart object. You associate a record and field name with a chart definition in PeopleSoft Application Designer.

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Parameters

Parameter	Description
RecordName.FieldName	Specify the record and field name associated with the chart.

Returns

A reference to a chart object.

Example

```
&MyChart = GetChart(Chart_Record.Chart_Field);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Chart Class"

GetChartURL

Syntax

GetChartURL(*&Chart*)

Description

Use the GetChartURL function to generate the URL of a chart object. This URL can then be used in your application for displaying a chart.

Parameters

Parameter	Description
&Chart	Specify an already instantiated chart object.

Returns

A URL as a string.

Example

```
Function IScript_GetChartURL()
local object &MyChart;
local string &MyURL;

   &MyChart = CreateObject("Chart");
   &MyChart .SetData = xx;

/* xx will be a data row set */

   &MyURL = %Response.GetChartURL(&MyChart);
   &sMap = &oChart.ImageMap;

   %Response.Write("<HTML><IMG SRC=");
   %Response.Write(&MyURL);
```

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```
      %Response.Write("  USEMAP=#THEMAP></IMG><MAP NAME=THEMAP>");
      %Response.Write(&sMap);
      %Response.Write("</MAP></HTML>");

   End-Function;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Chart Class"

GetCwd

Syntax

GetCwd()

Description

Use the GetCwd function to determine the current working directory of the process that executes it. This means that in PeopleSoft Pure Internet Architecture it returns the current working directory on the server, in an Application Engine program it returns the current working directory of the Application Engine process, and so on.

Returns

Returns a string containing the path of the current working directory.

Example

The example stores a string specifying the current working directory in &CWD.

```
&CWD = GetCwd();
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetEnv, page 268 and Chapter 1, "PeopleCode Built-in Functions," ExpandEnvVar, page 202.

GetEnv

Syntax

GetEnv(*env_var_str*)

Description

Use the GetEnv function to return the value of an environment variable specified by *env_var_str* as a string. If the environment variable does not exist, it returns a null string.

You can use the GetEnv function to determine the actual path of *PS_HOME*. You could use this with the Exec function, which automatically prepends the command string with the path of *PS_HOME*.

Parameters

Parameter	Description
env_var_str	A string containing an environment variable.

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Returns

Returns a string equal to *env_var_str* with any enclosed environment variables expanded to their values.

Example

Assume that the environment string NETDRIVE is equal to "N:". The following statement returns "N:" in &NETDRIVE:

```
&NETDRIVE = GetEnv("netdrive");
```

Note that on UNIX systems, the environment variable names are case-sensitive. That is, "netdrive" is a different variable from "NetDrive".

See Also

Chapter 1, "PeopleCode Built-in Functions," GetCwd, page 268 and Chapter 1, "PeopleCode Built-in Functions," ExpandEnvVar, page 202.

GetField

Syntax

GetField([*recname.fieldname*])

Description

Use the GetField function to create a reference to a field object for the current context; that is, from the row containing the currently executing program.

If you don't specify *recname.fieldname*, the current field executing the PeopleCode is returned.

Note. For PeopleCode programs located in events that are not associated with a specific row, record, and field at the point of execution this function is invalid. That is, you cannot use this function in PeopleCode programs on events associated with high-level objects like pages or components. For events associated with record level programs (like component record), this function is valid, but it must be specified with a field name, as there is an assumed record, but no assumed field name.

When GetField is used with an associated record and field name on component buffer data, the following is assumed:

```
&FIELD = GetRow().recname.fieldname;
```

Parameters

Parameter	Description
recname.fieldname	If you don't want to refer to the field executing the PeopleCode, specify a record name and field name.

Returns

This function returns a field object that references the field from the specified record.

Example

```
Local Field &CHARACTER;
```

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```
&CHARID = GetField(FIELD.CHAR_ID);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class" and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Record Class," GetField.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

GetFile

Syntax

GetFile(*filename, mode [, charset] [, pathtype]*)

Description

Use the GetFile function to instantiate a new file object from the File class, associate it with an external file, and open the file so you can use File class methods to read from or write to it.

GetFile is similar to the Open file class method, but Open associates an *existing* file object with an external file. If you plan to access only one file at a time, you need only one file object. Use GetFile to instantiate a file object for the first external file you access, then use Open to associate the same file object with as many different external files as you want. You need to instantiate multiple file objects with GetFile only if you expect to have multiple files open at the same time.

Working With Relative Paths

If you specify a relative path, that path is appended to the path specified by an environmental variable, if the variable exists, in a particular order. This means if the first environmental variable in order is found, that is the one that's used. If it isn't found, the next one is searched for, and if found, is used, and so on.

If GetFile is called from Application Engine when running standalone that is, when not within an application server domain), the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]

If the code is *not* running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]
3. TEMP[\relative_path]

The PS_FILEDIR environmental variable is *not* initialized and set to a path automatically. If you want to use this environmental variable, you must set it yourself.

Note. Your system security should verify if a user has the correct permissions before allowing access to a drive (for example, if a user changes their TEMP environmental variable to a network drive they don't normally have access to, your system security should detect this.)

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Parameters

Parameter	Description
filespec	Specify the name, and optionally, the path, of the file you want to open.
mode	A string indicating how you want to access the file. The mode can be one of the following: "R" (Read mode): opens the file for reading, starting at the beginning. "W" (Write mode): opens the file for writing. ***Warning!*** When you specify Write mode, any existing content in the file is discarded. "A" (Append mode): opens the file for writing, starting at the end. Any existing content is retained. "U" (Update mode): opens the file for reading or writing, starting at the beginning of the file. Any existing content is retained. Use this mode and the GetPosition and SetPosition methods to maintain checkpoints of the current read/write position in the file. In Update mode, any write operation clears the file of all data that follows the position you set. **Note.** Currently, the effect of the Update mode and the GetPosition and SetPosition methods is not well defined for Unicode files. Use the Update mode only on files stored with a non-Unicode character set. "E" (Conditional "exist" read mode): opens the file for reading only if it exists, starting at the beginning. If it doesn't exist, the Open method has no effect. Before attempting to read from the file, use the IsOpen property to confirm that it's open. "N" (Conditional "new" write mode): opens the file for writing, only if it doesn't already exist. If a file by the same name already exists, the Open method has no effect. Before attempting to write to the file, use the IsOpen property to confirm that it's open. You can insert an asterisk (*) in the filename to ensure that a new file is created. The system replaces the asterisk with numbers starting at 1 and incrementing by 1, and checks for the existence of a file by each resulting name in turn. It uses the first name for which a file *doesn't* exist. In this way you can generate a set of automatically numbered files. If you insert more than one asterisk, all but the first one are discarded.

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Parameter	Description
charset	A string indicating the character set you expect when you read the file, or the character set you want to use when you write to the file. You can abbreviate Unicode UTF-16 to "U" and the host operating system's default non-Unicode (sometimes referred to as the ANSI character set) to "A". All other character sets must be spelled out in full, for example, ASCII, THAI, or UTF8. If "A" is specified as the character set, or you don't specify a character set, the character set used is dependent on the application server configuration. On a Windows application server, the default non-Unicode character set is dependent on the Windows ANSI Codepage (ACP) which can be checked using the DOS command chcp. On a Unix application server, the default non-Unicode character set is specified in the application server configuration file, psappsrv.cfg, and can be modified using PSADMIN. You can also use a record field value to specify the character set (for example, RECORD.CHARSET.) A list of supported character set names valid for this argument can be found in *PeopleTools 8.49 PeopleBook: Global Technology.* See *Enterprise PeopleTools 8.49 PeopleBook: Global Technology*, "Selecting and Configuring Character Sets and Language Input and Output," Character Sets in the PeopleSoft Pure Internet Architecture. **Note.** If you attempt to read data from a file using a different character set than was used to write that data to the file, the methods used generate a runtime error or the data returned is unusable. When a file is opened for reading using the "U" *charset* argument, GetFile expects the file to begin with a Unicode Byte Order Mark (BOM), otherwise known as a *sentinal*. This mark indicates whether the file is written in big endian order or little endian order. A BOM consisting of the hex value 0xFEFF indicates a big endian file, a BOM consisting of the hex value 0xFFEF indicates a little endian file. If the Unicode UTF-16 file being opened does not start with a BOM, an error is returned. The BOM is automatically stripped from the file when it is read into the buffers by GetFile. When a file is opened for writing using the "U" *charset* argument, the Unicode BOM is automatically written to the start of the file, dependent on whether the application server hardware platform operates in little endian or big endian mode. Byte Order Marks are not expected or supported for files in other character sets, including UTF8. **Note.** When working with XML documents, specify UTF8 for *charset*. If you are writing an XML file using a different charset, you must remember to include a charset declaration in the XML file.
pathtype	If you have prepended a path to the file name, use this parameter to specify whether the path is an absolute or relative path. The valid values for this parameter are: • %FilePath_Relative (default) • %FilePath_Absolute If you don't specify *pathtype* the default is %FilePath_Relative. If the path is an absolute path, whatever path you specify is used verbatim. You must specify a drive letter as well as the complete path. You can't use any wildcards when specifying a path. The function automatically converts platform-specific separator characters to the appropriate form for where your PeopleCode program is executing. On a WIN32 system, UNIX "/" separators are converted to "\", and on a UNIX system, WIN32 "\" separators are converted to "/".

Note. The syntax of the file path does *not* depend on the file system of the platform where the file is actually stored; it depends only on the platform where your PeopleCode is executing.

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Returns

A file object if successful, Null otherwise.

Example

The following example opens an existing Unicode file for reading:

```
&MYFILE = GetFile(&SOMENAME, "E", "U");
If &MYFILE.IsOpen Then
   while &MYFILE.ReadLine(&SOMESTRING);
      /* Process the contents of each &SOMESTRING */
   End-While;
   &MYFILE.Close();
End-If;
```

The following example opens a numbered file for writing in a non-Unicode format, without overwriting any existing files:

```
&MYFILE = GetFile("c:\temp\item*.txt", "N", %FilePath_Absolute);
If &MYFILE.IsOpen Then
   &MYFILE.WriteLine("Some text.");
   &MYFILE.Close();
End-If;
```

The following example uses the CHARSET field to indicate the character set to be used:

```
&MYFILE = GetFile("INPUT.DAT", "R", RECORD.CHARSET);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," FileExists, page 208, Chapter 1, "PeopleCode Built-in Functions," FindFiles, page 212 and Chapter 1, "PeopleCode Built-in Functions," GetFile, page 270.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class," Open

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class," GetPosition

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class," SetPosition

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class," IsOpen

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class," File Access Interruption Recovery

GetGanttChart

Syntax

GetGanttChart([*RecordName.FieldName*])

Description

Use the GetGanttChart function to get a reference to a Gantt chart object. You associate a record and field name with a chart definition in PeopleSoft Application Designer.

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Parameters

Parameter	Description
RecordName.FieldName	Specify the record and field associated with the chart you want to get.

Returns

A reference to a chart object.

Example

```
&oGantt = GetGanttChart(QE_CHART_DUMREC.QE_CHART_FIELD);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Chart Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Using Page Controls," Using Charts

GetGrid

Syntax

GetGrid(**PAGE**.*pagename*, *gridname*)

Description

Use the GetGrid function to instantiate a grid object from the Grid class, and populates it with the grid specified by *gridname*, which is the Page Field Name on the General tab of that grid's page field properties.

Use the GetGrid function to return a reference to a grid object. If you want to access an AnalyticGrid, use the GetAnalyticGrid function instead.

Specify a grid name consisting of any combination of uppercase letters, digits and "#", "$", "@", and "_".

Note. PeopleSoft builds a page grid one row at a time. Because the Grid class applies to a complete grid, you can't attach PeopleCode that uses the Grid class to events that occur before the grid is built; the earliest event you can use is the page Activate Event.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "PeopleCode and the Component Processor," Activate Event.

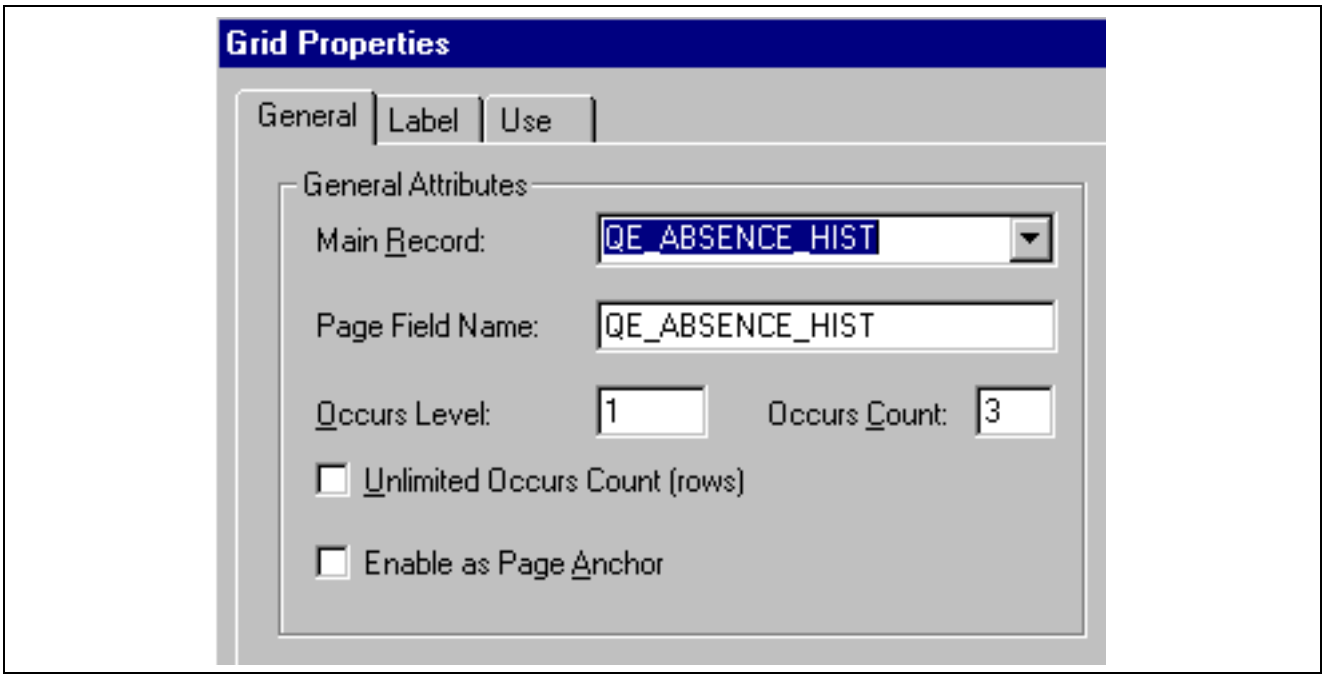
Using the Grid Name

When you place a grid on a page, the gird is automatically named the same as the name of the primary record of the scroll for the grid (in the Page Field Name.)

Note. If the name of the record changes, the Page Field Name is *not* automatically updated. You must change this name if you want the name of the grid to reflect the name of the record.

This is the name you use with the GetGrid function. You can change this name on the Record tab of the Grid properties.

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Changing a grid name

To change a grid name:

1. Open the page in PeopleSoft Application Designer, select the grid and access the page field properties.
2. On the General tab, type the new grid name in Page Field Name.

Note. Every grid on a page must have a unique name.

Parameters

Parameter	Description
PAGE. *pagename*	Specify the name of the page definition containing the grid you want.
gridname	Specify the Page Field Name on the General tab of the grid's page field properties.

Returns

A Grid object populated with the requested grid.

Example

This example retrieves the second grid named "EMPL_GRID" within a scroll:

```
local Grid &MYGRID;

&MYGRID = GetGrid(PAGE.EMPLOYEE_CHECKLIST, "EMPL_GRID");
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Grid Classes," GetColumn

Chapter 1, "PeopleCode Built-in Functions," GetAnalyticGrid, page 258

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GetHTMLText

Syntax

GetHTMLText(**HTML.***textname* [, *paramlist*])

Where *paramlist* is an arbitrary-length list of values of undetermined (Any) data type in the form:
inval1 [, *inval2*] ...

Description

Use the GetHTMLText function to retrieve a predefined HTML text from an HTML definition in the user's current language, or the base language if no entry exists in the user's current language. If any values are included in *paramlist*, they are substituted into the HTML text based on positional reference (for example, `%BIND(:1)` is the first parameter, `%BIND(:2)` is the second, and so on.)

Note. Use the GetHTMLText function only to retrieve HTML, or HTML that contains a JavaScript program, from an HTML definition. If you have an HTML definition that contains *only* JavaScript, use the GetJavaScriptURL response class method to access it.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Internet Script Classes (iScript)," GetJavaScriptURL.

Restrictions on Use

Use this function with the PeopleSoft Pure Internet Architecture. If run from a 2 tier environment, the parameter substitution does *not* take place.

Parameters

Parameter	Description
HTML. *textname*	Specify the name of an existing HTML text from an HTML definition.

Returns

The resulting HTML text is returned as a string.

Example

The following is the text in the HTML definition TEST_HTML:

```
This is a %BIND(:1) and %BIND(:2) test.
```

The following is the PeopleCode program:

```
Local Field &HTMLfield;

&string = GetHTMLText(HTML.TEST_HTML, "good", "simple");
&HTMLfield = GetRecord(Record.CHART_DATA).HTMLAREA;
&HTMLfield.Value = &string;
```

The output from &string (displayed in an HTML area control) is:

```
This is a good and simple test.
```


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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and PeopleSoft Pure Internet Architecture," Using HTML Definitions and the GetHTMLText Function

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Using Page Controls," Using HTML Areas

GetImageExtents

Syntax

GetImageExtents(**IMAGE.***ImageName*)

Description

Use the GetImageExtents function to return the width and height of the image specified by *ImageName*.

Parameters

Parameter	Description
ImageName	Specify the name of the image on the page. This image must exist on the page.

Returns

An array of data type number, where element 1 is the image height and element 2 is the image width.

Example

```
Local array of number &ImageExtents;

&ImageExtents = GetImageExtents(Image.PT_TREE_EXPANDED);

WinMessage("Height is " | &ImageExtents[1] | " and width is " | &ImageExtents[2]);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Field Definitions," Specifying Image Field Attributes

GetInterlink

Syntax

GetInterlink(**Interlink.***name*)

Description

Use the GetInterlink function to instantiate a Business Interlink definition object based on a Business Interlink definition created in PeopleSoft Application Designer. The Business Interlink object can provide a gateway for PeopleSoft applications to the services of any external system.

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After you use this function, you may want to refresh your page. The Refresh rowset class reloads the rowset (scroll) using the current page keys. This causes the page to be redrawn. `GetLevel0().Refresh()` refreshes the entire page. If you only want a particular scroll to be redrawn, you can refresh just that part.

Generally, do not use the GetInterlink function in a program you create from scratch. If you drag a Business Interlink definition from the project workspace (in PeopleSoft Application Designer) to an open PeopleCode editor window, a "template" is created, with values filled in based on the Business Interlink definition you dragged in.

The following is the template created from dragging the Business Interlink definition LDAP_SEARCHBIND to an open PeopleCode editor window.

```
/* ===>
   This is a dynamically generated PeopleCode template to be used only as a helper⇒
 to the application developer.  You need to replace all references to '<*>' OR⇒
 default values with  references to PeopleCode variables and/or a Rec.Fields.*/

/* ===> Declare and instantiate: */
Local Interlink &LDAP_SEARCHBI_1;
Local BIDocs &inDoc;
Local BIDocs &outDoc;
Local Boolean &RSLT;
Local number  &EXECRSLT;
&LDAP_SEARCHBI_1 =  GetInterlink(INTERLINK.LDAP_SEARCHBIND);

/* ===> You can use the following assignments to set the configuration parameters.
*/

&LDAP_SEARCHBI_1.Server = "jtsay111198.peoplesoft.com";
&LDAP_SEARCHBI_1.Port = 389;
&LDAP_SEARCHBI_1.User_DN = "cn=Admin,o=PeopleSoft";
&LDAP_SEARCHBI_1.Password = &password;
&LDAP_SEARCHBI_1.UserID_Attribute_Name = "uid";
&LDAP_SEARCHBI_1.URL = ⇒
"///file:C:/User/Documentum/XML%20Applications/proddoc/peoplebook_upc/peoplebook_⇒
upc.dtd";
&LDAP_SEARCHBI_1.BIDocValidating = "Off";


/* ===> You might want to call the following statement in a loop if there is more⇒
 than one row of data to be added.  */

/* ===> Add inputs: */
&inDoc = &LDAP_SEARCHBI_1.GetInputDocs("");
&ret = &inDoc.AddValue("User_ID", <*>);
&ret = &inDoc.AddValue("User_Password", <*>);
&ret = &inDoc.AddValue("Connect_DN", <*>);
&ret = &inDoc.AddValue("Connect_Password", <*>);
&Directory_Search_ParmsDoc = &inDoc.AddDoc("Directory_Search_Parms");
&ret = &Directory_Search_ParmsDoc.AddValue("Host", <*>);
&ret = &Directory_Search_ParmsDoc.AddValue("Port", <*>);
```

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```
&ret = &Directory_Search_ParmsDoc.AddValue("Base", <*>);
&ret = &Directory_Search_ParmsDoc.AddValue("Scope", <*>);
&ret = &Directory_Search_ParmsDoc.AddValue("Filter", <*>);


/* ===> The following statement executes this instance: */
&EXECRSLT = &LDAP_SEARCHBI_1.Execute();
If ( &EXECRSLT <> 1 ) Then
   /* The instance failed to execute */
Else
&outDoc = &LDAP_SEARCHBI_1.GetOutputDocs("");
&ret = &outDoc.GetValue("Distinguished_Name", <*>);
&ret = &outDoc.GetValue("return_status", <*>);
&ret = &outDoc.GetValue("return_status_msg", <*>);
End-If; /* If NOT &RSLT ...  */
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using the PeopleCode Editor," Generating PeopleCode for a Business Interlink

Parameters

Parameter	Description
Interlink. *name*	Specify the name of the Business Interlink definition from which to instantiate a Business Interlink object.

Returns

A Business Interlink object.

Example

The following example instantiates a Business Interlink object based on the Business Interlink definition QE_RP_SRAALL.

```
Local Interlink &SRA_ALL_1;

&SRA_ALL_1 = GetInterlink(Interlink.QE_RP_SRAALL);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Business Interlink Class"
Business Interlinks documentation on Customer Connection

GetJavaClass

Syntax

GetJavaClass(*ClassName*)

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Description

Use the GetJavaClass function to access a Java class so that you can manipulate it in PeopleCode. This is used for those classes that have static members, where it isn't appropriate to instantiate an object of the class. You can call only static methods, that is, class methods, with the object created with this function.

In Java, you access such static members of a class by using the class name:

```
result = java.class.name.SomeStaticMethod();
```

To do this in PeopleCode, do the following:

```
&Result = GetJavaClass("java.class.name").SomeStaticMethod();
```

Note. If you create a class that you want to call using GetJavaClass, it must be located in a directory specified in the PS_CLASSPATH environment variable.

Parameters

Parameter	Description
ClassName	Specify the name of an already existing class. This parameter takes a string value.

Returns

A JavaObject that refers to the named Java class.

Example

The Java class **java.lang.reflect.Array** has no public constructors and has only static methods. The methods are used to manipulate Java array objects. One of these static methods is GetInt:

```
public static int getInt(Object array, int index)
```

To use this method, get the class by using GetJavaClass. This code illustrates accessing the value of the fifth element of an integer array.

```
Local JavaObject &RefArray, &MyArray;
. . .
&RefArray = GetJavaClass("java.lang.reflect.Array");
. . .
&MyArray = CreateJavaArray("int[]", 24);
. . .
&FifthElement = &RefArray.getInt(&MyArray, 4);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateJavaObject, page 113 and Chapter 1, "PeopleCode Built-in Functions," CreateJavaArray, page 112.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Java Class"

GetLevel0

Syntax

```
GetLevel0()
```

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Description

Use the GetLevel0 function to create a rowset object that corresponds to level 0 of the component buffer. If used from PeopleCode that isn't associated with a page, it returns the base rowset from the current context.

Parameters

GetLevel0 has no parameters. However, it does have a default method, GetRow, and a shortcut. Specifying `GetLevel0()(1)` is the equivalent of specifying `GetLevel0().GetRow(1)`.

Returns

This function returns a rowset object that references the base rowset. For a component, this is the level 0 of the page. For a PeopleSoft Application Engine program, this is the state record rowset. For a message, this is the base rowset.

Note. You can also get the base rowset for a message using the GetRowset message class method, that is, `&MSG.GetRowset()`.

Example

The following code sample returns the level one rowset.

```
Local Rowset &ROWSET;
&ROWSET = GetLevel0().GetRow(1).GetRowset(SCROLL.LEVEL1_REC);
```

The following is equivalent to the previous example.

```
Local Rowset &ROWSET;
&ROWSET = GetLevel0()(1).GetRowset(SCROLL.LEVEL1_REC);
```

To reference a level 2 rowset you would have code similar to this:

```
Local Rowset &ROWSET_LEVEL2, &ROWSET_LEVEL0, &ROWSET_LEVEL1;
&ROWSET_LEVEL2 = GetLevel0().GetRow(1).GetRowset(SCROLL.LEVEL1_REC).GetRow(5). ⇒
 GetRowset(SCROLL.LEVEL2_REC);
  /* or */
&ROWSET_LEVEL0 = GetLevel0();
&ROWSET_LEVEL1 = &ROWSET_LEVEL0.GetRow(1).GetRowset(SCROLL.LEVEL1_REC);
&ROWSET_LEVEL2 = &ROWSET_LEVEL1.GetRow(5).GetRowset(SCROLL.LEVEL2_REC);
   /* or */
&ROWSET_LEVEL2 = GetLevel0()(1).LEVEL1_REC(5).GetRowset(SCROLL.LEVEL2_REC);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetRowset, page 304

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

GetMethodNames

Syntax

GetMethodNames(*Type, Name*)

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Description

Use the GetMethodNames function to return either the method names for a Component Interface, or the function names of a WEBLIB record.

Parameters

Parameter	Description
Type	Specify the type of methods or functions you want returned. This parameter takes a string value. The values are: • WebLib • CompIntfc
Name	Specify the name of the Component Interface or WEBLIB record that you want to know the methods or functions for.

Returns

An array of string containing the method or function names.

Example

```
Local array of string &Array;
&Array = GetMethodNames("CompIntfc", CompIntfc.USER_PROFILE);
&Array = GetMethodNames("WebLib", Record.WEBLIB_PORTAL);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Component Interface Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," Web Libraries

GetMessage

Syntax

GetMessage()

Description

Use the GetMessage function to return a message.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class GetMessage method instead.

It retrieves a message from the message queue for the current message being processed.

Note. The GetMessage function does not load the message with data. It always creates a new instance of a message object. You must use another method, such as GetRowset, to populate the message object. In addition, you must populate the message object with data before running any methods on it.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," GetMessage

Parameters

None.

Returns

A reference to an empty message object if successful, NULL if not successful.

Example

```
Local message &MSG;
&MSG = GetMessage();
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateMessage, page 115

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," GetRowset

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes"

GetMessageInstance

Syntax

GetMessageInstance(*pub_id*, *pub_nodename*, *channelname*)

Description

Use the GetMessageInstance function to get a message from the message queue.

Note. This function has been deprecated and is no longer supported.

GetMessageXmlDoc

Syntax

GetMessageXmlDoc()

Description

Use the GetMessageXmlDoc function in any of the messaging PeopleCode events.

Note. This function has been deprecated and remains for backward compatibility only. Use the Message class GetXMLDoc method instead.

It retrieves an XML message, either from the message queue for asynchronous messages, or in memory for synchronous messages, for the current message being processed. An XML message is a message that is unstructured, that is, isn't based on a record hierarchy. It creates and loads a data tree for the default message version, and returns NULL if not successful.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," GetXmlDoc

Parameters

None.

Returns

A reference to an XmlDoc object if successful, NULL if not successful.

Example

The following example uses the GetMessageXmlDoc built-in function.

```
Local XmlDoc &BIGMAN;
Local XmlNode &node, &root;
Local string &outstring;
Local Rowset &LEVEL0;
Local Record &SALES_ORDER_INFO, &REC;

&CRLF = Char(13) | Char(10);

&BIGMAN = GetMessageXmlDoc();

&root = &BIGMAN.DocumentElement;
&child_count = &root.ChildNodeCount;

/* Get values out of XMLDoc */
&node_array = &root.GetElementsByTagName("QE_ACCT_ID");
&acct_id_node = &node_array.Get(2);
&account_id_value = &acct_id_node.NodeValue;

&node_array = &root.GetElementsByTagName("QE_ACCOUNT_NAME");
&acct_name_node = &node_array.Get(2);
&account_name_value = &acct_name_node.NodeValue;

&node_array = &root.GetElementsByTagName("QE_ADDRESS");
&address_node = &node_array.Get(2);
&address_value = &address_node.NodeValue;

&node_array = &root.GetElementsByTagName("QE_PHONE");
&phone_node = &node_array.Get(2);
&phone_value = &phone_node.NodeValue;

&outstring = "GetMessageXMLDoc Test";
&outstring = &outstring | &CRLF | &account_id_value | &CRLF | &account_name_value⇒
 | &CRLF | &address_value | &CRLF | &phone_value;

&SALES_ORDER_INFO = CreateRecord(Record.QE_SALES_ORDER);
&SALES_ORDER_INFO.GetField(Field.QE_ACCT_ID).Value = &account_id_value;
```

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```
&SALES_ORDER_INFO.GetField(Field.DESCRLONG).Value = &outstring;
&SALES_ORDER_INFO.Update();
```

See Also

Chapter 1, "PeopleCode Built-in Functions," PublishXmlDoc, page 396 and Chapter 1, "PeopleCode Built-in Functions," SyncRequestXmlDoc, page 501.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes"

GetNextNumber

Syntax

GetNextNumber ({*record.field* | *record_name*, *field_name*}, *max_number*)

Description

Use the GetNextNumber function to increment the value in a record for the field you specify by one and returns that value. You might use this function to increment an employee ID field by one when you are adding a new employee. If the new value generated exceeds *max_number*, a negative value is returned and the field value isn't incremented.

The maximum value possible for *max_number* is 2147483647.

PeopleCode Event Considerations

Because this function results in a database update (specifically, UPDATE, INSERT, and DELETE) it should only be issued in the following events:

- SavePreChange
- WorkFlow
- SavePostChange

If you use this function in an event other than these, you need to ensure that the dataflow is correct and that you don't receive unexpected results.

GetNextNumber and GetNextNumberWithGapsCommit

The following is some of the differences between the two functions, to enable you to better chose which one is better for your application.

GetNextNumber	GetNextNumberWithGapsCommit
No AutoCommit (which can be a problem, as the table is locked until all Save events are finished.)	AutoCommit (this can be a performance enhancement as table is not locked as long).
	Ability to use WHERE criteria for maintaining multiple sequence numbers in a single record.

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GetNextNumber	GetNextNumberWithGapsCommit
	Ability to increment by more than 1.
Allowed in SavePostChange	Can be used in any PeopleCode event.

Parameters

Parameter	Description
record.field	Specify the record and field identifiers for the field for which you want the new number. This is the recommended way to identify the field.
record_name	Specify as a string the name of the record containing the field for which you want the new number. This parameter with *field_name* was used prior to PeopleTools 8.
field_name	Specify as a string the name of the field for which you want the new number. This parameter with *record_name* was used prior to PeopleTools 8. **Note.** If you use the older syntax (*record_name*,*field_name*), you have to manually update these two parameters in your programs whenever that record or field is renamed. The new syntax (*record.field)* is automatically updated, so you won't have to maintain it.
max_number	Specify the highest allowed value for the field you're incrementing. The maximum value possible for *max_number* is 2147483647.

Returns

A Number value equal to the highest value of the field specified plus one.

GetNextNumber returns an error if the value to be returned would be greater than *max_number*. The function returns one of the following:

Numeric Value	Constant Value	Description
Number	N/A	The new number
-1	%GetNextNumber_SQLFailure	SQL failure
-2	%GetNextNumber_TooBig	Number too large, beyond *max_number*
-3	%GetNextNumber_NotFound	No number found, invalid data format

Example

```
If %Component = "RUN_AR33000" Then
   DUN_ID_NUM = GetNextNumber(INSTALLATION_AR.DUN_ID_NUM, 99999999);
End-if;
```

The following uses the constant to check for the value returned:

```
&VALUE = GetNextNumber(INSTALLATION_AR.DUN_ID_NUM, 999);

Evaluate &VALUE
When = %GetNextNumber_SQLFailure
     /* do processing */
```


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```
When = %GetNextNumber_TooBig
     /* do processing */
When = %GetNextNumber_NotFound
     /* Do processing */
When-other
     /* do other processing */
End-Evaluate;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetNextNumberWithGaps, page 287

GetNextNumberWithGaps

Syntax

GetNextNumberWithGaps(*record.field*, *max_number*, *increment* [, *WHERE_Clause*, *paramlist*])

Where *paramlist* is an arbitrary-length list of values in the form:

var1 [, *var2*] ...

Description

Use the GetNextNumberWithGaps function to determine the highest value in a table for the field you specify, and return that value plus *increment*.

Note. This function has been deprecated and remains for backward compatibility only. Use the GetNextNumberWithGapsCommit function instead.

This function also enables you to specify a SQL WHERE clause as part of the function for maintaining multiple sequence numbers in a single record.

Note. GetNextNumberWithGaps also issues a COMMIT after incrementing the sequence number if no other database updates have occurred since the last COMMIT. This limits the time a database lock is held on the row and so may improve performance.

PeopleCode Event Considerations

Because this function results in a database update (specifically, UPDATE, INSERT, and DELETE) it should only be issued in the following events:

- SavePreChange
- WorkFlow

If you use this function in an event other than these, you need to ensure that the dataflow is correct and that you don't receive unexpected results.

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Parameters

Parameter	Description
record.field	Specify the record and field identifiers for the field for which you want the new number. This is the recommended way to identify the field.
max_number	Specify the highest allowed value for the field you're incrementing. You can specify up to 31 digits for this value.
increment	Specify the value you want the numbers incremented by. You can specify up to 31 digits for this value.
WHERE_Clause	Specify a WHERE clause for maintaining multiple sequence numbers.
paramlist	Parameters for the WHERE clause.

Returns

A Number value equal to the highest value of the field specified plus one.

GetNextNumberWithGaps returns an error if the value to be returned would be greater than *max_number*. The function returns one of the following:

Numeric Value	Constant Value	Description
Number	N/A	The new number
-1	%GetNextNumber_SQLFailure	SQL failure
-2	%GetNextNumber_TooBig	Number too large, beyond *max_number*
-3	%GetNextNumber_NotFound	No number found, invalid data format

Example

The following PeopleCode:

```
&greg = GetNextNumberWithGaps(GREG.DURATION_DAYS, 999999, 50, "where emplid = :1",⇒
 8001);
```

results in the following:

```
2-942   21.53.09    0.000 Cur#4.PTTST81B RC=0 Dur=0.000 Connect=PTTST81B/sa/
2-943   21.53.09    0.000 Cur#4.PTTST81B RC=0 Dur=0.000 COM Stmt=UPDATE PS_GREG⇒
 SET DURATION_DAYS = DURATION_DAYS + 50 where emplid = 8001
2-944   21.53.09    0.000 Cur#4.PTTST81B RC=0 Dur=0.000 EXE
2-945   21.53.09    0.000 Cur#4.PTTST81B RC=0 Dur=0.000 COM Stmt=SELECT DURATION_⇒
DAYS FROM PS_GREG where emplid = 8001
2-946   21.53.09    0.000 Cur#4.PTTST81B RC=0 Dur=0.000 EXE
2-947   21.53.09    0.000 Cur#4.PTTST81B RC=0 Dur=0.000 Fetch
2-948   21.53.09    0.010 Cur#4.PTTST81B RC=0 Dur=0.010 Commit
2-949   21.53.09    0.010 Cur#4.PTTST81B RC=0 Dur=0.010 Disconnect
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetNextNumber, page 285

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GetNextNumberWithGapsCommit

Syntax

```
GetNextNumberWithGapsCommit(record.field, max_number, increment [,
WHERE_Clause, paramlist])
```

Where *paramlist* is an arbitrary-length list of values in the form:

```
var1 [, var2] ...
```

Description

Use the GetNextNumberWithGapsCommit function to return the sequence number value plus *increment* for the given *field* residing in the given *record*. This function also enables you to specify a SQL Where clause as part of the function for maintaining multiple sequence numbers in a single record.

This function is typically used for obtaining a new sequence number for the application, for example, getting a new Purchase Order number to be used in the application transaction.

Use this function instead of the GetNextNumberWithGaps function. The GetNextNumberWithGaps function is very restrictive in its usage. The GetNextNumberWithGapsCommit function can be used in any event. The sequence number (*record.field*) is incremented right away and it doesn't hold any database internal row lock beyond the execution of this function.

Note. A secondary database connection is used to increment and retrieve *record.field*. The default behavior is to keep the secondary database connection persistent in order to improve performance for the next GetNextNumberWithGapsCommit usage. If the database administrator finds the persistent connection too high an overhead for the production environment (which should not be the case since PeopleSoft uses application server to mulitplex the database connection), the database administrator can change the default behavior to use an on-demand connection method. The persistent second connection is disabled using DbFlags bit eight in the application server and process scheduler configuration files. The second connection can be completely disabled using DbFlags bit four in the application server and process scheduler configuration files

---

Considerations Using GetNextNumberWithGapsCommit

The following restrictions apply to the GetNextNumberWithGapsCommit function:

- The function is enabled for Application Engine programs running in stand-alone mode (via PSAE). This function is disabled for Application Engine programs that execute through the PeopleSoft Application Engine server (PSAESRV).
- This function is enabled for PeopleSoft Application Engine programs running under Unix System Services on z/OS.
- PeopleSoft does not recommend Using both the GetNextNumberWithGapsCommit function and the GetNextNumber function in the same application, on the same table, in the same unit of work. This can lead to lock contention or deadlocking.
- For a DB2 z/OS database, isolate the table that contains the sequence number to its own tablespace and set the locksize parameter to row.

See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Setting Application Server Domain Parameters," PSTOOLS Options

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Parameters

Parameter	Description
record.field	Specify the record and field names for the field for which you want the new number. This is the recommended way to identify the field.
max_number	Specify the highest allowed value for the field you're incrementing. You can specify up to 31 digits for this value.
increment	Specify the value you want the numbers incremented by. You can specify up to 31 digits for this value.
WHERE_Clause	Specify a SQL Where clause for maintaining multiple sequence numbers.
paramlist	Specify the parameters for the SQL Where clause.

Returns

A number value equal to the highest value of the field specified plus one increment.

The GetNextNumberWithGapsCommit function returns an error if the value to be returned would be greater than *max_number*. The function returns one of the following:

Numeric Value	Constant Value	Description
Number	None	The new number
-1	%GetNextNumber_SQLFailure	SQL failure
-2	%GetNextNumber_TooBig	Number returned is too large, beyond *max_number*.
-3	%GetNextNumber_NotFound	No number found, invalid data format.

Example

The following PeopleCode increments the MCF_EMAIL_ID field by one and returns the new value, committing immediately.

```
&LAST_AUTO_NBR = GetNextNumberWithGapsCommit(MCF_INSTALL.MCF_EMAIL_ID, 2147483647,⇒
 1);
```

The above code produces output similar to the following:

```
1-192    10.39.54    0.320 Cur#2.1980.DB844901 RC=0 Dur=0.320 Connect=Secondry⇒
/DB844901/testdb2/
1-193    10.39.54    0.000 GNNWGC ---- Successful obtain Second DB connection
1-194    10.39.54    0.010 Cur#2.1980.DB844901 RC=0 Dur=0.010 COM Stmt=UPDATE PS_⇒
MCF_INSTALL SET MCF_EMAIL_ID = MCF_EMAIL_ID + 1
1-195    10.39.54    0.000 Cur#2.1980.DB844901 RC=0 Dur=0.000 COM Stmt=SELECT MCF_⇒
EMAIL_ID FROM PS_MCF_INSTALL
1-196    10.39.54    0.000 Cur#2.1980.DB844901 RC=0 Dur=0.000 Commit
1-197    10.39.54    0.000 Cur#2.1980.DB844901 RC=0 Dur=0.000 Disconnect
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," GetNextNumber, page 285

GetNextProcessInstance

Syntax

```
GetNextProcessInstance([Commit])
```

Description

Use the GetNextProcessInstance function to retrieve the next available process instance from the Process Scheduler System table. When determining to find the next process instance in the sequence, the function ensures the next available process instance does not exist in both the Process Request and Message Log tables.

By default, the function commits the changes to the Process Scheduler System table to set it to the next available process instance for the next available request. If this function is called within a PeopleCode function where issuing a COMMIT to the database destroys a unit of work, specify "0" for *Commit*.

Parameters

Parameter	Description
Commit	Specify whether the current data instance should be committed to the database. This parameter takes a string value: "1", commit the data, "0", do not commit the data. "1" is the default value.

Returns

Return a number: 0 if successful, 1 if the system detected an error retrieving the next available process instance.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "ProcessRequest Class"

GetNRXmlDoc

Syntax

```
GetNRXmlDoc(NRID, EntityName)
```

Description

Use the GetNRXmlDoc function in any of the messaging PeopleCode events. It retrieves an XML message, categorized as non-repudiation, from the message queue for the specified non-repudiation ID. An XML message is a message that is unstructured, that is, isn't based on a record hierarchy. It creates and loads a data tree for the default message version, and returns Null if not successful.

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Parameters

Parameter	Description
NRID	Specify the non-repudiation ID for the XML message that you want to retrieve. This parameter takes a numeric value.
EntityName	Specify the name of the entity that signed the data, as a string. For Peoplesoft, this is the node name.

Returns

A reference to an XmlDoc object if successful, Null if not successful.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

GetPage

Syntax

```
GetPage(PAGE.pagename)
```

Description

Use the GetPage function to return a reference to a page object. Generally, page objects are used to hide or unhide pages in a component.

Generally, the PeopleCode used to manipulate a page object would be associated with PeopleCode in the Activate event.

Note. The page object shouldn't be used until after the Component Processor has loaded the page: that is, don't instantiate this object in RowInit PeopleCode, use it in PostBuild or Activate instead.

Note

An expression of the form

```
PAGE.name.property
```

is equivalent to **GetPage**(*name*).*property*.

Parameters

Parameter	Description
PAGE. *pagename*	The name of the page for which you want to create an object reference. Must be a page in the current context.

Returns

A page object that references the page.

Example

In the following example, a page is hidden based on the value of the current field.

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```
If PAYROLE_TYPE = "Global" Then
   GetPage(PAGE.JOB_EARNINGS).Visible = False;
End-If;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Page Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Understanding Current Context

GetProgramFunctionInfo

Syntax

GetProgramFunctionInfo(*ProgramId*)

Where *ProgramId* is the following for PeopleCode user-defined functions:
RECORD.*RecordName***.FIELD.***FieldName***.METHOD.***MethodName*

Where *ProgramId* is the following for Component Interface user-defined methods:
COMPONENTINTERFACE.*CIName***.METHODS.Methods**

Description

Use the GetProgramFunctionInfo function to determine the full signature and return values of a PeopleCode user-defined function, or a Component Interface method.

Considerations Using Component Interfaces

Component Interfaces only support type conversion of primitive data types back and forth between PeopleCode values and those using inside Component Interface processing.

Component Interface processing traps all errors that occur inside the invocation of the Component Interface and on failure simply returns a false value.

Parameters

Parameter	Description
ProgramId	Specify the full name of the function or the Component Interface method, as a string.

Returns

An array of array of any.

There is one array for every function or method defined in the program. Each array contains the following information:

1. The name of the function.
2. The signature of the parameters as a comma-separated string (see additional information below.)
3. The signature of the result (see result list below.)
4. The annotation of the Doc tag.
5. A boolean indicator of whether this function is to be exported (as indicated by the noexp tag).

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6. A boolean indicator of whether this function is permitted to be called by this user. This only makes sense for Functions defined as CI methods in Component Interface PeopleCode. The default value is true.

The parameters may be modified by the following values:

Value	Description
?	An optional parameter.
*	A repeated parameter.
&	A parameter reference (PARM_NAME)

The possibly values of the result are as follows. Note the use of both lower and upper case letters.

Value	Description
D	Dec
d	Date
S	String
A	Any
B	Boolean
V	None
t	Time
T	DateTime
I	Image
i	Integer
O	Object
f	Float
9	Number
x	Unknown
[<value>	Array A single bracket indicates a single array. Two brackets indicates a two-dimensional array, three brackets a three-dimensional array, and so on. The value following the bracket indicates the type of array. For example, `[i` indicates an array of integer, `[[S` indicates an array of array of string.

Example

In the following example, this code is associated with the record QE_ABSENCE_HIST, on the field QE_REASON, in the FieldChange event.

```
Function Update(&1 As string) Returns number NoExport
   Doc "this is some attached annotation"
   Return 1.23;
End-Function;
```

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```
/* everything else . . */
```

The following PeopleCode program:

```
Local array of array of any &r;
&r = GetProgramFunctionInfo("RECORD.QE_ABSENCE_HIST.FIELD.QE_REASON.METHOD.Field⇒
Change");
```

Returns a two-dimensional array with a single row that contains the following:

&r[1][1] – the name of the function “Update”

&r[1][2] – the signature of the parameter “S&”

&r[1][3] – the signature of the result “9”

&r[1][4] – the annotation of the doc tag “this is some attached annotation”

&r[1][5] – a boolean indicator of whether this function is to be exported. In this case it returns false.

The following example is used with a Component Interface program:

```
Function Update(&1 As string) Returns number NoExport
   Doc "this is some attached annotation"
   Return 1.23;
End-Function;

Function Updateagain(&1 As string) Returns number
   Doc "this is some more attached annotation"
   Return 1.23;
End-Function;

Local File &log;

Function LogText(&msg As string)
   If &log = Null Then
      Return
   End-If;
   &log.WriteLine(&msg);
End-Function;


Function CreateCI(&Name As string) Returns ApiObject
   Local ApiObject &CI;
   /** Get Component Interface **/
   &CI = %Session.GetCompIntfc(@("CompIntfc." | &Name));
   /* instantiate */
   &CI.PROCESSNAME = "AEMINITEST";
   &CI.PROCESSTYPE = "Application Engine";
   &CI.RUNCONTROLID = 99;
   &CI.Create();
   Return &CI;
End-Function;
```

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```
Function DisplayProgramFuncInfo(&r As array of array of any)

   Local integer &i;

   For &i = 1 To &r.Len
      Local string &o;
      &o = &r [&i][1] | "(" | &r [&i][2] | ";" | &r [&i][3] | ") doc '" | &r [&i]⇒
[4] | "'";
      If &r [&i][5] = 0 Then
         &o = &o | " noexport ";
      Else
         &o = &o | " export ";
      End-If;
      If &r [&i][6] = 0 Then
         &o = &o | " no permission ";
      Else
         &o = &o | " permitted ";
      End-If;
      LogText(&o);
   End-For;
End-Function;

Function SetupParameters(&Names As array of string, &Sigs As array of string)⇒
 Returns array of any
   Local array of any &p = CreateArrayAny();
   Local integer &i;

   /* could use the parameter name to get values out of a dom?? */
   /* Base types we could handle
//  D = Dec
//  S = String
//  d = Date
//  A = Any
//  B = Boolean
//  V = None
//  t = Time
//  T = DateTime
//  I = Image
//  O = Object
//  i = Integer
//  f = Float
//  9 = Number
//  x = Unknown
*/
   For &i = 1 To &Sigs.Len
      Local string &parName = RTrim(LTrim(&Names [&i + 1])); /* first name is⇒
 create/get/?? */
      /* Here is where you'd get the value for this particular parameter
 and then push it properly onto the parameter array */
```

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```
      Evaluate Substring(&Sigs [&i], 1, 1)
      When = "D"
         &p.Push(1);
         Break;
      When = "S"
         &p.Push("String for " | &parName);
         Break;
      When = "9"
      When = "i"
         &p.Push(&i);
         Break;
      When-Other
         &p.Push("Unimplemented . . .");
      End-Evaluate
   End-For;

   Return &p;
End-Function;

Function CallUDMMethod(&ci As ApiObject, &funcInfo As array of array of any,⇒
 &methodName As string) Returns any

   /* an example of calling a user defined method on a ci */

   /* 1. find it in the funcinfo */
   Local integer &i = 1;
   Local integer &nFuncs = &funcInfo.Len;

   While &i <= &nFuncs
      /* name should match and it should be exportable (the default)
   and the doc tag should have something in it
   and it should be permitted */
      If &funcInfo [&i][1] = &methodName And
            &funcInfo [&i][5] <> 0 And
            Len(&funcInfo [&i][4]) > 0 And
            &funcInfo [&i][6] <> 0 Then
         Break;
      End-If;
      &i = &i + 1;
   End-While;

   If &i > &nFuncs Then
      LogText("not found");
      Return False;
   End-If;

   /* 2. Next get the info necessary to call the function based on the signature⇒
 info */
   Local string &parSignatures = &funcInfo [&i][2];
   Local boolean &bPars = False;
```

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```
   Local array of any &Pars;
   If Len(&parSignatures) > 0 Then
      &bPars = True;
      Local array of string &parSignature = Split(&parSignatures, ",");
      Local array of string &parNames = Split(&funcInfo [&i][4], ","); /* first⇒
 one should be Create/get/? */
      /* number of parameters should match number of parameter names  */
      If &parSignature.Len <> &parNames.Len - 1 Then
         LogText("length mismatch");
         Return False;
      End-If;
      &Pars = SetupParameters(&parNames, &parSignature);
   Else
      &Pars = CreateArrayAny();
   End-If;

   /* 3. Call the udm method with our parameters */
   Return &ci.InvokeMethodUDF(&methodName, &Pars);

End-Function;

QE_ABSENCE_HIST.QE_REASON.Value = ""; /* clean it up */
Local string &ciName = "PROCESSREQUEST";

Local ApiObject &CI = CreateCI(&ciName);

Local array of any &pars = CreateArrayAny("First parameter", 2);
/* check with variable for method name */
Local string &methodname = "FoxTest";
/* add in a bogus parameter  - tested - works - fails with false return :-( as per⇒
 usual in api objects*/
Local string &bogus = "bogus par";

&log = GetFile("C:\temp\junk\udflog.txt", "a", %FilePath_Absolute);
LogText("====================================");
LogText("Result of direct call: " | &CI.InvokeMethodUDF(&methodname, &pars /* ,⇒
 &bogus */));
rem LogText("&ci: " | &CI);

/* do this the new way - at least model how a webservices Peoplecode⇒
 implementation could do it */
Local string &ciObjid = "COMPONENTINTERFACE." | &ciName | ".METHOD.Methods";
/* get the program information */
Local array of array of any &progInfo;
&progInfo = GetProgramFunctionInfo(&ciObjid);
/* returns a an array of arrays: an array for each function defined in the program.

Each row has the following ([i] = position i):
[1] = program name (string)
[2] = comma separated list of parameter signatures (string)
```

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```
[3] = result signature (string)
[4] = text that was with the doc tag. Convention here is a comma separated list of⇒
 values:
    first item is one of either Create or Get, specifying what method has to be⇒
 called first
    second and subsequent items are the names of the parameters (this information⇒
 is not obtainable from the
    program information. These are the names to be exposed as the web service⇒
 parameter names

    e.g. the above function would have a doc like "Create, StringParameter,⇒
 NumericParameter"
[5] = an integer setting: 0=no export and 1=export (the default)
[6] = an integer setting indicating the permission for user to call this (only⇒
 applies to CI programs)
  0=no permission and 1=permitted (the default)

*/
DisplayProgramFuncInfo(&progInfo);
If &CI = Null Then
   &CI = CreateCI(&ciName);
End-If;
LogText("Result of indirect call: " | CallUDMMethod(&CI, &progInfo, &methodname));
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Component Interface Classes"

GetPubContractInstance

Syntax

GetPubContractInstance(*pub_id*, *pub_nodename*, *channelname*, *sub_nodename*)

Description

Note. This function is no longer available. It has been replaced with the GetPubXmlDoc function.

See Chapter 1, "PeopleCode Built-in Functions," GetPubXmlDoc, page 300.

GetPubHeaderXmlDoc

Syntax

GetPubHeaderXmlDoc(*PubID, PubNode, ChannelName, VersionName*[, *Segment*])

Description

Use the GetPubHeaderXmlDoc function to retrieve the message header from the message queue.

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Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class GetMessage method instead.

The message header, also known as the message instance, is the published message *before* any transformations were performed.

Note. This function should *not* be used in standard message processing. It should only be used when correcting or debugging a publication contract that is in error.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," GetMessage

Parameters

Parameter	Description
PubID	Specify the PubID of the message.
PubNode	Specify the Pub Node Name of the message.
ChannelName	Specify the channel name of the message.
VersionName	Specify the version name of the message.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A reference to an XmlDoc object if successful, NULL if not successful.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubHeaderXmlDoc, page 419 and Chapter 1, "PeopleCode Built-in Functions," GetPubXmlDoc, page 300.

GetPubXmlDoc

Syntax

```
GetPubXmlDoc(PubID, PubNode, ChannelName, VersionName, MessageName, SubNode [, Segment])
```

Description

Use the GetPubXmlDoc function to retrieve a message from the message queue.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class GetMessage method instead.

This is the message *after* any transformations have been preformed. It creates and loads a data tree for the specified message version, and returns NULL if not successful. This function is used for publication contract error correction when the error correction process needs to fetch a particular message instance for the publication contract in error. SQL on the Publication Contract table is used to retrieve the key fields.

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Note. This function should *not* be used in standard message processing. It should only be used when correcting or debugging a publication contract that is in error.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," GetMessage

Parameters

Parameter	Description
PubID	Specify the PubID of the message.
PubNode	Specify the Pub Node Name of the message.
ChannelName	Specify the channel name of the message.
VersionName	Specify the version name of the message.
MessageName	Specify the name of the message.
SubNode	Specify the subnode of the message.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A reference to an XmlDoc object if successful, NULL if not successful.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubXmlDoc, page 420 and Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubHeaderXmlDoc, page 419.

GetRecord

Syntax

```
GetRecord([RECORD.recname])
```

Description

Use the GetRecord function to create a reference to a record object for the current context, that is, from the row containing the currently executing program.

The following code:

```
&REC = GetRecord();
```

is equivalent to:

```
&REC = GetRow().GetRecord(Record.recname);
```

or

```
&REC = GetRow().recname;
```

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Note. This function is invalid for PeopleCode programs located in events that aren't associated with a specific row and record at the point of execution. That is, you cannot use this function in PeopleCode programs on events associated with high-level objects like pages (the *Activate* event) or components (component events).

Parameters

With no parameters, this function returns a record object for the current context (the record containing the program that is running).

If a parameter is given, **RECORD.** *recname* must specify a record in the current row.

Returns

GetRecord returns a record object.

Example

In the following example, the level 2 rowset (scroll) has two records: EMPL_CHKLST_ITM, (the primary record) and CHKLST_ITM_TBL. If the code is running from a field on the EMPL_CHKLST_ITM record, the following returns a reference to that record:

```
&REC = GetRecord(); /*returns primary record */
```

The following returns the other record in the current row.

```
&REC2 = GetRecord(RECORD.CHKLST_ITM_TBL);
```

The following event uses the @ symbol to convert a record name that's been passed in as a string to a component name.

```
Function set_sub_event_info(&REC As Record, &NAME As string)
   &FLAGS = CreateRecord(RECORD.DR_LINE_FLG_SBR);
   &REC.CopyFieldsTo(&FLAGS);
   &INFO = GetRecord(@("RECORD." | &NAME));
   If All(&INFO) Then
      &FLAGS.CopyFieldsTo(&INFO);
   End-If;
End-Function;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateRecord, page 120

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Understanding Current Context

GetRelField

Syntax

GetRelField(*ctrl_field, related_field*)

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Description

Use the GetRelField function to retrieve the value of a related display field and returns it as an unspecified (Any) data type.

Note. This function remains for backward compatibility only. Use the GetRelated field class method instead.

The field *ctrl_field* specifies the display control field, and *related_field* specifies the name of the related display field whose value is to be retrieved. In most cases, you could get the value of the field by referencing it directly. However, there are two instances where GetRelField can be useful:

- If there are two related display fields bound to the same record field, but controlled by different display control fields, use this function to specify which of the two related display fields you want.
- If all of a page's level-zero fields are search keys, the Component Processor does not load the entire row of level-zero data into the component buffer; it only loads the search keys. Adding a non-search-key level-zero field to the page would cause the Component Processor to load the entire row into the component buffer. To prevent a large row of data from being loaded into the buffer, you may occasionally want to make a level-zero display-only field a related display, even though the field is in the primary level-zero record. You won't be able to reference this related display field directly, but you can using GetRelField.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Field Class," GetRelated.

Using GetRelField With a Control Field

PeopleCode events on the Control Field can be triggered by the Related Edit field. When this happens, there can be different behavior than with other types of fields:

- If the events are called from FieldEdit of the Control Field, and that FieldEdit is triggered by a change in the Related Edit field, the functions return the previous value.
- If the events are called from FieldChange of the Control Field, and that FieldChange is triggered by a change in the Related Edit field, the functions return the value entered into the Related Edit. This may be a partial value that will subsequently be expanded to a complete value when the processing is complete.

Example

In the following example, there are two related display fields in the page bound to PERSONAL_DATA.NAME. One is controlled by the EMPLID field of the high-level key, the other controlled by an editable DERIVED/WORK field in which the user can enter a new value. Use GetRelField to get the value of the related display controlled by EMPLID.

```
/* Use a related display of a required non-default field to verify
 * that the new Employee Id is not already in use */
If GetRelField(EMPLID, PERSONAL_DATA.NAME) <> "" Then
   Error MsgGet(1000, 65, "New Employee ID is already in use.  Please reenter.");
End-If;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

GetRow

Syntax

GetRow()

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Description

Use the GetRow function to obtain a row object for the current context, that is the row containing the currently executing program.

Using the GetRow function is equivalent to:

```
&ROW = GetRowset().GetRow(CurrentRowNumber());
```

Note. For PeopleCode programs located in events that are not associated with a specific row at the point of execution, this function is invalid. That is, you cannot use this function in PeopleCode programs on events associated with high-level objects like pages or components.

Parameters

None.

Returns

GetRow returns a row object that references the current row in the component buffers. If the program is not being run from a page (such as from PeopleSoft Application Engine, or as part of a Message program) it references that data.

Example

```
Local Row &ROW;
&ROW = GetRow();
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetRowset, page 304

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Row Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Understanding Current Context

GetRowset

Syntax

GetRowset([**SCROLL.***scrollname*])

Description

Use the GetRowset function to get a rowset object based on the current context. That is, the rowset is determined from the row containing the program that is running.

Syntax Format Considerations

An expression of the form

```
RECORD.scrollname.property
```

or

```
RECORD.scrollname.method(. . .)
```

is converted to an object expression by using GetRowset(**SCROLL.** *scrollname*).

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Parameters

If a parameter is specified, it must be the name of the primary record for the scroll that is a child of the current context.

Returns

With no parameters, GetRowset returns a rowset object for the rowset containing the currently running program. If a parameter is specified, it returns a rowset for that child scroll. *scrollname* must be the name of the primary record for the scroll.

Example

In the following example, RS1 is a level 1 rowset, and RS2 is a child rowset of RS1.

```
Local Rowset &RS1, &RS2;
&RS1 = GetRowset();
&RS2 = GetRowset(SCROLL.EMPL_CHKLST_ITM);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetLevel0, page 280

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Understanding Current Context

GetRowsetCache

Syntax

GetRowsetCache([**Rowset.**]*name*)

Description

Use GetRowsetCache to return the existing rowset cache with the given name.

Note. This function returns a RowsetCache object, *not* a rowset object. You must use the Get RowsetCache method in order to convert a RowsetCache object into a rowset object.

Every time you use the GetRowsetCache function, you should verify that the function executed successfully by testing for a null object. For example:

```
Local RowsetCache &RSC;

&RSC = GetRowsetCache(Rowset.MyRowset);

If All(&RSC) Then
  /* do processing */
Else
  /* call to populate rowset cache */
End-if;
```

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Parameters

Parameter	Description
Record. *name*	Specify the name of a RowsetCache. If you just specify *name*, you must enclose the name in quotation marks.

Returns

A RowsetCache object populated with the rowset cache instance specified.

Example

```
&Cache1 = GetRowsetCache("AAROWSET1");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateRowsetCache, page 124

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "RowsetCache Class"

GetSelectedTreeNode

Syntax

GetSelectedTreeNode(**RECORD.***recordname*)

Description

Use the GetSelectedTreeNode function to determine what node the user has selected in a dynamic tree control.

Note. Dynamic tree controls have been deprecated. Use the GenerateTree function or Tree Viewer.

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateTree, page 253

Appendix A, "Viewing Trees From Application Pages," page 641

GetSession

Syntax

GetSession()

Description

Use the GetSession function to retrieve a PeopleSoft session object.

After you use GetSession, you can instantiate many other types of objects, like Component Interfaces, data trees, and so on.

After you use GetSession you must connect to the system using the Connect property.

If you are connecting to the existing session and not doing additional error checking, you may want to use the %Session system variable instead of GetSession. %Session returns a connection to the existing session.

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Parameters

None.

Returns

A PeopleSoft session object.

Example

```
Local ApiObject &MYSESSION;

&MYSESSION = GetSession();
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Component Interface Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Query Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Search Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Session Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Tree Classes"

Chapter 3, "System Variables," %Session, page 626

GetSetId

Syntax

GetSetId({**FIELD**.*fieldname* | *text_fieldname*}, *set_ctrl_fieldvalue*, {**RECORD**.*recname* | *text_recname*}, *treename*)

Description

Use the GetSetId function to return a string containing a setID based on a set control field (usually BUSINESS_UNIT), a set control value, and one of the following:

- The name of a control table (or view) belonging to a record group in the TableSet Control controlled by the set control value.
- The name of a tree in the TableSet Control controlled by the set control value.

If you want to pass a control record name to the function, you must pass an empty string in the *treename* parameter. Conversely, if you want to pass a tree name, you must pass an empty string in the *text_recname* parameter. In practice, tree names are rarely used in this function.

Note. This function does not validate the parameters passed to it. It is up to your application to ensure that only valid data is used. If an invalid value is used, the defined default value is used.

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Parameters

Parameter	Description
fieldname	Specify the set control field name as a FIELD reference. Use this parameter (recommended) or the *text_fieldname* parameter.
text_fieldname	Specify the name of the set control field as a string. Use this parameter or the *fieldname* parameter.
set_ctrl_fieldvalue	Specify the value of the set control field as a string.
recname	Specify as a RECORD reference the name of the control record belonging to the record group for which you want to obtain the setID corresponding to the set control value. Use this parameter (recommended) or the *text_recname* parameter.
text_recname	Specify as a string the name of the control record belonging to the record group for which you want to obtain the setID corresponding to the set control field value. Use this parameter or the *recname* parameter.
treename	Specify as a string the name of the tree for which you want to obtain the setID corresponding to the set control field value.

Returns

GetSetId returns a five-character setID string.

Example

In this example, BUSINESS_UNIT is the Set Control Field, and PAY_TRMS_TBL is a control table belonging to a record group controlled by the current value of BUSINESS_UNIT. The function returns the setID for the record group.

```
&SETID = GetSetId(FIELD.BUSINESS_UNIT, &SET_CTRL_VAL, RECORD.PAY_TRMS_TBL, "");
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Planning Records, Control Tables, and TableSets," Control Tables

GetSQL

Syntax

```
GetSQL(SQL.sqlname [, paramlist])
```

Where *paramlist* is an arbitrary-length list of values in the form:

```
inval1 [, inval2] ...
```

Description

Use the GetSQL function to instantiate a SQL object and associates it with the SQL definition specified by *sqlname*. The SQL definition must already exist, either created using PeopleSoft Application Designer or the StoreSQL function.

Processing of the SQL definition is the same as for a SQL statement created by the CreateSQL function.

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Setting Data Fields to Null

This function does *not* set Component Processor data buffer fields to NULL after a row not found fetching error. However, it does set fields that aren't part of the Component Processor data buffers to NULL.

Using Arrays With paramlist

You can use a parameter of type "Array of Any" in place of a list of bind values. This is primarily used when you don't know the number of values being supplied until the code runs.

For example, suppose you had a SQL definition INSERT_TEST, that had PeopleCode that dynamically (that is, at runtime) generated the following SQL statement:

```
"INSERT INTO PS_TESTREC (TESTF1, TESTF2, TESTF3, TESTF4, . . .TESTN) VALUES (:1, :⇒
2, %DateTimeIn(:3), %TextIn(:4). . .N)";
```

Suppose you have placed the values to be inserted into an Array of Any, say &AAny:

```
&AAny = CreateArrayAny("a", 1, %DateTime, "abcdefg", . . .N);
```

You can execute the insert by:

```
GetSQL(SQL.INSERT_TEST, &AAny);
```

Because the Array of Any promotes to absorb any remaining select columns, it must be the last parameter for the SQL object Fetch method or (for results) SQLExec. For binding, it must be the only bind parameter, as it is expected to supply all the bind values needed.

Parameters

Parameter	Description
SQL.*sqlname*	Specify the name of a SQL definition.
paramlist	Specify input values for the SQL string.

Returns

A SQL object.

Example

The following code creates and opens an SQL object on the SQL definition stored as ABCD_XY (for the current market, database type and as of date). It binds the given input values, and executes the statement. If the SQL.ABCD is a SELECT, this should be followed by a series of Fetch method calls.

```
&SQL = GetSQL(SQL.ABCD_XY, ABSENCE_HIST, &EMPLID);
```

The following is a generic function that can be called from multiple places to retrieve a specific record using the SQL Objects.

```
Local SQL &SQL;
Local string &SETID, &TEMPLATE;
Local date &EFFDT;

Function FTP_GET_TEMPLATE(&REC As Record) Returns Boolean ;
   &TEMPLATE = FTP_RULE_TEMPLATE;
   &EFFDT = EFFDT;
   &SETID = SETID;
```

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```
   &SQL = GetSQL(SQL.FTP_TEMPLATE_SELECT, &SETID, &TEMPLATE, &EFFDT);
   If &SQL.Status = 0 Then
      If &SQL.Fetch(&REC) Then
         &SQL.Close();
         Return True;
      End-If;
   Else
      &TITLE = MsgGet(10640, 24, "SQL Error");
      MessageBox(64, &TITLE, 10640, 23, "SQL Object Not Found in SQL", SQL.FTP_⇒
TEMPLATE_SELECT);
   End-If;
   &SQL.Close();
   Return False;
End-Function;
```

The SQL definition FTP_TEMPLATE_SELECT has the following code. Note that it uses the %List and %EFFDTCHECK meta-SQL statements. This makes the code easier to maintain: if there are any changes to the underlying record structure, this SQL definition won't have to change:

```
SELECT %List(FIELD_LIST,FTP_DEFAULT_TBL A)
FROM PS_FTP_TEMPLATE_TBL A
WHERE A.SETID = :1  AND A.FTP_RULE_TEMPLATE = :2
AND %EFFDTCHECK(FTP_DEFAULT_TBL A1,A,:3)  AND A.EFF_STATUS = 'A'
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateSQL, page 125, Chapter 1, "PeopleCode Built-in Functions," DeleteSQL, page 157, Chapter 1, "PeopleCode Built-in Functions," FetchSQL, page 204 and Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class," Open

GetStoredFormat

Syntax

```
GetStoredFormat(scrollpath, target_row,
           [recordname.]fieldname)
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL**.*scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the GetStoredFormat function to return the name of a field's custom stored format.

Note. This function remains for backward compatibility only. Use the StoredFormat field class property instead.

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To return the format for a field on level zero of the page, pass 1 in *target_row*.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," StoredFormat

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	An integer specifying the row of the target field. If you are testing a field on level zero, pass 1 in this parameter.
[*recordname* **.**]*fieldname*	The name of the field from which to get the stored format name. The field can be on any level of the active page. The *recordname* prefix is required if the call to GetStoredFormat is in a record definition other than *recordname*.

Returns

Returns a String equal to the name of the stored custom format for the field.

Example

This example returns a string containing the custom format for postal codes on level zero of the page or on the current row of scroll level one. This function is called in the RowInit event, so no looping is necessary.

```
Function get_postal_format() Returns string
   &CURR_LEVEL = CurrentLevelNumber();
   Evaluate &CURR_LEVEL
   When = 0
      &FORMAT = GetStoredFormat(POSTAL, 1);
   When = 1
      &FORMAT = GetStoredFormat(POSTAL, CurrentRowNumber(1));
   End-Evaluate;
   Return (&FORMAT);
End-Function;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDisplayFormat, page 462

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

GetSubContractInstance

Syntax

GetSubContractInstance(*pub_id*, *pub_nodename*, *channelname*, *messagename*, *sub_name*)

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Description

Note. This function is no longer available. It has been replaced with the GetSubXmlDoc function.

See Chapter 1, "PeopleCode Built-in Functions," GetSubXmlDoc, page 312.

GetSubXmlDoc

Syntax

```
GetSubXmlDoc(PubID, PubNode, ChannelName, VersionName, MessageName[, Segment])
```

Description

Use the GetSubXmlDoc function to retrieve a message from the message queue.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class GetMessage method instead.

It creates and loads a data tree for the specified message version, and returns NULL if not successful. This function is used for subscription contract error correction, when the error correction process needs to fetch a particular message instance for the subscription contract in error. SQL on the Subscription Contract table is used to retrieve the key fields.

Note. This function should *not* be used in standard message processing. It should only be used when correcting or debugging a subscription contract that is in error.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," GetMessage

Parameters

Parameter	Description
PubID	Specify the PubID of the message.
PubNode	Specify the Pub Node Name of the message.
ChannelName	Specify the channel name of the message.
VersionName	Specify the version name of the message.
MessageName	Specify the name of the message.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A reference to an XmlDoc object if successful, NULL if not successful.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitSubXmlDoc, page 421

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GetSyncLogData

Syntax

GetSyncLogData(*GUID*, *pubnode*, *chnlname*, *msg_name*, *logtype* [, *message_version*])

Description

Use the GetSyncLogData to return a log containing information about the specified synchronous message.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class GetSyncLogData method instead.

You can use this information for debugging. Using this function, you can obtain the request and response data in a synchronous request, both pre- and post-transformation.

This function is used in the PeopleCode for the Message Monitor.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," GetSyncLogData

Parameters

Parameter	Description
GUID	Specify the GUID for the published synchronous message as a string. This property is populated after the message is sent.
pubnode	Specify the name of the node that the synchronous message was published from as a string.
chnlname	Specify the name of the channel the synchronous message was published to as a string.
msg_name	Specify the message definition name that you want to retrieve log data from as a string.
Log_type	Specify the type of log data you want to obtain, as a number. Values are: 1: the original request 2: the transformed request 3: the original response 4: the transformed response
message_version	Specify the message version name as a string.

Returns

An XML string containing the log data.

Example

```
Local String &guid, &pubnode, &channel, &msg_name;
Local Number &log_type;
..
..
&descrlong = GetSyncLogData(&guid, &pubnode, &channel, &msg_name, &log_type);
```

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See Also
Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Using the Service Operations Monitor"

GetTreeNodeParent

Syntax
GetTreeNodeParent(*node*)

Description

Use the GetTreeNodeParent function to access data from dynamic tree controls.

Note. Dynamic tree controls have been deprecated. Use the GenerateTree function or Tree Viewer.

See Also
Chapter 1, "PeopleCode Built-in Functions," GenerateTree, page 253

Appendix A, "Viewing Trees From Application Pages," page 641

GetTreeNodeRecordName

Syntax
GetTreeNodeRecordName(*node*)

Description

Use the GetTreeNodeRecordName function in accessing data from dynamic tree controls.

Note. Dynamic tree controls have been deprecated. Use the GenerateTree function or Tree Viewer.

See Also
Chapter 1, "PeopleCode Built-in Functions," GenerateTree, page 253

Appendix A, "Viewing Trees From Application Pages," page 641

GetTreeNodeValue

Syntax
GetTreeNodeValue(*node*, [*recordname*.]*fieldname*)

Description

Use the GetTreeNodeValue function in accessing data from dynamic tree controls.

Note. Dynamic tree controls have been deprecated. Use the GenerateTree function or Tree Viewer.

See Also
Chapter 1, "PeopleCode Built-in Functions," GenerateTree, page 253

Appendix A, "Viewing Trees From Application Pages," page 641

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GetURL

Syntax

GetURL(**URL.***URLIdentifier*)

Description

Use the GetURL function to return the URL, as a string, for the specified *URLIdentifier.* The *URLIdentifier* must exist and been created using URL Maintenance.

Note. If the URL identifier contains spaces, you must use quotation marks around *URLIdentifier*. For example, `GetURL(URL."My URL");`

If a language-specific URL exists for the user's current session language, and the user is not calling GetURL from a batch program, it is returned. Otherwise, the base language version of the URL is returned.

When GetURL is called from an application engine program, the URL is retrieved either from the base URL table or the related language table depending on the language code. The language code is provided by the User Profile for the user that executed the application engine program. The language code does not come from the language that the user specified when logging into the system.

Parameters

Parameter	Description
URLIdentifier	Specify a URL Identifier for a URL that already exists and was created using the URL Maintenance page.

Returns

A string containing the URL value for that URL Identifier, using the user's language preference.

Example

Suppose you have a URL with the identifier PEOPLESOFT, and the following URL:

```
http://www.peoplesoft.com
```

From the following code example

```
&PS_URL = GetURL(URL.PEOPLESOFT);
```

&PS_URL has the following value:

```
http://www.peoplesoft.com
```

Suppose you have the following URL stored in the URL Maintenance, with the name QE_CALL:

```
/S/WEBLIB_QE_MCD.QE_MCD_MAIN.FieldFormula.iScript_Call
```

You could combine this in the following code to produce an HTML string used as part of a response:

```
&output = GetHTMLText(HTML.QE_PHONELIST, %Request.RequestURI | "?" | GetURL(URL.QE_⇒
⇒
⇒
⇒
CALL));
```

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See Also
Chapter 1, "PeopleCode Built-in Functions," ViewURL, page 549

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," URL Maintenance

GetUserOption

Syntax
GetUserOption(*Level, OPTN*)

Description

Use the GetUserOption function to return the default value for the specified option.

Parameters

Parameter	Description
Level	Specify the option category level as a string.
OPTN	Specify the option as a string.

Returns

The default value for the specified option.

Example

```
Local Any &MyValue;
&MyValue = GetUserOption("PPLT", "TZONE");
```

See Also
Chapter 1, "PeopleCode Built-in Functions," SetUserOption, page 483

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Managing PeopleSoft Personalizations"

GetWLFieldValue

Syntax
GetWLFieldValue(*fieldname*)

Description

When the user has opened a page from a Worklist (by selecting one of the work items) use the GetWLFieldValue function to retrieve the value of a field from the current row of the application Worklist record. You can use the %WLName system variable to check whether the page was accessed from a Worklist.

Returns

Returns the value of a specified field in the Worklist record as an Any data type.

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Example

This example, from RowInit PeopleCode, populates page fields with values from the Worklist record. The %WLName system variable is used to determine whether there is a currently active Worklist (that is, whether the user accessed the page using a Worklist).

```
&WL = %WLName;
If &WL > " " Then
   &TEMP_NAME = "ORDER_NO";
   ORDER_NO = GetWLFieldValue(&TEMP_NAME);
   &TEMP_NAME = "BUSINESS_UNIT";
   BUSINESS_UNIT = GetWLFieldValue(&TEMP_NAME);
   &TEMP_NAME = "SCHED_Date";
   &SCHED_Date = GetWLFieldValue(&TEMP_NAME);
   SCHED_Date = &SCHED_Date;
   &TEMP_NAME = "DEMAND_STATUS";
   DEMAND_STATUS = GetWLFieldValue(&TEMP_NAME);
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," MarkWLItemWorked, page 359 and Chapter 1, "PeopleCode Built-in Functions," TriggerBusinessEvent, page 530.

Chapter 3, "System Variables," %WLName, page 630

Global

Syntax

Global *data_type* &*var_name*

Description

Use the Global statement to declare PeopleCode global variables. A global variable, once declared in any PeopleCode program, remains in scope throughout the PeopleSoft session. The variable must be declared with the Global statement in any PeopleCode program in which it is used.

Declarations tend to appear at the beginning of the program, intermixed with function declarations.

Not all PeopleCode data types can be declared as Global. For example, ApiObject data types can only be declared as Local.

Parameters

Parameter	Description
data_type	Specify a PeopleCode data type.
&var_name	A legal variable name.

Example

The following example declares a global variable and then assigns it the value of a field:

```
global string &AE_APPL_ID;
```

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```
&AE_APPL_ID = AE_APPL_ID;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Local, page 354 and Chapter 1, "PeopleCode Built-in Functions," Component, page 80.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding the PeopleCode Language," Data Types

Gray

Syntax

Gray(*scrollpath*, *target_row*, [*recordname*.]*fieldname*)

where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD**.*target_recname*

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

If you put the function on the same scroll level as the field being changed, you can use the following syntax:

Gray(*Fieldname*)

The more complex syntax can be used to loop through a scroll on a lower level than the PeopleCode program.

Description

Use the Gray function to make a field unavailable for entry a page field, preventing the user from making changes to the field.

Note. This function remains for backward compatibility only. Use the Enabled field class property instead.

Gray makes a field display-only, while Hide makes it invisible. You can undo these effects using the built-in functions Ungray and Unhide.

Note. If you specify a field as Display Only in PeopleSoft Application Designer, using the PeopleCode functions Gray, followed by Ungray, will not make it editable. This function shouldn't be used in any event prior to RowInit.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Enabled

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

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Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	An integer specifying the row on the target scroll level where the referenced buffer field is located.
[*recordname* **.**]*fieldname*	The name of the field to gray. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to **Gray** is in a record definition other than *recordname*.

Returns

Optionally returns a Boolean value indicating whether the function succeeded.

Example

This example, which would typically be found in the RowInit event, disables the page's address fields if the value of the SAME_ADDRESS_EMPL field is "Y".

```
If SAME_ADDRESS_EMPL = "Y" Then
   Gray(STREET1);
   Gray(STREET2);
   Gray(CITY);
   Gray(STATE);
   Gray(ZIP);
   Gray(COUNTRY);
   Gray(HOME_PHONE);
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Hide, page 321, Chapter 1, "PeopleCode Built-in Functions," Ungray, page 534 and Chapter 1, "PeopleCode Built-in Functions," Unhide, page 536.

GrayMenuItem

Syntax

GrayMenuItem(**BARNAME.***menubar_name*, **ITEMNAME.***menuitem_name*)

Description

Note. The GrayMenuItem function is supported for compatibility with previous releases of PeopleTools. New applications should use DisableMenuItem instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," DisableMenuItem, page 166

Hash

Syntax

Hash(*ClearTextString*)

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Description

The Hash function returns a fixed length value, based on the input. The output is always 28 characters. The input is variable length, with no maximum size.

Regardless of the operating system platform, underlying character encoding or hardware byte order, identical character strings always generate identical hash values regardless of the platform on which the hash generation is run. Because of this, hash output should not be used as a unique key to a table of data. Given the output of hash, it is impossible to determine the input.

Some of the original data is deliberately lost during the conversion process. This way, even if you know the algorithm, you can't "un-hash" the data.

Generally the Hash function is used like a checksum, to compare hashed values to ensure they match.

Parameters

Parameter	Description
ClearTextString	Specify the string you want converted.

Returns

A hash string.

Example

```
MessageBox("Please confirm password");

&HASHPW = Hash(&PASSWD);
&OPERPSWD = USERDEFN.OPERPSWD.Value;

If not (&HASHPW = &OPERPSWD) Then
   /* do error handling */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Decrypt, page 149 and Chapter 1, "PeopleCode Built-in Functions," Encrypt, page 181.

HermiteCubic

Syntax

HermiteCubic(*DataPoints*)

Description

Use the HermiteCubic function to compute a set of interpolating equations for a set of at least three datapoints. This particular Hermitian cubic is designed to mimic a hand-drawn curve.

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Parameters

Parameter	Description
DataPoints	This parameter takes an array of array of number. The array's contents are an array of six numbers. The first two of these six numbers are the x and y points to be fit. The last four are the four coefficients to be returned from the function: **a**, **b**, **c** and **d**. **a** is the coefficient of the x^0 term, **b** is the coefficient of the x^1 term, **c** is the coefficient of the x^2 term, and **d** is the coefficient of the x^3 term.

Returns

A modified array of array of numbers. The elements in the array correspond to the elements in the array used for *DataPoints*.

See Also

Chapter 1, "PeopleCode Built-in Functions," CubicSpline, page 128 and Chapter 1, "PeopleCode Built-in Functions," LinearInterp, page 353.

Hide

Syntax

```
Hide(scrollpath, target_row, [recordname.]fieldname)
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL**.*scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the Hide function to make a page field invisible.

Note. This function remains for backward compatibility only. Use the Visible field class property instead.

You can display the field again using Unhide, but Unhide has no effect on a field that has been made display-only in the page definition.

Gray, Hide, Ungray, and Unhide usually appear in RowInit programs that set up the initial display of data, and in FieldChange programs that change field display based on changes the user makes to a field. Generally, you put the functions on the same scroll level as the field that is being changed. This reduces the complexity of the function's syntax to:

```
Hide(fieldname)
```

The more complex syntax can be used to loop through a scroll on a lower level than the PeopleCode program.

Note. This function shouldn't be used in any event prior to RowInit.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Visible
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	An integer specifying the row on the target scroll level where the referenced buffer field is located.
[*recordname* **.**]*fieldname*	The name of the field to hide. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to Hide is in a record definition other than *recordname*.

Returns

Boolean (optional). Hide returns a Boolean value indicating whether it executed successfully.

Example

This example hides the page's address fields if SAME_ADDRESS_EMPL is equal to "Y":

```
If SAME_ADDRESS_EMPL = "Y" Then
   Hide(STREET1);
   Hide(STREET2);
   Hide(CITY);
   Hide(STATE);
   Hide(COUNTRY);
   Hide(HOME_PHONE);
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Gray, page 318, Chapter 1, "PeopleCode Built-in Functions," Ungray, page 534 and Chapter 1, "PeopleCode Built-in Functions," Unhide, page 536.

HideMenuItem

Syntax

HideMenuItem(**BARNAME.***menubar_name*, **ITEMNAME.***menuitem_name*)

Description

Use the HideMenuItem function to hide a specified menu item. To apply this function to a pop-up menu, use the PrePopup Event of the field with which the pop-up menu is associated.

If you're using this function with a pop-up menu associated with a page (not a field), the earliest event you can use is the PrePopup event for the first "real" field on the page (that is, the first field listed in the Order view of the page in PeopleSoft Application Designer.)

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When a menu is first displayed, all menus are visible by default, so there is no need for a function to re-display a menuitem that has been hidden.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Parameters

Parameter	Description
menubar_name	Name of the menu bar that owns the menuitem, or, in the case of pop-up menus, the name of the pop-up menu that owns the menuitem.
menuitem_name	Name of the menu item.

Returns

None.

Example

```
HideMenuItem(BARNAME.MYPOPUP1, ITEMNAME.DO_JOB_TRANSFER);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DisableMenuItem, page 166 and Chapter 1, "PeopleCode Built-in Functions," EnableMenuItem, page 178.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," PrePopup Event

HideRow

Syntax

HideRow(*scrollpath*) [, *target_row*])

Where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD.***target_recname*

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the HideRow function to hide a row occurrence programmatically.

Note. This function remains for backward compatibility only. Use the Visible row class property instead.

It hides the specified row and any associated rows at lower scroll levels.

Hiding a row just makes the row invisible, it does not affect database processing such as inserting new rows, updating changed values, or deleting rows.

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When you hide a row, it becomes the last row in the scroll or grid, and the other rows are renumbered accordingly. If you later use UnHideRow to make the row visible again, it is *not* moved back to its original position, but remains in its new position. When HideRow is used in a loop, you have to process rows from the highest number to the lowest to achieve the correct results.

Note. HideRow cannot be executed from the same scroll level as the row that is being hidden, or from a lower scroll level. Place the PeopleCode in a higher scroll level record.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Row Class," Visible

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	An integer specifying which row in the scroll to hide. If this parameter is omitted, the row on which the PeopleCode program is executing is assumed.

Returns

Boolean (optional). HideRow returns a Boolean value indicating whether the function executed successfully.

Example

This example hides all rows in scroll level 1 where the EXPORT_SW field is equal to "Y". Note that the loop has to count backwards from **ActiveRowCount** to 1.

```
For &ROW = ActiveRowCount(RECORD.EXPORT_OBJECT) to 1
step - 1
      &EXPORT_SW = FetchValue(EXPORT_OBJECT.EXPORT_SW, &ROW);
      If &EXPORT_SW  "Y" Then
         HideRow(RECORD.EXPORT_OBJECT, &ROW);
      Else
         /* WinMessage("not hiding row " | &ROW);*/
      End-if;
End-for;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," UnhideRow, page 537 and Chapter 1, "PeopleCode Built-in Functions," DeleteRow, page 156.

HideScroll

Syntax

HideScroll(*scrollpath*)

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Where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the HideScroll function to programmatically hide a scroll bar and all data items within the scroll.

Note. This function remains for backward compatibility only. Use the HideAllRows rowset class method instead.

Typically this function is used in RowInit and FieldChange PeopleCode to modify the page based on user action.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," HideAllRows

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.

Returns

HideScroll returns a Boolean value indicating whether the function executed successfully.

Example

This example, from RowInit PeopleCode, initializes the visibility of the scroll based on a field setting:

```
If %Component = COMPONENT.APPR_RULE Then
   If APPR_AMT_SW = "N" Then
      HideScroll(RECORD.APPR_RULE_LN, CurrentRowNumber(1), RECORD.APPR_RULE_DETL,⇒
 CurrentRowNumber(2), RECORD.APPR_RULE_AMT);
   Else
      UnhideScroll(RECORD.APPR_RULE_LN, CurrentRowNumber(1), RECORD.APPR_RULE_⇒
DETL, CurrentRowNumber(2), RECORD.APPR_RULE_AMT);
   End-If;
End-If;
```

The corresponding FieldChange PeopleCode dynamically changes the appearance of the page based on user changes to the APPR_AMT_SW field:

```
If APPR_AMT_SW = "N" Then
   HideScroll(RECORD.APPR_RULEs_LN, CurrentRowNumber(1), RECORD.APPR_RULE_DETL,⇒
 CurrentRowNumber(2), RECORD.APPR_RULE_AMT);
```

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```
   &AMT_ROWS = ActiveRowCount(RECORD.APPR_RULE_LN, CurrentRowNumber(1),⇒
 RECORD.APPR_RULE_DETL, CurrentRowNumber(2), RECORD.APPR_RULE_AMT);
   For &AMT_LOOP = &AMT_ROWS To 1 Step - 1
      DeleteRow(RECORD.APPR_RULE_LN, CurrentRowNumber(1), RECORD.APPR_RULE_DETL,⇒
 CurrentRowNumber(2), RECORD.APPR_RULE_AMT, &AMT_LOOP);
   End-For;
Else
   UnhideScroll(RECORD.APPR_RULE_LN, CurrentRowNumber(1), RECORD.APPR_RULE_DETL,⇒
 CurrentRowNumber(2), RECORD.APPR_RULE_AMT);
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," UnhideRow, page 537, Chapter 1, "PeopleCode Built-in Functions," HideRow, page 323 and Chapter 1, "PeopleCode Built-in Functions," UnhideScroll, page 538.

HistVolatility

Syntax

HistVolatility(*Closing_Prices*, *Trading_Days*)

Description

Use the HistVolatility function to compute the historical volatility of a market-traded instrument.

Parameters

Parameter	Description
Closing_Prices	An array of number. The elements in this array contain a vector of closing prices for the instrument.
Trading_Days	The number of trading days in a year.

Returns

A number.

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertRate, page 96

Hour

Syntax

Hour(*time_value*)

Description

Use the Hour function to extract a Number value for the hour of the day based on a Time or Datetime value. The value returned is a whole integer and is not rounded to the nearest hour.

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Parameters

Parameter	Description
time_value	A Datetime or Time value.

Returns

Returns a Number equal to a whole integer value from 0 to 23 representing the hour of the day.

Example

If &TIMEOUT contains a Time value equal to 04:59:59 PM, the following example sets &TIMEOUT_HOUR to 16:

```
&TIMEOUT_HOUR = Hour(&TIMEOUT);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Minute, page 368 and Chapter 1, "PeopleCode Built-in Functions," Second, page 439.

IBPurgeDomainStatus

Syntax

IBPurgeDomainStatus()

Description

Use the IBPurgeDomainStatus function to purge the domain status.

Parameters

None.

Returns

A boolean value: true if the functions completes successfully, false otherwise.

IBPurgeNodesDown

Syntax

IBPurgeNodesDown()

Description

Use the IBPurgeNodesDown function to purge the down nodes from the service operation monitor.

Parameters

None.

Returns

Boolean: true if the function completes successfully, false otherwise.

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Idiv

Syntax

```
Idiv(x, divisor)
```

Description

The Idiv function is an explicit integer division operation. It divides one number (*x*) by another (*divisor*).

Parameters

Parameter	Description
X	Specify an integer to be divided.
divisor	Specify the integer used to divide the first parameter.

Returns

An integer value.

Example

The following example sets &I1 to 1 and &I2 to -1:

```
   &I1 = Idiv(3, 2);
   &I2 = Idiv(17, 10);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Mod, page 368, Chapter 1, "PeopleCode Built-in Functions," Int, page 336, Chapter 1, "PeopleCode Built-in Functions," Integer, page 337, Chapter 1, "PeopleCode Built-in Functions," Round, page 427, Chapter 1, "PeopleCode Built-in Functions," Truncate, page 531 and Chapter 1, "PeopleCode Built-in Functions," Value, page 543.

If

Syntax

```
If condition Then
   [statement_list_1]
[Else
   [statement_list_2]]
End-If
```

Description

Use the If statement to execute statements conditionally, depending on the evaluation of a conditional expression. The Then and Else clauses of an If consist of arbitrary lists of statements. The Else clause may be omitted. If condition evaluates to True, all statements in the Then clause are executed; otherwise, all statements in the Else clause are executed.

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Example

The following example's first If statement checks for BEGIN_DT and RETURN_DT, and makes sure that RETURN_DT is greater (later) than BEGIN_DT. If this is True, the execution continues at the following line, otherwise execution continues at the line beginning with WinMessage:

```
If All(BEGIN_DT, RETURN_DT) and
      BEGIN_DT = RETURN_DT Then
   &DURATION_DAYS = RETURN_DT - BEGIN_DT;
   If &DURATION_DAYS  999 Then
      DURATION_DAYS = 999;
   Else
      DURATION_DAYS = &DURATION_DAYS;
   End-if;
Else
   WinMessage("The beginning date is later then the return date!");
End-if;
```

InboundPublishXmlDoc

Syntax

InboundPublishXmlDoc(*&XmlDoc*, **Message.***MessageName*, **Node.***PubNodeName* [, *Enqueue*])

Description

Use the InboundPublishXmlDoc function to send an asynchronous message that simulates an inbound request from an external node. The content data is based on an XmlDoc object.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class InboundPublish method instead.

This function is used to test inbound message processing. Though you are sending a message to yourself, it goes through all the inbound message processing on *PubNodeName*.

The *&XmlDoc* object must already be instantiated and populated. The message included in the function call should be a nonrowset-based message, that is, one that isn't based on a hierarchical record structure.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," InBoundPublish

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Parameters

Parameter	Description
&XmlDoc	Specify an already instantiated and populated XmlDoc object that you want to test.
MessageName	Specify an already existing nonrowset-based message, prefaced with the reserved word **Message**.
PubNodeName	Specify a node. This is for Sender Specified Routing (SSR), prefixed with the reserved word **Node**. The node defines the target for the published message.
Enqueue	Specify if the message is enqueued. This parameter takes a Boolean value.

Returns

A Boolean value: True if the message was successfully published, False otherwise.

Example

The following code example re-publishes the XmlDoc and simulates that it is coming from the node EXTERNAL.

```
Local XMLDOC &xmldoc = GetMessageXmlDoc();

InBoundPublishXmlDoc(&xmldoc, NODE.EXTERNAL);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetMessageXmlDoc, page 283 and Chapter 1, "PeopleCode Built-in Functions," SyncRequestXmlDoc, page 501.

InitChat

Syntax

InitChat(*logical queue ID*, *application data URL*, *customer username*, [*chat_subject*][, *chat_question*][, *wizard_URL*][, *priority*][, *skill_level*][, *cost*])

Description

Use the InitChat function to engage a customer and an agent in a chat session. It places a chat request on a MultiChannel Framework queue and immediately launches a customer chat window. When an agent accepts this task from the queue, the system launches an agent chat window.

Note. Chats are implicitly queued with the current language setting of the initiator (%Language_user). Chats are only assigned to agents who have this language in their language list as specified on the Languages page of the Agents component.

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Parameters

Parameter	Description
logical queue ID	Specifies the logical queue in which the task should be queued. It is a string value. The logical queue ID is a case-sensitive value. The case used in the InitChat function must exactly match the case used when creating the logical queue ID on the Queues page.
application data relative URL	This is the relative URL of the application page you want the agent to see on the left side of the agent-to-customer chat window when the agent accepts the chat. This value needs to be provided by your program. **Note.** This URL parameter must *not* point to content that includes JavaScript that breaks surrounding frames or that references the "top" window. In addition, the application page should not contain URL links to such content. This is because the Agent Chat Console is framed by the RenServer API which sends and receives the chat text.
customer username	This reflects the name of the customer or end user initiating the chat request. This value can be derived from the signon mechanism (%UserID) or by prompting the user. This is the name used to identify the chat requestor in the MultiChannel Framework chat console. For example, in the chat history window, all text sent by the customer is prefixed with this name.
chat_subject	This is an optional string parameter. The application can indicate a subject of the chat request. This could be prompted from the user or inferred from the page from which the chat is initiated. The system displays the subject on the agent's chat console when it assigns the chat to an agent.
chat_question	This is an optional string parameter. The application can indicate a specific question to be addressed in the chat. This could be prompted from the user or inferred from the page from which the chat is initiated. The value appears in the agent's chat window history box immediately after accepting the chat. This enables the agent to know the customer's question without having to ask.
wizard_URL	This feature leads the agent to an application page from which the agent can select a URL to push to the customer. This is an optional string parameter. This is the relative URL of the application page you wish the agent to launch when the agent clicks the Grab button on the Agent Chat console. If you do not provide this value, a default wizard is launched with no application-specific functionality. If you do provide this value, the application page must provide a wizard for pushing a URL to the customer. The wizard page provided by the application must be able to write the URL generated by the wizard to the URL field. The URL field is defined by PeopleSoft. In addition, you need to embed the HTML definition, MCF_GRABURL, which provides the Push and Push and Close buttons that push the URL in the URL field to the customer. See the Example section for examples showing the PeopleCode that would be used to generate the relative URL that is passed in to InitChat and the PeopleCode that would be used to embed the provided MCF_GRABURL definition into your application page.

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Parameter	Description
priority	This is an optional parameter. It is an integer value expressing the priority level of the request. The minimum value is 0 and there is no maximum value. Specify the priority of this chat task. A higher value means a higher priority. MultiChannel Framework tasks are ordered on a physical queue based on their assigned priority, which means the system assigns a task of a higher priority before it assigns a task of a lower priority. If no value is specified, the system uses the default value specified for that task type on the Task Configuration page. When tasks have the same priority, the system orders the tasks according to time they were created. For example, suppose the following tasks exist: Priority 2 created at 11:15 AM and Priority 2 created at 11:16 AM. In this case, the system places the task created at 11:15 AM before the task created at 11:16 AM.
skill level	This is an optional parameter. It is an integer value expressing the minimum skill level required of the agent to whom the system routes the request. You set an agent's skill level in the Agent page. The minimum value is 0 and there is no maximum value. The queue server assigns this task type to an available agent on that queue with the lowest skill level greater than or equal to the skill level required by the task. If no value is specified, the system uses the default value specified for that task type in the Task Configuration page.
cost	This is an optional parameter. It is an integer value measuring the workload each task places on an agent. The cost of a task is an estimate of the tasks's expected complexity and of the time required to resolve the task. The minimum value is 0, and there is no maximum value. The cost of a task is added to an agent's workload after accepting a task on the MultiChannel Framework console. A task can't be assigned to an agent if the difference between the current workload and the maximum workload defined for that agent on the Agent configuration page is less than the cost of this task. If you do not specify a value, the system uses the default value specified for that task in the Task Configuration pages. **Note.** If the required skill level or cost submitted exceeds the highest skill level or maximum workload of any of the agents on that queue, the task cannot be assigned.

Returns

Returns a unique Chat ID in the form of an integer. You can use this ID to reference the chat in the chat log.

If unsuccessful, it returns a message number. The message set ID for MultiChannel Framework is 162.

For example, 1302 is returned when an invalid task type or no value is provided.

Example

For example, the following PeopleCode could be used to generate the relative URL that is passed in to **InitChat**.

```
&WizURL = GenerateComponentContentRelURL(%Portal, %Node, MenuName.PT_MCF, "GBL",⇒
 Component.MCF_DEMO_CMP, Page.MCF_URLWIZARD, "U");
```

The following is an example of embedding the provided MCF_GRABURL definition into your application page, using the GetHTMLText function.

```
Function IScript_GrabURL()
   &cssPTMCFDEF = %Response.GetStyleSheetURL(StyleSheet.PTMCFDEF);
   &cssPTSTYLEDEF = %Response.GetStyleSheetURL(StyleSheet.PTSTYLEDEF);
   &titleGrabURL = MsgGetText(162, 1170, "URL Wizard");
```

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```
   &psDomain = SetDocDomainForPortal();
   If (&psDomain = "") Then
      &psDomain = SetDocDomainToAuthTokenDomain();
   End-If;
   &labelBtPush = MsgGetText(162, 1181, "Push");
   &labelBtPushClose = MsgGetText(162, 1186, "Push and Close");
   &HTML = GetHTMLText(HTML.MCF_GRABURL, &titleGrabURL, &cssPTSTYLEDEF, &css⇒
PTMCFDEF, &psDomain, &labelBtPush, &labelBtPushClose);
   %Response.Write(&HTML);
End-Function;
```

The following is an example of the usage of InitChat.

```
&ret = InitChat("SALES", "http://www.support.company.com/products.html",
"John Smith", "Widgets", "How to order widgets", "", 2, 2);
```

The following example illustrates how to pass a PeopleCode-generated URL using the GenerateComponentContentRelURL function for Application Data URL and wizards.

```
    &urlTestComponent = GenerateComponentContentRelURL(%Portal, %Node, Menu⇒
Name.UTILITIES, "GBL", Component.MESSAGE_CATALOG1, Page.MESSAGE_CATALOG, "U");

   &WizURL = GenerateComponentContentRelURL(%Portal, %Node, MenuName.PT_MCF,⇒
 "GBL", Component.MCF_DEMO_CMP, Page.MCF_URLWIZARD, "U");

   try

      &ret = InitChat(&QUEUEID, &urlTestComponent, &Username, &subject, &question,⇒
 &wizurl, &priority, &minskill);
   catch Exception &E

      MessageBox(0, "", 0, 0, "Caught exception: " | &E.ToString());
   end-try;
```

InsertImage

Syntax

InsertImage(*scrollpath*, *target_row*, [*recordname*.]*fieldname*)

where *scrollpath* is:

[**SCROLL.***level1_recname*, *level1_row*, [**SCROLL.***level2_recname*, *level2_row*,]]
SCROLL.*target_recname*

Description

Use the InsertImage function to associate an image file with a record field on a page. After the image file is associated with the record field, it can be saved to the database when the component is saved.

The following are the valid types of image files that can be associated with a record field:

- JPEG
- BMP
- DIB

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InsertImage uses a search page to enable the end-user to select the image file to be used. This is the same search page used to add an attachment.

Note. To update an image field using this function, be sure that PSIMAGEVER field is also on the same record as the image field being updated.

Restrictions on Use in PeopleCode Events

InsertImage is a "think-time" function, which means it shouldn't be used in any of the following PeopleCode events:

- SavePreChange
- SavePostChange
- Workflow
- RowSelect
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using Methods and Built-In Functions," Think-Time Functions.

Image Size Considerations

The size of the image that can be saved to the database depends on the database platform.

Database Platform	Size limitation
DB2/400	30 KB
DB2/MVS	31 KB
DB2/Unix	31 KB

Platforms other than those listed here are effectively without a size limit, that is, they allow for images equal to or greater than 2 GB.

Platform size limitations are subject to change.

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll area in the component buffer.
target_row	The row number of the target row.
[*recordname* **.**]*fieldname*	The name of the field to be associated with the image file. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the function call is in a record definition other than *recordname*.

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Returns

The InsertImage function returns either a constant or a number:

Numeric Value	Constant Value	Description
0	%InsertImage_Success	Image was successfully associated with the record field.
1	%InsertImage_Failed	Image was not successfully associated with the record field. When the component is saved the image file will not be saved to the database.
2	%InsertImage_Canceled	User canceled the transaction so image file isn't associated with record field.
3	%InsertImage_ExceedsMaxSize	Image exceeds the maximum allowed size.

Example

```
&RC = InsertImage(EMPL_PHOTO.EMPLOYEE_PHOTO);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DeleteImage, page 154

InsertRow

Syntax

InsertRow(*scrollpath*, *target_row* [, *turbo*])

where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,
] **RECORD**.*target_recname*

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the InsertRow function to programmatically perform the ALT+7 and ENTER (RowInsert) function.

Note. This function remains for backward compatibility only. Use the InsertRow rowset class method instead.

InsertRow inserts a new row in the scroll buffer and causes a RowInsert PeopleCode event to fire, followed by the events that normally follow a RowInsert, as if the user had manually pressed ALT+7 and ENTER.

InsertRow can be executed in turbo or non-turbo mode. To execute the function in turbo mode, pass a value of True in the optional *turbo* parameter. Non-turbo mode is the default. In turbo mode, default processing is performed only for the row being inserted.

In scrolls that are not effective-dated, the new row is inserted *after* the target row specified in the function call. However, if the scroll is effective-dated, then the new row is inserted *before* the target row, and all the values from the previous current row are copied into the new row, except for EffDt, with is set to the current date.

Note. InsertRow cannot be executed from the same scroll level where the insertion will take place, or from a lower scroll level. Place the PeopleCode in a higher scroll level record.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," InsertRow

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number indicating the position where the new row will be inserted.
turbo	Specifies whether default processing is performed on the entire table or just the row being inserted. Pass a value of True to execute this parameter. Non-turbo mode is the default.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

The example inserts a row on the level-two page scroll. The PeopleCode has to be in the scroll-level-one record:

```
InsertRow(RECORD.BUS_EXPENSE_PER, &L1_ROW, RECORD.BUS_EXPENSE_DTL, &L2_ROW);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DeleteRow, page 156, Chapter 1, "PeopleCode Built-in Functions," HideRow, page 323 and Chapter 1, "PeopleCode Built-in Functions," UnhideRow, page 537.

Int

Syntax

Int(*decimal*)

Description

Use the Int function to truncate a decimal number *x* to an integer and returns the result as a Number value.

Note. PeopleSoft only supports 32 bit integers. The largest integer value we support is 4294967295.

Parameters

Parameter	Description
decimal	A decimal number to be truncated.

Returns

Returns a Number equal to *decimal* truncated to a whole integer.

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Example

The following example sets &I1 to 1 and &I2 to -4:

```
&I1 = Int(1.975);
&I2 = Int(-4.0001);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Mod, page 368, Chapter 1, "PeopleCode Built-in Functions," Round, page 427, Chapter 1, "PeopleCode Built-in Functions," Truncate, page 531 and Chapter 1, "PeopleCode Built-in Functions," Value, page 543.

Integer

Syntax

Integer(*decimal*)

Description

Use the Integer function to convert *decimal* to an integer (32 bit signed twos complement number) by truncating any fraction part towards zero and returns the result as an Integer value.

Differences between Int and Integer

There is one primary difference between the Int function and the Integer function.

- The Int function rounds to a number in floating-decimal-point representation with a range of -9,999,999,999,999,999,999,999,999,999,999,999 to 9,999,999,999,999,999,999,999,999,999,999,999.
- The Integer function truncates to a number in 32 bit binary twos-complement representation with a range of -2,147,483,648 to 2,147,483,647.

Parameters

Parameter	Description
decimal	A decimal number to be truncated to an integer.

Returns

Returns an Integer equal to *decimal* truncated to a whole integer. If *decimal* is outside the range that can be represented by an integer type, the result isn't defined.

See Also

Chapter 1, "PeopleCode Built-in Functions," Mod, page 368, Chapter 1, "PeopleCode Built-in Functions," Int, page 336, Chapter 1, "PeopleCode Built-in Functions," Round, page 427, Chapter 1, "PeopleCode Built-in Functions," Truncate, page 531 and Chapter 1, "PeopleCode Built-in Functions," Value, page 543.

IsAlpha

Syntax

IsAlpha(*String*)

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Description

Use the IsAlpha function to determine if *String* contains only textual characters, including alphabetic characters from several scripts including Latin, Greek, Cyrillic and Thai, ideographic characters from Chinese, Japanese and Korean and Japanese kana. It excludes all punctuation, numerics, spaces and control codes

Parameters

Parameter	Description
String	Specify the string you want to search for alphabetic and other textual characters.

Returns

A Boolean value: true if the string contains only alphabetic and textual characters, false if it contains any numbers, punctuation or spaces.

Example

```
&Value = Get Field().Value;
If IsAlpha(&Value) Then
   /* do textual processing */
Else
   /* do non-textual processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsAlphaNumeric, page 338, Chapter 1, "PeopleCode Built-in Functions," IsDigits, page 341, Chapter 1, "PeopleCode Built-in Functions," IsDate, page 339, Chapter 1, "PeopleCode Built-in Functions," IsDateTime, page 340, Chapter 1, "PeopleCode Built-in Functions," IsNumber, page 348 and Chapter 1, "PeopleCode Built-in Functions," IsTime, page 349.

IsAlphaNumeric

Syntax

IsAlphaNumeric(*String*)

Description

Use the IsAlphaNumeric function to determine if *String* contains only textual and numeric characters.

Textual characters include all characters valid for the IsAlpha function. Alphanumeric characters do *not* include sign indicators and comma and period decimal points. If you want to check for numbers as well as sign indicators, use the IsNumber function.

Parameters

Parameter	Description
String	Specify the string you want to search for alphanumeric characters.

Returns

A Boolean value: True if the string contains only alphanumeric characters, False otherwise.

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Example

```
&Value = Get Field().Value;
If IsAlphaNumeric(&Value) Then
   /* do alphanumeric processing */
Else
   /* do non-alphanumeric processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsNumber, page 348 and Chapter 1, "PeopleCode Built-in Functions," IsAlpha, page 337.

IsDate

Syntax

IsDate(*Value*)

Description

Use the IsDate function to determine if *Value* contains a valid date.

You can use this function when you want to determine if a value is compatible with the Date built-in function.

Unintialized date variables, 0 numerics, or blank strings return true. If these values are possibilities for a variable passed to the IsDate function, you should add an additional check to ensure there is a value, such as using the All function.

Parameters

Parameter	Description
Value	Specify either a string or number you want to search for a valid date. *Value* is a number of the format YYYYMMDD or string of the format YYYY-MM-DD.

Returns

A Boolean value: True if the string contains a valid date, False otherwise.

Example

```
If IsDate(&Num) Then
   &Datevalue = Date(&Num);
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsAlphaNumeric, page 338, Chapter 1, "PeopleCode Built-in Functions," IsDigits, page 341, Chapter 1, "PeopleCode Built-in Functions," IsDateTime, page 340, Chapter 1, "PeopleCode Built-in Functions," IsNumber, page 348 and Chapter 1, "PeopleCode Built-in Functions," IsTime, page 349.

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IsDateTime

Syntax

IsDateTime(*String*)

Description

Use the IsDateTime function to determine if *String* contains a datetime string in the standard PeopleSoft format, that is, in the following format:

```
yyyy-mm-dd hh:mm:ss.mmmmmm
```

Parameters

Parameter	Description
String	Specify the string you want to search for a valid datetime.

Returns

A Boolean value: True if the string contains a valid datetime, False otherwise.

Example

The following example uses the short form of dot notation, by combining the getting the field value with getting the value of IsDateTime and making it a conditional statement:

```
If IsDateTime(GetField().Value) Then
   /* do date processing */
Else
   /* do non-date processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsAlphaNumeric, page 338, Chapter 1, "PeopleCode Built-in Functions," IsDigits, page 341, Chapter 1, "PeopleCode Built-in Functions," IsDate, page 339, Chapter 1, "PeopleCode Built-in Functions," IsNumber, page 348 and Chapter 1, "PeopleCode Built-in Functions," IsTime, page 349.

IsDaylightSavings

Syntax

IsDaylightSavings(*datetime*, {*timezone* | **"Local"** | **"Base"**});

Description

Use the IsDaylightSavings function to determine if daylight savings is active in the specified time zone at the specified datetime. For time zones that don't observe daylight savings time, this function always returns False.

The system's base time zone is specified on the PSOPTIONS table.

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Parameters

Parameter	Description
datetime	The datetime value you want to check.
timezone | **Local** | **Base**	Specify a value for converting *datetime*. The values are: • *timezone* - a time zone abbreviation or a field reference to be used for converting *textdatetime*. • **Local** - use the local time zone for converting *textdatetime.* • **Base** - use the base time zone for converting *textdatetime*.

Returns

A Boolean value: True if daylight savings is active in the specified time zone at the specified datetime. Returns False otherwise.

Example

In the first example, TESTDTTM has value of 01/01/99 10:00:00AM. &OUTPUT is False.

```
&OUTPUT = IsDaylightSavings(TESTDTTM, "EST")
```

In this example, TESTDTTM has value of 04/05/99 12:00:00AM. &OUTPUT has a value of True: 12:00am PST = 3:00am EST, so Daylight Savings Time has switched on.

```
&OUTPUT = IsDaylightSavings(TESTDTTM, "EST")
```

In this example, TESTDTTM has value of 04/05/99 12:00:00AM. &OUTPUT returns False: 12:00am PST = 1:00am MST, so Daylight Savings Time hasn't started yet.

```
&OUTPUT = IsDaylightSavings(TESTDTTM, "MST")
```

In this example, TESTDTTM has value of 07/07/99 10:00:00. &OUTPUT returns False: ESTA is Indiana time, where they do not observe Daily Savings Time.

```
&OUTPUT = IsDaylightSavings(TESTDTTM, "ESTA")
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertDatetimeToBase, page 95, Chapter 1, "PeopleCode Built-in Functions," ConvertTimeToBase, page 97, Chapter 1, "PeopleCode Built-in Functions," DateTimeToTimeZone, page 140, Chapter 1, "PeopleCode Built-in Functions," TimeToTimeZone, page 506 and Chapter 1, "PeopleCode Built-in Functions," TimeZoneOffset, page 507.

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities"

IsDigits

Syntax

IsDigits(*String*)

Description

Use the IsDigits function to determine if *String* contains only digit (numeric) characters. Numeric characters do *not* include sign indicators and comma and period decimal points. If you want to check for numbers as well as sign indicators, use the IsNumber function.

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Parameters

Parameter	Description
String	Specify the string you want to search.

Returns

A Boolean value: True if the string contains digits, False otherwise.

Example

```
If IsDigits(&MyValue) Then
   /* do processing */
Else
   /* do error processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsAlpha, page 337, Chapter 1, "PeopleCode Built-in Functions," IsAlphaNumeric, page 338, Chapter 1, "PeopleCode Built-in Functions," IsDate, page 339, Chapter 1, "PeopleCode Built-in Functions," IsDateTime, page 340, Chapter 1, "PeopleCode Built-in Functions," IsNumber, page 348 and Chapter 1, "PeopleCode Built-in Functions," IsTime, page 349.

IsDisconnectedClient

Syntax

```
IsDisconnectedClient()
```

Description

Use the IsDisconnectedClient function to determine whether the current environment that is being accessed is the Disconnected Client. This function enables you to provide alternate code paths when running in a Disconnected Client environment.

Note. This feature only returns true when running on a PeopleSoft Mobile Synchronization Client. This functionality is not available in all product lines.

Parameters

None.

Returns

A boolean value: true if the current environment is the Disconnected Client, false otherwise.

Example

```
if (IsDisconnectedClient()) then

WinMessage("DisconnectedClient = true");

else
```

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```
   WinMessage("DisconnectedClient = false");

   end-if;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Mobile Agent, "Understanding PeopleSoft Mobile Agent"

IsHidden

Syntax

IsHidden(*scrollpath*, *target_row*)

Where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,
] **RECORD**.*target_recname*

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the IsHidden function to verify whether a row is hidden or not.

Note. This function remains for backward compatibility only. Use the Visible row class property instead.

It returns True if the row is hidden, otherwise it returns False. IsHidden must be called in a PeopleCode program on a higher scroll level than one you are checking.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Row Class," Visible

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number indicating the position of the row.

Example

The following example tests whether a specific row on scroll level one is hidden:

```
&ROW_CNT = ActiveRowCount(RECORD.LD_SHP_INV_VW);
&FOUND = True;
If &ROW_CNT = 1 Then
   &ORDER = FetchValue(LD_SHP_INV_VW.ORDER_NO, 1);
   If None(&ORDER) Then
      &FOUND = False;
```

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```
      End-If;
   End-If;
   If &FOUND Then
      For &I = 1 To &ROW_CNT
         If Not IsHidden(RECORD.LD_SHP_INV_VW, &I) Then
            UpdateValue(ITEM_SELECTED, &I, "N");
         End-If;
      End-For;
   End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateScriptContentURL, page 247 and Chapter 1, "PeopleCode Built-in Functions," UnhideRow, page 537.

IsMenuItemAuthorized

Syntax

IsMenuItemAuthorized(**MENUNAME.***menuname*, **BARNAME.***barname*, **ITEMNAME.***menuitem_name*, **PAGE.***component_item_name*[, *action*])

Description

The IsMenuItemAuthorized function returns True if the current user is allowed to access the specified menu item.

Note. You don't need to use this function to gray internal link pushbuttons/hyperlinks. This function is generally used for transfers that are part of some PeopleCode processing.

Parameters

Parameter	Description
menuname	The name of the menu where the page is located, prefixed with the reserved word **MENUNAME**.
barname	The name of the menu bar where the page is located, prefixed with the reserved word **BARNAME**.
menu_itemname	The name of the menu item where the page is located, prefixed with the reserved word **ITEMNAME**.
component_item_name	Specify the component item name of the page to be displayed on top of the component when it displays. The component item name is specified in the component definition. If you specify a page, it must be prefixed with the keyword **PAGE**. You can also specify a null ("") for this parameter.
action	String representing the action mode in which to start up the page. If *action* is omitted, the current action is used. Values are:

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Constant	Description
%Action_Add	Add
%Action_UpdateDisplay	Update/Display
%Action_UpdateDisplayAll	Update/Display All
%Action_Correction	Correction
%Action_DataEntry	Data Entry
%Action_Prompt	Prompt

Returns

A Boolean value: True if the user is authorized to access the specified page, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," DoModal, page 169, Chapter 1, "PeopleCode Built-in Functions," DoModalComponent, page 171, Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509 and Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524.

IsMessageActive

Syntax

```
IsMessageActive(Message.Message_Name)
```

Description

Use the IsMessageActive built-in function to determine whether the specified message definition has been set to inactive in PeopleSoft Application Designer.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class IsOperationActive method instead.

Note. This function is used only with XmlDoc messages, that is, after you get an XmlDoc message (using GetMessageXmlDoc) use this function to determine if the message is active. Use the IsActive message class property to determine if a rowset-based message definition is active.

This function returns True if the message definition for the XmlDoc message is active, False if it's been inactivated from PeopleSoft Application Designer. If you have a lot of PeopleCode associated with publishing an XmlDoc message, you might use this function to check if the message is active before you publish it.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," IsOperationActive

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Parameters

Parameter	Description
Message_Name	Specify the name of the message you want to inquire about. The message name must be prefixed with the reserved work **Message.** This function is used only with XmlDoc message definitions.

Returns

A Boolean value: True if the message is active, False otherwise.

Example

```
&Active = IsMessageActive(Message.MyMessage);
If &Active Then
   /* code for getting message, populating it and publishing it */
End-if;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," IsActive and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "XmlDoc Class".

IsModal

Syntax

IsModal()

Description

The IsModal function returns True if executed from PeopleCode running in a modal secondary page and False if executed elsewhere. This function is useful in separating secondary page-specific logic from general PeopleCode logic.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Parameters

None.

Returns

A Boolean value.

Example

The following example executes logic specific to a secondary page:

```
If Not IsModal() Or
      Not (%Page = PAGE.PAY_OL_REV_RUNCTL Or
         %Page = PAGE.PAY_OL_RE_ASSGN_C Or
         %Page = PAGE.PAY_OL_RE_ASSGN_S) Then
```

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```
   Evaluate COUNTRY
   When = "USA"
   When = "CAN"
      If Not AllOrNone(ADDRESS1, CITY, STATE) Then
         Warning MsgGet(1000, 5, "Address should consist of at least Street (Line⇒
 1), City, State, and Country.")
      End-If;
      Break;
   When-Other;
      If Not AllOrNone(ADDRESS1, CITY, COUNTRY) Then
         Warning MsgGet(1000, 6, "Address should consist of at least Street (Line⇒
 1), City, and Country.")
      End-If;
   End-Evaluate;
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DoModal, page 169 and Chapter 1, "PeopleCode Built-in Functions," EndModal, page 184.

IsModalComponent

Syntax

IsModalComponent()

Description

Use the IsModalComponent function to test whether a modal component is currently executing, enabling you to write PeopleCode that only executes when a component has been called with DoModalComponent.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Parameters

None.

Returns

Returns a Boolean value: True if the current program is executing from a modal component, False otherwise.

Example

```
If IsModalComponent() then
/* Logic that executes only if component is executing modally.  */
end-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DoModalComponent, page 171

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IsModalPanelGroup

Syntax

```
IsModalPanelGroup()
```

Description

Use the IsModalPanelGroup function to test whether a modal component is currently executing.

Note. The IsModalPanelGroup function is supported for compatibility with previous releases of PeopleTools. New applications should use the IsModalComponent function instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," IsModalComponent, page 347

IsNumber

Syntax

```
IsNumber(Value)
```

Description

Use the IsNumber function to determine if *Value* contains a valid numeric value. Numeric characters include sign indicators and comma and period decimal points.

To determine if a value is a number and if it's in the user's local format, use the IsUserNumber function.

Parameters

Parameter	Description
Value	Specify a string you want to search to determine if it is a valid number.

Returns

A Boolean value: True if *Value* contains a valid numeric value, False otherwise.

Example

```
&Value = Get Field().Value;
If IsNumber(&Value) Then
   /* do numeric processing */
Else
   /* do non-numeric processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsAlpha, page 337, Chapter 1, "PeopleCode Built-in Functions," IsAlphaNumeric, page 338, Chapter 1, "PeopleCode Built-in Functions," IsDigits, page 341, Chapter 1, "PeopleCode Built-in Functions," IsDate, page 339, Chapter 1, "PeopleCode Built-in Functions," IsDateTime, page 340 and Chapter 1, "PeopleCode Built-in Functions," IsTime, page 349.

Chapter 1, "PeopleCode Built-in Functions," IsUserNumber, page 351

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IsOperatorInClass

Syntax

IsOperatorInClass(*operclass1* [, *operclass2*]. . .)

Description

The IsInOperatorClass takes an arbitrary-length list of strings representing the names of operator classes and determines whether the current operator belongs to any class in a list of classes.

Note. The IsOperatorInClass function is supported for compatibility with previous releases of PeopleTools. New applications should use the IsUserInPermissionList function instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," IsUserInPermissionList, page 350

IsSearchDialog

Syntax

IsSearchDialog()

Description

Use the IsSearchDialog function to determine whether a search dialog, add dialog, or data entry dialog box is currently executing. Use it to make processes conditional on whether a search dialog box is running.

Returns

Returns a Boolean value: True if a search dialog box is executing, False otherwise.

Example

```
If Not (IsSearchDialog()) Then
   If %Component = COMPONENT.SALARY_GRADE_TBL Then
      If All(SALARY_MATRIX_CD) Then
         Gray(RATING_SCALE)
      End-If;
      calc_range_spread();
   End-If;
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetSearchDialogBehavior, page 474

IsTime

Syntax

IsTime(*Value*)

Description

Use the IsTime function to determine if *Value* contains a valid Time.

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You can use this function when you want to determine if a value is compatible with the Time function.

Parameters

Parameter	Description
Value	Specify either a string or number you want to search for to determine if it's a valid Time.

Returns

A Boolean value: True if the string contains a valid Time value, False otherwise.

Example

```
If IsTime(&Num) Then
   &Timevalue = Time(&Num);
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsAlpha, page 337, Chapter 1, "PeopleCode Built-in Functions," IsAlphaNumeric, page 338, Chapter 1, "PeopleCode Built-in Functions," IsDigits, page 341, Chapter 1, "PeopleCode Built-in Functions," IsDate, page 339, Chapter 1, "PeopleCode Built-in Functions," IsDateTime, page 340, Chapter 1, "PeopleCode Built-in Functions," IsNumber, page 348 and Chapter 1, "PeopleCode Built-in Functions," IsTime, page 349.

IsUserInPermissionList

Syntax

IsUserInPermissionList(*PermissionList1* [, *PermissionList2*]. . .)

Description

Use the IsUserInPermissionList function to take an arbitrary-length list of strings representing the names of Permission Lists and determine whether the current user belongs to any of the Permission Lists.

Parameters

Parameter	Description
PermissionList	An arbitrary-length list of string, each of which represents a Permission List.

Returns

Returns a Boolean value: True if the current user has access to one or more of the Permission Lists, False otherwise.

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See Also

Chapter 1, "PeopleCode Built-in Functions," ExecuteRolePeopleCode, page 197, Chapter 1, "PeopleCode Built-in Functions," ExecuteRoleQuery, page 198, Chapter 1, "PeopleCode Built-in Functions," ExecuteRoleWorkflowQuery, page 199 and Chapter 1, "PeopleCode Built-in Functions," IsUserInRole, page 351.

Chapter 3, "System Variables," %PermissionLists, page 624

Chapter 3, "System Variables," %PrimaryPermissionList, page 624

Chapter 3, "System Variables," %Roles, page 625

Chapter 3, "System Variables," %RowSecurityPermissionList, page 625

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Setting Up Permission Lists"

IsUserInRole

Syntax

```
IsUserInRole(rolename1 [, rolename2]. . .)
```

Description

Use the IsUserInRole function to take an arbitrary-length list of strings representing the names of roles and determine whether the current user belongs to any role in an array of roles.

Parameters

Parameter	Description
rolename	An arbitrary-length list of strings, each of which represents a role.

Returns

Returns a Boolean value: True if the current user belongs to one or more of the roles in the user role array, False otherwise.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Setting Up Roles"

IsUserNumber

Syntax

```
IsUserNumber(Value)
```

Description

Use the IsUserNumber function to determine if *Value* contains a valid numeric value that uses the locale-specific form of the number for the current user. Numeric characters include sign indicators and comma and period decimal points.

For example, if your regional settings specified periods for the thousands separator, and the number uses commas, this function returns false.

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To determine if a value is a number regardless if it's in the user's local format, use the IsNumber function.

Parameters

Parameter	Description
Value	Specify a string you want to search to determine if it is a valid number in the correct format.

Returns

A Boolean value: True if *Value* contains a valid numeric value in the correct format, False otherwise.

Example

```
&Value = Get Field().Value;
If IsUserNumber(&Value) Then
   /* display number */
Else
   /* do other processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," IsAlpha, page 337, Chapter 1, "PeopleCode Built-in Functions," IsAlphaNumeric, page 338, Chapter 1, "PeopleCode Built-in Functions," IsDigits, page 341, Chapter 1, "PeopleCode Built-in Functions," IsDate, page 339, Chapter 1, "PeopleCode Built-in Functions," IsDateTime, page 340 and Chapter 1, "PeopleCode Built-in Functions," IsTime, page 349.
Chapter 1, "PeopleCode Built-in Functions," IsNumber, page 348 and Chapter 1, "PeopleCode Built-in Functions," ValueUser, page 544.

Left

Syntax

Left(*source_str*, *num_chars*)

Description

Use the Left function to return a substring containing the leftmost number of characters in *source_str*. *num_chars* specifies how many characters to extract. If the string contains Unicode non-BMP characters, each code unit of the surrogate pair is counted as a separate character and care should be taken not to split the surrogate pair.

Parameters

Parameter	Description
source_str	A String from which to derive the substring.
num_chars	A Number specifying how many characters to take from the left of *source_str*. The value of *num_chars* must be greater than or equal to zero. If *num_chars* is greater than the length of *source_str*, Left returns the entire string. If *num_chars* is omitted, it is assumed to be one.

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Returns

Returns a String value derived from *source_str*.

Example

The following example sets &SHORT_ZIP to "90210":

```
&SHORT_ZIP = Left("90210-4455", 5);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Right, page 426

Len

Syntax

Len(*str*)

Description

Use the Len function to determine the number of characters in a string. If the string contains Unicode non-BMP characters, each code unit of the surrogate pair is counted as a separate character.

Returns

Returns a Number value equal to the number of characters, including spaces, in *str*.

Example

The following example sets &STRLEN to 10, then to 0:

```
&STRLEN = Len("PeopleSoft");
&STRLEN = Len("");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Lenb, page 353

Lenb

Syntax

Lenb(*str*)

Description

Note. This function has been deprecated and is no longer supported.

LinearInterp

Syntax

LinearInterp(*DataPoints*)

Description

Use the LinearInterp function to compute a set of lines through a sequence of at least two points.

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Parameters

Parameter	Description
DataPoints	This parameter takes an array of array of number. The array's contents are an array of six numbers. The first two of these six numbers are the x and y points to be fit. The last four are the four coefficients to be returned from the function: **a**, **b**, **c** and **d**. **a** is the coefficient of the x^0 term, **b** is the coefficient of the x^1 term, **c** is the coefficient of the x^2 term, and **d** is the coefficient of the x^3 term.

Returns

A modified array of array of numbers. The elements in the array correspond to the elements in the array used for *DataPoints*. The **c** and **d** elements contain zeros.

See Also

Chapter 1, "PeopleCode Built-in Functions," CubicSpline, page 128 and Chapter 1, "PeopleCode Built-in Functions," HermiteCubic, page 320.

Ln

Syntax

```
Ln(i)
```

Description

Use the Ln function to determine the natural logarithm of a number. Natural logarithms are based on the constant *e*, which equals 2.71828182845904. The number *i* must be a positive real number. Ln is the inverse of the Exp function.

Returns

A Number equal to the natural logarithm of *i*.

Example

The following examples set &I to 2.302585 and &J to 1:

```
&I = Ln(10);
&J = Ln(2.7182818);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Exp, page 200 and Chapter 1, "PeopleCode Built-in Functions," Log10, page 357.

Local

Syntax

```
Local data_type &var_name [= expression]
```

Description

Use the Local statement to explicitly define local variables in PeopleCode.

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Variable declarations can appear at the start of the program, intermixed with function declarations. Local variable declarations can also appear in the body of a program, including inside functions.

The scope of local variables declared outside of a function is the PeopleCode program. The scope of local variables declared inside a function is to the end of the function. Also, these function local variables are different variables for each call of the function (even for recursive calls,) in the same manner as parameters.

Local variable declarations intermixed with the body of the program or inside functions can include initialization, that is, the variable can be set to a value at the same time it is declared.

In the absence of an initialization, the system automatically initializes temporary variables. Declared variables always have values appropriate to their declared type. Undeclared local variables are initialized as null strings.

Parameters

Parameter	Description
data_type	Any PeopleCode data type.
&var_name	A legal variable name.
expression	Specify the value of the variable. This parameter is optional.

Example

```
local string &LOC_FIRST;
```

The following example scopes the local variable &Constant as a local variable, as well as initializing it.

```
Local Number &Constant = 42;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Global, page 317 and Chapter 1, "PeopleCode Built-in Functions," Component, page 80.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding the PeopleCode Language," Data Types

LogObjectUse

Syntax

LogObjectUse([*annotation*])

Description

Use the LogObjectUse function to write to the system log a list of all the current PeopleCode objects with the current count, the object class name, and the maximum count of objects of this type.

While this function is mainly used to determine memory usage, the output is also an informative display of the object use in your system at a particular point in time.

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Parameters

Parameter	Description
annotations	Specify a string to become the first line in the log file. This enables you to easily identify output corresponding to your use of this built-in.

Returns

None.

Example

The following is an example of output that can be generated in the system log.

```
PeopleCode side - after Java
         1902 JavaPeerReference
            0 Field                                        14
            0 ContentRefCollection                          4
            0 PortalCollection                              3
           83 String                                   116459
            0 PT_NAV:NavEndNode                             6
            0 PT_NAV:NavFolderNode                         35
            0 PT_NAV:NavTheme                               1
            0 PT_NAV:NavNodeCollection                      4
            0 PortalRegistry                                7
            0 PT_BRANDING:HeaderLinkBase                    1
            0 PT_NAV:NavNode                               45
            0 PT_BRANDING:HeaderLinkHP                      1
            0 BIDocs                                        4
            0 Interlink                                     1
            0 PT_NAV:NavPortal                              1
            1 SyncServer                                    1
            0 TabDefinition                                 1
          951 Rowset                                    220001
            0 FolderCollection                              4
            0 SQL                                           5
            0 Folder                                       69
            1 Response                                     14
            1 Foxtest                                       3
            0 Record                                        1
           23 Array                                       264
            1 Request                                      15
            0 AttributeCollection                          40
            0 UserHomepage                                  2
            0 Portal                                        3
            0 NodeCollection                                3
            0 UserTabCollection                             1
            0 ObjPropRef                                    3
          951 FOXTEST:Test                              110001
            0 PT_BRANDING:BrandingBase                      3
```


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```
0 ContentRef                                    13
0 PT_NAV:NavPagelet                              1
0 TabDefinitionCollection                        1
0 Session                                       10
0 NetworkNode                                    3
```

See Also

Chapter 3, “System Variables,” %PerfTime, page 622

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer’s Guide, “Improving Your PeopleCode”

Log10

Syntax

Log10(*x*)

Description

Use the Log10 function to return the base-10 logarithm of a number *x* as a number value. The number *x* must be a positive real number.

Returns

Returns a Number equal to the base-10 logarithm of *x*.

Example

The following example sets &X to 1 and &Y to 1.39794:

```
&X = Log10(10);
&Y = Log10(25);
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Exp, page 200 and Chapter 1, “PeopleCode Built-in Functions,” Ln, page 354.

Lower

Syntax

Lower(*string*)

Description

Use the Lower function to convert all uppercase characters in a text string to lowercase characters and returns the result as a String value. Lower does not change characters that are not letters or characters do not have case sensitivity.

Returns

A String value equal to string, but in all lowercase format.

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Example

The example sets &GOODKD to "k d lang":

```
&GOODKD = Lower("K D Lang");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Proper, page 396 and Chapter 1, "PeopleCode Built-in Functions," Upper, page 542.

LTrim

Syntax

LTrim(*string1* [,*string2*])

Description

Use the LTrim function to return a string formed by deleting from the beginning of *string1*, all occurrences of each character in *string2*. If *string2* is omitted, " " is assumed; that is, leading blanks are trimmed.

Example

The following removes leading blanks from &NAME:

```
&TRIMMED = LTrim(&NAME);
```

The following removes leading punctuation marks from REC.INP:

```
&TRIMMED = LTrim(REC.INP, ".,;:!?");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RTrim, page 433

MarkPrimaryEmailAddress

Syntax

MarkPrimaryEmailAddress(*Type*)

Description

Use the MarkPrimaryEmailAddress function to specify which email address is the primary email address for the current user. You can only have one primary email address per user.

Parameters

Parameter	Description
Type	Specify the type that you want to change the email address to. This parameter takes a string value. The valid values are:

Value	Description
BB	Blackberry email address
BUS	Business email address

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Value	Description
HOME	Home email address
OTH	Other email address
WORK	Work email address

Returns

None.

See Also

Chapter 1, "PeopleCode Built-in Functions," AddEmailAddress, page 38, Chapter 1, "PeopleCode Built-in Functions," ChangeEmailAddress, page 67 and Chapter 1, "PeopleCode Built-in Functions," DeleteEmailAddress, page 153.

MarkWLItemWorked

Syntax

```
MarkWLItemWorked()
```

Description

Use the MarkWLItemWorked function to mark the current Worklist entry as worked using this function. This function works only if you've invoked a page from the Worklist. This function should be called only in Workflow PeopleCode. You can use the %WLName system variable to check whether the page has been accessed using a Worklist.

Note. If the Worklist entry was created using a web service, and you do not need to send any additional information other than the Mark Worked reply message, you can use this function to mark the Worklist entry as worked. However, if you need to send additional data, you must use the WorklistEntry class SaveWithCustomData method to mark the Worklist entry as finished.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Notification Classes," SaveWithCustomData.

Parameters

None.

Returns

Returns a Boolean value indicating whether it executed successfully. The return value is not optional.

Example

This example, which would be in the WorkFlow event, checks to see whether a page check box MARK_WORKED_SW is selected, and if so, it marks the item in the worklist as complete:

```
If MARK_WORKED_SW = "Y" Then
   If MarkWLItemWorked() Then
   End-If;
End-If;
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," GetWLFieldValue, page 316 and Chapter 3, "System Variables," %WLName, page 630.

Max

Syntax

```
Max(param_list)
```

Where *param_list* has the form

```
parameter1, parameter2 [, parameter3, . . . parameterN]
```

Description

Use the Max function to determine the maximum value in the parameter list. The type of every item in the parameter list must be compatible with the first parameter in the list.

For example, if the first parameter is a string and the second parameter is a number with value 123.456, the second parameter is converted to the string "123.456" before the comparison is performed.

If all the values in the parameter list are alpha characters, "Z" is greater than "A" so Max("Z", "A") returns "Z".

Parameters

Parameter	Description
param_list	Specify a list of items to be compared. All items in the parameter list must be of the same type. If a value isn't defined, the system assumes it's of the same type as the first parameter.

Returns

The item in the list that has the maximum value.

Example

```
&RSULT = Max("A", "B", "C", "D", "E");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Min, page 367

MCFBroadcast

Syntax

```
MCFBroadcast(ClusterID,QueueID, ChannelID, AgentState, AgentPresence,
Message, MessageSetNumber, MessageNumber, DefaultMessage, SecurityLevel,
ImportanceLevel, SenderId, NameValueString)
```

Description

Use the MCFBroadcast function to broadcast a notification message. You can specify whether to send the message to agents, to a queue, or even system wide. This function is used with the MultiChannel Framework.

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Parameters

Parameter	Description
ClusterID	Specify the name of the cluster that you want to broadcast the message to, such as, RENCLSTR_001, as a string.
QueueID	Specify the name of the physical or logical queue that you want to broadcast the message to, such as, SALES, as a string.
ChannelID	Specify the name of the channel, or task, for the broadcast, such as Email, Chat, Voice or Generic, as a string.
AgentState	Specify the state of the agents you want to broadcast the message to, such as Available, as a string.
AgentPresence	Specify the presence of the agents you want to broadcast the message to, such as Active, as a string.
Message	Specify the text of the message you want to broadcast, as a string.
MessageSetNumber	Specify the message set number of a message from the message catalog if you want to broadcast a message from the message catalog. You must also specify values for the *MessageNumber* and *DefaultMessageText* parameters if you want to broadcast this type of message. Specify the message set number as a number.
MessageNumber	Specify the message number of a message from the message catalog if you want to broadcast a message from the message catalog. You must also specify values for the *MessageSetNumber* and *DefaultMessageText* parameters if you want to broadcast this type of message. Specify the message number as a number.
DefaultMessageText	Specify the text to be used if the specified message catalog message isn't found. Use the *MessageSetNumber* and *MessageNumber* parameters to specify the catalog message. Specify the default message text as a string.
SercurityLevel	Specify the security level for the broadcast message, as a string.
ImportanceLevel	Specify the importance level of the broadcast message, as a string.
SenderID	Specify the ID of the sender of the broadcast message, as a string.
NameValueString	Specify a string containing name-value pairs specific to your application.

Returns

None.

Example

The following example would broadcast a message to a specific logical queue:

```
MCFBroadcast("", "SALES", "", "", "Best of Luck!", "", "", "Default Message",⇒
 "PRIV1", "URGENT", "Admin", "EffDate, 2005-10-25:12:00:45");
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Universal Queue Classes"

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MessageBox

Syntax

```
MessageBox(style, title, message_set, message_num, default_txt [, paramlist])
```

where *paramlist* is an arbitrary-length list of parameters of undetermined (Any) data type to be substituted in the resulting text string, in the form:

```
param1 [, param2]. . .
```

Description

Use the MessageBox function to display a message box window. This function combines dialog-display ability with the text-selection functionality of MsgGet, MsgGetText, or MsgGetExplainText. The *style* parameter selects the buttons to be included. *title* determines the title of message.

Note. *title* isn't available for messages displayed in the PeopleSoft Pure Internet Architecture. Also, *style* is ignored if the message has any severity other than Message.

The remaining parameters are used to retrieve and process a text message selected from the Message Catalog.

MessageBox can be used for simple informational display, where the user reads the message, then clicks an OK button to dismiss the message box. Use MessageBox as a way of branching based on user choice, in which case the message box contains two or more buttons (such as OK and Cancel or Yes, No, and Cancel). The value returned by the function tells you which button the user clicked, and your code can branch based on that value.

In the MessageBox dialogs, both the Text and the Explanation, that is, more detailed information stored in the Message Catalog, are included.

If MessageBox displays buttons other than OK, it causes processing to stop while it waits for user response. This makes it a "user think-time" function, restricting its use to certain PeopleCode events.

See Chapter 1, "PeopleCode Built-in Functions," MsgGet, page 370; Chapter 1, "PeopleCode Built-in Functions," MsgGetText, page 372 and Chapter 1, "PeopleCode Built-in Functions," MsgGetExplainText, page 371.

Message Retrieval

MessageBox retrieves a message from the Message Catalog and substitutes the values of the parameters into the text message and explanation.

You can access and update the Message Catalog through PeopleTools Utilities, using the Message Catalog page located under the Use menu. You can enter message text in multiple languages. The *message_set* and *message_num* parameters specify the message to retrieve from the catalog. If the message is not found in the Message Catalog, the default message provided in *default_txt* is used. Message sets 1 through 19,999 are reserved for use by PeopleSoft applications. Message sets 20,000 through 32,767 can be used by PeopleSoft users.

The optional *paramlist* is a comma-separated list of parameters; the number of parameters in the list is arbitrary. The parameters are referenced in the message text using the % character followed by an integer corresponding to the position of the parameter in the *paramlist*. For example, if the first and second parameters in *paramlist* were &FIELDNAME and &USERNAME, they would be inserted into the message string as %1 and %2. To include a literal percent sign in the string, use %%; %\ is used to indicate an end-of-string and terminates the string at that point. This is generally used to specify fixed-length strings with trailing blanks.

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Message Severity

MessageBox specifies processing for error handling functions based on the Message Severity of the message, which you can set in the Message Catalog. This enables you to change the severity of an error without changing the underlying PeopleCode, by setting the severity level for the message in the Message Catalog. The Message Severity settings and processing options are:

Severity	Processing
Message	The message is displayed and processing continues.
Warning	The message is displayed and treated as a warning.
Error	The message is displayed and treated as an error.
Cancel	The message is displayed and forces a Cancel.

In addition, in the PeopleSoft Pure Internet Architecture the Message Severity dictates how the message displays:

- If the message has a severity of Warning, Error or Cancel, the message is displayed in a pop-up dialog box with a single OK button regardless of the value of the *style* parameter.
- If the message has a severity of Message and *style* is **%MsgStyle_OK** (0), the message displays in a pop-up dialog box with the single **OK** button.
- If the message has a severity of Message and *style* is not **%MsgStyle_OK** (0), the message displays in a separate window.

Restrictions on Use in PeopleCode Events

If MessageBox displays any buttons other than OK, it returns a value based on the end-user response and interrupts processing until the end-user has clicked one of the buttons. This makes it a "user think-time" function, subject to the same restrictions as other think-time functions which means that it cannot be used in any of the following PeopleCode events:

- SavePreChange.
- Workflow.
- RowSelect.
- SavePostChange.
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

If the *style* parameter specifies a single button (that is, the **OK** button), the function can be called in any PeopleCode event.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using Methods and Built-In Functions," Think-Time Functions.

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Restrictions on Use With PeopleSoft Pure Internet Architecture

In the PeopleSoft Pure Internet Architecture, you can't change the icon of a message box. You can change the number and type of buttons, and the default button, but the message always displays with the warning icon (a triangle with an exclamation mark in it.)

In addition, you can't change the message box title.

If the message has a severity of Warning and the MessageBox PeopleCode is in a SaveEdit event, the message is displayed in a new window with the OK and Cancel buttons.

Restrictions on Use With PeopleSoft Application Engine

If you call MessageBox from a PeopleCode action in an Application Engine program, the syntax is the same. However, all GUI-related parameters like style and title are ignored. You should use 0 and "".

Note. If you have an existing MessageBox in code called from a page, it should work as is.

The actual message data is routed to PS_MESSAGE_LOG at runtime, and you can view it from the Process Monitor by drilling down to the process details.

Parameters

Parameter	Description
Style	Either a numerical value or a constant specifying the contents and behavior of the dialog box. This parameter is calculated by cumulatively adding either a value or a constant from each of the following list of categories:

Note. In PeopleSoft Pure Internet Architecture *style* is ignored if the message has any severity other than Message. If the message has a severity of Warning and the MessageBox PeopleCode is in a SaveEdit event, the message is displayed in a new window with the OK and Cancel buttons.

Category	Value	Constant	Meaning
Buttons	0	%MsgStyle_OK	The message box contains one pushbutton: OK.
	1	%MsgStyle_OKCancel	The message box contains two pushbuttons: OK and Cancel.
	2	%MsgStyle_ AbortRetryIgnore	The message box contains three pushbuttons: Abort, Retry, and Ignore.
	3	%MsgStyle_ YesNoCancel	The message box contains three pushbuttons: Yes, No, and Cancel.

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Category	Value	Constant	Meaning
	4	%MsgStyle_YesNo	The message box contains two push buttons: Yes and No.
	5	%MsgStyle_RetryCancel	The message box contains two push buttons: Retry and Cancel.

Parameter	Description
title	Title of message box. If a null string is specified, then PeopleTools provides an appropriate value.

Note. *title* isn't available for messages displayed in the PeopleSoft Pure Internet Architecture.

Parameter	Description
message_set	The message set number of the message to be displayed. When message set and number are provided, it overrides the specified text. A value less than one indicates that the message comes from the provided text and not the Message Catalog.
message_num	The message number of the message to be displayed.
default_txt	Default text to be displayed in the message box.
paramlist	A comma-separated list of parameters; the number of parameters in the list is arbitrary. The parameters are referenced in the message text using the % character followed by an integer corresponding to the position of the parameter in the *paramlist*.

Returns

Returns either a Number value or a constant. The return value is zero if there is not enough memory to create the message box. In other cases the following menu values are returned:

Value	Constant	Meaning
-1	%MsgResult_Warning	Warning was generated.
1	%MsgResult_OK	OK button was selected.
2	%MsgResult_Cancel	Cancel button was selected.
3	%MsgResult_Abort	Abort button was selected.
4	%MsgResult_Retry	Retry button was selected.

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Value	Constant	Meaning
5	%MsgResult_Ignore	Ignore button was selected.
6	%MsgResult_Yes	Yes button was selected.
7	%MsgResult_No	No button was selected.

Note. In PeopleSoft Pure Internet Architecture, pressing the ESC key has no effect.

Example

Suppose the following string literal is stored in the Message Catalog as the message text:

```
Expenses of employee %1 during period beginning %2 exceed allowance.
```

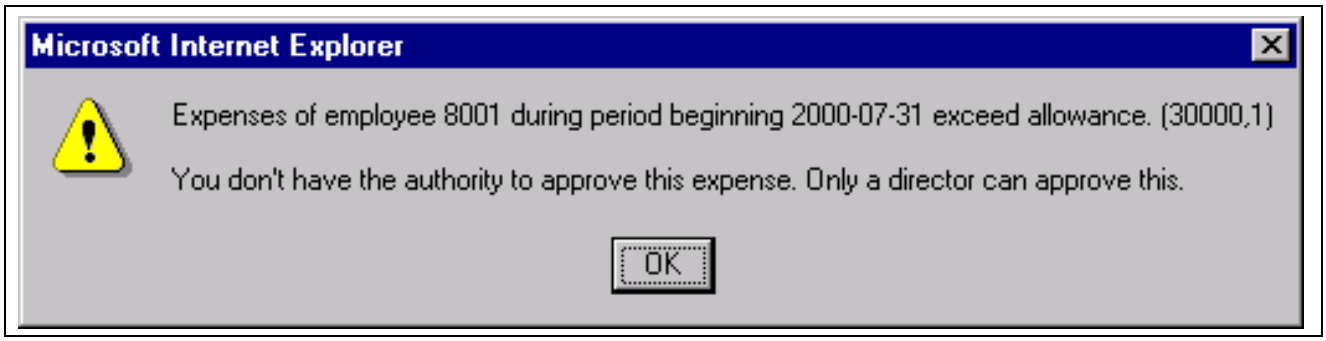
The following is stored in the Explanation:

```
You don't have the authority to approve this expense. Only a director can approve⇒
 this.
```

Here %1 is a placeholder for the employee ID and %2 a placeholder for the expense period date. The following MessageBox call provides bind variables corresponding to these placeholders at the end of its parameter list:

```
MessageBox(0, "", 30000, 1, "Message not found.", BUS_EXPENSE_PER.EMPLID, BUS_⇒
EXPENSE_PER.EXPENSE_PERIOD_DT);
```

The call would display a message box similar to this, if the message severity was Error or Warning.



Example of message box

Suppose the following is stored in the Message Catalog as the message text:

```
File not found.
```

The following is stored in the Explanation:

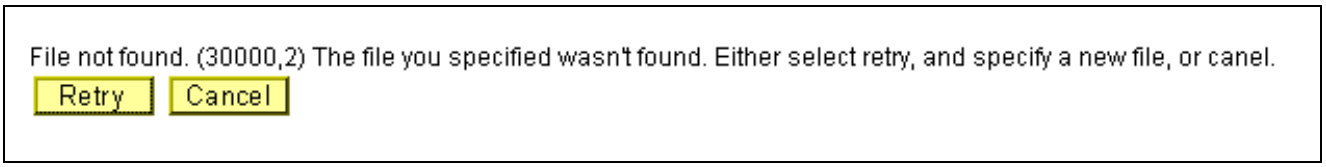
```
The file you specified wasn't found. Either select retry, and specify a new file,⇒
 or cancel.
```

Suppose this message had a Severity of message, and you used the %MsgStyle_RetryCancel, in the following code:

```
MessageBox(%MsgStyle_RetryCancel, "", 30000, 2, "Message not found.");
```

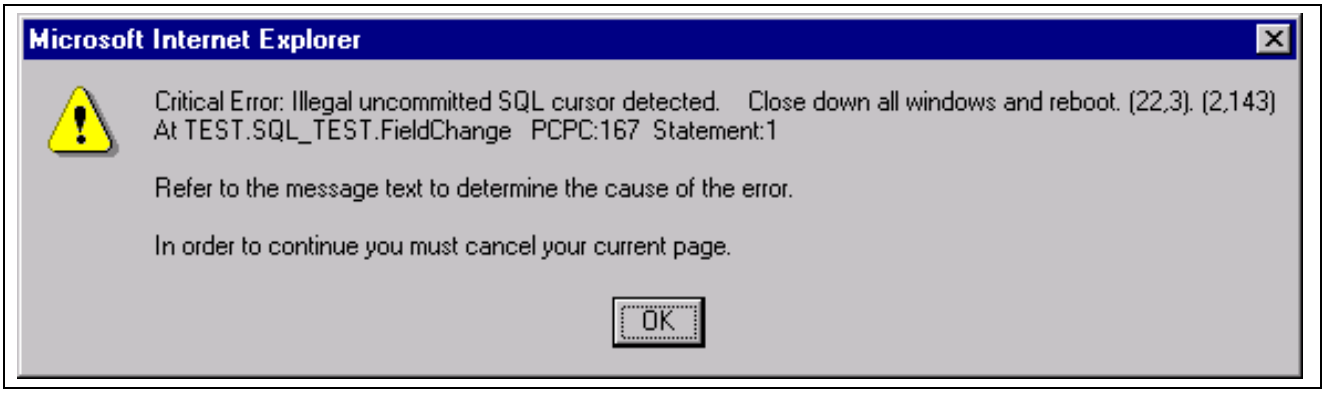
This is how the message displays:

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Example message with Retry and Cancel buttons

If the message severity is of type Cancel, the message displayed looks like this:



Critical type error message

See Also

Chapter 1, "PeopleCode Built-in Functions," MsgGet, page 370, Chapter 1, "PeopleCode Built-in Functions," MsgGetText, page 372 and Chapter 1, "PeopleCode Built-in Functions," MsgGetExplainText, page 371.

Min

Syntax

Min(*param_list*)

Where *param_list* has the form

parameter1, parameter2 [, *parameter3, . . . parameterN*]

Description

Use the Min function to determine the minimum value in the parameter list. The type of every item in the parameter list must be compatible with the first parameter in the list.

For example, if the first parameter is a string and the second parameter is a number with value 123.456, the second parameter is converted to the string "123.456" before the comparison is performed.

If all the values in the parameter list are alpha characters, "a" is less than "m", so Min("a", "m") returns "a".

Parameters

Parameter	Description
param_list	Specify a list of items to be compared. All items in the parameter list must be of the same type. If a value isn't defined, the system assumes it's of the same type as the first parameter.

Returns

The item in the list that has the minimum value.

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Example

```
&RES = Min(&A, Max(&B, &C, &D), "-20");
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Max, page 360

Minute

Syntax

Minute(*timevalue*)

Description

Use the Minute function to extract the minute component of a Time value.

Returns

Returns the minute part of *timevalue* as a Number data type.

Example

If &TIMEOUT contains "16:48:01" then the example sets &TIMEOUT_MINUTES to 48:

```
&TIMEOUT_MINUTES = Minute(&TIMEOUT);
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Hour, page 326 and Chapter 1, “PeopleCode Built-in Functions,” Second, page 439.

Mod

Syntax

Mod(*x*, *divisor*)

Description

The Mod function is the modulus math function, which divides one number (*x*) by another (*divisor*) and returns the remainder.

Returns

Returns a Number equal to the remainder of the division of the number *x* by *divisor*.

Example

The example sets &NUM1 to one and &NUM2 to zero:

```
&NUM1 = Mod(10,3);
&NUM2 = Mod(10,2);
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Int, page 336, Chapter 1, “PeopleCode Built-in Functions,” Round, page 427 and Chapter 1, “PeopleCode Built-in Functions,” Truncate, page 531.

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Month

Syntax

Month(*datevalue*)

Description

Use the Month function to return the month of the year as an integer from 1 to 12 for the specified *datevalue*. The Month function accepts a Date or DateTime value as a parameter.

Parameters

Parameter	Description
datevalue	A Date or DateTime value on the basis of which to determine the month.

Returns

Returns a Number value from 1 to 12 specifying the month of the year.

Example

This example sets &HIRE_MONTH to 3:

```
&HIREDATE = DateTime6(1997, 3, 15, 10, 9, 20);
&HIRE_MONTH = Month(&HIRE_DATE);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

MSFGetNextNumber

Syntax

MSFGetNextNumber(*Key1*, *Key2*, *Key3*)

Description

Use the MSFGetNextNumber function to return the next number from the mobile system that is specified by the key fields that are passed in.

You might use this function to increment an employee ID field by one when you are adding a new employee.

Note. This feature is only applicable when running on a PeopleSoft Mobile Synchronization Client. This functionality is not available in all product lines.

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Parameters

Parameter	Description
Key1	Specify the first key field value used to identify the mobile object that contains the numeric field values.
Key2	Specify the second key field value used to identify the mobile object that contains the numeric field values.
Key3	Specify the third key field value used to identify the mobile object that contains the numeric field values.

Returns

A number.

Example

```
&nextNumber = MSFGetNextNumber(&ds1, &ds2, &ds3);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Mobile Agent, "Understanding PeopleSoft Mobile Agent"

MsgGet

Syntax

MsgGet(*message_set*, *message_num*, *default_msg_txt* [, *paramlist*])

where *paramlist* is an arbitrary-length list of parameters of undetermined (Any) data type to be substituted in the resulting text string, in the form:

param1 [, *param2*]. . .

Description

Use the MsgGet function to retrieve a message from the PeopleCode Message Catalog and substitutes in the values of the parameters into the text message.

You can access and update the Message Catalog through the PeopleTools Utilities, using the Message Catalog page located under the Use menu. You can enter message text in multiple languages. The Message Catalog also enables you to enter more detailed "Explain" text about the message. The *message_set* and *message_num* parameters specify the message to retrieve from the catalog. If the message is not found in the Message Catalog, the default message provided in *default_msg_txt* is used. Message sets 1 through 19,999 are reserved for use by PeopleSoft applications. Message sets 20,000 through 32,767 can be used by PeopleSoft users.

The optional *paramlist* is a comma-separated list of parameters; the number of parameters in the list is arbitrary. The parameters are referenced in the message text using the % character followed by an integer corresponding to the position of the parameter in the *paramlist*. For example, if the first and second parameters in *paramlist* were &FIELDNAME and &USERNAME, they would be inserted into the message string as %1 and %2. To include a literal percent sign in the string, use %%; %\ is used to indicate an end-of-string and terminates the string at that point. This is generally used to specify fixed-length strings with trailing blanks.

MsgGet suffixes the message with "[Message Set# and Message Error#]", so it can be processed by a user not conversant in the translated language.

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Example

```
&MsgText = MsgGet(30000, 2, "Message not found");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," MsgGetText, page 372, Chapter 1, "PeopleCode Built-in Functions," MsgGetExplainText, page 371 and Chapter 1, "PeopleCode Built-in Functions," MessageBox, page 362.

MsgGetExplainText

Syntax

MsgGetExplainText(*message_set*, *message_num*, *default_msg_txt* [, *paramlist*])

where *paramlist* is an arbitrary-length list of parameters of undetermined (Any) data type to be substituted in the resulting text string, in the form:

param1 [, *param2*]. . .

Description

Use the MsgGetExplainText function to retrieve the Explain text of a message from the PeopleCode Message Catalog and substitutes the values of the parameters in *paramlist* into the explain text. It returns the resulting message explain text as a String data type.

You can access and update the Message Catalog through the PeopleTools Utilities, using the Message Catalog. You can enter messages in multiple languages.

Message sets 1 through 19,999 are reserved for use by PeopleSoft applications. Message sets 20,000 through 32,767 can be used by PeopleSoft users.

Unlike the MsgGet function, MsgGetExplainText returns the message without a message set and message number appended to the message.

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Parameters

Parameter	Description
message_set	Specify the message set to be retrieved from the catalog. This parameter takes a number value.
message_num	Specify the message number to be retrieved from the catalog. This parameter takes a number value.
default_msg_txt	Specify the text to be displayed if the message isn't found. This parameter takes a string value.
paramlist	Specify values to be substituted into the message explain text. The parameters listed in the optional *paramlist* are referenced in the message explain text using the % character followed by an integer referencing the position of the parameter in the function call. For example, if the first and second parameters in *paramlist* were &FIELDNAME and &USERNAME, they would be inserted into the message string as %1 and %2. **Note.** This substitution only takes place in message explain text when the MsgGetExplainText function is used. If you use a message box, the parameter substitution will *not* occur in the explain text. To include a literal percent sign in the string, use %%; %\ is used to indicate an end-of-string and terminates the string at that point. This is generally used to specify fixed-length strings with trailing blanks.

Example

Suppose the following explain text is stored in the Message Catalog:

```
A reference was made to a record.field (%1.%2) that is not defined within⇒
 Application Designer.  Check for typographical errors in the specification of the⇒
 record.field or use Application Designer to add the new field or record.
```

Here %1 is a placeholder for the record name and %2 a placeholder for the field name. If the record.field in error was MyRecord.Field5, the above would resolve as follows:

```
A reference was made to a record.field (MyRecord.Field5) that is not defined⇒
 within Application Designer.  Check for typographical errors in the specification⇒
 of the record.field or use Application Designer to add the new field or record.
```

See Also

Chapter 1, "PeopleCode Built-in Functions," MsgGetText, page 372, Chapter 1, "PeopleCode Built-in Functions," MsgGet, page 370 and Chapter 1, "PeopleCode Built-in Functions," MessageBox, page 362.

MsgGetText

Syntax

MsgGetText(*message_set*, *message_num*, *default_msg_txt* [, *paramlist*])

where *paramlist* is an arbitrary-length list of parameters of undetermined (Any) data type to be substituted in the resulting text string, in the form:

param1 [, *param2*]. . .

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Description

Use the MsgGetText function to retrieve a message from the PeopleCode Message Catalog and substitutes the values of the parameters in *paramlist* into the text message. It returns the resulting message text as a String data type.

You can access and update the Message Catalog through the PeopleTools Utilities window, using the Message Catalog page located under the Use menu. You can enter message text in multiple languages. The *message_set* and *message_num* parameters specify the message to retrieve from the catalog. If the message is not found in the Message Catalog, the default message provided in *default_msg_txt* is used. Message sets 1 through 19,999 are reserved for use by PeopleSoft applications. Message sets 20,000 through 32,767 can be used by PeopleSoft users.

The parameters listed in the optional *paramlist* are referenced in the message text using the % character followed by an integer referencing the position of the parameter in the function call. For example, if the first and second parameters in *paramlist* were &FIELDNAME and &USERNAME, they would be inserted into the message string as %1 and %2. To include a literal percent sign in the string, use %%; %\ is used to indicate an end-of-string and terminates the string at that point. This is generally used to specify fixed-length strings with trailing blanks.

Unlike the MsgGet function, MsgGetText returns the message without a message set and message number appended to the message.

Example

```
&MsgText = MsgGetText(30000, 2, "Message not found");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," MsgGet, page 370, Chapter 1, "PeopleCode Built-in Functions," MsgGetExplainText, page 371 and Chapter 1, "PeopleCode Built-in Functions," MessageBox, page 362.

NextEffDt

Syntax

NextEffDt(*field*)

Description

Use the NextEffDt function to return the value of the specified *field* from the record with the next effective date (and effective sequence number if specified). The return value is an Any data type. This function is valid only for effective-dated records.

If the next record doesn't exist, the statement is skipped. If the NextEffDt function isn't a top-level statement, that is, if it's contained within a compound statement or a loop, the statement is skipped and execution restarts with the *next* top-level statement.

In the following example, execution skips to the top If statement:

```
If ACTION <> "REH" Then  /* skip to here if NextEffDt fails to find next record */
   If    STD_HOURS <> NextEffDt(STD_HOURS) And
         Day(EFFDT) <> 1 Then
      Error MsgGet(30000, 8, "Meldung nicht vorhanden - WAZ bzw.⇒
 Beschäftigungsgradänderungen sind nur zum ersten eines Monats zulässig.")
   End-If;
End-If;
```

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```
/* if NextEffDt fails, run to here directly */
```

See Also

Chapter 1, "PeopleCode Built-in Functions," NextRelEffDt, page 374, Chapter 1, "PeopleCode Built-in Functions," PriorRelEffDt, page 393 and Chapter 1, "PeopleCode Built-in Functions," PriorEffDt, page 392.

NextRelEffDt

Syntax

NextRelEffDt(*search_field, fetch_field*)

where *fieldlist* is an arbitrary-length list of fields in the form:

field1 [,*field2*]. . .

Description

Use the NextRelEffDt function to locate the next occurrence of the *search_field* with the next effective date (and effective sequence number if the record contains an effective sequence number). It then returns the value of the specified *fetch_field* corresponding to the *search_field*. The return value is an Any data type. Typically, this function is used to retrieve values for related display fields.

This function is valid only for effective-dated records.

If a next record doesn't exist, the statement is skipped. If the NextRelEffDt function isn't a top-level statement, that is, if it's contained within a compound statement or a loop, the statement is skipped and execution restarts with the *next* top-level statement.

See Also

Chapter 1, "PeopleCode Built-in Functions," GetRelField, page 302, Chapter 1, "PeopleCode Built-in Functions," NextEffDt, page 373, Chapter 1, "PeopleCode Built-in Functions," PriorRelEffDt, page 393 and Chapter 1, "PeopleCode Built-in Functions," PriorEffDt, page 392.

NodeDelete

Syntax

NodeDelete(*nodeName*)

Description

Use the NodeDelete function to delete the specified node and all subordinate objects (transactions, node properties, certificates, and so on.)

Warning! Once this function has completed, you cannot recover the node.

Event Considerations

PeopleSoft recommends only using this function in the SavePostChange event. In addition, you should put a warning in the SaveEdit event, so the user has a chance to change their mind about deleting the node.

If you use a pushbutton on a page to delete a node, PeopleSoft recommends the following code in the FieldChange event:

```
If %Page = Page.YourDeletePage Then
/* changes the record in the buffer so that the DoSaveNow fires */
```

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```
   PSMSGNODEDEFN.DESCR = PSMSGNODEDEFN.DESCR | " ";
   DoSaveNow();
   ClearKeyList();
/* Transfer to another component or display information message; */
End-If;
```

Parameters

Parameter	Description
nodeName	Specify the name of the node you want to delete, as a string. All node names are uppercase.

Returns

A Boolean value: True, the function completed successfully deleted, False otherwise.

Example

```
&Rslt = NodeDelete("QEM_TEST_NODE");
If Not &Rslt Then
  /* Do error processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," NodeRename, page 375 and Chapter 1, "PeopleCode Built-in Functions," NodeSaveAs, page 376.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Adding and Configuring Nodes"

NodeRename

Syntax

NodeRename(*oldNodeName, newNodeName*)

Description

Use the NodeRename function to rename a node. All node names are uppercase.

Event Considerations

PeopleSoft recommends using this function only in the SavePreChange event. This gives the user a chance to edit any other page fields before executing, which may be important because this function affects several tables.

Parameters

Parameter	Description
oldNodeName	Specify the name of the node that you want to change, as a string.
newNodeName	Specify the new name for the node, as a string.

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Returns

A Boolean value: True, the function completed successfully deleted, False otherwise.

Example

```
&Rslt = NodeRename("QEM_TEST_NODE", "QE_TEST_NODE");
If Not &Rslt Then
  /* Do error processing */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," NodeDelete, page 374 and Chapter 1, "PeopleCode Built-in Functions," NodeSaveAs, page 376.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Adding and Configuring Nodes"

NodeSaveAs

Syntax

NodeSaveAs(*oldNodeName, newNodeName*)

Description

Use the NodeSaveAs function to create a copy of the node specified by *oldNodeName*, and save it to the database as *newNodeName*. All node names are uppercase.

Event Considerations

PeopleSoft recommends using this function only in the SavePreChange event. This gives the user a chance to edit any other page fields before executing, which may be important because this function affects several tables.

Parameters

Parameter	Description
oldNodeName	Specify the name of the node that you want to copy, as a string.
newNodeName	Specify the name for the new node, as a string.

Returns

A Boolean value: True, the function completed successfully deleted, False otherwise.

Example

```
&Rslt = NodeSaveAs("PRODUCTION_NODE", "MY_TEST_NODE");
If Not &Rslt Then
  /* Do error processing */
End-if;
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," NodeRename, page 375 and Chapter 1, "PeopleCode Built-in Functions," NodeDelete, page 374.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Adding and Configuring Nodes"

NodeTranDelete

Syntax

```
NodeTranDelete(MsgNodeName, EffDt, TrxType, RqstMsgName, RqstMsgVer);
```

Description

Use the NodeTranDelete function to delete a node transaction.

Warning! If you delete a node transaction, any transaction modifier using that transaction is also deleted.

Parameters

Parameter	Description
MsgNodeName	Specify the message node name as a string.
EffDt	Specify the effective date as a string.
TrxType	Specify the transaction type as a string.
RqstMsgName	Specify the request message name as a string.
RqstMsgVer	Specify the request message version as a string.

Returns

A Boolean value, True if the function completed successfully, False otherwise.

Example

```
&ret = NodeTranDelete("QE_LOCAL", "1900-01-01",  "IA",  "ROLESYNCH_MSG",  "VERSION_⇒
⇒
⇒
⇒
⇒
1");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RelNodeTranDelete, page 408

None

Syntax

```
None(fieldlist)
```

where *fieldlist* is an arbitrary-length list of fields in the form:

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```
[recordname.]fieldname1 [, [recordname.]fieldname2] ...
```

Description

The None function takes an arbitrary number of field names as parameters and tests for values. None returns True if none of the specified fields contain a value. It returns False if any one of the fields contains a value.

A blank character field, or a zero (0) numeric value in a required numeric field is considered a null value.

Related Functions

All	Checks to see if a field contains a value, or if all the fields in a list of fields contain values. If any of the fields is Null, then All returns False.
AllOrNone	Checks if either all the field parameters have values, or none of them have values. Use this in cases where if an end-user fills in one field, she must all fill in the other related values.
OnlyOne	Checks if exactly one field in the set has a value. Use this when the end-user must fill in only one of a set of mutually exclusive fields.
OnlyOneOrNone	Checks if no more than one field in the set has a value. Use this in cases when a set of fields is both optional and mutually exclusive; that is, if the end-user puts can put a value into one field in a set of fields, or leave them all empty.

Example

The following example uses None to check whether REFERRAL_SOURCE has a value:

```
If None(REFERRAL_SOURCE) or
   REFERRAL_SOURCE = "EE" Then
   Gray(EMP_REFERRAL_ID);
End-if;
```

The following example uses None with a variable:

```
&ONETIME = FetchValue(POSN_INCUMB_WS.EMPLID, 1);
   If None(&ONETIME) Then
   /* do processing */
End-if;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” All, page 44, Chapter 1, “PeopleCode Built-in Functions,” AllOrNone, page 45, Chapter 1, “PeopleCode Built-in Functions,” OnlyOne, page 389 and Chapter 1, “PeopleCode Built-in Functions,” OnlyOneOrNone, page 390.

NotifyQ

Syntax

```
NotifyQ(logical queue ID, task type)
```

Description

Use the NotifyQ function to notify the queue server of an incoming task. NotifyQ should *always* follow the use of the EnQueue function. EnQueue inserts the task into the PeopleSoft database, and NotifyQ notifies the queue server about a task’s existence and location.

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When you process a batch of tasks to be enqueued, PeopleSoft recommends calling NotifyQ just once (after the last task is processed). NotifyQ forces the queue server to reorder its internal lists and save its state to the database, and therefore affects performance.

NotifyQ is not required for chat or voice tasks, and should not be used for these tasks.

Note. If tasks of different types or tasks that are assigned to different logical queues are enqueued, at least one NotifyQ is required for each logical queue and for each task type. This ensures that the system is notified of tasks waiting to be assigned.

Parameters

Parameter	Description
logical queue ID	Specifies the logical queue in which the task should be queued. It is a string value. The logical queue ID is a case-sensitive value. The case used in the NotifyQ function must exactly match the case used when creating the logical queue ID on the Queues page.
task type	Specifies the type of task to be inserted. It is a string value. The valid values are: • email • generic

Returns

Returns 0 if the function was successful.

If unsuccessful, it returns a message number. The message set ID for MultiChannel Framework is 162.

For example, 1302 is returned when an invalid task type or no value is provided.

Example

```
&strtasknum = EnQueue(&queueID, "email", &MyCompURL, &langcode,
&subject, "QEDMO", 15, 60, &cost, &priority, &minskill);

&nret = NotifyQ(&queueID, "email");
   If &nret = 0 Then
         MessageBox(0, "", 162, 1547, "Queue Successfully notified.");

   End-If
```

NumberToDisplayString

Syntax

NumberToDisplayString(*Format*, *Number* [, *Width*] [, *Precision*])

Description

Use the NumberToDisplayString function to format *Number* according to the pattern specified in *Format*. The decimal and thousand's separator are formatted with what is with the current user's personalizations.

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Specify the *Width* and *Precision* parameters when you want to dynamically specify the width or precision. Both width and precision can be set based on *Format*. For example, the following statically specifies the width to be 6, and the precision to be 2:

```
&MyValue = NumberToDisplayString("%6.2", &Num);
```

The following example show the width taken dynamically from the &Width variable:

```
&MyValue = NumberToDisplayString("%*.2", &Num, &Width);
```

The following example shows how both the width and the precision values are taken dynamically from the &Width and &Precision variables, respectively.

```
&MyValue = NumberToDisplayString("%*.*", &Num, &Width, &Precision);
```

Parameters

Parameter	Description
Format	Specify the pattern for how *Number* is supposed to be formatted. See Using the Format parameter, below.
Number	Specify the number to be formatted.
Width	Specify the width of the string to be formatted.
Precision	Specify the precision of the string to be formatted.

Using the Format Parameter

The *Format* parameter has the following format:

```
%[flags][width][.precision][R | T] [type]
```

- *Flags* have the following format:

Flag	Description
-	Left align the number.
$	Fill out field on left hand side with international currency symbol.
#	Force the number to have a decimal point.
blank	Pad left hand side with blanks only indicating a negative number with a ’-’ sign.
+	Prefix output with plus sign.
M	Append " (cr)" on right for negative numbers and " (dr)" for positive numbers.

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Flag	Description
m	Opposite of M: " (dr)" for negative and " (cr)" for positive.
A	Bracket negative numbers with "[" and "]".
a	Bracket negative numbers with "(" and ")".
q	Display zeros as blanks.
Q	Display zeros as "None".
0	Pad left hand side with zeroes. This must be the last flag before any other pattern indicators.

- *Width* must be specified as a non-negative integer. Specifying an asterisks ("*") allows for dynamic field width specification. The maximum width is 50.
- *Precision* specifies how many digits follow the ".". It must be specified as a non-negative integer. Specifying an asterisks ("*") allows for a dynamic precision specification. The maximum precision is 50.
- *R* specifies rounding in conversion from the internal PeopleCode representation, that is, specifying 12.345 with precision of 2 (%n.2Rt) prints 12.35. In the absence of the R control rounding is the default.
- *T* specifies truncation in conversion from the internal PeopleCode representation, that is, specifying 2.345 with precision of 2 (%n.2Tt) prints 12.34.
- *Type* has the following format:

Type	Description
t	Type has format like printf %f. For example, the form dddd.dddd. This is the default value.
v	1000ths separator delimited output. For example, if the separator is a comma, the format is 1,000,000.02.
w	Scientific format like printf %e. For example, the form d.ddddeddd where "e" indicates exponent. d specifies 1 decimal digit and dddd specifies an arbitrary number.
W	Scientific format (like above, for "w") except "e" is "E".

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Type	Description
z	Scientific Engineering format like printf %e where the exponent is always a multiple of 3 and the mantissa is between 1 and a 1000.
Z	Scientific Engineering format (like above, for "z") except "e" is "E".

Returns

A string value.

Example

In the following example, &Str1 would be "0001234,56".

```
&Num = 1234.56;
&Str1 = NumberToDisplayString("%#010.2t", &Num);
```

In the following example, &Str2 would be "$$$1234.56".

```
&Num = 1234.56;
&Str2 = NumberToDisplayString("%$10.2", &Num);
```

In the following example, &Str3 would be " 1,234.56".

```
&Num = 1234.56;
&Str3 = NumberToDisplayString("%10.2v", &Num);
```

In the following example, &Str4 would be "1.23456e+003".

```
&Num = 1234.56;
&Str4 = NumberToDisplayString("%w", &Num);
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” NumberToString, page 382

NumberToString

Syntax

NumberToString(*Format*, *Number* [, *Width*] [, *Precision*])

Description

Use the NumberToString function to format *Number* according to the pattern specified in *Format*.

Specify the *Width* and *Precision* parameters when you want to dynamically specify the width or precision. Both width and precision can be set based on *Format*. For example, the following statically specifies the width to be 6, and the precision to be 2:

```
&MyValue = NumberToString("%6.2", &Num);
```

The following example show the width taken dynamically from the &Width variable:

```
&MyValue = NumberToString("%*.2", &Num, &Width);
```

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The following example shows how both the width and the precision values are taken dynamically from the &Width and &Precision variables, respectively.

```
&MyValue = NumberToString("%*.*", &Num, &Width, &Precision);
```

Parameters

Parameter	Description
Format	Specify the pattern for of how *Number* is supposed to be formatted.
Number	Specify the *Number* to be formatted.
Width	Specify the width of the string to be formatted.
Precision	Specify the precision of the string to be formatted.

Using the Format Parameter

The *Format* parameter has the following format:

```
%[flags][width][.precision][R | T] [type]
```

- *Flags* have the following format:

Flag	Description
-	Left align the number.
$	Fill out field on left hand side with international currency symbol.
#	Force the number to have a decimal point.
blank	Pad left hand side with blanks only indicating a negative number with a ’-’ sign.
+	Prefix output with plus sign.
M	Append " (cr)" on right for negative numbers and " (dr)" for positive numbers.
m	Opposite of M: " (dr)" for negative and " (cr)" for positive.
A	Bracket negative numbers with "[" and "]".
a	Bracket negative numbers with "(" and ")".
q	Display zeros as blanks.

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Flag	Description
Q	Display zeros as "None".
0	Pad left hand side with zeroes. This must be the last flag before any other pattern indicators.

- *Width* must be specified as a non-negative integer. Specifying an asterisks ("*") allows for dynamic field width specification. The maximum width is 50.
- *Precision* specifies how many digits follow the ".". It must be specified as a non-negative integer. Specifying an asterisks ("*") allows for a dynamic precision specification. The maximum precision is 50.
- *R* specifies rounding in conversion from the internal PeopleCode representation, that is, specifying 12.345 with precision of 2 (%n.2Rt) prints 12.35. In the absence of the R control rounding is the default.
- *T* specifies truncation in conversion from the internal PeopleCode representation, that is, specifying 2.345 with precision of 2 (%n.2Tt) prints 12.34.
- *Type* has the following format:

Type	Description
t	Type has format like printf %f. For example, the form dddd.dddd. This is the default value.
v	1000ths separator delimited output. For example, if the separator is a comma, the format is 1,000,000.02.
w	Scientific format like printf %e. For example, the form d.ddddeddd where "e" indicates exponent. d specifies 1 decimal digit and dddd specifies an arbitrary number.
W	Scientific format (like above, for "w") except "e" is "E".
z	Scientific Engineering format like printf %e where the exponent is always a multiple of 3 and the mantissa is between 1 and a 1000.
Z	Scientific Engineering format (like above, for "z") except "e" is "E".

Returns

A string value.

Example

In the following example, &Str1 would be "0001234.56".

```
&Num = 1234.56;
```


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```
&Str1 = NumberToString("%#010.2t", &Num);
```

In the following example, &Str2 would be "$$$1234.56".

```
&Num = 1234.56;
&Str2 = NumberToString("%$10.2", &Num);
```

In the following example, &Str3 would be " 1,234.56".

```
&Num = 1234.56;
&Str3 = NumberToString("%10.2v", &Num);
```

In the following example, &Str4 would be "1.23456e+003".

```
&Num = 1234.56;
&Str4 = NumberToString("%w", &Num);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," NumberToDisplayString, page 379, Chapter 1, "PeopleCode Built-in Functions," String, page 497 and Chapter 1, "PeopleCode Built-in Functions," Value, page 543.

ObjectDoMethod

Syntax

ObjectDoMethod(*obj_this*, *str_method_name* [, *paramlist*])

Where *paramlist* is a list of parameters of arbitrary length:

param1 [, *param2*]. . .

Description

Use the ObjectDoMethod function to invoke the method specified by *str_method_name* for the object *object_this*, passing in any required parameters using *paramlist*.

You can use ObjectDoMethod with Component Interfaces, Application Classes, OLE Automation objects, and so on.

This method can be useful if you know the number of parameters you need to pass for a method. If you don't know how many parameters you may need to pass when you write your PeopleCode, use the ObjectDoMethodArray function.

Parameters

Parameter	Description
obj_this	Specify an already instantiated object. This variable must have been instantiated either with CreateObject, or another function or method that creates objects.
str_method_name	A string containing the name of an exposed method of *obj_this*.
paramlist	The parameter list to pass to the *str_method_name* method.

Returns

None.

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Example

This simple example instantiates an Excel worksheet object, makes it visible, names it, saves it, and displays its name.

```
&WORKAPP = CreateObject("Excel.Application");
&WORKBOOKS = ObjectGetProperty(&WORKAPP, "Workbooks");
ObjectDoMethod(&WORKBOOKS, "Add", "C:\TEMP\INVOICE.XLT"); /* This associates the⇒
 INVOICE template w/the workbook */
ObjectDoMethod(&WORKAPP, "Save", "C:\TEMP\TEST1.XLS");
ObjectSetProperty(&WORKAPP, "Visible", True);
```

This simple example invokes a user-defined method associated with the current component interface object:

```
ObjectDoMethod(%CompIntfcName, &inMethodName);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateObject, page 116, Chapter 1, "PeopleCode Built-in Functions," ObjectGetProperty, page 387, Chapter 1, "PeopleCode Built-in Functions," ObjectSetProperty, page 388, Chapter 1, "PeopleCode Built-in Functions," CreateObjectArray, page 118 and Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethodArray, page 386.

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ObjectDoMethodArray

Syntax

ObjectDoMethodArray(*Object_Name*, *Method_Name*, *Array_of_Args*)

Description

Use the ObjectDoMethodArray function to invoke the method specified by *method_name* for the object *object_name*, passing in any required parameters using the array.

Use this function when you're not certain, at the time you're writing your PeopleCode program, how many parameters a method is going to require. If you know the number of parameters, use the ObjectDoMethod function instead.

The array of parameters is an array of Any. It can only be one-dimensional. You cannot pass in field references, that is, you can't pass in references of the form `RECORD.FIELDNAME`.

If you don't want to supply any parameters, you can use an empty array, or a reference to a Null array.

Parameters

Parameter	Description
Object_Name	Specify an already instantiated object on which the method is to be evaluated.
Method_Name	Specify the name of an exposed method for the object.
Array_Of_Args	Specify an Array of Any containing the parameters for the method.

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Returns

Depends on the specified object and method if a result is returned or not.

Example

```
&MyRslt = ObjectDoMethodArray(&MyObject, "My-Method", &MyArray);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateObject, page 116, Chapter 1, "PeopleCode Built-in Functions," ObjectGetProperty, page 387, Chapter 1, "PeopleCode Built-in Functions," ObjectSetProperty, page 388, Chapter 1, "PeopleCode Built-in Functions," CreateObjectArray, page 118 and Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethod, page 385.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Using OLE Functions

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

ObjectGetProperty

Syntax

ObjectGetProperty(*obj_this*, *str_property_name* [, *index_param_list*])

Description

Use the ObjectGetProperty function to return the value of a property *str_property_name* of the object *obj_this*.

Note. The object must have already been instantiated, either using CreateObject or another function or method that returns an object. Default" OLE Automation object properties are not supported. You must specify the object property that you want to retrieve explicitly.

Parameters

Parameter	Description
obj_this	Specify an already instantiated object. This variable must have been instantiated either with CreateObject or another function or method that creates objects.
str_property_name	A string containing the name of an exposed property of *obj_this*.
index_param_list	A comma-separated list for accessing an OLE automation object indexed property. (These parameters are only used with OLE/COM objects.)

Returns

Returns an Any value equal to the value of the *str_property_name* property of the *obj_this* object.

Example

This simple example instantiates an Excel worksheet object, makes it visible, names it, saves it, and displays its name.

```
&WORKAPP = CreateObject("Excel.Application");
&WORKBOOKS = ObjectGetProperty(&WORKAPP, "Workbooks");
```

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```
ObjectDoMethod(&WORKBOOKS, "Add", "C:\TEMP\INVOICE.XLT"); /* This associates the⇒
 INVOICE template w/the workbook */
ObjectDoMethod(&WORKAPP, "Save", "C:\TEMP\TEST1.XLS");
ObjectSetProperty(&WORKAPP, "Visible", True);
```

Excel Worksheets had an index property called Range that has the following signature:

```
Property Range (Cell1 [, Cell2]) as Range
```

In the following example, the range is A1:

```
&CELL = ObjectGetProperty(&SHEET, "Range", "A1");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateObject, page 116, Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethod, page 385, Chapter 1, "PeopleCode Built-in Functions," ObjectSetProperty, page 388, Chapter 1, "PeopleCode Built-in Functions," CreateObjectArray, page 118 and Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethodArray, page 386.

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ObjectSetProperty

Syntax

ObjectSetProperty(*obj_this*, *str_property_name*, *val* [, *index_param_list*])

Description

Use the ObjectSetProperty function to set the value of a property *str_property_name* of the object *obj_this* to *val*.

The object must have already been instantiated, either using CreateObject or another function or method that returns an object.

Note. Default OLE Automation object properties are not supported. You must specify the object property that you want to set explicitly.

Parameters

Parameter	Description
obj_this	Specify an already instantiated object. This variable must have been instantiated either with **CreateObject** or another function or method that creates objects.
str_property_name	A string containing the name of an exposed property of *obj_this*.
val	*str_property_name* is set to this value.
index_param_list	A comma-separated list of parameters for accessing an OLE automation object indexed property. (This is only used with COM/OLE objects.)

Returns

None.

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Example

This simple example instantiates an Excel worksheet object, makes it visible, names it, saves it, and displays its name.

```
&WORKAPP = CreateObject("Excel.Application");
&WORKBOOKS = ObjectGetProperty(&WORKAPP, "Workbooks");
ObjectDoMethod(&WORKBOOKS, "Add", "C:\TEMP\INVOICE.XLT"); /* This associates the⇒
 INVOICE template w/the workbook */
ObjectDoMethod(&WORKAPP, "Save", "C:\TEMP\TEST1.XLS");
ObjectSetProperty(&WORKAPP, "Visible", True);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateObject, page 116, Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethod, page 385, Chapter 1, "PeopleCode Built-in Functions," ObjectGetProperty, page 387, Chapter 1, "PeopleCode Built-in Functions," CreateObjectArray, page 118 and Chapter 1, "PeopleCode Built-in Functions," ObjectDoMethodArray, page 386.

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OnlyOne

Syntax

OnlyOne(*fieldlist*)

where *fieldlist* is an arbitrary-length list of fields in the form:

[*recordname.*]*fieldname1* [, [*recordname.*]*fieldname2*] ...

Description

Use the OnlyOne function to check a list of fields and return True if one and only one of the fields has a value. If all of the fields are empty, or if more than one of the fields has a value, OnlyOne returns False. This function is used to validate that only one of a set of mutually exclusive fields has been given a value.

A blank character field, or a zero numeric value in a required numeric field is considered a Null value.

Related Functions

All	Checks to see if a field contains a value, or if all the fields in a list of fields contain values. If any of the fields is Null, then All returns False.
None	Checks that a field or list of fields have no value. None is the opposite of All.
AllOrNone	Checks if either all the field parameters have values, or none of them have values. Use this in cases where if an end-user fills in one field, she must all fill in the other related values.
OnlyOneOrNone	Checks if no more than one field in the set has a value. Use this in cases when a set of fields is both optional and mutually exclusive; that is, if the end-user puts can put a value into one field in a set of fields, or leave them all empty.

Example

You typically use OnlyOne as follows:

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```
If OnlyOne(param_one, param_two)
   Then value_a = "y";
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," All, page 44, Chapter 1, "PeopleCode Built-in Functions," AllOrNone, page 45, Chapter 1, "PeopleCode Built-in Functions," None, page 377 and Chapter 1, "PeopleCode Built-in Functions," OnlyOneOrNone, page 390.

OnlyOneOrNone

Syntax

OnlyOneOrNone(*fieldlist*)

where *fieldlist* is an arbitrary-length list of fields in the form:

[recordname.]fieldname1 [, *[recordname.]fieldname2*] ...

Description

Use the OnlyOneOrNone function to check a list of fields and return True if either of these conditions is true:

- Only one of the fields has a value.
- None of the fields has a value.

This function is useful when you have a set of mutually exclusive fields in a page and the entire set of fields is optional. The end-user can leave all the fields blank or enter a value in one of the fields only.

A blank character field, or a zero numeric value in a required numeric field is considered a null value.

Related Functions

All	Checks to see if a field contains a value, or if all the fields in a list of fields contain values. If any of the fields is Null, then All returns False.
None	Checks that a field or list of fields have no value. None is the opposite of All.
AllOrNone	Checks if either all the field parameters have values, or none of them have values. Use this in cases where if an end-user fills in one field, she must fill in all the other related values.
OnlyOne	Checks if exactly one field in the set has a value. Use this when the end-user must fill in only one of a set of mutually exclusive fields.

Example

You typically use OnlyOneOrNone as follows:

```
If OnlyOneOrNone(param_one, param_two)
   Then value_a = "y";
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," All, page 44, Chapter 1, "PeopleCode Built-in Functions," AllOrNone, page 45, Chapter 1, "PeopleCode Built-in Functions," None, page 377 and Chapter 1, "PeopleCode Built-in Functions," OnlyOne, page 389.

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PanelGroupChanged

Syntax

PanelGroupChanged()

Description

Use the PanelGroupChanged function to determine whether a component has changed since the last save, whether by the user or by PeopleCode.

Note. The PanelGroupChanged function is supported for compatibility with previous releases of PeopleTools. New applications should use the ComponentChanged function instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," ComponentChanged, page 81

PingNode

Syntax

PingNode(*MsgNodeName*)

Description

Use the PingNode function to ping the specified node. It returns an XmlDoc object that you must go through to find the status of the node.

Parameters

Parameter	Description
MsgNodeName	Specify the name of the message node you want to ping, as a string.

Returns

An XmlDoc object. The node in the XmlDoc object with the name of **status** contains information about the node you pinged.

Example

```
Local XmlDoc &ErrorInfo;

&ErrorInfo = PingNode("TESTNODENAME");
   &Root = &ErrorInfo.DocumentElement;
   &MsgNodeArray = &Root.GetElementsByTagName("msgnode");
   For &M = 1 To &MsgNodeArray.Len
      &MsgNode = &MsgNodeArray [&M];
      &MsgText = &MsgNode.FindNode("status").NodeValue;
      If &MsgText <> "Success (117,73)" Then
         Error ("Web Server not available for web service");
      End-If;
   End-For;
```

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Managing Messages"

PriorEffDt

Syntax

PriorEffDt(*field*)

Description

Use the PriorEffDt function to return the value of the specified field from the record with the prior effective date. This function is valid only for effective-dated records.

If the record contains an effective sequence number field, the value of this field is compared along with the effective-date field when the prior effective date/effective record sequence is determined. Therefore, if there is an effective-sequence number, it's possible that the effective-date field will be the same as the current record, but the sequence number would be earlier.

If a prior record does not exist, the statement is skipped. If the PriorEffDt function is not a top-level statement, that is, if it's contained with a compound statement or a loop, the statement is skipped and execution begins with the next top-level statement.

In the following example, execution skips to the top If statement:

```
If ACTION <> "REH" Then  /* skip to here if PriorEffdt fails to find prior record⇒
 */
   If    STD_HOURS <> PriorEffdt(STD_HOURS) And
         Day(EFFDT) <> 1 Then
      Error MsgGet(30000, 8, "Meldung nicht vorhanden - WAZ bzw.⇒
 Beschäftigungsgradänderungen sind nur zum ersten eines Monats zulässig.")
   End-If;
End-If;
/* if PriorEffdt fails, run to here directly */
```

Example

```
If CURRENCY_CD = PriorEffdt(CURRENCY_CD) Then
      Evaluate ACTION
      When = "PAY"
         If ANNUAL_RT = PriorEffdt(ANNUAL_RT) Then
            Warning MsgGet(1000, 27, "Pay Rate Change action is chosen and Pay⇒
 Rate has not been changed.");
         End-if;
         Break;
      When = "DEM"
         If ANNUAL_RT >= PriorEffdt(ANNUAL_RT) Then
```

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```
            Warning MsgGet(1000, 29, "Demotion Action is chosen and Pay Rate has⇒
not been decreased.");
        end-if;
     When-other
     End-evaluate;
     WinMessage("This message appears after executing either of the BREAK⇒
statements or after all WHEN statements are false");
  End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," NextEffDt, page 373, Chapter 1, "PeopleCode Built-in Functions," NextRelEffDt, page 374 and Chapter 1, "PeopleCode Built-in Functions," PriorRelEffDt, page 393.

PriorRelEffDt

Syntax

PriorRelEffDt(*search_field, fetch_field*)

Description

Use the PriorRelEffDt function to locate the prior occurrence of the *search_field* with the prior effective date (and effective-sequence number if specified), then return the value of the specified *fetch_field* corresponding to the *search_field*. The return value is an Any data type. Typically, this function is used to retrieve values for related display fields.

This function is valid only for effective-dated records.

If a prior record does not exist, then the statement is skipped. If the PriorRelEffDt function isn't a top-level statement, that is, if it's contained within a compound statement or a loop, the statement is skipped and execution restarts with the *next* top-level statement.

See Also

Chapter 1, "PeopleCode Built-in Functions," NextEffDt, page 373, Chapter 1, "PeopleCode Built-in Functions," NextRelEffDt, page 374 and Chapter 1, "PeopleCode Built-in Functions," PriorEffDt, page 392.

PriorValue

Syntax

PriorValue(*fieldname*)

Description

Use the PriorValue function in FieldEdit and FieldChange PeopleCode to obtain the prior value of a buffer field that the user just changed. It returns the value that was in the buffer field before the user changed it, *not* the value of the field the last time the component was saved.

PriorValue gives correct results only in FieldEdit and FieldChange PeopleCode, and only for the buffer field where the function is executing. If you pass another field name to the function, it returns the current value of the buffer field, not the prior value.

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Parameters

Parameter	Description
fieldname	The name of the record field. For correct results, this must be the name of the field where the call to PriorValue executes.

Returns

Returns an Any value equal to the value that was in the current buffer field immediately prior to the last edit.

Example

The following example from FieldChange PeopleCode gets the prior value of a field:

```
&PRIOR = PriorValue(QUANTITY);
DERIVED_TEST.TOTAL_AMT = (DERIVED_TEST.TOTAL_AMT  -  &PRIOR) + QUANTITY;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CurrentRowNumber, page 133

Product

Syntax

Product(*numlist*)

where *numlist* is an arbitrary-length list of numbers in the form
n1 [, *n2*]. . .

Description

Use the Product function to multiply all the numbers in *numlist* and returns the product as a Number data type. The numbers in the list can be any number expressed as a number, variable, or expression.

Returns

Returns a Number value equal to the product of the numbers in *numlist*.

Example

The example sets &N2 to 96:

```
&N2 = Product(4,80,0.3);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Fact, page 203

Prompt

Syntax

Prompt(*title*, *heading*, {*fieldlist* | *&Record*})

where *fieldlist* is an arbitrary-length list of fields in the form:
field1 [, *label1* [, *tempvar1*]] [, *field2* [, *label2* [, *tempvar2*]]]...

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Note that the *label* parameter is required before the temporary variable.

Description

Use the Prompt function to display a page prompting the user to insert values into one or more text boxes. If the user cancels the page, any entered values are discarded and the function returns False. When the prompt page is displayed, the text boxes are initially filled with default values from the fields in *fieldlist*. The user can change the values in the text boxes, then if the user clicks OK, the values are placed either into the buffer for the appropriate field, or into a temporary variable, if a *tempvar* for that field is provided in the function call.

Prompt can also take a record object. This is primarily used with the Query classes, when running a query, to prompt the end-user for the prompt values of a query.

Prompt is a think-time function, and as such cannot be used during the PeopleCode attached to the following events:

- SavePreChange
- Workflow
- RowSelect
- SavePostChange
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

Prompt should also not be called in any PeopleCode event that fires as a result of a ScrollSelect or its relatives, or a Select Rowset class method or its relatives.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Using Methods and Built-In Functions," Think-Time Functions

Parameters

Parameter	Description
title	Used as the title for the page.
heading	Displayed in the page above the fields. If a zero-length string ("") is passed, the heading line is omitted in the page.
fieldlist | *&Record*	A list of one or more fields; each field in the list consists of a [*recordname*.]*fieldname* followed by an optional label and an optional temporary variable for storing the input value. The label parameter is required if you supply the temporary variable parameter. Instead of a list of fields, you can also specify an already instantiated and populated record object.
field	The name of the field being prompted for, the form [*recordname*.]*fieldname*.
label	Optional label for the prompted field. If this parameter is omitted, the field RFT Long value is used. This parameter is required before the *tempvar* parameter.
tempvar	Optional temporary variable to receive the user-entered value. If this parameter is omitted, the value is placed into the buffer for the field specified. Using a temp variable enables the PeopleCode program to inspect and process the entered value without affecting the buffer contents.

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Returns

Optionally returns a Boolean value:

- False if the user clicks the Cancel button.
- True if the user clicks the OK button.

Example

The following example prompts for a single field, using calls to the MsgGetText function to retrieve values for the window title and prompt, and places the result into FISCAL_YEAR field:

```
Prompt(MsgGetText(5000, 182, " "), MsgGetText(5000, 184, " "), FISCAL_YEAR);
```

To following example places the results of the prompt into a temporary variable:

```
Prompt("Change Voucher", "", VOUCHER_ID, "Change Voucher ID to", &NEW_VOUCHER_ID);
```

The following code is in the USA push button FieldChange PeopleCode, and calls for the single field as shown in the page.

```
When = PAGE.PERSONAL_DATA1
        /* Administer Global Personnel - USA Flag Btn on PERSONAL_DATA1 Page */
         Prompt("US Social Security Number", "", PERSONAL_DATA.SSN);
         Break;
```

Proper

Syntax

Proper(*string*)

Description

Use the Proper function to capitalize the first letter in a text *string* and any other letters in a text *string* that follow any character other than another letter. It also converts all other letters in a text *string* to lowercase. Punctuation and other characters that have no case sensitivity are not changed.

Returns

Returns a String value with the first character of each word capitalized.

Example

The example sets the value of &BADKD to "K. D. Lang".

```
&BADKD = Proper("k.  d.  LANG")
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Lower, page 357 and Chapter 1, “PeopleCode Built-in Functions,” Upper, page 542.

PublishXmlDoc

Syntax

PublishXmlDoc(*&XmlDoc*, **Message.***MessageName* [, **Node.***NodeName*])

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Description

Use the PublishXmlDoc function to send an asynchronous message that is based on an XmlDoc object.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class Publish method instead.

The XmlDoc object must already be instantiated and populated. The message included in the function call should be an *unstructured* message, that is, one that isn't based on a hierarchical record structure.

If you want to retrieve an XmlDoc message that was sent asynchronously, use the GetMessageXmlDoc built-in function.

If you want to handle an XmlDoc as a Message object, you need to define a Message object with a hierarchical structure and migrate the data in the XmlDoc object into the Message object.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," Publish

Parameters

Parameter	Description
&XmlDoc	Specify an already instantiated and populated XmlDoc object that you want to send as an asynchronous message.
MessageName	Specify an already existing nonrowset-based message, prefaced with the reserved word **Message**.
NodeName	Specify a node. This is for Sender Specified Routing (SSR), prefixed with the reserved word **Node**. The node defines the target for the published message.

Returns

A Boolean value: True if the message was successfully published, False otherwise.

Example

```
Local XmlDoc &MyDoc;
. . .
PublishXmlDoc(&MyDoc, Message.MyXmlMessage, Node.MyNode);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetMessageXmlDoc, page 283 and Chapter 1, "PeopleCode Built-in Functions," SyncRequestXmlDoc, page 501.

PutAttachment

Syntax

PutAttachment(*URLDestination*, *SysFileName*, *LocalFile* [, *LocalDirEnvVar* [, *PreserveCase*]])

where *URLDestination* can have *one* of the following forms:

URL.*URLname*

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OR a string URL, such as
`ftp://user:password@ftp.ps.com/`

Note. You cannot specify a different port for an attachment when using an FTP server. You can only use the default port of 21.

Note. The file attachment functionality does not support SFTP or FTPS.

Description

Use the PutAttachment function to transfer a file from the application sever to the file server.

Note. If the specified subdirectories don't exist this function tries to create them.

File Name Considerations

When the file is transferred, the following characters are replaced with an underscore:

- space
- semicolon
- plus sign
- percent sign
- ampersand
- apostrophe
- exclamation point
- pound sign
- dollar sign

Note. The @ sign is *not* changed to an underscore on files transferred with this function.

User Filenames for PutAttachment

If a user attaches a file through the browser dialog box generated by AddAttachment, the filename is converted *before* that filename is returned to the AddAttachment call for storage.

For example, "My Resume.doc" is returned through the AddAttachment parameter as "My_Resume.doc", with the space changed to an underscore.

No comparable mapping occurs for user filenames with PutAttachment, which requires the user filename as an input parameter, rather than an output parameter that is returned to the user.

Instead, before storing the ATTACHUSERFILE value, code similar to this should be invoked:

```
&ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, " ", "_");
 &ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, ";", "_");
 &ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "+", "_");
 &ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "%", "_");
 &ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "&", "_");
 &ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "'", "_");
```

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```
&ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "!", "_");
&ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "@", "_");
&ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "#", "_");
&ATTACHUSERFILE = Substitute(&ATTACHUSERFILE, "$", "_");
```

File System Considerations

If you are uncertain which type of file system the file is going to transferred to, either a Unix or Windows system, you should use the last parameter (*LocalDirEnvVar*) and not specify a path to the file.

The following code example works for Windows systems, but *not* Unix systems:

```
PutAttachment(FTPINFO, TARGETFILENAME, "c:\temp\resume.doc");
```

The following code example works for Unix systems, but *not* Windows systems:

```
PutAttachment(FTPINFO, TARGETFILENAME, "/tmp/resume.doc");
```

The following two examples work for *both* Windows and Unix systems:

```
PutAttachment(FTPINFO, TARGETFILENAME, "resume.doc", "TMP");
PutAttachment(FTPINFO, TARGETFILENAME, "resume.doc", "PS_HOME");
```

Parameters

Parameter	Description
URLDestination	A reference to a URL. This can be either a URL name, in the form **URL**.*URLName*, or a string. This is where the file is transferred to.
SysFileName	The relative path and filename of the file on the file server. This is appended to *URLDestination* to make up the full URL where the file is transferred to. This parameter takes a string value. **Note.** The *URLDestination* requires "/" slashes. Because *SysFileName* is appended to the URL, it also requires only "/" slashes. "\" are *not* supported for either the *URLDestination* or the *SysFileName* parameter.
LocalFile	The name, and possible full path, to the destination file on the application server. This is where the file is transferred from. This parameter takes a string value. If you only specify a file name, the file is assumed to be in the directory specified by the **TMP** environment variable or the directory specified by *LocalDirEnvVar*. If the file is *not* in the **TMP** directory and you don't specify *LocalDirEnvVar* you must use the full path name as appropriate to the operating system (that is, on Unix use "\"). **Note.** You cannot specify a file name greater than 64 characters.
LocalDirEnvVar	The name of an environment variable containing path information. If specified, the path value in the environment variable is prepended to *LocalFile*. Use this if you don't want to hardcode path names in the *LocalFile* parameter. This parameter takes a string value. **Note.** Only operating system environment variables are recognized with this parameter, rather than variables defined in configuration files.
PreserveCase	Specify a Boolean value to indicate whether the case of the directory and file name specified with *DirAndFileName* are preserved or not; true, preserve the case, false, convert the filename extension to all lower case letters. The default value is false.

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Returns

An integer value or a constant:

Numeric Value	Constant Value	Description
0	%Attachment_Success	File was transferred successfully.
1	%Attachment_Failed	File was not successfully transferred.
3	%Attachment_FileTransferFailed	File was not successfully transferred.
4	%Attachment_NoDiskSpaceAppServ	Transfer failed because no space was available on the application server.
5	%Attachment_NoDiskSpaceWebServ	Transfer failed because no space was available on the web server.
6	%Attachment_FileExceedsMaxSize	Transfer failed because the file was too large for the database platform. Check your database platform specifications.
7	%Attachment_DestSystNotFound	Transfer failed because the destination system wasn't found. Check the *URLDestination* parameter.
8	%Attachment_DestSysFailedLogin	Transfer failed because the system couldn't connect to the destination system specified with *URLDestination*.
9	%Attachment_FileNotFound	Transfer failed because the *LocalFile* couldn't be found.
10	%Attachment_DeleteFailed	Transfer failed because the file couldn't be deleted from application server.
11	%Attachment_NoFileName	Attachment failed because no file name specified.

Example

The following transfers the file "resume.txt" from the application server to the file server.

```
PutAttachment("ftp://anonymous:hobbit1@ftp.ps.com/HRarchive/", "NewHire⇒
/11042000resume.txt", " "C:\NewHires\resume.txt".");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddAttachment, page 32, Chapter 1, "PeopleCode Built-in Functions," DeleteAttachment, page 151, Chapter 1, "PeopleCode Built-in Functions," GetAttachment, page 261 and Chapter 1, "PeopleCode Built-in Functions," ViewAttachment, page 544.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding File Attachments and PeopleCode," Using File Attachments in Applications

Quote

Syntax

Quote(*String*)

Description

Use the Quote function to enclose a string in single quotation marks. This function also can be used to put quotation marks around SQL statements.

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Parameters

Parameter	Description
String	Specify the string you want to enclose in single quotation marks.

Returns

The string specified by *String* enclosed in single quotation marks.

Example

The following code returns 'Bob':

```
&QuotedString = Quote("Bob");
```

The following code returns 'Bob''s' (two single quotes to represent the apostrophe)

```
&QuotedString = Quote("Bob's");
```

The following code returns '%'' OR USER ID LIKE ''%':

```
&QuotedString = Quote("%' OR USERID LIKE '%");
```

Radians

Syntax

Radians(*angle*)

Description

Use the Radians function to convert the given angle from degree measurement to radian measurement.

Parameters

Parameter	Description
angle	The size of an angle in degrees.

Returns

The size of the given angle in radians.

Example

The following example returns the equivalent size in radians of an angle measuring 65.5 degrees:

```
&RADIAN_SIZE = Radians(65.5);
```

The following example returns the value of **pi**, that is, 180 degrees expressed as radians:

```
&PI = Radians(180);
```

Note. This example represents **pi** with a high degree of accuracy, but no computer system can represent irrational numbers exactly. Thus, the results of extended calculations based on **pi** have the potential for a cumulative reduction in precision.

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See Also

Chapter 1, "PeopleCode Built-in Functions," Acos, page 31, Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Atan, page 49, Chapter 1, "PeopleCode Built-in Functions," Cos, page 104, Chapter 1, "PeopleCode Built-in Functions," Cot, page 105, Chapter 1, "PeopleCode Built-in Functions," Degrees, page 150, Chapter 1, "PeopleCode Built-in Functions," Sin, page 484 and Chapter 1, "PeopleCode Built-in Functions," Tan, page 502.

Rand

Syntax

```
Rand( )
```

Description

Use the Rand function to generate a random number greater than or equal to 0 and less than 1. To generate a random integer that is greater than or equal to 0 but less than *x*, use `Int(Rand()*x)`.

Returns

Returns a random Number value greater than or equal to 0 and less than 1.

Example

The example sets &RANDOM_NUM to a random value less than 100.

```
&RANDOM_NUM = Int(Rand( )*100)
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Int, page 336

RecordChanged

Syntax

The syntax of the RecordChanged function varies, depending on whether you use a scroll path reference or a contextual reference to designate the row being tested.

Using a scroll path reference, the syntax is:

```
RecordChanged(scrollpath, target_row)
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_row,]]
RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Using a contextual reference the syntax is:

```
RecordChanged(RECORD.target_recname)
```

A contextual reference specifies the current row on the scroll level designated by **RECORD.** *target_recname.*

An older construction, in which a record field expression is passed, is also supported. The record field is any field in the row where the PeopleCode program is executing (typically the one on which the program is executing).

```
RecordChanged(recordname.fieldname)
```

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Description

Use the RecordChanged function to determine whether the data in a specific row has been modified since it was retrieved from the database either by the user or by a PeopleCode program.

Note. This function remains for backward compatibility only. Use the IsChanged record class property instead.

This is useful during save processing for making updates conditional on whether rows have changed.

Note. The word "record" is used in this function name in a misleading way. Remember that this function (like the related functions RecordDeleted and RecordNew) checks the state of a row, not a record.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Record Class," IsChanged and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Row Class," DeleteEnabled.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Understanding Current Context

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
RECORD *.target_recname*	The primary scroll record of the scroll level where the row being referenced is located. As an alternative, you can use **SCROLL.** *scrollname.*

Returns

Returns a Boolean value:

- True if any data in the target row has been changed.
- False if no data in the target row has been changed.

Example

This example shows a **RecordChanged** call using a contextual reference:

```
If RecordChanged(RECORD.BUS_EXPENSE_DTL) Then
   WinMessage("Changed row msg from current row.", 64);
End-If;
```

The following example, which would execute on level one, checks rows on level two to determine which have been changed:

```
For &I = 1 To ActiveRowCount(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(1),⇒
 RECORD.BUS_EXPENSE_DTL);
   If RecordChanged(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(1), RECORD.BUS_⇒
EXPENSE_DTL, &I) Then
```

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```
      WinMessage("Changed row message from level one.", 64);
   End-If;
End-For;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," FieldChanged, page 206, Chapter 1, "PeopleCode Built-in Functions," RecordDeleted, page 404 and Chapter 1, "PeopleCode Built-in Functions," RecordNew, page 406.

RecordDeleted

Syntax

The syntax of the RecordDeleted function varies, depending on whether you use a scroll path reference or a contextual reference to designate the row being tested.

Using a scroll path reference, the syntax is:

RecordDeleted(*scrollpath, target_row*)

where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]]
RECORD.*target_recname*

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Using a contextual reference the syntax is:

RecordDeleted(**RECORD.***target_recname*)

A contextual reference specifies the current row on the scroll level designated by **RECORD.** *target_recname.*

An older construction, in which a record field expression is passed, is also supported. The record field is any field in the row where the PeopleCode program is executing (typically the one on which the program is executing).

RecordDeleted(*recordname.fieldname*)

Description

Use the RecordDeleted function to verify if a row of data has been marked as deleted, either by an end-user row delete (F8) or by a call to DeleteRow.

Note. This function remains for backward compatibility only. Use the IsDeleted record class property instead.

RecordDeleted is useful during save processing to make processes conditional on whether a row has been deleted.

Deleted rows are not actually removed from the buffer until after the component has been successfully saved, so you can check for deleted rows all the way through SavePostChange PeopleCode.

RecordDeleted is not typically used in a loop, because it is easier to put it on the same scroll level as the rows being checked in SavePreChange or SavePostChange PeopleCode: these events execute PeopleCode on every row in the scroll, so no looping is necessary.

Note. To avoid confusion, note that this function (like the related functions RecordChanged and RecordNew) checks the state of a row, not a record.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Record Class," IsDeleted and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Row Class," IsDeleted.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Understanding Current Context

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
RECORD. *target_recname*	The primary scroll record of the scroll level where the row being referenced is located. As an alternative, you can use **SCROLL.** *scrollname*.

Returns

Returns a Boolean value:

- True if the target row has been deleted.
- False if the target row has not been deleted.

Example

This example shows a RecordDeleted call using a contextual reference

```
If RecordDeleted(RECORD.BUS_EXPENSE_DTL) Then
   WinMessage("Deleted row msg from current row.", 64);
End-If;
```

The following example, which would execute on level zero, checks rows on level one to determine which have been deleted:

```
For &I = 1 To TotalRowCount(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(1),⇒
 RECORD.BUS_EXPENSE_DTL);
   If RecordDeleted(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(1), RECORD.BUS_⇒
EXPENSE_DTL, &I) Then
      WinMessage("Deleted row message from level one.", 64);
   End-If;
End-For;
```

Note that the loop is delimited by TotalRowCount. For loops delimited by ActiveRowCount don't process deleted rows.

See Also

Chapter 1, "PeopleCode Built-in Functions," FieldChanged, page 206, Chapter 1, "PeopleCode Built-in Functions," RecordChanged, page 402, Chapter 1, "PeopleCode Built-in Functions," RecordNew, page 406, Chapter 1, "PeopleCode Built-in Functions," TotalRowCount, page 508 and Chapter 1, "PeopleCode Built-in Functions," ActiveRowCount, page 31.

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RecordNew

Syntax

The syntax of the RecordNew function varies, depending on whether you use a scroll path reference or a contextual reference to designate the row being tested.

Using a scroll path reference, the syntax is:

```
RecordNew(scrollpath, target_row)
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_row,]]
RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Using a contextual reference the syntax is:

```
RecordNew(RECORD.target_recname)
```

A contextual reference specifies the current row on the scroll level designated by **RECORD.** *target_recname.*

An older construction, in which a record field expression is passed, is also supported. The record field is any field in the row where the PeopleCode program is executing (typically the one on which the program is executing).

```
RecordNew(recordname.fieldname)
```

Description

Use the RecordNew function to check a specific row to determine whether it was added to the component buffer since the component was last saved.

Note. This function remains for backward compatibility only. Use the IsNew row class property instead.

This function is useful during save processing to make processes conditional on whether or not a row is new.

Note. To avoid confusion, remember that this function (like the related functions RecordChanged and RecordDeleted) checks the state of a row, not a record. In normal PeopleSoft usage, the word "record" denotes a table-level object (such as a table, view, or Derived/Work record).

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Row Class," IsNew

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Understanding Current Context

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Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
RECORD. *target_recname*	The primary scroll record of the scroll level where the row being referenced is located. As an alternative, you can use **SCROLL.** *scrollname.*

Returns

Returns a Boolean value:

- True if the target row is new.
- False if the target row is not new.

Example

This example shows a RecordNew call using a contextual reference:

```
If RecordNew(RECORD.BUS_EXPENSE_DTL) Then
   WinMessage("New row msg from current row.", 64);
End-If;
```

The following example, which would execute on level one, checks rows on level two to determine which have been added:

```
For &I = 1 To ActiveRowCount(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(1),⇒
 RECORD.BUS_EXPENSE_DTL);
   If RecordNew(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(1), RECORD.BUS_EXPENSE_⇒
DTL, &I) Then
      WinMessage("New row message from level one.", 64);
   End-If;
End-For;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," FieldChanged, page 206, Chapter 1, "PeopleCode Built-in Functions," RecordChanged, page 402 and Chapter 1, "PeopleCode Built-in Functions," RecordDeleted, page 404.

RefreshTree

Syntax

RefreshTree(**Record.***bound_recname*)

Description

Use the RefreshTree function to update a dynamic tree.

Note. Dynamic tree controls have been deprecated. Use the GenerateTree function or Tree Viewer.

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See Also

Chapter 1, "PeopleCode Built-in Functions," GenerateTree, page 253

Appendix A, "Viewing Trees From Application Pages," page 641

RelNodeTranDelete

Syntax

```
RelNodeTranDelete(RelationshipId , SrcTrxType, SrcNode, SrcRqstMsgName, SrcRqstMsgVer,
TgtNode, TgtRqstMsgName, TgtRqstMsgName, TgtRqstMsgVer);
```

Description

Use the RelNodeTranDelete function to delete a transaction modifier.

Parameters

Parameter	Description
RelationshipId	Specify the relationship ID as a string.
ScrTrxType	Specify the source transaction type as a string.
SrcNode	Specify the source node as a string.
ScrRqstMsgName	Specify the source request message name as a string.
ScrRqstMsgVer	Specify the source request message version as a string.
TgtNode	Specify the target node as a string.
TgtRqstMsgName	Specify the target request message name as a string.
TgtRqstMsgName	Specify the target message name as a string.
TgtRqstMsgVer	Specify the target request message version as a string.

Returns

A Boolean value, True if the function completed successfully, False otherwise.

Example

```
&ret = RelNodeTranDelete("QE_TEST", "CMS_TEST", "CMS_TEST_LOCAL", "OA", ⇒
 "ROLESYNCH_MSG",  "VERSION_1", "CMS_TEST_LOCAL2",   "ROLESYNCH_MSG2", ⇒
 "VERSION_1",);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," NodeTranDelete, page 377

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Managing Service Operations"

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RemoteCall

Syntax

```
RemoteCall(dispatcher_name [, service_paramlist] [, user_paramlist])
```

where *service_paramlist* and *user_paramlist* are arbitrary-length lists of parameters in the form:

```
var1, val1 [, var2, val2]. . .
```

Description

Use the RemoteCall function to call a Tuxedo service from a PeopleSoft application. A typical use of Remote Call is to run data-intensive, performance-sensitive programs near or on the database server.

Note. After PeopleTools 8 you can no longer use RemoteCall to start an Application Engine program. You must use CallAppEngine instead.

Because complex PeopleCode processes can now be run on the application server in three-tier mode, the RemoteCall PeopleCode function has more limited utility. However, RemoteCall can still be very useful, because it provides a way to take advantage of existing COBOL processes.

- In three-tier mode, RemoteCall always runs on the application server.
- In two-tier mode, RemoteCall always runs on the client.

This means that it is no longer necessary to set a location for the remote call in PeopleSoft Configuration Manager.

Each RemoteCall service can have zero or more standard parameters and any number of user parameters. The standard parameters are determined by the RemoteCall dispatcher, the user parameters by the COBOL program being run.

There is only one RemoteCall dispatcher delivered with PeopleTools 7, PSRCCBL, which executes a COBOL program using the connect information of the current end-user.

In the application server configuration file, you can specify where RemoteCall can find the COBOL executables

RemoteCall can be used from any type of PeopleCode except SavePostChange, SavePreChange, Workflow, and RowSelect. However, remote programs that change data should not be run as part of the SaveEdit process, because the remote program may complete successfully even though an error occurs in a later part of the save process. For remote programs that change data, the normal place for them would be in the FieldChange PeopleCode behind a command push button, or in a pop-up menu item.

After you use RemoteCall, you may want to refresh your page. The Refresh method, on a rowset object, reloads the rowset (scroll) using the current page keys. This causes the page to be redrawn. The following code refreshes the entire page:

```
GetLevel0().Refresh()
```

If you only want a particular scroll to be redrawn, you can refresh just that part.

See Also

Chapter 1, “PeopleCode Built-in Functions,” CallAppEngine, page 61
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, “Rowset Class,” Refresh
Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, “Setting Application Server Domain Parameters,” Remote Call Options

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Parameters

The parameters passed to RemoteCall can be broken into three parts: the RemoteCall *Dispatcher Name*, the standard *Parameter Lists* for the service, and the *User Parameter Lists* for the program being called on the service.

Dispatcher Name

The *dispatcher_name* parameter is a string value that specifies the type of RemoteCall performed. For PeopleTools 7 there is only one RemoteCall dispatcher delivered, PSRCCBL, which executes a COBOL program using the connect information of the current end-user, so the value you pass to this parameter should always be "PSRCCBL". Future versions of PeopleTools may provide support for Red Pepper, SQR, or customer supplied remote calls.

Parameter Lists

Both the standard parameter list and user parameter list have the same form. Think of the parameters passed to the service as being passed as pairs of variable names and values of input and output parameters:

```
variable_name, value
```

Where:

- *variable_name* is a string literal or string variable that contains the name of the input or output variable as referenced in the remote program. For example, if the remote program expects a variable named "USERNAME", then the PeopleCode should use "USERNAME" or &VARIABLE (which had been assigned the value "USERNAME").
- For input variables, *value* is the value to be passed to the remote program with the variable name. It can be either a variable or literal with a data type that corresponds to the *variable_name* variable. For output variables, *value* is the value returned to the PeopleCode program from the remote program. It must be a variable in this case, representing the buffer into which the value is returned.

An arbitrary number of parameters can be passed to the service. There is, however, a limitation on the number of variables that can be passed in PeopleCode, which is limited by the size of the PeopleCode parameter stack, currently 128.

In the case of the PSRCCBL dispatcher, there are three standard parameters, listed in the following table:

Dispatcher	Parameter	Required	Description
PSRCCBL	PSCOBOLPROG	Y	Name of the COBOL program to run.
PSRCCBL	PSRUNCTL	N	Run-control parameter to pass to the COBOL program.
PSRCCBL	INSTANCE	N	Process instance parameter to pass to the COBOL program.

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User Parameter List

For PSRCCBL, the remote COBOL program must match the user parameters to the usage of its application. The names of the parameters are sent to the server and can be used by the COBOL program. The COBOL program returns any modified (output) parameters by name. Parameters which are not returned are not modified, and any extra returned parameters (that is, parameters beyond the number passed or of different names) are discarded with no effect.

Returns

None.

Example

You could use the following PeopleCode to execute the program "CBLPROG1":

```
Rem Set the return code so we are sure it is sent back.
&Returncode = -1;
Rem Set the parameters that will be sent across.
&param1 = "John";
&param2 = "Smith";
Rem Set the standard parameters that indicate program name and run-control.
&RemoteCobolPgm = "CBLPROG1";
/* call the remote function */
RemoteCall ("PSRCCBL",
"PSCOBOLPROG", &RemoteCobolPgm,
"PSRUNCTL", workrec.runctl,
"FirstName", &param1,
"LastName", &param2,
"Returncode", &Returncode,
"MessageSet", &msgset,
"MessageID", &msgid,
"MessageText1", &msgtext1,
"MessageText2", &msgtext2);
if &Returncode <> 0
   WinMessage(MsgGet(&msgset, &msgid, "default message", &msgtext1, &msgtext2));
end-if;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Exec, page 195 and Chapter 1, “PeopleCode Built-in Functions,” WinExec, page 554.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer’s Guide, “Using Methods and Built-In Functions,” Using the RemoteCall Feature

RemoveDirectory

Syntax

RemoveDirectory(*path* [, *remove_parameters*])

where *remove_parameters* can be in the form:

path_type [+ *directory_type*]

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Description

Use the RemoveDirectory function to remove the directory specified by *path*. You can also specify whether to remove just the directory, or to delete the directory and all subdirectories, including any files, that is, to remove the entire directory tree.

Working With Relative Paths

If you specify a relative path, that path is appended to the path specified by an environmental variable, if the variable exists, in a particular order. This means if the first environmental variable in order is found, that is the one that's used. If it isn't found, the next one is searched for, and if found, is used, and so on.

The environmental variables that are used are different, depending on whether the machine where the code is running is an application server. If the code is running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]

If the code is *not* running on an application server, the following environmental variables are valid, and are searched for in the following order:

1. PS_FILEDIR[\relative_path]
2. PS_SERVDIR\Files[\relative_path]
3. TEMP[\relative_path]

The PS_FILEDIR environmental variable is *not* initialized and set to a path automatically. If you want to use this environmental variable, you must set it yourself.

Note. Your system security should verify if a user has the correct permissions before allowing access to a drive (for example, if a user changes their **TEMP** environmental variable to a network drive they don't normally have access to, your system security should detect this.)

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Parameters

Parameter	Description
path	Specify the directory to be removed.
remove_parameters	Specify additional considerations about the directory to be removed. Specify whether the path is an absolute or relative path. Values are: • %FilePath_Relative (default) • %FilePath_Absolute If you don't specify *pathtype* the default is %FilePath_Relative. If the path is an absolute path, whatever path you specify is used verbatim. You must specify a drive letter as well as the complete path. You can't use any wildcards when specifying a path. The Component Processor automatically converts platform-specific separator characters to the appropriate form for where your PeopleCode program is executing. On a WIN32 system, UNIX "/" separators are converted to "\", and on a UNIX system, WIN32 "\" separators are converted to "/". Specify whether to remove only the specified directory or to remove the directory and all its subdirectories. The default is to just remove the specified directory. The valid values are: • %Remove_Subtree • %Remove_Directory (default)

Returns

None.

Example

The following example is for an NT operating system:

```
RemoveDirectory("C:\temp\mydir\temp", %filepath_absolute + %remove_subtree);
```

The following example is for a UNIX operating system:

```
RemoveDirectory("/temp/mydir/temp", %filepath_absolute + %remove_subtree);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateDirectory, page 110, Chapter 1, "PeopleCode Built-in Functions," DeleteAttachment, page 151, Chapter 1, "PeopleCode Built-in Functions," FileExists, page 208 and Chapter 1, "PeopleCode Built-in Functions," FindFiles, page 212.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "File Class"

RenameDBField

Syntax

```
RenameDBField(Field.NewFieldName, Field.OldFieldName [, FixRefsOnly])
```

Description

Use the RenameDBField function to modify a field definition to have a new name. This function also cleans up most references, such as in PeopleCode programs and on records so they now use the new name.

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Note. Because using this function changes records that are used to build application tables, you must rebuild (alter) the specified project before these changes can be used.

Considerations Using this Function

In SQL associated with records of type view, the field name is *not* changed. You must fix those by hand.

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

This operation is time consuming.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
NewFieldName	Specify the new field name to be used. This name must be prefixed by the reserved word **Field**.
OldFieldName	Specify the name of the field to be changed. This name must be prefixed by the reserved word **Field**.
FixRefsOnly	Specify to rename all references of *OldFieldName* to *NewFieldName* whether or not *NewFieldName* exists or not. This paramter takes a Boolean value. The default value is False. For example, suppose a company renames a field PROJECT to MYPROJECT. Then they receive a patch which has records, pages, code, and so on that references Field.PROJECT. In this case you could set this parameter to True, rename MYPROJECT to PROJECT, and have all the references to the field PROJECT redirect to the field MYPROJECT even if *neither field exists* in the database, nor if only one exists. **Note.** Using this parameter is a completely freeform path to renaming references. Be aware that the system won't work if pages and records are not eventually pointing to a valid field.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.
%MDA_FieldNotFound	The field specified by *OldFieldName* wasn't found in the specified project or page list.
%MDA_Duplicate	The field specified by *NewFieldName* already exists.

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Example

```
&ret = RenameDBField(Field.OrgId, Field.DeptId, True);
If (&ret = %MDA_Success) Then
    MessageBox(0, "Metadata Fn Status", 0, 0, "RenameDBField succeeded");
Else
    MessageBox(0, "Metadata Fn Status", 0, 0, "RenameDBField failed");
End-If;
```

The following example de-references the field name for the function.

```
&oldcf = "CF1";
&newcf = "XYZ_STORE_ID";
&new = "FIELD." | &newcf;
&old = "FIELD." | &oldcf;
&ret = RenameDBField(@(&new), @(&old));
If (&ret = 0) Then
   MessageBox(0, "RenameDBField", 0, 0, "Succeeded");
Else
   MessageBox(0, "RenameDBField", 0, 0, "Failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RenamePage, page 415 and Chapter 1, "PeopleCode Built-in Functions," RenameRecord, page 416.

RenamePage

Syntax

RenamePage(**Page.***NewPageName*, **Page.***OldPageName*)

Description

Use the RenamePage function to modify a page definition to have a new name. This function also cleans up most references so they now use the new name.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

This operation is time consuming

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

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Parameters

Parameter	Description
NewPageName	Specify the new page name to be used. This name must be prefixed by the reserved word **Page**.
OldPageName	Specify the name of the page to be changed. This name must be prefixed by the reserved word **Page**.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.
%MDA_PageNotFound	The page specified with *OldPageName* wasn't found.

Example

```
&ret =  RenamePage(PAGE.OrgIdTbl, PAGE.DeptIdTbl);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "RenamePage succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "RenamePage failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RenameDBField, page 413 and Chapter 1, "PeopleCode Built-in Functions," RenameRecord, page 416.

RenameRecord

Syntax

RenameRecord(**Record.***NewRecordName*, **Record.***OldRecordName*)

Description

Use the RenameRecord function to modify a record definition to have a name. This function also cleans up most references so they now use the new name.

Note. Because using this function changes records that are used to build application tables, you must rebuild (alter) the specified project before these changes can be used.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

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This operation is time consuming.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
NewRecordName	Specify the new record name to be used. This name must be prefixed by the reserved word **Record**.
OldRecordName	Specify the name of the record to be changed. This name must be prefixed by the reserved word **Record**.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.
%MDA_RecordNotFound	The record specified with *OldRecordName* wasn't found.

Example

```
&ret = RenameRecord(RECORD.OrgIdTbl, RECORD.DeptIdTbl);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "RenameRecord succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "RenameRecord failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RenameDBField, page 413 and Chapter 1, "PeopleCode Built-in Functions," RenamePage, page 415.

Repeat

Syntax

```
Repeat
  statement_list
Until logical_expression
```

Description

Use the Repeat loop to cause the statements in *statement_list* to be repeated until *logical_expression* is True. Any kind of statements are allowed in the loop, including other loops. A Break statement inside the loop causes execution to continue with whatever follows the end of the loop. If the Break is in a nested loop, the Break does not apply to the outside loop.

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Example

The following example repeats a sequence of statements until a complex Boolean condition is True:

```
Repeat
      &J = &J + 1;
      &ITEM = FetchValue(LOT_CONTROL_INV.INV_ITEM_ID, &J);
      &LOT = FetchValue(LOT_CONTROL_INV.INV_LOT_ID, &J);
Until (&ITEM = &INV_ITEM_ID And
      &LOT = &INV_LOT_ID) Or
      &J = &NUM_LOT_ROWS;
```

Replace

Syntax

Replace(*oldtext*, *start*, *num_chars*, *newtext*)

Description

Use the Replace function to replace a specified number of characters in a string.

Parameters

Parameter	Description
oldtext	A String value, part of which is to be replaced.
start	A Number designating the position in *oldtext* from which to start replacing characters.
num_chars	A Number, specifying how many characters to replace in *oldtext*.
newtext	A String value that replaces *num_chars* characters.

Returns

Returns a String value in which specific characters in *oldtext* are replaced with *newtext*.

Example

After the following statement &NEWDATESTR equals "1997":

```
&NEWDATESTR = Replace("1996",3,2,"97");
```

If this example, where the number of characters in *newtext* is less than *num_chars*, &SHORTER equals "txtx":

```
&SHORTER = Replace("txt123",4,3,"x");
```

In this example, where the number of characters in *newtext* is greater than *num_chars*, &LONGER equals "txtxxxx":

```
&LONGER = Replace("txt123",4,3,"xxxx");
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” Substitute, page 498

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Rept

Syntax

```
Rept(str, reps)
```

Description

Use the Rept function to replicate a text string a specified number of times and combine the result into a single string.

Parameters

Parameter	Description
str	A String value to be replicated.
reps	A Number value specifying how many times to replicate *str*. If *reps* is 0, Rept returns an empty string. If *reps* is not a whole integer, it is truncated.

Returns

Returns a String value equal to *str* repeated *reps* times.

Example

This example sets &SOMESTARS to "**********".

```
&SOMESTARS = Rept("*",10);
```

ReSubmitPubHeaderXmlDoc

Syntax

```
ReSubmitPubHeaderXmlDoc(PubID, PubNode, ChannelName, VersionName)
```

Description

Use the ReSubmitPubHeaderXmlDoc function to programmatically resubmit a message instance, as the message instance existed before any transformations were performed, much the same as you can do in the message monitor. This function resubmits the corresponding publication contract header.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class Resubmit method instead.

You may want to use this method after an end-user has finished fixing any errors in the message data, and you want to resubmit the message, rerunning the PeopleCode.

The function is only available when the XML message has one of the following statuses:

- Error
- Timeout
- Edited
- Canceled

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," Resubmit

Parameters

Parameter	Description
PubID	Specify the PubID as a number.
PubNode	Specify the Pub node as a string.
ChannelName	Specify the channel name as a string.
VersionName	Specify the version name as a string.

Returns

A Boolean value: True if function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubXmlDoc, page 420

ReSubmitPubXmlDoc

Syntax

```
ReSubmitPubXmlDoc(PubID, PubNode, ChannelName, VersionName,
MessageName, SubNode[, Segment])
```

Description

Use the ReSubmitPubXmlDoc function to programmatically resubmit a message, much the same as you can do in the message monitor.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class Resubmit method instead.

This is the message publication as it exists *after* any transformations have been preformed. This function resubmits the corresponding publication contract.

You may want to use this method after an end-user has finished fixing any errors in the message data, and you want to resubmit the message, rerunning the PeopleCode.

The function is only available when the message has one of the following statuses:

- Error
- Timeout
- Edited
- Canceled

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," Resubmit

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Parameters

Parameter	Description
PubID	Specify the PubID as a number.
PubNode	Specify the Pub node as a string.
ChannelName	Specify the channel name as a string.
VersionName	Specify the version name as a string.
MessageName	Specify the name of the message as a string.
SubNode	Specify the name of the sub node as a string.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A Boolean value: True if function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitSubXmlDoc, page 421 and Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubHeaderXmlDoc, page 419.

ReSubmitSubXmlDoc

Syntax

```
ReSubmitSubXmlDoc(PubID, PubNode, ChannelName, VersionName, MessageName,
SubscriptionName[, Segment])
```

Description

Use the ReSubmitSubXmlDoc function to programmatically resubmit a message, much the same as you can do in the message monitor. This function resubmits the corresponding subscription contract.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class Resubmit method instead.

You may want to use this method after an end-user has finished fixing any errors in the message data, and you want to resubmit the message, rerunning the subscription PeopleCode.

The function is only available when the message has one of the following statuses:

- Error
- Timeout
- Edited
- Canceled

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," Resubmit

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Parameters

Parameter	Description
PubID	Specify the PubID as a number.
PubNode	Specify the Pub node as a string.
ChannelName	Specify the channel name as a string.
VersionName	Specify the version name as a string.
MessageName	Specify the name of the message as a string.
SubscriptionName	Specify the name of the subscription as a string.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A Boolean value: True if function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubHeaderXmlDoc, page 419 and Chapter 1, "PeopleCode Built-in Functions," ReSubmitPubXmlDoc, page 420.

Return

Syntax

Return [*expression*]

Description

Use the Return function to return from the currently active function; the flow of execution continues from the point where the function was called. If the function returns a result, that is, if a return value is specified in the Returns clause of the function definition, *expression* specifies the value to pass back to the caller and must be included. If the function does not return a result, the *expression* is not allowed. If Return appears in a main program, it acts the same as the Exit function.

Example

In the example a Boolean return value is specified in the Returns clause of the Function statement. The Return statement returns a True or False value to the calling routine, based on the contents of &UPDATEOK.

```
function run_status_upd(&PROCESS_INSTANCE, &RUN_STATUS) returns Boolean;
   &UPDATEOK = SQLExec( )("update PS_PRCS_RQST set run_status = :1  where process_⇒
instance = :2", &RUN_STATUS, &PROCESS_INSTANCE);
   If &UPDATEOK Then
      Return True;
   Else
      Return False;
   End-if;
End-function;
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," Function, page 219 and Chapter 1, "PeopleCode Built-in Functions," Exit, page 199.

ReturnToServer

Syntax

```
ReturnToServer({TRUE | FALSE | &NODE_ARRAY, | &Message})
```

Description

Use the ReturnToServer function to return a value from a PeopleCode messaging program to the publication or subscription server.

Note. ReturnToServer is a special case of a built-in function that's no longer supported. The deprecated handler for OnRequest subscriptions cannot be upgraded. ReturnToServer can only be used in an OnRequest event fired using the deprecated handler. This means that ReturnToServer no longer works and is not valid in any case other than when the code has already been written and used in a deprecated handler.

You would use this in either your publication or subscription routing code, to either return an array of nodes that the message should be published to, or to do error processing (return False if entire message wasn't received.)

What is returned depends on where the PeopleCode program is called from.

From OnRoute Publication:

- TRUE: All nodes the message was published to are returned.
- FALSE: No nodes are returned (generally used with error checking).
- &NODE_ARRAY: The nodes specified in the array are returned.
- &Message: Return a response message. This must be an already instantiated message object.

Note. You can return XmlDoc objects as responses. Only homogeneous type transactions are supported, that is, you can only return an XmlDoc object as a response *if and only if* an XmlDoc object was used in the request. Similarly, you can only return a Message object if and only if a Message object was used in the request.

From OnRoute Subscription:

- TRUE: The subscription node is returned.
- FALSE: No node is returned. This is generally used with error checking.

Parameters

Parameter	Description
TRUE | **FALSE** |*&NODE_ARRAY* | *&Message*	Specify TRUE if you want publication nodes or the subscription node returned. Specify FALSE if you don't want any nodes returned, and nothing written to the database. This is generally used with error checking. Specify an object reference to an array of node names if you want to return a list of nodes to be published to. Specify a reference to a response message if you want to return a message.

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Returns

None.

Example

The following is an example of a publication routing rule, which would be in the OnRoutePublication. It is used to create publication contracts.

```
local message &MSG;
local array &NODE_ARRAY;
&MSG = GetMessage();
&EMPLID = &MSG.GetRowset()(1).QA_INVEST_HDR.EMPLID.Value;
&SELECT_SQL = CreateSQL("select PUBNODE from PS_EMPLID_NODE where EMPLID = :1",⇒
 &EMPLID);
&NODE_ARRAY = CreateArray();

While &SELECT_SQL.Fetch(&PUBNODE)
   &NODE_ARRAY.Push(&PUBNODE);
End-While;
ReturnToServer(&NODE_ARRAY);
```

The following is an example of a subscription routing rule, which would be placed in the OnRouteSubscribe event:

```
local message &MSG;
&MSG = GetMessage();
&BUSINESS_UNIT = &MSG.GetRowset()(1).PO_HDR.BUSINESS_UNIT.Value;
SQLExec("Select BUSINESS_UNIT From PS_BUSINESS_UNIT where BUSINESS_UNIT = :⇒
1",&BUSINESS_UNIT,&FOUND);
If all(&FOUND) Then
   ReturnToServer(True);
Else
   ReturnToServer(False);
End-if;
```

The following is a basic example of using an XmlDoc object:

```
Local XmlDoc &xmldoc;
. . .
/* build xmldoc */
. . .
ReturnToServer(&xmldoc);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Managing Messages"

ReValidateNRXmlDoc

Syntax

ReValidateNRXmlDoc(*NRID, EntityName*)

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Description

Use the ReValidateNRXmlDoc function to revalidate a non-repudiation XML message. After a document has been signed and validated, you can use this function to verify it was delivered or received by the system calling the function. This function is primarily used by the Message Monitor.

Parameters

Parameter	Description
NRID	Specify the non-repudiation ID for the XML message that you want to revalidate. This parameter takes a numeric value.
EntityName	Specify the name of the entity that signed the data, as a string. For Peoplesoft, this is the node name.

Returns

A Boolean value: True if message is revalidated, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," GetNRXmlDoc, page 291

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

RevalidatePassword

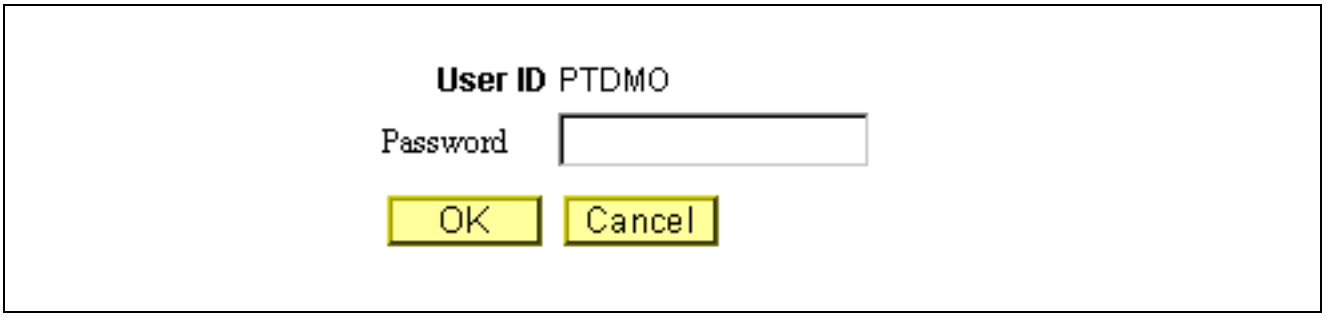
Syntax

```
RevalidatePassword()
```

Description

Use the Revalidate function to validate the current end-user password.

This function displays a window prompting the user for the same password that the user signed onto the database with.



Revalidate password

Restrictions on Use in PeopleCode Events

Control does not return to the line after RevalidatePassword until after the user has filled in a value or pressed ENTER. This interruption of processing makes RevalidatePassword a "think-time" function which means that it shouldn't be used in any of the following PeopleCode events:

- SavePreChange.

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- Workflow.
- RowSelect.
- SavePostChange.
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using Methods and Built-In Functions," Think-Time Functions.

Restrictions on Use in Signon PeopleCode

RevalidatePassword does *not* work in Signon PeopleCode. If you use this function in Signon PeopleCode, you create an infinite loop.

Returns

Returns a numeric value or a constant: you can check for either.

Value	Constant	Meaning
0	%RevalPW_Valid	Password Validated
1	%RevalPW_Failed	Password Validation Check Failed
2	%RevalPW_Cancelled	Password Validation Cancelled

Example

RevalidatePassword is commonly used in the SaveEdit PeopleCode to verify that the user entering the data is the same as the one who signed onto the database.

```
&TESTOP = RevalidatePassword();
Evaluate &TESTOP
/* Password does not match the current value */
When 1
   Error MsgGet(48, 18, "Message Not Found");
   Break;
End-Evaluate;
```

Right

Syntax

Right(*str* [, *num_chars*])

Description

Use the Right function to return a specified number of characters from the right side of a string. The function is useful if, for example, you want to get the last set of characters in a zip code or other fixed-length identification string. If the string contains Unicode non-BMP characters, each code unit of the surrogate pair is counted as a separate character and care should be taken not to split the surrogate pair.

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Parameters

Parameter	Description
str	A String value from which you want to get the rightmost characters.
num_chars	A Number value, greater than or equal to zero. If *num_chars* is omitted it is assumed to be equal to 1.

Returns

Returns a String value equal to the rightmost *num_chars* character(s) in *str*.

Example

If &ZIP is equal to "90210-4455", the following example sets &SUFFIX to "4455":

```
&SUFFIX = Right(&ZIP, 4)
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Left, page 352

Round

Syntax

Round(*dec*, *precision*)

Description

Use the Round function to round a decimal number to a specified precision.

Parameters

Parameter	Description
dec	A Number value to be rounded.
precision	A number value specifying the decimal precision to which to round *dec*.

Returns

Returns a Number value equal to *dec* rounded up to *precision* decimal places.

Example

The following examples set the value of &TMP to 2.2, 9, then 24.09:

```
&TMP = Round(2.15,1);
&TMP = Round(8.789,0);
&TMP = Round(24.09372,2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Int, page 336, Chapter 1, "PeopleCode Built-in Functions," Mod, page 368 and Chapter 1, "PeopleCode Built-in Functions," Truncate, page 531.

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RoundCurrency

Syntax

RoundCurrency(*amt, currency_cd, effdt*)

Description

Different currencies are represented at different decimal precessions. The RoundCurrency function is a rounding function that takes currency precision into account, using a value stored in the CURRENCY_CD_TBL PeopleTools table.

Parameters

Parameter	Description
amt	The amount to be rounded.
currency_cd	The currency code.
effdt	The effective date of currency rounding.

Returns

Returns a Number value equal to *amt* rounded to the currency precision for *currency_cd*.

Example

The following example rounds 12.567 to 12.57, using the appropriate currency precision for US Dollars ("USD"):

```
&RESULT = RoundCurrency(12.567, "USD", EFFDT);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Controlling Currency Display Format"

RowFlush

Syntax

RowFlush(*scrollpath, target_row*)

Where *scrollpath* is:

[**RECORD.***level1_recname, level1_row,*
[**RECORD.***level2_recname, level2_row,]*
RECORD.*target_recname*

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the RowFlush function to remove a specific row from a page scroll and from the component buffer.

Note. This function remains for backward compatibility only. Use the FlushRow rowset method instead.

Rows that are flushed are not deleted from the database.

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RowFlush is a specialized and rarely used function. In most situations, you will want to use DeleteRow to remove a row from the component buffer and remove it from the database as well when the component is saved.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," FlushRow

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number of the row to flush.

Returns

None.

Example

The following example flushes a row in a view from the component buffer:

```
RowFlush(RECORD.BNK_RCN_DTL_VW, &ROW1);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ScrollFlush, page 434 and Chapter 1, "PeopleCode Built-in Functions," DeleteRow, page 156.

RowScrollSelect

Syntax

```
RowScrollSelect(levelnum, scrollpath,
RECORD.sel_recname
[, sqlstr [, bindvars]]
[, turbo])
```

Where *scrollpath* is:

```
[RECORD.level1_recname, level1_row,
[RECORD.level2_recname, level2_row, ]
RECORD.target_recname
```

and where *bindvars* is an arbitrary-length list of bind variables in the form:

```
bindvar1 [, bindvar2]. . .
```

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

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Description

The RowScrollSelect is similar to ScrollSelect except that it reads data from the select record into a scroll under a specific parent row, rather than automatically distributing the selected rows under the correct parent rows throughout the buffer.

Note. This function remains for backward compatibility only. Use the Select rowset method instead.

You must use the WHERE clause in the SQL string to ensure that only rows that match the parent row are read into the scroll from the select record. Otherwise, all rows are read in under the specified parent row.

See Also

Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," Select.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
levelnum	Specifies the scroll level of the scroll area into which selected rows will be read. It can be 1, 2, or 3.
scrollpath	A construction that specifies a scroll level in the component buffer.
RECORD. *sel_recname*	Specifies the select record. The *selname* record must be defined in PeopleSoft Application Designer and SQL created as a table or a view, unless *sel_recname* and *target_recname* are the same. The *sel_recname* record can contain fewer fields than *target_recname*, although it must contain any key fields to maintain dependencies page records. This enables you to limit the amount of data read into the component buffers.
sqlstr	Contains a WHERE clause to restrict the rows selected from *sel_recname* and/or an ORDER BY clause to sort the rows. The WHERE clause may contain the PeopleSoft SQL platform functions that are used for SQLExec processing, such as %DateIn or %Substring.
bindvars	A list of bind variables to be substituted in the WHERE clause.
turbo	Setting this Boolean parameter to True turns on Turbo ScrollSelect.

Returns

The number of rows read (optional.) This counts only lines read into the specified scroll. It does not include any additional rows read into autoselect child scrolls of the scroll.

Example

Here is an example of RowScrollSelect using bind variables:

```
If All(QTY_PICKED) Then
   &LEVEL1ROW = CurrentRowNumber(1);
   &LEVEL2ROW = CurrentRowNumber(2);
```

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```
   &ORDER_INT_LINE_NO = FetchValue(RECORD.SHIP_SUM_INV_VW, &LEVEL1ROW, ORDER_INT_⇒
LINE_NO, &LEVEL2ROW);
   &INV_ITEM_ID = FetchValue(RECORD.SHIP_SUM_INV_VW, &LEVEL1ROW, INV_ITEM_ID,⇒
 &LEVEL2ROW);
   &QTY = RowScrollSelect(3, RECORD.SHIP_SUM_INV_VW, CurrentRowNumber(1),⇒
 RECORD.SHIP_DTL_INV_VW, CurrentRowNumber(2), RECORD.DEMAND_LOC_INV, RECORD.DEMAND_⇒
⇒
⇒
⇒
⇒
LOC_INV, "WHERE BUSINESS_UNIT = :1 AND ORDER_NO = :2 AND DEMAND_SOURCE = :3 AND⇒
 SOURCE_BUS_UNIT = :4 AND ORDER_INT_LINE_NO = :5 AND SCHED_LINE_NO = :6 AND INV_⇒
ITEM_ID = :7 AND DEMAND_LINE_NO = :8", SHIP_HDR_INV.BUSINESS_UNIT, ORDER_NO,⇒
 DEMAND_SOURCE, SOURCE_BUS_UNIT, ORDER_INT_LINE_NO, SCHED_LINE_NO, INV_ITEM_ID,⇒
 DEMAND_LINE_NO, True);
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RowScrollSelectNew, page 431, Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435, Chapter 1, "PeopleCode Built-in Functions," ScrollSelectNew, page 437, Chapter 1, "PeopleCode Built-in Functions," ScrollFlush, page 434 and Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487.

RowScrollSelectNew

Syntax

RowScrollSelectNew(*levelnum*, *scrollpath*,
RECORD.*sel_recname*,
[*sqlstr* [, *bindvars*]]
[, *turbo*])

Where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*,
[**RECORD.***level2_recname*, *level2_row*,]
RECORD.*target_recname*

where *bindvars* is an arbitrary-length list of bind variables in the form:

binvar1 [, *bindvar2*]. . .

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

The RowScrollSelectNew function is similar to RowScrollSelect, except that all rows read into the work scroll are marked *new* so they are automatically inserted into the database at Save time.

Note. This function remains for backward compatibility only. Use the SelectNew rowset method instead.

This capability can be used, for example, to insert new rows into the database by selecting data using a view of columns from another database tables.

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See Also

Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," SelectNew.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
level	Specifies the scroll level of the scroll area into which selected rows are read. It can be 1, 2, or 3.
scrollpath	A construction that specifies a scroll level in the component buffer.
RECORD. *sel_recname*	Specifies the select record. The *selname* record must be defined in the record definition and SQL created as a table or a view, unless *sel_recname* and *target_recname* are the same. The *sel_recname* record can contain fewer fields than *target_recname*, although it must contain any key fields to maintain dependencies with other page records. This enables you to limit the amount of data read into the data buffers.
sqlstr	Contains a WHERE clause to restrict the rows selected from *sel_recname* and/or an ORDER BY clause to sort the rows. The WHERE clause may contain the PeopleSoft SQL platform functions that are used for SQLExec processing, such as %DateIn or %Substring.
bindvars	A list of bind variables to be substituted in the WHERE clause. The same restrictions that exist for SQLExec exist for these variables.
turbo	Setting this Boolean parameter to True turns on Turbo ScrollSelect. This will improve the performance of ScrollSelect verbs by as much as 300%, but should be implemented with caution on existing applications.

Returns

The number of rows read (optional.) This counts only lines read into the specified scroll. It does not include any additional rows read into autoselect child scrolls of the scroll.

Example

The following example reads rows into the level 2 scroll and marks the rows as new:

```
&QTY = RowScrollSelectNew(2, RECORD.BI_LINE_VW, &ROW1, RECORD.BI_LINE_DST,⇒
 RECORD.BI_LINE_DST, "where business_unit = :1 and invoice = :2 and line_seq_num =⇒
 :3", BI_HDR.BUSINESS_UNIT, BI_HDR.INVOICE, &CURR_LINE_SEQ);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429, Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435, Chapter 1, "PeopleCode Built-in Functions," ScrollSelectNew, page 437, Chapter 1, "PeopleCode Built-in Functions," ScrollFlush, page 434 and Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487.

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RTrim

Syntax

```
RTrim(source_str [, trim_str])
```

Description

Use the RTrim function to remove characters, usually trailing blanks, from the right of a string.

Parameters

Parameter	Description
source_str	A String from which you want to remove trailing characters.
trim_str	A String consisting of a list of characters, all occurrences of which are removed from the right of *source_str*. Characters in *trim_str* that occur in *source_str* to the left of any character not in *trim_str* are be removed. If this parameter is not specified, " " is assumed.

Returns

Returns a String formed by deleting, from the end of *source_str*, all occurrences of each character specified in *trim_str*.

Example

The following example removes trailing blanks from &NAME and places the results in &TRIMMED:

```
&TRIMMED = RTrim(&NAME);
```

The following example removes trailing punctuation marks from REC.INP and places the results in &TRIMMED:

```
&TRIMMED = RTrim(REC.INP, ".,;:!?");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," LTrim, page 358

ScheduleProcess

Syntax

```
ScheduleProcess(process_type, process_name
[, run_location] [, run_cntl_id] [, process_instance]
[, run_dttm] [, recurrence_name] [, server_name])
```

Description

Use the ScheduleProcess function to schedule a process or job, writing a row of data to the Process Request table (PSPRCSRQST).

Note. This function is no longer supported. Use the CreateProcessRequest function instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateProcessRequest, page 120

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ScrollFlush

Syntax

```
ScrollFlush(scrollpath)
```

Where *scrollpath* is:

```
[RECORD.level1_recname, level1_row,
[RECORD.level2_recname, level2_row, ]
 RECORD.target_recname
```

To prevent ambiguous references, you can use **SCROLL.** *scrollname,* where *scrollname* is the same as the scroll level's primary record name.

Description

Use the ScrollFlush function to remove all rows inside the target scroll area and frees its associated buffer.

Note. This function remains for backward compatibility only. Use the Flush rowset method instead.

Rows that are flushed are not deleted from the database. This function is often used to clear a work scroll before a call to ScrollSelect.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," Flush

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.

Returns

None.

Example

The following example clears the level-one scroll then fills the level-one and level-two scrolls.

```
/* Throw away all rows */
ScrollFlush(RECORD.DBFIELD_VW);
/* Fill in new values */
&FIELDSEL = "where FIELDNAME like '" | FIELDNAME | "%'";
&ORDERBY = " order by FIELDNAME";
ScrollSelect(1, RECORD.DBFIELD_VW, RECORD.DBFIELD_VW, &FIELDSEL | &ORDERBY);
ScrollSelect(2, RECORD.DBFIELD_VW, RECORD.DBFIELD_LANG_VW, RECORD.DBFIELD_LANG_VW,⇒
 &FIELDSEL | " and LANGUAGE_CD = :1" | &ORDERBY, DBFIELD_SRCH.LANGUAGE_CD);
```


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See Also

Chapter 1, "PeopleCode Built-in Functions," RowFlush, page 428, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelectNew, page 431, Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435 and Chapter 1, "PeopleCode Built-in Functions," ScrollSelectNew, page 437.

ScrollSelect

Syntax

```
ScrollSelect(levelnum,
[RECORD.level1_recname,
[RECORD.level2_recname,]]
RECORD.target_recname,
 RECORD.sel_recname
   [, sqlstr [, bindvars]]
   [, turbo])
```

where *bindvars* is an arbitrary-length list of bind variables in the form:

```
bindvar1 [, bindvar2]. . .
```

Description

The ScrollSelect function, like the related ScrollSelect functions (ScrollSelectNew, RowScrollSelect, and RowScrollSelectNew) reads data from database tables or views into a scroll area on the active page.

Note. This function remains for backward compatibility only. Use the Select rowset class method instead.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," Select.

Using ScrollSelect

ScrollSelect automatically places child rows in the target scroll area under the correct parent row in the next highest scroll area. If it cannot match a child row to a parent row an error occurs.

ScrollSelect selects rows from a table or view and adds the rows to a scroll area of a page. Let's call the record definition of the table or view that it selects from the *select record*; and let's call the record definition normally referenced by the scroll area (as specified in the page definition) the *default scroll record*. The select record can be the same as the default scroll record, or it can be a different record definition that has compatible fields with the default scroll record. If you define a select record that differs from the default scroll record, you can restrict the number of fields that are loaded into the component buffers by including only the fields that you actually need.

ScrollSelect accepts an SQL string that can contain a WHERE clause restricting the number of rows selected into the scroll area. The SQL string can also contain an ORDER BY clause to sort the rows.

ScrollSelect functions generate a SQL SELECT statement at runtime, based on the fields in the select record and WHERE clause passed to them in the function call. This gives ScrollSelect functions a significant advantage over SQLExec: they enable you to change the structure of the select record without affecting the PeopleCode, unless the field affected is referred to in the WHERE clause string. This can make the application easier to maintain.

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Often, ScrollSelect is used to select rows into a *work scroll*, which is sometimes hidden using HideScroll. A work scroll is a scroll in which the No Auto Select option is selected on the record definition in PeopleSoft Application Designer so that PeopleTools does not automatically populate the scroll at page startup. You can right-click on the scroll or grid then select the scroll's No Auto Select attribute check box in the record property dialog box.

Depending on how you intend the scroll to be used by the end-user, you may also want to select No Auto Update to prevent database updates, and prevent row insertions or deletions in the scroll area by selecting No Row Insert or No Row Update.

To call ScrollSelect at page startup, place the function call in the RowInit event of a key field on the parent scroll record. For example, if you want to fill scroll level one, place the call to ScrollSelect in the RowInit event of a field on level zero.

Parameters

Parameter	Description
levelnum	Specifies the level of the scroll level to be filled (the target scroll area. The value can be 1, 2, or 3.
target_recname	Specifies a record identifying the target scroll, into which the selected rows are read. If *target_recname* is on scroll level 2, it must be proceeded by a **RECORD.** *level1_recname*. If it is on level 3, you must specify both **RECORD.** *level1_recname* and **RECORD.** *level2_recname*.
RECORD. *sel_recname*	Specifies the select record. The *selname* record must be defined in PeopleSoft Application Designer and SQL created (using Build, Project) as a table or a view, unless *sel_recname* and *target_recname* are the same. The *sel_recname* record can contain fewer fields *target_recname*, although it must contain any key fields to maintain dependencies with other page records. This enables you to limit the amount of data read into the component buffers.
sqlstr	Contains a WHERE clause to restrict the rows selected from *sel_recname* and/or an ORDER BY clause to sort the rows. The WHERE clause can contain the PeopleSoft meta-SQL functions such as %Datein or %CurrentDateIn. It can also contain inline bind variables.
bindvars	A list of bind variables to be substituted in the WHERE clause. The same restrictions that exist for SQLExec exist for these variables.
turbo	Setting this Boolean parameter to True turns on Turbo ScrollSelect. This improves the performance of ScrollSelect verbs by as much as 300%, but should be implemented with caution on existing applications, which may depend on the behavior of ScrollSelect without Turbo.

Returns

The number of rows read (optional.) This counts only lines read into the specified scroll. It does not include any additional rows read into autoselect child scrolls of the scroll.

Example

This example uses WHERE clauses to reset the rows in two scroll areas:

```
&FIELD_CNT = ActiveRowCount(DBFIELD_VW.FIELDNAME);
For &I = 1 to &FIELD_CNT;
   If RecordChanged(DBFIELD_VW.FIELDNAME, &I, DBFIELD_LANG_VW.FIELDNAME, 1)    Then
```

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```
      &FIELDNAME = FetchValue(DBFIELD_VW.FIELDNAME, &I);
      &RET = WinMessage("Descriptions for " | &FIELDNAME | " have been changed. ⇒
 Discard changes?", 289, "DBField Changed!");
      If &RET = 2 Then
         /* Cancel selected */
         Exit;
      End-if;
   End-if;
End-for;
/* Now throw away all rows */
ScrollFlush(RECORD.DBFIELD_VW);
/* Fill in new values */
&FIELDSEL = "where FIELDNAME like '" | FIELDNAME | "%'";
&ORDERBY = " order by FIELDNAME";
&QTY1 = ScrollSelect(1, RECORD.DBFIELD_VW, RECORD.DBFIELD_VW, &FIELDSEL |⇒
 &ORDERBY);
&QTY2 = ScrollSelect(2, RECORD.DBFIELD_VW, RECORD.DBFIELD_LANG_VW, RECORD.DBFIELD_⇒
LANG_VW, &FIELDSEL | " and LANGUAGE_CD = :1" | &ORDERBY, DBFIELD_SRCH.LANGUAGE_⇒
CD);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelectNew, page 431, Chapter 1, "PeopleCode Built-in Functions," ScrollFlush, page 434, Chapter 1, "PeopleCode Built-in Functions," ScrollSelectNew, page 437 and Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487.

ScrollSelectNew

Syntax

```
ScrollSelectNew(levelnum,
   [RECORD.level1_recname,
   [RECORD.level2_recname, ]]
   RECORD.target_recname,
   RECORD.sel_recname [, sqlstr [, bindvars]]
   [, turbo])
```

and where *bindvars* is an arbitrary-length list of bind variables in the form:

```
bindvar1 [, bindvar2]. . .
```

Description

The ScrollSelectNew function is similar to ScrollSelect, except that all rows read into the work scroll are marked *new* so they are automatically inserted into the database at Save time.

Note. This function remains for backward compatibility only. Use the SelectNew rowset class method instead.

This capability can be used, for example, to insert new rows into the database by selecting data using a view of columns from other database tables.

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See Also

Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," SelectNew.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Parameters

Parameter	Description
levelnum	Specifies the level of the scroll level to be filled (the target scroll area. The value can be 1, 2, or 3.
target_recname	Specifies a record identifying the target scroll, into which the selected rows are read. If *target_recname* is on scroll level 2, it must be proceeded by a **RECORD.** *level1_recname*. If it is on level 3, you must specify both **RECORD.** *level1_recname* and **RECORD.** *level2_recname*.
RECORD. *sel_recname*	Specifies the select record. The *selname* record must be defined in PeopleSoft Application Designer and SQL created as a table or a view (using Build, Project), unless *sel_recname* and *target_recname* are the same. The *sel_recname* record can contain fewer fields *target_recname*, although it must contain any key fields to maintain dependencies with other records on the page. This enables you to limit the amount of data read into the component buffers.
sqlstr	Contains a WHERE clause to restrict the rows selected from *sel_recname* and/or an ORDER BY clause to sort the rows. The WHERE clause may contain the PeopleSoft SQL platform functions that are used for SQLExec processing, such as %Datein or %Substring.
bindvars	A list of bind variables to be substituted in the WHERE clause. The same restrictions that exist for SQLExec exist for these variables.
turbo	Setting this Boolean parameter to True turns on Turbo ScrollSelect. This improves the performance of ScrollSelect verbs by as much as 300%, but should be implemented with caution on existing applications.

Returns

The number of rows read (optional.) This counts only lines read into the specified scroll. It does not include any additional rows read into autoselect child scrolls of the scroll.

Example

The following statement selects rows from DATA2 and reads them into scroll level one on the page. If the end-user saves the page, these rows will be inserted into DATA1:

```
&QTY = ScrollSelectNew(1, RECORD.DATA1, RECORD.DATA2,
   "Where SETID = :1 and CUST_ID = :2",
   CUSTOMER.SETID, CUSTOMER.CUST_ID);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelectNew, page 431, Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435, Chapter 1, "PeopleCode Built-in Functions," ScrollFlush, page 434 and Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487.

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Second

Syntax

```
Second(timevalue)
```

Description

Use the Second function to extract the seconds component of a Time value.

Parameters

Parameter	Description
timevalue	A Time value from which to extract seconds.

Returns

Returns a Number equal to the seconds part of *timevalue*.

Example

Assume that &TIMEOUT contains Time value of 16:48:21. The following would set &SECS to 21:

```
&SECS = Second(&TIMEOUT);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Hour, page 326 and Chapter 1, "PeopleCode Built-in Functions," Minute, page 368.

SendMail

Syntax

```
SendMail(flags, recipients, CCs, BCCs, subject, text,
         [, attachment_filenames][, attachment_titles] [, Mail_From] [,mail_sep]
         [, Content_Type] [,Reply_To] [,Sender])
```

Description

Use the SendMail function to send an email message from a PeopleSoft page. The APIs that support these subsystems must be present on the system for the function to work.

Note. The code that actually calls SendMail determines the run location, *not* the originating code.

The function sends a message using standard mail options, including recipient, CC, BCC, subject, and the text of the note. You can use double byte characters as part of the display name for email address.

The message can include attached files, for which you supply fully qualified file names (that is, file names with paths) and titles (which appear in place of the fully qualified filename in the message). In addition, you can specify a *Mail_From* , which identifies the source email address. You can also use the *Reply_To* parameter to specify the email address to be used by the recipient for replying, which should be different than the *Mail_From* address.

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The *flags* parameter of this function and its return codes are platform dependent: the SMTP mail API ignores any additional flags. For this reason, SendMail should be used only in customizations that run on a known platform, if it is used at all. The preferred, platform-independent method for sending email from PeopleCode is to define an email routing as part of a business event, then trigger the business event using the TriggerBusinessEvent function.

For workflow, in the activity email routing, you can specify the field map for *Reply_To* and *Sender*.

See Also

Chapter 1, "PeopleCode Built-in Functions," TriggerBusinessEvent, page 530

Parameters

Parameter	Description
flags	An integer value passed directly to the mail system API to control mail system options. The value passed in this parameter is platform-dependent. The SMTP mail API ignores this parameter.
recipients	A string consisting of a semicolon-separated list of email addresses containing the names of the message's primary recipients.
CCs	A string consisting of a semicolon-separated list of email addresses that are sent copies of the message.
BCCs	A string consisting of a semicolon-separated list of email addresses that are sent copies of the message. These recipients won't appear on the message list.
subject	A string containing the text that appears in the message's Subject field.
text	The text of the message.
attachment_filenames	A string consisting of a semicolon-separated list of fully qualified filenames, containing the complete path to the file and the filename itself.
attachment_titles	Another semicolon-separated list containing titles for each of the files provided in the *attachment_filenames* parameter. The titles appear near the attachment icons in place of the fully qualified filename.
Mail_From	A string used to populate the 'reply-to' field. If this parameter isn't specified, the sender address from application server configuration file is used.
Mail_Sep	Specify the delimiter to be used to separate one email address from another. The default value is a semicolon (;).
Content_Type	Specify the content type of the email as a string. The default value is plain text. If you want to specify HTML, you should use the following: `Content-type: text/html; charset=utf8`
Reply_To	Specify the email address that the receiver should use when replying to this email instead of the *Mail_From* value.
Sender	Specifies who the email is from, as a string. This may be different than the values specified for *Mail_From* or *Reply_To* parameters.

Returns

Returns a Number value, which, if not one of the following general return codes, is platform-dependent.

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General Return Codes

Return Code	Description
0	No Error
-1	No mail interface installed.

Example

The following example sets up several variables that are then used to construct an email message that includes two attachments:

```
&MAIL_FLAGS = 0;
&MAIL_TO = "dduffield@peoplesoft.com;sweet_pea@peoplesoft.com";
&MAIL_CC = "";
&MAIL_BCC = "mom@aol.com";
&MAIL_SUBJECT = "Live long and prosper!";
&MAIL_TEXT = "Please read my attached CV.  You will be amazed and hire me⇒
 forthwith.";
&MAIL_FILES = "c:\mydocs\resume.doc;c:\mydocs\coverlet.doc";
&MAIL_TITLES = "My CV;READ ME";
&MAIL_SENDER = "MyEmail@Yahoo.com";
&RET = SendMail(&MAIL_FLAGS, &MAIL_TO, &MAIL_CC, &MAIL_BCC, &MAIL_SUBJECT, &MAIL_⇒
TEXT, &MAIL_FILES, &MAIL_TITLES, &MAIL_SENDER);
if not (&RET = 0) then
   WinMessage("Return status from mail = " | &RET);
end-if;
```

The following example uses aliases for the sender.

```
Local string &MAIL_CC, &MAIL_TO, &MAIL_BCC, &MAIL_SUBJECT, &MAIL_TITLES, &MAIL_⇒
TEXT, &MAIL_FILES, &MAIL_FROM, &REPLYTO, &SENDER;
Local number &MAIL_FLAGS;

&MAIL_FLAGS = 0;
&MAIL_TO = "laurie_thomas@peoplesoft.com";
&MAIL_CC = "";
&MAIL_BCC = "";
&MAIL_SUBJECT = "Testing SendMail - Are you receiving Attachment?";
&MAIL_TEXT = "This is a test for SendMail function";
&MAIL_FILES = "/data9/ps/e841g2bp/lat/attach.txt";
&MAIL_TITLES = "";
&MAIL_FROM = "peoplesoft@peoplesoft.com";
&MAIL_SEP = ";";
&CONTTYPE = "";
&REPLYTO = "lthomas@peoplesoft.com";
&SENDER = "00972@peoplesoft.com";
&RET = SendMail(&MAIL_FLAGS, &MAIL_TO, &MAIL_CC, &MAIL_BCC, &MAIL_SUBJECT, &MAIL_⇒
TEXT, &MAIL_FILES, &MAIL_TITLES, &MAIL_FROM, &MAIL_SEP, &CONTTYPE, &REPLYTO,⇒
```

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```
 &SENDER);
If &RET <> 0 Then
   MessageBox(0, "", 0, 0, "Return code from SendMail=" | &RET);
End-If;
```

SetAuthenticationResult

Syntax

SetAuthenticationResult(*AuthResult* [, *UserId*] [,*ResultDocument*] [,*PasswordExpired*] [*DaysLeftBeforeExpire*])

Description

Use the SetAuthenticationResult function in signon PeopleCode to customize the authentication process. It enables the developer using Signon PeopleCode to implement additional authentication mechanisms beyond the basic PeopleSoft ID and Password authentication.

When *PasswordExpired* is True, it indicates the password is expired, the passwordexpired.html page is displayed during login when signon PeopleCode is enabled.

When *DaysLeftBeforeExpire* is greater than 0, and *PasswordExpired* is False, indicating that the password will expire in x days, the passwordwarning.html page is displayed during login when signon PeopleCode is enabled.

Note. If you set *AuthResult* to False, *ResultDocument* must be the text of an error message. This text is displayed on the signon screen.

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Parameters

Parameter	Description
AuthResult	Specify whether the authentication is successful. This parameter takes a Boolean value. If True is used, the end-user of the UserId specified on the Signon page is allowed access to the system. When AuthResult is True, the customer is responsible for providing a logout to the end user. They will remain logged in until a logout command is issued from the user, or the session expires.
UserId	Specify the UserId of the user signing on. The default value is the UserId entered on the signon page. This parameter takes a string value. This is the value returned by %SignonUserId
ResultDocument	When *ResultDocument* is blank (""), this parameter value is ignored. Otherwise, specify a message to be displayed in the signonresultdoc.html file when *AuthResult* is True. If AuthResult is False, the ResultDocument text value is displayed on the signon screen. If ResultDocument has a value, any values in *PasswordExpired* and *DaysLeftBeforeExpire* are ignored.
PasswordExpired	Specify if the user's password has expired. The values are: • False (default) if the user's password hasn't expired. • True if the user's password has expired If this value is specified as True, the user is allowed to log in, but is able to access only a limited portion of the system: just enough to change their expired password.
DaysLeftBeforeExpire	A numeric value indicating the number of days left before the password expires. If the value is greater than 0, a warning is displayed when Authorized is True and Expired is False.

Returns

A Boolean value: True if function completed successfully, False otherwise.

Example

```
If updateUserProfile(%SignonUserId, %SignonUserPswd, &array_attribs) Then
   SetAuthenticationResult(True, &SignonUserID, "", False);
End-If;
```

The following example is within a function used for logging onto a system:

```
   If (AddToDateTime(&fmc_wsl_exp_date, 0, 0, 0, 0, 10, 0) >= %Datetime) Then
         /* WSL logon was within last x minutes, so accept WSL for PS logon */
         SetAuthenticationResult( True, Upper(&userID), "", False);
      Else
         /* WSL logonn was too long ago, so request a more recent WSL logon */
         SetAuthenticationResult( False, "getmorerecentcookie", "", False,7); ⇒
/*displays the customized passwordwarning.html. */
      End-If;
```

In the following example, AuthResult is True and ResultDocument is set as text to be displayed in an HTML tag.

```
SetAuthenticationResult( True, &USERID, "Result Doc Text", False, 0);
```

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As part of this example, specify the following in the configuration properties:

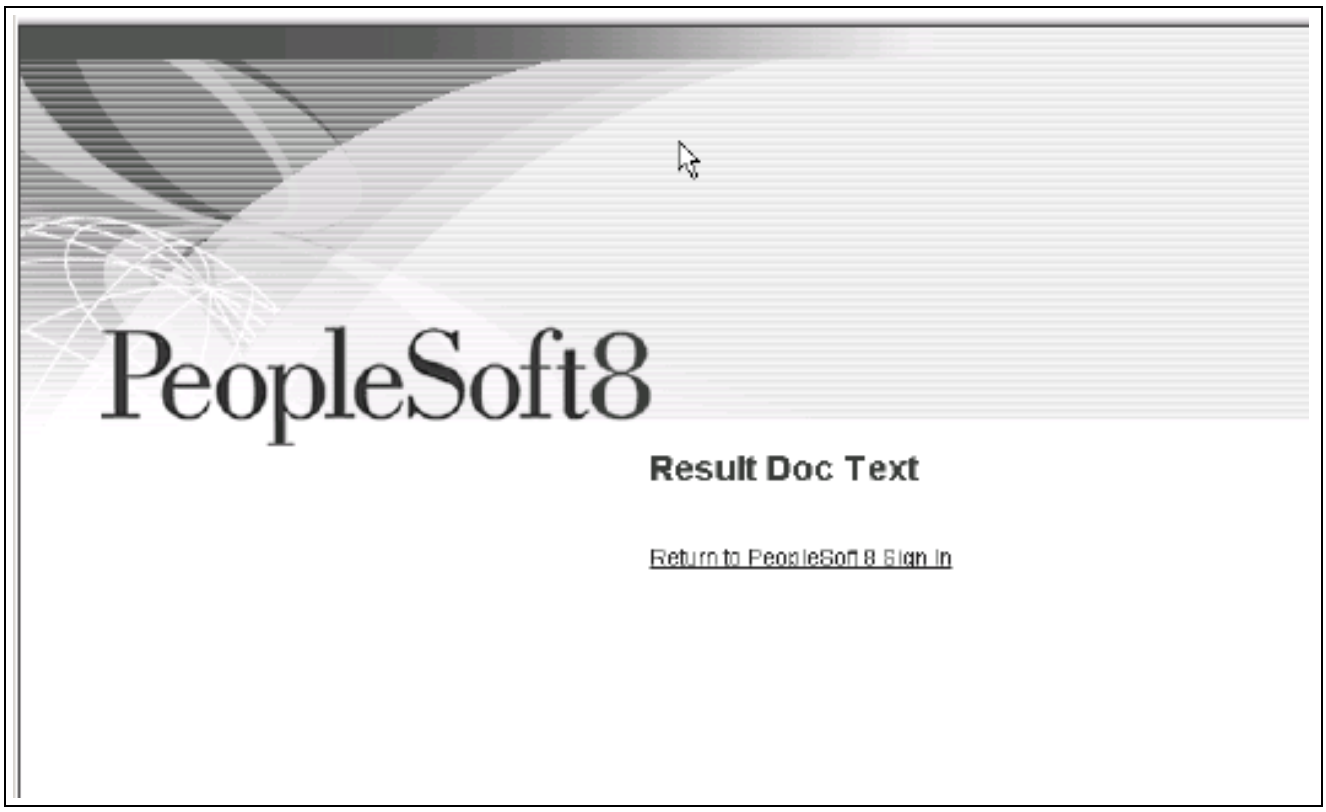
```
singonresultdoc_page=signonresultdoctext.html
```

In signonresultdoctext.html, add a meta field as follows:

```
<%=resultDoc%>:

<html>
....
  <tr><td class="PSSRCHACTION" no wrap=true><%=resultDoc%></td></tr>
.....
</html>
```

This produces a screen shot similar to the following:



Example with Result Doc Text

See Also

Chapter 3, “System Variables,” %ResultDocument, page 625

Chapter 3, “System Variables,” %AuthenticationToken, page 610

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, “Understanding PeopleSoft Security,” PeopleSoft Sign-in

SetChannelStatus

Syntax

SetChannelStatus(*ChannelName, Status*)

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Description

Use the SetChannelStatus to set the status of the specified channel. You could use this function to restart a channel that had been paused, or pause a running channel.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class SetQueueStatus method instead.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," SetStatus

Parameters

Parameter	Description
ChannelName	Specify the channel name.
Status	Specify the status you want to set the channel to. The values are: • 1 for Run • 2 for Pause

Returns

A Boolean value: True if the channel status was changed successfully. False otherwise.

Example

```
/* User has clicked on a channel to change its status */

If CHNL_STATUS = "1" Then
   rem running, so pause;
   &status = 2;
Else
   rem paused. So run;
   &status = 1;
End-If;

If SetChannelStatus(AMM_CHNL_SECVW.CHNLNAME, &status) Then
   CHNL_STATUS = String(&status);
Else
   MessageBox(0, MsgGetText(117, 1, ""), 117, 22, "");
End-If;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Understanding PeopleSoft Integration Broker"

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SetComponentChanged

Syntax

```
SetComponentChanged()
```

Description

Use the SetComponentChanged function to set the changed flag for the component. This flag is used to determine if save processing is needed or not, when the user clicks Save, or save is triggered through DoSave PeopleCode. This flag is also used to determine if a save warning needs to be issued to the user when they leave the component.

Using SetComponentChanged causes full save processing to occur the next time a save is triggered. This includes the SaveEdit, SavePreChange, Workflow, and SavePostChange events. This function can be used to replace a workaround of changing a field to a different value then back to force save processing.

Using SetComponentChanged does *not* cause unchanged data to be saved. The Component Processor only saves changed data to the database. If nothing in the component has been changed, nothing is saved to the database.

After save processing has completed successfully, the flag is cleared.

Most components do not need to use this function. The changed flag is automatically set when the user changes any value in the component, as well as when PeopleCode changes a database field buffer value. This function is for certain pages that have a requirement to have save processing execute even if the user has *not* changed a value.

Note. Using this function causes a save warning to be issued to the user when they try to leave the component, assuming the save warning feature is enabled, and the end user has not saved the component since the function was called.

Using SetComponentChanged before DoSave forces save processing to occur.

Parameters

None.

Returns

None.

See Also

Chapter 1, “PeopleCode Built-in Functions,” DoSave, page 175 and Chapter 1, “PeopleCode Built-in Functions,” DoSaveNow, page 176.

SetControlValue

Syntax

```
SetControlValue(Value, PageName, PageFieldName [, RowNumber] [, &Field])
```

Description

Use the SetControlValue function to set an override string on the current field so that it simulates an end-user entering data.

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When a page is refreshed after a PeopleCode program completes, each field value gets set from the buffer. However, if you use this function to specify an override string for a field, the value you specify is used *instead* of the value in the buffer. This value is inserted directly into the control on the page, as if the end-user typed it in. The field buffer remains unchanged. All validations, FieldEdit and FieldChange PeopleCode run immediately.

This function can be used in the following scenario: Suppose you have a text field that has a menu pop-up associated with it. The end-user can use a secondary page to select an item to be used for the value. From the menu PeopleCode, you can verify that the value is valid, but the field doesn't turn red and the end-user can leave the field. This could potential mean saving the page with bad data. You can use this function after the secondary page is dismissed. This causes the same edits to be run as if the end-user had typed in the value.

This function doesn't work for radio button or check box controls.

Considerations With Field Verification

SetControlValue only sets the value of the field. If you specify an incorrect value, SetControlValue has an error at runtime.

For example, suppose you are setting a value like "1900-01-01" into a date field that is expecting the format 01/01/1900. If the end-user entered 1900-01-01 they would get an error, so SetControlValue causes an error with this value also. You may want to use a value in the format the end-user might enter. You can get this value by using the FormattedValue method on a field. For example:

```
&DATE_IN_EFFECT = SF_PRDN_AREA_IT.DATE_IN_EFFECT.FormattedValue;
...
SetControlValue(&DATE_IN_EFFECT, %Page, "DATE_IN_EFFECT", &OCCURSNUM);
```

The FormattedValue function converts the field value from the PeopleSoft representation to the representation the end-user would see and enter.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Parameters

Parameter	Description
Value	Specify an override value on the current field. This parameter takes a string value.
pagename	Specify the name of page where the field exists.
pagefieldname	Specify the page field name. This is *not* the name of the field. This is the name that is assigned to the field in PeopleSoft Application Designer, on the page field properties.
RowNumber	Specify the row number of the field. The default value is 1 if this parameter isn't set.
&Field	Specify an already instantiated field object referencing the field you want to override.

Note. If you want to set an override string for a field on the level 1 scroll for a page, you don't need to specify either a row number or a field object. However, if you want to set the override string for a field on either the second or third level scroll for a page, you must specify *both* a row number and a field object for SetControlValue to work.

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Returns

None.

Example

```
Declare Function item_seach PeopleCode FUNCLIB_ITEM.INV_ITEM_ID FieldFormula;

&SEARCHREC = "PS_" | RECORD.MG_ITEM_OWN1_VW;
item_seach("", SF_PRDN_AREA.BUSINESS_UNIT, "ITEM", &SEARCHREC, "", &INV_ITEM_ID,⇒
 "");
SetControlValue(&INV_ITEM_ID);
```

The following example is used in the PeopleSoft Pure Internet Architecture:

```
Declare Function item_search PeopleCode FUNCLIB_ITEM.INV_ITEM_ID FieldFormula;

Component string &ITEM_ID_SEARCH;

&ITEMRECNAME = "PS_" | Record.MG_ITEM_PDO_VW;
item_serach("", EN_PDO_WRK.BUSINESS_UNIT, "ITEM", &ITEMRECNAME, "", &INV_ITEM_ID,⇒
 "");
If All(&INV_ITEM_ID) Then
   Evaluate &ITEM_ID_SEARCH
   When "F"
      SetControlValue(&INV_ITEM_ID, Page.EN_PDO_COPY, "FROM_ITEMID")
   When "T"
      SetControlValue(&INV_ITEM_ID, Page.EN_PDO_COPY, "TO_ITEMID")
   End-Evaluate;
End-If;
```

SetCursorPos

Syntax

SetCursorPos(**Page**.*pagename*, *scrollpath*, *target_row*, [*recordname*.]*fieldname*)

where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]] **RECORD**.*target_recname*

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the SetCursorPos to place the focus in a specific field anywhere in the current component. To transfer to a page outside the current component, use Transfer.

Note. If you use SetCursorPos to change the focus to a field that is not on the current page, any PeopleCode associated with the Activate event for the page being transferred to runs.

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You can use the SetCursorPos function in combination with an Error or Warning function in SaveEdit to place the focus on the field that caused the error or warning condition. You must call SetCursorPos *before* an Error statement, because Error in SaveEdit terminates all save processing, including the program from which it was called.

See Also

Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
Pagename	The name of the page specified in the page definition, preceded by the keyword **Page**. The *pagename* page must be in the current component. You can also pass the %page system variable in this parameter (without the **Page** reserved word).
scrollpath	A construction that specifies a scroll level in the component buffer.
[*recordname* **.**]*fieldname*	Specify a field designating the record and field in the scroll where you want to place the cursor.
target_row	The row number of the row in which you want to place the cursor.

Returns

None.

Example

The following example places the cursor in the appropriate field if a SaveEdit validation fails. Note the use of the %page system variable to get the page name. Note also that SetCursorPos is called before Error.

```
If None(&ITEM_FOUND) Then
      SetCursorPos(%Page, INV_ITEM_ID, CurrentRowNumber());
      Error (MsgGet(11100, 162, "Item is not valid in the order business unit.",⇒
 INV_ITEM_ID, CART_ATTRIB_INV.ORDER_BU));
End-If;
```

The following example is similar, but uses the **Page** reserved word and page name:

```
If %Component = COMPONENT.BUS_UNIT_TBL_GL Then
      SetCursorPos(PAGE.BUS_UNIT_TBL_GL1, DEFAULT_SETID, CurrentRowNumber());
End-If;
Error MsgGet(9000, 165, "Default TableSet ID is a required field.");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524

SetDBFieldAuxFlag

Syntax

SetDBFieldAuxFlag(**Field.***FieldName*, *FlagNumber*, *Setting*)

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Description

Use the SetDBFieldAuxFlag function to set the auxiliary flag mask (AuxFlagMask) property for the specified field. This field indicates properties about the field.

Currently, only one flag comes preset from PeopleSoft: a 1 indicates a ChartField. If you want to associate a property with a field, you must coordinate with other developers to make certain that no one else is setting a property using the same flag number.

Use the GetAuxFlag Field method to read the current setting of the property.

If you use this function, the change is made to the database field, but it doesn't require a rebuild of the database. However, the change is *not* reflected in the component buffer. You must reload the component for the new setting to take place.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
Fieldname	Specify the name of the field that you want the AuxMaskFlag property changed. This name must be prefixed by the reserved word **Field**.
FlagNumber	Specify the flag value, a number between 1 and 32. A 1 is a ChartField.
Setting	Specify whether this flag should be on (True) or off (False).

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.
%MDA_FieldNotFound	The specified field was not found in the database.

Example

```
&ret = SetDBFieldAuxFlag(Field.OrgId, 1, True);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldAuxFlag succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldAuxFlag failed");
End-If;
```

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," GetAuxFlag

SetDBFieldCharDefn

Syntax

```
SetDBFieldCharDefn(Field.FieldName, Length [, FormatFamily])
```

Description

Use the SetDBFieldCharDefn function to create a field definition of type character, with the indicated name, length, and format family.

Note. After using this function, you should use the SetDBFieldLabel function to define the label for the new field.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
Fieldname	Specify the name of the new field that you want to create. This name must be prefixed by the reserved word **Field**.
Length	Specify the length of the new field as a number.
FormatFamily	Specify the format family of the new field. This parameter is optional: the default value is upper case. The valid values are: • %FormatFamilyType_Upper (default) • %FormatFamilyType_Name • %FormatFamilyType_Phone • %FormatFamilyType_Zip • %FormatFamilyType_SSN • %FormatFamilyType_MixedCase • %FormatFamilyType_NumOnly • %FormatFamilyType_SIN • %FormatFamilyType_PhoneIntl • %FormatFamilyType_ZipIntl

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Returns

A constant value. The values are:

Value	Description
%MDA_Success	Bulk operation completed successfully.
%MDA_Failure	Bulk operation did not complete successfully.
%MDA_Duplicate	The field specified by *FieldName* already exists.
%MDA_FieldFmtLength	The specified length conflicts with the specified format family and was overwritten when the field was created.

Example

```
&ret = SetDBFieldCharDefn(Field.OrgId, 10,
%FormatFamilyType_MixedCase);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldCharDefn succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldCharDefn failed");
End-If;
```

You can also use this function with de-referenced parameters, as follows:

```
&ret = SetDBFieldCharDefn(@("FIELD." | FS_CF_UPD_AET.FIELDNAME), FS_CF_UPD_AET.NEW_⇒
⇒
⇒
⇒
⇒
CF_LENGTH, %FormatFamilyType_MixedCase);
```

The following example adds a new character field:

```
&cf = "CF1";
&len = 10;
&frmt = %FormatFamilyType_Upper;
&fld = "FIELD." | &cf;
&ret = SetDBFieldCharDefn(@(&fld), &len, &frmt);
If (&ret = 0) Then
   MessageBox(0, "SetDBFieldCharDefn", 0, 0, "Succeeded");
Else
   MessageBox(0, "SetDBFieldCharDefn", 0, 0, "Failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDBFieldLabel, page 455

SetDBFieldFormat

Syntax

```
SetDBFieldFormat(Field.FieldName, FormatFamily [, FamilyName, DisplayName])
```

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Description

Use the SetDBFieldFormat function to change the format family for a field.

Use the StoredFormat Field property to determine the existing format family for a field.

If you only want to change the display format of a single field at runtime, and not change the database field, use the DisplayFormat Field property.

Note. This function only works with character fields.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
FormatFamily	Specify the new format family of the field. The valid values are: • %FormatFamilyType_Upper • %FormatFamilyType_Name • %FormatFamilyType_Phone • %FormatFamilyType_Zip • %FormatFamilyType_SSN • %FormatFamilyType_MixedCase • %FormatFamilyType_NumOnly • %FormatFamilyType_SIN • %FormatFamilyType_PhoneIntl • %FormatFamilyType_ZipIntl • %FomatFamilyType_Custom
FamilyName	Specify a new family name. This parameter is optional, and only valid if *FormatFamily* is specified as custom (%FormatFamilyType_Custom).
DisplayName	Specify a new display name. This parameter is optional, and only valid if *FormatFamily* is specified as custom (%FormatFamilyType_Custom).

Returns

A constant value. The values are:

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Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.

Example

```
&ret = SetDBFieldFormat(Field.OrgId, %FormatFamilyType_Custom, "Postal_Code",⇒
 "Normal");
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldFormat succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldFormat failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDBFieldFormatLength, page 454, *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Field Class," StoredFormat and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Field Class," DisplayFormat.

SetDBFieldFormatLength

Syntax

SetDBFieldFormatLength(*FieldName*, *Length*)

Description

Use the SetDBFieldFormatLength function to change the format length for a field. This length controls the maximum number of characters an end-user can type into an edit box for this character field. This can be used to limit the user without having to rebuild or alter the table.

Note. This function only works with character fields.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
Length	Specify the new format length as a number. Valid values are between 1 and 254.

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Returns

A constant value. The values are:

Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.
%MDA_FieldNotFound	The specified field wasn't found in the database.
%MDA_Unsupported	You tried to use this function on a non character field. This function is only supported on character fields.

Example

```
&ret =  SetDBFieldFormatLength(FIELD.OrgId, 10);
If (&ret = %MDA_success) Then
  MessageBox(0, "MetaData Fn Status", 0, 0, "SetDBFieldFormatLength succeeded");
Else
  MessageBox(0, "MetaData Fn Status", 0, 0, "SetDBFieldFormatLength failed");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDBFieldFormat, page 452 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Field Class," FormatLength.

SetDBFieldLabel

Syntax

SetDBFieldLabel(**Field**.*FieldName*, *LabelID*, *Long*, *Short*, *Default* [, *LanguageID*])

Description

Use the SetDBFieldLabel function to either modify an existing label, or add a new label to a field definition.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

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Parameters

Parameter	Description
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
LabelID	Specify the label ID of the field label that you want to modify as a string. If the specified label ID isn't found, a new label, with the specified label ID, is created for the field.
Long	Specify the new long label for the field as a string.
Short	Specify the new short label for the field as a string.
Default	Specify whether the new label is the default label for the field. This parameter takes a Boolean value: True, set the label as the default, False, don't.
LanguageID	Specify the three character language code to use with this field. This parameter is optional. If you don't specify a language code, the language of the current user is used.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.
%MDA_FieldNotFound	The specified field wasn't found.

Example

```
&ret = SetDBFieldLabel(Field.OrgId, "ORGID", "Organization ID", "OrgId", TRUE);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldLabel succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldLabel failed");
End-If;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Label

SetDBFieldLength

Syntax

SetDBFieldLength(**Field.***FieldName*, *Length*)

Description

Use the SetDBFieldLength function to modify an existing character field to have a new length.

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Note. Because using this function changes records that are used to build application tables, you must rebuild (alter) the specified project before these changes can be used.

Use the Length Field class property to find the existing length of a field.

Note. This function only works with character fields.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
Length	Specify the new field length as a number between 1 and 254.

Note. If a default has been specified for this field in any record, and the size of the default is *greater* than the new size, you must modify the record field separately.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.
%MDA_Unsupported	The specified field isn't a character field. This function is only supported for character fields.
%MDA_FieldNotFound	The specified field wasn't found.
%MDA_FieldFmtLength	The specified length isn't compatible with the current format family, or there are record field defaults greater than the specified size.

Note. If a default has been specified for this field in any record, and the size of the default is *greater* than the new size, you must modify the record field separately.

Example

```
&ret = SetDBFieldLength(Field.OrgId, 10);
If (&ret = %MDA_Success) Then
```

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```
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldLength succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldLength failed");
End-If;
```

You can also use this function with de-referenced parameters, as follows:

```
&ret = SetDBFieldLength(@("FIELD." | FS_CF_UPD_AET.FIELDNAME), FS_CF_UPD_AET.NEW_⇒
CF_LENGTH);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," FieldLength

SetDBFieldNotUsed

Syntax

SetDBFieldNotUsed(**Field**.*FieldName*, *NotUsed*)

Description

Use the SetDBFieldNotUsed function to specify whether a database field is used as a chart field or not.

SetDBFieldNotUsed does the following for a field:

- Specifies whether the field is included in the index when indexes are built for records that contain this field. The column always remains in the table associated with the record.
- Specifies that the field is ignored in Query.
- Specifies that the field is ignored in nVision.

In addition, fields marked as Search Keys or List Box Items in the PeopleSoft Application Designer that are set as not used do not display in search dialogs and list boxes.

Considerations Using this Function

This function is primarily intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not, in general, supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded. Using this function to modify records in components that have not been loaded, and then loading those components will, while not changing indices, prevent Query and nVision from using the field, and may be used to key display of the field in pages.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
NotUsed	Specify whether this field is to be used as a chart field. This parameter takes a Boolean value: True, this field is not used, False, this field is used.

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Returns

A constant value. The values are:

Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.
%MDA_FieldNotFound	The specified field wasn't found.

Example

```
&ret = SetDBFieldNotUsed(Field.OrgId, True);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldNotUsed succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetDBFieldNotUsed failed");
End-If;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Performing Bulk Operations"

SetDefault

Syntax

SetDefault([*recordname*.]*fieldname*)

Description

Use the SetDefault function to set a field to a null value, so that the next time default processing occurs, it is set to its default value: either a default specified in its record field definition or one set programmatically by PeopleCode located in a FieldDefault event. If neither of these defaults exist, the Component Processor leaves the field blank.

Note. This function remains for backward compatibility only. Use the SetDefault field class property instead.

Blank numbers correspond to zero on the database. Blank characters correspond to a space on the database. Blank dates and long characters correspond to NULL on the database. SetDefault gives each field data type its proper value.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Field Class," SetDefault.

Where to Use SetDefault

If a PeopleCode program or function executes the SetDefault built-in on a field that does *not* exist in the component buffer, the remainder of the program or function is skipped. In the case of a function, execution of the calling program continues with the next statement after the call to the function. However, if the program containing the SetDefault call is at the "top level", meaning that it was called directly from the component processor or application engine runtime, it exits.

Therefore, if you want to control the behavior of SetDefault, you should encapsulate any calls to this built-in function inside your own functions. This enables your overall programs to continue, whether or not the SetDefault succeeds.

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Parameters

Parameter	Description
[recordname.]fieldname	Specify a field designating the fields that you want to set to its default value.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

This example resets the PROVIDER to its null value. This field is reset to its default value when default processing is next performed:

```
If COVERAGE_ELECT = "W" Then
   SetDefault(PROVIDER);
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDefaultAll, page 460, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNext, page 461 and Chapter 1, "PeopleCode Built-in Functions," SetDefaultPrior, page 462.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Default Processing

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

SetDefaultAll

Syntax

SetDefaultAll([*recordname.*]*fieldname*)

Description

Use the SetDefaultAll function to set all occurrences of the specified *recordname.fieldname* within a scroll to a blank value, so that the next time default processing is run these fields are set to their default value, as specified by the record definition, or one set programmatically by PeopleCode located in a FieldDefault event. If neither of these defaults exist, the Component Processor leaves the field blank.

Note. This function remains for backward compatibility only. Use the SetDefault rowset method instead.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," SetDefault and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Field Class," SearchDefault.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Example

The following example sets the fields TO_CUR and CUR_EXCHNG_RT to their default values on every row of the scroll area where the PeopleCode is run:

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```
SetDefaultAll(TO_CUR);
SetDefaultAll(CUR_EXCHNG_RT);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDefault, page 459, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNext, page 461, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNextRel, page 461, Chapter 1, "PeopleCode Built-in Functions," SetDefaultPrior, page 462 and Chapter 1, "PeopleCode Built-in Functions," SetDefaultPriorRel, page 462.

SetDefaultNext

Syntax

SetDefaultNext([*recordname.*]*fieldname*)

Description

Use the SetDefaultNext function to locate the next occurrence of the *recordname.fieldname* with the next effective date (and effective-sequence number if specified) and set the field to a blank value, so that the next time default processing is run this field will be set to its default value, as specified by the record definition, or one set programmatically by PeopleCode located in a FieldDefault event. If neither of these defaults exist, the Component Processor leaves the field blank.

SetDefaultNext is typically used to reset values within a scroll which are calculated within default PeopleCode based on a next value.

This function is valid only for effective-dated records. If a next record does not exist, then the statement is skipped.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDefaultAll, page 460, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNextRel, page 461, Chapter 1, "PeopleCode Built-in Functions," SetDefaultPrior, page 462 and Chapter 1, "PeopleCode Built-in Functions," SetDefaultPriorRel, page 462.

SetDefaultNextRel

Syntax

SetDefaultNextRel(*search_field, default_field*)

Description

Use the SetDefaultNextRel function to locate the next occurrence of the *search_field*with the next effective date (and effective-sequence number if the record contains an effective-sequence number), then set the value of the specified *default_field*corresponding to the *search_field* to a blank value, so that the next time default processing is run this field will be set to its default value, as specified by the record definition, or one set programmatically by PeopleCode located in a FieldDefault event. If neither of these defaults exist, the Component Processor leaves the field blank.

This function is valid only for effective-dated records. If a next record does not exist, then the statement is skipped.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDefault, page 459, Chapter 1, "PeopleCode Built-in Functions," SetDefaultAll, page 460, Chapter 1, "PeopleCode Built-in Functions," SetDefaultPrior, page 462 and Chapter 1, "PeopleCode Built-in Functions," SetDefaultPriorRel, page 462.

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SetDefaultPrior

Syntax

```
SetDefaultPrior([recordname.]fieldname)
```

Description

Use the SetDefaultPrior function to locate the prior occurrence of the *recordname.fieldname* with the prior effective date (and effective-sequence number if specified), then set the field to a blank value, so that the next time default processing is run this field will be set to its default value, as specified by the record definition, or one set programmatically by PeopleCode located in a FieldDefault event. If neither of these defaults exist, the Component Processor leaves the field blank.

SetDefaultPrior is typically used to reset values within a scroll which are calculated within FieldDefault PeopleCode based on a next value.

This function is valid only for effective-dated records. If a prior record does not exist, then the statement is skipped.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDefault, page 459, Chapter 1, "PeopleCode Built-in Functions," SetDefaultAll, page 460, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNext, page 461, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNextRel, page 461 and Chapter 1, "PeopleCode Built-in Functions," SetDefaultPriorRel, page 462.

SetDefaultPriorRel

Syntax

```
SetDefaultPriorRel(search_field, default_field)
```

Description

Use the SetDefaultPriorRel function to locate the prior occurrence of the *search_field* with the prior effective date (and effective sequence-number if the record contains an effective-equence number) and then sets the specified *default_field* to a blank value, so that the next time default processing is run this field will be set to its default value, as specified by the record definition, or one set programmatically by PeopleCode located in a FieldDefault event. If neither of these defaults exist, the Component Processor leaves the field blank.

This function is valid only for effective-dated records. If a next record does not exist, then the statement is skipped.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetDefault, page 459, Chapter 1, "PeopleCode Built-in Functions," SetDefaultAll, page 460, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNext, page 461, Chapter 1, "PeopleCode Built-in Functions," SetDefaultNextRel, page 461 and Chapter 1, "PeopleCode Built-in Functions," SetDefaultPrior, page 462.

SetDisplayFormat

Syntax

```
SetDisplayFormat(scrollpath, target_row,
            [recordname.]fieldname, display_format_name)
```

where *scrollpath* is:

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```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Usethe SetDisplayFormat function to change the display format of Custom Defined Fields at runtime. For instance, you may want to update a custom numeric display to reveal more decimal points.

Note. This function remains for backward compatibility only. Use the DisplayFormat field property instead.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," DisplayFormat

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number of the target row.
[*recordname* **.**]*fieldname*	The name of the field to change. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to SetDisplayFormat is in a record definition other than *recordname*.
display_format_name	The name of the custom display format specified in the field definition.

Returns

Returns a Boolean value indicating whether the function executed successfully. The return value is not optional.

See Also

Chapter 1, "PeopleCode Built-in Functions," GetStoredFormat, page 310

SetLabel

Syntax

```
SetLabel(scrollpath, target_row, [recordname.]fieldname, new_label_text)
```

Where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

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Description

Use the SetLabel function to change the label text of a page field or grid column heading.

Note. This function remains for backward compatibility only. Use the Label field property instead.

You can't use this function to set labels longer than 100 characters. If you try to set a label of more than 100 characters, the label is truncated to 100 characters.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Label

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," GetLongLabel

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," GetShortLabel

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number of the target row.
[*recordname* **.**]*fieldname*	The name of the field with the associated label text. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the function call is in a record definition other than *recordname*.
new_label_text	A String value specifying the new value for the field or grid column label.

Returns

Optionally returns a Boolean value indicating whether the function completed successfully.

Example

```
If training_loc = "HAW" then
     SetLabel(voucher_tbl.training_loc, "Hawaii Training Center");
End-if;
```

SetLanguage

Syntax

SetLanguage(*language_code*)

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Description

Use the SetLanguage function to set the end-user's current language preference to the specified *language_code*. *language_code* must be a valid translate value for the field LANGUAGE_CD. SetLanguage returns True if it is successful, and it returns False if it fails or an invalid value was passed. The new language preference is temporary, remaining in effect only until the user logs off, or until another call is made to SetLanguage.

Note. SetLanguage does *not* work in Signon PeopleCode, or with asynchronous messages.

Considerations Using SetLanguage With %Language

The value of %Language depends on the type of application:

- For online applications, %Language is the language code that the current component is using.
- For non-online applications (such as in an application engine program), %Language is the language code of the user based on their language preference in their User Profile.

SetLanguage changes the default language *for the current session only*. The language change does not take effect until the component buffer is flushed and repopulated. For example, transferring to a new component causes the buffer to be flushed.

%Language reflects the value using SetLanguage after the function is executed.

SetLanguage changes the current user interface and data language simultaneously. If the Multi Language Entry personalization option is enabled, users can change the data language independently from the user interface language. There is no way to change the data language from PeopleCode without also changing the user interface language using SetLanguage.

Parameters

Parameter	Description
language_code	A valid language code, stored in the Translate table for the LANGUAGE_CD field.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully. Returns False if an invalid language code is passed.

Example

The following example switches the language code and displays a message informing the end-user of the change:

```
If SetLanguage(LANGUAGE_CD) Then
     WinMessage(MsgGet(102, 5, "Language preference changed to ", LANGUAGE_CD));
  Else
     WinMessage(MsgGet(102, 6, "Error in setting language.  Language is currently⇒
%1", %Language));
 End-if;
```

See Also

Chapter 3, "System Variables," %Language, page 616

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SetMessageStatus

Syntax

SetMessageStatus(**Message.***MessageName*, *Status*)

Description

Use the SetMessageStatus function to specify whether a message is active or inactive.

Parameters

Parameter	Description
MessageName	Specify the name of the message definition that you want to change the status for. Prefix this name with the reserved word **Message.**
Status	Specify the status for the message. Valid values are: • %IB_Status_Active • %IB_Status_InActive

Returns

A Boolean value: true if the status is set correctly, false otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetChannelStatus, page 444

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Managing Service Operations"

SetNextPanel

Syntax

SetNextPanel(*panelname*)

Description

Use the SetNextPanel to specify the panel name to which the user will be transferred when selecting the NextPanel (F6) function or specifying it with the PeopleCode TransferPage function.

Note. The SetNextPanel function is supported for compatibility with previous releases of PeopleTools. New applications should use the SetNextPage function instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetNextPage, page 466

SetNextPage

Syntax

SetNextPage(*pagename*)

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Description

Use the SetNextPage function to specify the page name to which the user is transferred when selecting the NextPage (ALT+6 and ENTER) function or specifying it with the PeopleCode TransferPage function.

SetNextPage validates that *pagename* is listed on current menu. This selection is cleared when the user transfers to a new page.

Parameters

Parameter	Description
pagename	A String equal to the name of the page as specified in the page definition.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

See Chapter 1, "PeopleCode Built-in Functions," AddKeyListItem, page 39.

```
ClearKeyListItem( );
AddKeyListItem(OPRID, OPRID);
AddKeyListItem(REQUEST_ID, REQUEST_ID);
SetNextPage("PAGE_2");
DoSave( );
TransferPage( );
```

The following example sets up and transfers the user to page JOB_DATA.

```
If SetNextPage(PAGE.JOB_DATA) Then
     TransferPage( );
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524

SetPageFieldPageFieldName

Syntax

SetPageFieldPageFieldName(**Page.***PageName*, **Record.***RecordName*, **Field.***FieldName*, *PageFieldName*)

Description

Use the SetPageFieldPageFieldName function to add or change a page field name for a field. The page field name is set on the General tab of the page field properties. Changing a name to itself is not supported.

The first field on the page with the specified record name and field name is the field that's changed.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

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Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
PageName	Specify the page containing the field you want to change. This name must be prefixed by the reserved word **Page**.
RecordName	Specify the record containing the field you want to change. This name must be prefixed by the reserved word **Record**.
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
PageFieldName	Specify the page field name that you want associated with the page field as a string.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.
%MDA_PageNotFound	The specified page wasn't found.
%MDA_PageFieldNotFound	The specified field wasn't found on the specified page.
%MDA_Duplicate	A second field by the same name was found on the page. Only the first page field name was changed.

Example

The following example adds a page field name to a page field.

```
&ret = SetPageFieldPageFieldName(Page.ABSENCE_HIST, Record.ABSENCE_HIST,⇒
 Field.EMPLID, "EMPLID")
```

The following example adds a page field name to a page field using dereferenced parameters.

```
&Pnl = "Page." | "ABSENCE_HIST";
&Rec = "Record." | "ABSENCE_HIST";
&Field = "Field." | "EMPLID";
&Name = "EMPLID"
&ret = SetPageFieldPageFieldName(@(&Pnl), @(&Rec), @(&Field), &Name);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Field Definitions"

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SetPasswordExpired

Syntax

SetPasswordExpired(*NewValue*)

Description

Use the SetPasswordExpired function to set the password expired status for the current user. When the user's password expired flag is set to True, they can only access the page that allows them to change their password. The function returns the old value, that is, the value that represented the status of the flag before it was set to *NewValue*.

Parameters

Parameter	Description
NewValue	Specify a new value for the user's password expired flag. This parameter takes a Boolean value

Returns

A Boolean value: True if you've set the password expire flag to False, False if you've set the password expire flag to True.

Example

```
If %PasswordExpired Then
   &NewValue = SetPasswordExpired(True);
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SwitchUser, page 499 and Chapter 3, "System Variables," %PasswordExpired, page 622.

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

SetPostReport

Syntax

SetPostReport()

Description

Use the SetPostReport function to create a reference to a PostReport object. After you've created this object, you can assign values to its properties, then use the Put method to initiate the posting of the files to the Report Repository.

Parameters

None.

Returns

A reference to a PostReport object.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "PostReport Class"

SetRecFieldEditTable

Syntax

```
SetRecFieldEditTable(Record.RecordName, Field.FieldName, EditTable [, TableEditType])
```

Description

Use the SetRecFieldEditTable function to set the edit table value for a record field. This overwrites the value for the edit table for the record field. Use the SetEditTable Record method to just set the edit table value at runtime.

If you specify a null value for *EditTable*, and no value is specified for *TableEditType*, the table edit flag is turned off, that is, no prompt table is set for the record field.

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
RecordName	Specify the record containing the field you want to change. This name must be prefixed by the reserved word **Record**.
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
EditTable	Specify the name of the edit table record. This name must be prefixed by the reserved word **Record**. If you don't want to specify a record name, specify **Record.""**.
TableEditType	Specify the type of edit table record to be associated with the record field. If you specify a value for *EditTable* (and not a null value) this parameter is required. You can specify either a constant or numeric value for this parameter. Valid values are:

Constant Value	Numeric Value	Used for which types of fields
%EditTableType_NoEdit	0	char, num, date, time, datetime
%EditTableType_Prompt	1	char, num, date, time datetime
%EditTableType_YesNo	2	char

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Constant Value	Numeric Value	Used for which types of fields
%EditTableType_Translate	3	char fields with length 4 or less only
%EditTableType_OneZero	4	number fields only

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.
%MDA_RecordNotFound	The specified record wasn't found.
%MDA_RecFieldNotFound	The specified field wasn't found on the record.

Example

```
&ret = SetRecFieldEditTable(RECORD.AbsHist, Field.OrgId, RECORD.EmplId_Tbl, %Edit⇒
TableType_Prompt);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetRecFieldEditTable succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetRecFieldEditTable failed");
End-If;
```

SetRecFieldKey

Syntax

SetRecFieldKey(**Record.***RecordName*, **Field.***FieldName*, *Key*)

Description

Use the SetRecFieldKey function to specify whether a field on a record is a key field or not.

Use the IsKey field class property to determine whether or not the field is already a key.

Note. Because performing this operation changes records, you must subsequently rebuild the project (alter tables).

Considerations Using this Function

This function is intended for use during configuration time *only*, before active runtime usage is initiated. Using this function during active runtime is not supported. Changes to data definitions are *not* recognized on currently loaded component. In general, changes aren't recognized until the component is reloaded.

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Warning! These operations take place in a separate transaction from the page's save status: the initiation of any of these operations immediately changes the definitions, even if the page is subsequently cancelled.

Parameters

Parameter	Description
RecordName	Specify the record containing the field you want to change. This name must be prefixed by the reserved word **Record**.
FieldName	Specify the name of the field that you want to modify. This name must be prefixed by the reserved word **Field**.
Key	Specify whether the field is a key or not. This parameter takes a Boolean value: True, the field is a key field, False, it isn't.

Returns

A constant value. The values are:

Value	Description
%MDA_Success	Function completed successfully.
%MDA_Failure	Function didn't complete successfully.
%MDA_RecordNotFound	The specified record wasn't found.
%MDA_RecFieldNotFound	The specified field wasn't found on the record.

Example

```
&ret = SetRecFieldKey(RECORD.AbsHist, Field.OrgId, True);
If (&ret = %MDA_Success) Then
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetRecFieldKey succeeded");
Else
   MessageBox(0, "Metadata Fn Status", 0, 0, "SetRecFieldKey failed");
End-If;
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Field Definitions"

SetReEdit

Syntax

SetReEdit(*reedit_on*)

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Description

Use the SetReEdit to switch re-edit mode on and off. When re-edit mode is on, definitional edits (such as translate table and prompt table edits), as well as FieldEdit PeopleCode, are run on each editable field in the component when the component is saved. If an error is found, the component data is not saved. SetReEdit can be called at any time during the life of the component before the SaveEdit event fires, and would typically be called in RowInit when other page settings are being initialized. When a component is started, re-edit mode is off by default.

SetReEdit is used primarily in financial applications, where transactions are sometimes brought into the database by non-online processes. When re-edit mode is on, the values read in during these transactions can be validated by simply bringing them up in the page and saving. Any errors are then reported, as if the end-user had entered all of the data online.

Parameters

Parameter	Description
reedit_on	A Boolean value specifying whether to switch re-edit mode on or off. True turns re-edit mode on, False turns re-edit mode off.

Example

This example is used in RowInit PeopleCode to initialize component settings. After re-edit mode is on, field-level edits are re-applied when the component is saved.

```
SetReEdit(True);
```

SetSearchDefault

Syntax

SetSearchDefault([*recordname*.]*fieldname*)

Description

Use the SetSearchDefault function to set system defaults (default values set in record field definitions) for the specified field on search dialog boxes. It does not cause the FieldDefault event to fire.

Note. This function remains for backward compatibility only. Use the SearchDefault field property instead.

The system default occurs only once, when the search dialog box first starts, immediately after SearchInit PeopleCode. If the end-user subsequently blanks out a field, the field is not reset to the default value. The related function ClearSearchDefault disables default processing for the specified field. SetSearchDefault is effective only when used in SearchInit PeopleCode programs.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," SearchDefault

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

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Parameters

Parameter	Description
[*recordname* **.**]*fieldname*	The name of the target field, a search or alternate search key that is about to appear in the search dialog box. The *recordname* prefix is required if the call to SetSearchDefault is in a record definition other than *recordname*.

Example

This example, from SearchInit PeopleCode turns on edits and defaults for the SETID field in the search dialog box:

```
SetSearchEdit(SETID);
SetSearchDefault(SETID);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ClearSearchDefault, page 73, Chapter 1, "PeopleCode Built-in Functions," ClearSearchEdit, page 74, Chapter 1, "PeopleCode Built-in Functions," SetSearchDialogBehavior, page 474 and Chapter 1, "PeopleCode Built-in Functions," SetSearchEdit, page 475.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Search Processing in Update Modes

SetSearchDialogBehavior

Syntax

SetSearchDialogBehavior(*force_or_skip*)

Description

Use the SetSearchDialogBehavior function in SearchInit PeopleCode to set the behavior of search and add dialog boxes before a page is displayed, overriding the default behavior. There are two dialog behavior settings: skip if possible (0) and force display (1).

Skip if possible means that the dialog box is skipped if all of the following are true:

- All required keys have been provided (either by system defaults or by PeopleCode).
- If this an Add dialog box, then no duplicate key error results from the provided keys; if this error occurs, the processing resets to the default behavior.
- If this is a Search dialog box, then at least one row is returned based on the provided keys.

Force display means that the dialog box displays even if all required keys have been provided.

The default behavior of the search and add dialog boxes is force display.

Note. SetSearchDialogBehavior can only be used in SearchInit PeopleCode.

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Parameters

Parameter	Description
force_or_skip	A Number equal to one of the following values: • 0: sets the dialog behavior to skip if possible. • 1: sets the dialog behavior to force display.

Returns

None.

Example

The following function call, which must occur in SearchInit PeopleCode, sets the dialog behavior to skip if possible.

```
SetSearchDialogBehavior(0);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetSearchDefault, page 473, Chapter 1, "PeopleCode Built-in Functions," SetSearchEdit, page 475, Chapter 1, "PeopleCode Built-in Functions," ClearSearchEdit, page 74, Chapter 1, "PeopleCode Built-in Functions," ClearSearchDefault, page 73 and Chapter 1, "PeopleCode Built-in Functions," IsUserInRole, page 351.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Search Processing in Update Modes

SetSearchEdit

Syntax

SetSearchEdit([*recordname.*]*fieldname*)

Description

Use the SetSearchEdit function to enable system edits (edits specified in the record field definition) for the specified [*recordname.*]*fieldname*, for the life of the search dialog box, or until the ClearSearchEdit function is called with that same field.

Note. This function remains for backward compatibility only. Use the SearchEdit field property instead.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Field Class," SearchEdit.

Using SetSearchEdit

In the Add mode search dialog, the following edits are performed when the end-user clicks the Add button. In any other mode, the following edits are performed when the end-user clicks the Search button:

- Formatting
- Required Field
- Yes/No Table
- Translate Table

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- Prompt Table

SetSearchEdit does not cause the FieldEdit, FieldChange, or SaveEdit PeopleCode events to fire during the search dialog.

You might use SetSearchEdit to control access to the system. For example, you can apply this function to the SETID field of a dialog box and require the end-user to enter a valid SETID.

If you use this function in the SearchInit event, the search page options are limited to the "=" and "IN" operators.

Parameters

Parameter	Description
fieldname	The name of the search dialog field on which to enable field edits.

Returns

Returns a Boolean value indicating whether the function executed successfully.

Example

This example turns on edits and system defaults for the SETID field in the search dialog box:

```
SetSearchEdit(SETID);
SetSearchDefault(SETID);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ClearSearchEdit, page 74, Chapter 1, "PeopleCode Built-in Functions," ClearSearchDefault, page 73, Chapter 1, "PeopleCode Built-in Functions," SetSearchDefault, page 473 and Chapter 1, "PeopleCode Built-in Functions," SetSearchDialogBehavior, page 474.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Search Processing in Update Modes

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

SetTempTableInstance

Syntax

SetTempTableInstance(*instance_number*)

Description

Use the SetTempTableInstance function to set the default temp table instance to the specified number for the processing of temporary tables. This default is used by all %Table meta-SQL references to temporary tables, and by all SQL operations. Generally, you use this function only when you're trying to use any of the ScrollSelect functions, the Rowset class Select or SelectAll methods, the record class SQL methods (SelectByKey, Insert, and so on.), or any of the meta-SQL statements that use %Table (%InsertSelect, %SelectAll, %Delete, and so on.) Generally, %Table should be used to override the default.

If you use this built-in within an Application Engine program, and the program uses a process-level instance on the request, the old instance value *must* be saved, then restored after you're finished using the new instance.

If you pass a zero for *instance_number*, the Fill method uses the physical table instance with no table append, for example, if the temporary table record is FI_INSTR_T, the physical table used is PS_FI_INSTR_T.

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Parameters

Parameter	Description
instance_number	Specify the instance number for the temporary tables.

Returns

Existing (or previous) instance number.

Example

To avoid interfering with other uses of temporary tables, you should only set the temporary table instance for your process, then set it back to the default. For example:

```
/* Set temp table instance */
&PrevInstNum = SetTempTableInstance(&NewInstNum);
/* use the temporary table */
.  .  .
/* Restore the temp table instance */
SetTempTableInstance(&PrevInstNum);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Using Meta-SQL and PeopleCode," %Table

SetTracePC

Syntax

SetTracePC(*n*)

Description

Use the SetTracePC function to control Trace PeopleCode settings programmatically. This is useful if you want to isolate and debug a single program or part of a program.

Note. If you're using an API with the Session class, use the Trace Setting class properties instead of this function.

You can set options prior to starting a PeopleTools session using the Trace tab of PeopleSoft Configuration Manager.

Trace PeopleCode creates and writes data to a trace file that it shares with Trace SQL; Trace SQL and Trace PeopleCode information are both output to the file in the order of execution. The trace file uses a file name and location specified in the Trace page of PeopleSoft Configuration Manager. If no trace file is specified in PeopleSoft Configuration Manager, the file is set by default to DBG1.TMP in your Windows Temp directory. If you specify only a file name, and no directory is specified, the file is written to the directory you're running Tools from. This file is cleared each time you log on and can be opened in a text editor while you are in a PeopleTools session, so if you want to save it, you must print it or copy it from your text editor.

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Trace timings are given in the elapsed time in seconds, but reported in microseconds and include CPU time and "cycles". The CPU time measurement, depending on platform, may not be very precise. The "cycles" is a measure of how much PeopleCode the program is executing. It counts loops around the PeopleCode interpreter. This cycle count is only updated when some tracing or debugging is going on. So, for example, turning the trace off then back on again will skip some cycles.

Note. PeopleSoft recommends using a value of %TracePC_EachStmt (2048) instead of %TracePC_Functions (1) and %TracePC_List (2).

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Session Class," Trace Setting Class Properties

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleSoft Configuration Manager," Understanding PeopleSoft Configuration Manager

Parameters

Parameter	Description
options	Either a number or a constant value that sets trace options. Calculate *options* by either totaling the numbers associated with any of the following options or by adding constants together:

Numeric Value	Constant Value	Description
0	%TracePC_None	Set trace off.
1	%TracePC_Functions	Provide a trace of the program as it is executed. This implies options 64, 128, and 256 described in the following rows.
2	%TracePC_List	Provide a listing of the entire program.
4	%TracePC_Assigns	Show the results of all assignments made to variables.
8	%TracePC_Fetches	Show the values fetched for all variables.
16	%TracePC_Stack	Show the contents of the internal machine stack. This option is normally used for debugging the PeopleCode language and not PeopleCode programs.
64	%TracePC_Starts	Provide a trace showing when each program starts.
128	%TracePC_ExtFuncs	Provide a trace showing the calls made to each external PeopleCode routine.
256	%TracePC_IntFuncs	Provide a trace showing the calls made to each internal PeopleCode routine.
512	%TracePC_ParamsIn	Show the values of the parameters to a function.
1024	%TracePC_ParamsOut	Show the values of the parameters as they exist at the return from a function.
2048	%TracePC_EachStmt	Show each statement as it's executed (and don't show statements on branches not taken.)

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Numeric Value	Constant Value	Description
32768	%TracePC_Evaluations	Start the timing tracing of the start and end of top-level program evaluations. This is similar to the Trace Start of Programs, but only traced when the call isn't directly from PeopleCode. It traces recursive evaluations, like what happens when a ScrollSelect in a RowInit event causes another recursive RowInit to fire during the outer RowInit. If both Trace Evaluations (32768) and Trace Start of Programs (64) are on (32768+64 = 32832) then all routine calls (functions, methods, get, set for both internal and external PeopleCode to PeopleCode calls) are traced. The resulting trace file can be processed by a program to add up the timings for each routine and separate the in-routine timings from those for called routines.

Returns

None.

Example

The following example is part of a SavePreChange PeopleCode program that sets PeopleCode trace based on page field settings:

```
DEBUG_CODE = 0;
If DEBUG_TRACE_ALL = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 1
End-if;
If DEBUG_LIST = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 2
End-if;
If DEBUG_SHOW_ASSIGN = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 4
End-if;
If DEBUG_SHOW_FETCH = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 8
End-if;
If DEBUG_SHOW_STACK = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 16
End-if;
If DEBUG_TRACE_START = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 64
End-if;
If DEBUG_TRACE_EXT = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 128
```

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```
End-if;
If DEBUG_TRACE_INT = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 256
End-if;
If DEBUG_SHOW_PARMS = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 512
End-if;
If DEBUG_SHOW_PARMSRT = "Y" Then
   DEBUG_CODE = DEBUG_CODE + 1024
End-if;
SetTracePC(DEBUG_CODE);
```

The following example sets Trace PC to show a listing of all the calls made to external routines as well as calls made to internal routines:

```
SetTracePC(384);
```

The following is identical to the previous example:

```
SetTracePC(%TracePC_ExtFuncs + %TracePC_IntFuncs);
```

If you need a thorough trace, you can use a value of 3596. That combines the following:

Value	Description
2048	Show each statement as it's executed
1024	Show the values of the parameters as they return
512	Show the values of the parameters to a function
8	Show the values fetched for all variables
4	Show the results of all assignments

See Also

Chapter 1, "PeopleCode Built-in Functions," SetTraceSQL, page 480

Enterprise PeopleTools 8.49 PeopleBook: Data Management, "Employing Database Level Auditing"

SetTraceSQL

Syntax

SetTraceSQL(*options*)

Description

Use the SetTraceSQL function to programmatically control the Trace SQL utility, enabling you to control TraceSQL options during the course of program execution.

Note. If you're using an API with the Session class, use the Trace Setting class properties instead of this function.

When you interact with PeopleTools, SQL statements transparently perform actions such as page construction. The Trace SQL utility creates and updates a file showing the SQL statements generated by PeopleTools.

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You can set options prior to starting a PeopleTools session using the Trace tab of PeopleSoft Configuration Manager.

Trace SQL creates and writes data to a trace file that it shares with Trace PeopleCode; Trace SQL and Trace PeopleCode information are both output to the file in the order of execution. The trace file uses a file name and location specified in the Trace page of PeopleSoft Configuration Manager. If no trace file is specified in PeopleSoft Configuration Manager, the file is set by default to DBG1.TMP in your Temp directory. If you specify only a file name, and no directory is specified, the file is written to the directory you're running Tools from. This file is cleared each time you log on and can be opened in a text editor while you are in a PeopleTools session, so if you want to save it, you must print it or copy it from your text editor.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Session Class," Trace Setting Class Properties

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleSoft Configuration Manager," Understanding PeopleSoft Configuration Manager

Parameters

Parameter	Description
options	Either a Number value or a constant that sets trace options. Calculate *options* by either totaling the numbers associated with any of the following options, or adding constants together:

Numeric Value	Constant Value	Description
0	%TraceSQL_None	No output
1	%TraceSQL_Statements	SQL statements
2	%TraceSQL_Variables	SQL statement variables (binds)
4	%TraceSQL_Connect	SQL connect, disconnect, commit and rollback
8	%TraceSQL_Fetch	Row Fetch (indicates that it occurred and the return code - not the data fetched.)
16	%TraceSQL_MostOthers	All other API calls except Set Select Buffers
32	%TraceSQL_SSB	Set Select Buffers(identifies the attributes of the columns to be selected)
64	%TraceSQL_DBSpecific	Database API-specific calls
128	%TraceSQL_Cobol	COBOL Statement Timings
256	%TraceSQL_SybBind	Sybase Bind Information
512	%TraceSQL_SybFetch	Sybase Fetch Information
1024	%TraceSQL_DB2400Server	Manager information for DB2/400 only
4096	%TraceSQL_ManagerInfo	All manager information.
8192	%TraceSQL_AppEngineInfo	Trace Application Engine information.

Note. PeopleSoft recommends setting options to 3 to provide most essential information without performance degradation. Options 8 and 32 greatly increase the volume of the trace and will noticeably degrade performance.

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Returns

None.

Example

The following example switches off Trace SQL:

```
SetTraceSQL(0);
```

The following is identical to the previous example:

```
SetTraceSQL(%TraceSQL_None);
```

The following example sets Trace SQL to typical settings that won't degrade performance:

```
SetTraceSQL(3);
```

The following is identical to the previous example:

```
SetTraceSQL(%TraceSQL_Statements + %TraceSQL_Variables);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetTracePC, page 477

Enterprise PeopleTools 8.49 PeopleBook: Data Management, "Employing Database Level Auditing"

SetupScheduleDefnItem

Syntax

SetupScheduleDefnItem(*ScheduleName, JobName*)

Description

Use the SetupScheduleDefnItem function to create a ProcessRequest object. After you've created this object, you can assign values to its properties then specific methods created to either schedule or print info for a Scheduled Jobset.

Parameters

Parameter	Description
ScheduleName	Specify the process type as a string. Values depend on the Scheduled Jobset defined for your system.
JobsName	Specify the name of the job name as a string.

Returns

A reference to a ProcessRequest object.

Example

```
Local ProcessRequest &MYRQST;

&MYRQST = SetupScheduleDefnItem("SampleSchedule", &MyJobName);
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "ProcessRequest Class"

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SetUserOption

Syntax

SetUserOption(*Level*, *OPTN*, *Value*)

Description

Use the SetUserOption to set the default value for the specified option.

Parameters

Parameter	Description
Level	Specify the option category level as a string.
OPTN	Specify the option as a string.
Value	Specify the value of the option.

Returns

A Boolean value: True, if the function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," GetUserOption, page 316

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Managing PeopleSoft Personalizations"

Sign

Syntax

Sign(*n*)

Description

Use the Sign function to determine the sign of a number.

Parameters

Parameter	Description
n	A number value of which to determine the sign.

Returns

Returns a number value equal to:

- 1 if *n* is positive
- 0 if *n* is 0
- -1 if *n* is negative

Example

The example sets &NUMSIGN to 1:

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```
&NUMSIGN = Sign(25);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Abs, page 28

Sin

Syntax

Sin(*angle*)

Description

Use the Sin function to calculate the sine of the given angle (opposite / hypotenuse).

Parameters

Parameter	Description
angle	A value in radians.

Returns

A real number between -1.00 and 1.00.

Example

The following example returns the sine of an angle measuring 1.2 radians:

```
&MY_RESULT = Sin(1.2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Acos, page 31, Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Atan, page 49, Chapter 1, "PeopleCode Built-in Functions," Cos, page 104, Chapter 1, "PeopleCode Built-in Functions," Cot, page 105, Chapter 1, "PeopleCode Built-in Functions," Degrees, page 150, Chapter 1, "PeopleCode Built-in Functions," Radians, page 401 and Chapter 1, "PeopleCode Built-in Functions," Tan, page 502.

SinglePaymentPV

Syntax

SinglePaymentPV(*int_rate, n_per*)

Description

Use the SinglePaymentPV function to calculate the future value of a single monetary unit after a specified number of periods at a specified interest rate.

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Parameters

Parameter	Description
int_rate	A number representing the interest rate at which value is accrued per period.
n_per	A number specifying the number of periods on which to base the calculated value.

Returns

Returns a number value equal to the value of the unit after *n_per* periods at an interest rate of *int_rate* per period.

Example

The example calculates &PMT as .857338820301783265:

```
&PMT = SinglePaymentPV(8, 2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," UniformSeriesPV, page 539

SortScroll

Syntax

SortScroll(*level*, *scrollpath*, *sort_fields*)

Where *scrollpath* is:

[**RECORD.***level1_recname*, [**RECORD.***level2_recname*,] **RECORD.***target_recname*

and where *sort_fields* is a list of field specifiers in the form:

[*recordname.*]*field_1*, *order_1* [, [*recordname.*]*field_2*, *order_2*]. . .

Description

The SortScroll function programmatically sorts the rows in a scroll area on the active page. The rows can be sorted on one or more fields.

Note. This function remains for backward compatibility only. Use the Sort rowset method instead.

The type of sort done by this function, that is, whether it is a linguistic or binary sort, is determined by the Sort Order Option on the PeopleTools Options page.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class," Sort

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

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Parameters

Parameter	Description
level	Integer specifying the level of the scroll to sort. It can be 1, 2, or 3.
scrollpath	A construction that specifies a scroll area in the component buffer.
sort_fields	A list of field and order specifiers which act as sort keys. The rows in the scroll area are sorted by the first field in either ascending or descending order, then by the second field in either ascending or descending order, and so on.
[*recordname.*]*field_n*	Specifies a sort key field in *target_recname*. The recordname prefix is required if the call to SortScroll is in a record other than *target_recname*.
order_n	A single-character string. "A" specifies ascending order; "D" specifies descending order.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

The first example repopulates a scroll in a page programmatically by first flushing its contents, selecting new contents using ScrollSelect, then sorting the rows in ascending order by EXPORT_OBJECT_NAME:

```
Function populate_scrolls;
   ScrollFlush(RECORD.EXPORT_OBJECT);
   ScrollSelect(1, RECORD.EXPORT_OBJECT, RECORD.EXPORT_OBJECT,
               "where export_type = :EXPORT_TYPE_VW.EXPORT_TYPE");
   SortScroll(1, RECORD.EXPORT_OBJECT, EXPORT_OBJECT.EXPORT_OBJECT_NAME, "A");
End-function;
```

The second example sorts the rows on scroll level one by primary and secondary key fields:

```
SortScroll(1,RECORD.EN_BOM_COMPS,EN_BOM_COMPS.SETID,"A",
   EN_BOM_CMOPS.INV_ITEM_ID,"A");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," HideScroll, page 324, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelectNew, page 431, Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435, Chapter 1, "PeopleCode Built-in Functions," ScrollSelectNew, page 437 and Chapter 1, "PeopleCode Built-in Functions," UnhideScroll, page 538.

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," PeopleTools Options

Split

Syntax

Split(*string, separator*)

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Description

Use the Split function to *convert* a string into an array of strings by looking for the string *separator* in the given string.

Note. Split does not split an array.

If *separator* is omitted, a blank is used.

If *separator* is a null string (""), the string is split into single characters.

If *separator* is the last character in the string, you will not get an empty string. For example, in the following code, &array only has a value of 2:

```
&test = "value1:value2:";

&array = Split(&test, ":");
```

Parameters

Parameter	Description
string	The string to be converted into an array
separator	The character used for dividing the string.

Returns

Returns a reference to the array.

Example

The following code produces in &AS the array ("This", "is", "a", "simple", "example.").

```
&STR = "This is a simple example.";
&AS = Split(&STR);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateArray, page 107 and Chapter 1, "PeopleCode Built-in Functions," CreateArrayRept, page 109.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Array Class"

SQLExec

Syntax

SQLExec({*sqlcmd* | **SQL.***sqlname*}, *bindexprs*, *outputvars*)

where *bindexprs* is a list of expressions, one for each *:n* reference within *sqlcmd* or the text found in the SQL defintion *sqlname,* in the form:

inexpr_1 [, *inexpr_2*]. . .

and where *outputvars* is a list of variables, record fields, or record object references, one for each column selected by the SQL command, in the form:

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out_1 [, *out_2*]. . .

Description

Use the SQLExec function to execute a SQL command from within a PeopleCode program by passing a SQL command string. The SQL command bypasses the Component Processor and interacts with the database server directly. If you want to delete, insert, or update a single record, use the corresponding PeopleCode record object method.

If you want to delete, insert, or update a series of records, all of the same type, use the CreateSQL or GetSQL functions, then the Execute SQL class method.

Limitation of SQLExec SELECT Statement

SQLExec can only Select a single row of data. If your SQL statement (or your **SQL**.*sqlname* statement) retrieves more than one row of data, SQLExec sends only the first row to its output variables. Any subsequent rows are discarded. This means if you want to fetch only a single row, SQLExec can perform better than the other SQL functions, because only a single row is fetched. If you need to SELECT multiple rows of data, use the CreateSQL or GetSQL functions and the Fetch SQL class method. You can also use ScrollSelect or one of the Select methods on a rowset object to read rows into a (usually hidden) work scroll.

Note. The PeopleSoft record name specified in the SQL SELECT statement must be in uppercase.

Limitations of SQLExec UPDATE, DELETE, and INSERT Statements

SQLExec statements that result in a database update (specifically, UPDATE, INSERT, and DELETE) can only be issued in the following events:

- SavePreChange
- WorkFlow
- SavePostChange
- FieldChange

Remember that SQLExec UPDATEs, INSERTs, and DELETEs go directly to the database server, not to the Component Processor (although SQLExec can look at data in the buffer using bind variables included in the SQL string). If a SQLExec assumes that the database has been updated based on changes made in the component, that SQLExec can be issued only in the SavePostChange event, because before SavePostChange none of the changes made to page data has actually been written back to the database.

Setting Data Fields to Null

SQLExec does *not* set Component Processor data buffer fields to NULL after a row not found fetching error. However, it does set fields that aren't part of the Component Processor data buffers to NULL. Work record fields are also reset to NULL.

Using Meta-SQL in SQLExec

Different DBMS platforms have slightly different formats for dates, times, and datetimes; and PeopleSoft has its own format for these data types as well. Normally the Component Processor performs any necessary conversions when platform-specific data types are read from the database into the buffer or written from the buffer back to the database.

When an SQLExec statement is executed, these automatic conversions don't take place. Instead, you need to use meta-SQL functions inside the SQL command string to perform the conversions. The basic types of meta-SQL functions are:

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- General functions that expand at runtime to give you lists of fields, key fields, record fields, and so on. %InsertSelect or %KeyEqual are typical examples.
- In functions that expand at runtime into platform-specific SQL within the WHERE clause of a SELECT or UPDATE statement or in an INSERT statement. %DateIn is a typical example.
- Out functions that expand at runtime into platform-specific SQL in the main clause of SELECT statement. %DateOut is a typical example.

Following is an example of an SQL SELECT using both and "in" and "out" metastring:

```
select emplid, %dateout(effdt) from PS_CAR_ALLOC a where car_id = '" |⇒
 &REGISTRATION_NO | "' and plan_type = '" | &PLAN_TYPE | "' and a.effdt = ⇒
(select max (b.effdt) from PS_CAR_ALLOC b where a.emplid=b.emplid and b.effdt <=⇒
 %currentdatein) and start_dt <= %currentdatein and (end_dt is null or end_dt >=⇒
 %currentdatein)";
```

See Chapter 2, "Meta-SQL," page 561.

Bind Variables in SQLExec

Bind variables are references within the *sqlcmd* string to record fields listed in *bindvars*. Within the string, the bind variables are integers preceded by colons:

```
:1, :2,. . .
```

The integers need not in numerical order. Each of these :*n* integers represents a field specifier in the *bindvars* list, so that :1 refers to the first field reference in *bindvars*, :2 refers to the second field reference, and so on.

For example, in the following statement:

```
SQLExec("Select sum(posted_total_amt)
   from PS_LEDGER
   where deptid between  :1 and :2", DEPTID_FROM, DEPTID_TO, &SUM);
```

:1 is replaced by the value contained in the record field DEPTID_FROM; :2 is replaced by the value contained in the record field DEPTID_TO.

Note the following points:

- Bind variables can be used to refer to long character (longchar) fields. Long character fields are represented in PeopleCode as strings. You should use %TextIn() Meta-SQL to ensure these fields are represented correctly on all database platforms.
- Bind variables can be passed as parameters to meta-SQL functions, for example:

```
SQLExec(". . .%datein(:1). . .", START_DT, &RESULT)
```

- If a bind variable :*n* is a Date field that contains a null value, SQLExec replaces all occurrences of ":n" located before the first WHERE clause with "NULL" and all occurrences of "= :n" located after the first WHERE to "IS NULL".

Inline Bind Variables in SQLExec

Inline bind variables are included directly in the SQL string in the form:

```
:recordname.fieldname
```

The following example shows the same SQLExec statement with standard bind variables, then with inline bind variables:

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```
Rem without Inline Bind Variables;
SQLExec("Select sum(posted_total_amt)
   from PS_LEDGER
   where deptid between  :1 and :2", deptid_from, deptid_to, &sum);
Rem with Inline Bind Variables;
SQLExec("Select sum(posted_total_amt)
   from PS_LEDGER
   where deptid between  :LEDGER.DEPTID_FROM
   and :LEDGER.DEPTID_TO",  &sum);
```

Inline bind variables, like all field and record references enclosed in strings, are considered by PeopleTools as a "black box". If you rename records and fields, PeopleTools does not update record and field names that are enclosed in strings as inline bind variables. For this reason, you should use standard bind variable in preference to inline bind variables wherever standard bind variables are available (as they are in SQLExec).

Prior to PeopleTools 8.0, PeopleCode replaced runtime parameter markers in SQL strings with the associated literal values. For databases that offer SQL statement caching, a match was never found in the cache so the SQL had to be re-parsed and re-assigned a query path. However, with PeopleTools 8.0, PeopleCode passes in bind variable parameter markers. For databases with SQL caching, this can offer significant performance improvements.

If you use inline bind variables, they will still be passed as literals to the database. However, if you convert them to bind variables, you may see significant performance improvements.

Output Variables in SQLExec

If you use SQLExec to Select a row of data, you must place the data into variables or record fields so that it can be processed. You list these variables or fields, separated by commas in the *output* part of the statement following the *bindvars* list. Supply one variable or field for each column in the row of data retrieved by SQLExec. They must be listed in the same order in which the columns will be selected.

The number of output variables cannot exceed 64.

Using Arrays for Bind Variables

You can now use a parameter of type Array of Any in place of a list of bind values or in place of a list of fetch result variables. This is generally used when you don’t know how many values are needed until the code runs.

For example, suppose that you had some PeopleCode that dynamically (that is, at runtime) generated the following SQL statement:

```
&Stmt = "INSERT INTO PS_TESTREC (TESTF1, TESTF2, TESTF3, TESTF4, . . . N) VALUES (:⇒
⇒
⇒
⇒
⇒
1, :2, %DateTimeIn(:3), %TextIn(:4), . . .N)";
```

Suppose you have placed the values to be inserted into an Array of Any, say &AAny:

```
&AAny = CreateArrayAny("a", 1, %DateTime, "abcdefg", . . .N);
```

You can execute the insert by:

```
SQLExec(&Stmt, &AAny);
```

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Because the Array of Any promotes to absorb any remaining select columns, it must be the last parameter for the SQL object Fetch method or (for results) SQLExec. For binding, it must be the only bind parameter, as it is expected to supply all the bind values needed.

SQLExec Maintenance Issues

SQLExec statements are powerful, but they can be difficult to upgrade and maintain. If you use a SQL string passed in the command, it's considered a "black box" by PeopleCode. If field names or table names change during an upgrade, table and field references within the SQL string are not updated automatically. For these reasons, you should use a SQL definition and the meta-SQL statements provided in PeopleTools 8.0, instead of typing in a SQL string.

Generally, you should use SQLExec only when you must interact directly with the database server and none of the ScrollSelect functions, or record class methods (which are somewhat easier to maintain) will serve your purpose effectively.

Be Careful How You Use It

SQLExec performs any SQL statement the current Access ID has database privileges to perform. This normally includes SELECT, INSERT, UPDATE, and DELETE statements against application data tables. However, you can set up users to use Access IDs with more privileges (typically, AccessIDs have full database administrator authority). In such cases, the user could alter the structure of tables using SQLExec, or even drop the database.

Warning! The PeopleSoft application will not stop the end-user from doing anything that the Access ID has privileges to do on the database server, so be very careful what you write in an SQLExec statement.

Parameters

Parameter	Description
sqlcmd | **SQL**.*sqlname*	Specify either a String containing the SQL command to be executed or a reference to an existing SQL definition. This string can include bind variables, inline bind variables, and meta-SQL.
bindexprs	A list of expressions, each of which corresponds to a numeric (:*n*) bind variable reference in the SQL command string. It can also be a reference to a record object or an array of Any containing all the bind values. See Bind Variables in SQLEXEC for more details.
outputvars	A list of PeopleCode variables or record fields to hold the results of a SQL SELECT. There must be one variable for each column specified in the SELECT statement. It can also be a reference to a record object or an Array of Any that contains all the selected values.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Note. Not returning a row is not considered an error. If this is a concern, consider using the %SqlRows system variable after your call to SQLExec.

Example

The following example, illustrates a SELECT statement in a SQLExec:

```
SQLExec("SELECT COUNT(*) FROM PS_AE_STMT_TBL WHERE AE_PRODUCT = :1 AND AE_APPL_ID =⇒
```

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```
⇒
⇒
⇒
⇒
 :2 AND AE_ADJUST_STATUS = 'A' ", AE_APPL_TBL.AE_PRODUCT, AE_APPL_TBL.AE_APPL_ID,⇒
 AE_ADJ_AUTO_CNT);
```

Note the use of bind variables, where :1 and :2 correspond to AE_APPL_TBL.AE_PRODUCT and AE_APPL_TBL.AE_APPL_ID. AE_ADJ_AUTO_CNT is an output field to hold the result returned by the SELECT.

The next example is also a straightforward SELECT statement, but one which uses the %datein meta-SQL function, which expands to appropriate platform-specific SQL for the :5 bind variable:

```
SQLExec("SELECT 'X', AE_STMT_SEG FROM PS_AE_STMT_B_TBL where AE_PRODUCT = :1 AND⇒
 AE_APPL_ID = :2 AND AE_SECTION = :3 AND DB_PLATFORM = :4 AND EFFDT = %datein(:5)⇒
 AND AE_STEP = :6 AND AE_STMT_TYPE = :7 AND AE_SEQ_NUM = :8", AE_STMT_TBL.AE_⇒
PRODUCT, AE_STMT_TBL.AE_APPL_ID, AE_STMT_TBL.AE_SECTION, AE_STMT_TBL.DB_PLATFORM,⇒
 AE_STMT_TBL.EFFDT, AE_STMT_TBL.AE_STEP, AE_STMT_TBL.AE_STMT_TYPE, &SEG, &EXIST,⇒
 &STMT_SEG);
```

This last example (in SavePreChange PeopleCode) passes an INSERT INTO statement in the SQL command string. Note the use of a date string this time in the %datein meta-SQL, instead of a bind variable:

```
SQLExec("INSERT INTO PS_AE_SECTION_TBL ( AE_PRODUCT, AE_APPL_ID, AE_SECTION, DB_⇒
PLATFORM, EFFDT, EFF_STATUS, DESCR, AE_STMT_CHUNK_SIZE, AE_AUTO_COMMIT, AE_⇒
SECTION_TYPE ) VALUES ( :1, :2, :3, :4, %DATEIN('1900-01-01'), 'A', ' ', 200,⇒
 'N', 'P' )", AE_APPL_TBL.AE_PRODUCT, AE_APPL_TBL.AE_APPL_ID, AE_SECTION, DB_⇒
PLATFORM);
```

In the following example, a SQLExec statement is used to select into a record object.

```
Local Record &DST;

&DST = CreateRecord(RECORD.DST_CODE_TBL);
&DST.SETID.Value = GetSetId(FIELD.BUSINESS_UNIT, DRAFT_BU, RECORD.DST_CODE_TYPE,⇒
 "");
&DST.DST_ID.Value = DST_ID_AR;
SQLExec("%SelectByKeyEffDt(:1,:2)", &DST, %Date, &DST);
/* do further processing using record methods and properties */
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateSQL, page 125, Chapter 1, "PeopleCode Built-in Functions," FetchSQL, page 204, Chapter 1, "PeopleCode Built-in Functions," GetSQL, page 308, Chapter 1, "PeopleCode Built-in Functions," StoreSQL, page 495 and Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

Sqrt

Syntax

SQRT(*n*)

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Description

Use the Sqrt function to calculate the square root of a number.

Parameters

Parameter	Description
n	A number of which you want to find the square root.

Returns

Returns a number equal to the positive square root of *n*. If *n* is a negative number, Sqrt displays an error.

Example

The examples return 15, 4, and 8.42615, respectively:

```
&NUM = Sqrt(225);
&NUM = Sqrt(16);
&NUM = Sqrt(71);
```

StartWork

Syntax

```
StartWork()
```

Description

Use the StartWork function to mark the start of a unit of work.

Once this function is executed, no updates to the database are allowed until a *unit of work* is completed. A unit of work is completed by an event completing (such as a FieldChange event) in which case all the Updates are saved.

A unit of work can also be completed using the CommitWork built-in function.

If a SQL failure occurs anytime during the unit of work, after the StartWork function has been called and before the unit of work completes, all updates are rolled back, up to when the StartWork function was executed.

This function can be used for nested component interface calls, such that if the lower level component interface fails, any database changes made by the calling component interface can be rolled back.

Parameters

None.

Returns

None.

Example

```
&oCI = &SESSION.GetCompIntfc(CompIntfc.CUSTOMER);

   If &oCI <> Null Then
```

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```
      .
      .
      .
      For &i = 1 To &rsCustomer.RowCount
         &recCust = &rsCustomer(&Transaction).GetRecord(Record.CUSTOMER);
         StartWork();
         If &oCI.Create() Then
             rem ***** Set CI Properties *****;
      .
         .
         .
             If Not &oCI.Save() Then
                 rem ***** Error Handling *****;
                 .....
             End-If;
         End-If;

         rem ***** CommmitWork ensures that all transactions between     *****;
         rem ***** StartWork and CommitWork get committed to the database *****;

         CommitWork();

         &oCI.Cancel();
      .
      .
      .
      End-For;
   End-If
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Component Interface Classes"

StopFetching

Syntax

StopFetching()

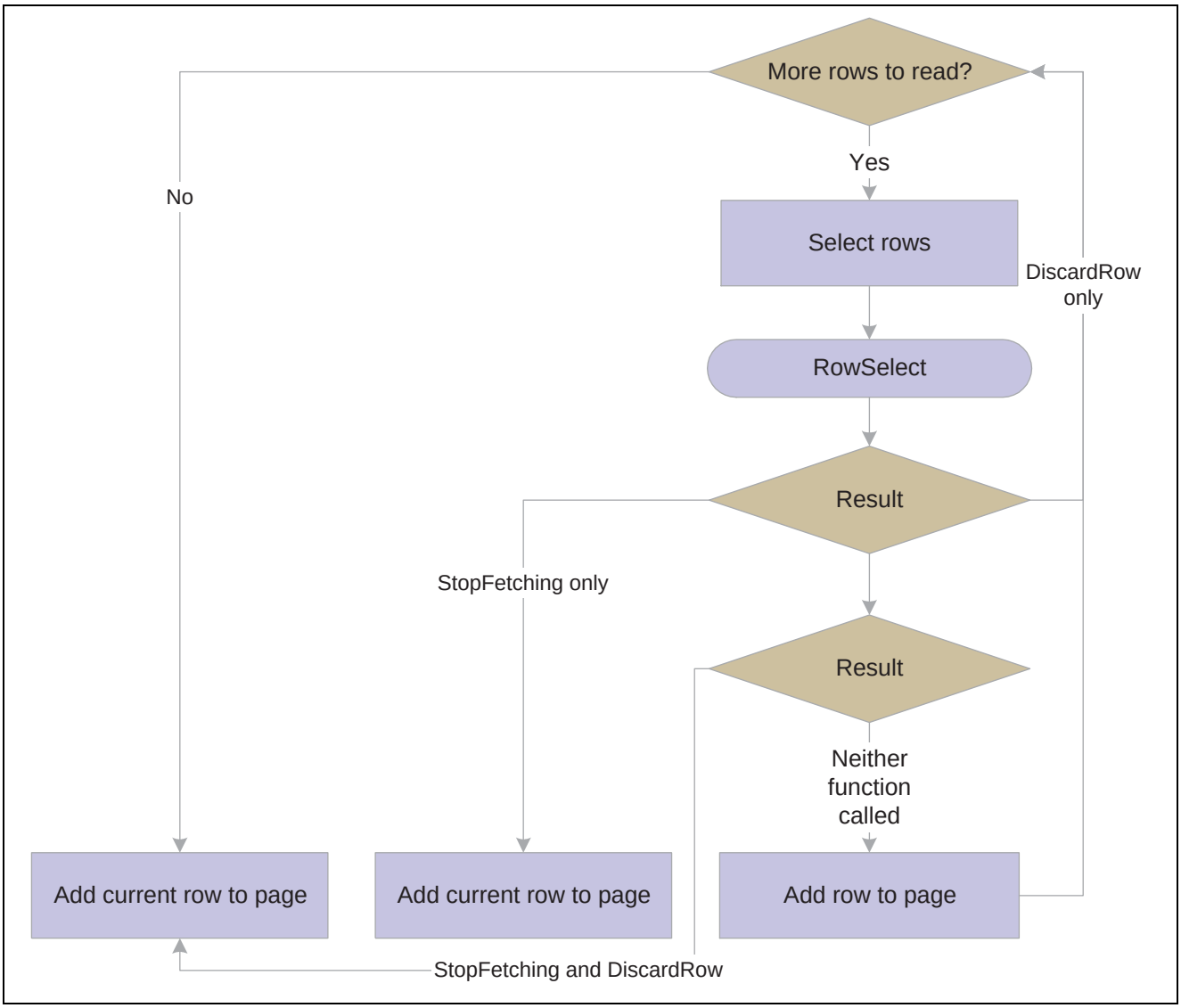
Description

The StopFetching function is called during Row Select processing, during which rows of data that have been selected down from the database can be filtered as they are added to the component. This function is valid only in RowSelect PeopleCode. If StopFetching is called without DiscardRow, it adds the current row to the component, then stops adding any more rows. If StopFetching is called with DiscardRow, the system skips the current row and stops adding rows to the component.

StopFetching has the same functionality as the Error function in the RowSelect event. The anomalous behavior of Error is supported for compatibility with previous releases of PeopleTools.

Note. Row Select processing is used infrequently, because it is more efficient to filter out rows of data using a search view or an effective-dated record before the rows are selected down to the client from the database server.

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RowSelect Processing Logic

Returns

None.

See Also

Chapter 1, "PeopleCode Built-in Functions," DiscardRow, page 167 and Chapter 1, "PeopleCode Built-in Functions," Error, page 189.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "PeopleCode and the Component Processor," Row Select Processing

StoreSQL

Syntax

```
StoreSQL(sqlstring, [SQL.]sqlname[, dbtype[, effdt [, ownerid [, description]]]])
```

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Description

Use the StoreSQL function to write the given *sqlstring* value to a SQL definition, storing it under the name *sqlname*, with the database type *dbtype* and the effective date *effdt*. If *sqlname* is a literal name, it must be in the form **SQL**.*sqlname* or in quotes ("*sqlname*").

To specify a generic statement, that is, one that is overridden by any other matching statement, specify *dbtype* as `Default` and *effdt* as the null date (or Date(19000101).

You must commit all database changes prior to using this function. This is to avoid locking critical Tools tables and hence freezing all other users. You receive a runtime error message if you try to use this function when there are pending database updates, and your PeopleCode program terminates. You need to commit any database updates prior to using this function. The CommitWork PeopleCode function has been enhanced to allow this.

Parameters

Parameter	Description
sqlstring	Specify the SQL string to be saved as the SQL definition. This parameter takes a string value.
sqlname	Specify the name of the SQL definition to be created. This is either in the form **SQL**.*sqlname* or a string value giving the *sqlname.*
dbtype	Specify the database type to be associated with the SQL definition. This parameter takes a string value. If *dbtype* isn't specified or is null (""), it is set by default to the current database type (the value returned from the %DbName system variable.) Values for *dbtype* are as follows. These values are not case-sensitive: • APPSERVER • DB2 • DB2UNIX • INFORMIX • MICROSOFT • ORACLE • SYBASE **Note.** Database platforms are subject to change.
effdt	Specify the effective date to be associated with the SQL definition. If *effdt* isn't specified, it is set by default to the current as of date, that is, the value returned from the %AsOfDate system variable.
ownerid	Specify the four character ownerId associated with this SQL statement. If not specified, no ownerId is associated.
description	Specify the description text associated with this SQL statement.

Returns

None.

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Example

The following code stores the select statement as a SQL definition under the name SELECT_BY_EMPLID, for the current database type and effective as of the current as of date:

```
StoreSQL("%Select(:1) where EMPLID = :2", SQL.SELECT_BY_EMPLID);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateSQL, page 125, Chapter 1, "PeopleCode Built-in Functions," DeleteSQL, page 157, Chapter 1, "PeopleCode Built-in Functions," FetchSQL, page 204, Chapter 1, "PeopleCode Built-in Functions," GetSQL, page 308, Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487 and Chapter 1, "PeopleCode Built-in Functions," CommitWork, page 76.

Chapter 3, "System Variables," %DbName, page 614

Chapter 3, "System Variables," %AsOfDate, page 610

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

String

Syntax

String(*value*)

Description

Use the String to convert any non-string data type (except Object) to a string.

Normally the Component Processor automatically handles data type conversions. However, for some operations, such as comparisons, you want to specify the data type explicitly. Assume, for example, that you have two fields FIELD_I and FIELD_J containing number values 5000 and 10000. As character fields, 10000 is less than 5000 (because the first character in 10000 is less than the first character in 5000). As numbers, however, 10000 is of course greater than 5000.

Note. Due to the internal representation of numbers, sometimes String represents numbers differently. If you want to control exactly how a number is represented, use the NumberToString function.

Parameters

Parameter	Description
value	A value of any type other than object, to be converted to its String representation.

Returns

Returns a String value representing *value*.

Example

To force the comparison of the two fields as strings, you could use:

```
if string(FIELD_1) > string(FIELD_2). . .
```

You can use the String function with a field object as follows:

```
&DATE = GetRecord(RECORD.DERIVED_HR).GetField(FIELD.EFFDT);
```

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```
&STR = String(&DATE.Value);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Char, page 68, Chapter 1, "PeopleCode Built-in Functions," Exact, page 194, Chapter 1, "PeopleCode Built-in Functions," Find, page 209, Chapter 1, "PeopleCode Built-in Functions," Left, page 352, Chapter 1, "PeopleCode Built-in Functions," Substring, page 498, Chapter 1, "PeopleCode Built-in Functions," Value, page 543 and Chapter 1, "PeopleCode Built-in Functions," NumberToString, page 382.

Substitute

Syntax

Substitute(*source_text*, *old_text*, *new_text*)

Description

Use the Substitute function to replace every occurrence of a substring found in a string with a new substring. To replace text that occurs in a specific location in a text string use the Replace function.

Parameters

Parameter	Description
source_text	A String in which you want to replace substrings.
old_text	A String equal to the substring of *source_text* you want to replace. A tilde character (~) used in the *old_text* parameter stands for an arbitrary number of white spaces. For example, the following substitution: `Substitute("2003* 0723* * * * ~", "* ~", "~")` produces the result `2003~0723~~~~~`, *not* the result `2003* 0723* * * ~`.
new_text	A String with which to replace occurrences of *old_text* in *source_text*.

Returns

Returns a String resulting from replacing every occurrence of *old_text* found in *source_text* with *new_text*.

Example

The following example changes "Second Annual Conference" to "Third Annual Conference":

```
&newstr = Substitute("Second Annual Conference","Second","Third");
```

The next example sets &newstr to "cdcdcd":

```
&newstr = Substitute("abababab", "ab", "cd");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Replace, page 418

Substring

Syntax

Substring(*source_str*, *start_pos*, *length*)

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Description

Use the Substring function to extract a substring of a specified number of characters beginning at a specified location in a source string. If the string contains Unicode non-BMP characters, each code unit of the surrogate pair is counted as a separate character, care should be taken not to split a surrogate pair using Substring.

If you know the exact length of *source_str*, and that it is null terminated, you can set *length* to 1 plus the exact length of *source_str* to get everything from *start_pos* to the end.

Parameters

Parameter	Description
source_str	A String from which to extract a substring.
start_pos	A number representing the character position in *source_str* where the substring starts, starting at 1.
length	A number specifying the number of characters in the substring.

Returns

Returns a String equal to a substring *length* characters long beginning at character *start* of *source_str*.

Example

This example sets &PAGE_NAME to the first eight characters of the name of the current page:

```
&PAGE_NAME = Substring(%page,1,8);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Char, page 68, Chapter 1, "PeopleCode Built-in Functions," Exact, page 194, Chapter 1, "PeopleCode Built-in Functions," Find, page 209, Chapter 1, "PeopleCode Built-in Functions," Left, page 352, Chapter 1, "PeopleCode Built-in Functions," Right, page 426, Chapter 1, "PeopleCode Built-in Functions," String, page 497 and Chapter 1, "PeopleCode Built-in Functions," Substringb, page 499.

Substringb

Syntax

```
Substringb(source_str, start_pos, length)
```

Description

Note. This function has been deprecated and is no longer supported.

SwitchUser

Syntax

```
SwitchUser(UserID, Password, AuthToken , ExtAuthInfo)
```

Note. *Password* is *not* encrypted: it is passed as a string.

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Description

Use the SwitchUser function to change the user ID of the current user logged onto the PeopleSoft system.

Note. SwitchUser changes the Portal user rather than the content specific user. This means it changes the user ID in *all* databases to which the user is connected.

Note. If you use SwitchUser with the *AuthToken* parameter, the local Integration Broker node must have a *Password* or *Certificate* Authentication option. If the local Integration Broker node authentication option is *None*, SwitchUser always fails and returns false.

The SwitchUser function might be used as follows. Suppose there is a special user ID in the system called REGIST. REGIST *only* has access to the self-registration component. The self-registration component has logic that asks the user a list of questions and information based on data in the database. Are you a customer, vendor, or employee? Enter your customer name. Enter other information related to this customer account (such as information only this customer knows or information this customer just received from a workflow email). After the program verifies the information, create a User ID for this customer. After the user ID is created, the program should take the user directly into their transaction without having to logoff, by using SwitchUser.

Considerations Using SwitchUser

You must never call SwitchUser from Signon PeopleCode. SwitchUser calls Signon PeopleCode, therefore creating an infinite loop.

Do not use SwitchUser in PeopleSoft Application Engine or in asynchronous notification PeopleCode.

Do not use SwitchUser in a Component Interface. The user is only switched for the duration of the service call. During the next call, the user reverts to the original user.

Do not try to use the PeopleCode Debugger with the SwitchUser function. Only the first user is logged into the PeopleCode Debugger. Once the switch occurs, any breakpoints, logging, and so on, are no longer executed.

Parameters

Parameter	Description
UserID	Specify the User ID to be started. This parameter takes a string value.
Password	Specify the Password for this User ID. This parameter takes a string value. **Note.** *Password* is *not* encrypted: it is passed as a string.
AuthToken	Specify a single signon authentication token used to authenticate the user. If you are authenticating the user by Userid and password, specify a NULL value for this parameter, that is, two quotation marks with no blank space between them (""). If you specify a token, and the token is valid, SwitchUser switches to the User ID embedded in the token. All other parameters are ignored if a token is used. This parameter takes a string value.
ExtAuthInfo	Specify binary data (encoded as a base64 string) used as additional input to authenticate the user. If your application doesn't use external authentication information, specify a NULL value for this parameter, that is, two quotation marks with no blank space between them ("").

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Returns

A Boolean value: True if user ID is switched successfully, False otherwise.

Example

The most common use of SwitchUser specifies only a Userid and Password. If the SwitchUser function executes successfully, you should check to see if the password for the new user id has expired.

```
If Not SwitchUser("MYUSERID", "MYPASSWORD", "", "") Then
   /* switch failed, do error processing */
Else
   If %PasswordExpired Then
      /* application specific processing for expired passwords */
   End-If;
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetPasswordExpired, page 469

Chapter 3, "System Variables," %UserId, page 629

Chapter 3, "System Variables," %PasswordExpired, page 622

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

SyncRequestXmlDoc

Syntax

SyncRequestXmlDoc(*&XmlDoc*, **Message.***MessageName* [, **Node.***NodeName*])

Description

Use the SyncRequestXmlDoc function to send a synchronous message that is based on an XmlDoc object.

Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class SyncRequest method instead.

The XmlDoc object must already be instantiated and populated. The message included in the function call should be an *unstructured* message, that is, one that isn't based on a hierarchical record structure.

If you want to handle an XmlDoc as a Message object, you need to define a Message object with a hierarchical structure and migrate the data in the XmlDoc object into the Message object.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," SyncRequest

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Parameters

Parameter	Description
&XmlDoc	Specify an already instantiated and populated XmlDoc object that you want to send as a synchronous message.
MessageName	Specify an already existing nonrowset-based message, prefixed with the reserved word **Message**.
NodeName	Specify a node. This is for Sender Specified Routing (SSR) prefixed with the reserved word **Node**. The node defines the target for the published message.

Returns

A reference to an XmlDoc object that is the response.

Example

```
Local XmlDoc &reqdoc, &respdoc;
. . .
&respdoc = SyncRequestXmlDoc(&reqdoc, Message.MY_MESSAGE, Node.MY_NODE);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," PublishXmlDoc, page 396 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Message Classes," SyncRequest.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Managing Messages"

Tan

Syntax

Tan(*angle*)

Description

Use the Tan function to calculate the tangent of the given angle (opposite / adjacent).

Parameters

Parameter	Description
angle	A value in radians.

Note. In theory, values of *angle* such that *angle* mod pi = pi/2 are not valid for this function, because inputs approaching such values produce results that tend toward infinity. In practice, however, no computer system can represent such values exactly. Thus, for example, the statement `Tan(Radians(90))` produces a number close to the largest value PeopleCode can represent, rather than an error.

Returns

A real number.

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Example

The following example returns the tangent of an angle measuring 1.2 radians:

```
&MY_RESULT = Tan(1.2);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Acos, page 31, Chapter 1, "PeopleCode Built-in Functions," Asin, page 48, Chapter 1, "PeopleCode Built-in Functions," Atan, page 49, Chapter 1, "PeopleCode Built-in Functions," Cos, page 104, Chapter 1, "PeopleCode Built-in Functions," Cot, page 105, Chapter 1, "PeopleCode Built-in Functions," Degrees, page 150, Chapter 1, "PeopleCode Built-in Functions," Radians, page 401 and Chapter 1, "PeopleCode Built-in Functions," Sin, page 484.

Throw

Syntax

Throw *Expression*

Description

Use the Throw statement to throw an exception. This can be used to create your own exceptions, instead of using one generated by the system.

Parameters

Parameter	Description
Expression	Specify the exception object that you want to throw. This can either be an already defined and created exception object, or one that you create with the Throw statement.

Returns

None.

Example

```
Local Exception &ex;

Function t1(&i As integer) Returns number

   Local number &res = &i / 0;

End-Function;

Function t2
   throw CreateException(2, 160, "'%1' doesn't support property or method '%2'",⇒
 "SomeClass", "SomeMethod");
End-Function;

try

/* This will cause a divide by 0 leading to an exception */
   /* This code will never be caught since t1(2) will resume execution in the⇒
```

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```
 catch block below.
It is here to show how an exception can be thrown directly bythe PeopleCode⇒
 itself. */

   t2();

   Local number &res = t1(2);
catch Exception &caught
   MessageBox(0, "", 0, 0, "Caught exception: " | &caught.ToString());
end-try;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," CreateException, page 112 and Chapter 1, "PeopleCode Built-in Functions," Try, page 532.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Managing Messages"

Time

Syntax

Time(*n*)

Description

Use the Time function to derive a Time value from a Number value. Use it to assign values to Time fields and variables, since Time values cannot be directly represented as constants.

Parameters

Parameter	Description
n	A Number in the form HHMMSS[.SSSSSS], representing a time to a precision of up to .000001 second, based on a 24-hour clock.

Returns

Returns a Time value based on the number *n*.

Example

The example sets &START_TIME to 12:34:56.123456:

```
&START_TIME = Time(123456.123456);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," DateTimeValue, page 141, Chapter 1, "PeopleCode Built-in Functions," Time3, page 504 and Chapter 1, "PeopleCode Built-in Functions," TimeValue, page 507.

Time3

Syntax

Time3(*hours*, *mins*, *secs*)

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Description

Use the Time3 function to derive a Time value from three supplied numbers. It can be used to assign values to Time fields and variables, since Time values cannot be directly represented as constants.

Parameters

Parameter	Description
hours	A Number in the form HH between 00 and 23, representing hours on a 24-hour clock.
mins	A Number in the form MM between 00 and 59, representing minutes of the hour.
secs	A Number in the form SS[.SSSSSS], between 00 and 59.999999, representing seconds.

Returns

Returns a Time value based equal to the sum of the three input values representing hours, minutes, and seconds, to a precision of .000001 second.

Example

The example sets &START_TIME to 11.14.09.300000:

```
&START_TIME = Time3(11,14,9.3);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateTime6, page 135, Chapter 1, "PeopleCode Built-in Functions," Time, page 504 and Chapter 1, "PeopleCode Built-in Functions," TimeValue, page 507.

TimePart

Syntax

TimePart(*datetime_val*)

Description

Use the TimePart function to derive the Time component of a DateTime value.

Parameters

Parameter	Description
datetime_val	A DateTime value from which to extract the Time component.

Returns

Returns a Time value.

Example

The example set &T to 15.34.35.000000:

```
&DT = DateTimeValue("12/13/1993 3:34:35 PM");
```

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```
&T = TimePart(&DT);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DatePart, page 135, Chapter 1, "PeopleCode Built-in Functions," Hour, page 326, Chapter 1, "PeopleCode Built-in Functions," Minute, page 368 and Chapter 1, "PeopleCode Built-in Functions," Second, page 439.

TimeToTimeZone

Syntax

TimeToTimeZone(*OldTime, SourceTimeZone, DestinationTimeZone*);

Description

Use the TimeToTimeZone function to convert a time field from the time specified by *SourceTimeZone* to the time specified by *DestinationTimeZone*.

Considerations Using this Function

This function should generally be used in PeopleCode, *not* for displaying time. If you take a time value, convert it from base time to client time, then try to display this time, depending on the user settings, when the time is displayed the system might try to do a *second* conversion on an already converted time. This function could be used as follows: suppose a user wanted to check to make sure a time was in a range of times on a certain day, in a certain timezone. If the times were between 12 AM and 12PM in EST, these resolve to 9 PM and 9AM PST, respectively. The start value is *after* the end value, which makes it difficult to make a comparison. This function could be used to do the conversion for the comparison, in temporary fields, and not displayed at all.

Parameters

Parameter	Description
OldTime	Specify the time value to be converted.
SourceTimeZone	Specify the time zone that *OldTime* is in. Values are: *timezone* - a time zone abbreviation or a field reference to be used for converting *OldTime*. **Local** - use the local time zone for converting *OldTime*. **Base** - use the base time zone for converting *OldTime*.
DestinationTimeZone	Specify the time zone that you want to convert *OldTime* to. Values are: *timezone* - a time zone abbreviation or a field reference to be used for converting *OldTime*. **Local** - use the local time zone for converting *OldTime*. **Base** - use the base time zone for converting *OldTime*.

Returns

A converted time value.

Example

The following example TESTTM is a time field with a value 01/01/99 10:00:00. This example converts TESTTM from Eastern Standard Time (EST) to Pacific Standard Time (PST).

```
&NEWTIME = TimeToTimeZone(TESTTM, "EST", "PST");
```

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&NEWTIME is a time variable with a value of 7:00:00AM.

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertDatetimeToBase, page 95, Chapter 1, "PeopleCode Built-in Functions," ConvertTimeToBase, page 97, Chapter 1, "PeopleCode Built-in Functions," FormatDateTime, page 215, Chapter 1, "PeopleCode Built-in Functions," IsDaylightSavings, page 340, Chapter 1, "PeopleCode Built-in Functions," DateTimeToTimeZone, page 140 and Chapter 1, "PeopleCode Built-in Functions," TimeZoneOffset, page 507.

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities"

TimeValue

Syntax

TimeValue(*time_str*)

Description

Use the TimeValue function to calculate a Time value based on an input string. This function can be used to assign a value to a Time variable or field using a string constant, since a Time value cannot be represented with a constant.

Parameters

Parameter	Description
time_str	A string representing the time. It can either be in the form HH:MM:SS.SSSSSS, based on a 24-hour clock, or in the form HH:MM:SS *indicator*, where *indicator*is either AM or PM.

Returns

Returns a Time value based on *time_str*.

Example

The example sets &START_TIME to 12.13.00.000000:

```
&START_TIME = TimeValue("12:13:00 PM");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DateTimeValue, page 141 and Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142.

TimeZoneOffset

Syntax

TimeZoneOffset(*DateTime* {[, *timezone* | **"Base"** | **"Local"**]})

Description

Use the TimeZoneOffset function to generate a time offset for *datetime*. The offset represents the relative time difference to GMT. If no other parameters are specified with *datetime*, the server's base time zone is used.

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Parameters

Parameter	Description
datetime	Specify the datetime value to be used for generating the offset.
timezone | **Local** | **Base**	Specify a value to be used with *datetime*. The values are: *timezone* - a time zone abbreviation or a field reference to be used with *datetime*. **Local** - use the local time zone with *datetime.* **Base** - use the base time zone with *datetime*.

Returns

An offset string of the following format:

```
Shh:mm
```

where

S is + or -, with + meaning East of Greenwich

hh is the hours of offset

mm is the minutes of offset

See Also

Chapter 1, "PeopleCode Built-in Functions," ConvertDatetimeToBase, page 95, Chapter 1, "PeopleCode Built-in Functions," ConvertTimeToBase, page 97, Chapter 1, "PeopleCode Built-in Functions," FormatDateTime, page 215, Chapter 1, "PeopleCode Built-in Functions," IsDaylightSavings, page 340, Chapter 1, "PeopleCode Built-in Functions," DateTimeToTimeZone, page 140 and Chapter 1, "PeopleCode Built-in Functions," TimeToTimeZone, page 506.

TotalRowCount

Syntax

```
TotalRowCount(scrollpath)
```

Where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_row,
] RECORD.target_recname
```

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the TotalRowCount function to calculate the number of rows (including rows marked as deleted) in a specified scroll area of a page.

Note. This function remains for backward compatibility only. Use the RowCount rowset property instead.

Rows that have been marked as deleted remain accessible to PeopleCode until the database has been updated; that is, all the way through SavePostChange.

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TotalRowCount is used to calculate the upper limit of a For loop if you want the loop to go through rows in the scroll that have been marked as deleted. If the logic of the loop does not need to execute on deleted rows, use ActiveRowCount instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," ActiveRowCount, page 31, Chapter 1, "PeopleCode Built-in Functions," For, page 215 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," RowCount.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.

Returns

Returns a Number equal to the total rows (including rows marked as deleted) in the target scroll.

Example

The example uses TotalRowCount to calculate the limiting value on a For loop, which loops through all the rows in the scroll area:

```
&ROW_COUNT = TotalRowCount(RECORD.BUS_EXPENSE_PER, CurrentRowNumber(1), RECORD.BUS_⇒
⇒
⇒
⇒
⇒
EXPENSE_DTL);
for &I = 1 to &ROW_COUNT
 /* do something with row &I that has to be done to deleted as well as active rows⇒
 */
end-for;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ActiveRowCount, page 31, Chapter 1, "PeopleCode Built-in Functions," CopyRow, page 102, Chapter 1, "PeopleCode Built-in Functions," CurrentRowNumber, page 133, Chapter 1, "PeopleCode Built-in Functions," FetchValue, page 205 and Chapter 1, "PeopleCode Built-in Functions," For, page 215.

Transfer

Syntax

```
Transfer(new_instance,
        MENUNAME.menuname,
        BARNAME.barname,
        ITEMNAME.menu_itemname,
```

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```
    PAGE.component_item_name,
    action [, keylist] [, AutoSearch]);
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2]. . .
```

Description

Use the Transfer function to close the current page and transfers the end-user to another page, either within the current component or in another component. Transfer can either start a new instance of the application and transfer to the new page there, or close the old page and transfer to the new one in the same instance of PeopleTools.

Note. The Transfer function cannot be used with an internet script or an application engine program.

Transfer is more powerful than the simpler TransferPage, which permits a transfer only within the current component in the current instance of PeopleTools. However, any variables declared as Component do *not* remain defined after using the Transfer function, whether you're transferring within the same component or not.

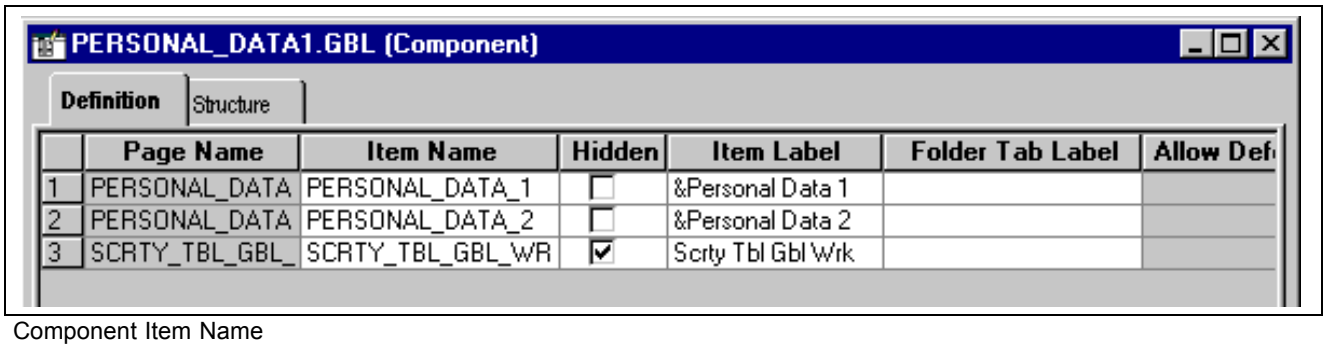
You can use Transfer from a secondary page (either with or without using a pop-up menu) *only* if you're transferring to a separate instance of a component. You *cannot* use Transfer from a secondary page if you're not transferring to a separate instance of a component.

If you provide a valid search key for the new page in the optional *keylist*, the new page opens directly, using the values provided from *keylist* as search key values. A valid key means that enough information is provided to uniquely identify a row: not all of the key values need to be provided. If no key is provided, or if the key is invalid, or if not enough information is provided to identify a unique row, the search dialog box displays, enabling the end user to search for a row.

Note. If Force Search Processing is specified in PeopleSoft Application Designer for the component, the search dialog box always displays, whether the keylist is provided or not.

If *barname+itemname+component_item_name* is an invalid combination, an error message displays explaining that there were invalid transfer parameters.

In the *component_item_name* parameter, make sure to pass the component item name for the page, not the page name. The component item name is specified in the component definition, in the Item Name column on the row corresponding to the specific page, as shown here:



Component Item Name

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Differences Between Transfer and TransferExact

When you do a transfer, the first thing the system checks is whether all the key field values for the target component are provided.

If all the keys aren't provided, the search page is displayed. In this scenerio, TransferExact and Transfer are the same.

If all the keys are provided, a Select is done against the search record for that component using those keys.

- If you use the Transfer function, a LIKE operator is used in the Where clause of that Select for each key.
- If you use the TransferExact fuction, the equals operator is used in the Where clause for each key. Using equals allows the database to take full advantage of key indexes for maximum performance.

See Chapter 1, "PeopleCode Built-in Functions," TransferExact, page 514.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Restrictions on Use With SearchInit Event

You can't use this function in a SearchInit PeopleCode program.

Considerations Using Exceptions and the Transfer Function

Using the Transfer function, inside a try block, to transfer a user to a page in another component, does *not* catch PeopleCode exceptions thrown in the new component. Starting a new component starts a brand new PeopleCode evaluation context. Catches are only caught for exceptions thrown within the *current* component.

In the following code example, the catch statement only catches exceptions thrown in the code *prior to* using the DoModal function, but not any exceptions that are thrown within the new component.

```
/* Set up transaction */
If %CompIntfcName = "" Then
   try
      &oTrans = &g_ERMS_TransactionCollection.GetTransactionByName(RB_EM_⇒
WRK.DESCR);
      &sSearchPage = &oTrans.SearchPage;
      &sSearchRecord = &oTrans.SearchRecord;
      &sSearchTitle = &oTrans.GetSearchPageTitle();
      If Not All(&sSearchPage, &sSearchRecord, &sSearchTitle) Then
         Error (MsgGetText(17834, 8081, "Message Not Found"));
      End-If;
      &c_ERMS_SearchTransaction = &oTrans;

      /* Attempt to transfer to hidden search page with configurable filter */
      &nModalReturn = DoModal(@("Page." | &sSearchPage), &sSearchTitle, - 1, - 1);
   catch Exception &e
      Error (MsgGetText(17834, 8082, "Message Not Found"));
   end-try;
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Menu Definitions"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Component Definitions"

Parameters

Parameter	Description
new_instance	Set this parameter to True to start a new application instance, or to False to use the current window and replace the page already displayed.
Menuname	The name of the menu where the page is located prefixed with the reserved word **MENUNAME**.
Barname	The name of the menu bar where the page is located, prefixed with the reserved word **BARNAME**.
menu_itemname	The name of the menu item where the page is located, prefixed with the reserved word **ITEMNAME**.
component_item_name	The component item name of the page to be displayed on top of the component when it displays. The component item name is specified in the component definition. This parameter must be prefixed with the keyword **PAGE**.
Action	Uses a single-character code as in %Action. Valid actions are "A" (add), "U" (update), "L" (update/display all), "C" (correction), and "E" (data entry).
Keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record* for the destination component is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, or if Force Search Processing is selected for the component, the search dialog box appears. If the *keylist* parameter is not supplied then the destination component's search key must be found as part of the source components level 0 record buffer.
AutoSearch	Specify whether an automatic search on the target search page is executed after the transfer. This means the search results are already shown without the end-user having to click the Search button. This parameter takes a Boolean value: True, do an automatic search. The default value is False (that is, the user has to click the Search button).

Returns

None.

Example

The example starts a new instance of PeopleTools and transfers to a new page in Update mode. The data in the new page is selected by matching the EMPLID field from the old page.

```
Transfer(true, MENUNAME.ADMINISTER_PERSONNEL, BARNAME.USE, ITEMNAME.  PERSONAL_⇒
```

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```
DATA, PAGE.PERSONAL_DATA_1, "U");
```

The following example is used with workflow.

```
Local Record &WF_WL_DEFN_VW, &MYREC, &PSSTEPDEFN;

If All(WF_WORKLIST_VW.BUSPROCNAME) Then

   &BPNAME = FetchValue(WF_WORKLIST_VW.BUSPROCNAME, CurrentRowNumber());
   &WLNAME = FetchValue(WF_WORKLIST_VW.WORKLISTNAME, CurrentRowNumber());
   &INSTANCEID = FetchValue(WF_WORKLIST_VW.INSTANCEID, CurrentRowNumber());

   &WF_WL_DEFN_VW = CreateRecord(RECORD.WF_WL_DEFN_VW);
   &PSSTEPDEFN = CreateRecord(RECORD.PSSTEPDEFN);

   SQLExec("select %List(SELECT_LIST, :1) from %Table(:1) where Busprocname = :2⇒
 and Worklistname = :3", &WF_WL_DEFN_VW, &BPNAME, &WLNAME, &WF_WL_DEFN_VW);

   SQLExec("select %List(SELECT_LIST, :1) from %Table(:1) where Activityname = :2⇒
 and Stepno = 1 and Pathno = 1", &PSSTEPDEFN, &WF_WL_DEFN_VW.ACTIVITYNAME.Value,⇒
 &PSSTEPDEFN);

   Evaluate &PSSTEPDEFN.DFLTACTION.Value
   When = 0
      &ACTION = "A";
   When = 1
      &ACTION = "U";
   When-Other
      &ACTION = "U";
   End-Evaluate;

   &MYREC = CreateRecord(@("RECORD." | &WF_WL_DEFN_VW.WLRECNAME.Value));

   SQLExec("Select %List(SELECT_LIST, :1) from %Table(:1) where Busprocname = :2⇒
 and Worklistname = :3 and Instanceid = :4", &MYREC, &BPNAME, &WLNAME,⇒
 &INSTANCEID, &MYREC);

   Transfer( True, @("MENUNAME." | &PSSTEPDEFN.MENUNAME.Value), @("BARNAME." |⇒
 &PSSTEPDEFN.BARNAME.Value), @("ITEMNAME." | &PSSTEPDEFN.ITEMNAME.Value), @⇒
("PAGE." | &PSSTEPDEFN.PAGEITEMNAME.Value), &ACTION, &MYREC);

   End-if;
```

See Also

Chapter 1, “PeopleCode Built-in Functions,” TransferPage, page 524, Chapter 1, “PeopleCode Built-in Functions,” DoModalComponent, page 171 and Chapter 1, “PeopleCode Built-in Functions,” TransferExact, page 514.

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TransferExact

Syntax

```
TransferExact(new_instance,
        MENUNAME.menuname,
        BARNAME.barname,
        ITEMNAME.menu_itemname,
        PAGE.component_item_name,
        action [, keylist] [, AutoSearch]);
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2].  .  .
```

Description

Use the TransferExact function to close the current page and transfers the user to another page, either within the current component or in another component. TransferExact can either start a new instance of the application and transfer to the new page there, or close the old page and transfer to the new one in the same instance of PeopleTools.

Note. The TransferExact function cannot be used with an internet script or an application engine program.

TransferExact is more powerful than the simpler TransferPage, which permits a transfer only within the current component in the current instance of PeopleTools. However, any variables declared as Component do *not* remain defined after using the TransferExact function, whether you're transferring within the same component or not.

You can use TransferExact from a secondary page (either with or without using a pop-up menu) *only* if you're transferring to a separate instance of a component. You *cannot* use TransferExact from a secondary page if you're not transferring to a separate instance of a component.

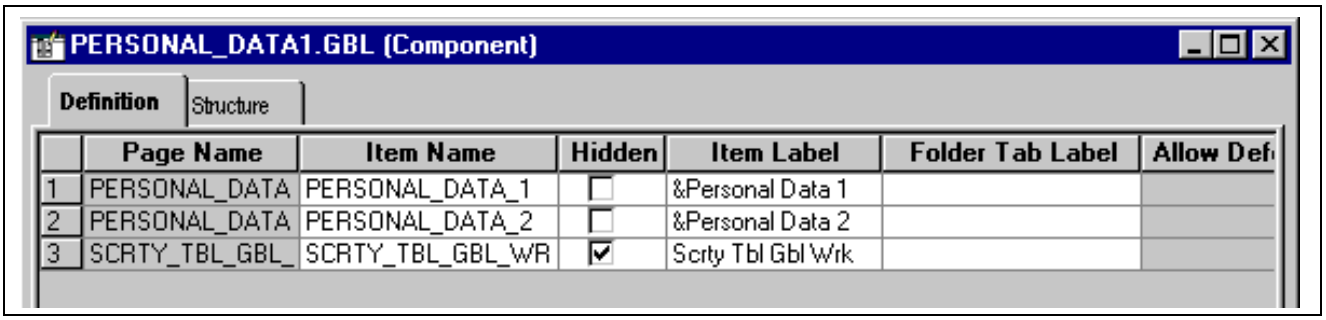
If you provide a valid search key for the new page in the optional *keylist*, the new page opens directly, using the values provided from *keylist* as search key values. A valid key means that enough information is provided to uniquely identify a row: not all of the key values need to be provided. If no key is provided, or if the key is invalid, or if not enough information is provided to identify a unique row, the search dialog box displays, enabling the end user to search for a row.

Note. If Force Search Processing is specified in PeopleSoft Application Designer for the component, the search dialog box always displays, whether the keylist is provided or not.

If *barname*+*itemname*+*component_item_name* is an invalid combination, an error message displays explaining that there were invalid transfer parameters.

In the *component_item_name* parameter, make sure to pass the component item name for the page, not the page name. The component item name is specified in the component definition, in the Item Name column on the row corresponding to the specific page, as shown here:

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Component Item Name

Differences Between Transfer and TransferExact

When you do a transfer, the first thing the system checks is whether all the key field values for the target component are provided.

If all the keys aren't provided, the search page is displayed. In this scenario, TransferExact and Transfer are the same.

If all the keys are provided, a Select is done against the search record for that component using those keys.

- If you use the Transfer function, a LIKE operator is used in the Where clause of that Select for each key.
- If you use the TransferExact fuction, the equals operator is used in the Where clause for each key. Using equals allows the database to take full advantage of key indexes for maximum performance.

See Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Restrictions on Use With SearchInit Event

You can't use this function in a SearchInit PeopleCode program.

Considerations Using Exceptions and the TransferExact Function

Using the TransferExact function inside a try block to transfer a user to a page in another component does *not* catch PeopleCode exceptions thrown in the new component. Starting a new component starts a brand new PeopleCode evaluation context. Catches are only caught for exceptions thrown within the *current* component.

In the following code example, the catch statement only catches exceptions thrown in the code *prior to* using the DoModal function, but not any exceptions that are thrown within the new component.

```
/* Set up transaction */
If %CompIntfcName = "" Then
   try
      &oTrans = &g_ERMS_TransactionCollection.GetTransactionByName(RB_EM_⇒
WRK.DESCR);
      &sSearchPage = &oTrans.SearchPage;
      &sSearchRecord = &oTrans.SearchRecord;
      &sSearchTitle = &oTrans.GetSearchPageTitle();
      If Not All(&sSearchPage, &sSearchRecord, &sSearchTitle) Then
         Error (MsgGetText(17834, 8081, "Message Not Found"));
      End-If;
```

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```
   &c_ERMS_SearchTransaction = &oTrans;

   /* Attempt to transfer to hidden search page with configurable filter */
   &nModalReturn = DoModal(@("Page." | &sSearchPage), &sSearchTitle, - 1, - 1);
catch Exception &e
   Error (MsgGetText(17834, 8082, "Message Not Found"));
end-try;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Menu Definitions"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Component Definitions"

Parameters

Parameter	Description
new_instance	Set this parameter to True to start a new application instance, or to False to use the current window and replace the page already displayed.
Menuname	The name of the menu where the page is located prefixed with the reserved word **MENUNAME**.
Barname	The name of the menu bar where the page is located, prefixed with the reserved word **BARNAME**.
menu_itemname	The name of the menu item where the page is located, prefixed with the reserved word **ITEMNAME**.
component_item_name	The component item name of the page to be displayed on top of the component when it displays. The component item name is specified in the component definition. This parameter must be prefixed with the keyword **PAGE**.
Action	Uses a single-character code as in %Action. Valid actions are "A" (add), "U" (update), "L" (update/display all), "C" (correction), and "E" (data entry).
Keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record* for the destination component is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, or if Force Search Processing is selected for the component, the search dialog box appears. If the *keylist* parameter is not supplied then the destination component's search key must be found as part of the source components level 0 record buffer.
AutoSearch	Specify whether an automatic search on the target search page is executed after the transfer. This means the search results are already shown without the end-user having to click the Search button. This parameter takes a Boolean value: True, do an automatic search. The default value is False (that is, the user has to click the Search button).

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Returns

None.

Example

The example starts a new instance of PeopleTools and transfers to a new page in Update mode. The data in the new page is selected by matching the EMPLID field from the old page.

```
TransferExact(true, MENUNAME.ADMINISTER_PERSONNEL, BARNAME.USE, ITEMNAME.PERSONAL_⇒
DATA, PAGE.PERSONAL_DATA_1, "U");
```

Using the following PeopleCode program:

```
&MYREC = CreateRecord(RECORD.QEOPC_9A2FIELDS);
&MYREC.QE_TITLE.Value = "KEY";

Transfer(False, MenuName.QE_PEOPLECODE_PAGES, BarName.USE, Item⇒
Name.QEPC9PROPSTESTS, Page.QEOPC_9A2FIELDS, "U", &MYREC);
```

The following SQL is produced:

```
SELECT DISTINCT TOP 301 QE_TITLE, QEPC_ALTSRCH FROM PS_QEOPC_9A2FIELDS
WHERE QE_TITLE LIKE 'KEY%' ORDER BY QE_TITLE
```

If you change the Transfer to TransferExact:

```
&MYREC = CreateRecord(RECORD.QEOPC_9A2FIELDS);
&MYREC.QE_TITLE.Value = "KEY";

TransferExact(False, MenuName.QE_PEOPLECODE_PAGES, BarName.USE, Item⇒
Name.QEPC9PROPSTESTS, Page.QEOPC_9A2FIELDS, "U", &MYREC);
```

The following SQL is produced:

```
SELECT DISTINCT TOP 301 QE_TITLE, QEPC_ALTSRCH FROM PS_QEOPC_9A2FIELDS
WHERE QE_TITLE=:1 ORDER BY QE_TITLE
```

See Also

Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524, Chapter 1, "PeopleCode Built-in Functions," DoModalComponent, page 171 and Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509.

TransferMobilePage

Syntax

```
TransferMobilePage([MOBILEPAGE.]PageName,
Tab, &CIObject);
```

Description

Use the TransferMobilePage function to close the current Mobile Page Detail View and transfer the end user to another Mobile Page Detail View. This function is only supported in the OnChange event or on the OnInit event for level 0 objects.

A new working set is *not* started when transferring between objects in the same component.

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The *Tab* parameter takes the definitional number, not the number of the tab that is displaying. For example, if there are three tabs defined, but only tabs one and three are showing (you've hidden tab number two) you would specify a 3 for the *Tab* parameter to transfer to tab number three, even though it is displaying as tab number two.

Note. When a user is transferred using TransferMobilePage, the Return To list hyperlink is not displayed on the Mobile Page.

Parameters

Parameter	Description
PageName	Specify the mobile page definition used to display the page. This parameter takes a string value. It is good programming practice to preface this parameter with the keyword **MOBILEPAGE**, since it provides automatic rename support, however, it is not necessary to use it.
Tab	Specify an integer (1 to *n*) that determines what tab to make active. This parameter takes a number value.
&CIObject	Specify an already instantiated mobile object.

Returns

None.

Example

```
&MyCI = %Session.GetCompIntfc(COMPINTFC.myci);

&MyCI.Key1 = "x";
&MyCI.Ket2 = "y";

If Not(&MyCI.Get()) Then;
     errorstuff();
End-if;

Transfer(MOBILEPAGE.MyCIPageName, 1, &MyCI);
```

TransferNode

Syntax

```
TransferNode(new_instance,
      NODE.nodename,
      MENUNAME.menuname,
      MARKET.marketname,
      COMPONENT.componentname,
      PAGE.component_item_name,
      action [, keylist]);
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

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&RecordObject1 [, *&RecordObject2*]. . .

Description

Use the TransferNode function to transfer the user to a page in another Node, but within the same portal.

TransferNode can either start a new instance of the application and transfer to the new page, or close the old page and transfer to the new one in the same instance of PeopleTools.

Component scoped and Global scoped variables are not available if the new page is in a different node.

Entering null values ("") for the node opens the new component within the current node or portal.

If you want to transfer the end-user to another portal, use the TransferPortal function.

If you provide a valid search key for the new page in the optional *fieldlist*, the new page opens directly, using the values provided from *fieldlist* as search key values. If no key is provided, or if the key is invalid, the search dialog displays, allowing the end-user to search for a row.

Note. If Force Search Processing is specified in Application Designer for the component, the search dialog always displays, whether the keylist is provided or not.

If TransferNode is called in a RowInit PeopleCode program, the PeopleCode program is terminated. However, the component processor continues with its RowInit processing, calling RowInit on the other fields. The actual transfer won't happen until after that completes. You may want to place any TransferPage functions in the Activate event for the page, or later in the Component Processor event flow.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer*, "Creating Component Definitions".

Restrictions on Use with a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Restrictions on Use with SearchInit Event

You can't use this function in a SearchInit PeopleCode program.

Considerations Using Exceptions and the TransferNode Function

Using the TransferNode function inside a try blockdoes *not* catch PeopleCode exceptions thrown in the new component. Starting a new component starts a brand new PeopleCode evaluation context. Catches are only caught for exceptions thrown within the *current* component.

In the following code example, the catch statement only catches exceptions thrown in the code *prior to* using the DoModal function, but not any exceptions that are thrown within the new component.

```
/* Set up transaction */
If %CompIntfcName = "" Then
   try
      &oTrans = &g_ERMS_TransactionCollection.GetTransactionByName(RB_EM_⇒
WRK.DESCR);
      &sSearchPage = &oTrans.SearchPage;
      &sSearchRecord = &oTrans.SearchRecord;
      &sSearchTitle = &oTrans.GetSearchPageTitle();
      If Not All(&sSearchPage, &sSearchRecord, &sSearchTitle) Then
```

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```
      Error (MsgGetText(17834, 8081, "Message Not Found"));
   End-If;
   &c_ERMS_SearchTransaction = &oTrans;

   /* Attempt to transfer to hidden search page with configurable filter */
   &nModalReturn = DoModal(@("Page." | &sSearchPage), &sSearchTitle, - 1, - 1);
catch Exception &e
   Error (MsgGetText(17834, 8082, "Message Not Found"));
end-try;
```

Parameters

Parameter	Description
new_instance	Set this parameter to True to start a new application instance, or to False to use the current window and replace the page already displayed.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the content, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
marketname	Specify the name of the market of the component, prefixed with the reserved word **MARKET**. You can also use a string, such as %Market, for this value.
component_item_name	Specify the component item name of the page to be displayed on top of the component when it displays. The component item name is specified in the component definition. If you specify a page, it must be prefixed with the keyword **PAGE**. You can also specify a null ("") for this parameter.
action	Specify a single-character code. Valid actions are: • "A" (add) • "U" (update) • "L" (update/display all) • "C" (correction) • "E" (data entry) You can also specify a null ("") for this parameter.
keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record for the destination component* is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, of if Force Search Processing has been selected, the search dialog appears. If the *keylist* parameter is not supplied then the destination component's search key must be found as part of the source components level 0 record buffer.

Returns

A Boolean value: True if function completed successfully, False otherwise.

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See Also

Chapter 1, "PeopleCode Built-in Functions," TransferPortal, page 521, Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524 and Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509.

TransferPortal

Syntax

```
TransferPortal(new_instance,
      PORTAL.portalname,
      NODE.nodename,
      MENUNAME.menuname,
      MARKET.marketname,
      COMPONENT.componentname,
      PAGE.component_item_name,
      action [, keylist]);
```

where *keylist* is a list of field references in the form:

```
[recordname.]field1 [, [recordname.]field2]. . .
```

OR

```
&RecordObject1 [, &RecordObject2].  .  .
```

Description

Use the TransferPortal function to transfer the user to a page in another Node in a different portal.

TransferPortal can either start a new instance of the application and transfer to the new page, or close the old page and transfer to the new one in the same instance of PeopleTools.

Component scoped and Global scoped variables are not available after this function.

If you want to transfer the end-user to another node within the same portal, use the TransferNode function.

If you provide a valid search key for the new page in the optional *fieldlist*, the new page opens directly, using the values provided from *fieldlist* as search key values. If no key is provided, or if the key is invalid, the search dialog displays, allowing the end-user to search for a row.

Note. If Force Search Processing is specified in Application Designer for the component, the search dialog always displays, whether the keylist is provided or not.

If TransferPortal is called in a RowInit PeopleCode program, the PeopleCode program is terminated. However, the component processor continues with its RowInit processing, calling RowInit on the other fields. The actual transfer won't happen until after that completes. You may want to place any TransferPortal functions in the Activate event for the page, or later in the Component Processor flow.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer*, "Creating Component Definitions".

Restrictions on Use with a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

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Restrictions on Use with SearchInit Event

You can't use this function in a SearchInit PeopleCode program.

Restrictions on Use with Different Releases

You cannot use this function to transfer a user from a PeopleTools 8.42 portal to any base PeopleTools 8.1x portal that overwrites the expired cookie value when login occurs.

The TransferPortal function is currently supported to transfer users to pages in other nodes to base PeopleTools 8.18 portals, including all PeopleTools 8.18 versions and patches.

Considerations Using Exceptions and the TransferPortal Function

Using the TransferPortal function inside a try block does *not* catch PeopleCode exceptions thrown in the new component. Starting a new component starts a brand new PeopleCode evaluation context. Catches are only caught for exceptions thrown within the *current* component.

In the following code example, the catch statement only catches exceptions thrown in the code *prior to* using the DoModal function, but not any exceptions that are thrown within the new component.

```
/* Set up transaction */
If %CompIntfcName = "" Then
   try
      &oTrans = &g_ERMS_TransactionCollection.GetTransactionByName(RB_EM_⇒
WRK.DESCR);
      &sSearchPage = &oTrans.SearchPage;
      &sSearchRecord = &oTrans.SearchRecord;
      &sSearchTitle = &oTrans.GetSearchPageTitle();
      If Not All(&sSearchPage, &sSearchRecord, &sSearchTitle) Then
         Error (MsgGetText(17834, 8081, "Message Not Found"));
      End-If;
      &c_ERMS_SearchTransaction = &oTrans;

      /* Attempt to transfer to hidden search page with configurable filter */
      &nModalReturn = DoModal(@("Page." | &sSearchPage), &sSearchTitle, - 1, - 1);
   catch Exception &e
      Error (MsgGetText(17834, 8082, "Message Not Found"));
   end-try;
```


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Parameters

Parameter	Description
new_instance	Set this parameter to True to start a new application instance, or to False to use the current window and replace the page already displayed.
PortalName	Specify the name of the portal that you want to transfer to, prefixed with the reserved word **Portal**.
nodename	Specify the name of the node that contains the content, prefixed with the reserved word **NODE**. You can also use a string, such as %Node, for this value.
menuname	Specify the name of the menu containing the content, prefixed with the reserved word **MENUNAME**. You can also use a string, such as %Menu, for this value.
marketname	Specify the name of the market of the component, prefixed with the reserved word **MARKET**. You can also use a string, such as %Market, for this value.
component_item_name	Specify the component item name of the page to be displayed on top of the component when it displays. The component item name is specified in the component definition. If you specify a page, it must be prefixed with the keyword **PAGE**. You can also specify a null ("") for this parameter.
action	Specify a single-character code. Valid actions are: • "A" (add) • "U" (update) • "L" (update/display all) • "C" (correction) • "E" (data entry) You can also specify a null ("") for this parameter.
keylist	An optional list of field specifications used to select a unique row at level zero in the page you are transferring to, by matching keys in the page you are transferring from. It can also be an already instantiated record object. If a record object is specified, any field of that record object *that is also a field of the search record for the destination component* is added to keylist. The keys in the *fieldlist* must uniquely identify a row in the "to" page search record. If a unique row is not identified, of if Force Search Processing has been selected, the search dialog appears. If the *keylist* parameter is not supplied then the destination component's search key must be found as part of the source components level 0 record buffer.

Returns

A Boolean value: True if function completed successfully, False otherwise.

See Also

Chapter 1, "PeopleCode Built-in Functions," TransferNode, page 518, Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524 and Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509.

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TransferPanel

Syntax

```
TransferPanel([PANEL.panel_name])
```

Description

Use the TransferPanel function to transfer control to the panel indicated by **PANEL.** *panel_name*_name within, or to the panel set with the SetNextPage function.

Note. The TransferPanel function is supported for compatibility with previous releases of PeopleTools. New applications should use the TransferPage function instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," TransferPage, page 524

TransferPage

Syntax

```
TransferPage([PAGE.page_name_name])
```

Description

Use the TransferPage function to transfer control to the page indicated by **PAGE.** *page__name*name within, or to the page set with the SetNextPage function. The page that you transfer to *must* be in the current component or menu. To transfer to a page outside the current component or menu, or to start a separate instance of PeopleTools prior to transfer into, use the Transfer function.

See Chapter 1, "PeopleCode Built-in Functions," SetNextPage, page 466 and Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509.

Note. You can't use TransferPage from a secondary page.

Any variable declared as a Component variable will still be defined after using a TransferPage function.

Considerations Using TransferPage

The following are important considerations when using the TransferPage function:

- TransferPage always terminates the current PeopleCode program.
- TransferPage is always processed after all events are completed.

Given these considerations, here are some scenarios for how TransferPage executes:

- When called in RowInit: The current RowInit PeopleCode program is terminated, but RowInit processing continues. In addition, RowInit PeopleCode programs run for the rest of the fields in the row. Then TransferPage is processed.
- When called in FieldEdit: The FieldEdit PeopleCode program is terminated. The FieldChange program for that field still runs. Then TransferPage is processed.
- When called in SavePreChange: The SavePreChange program for that field is terminated. SavePreChange runs for the rest of the fields on that page. Then SavePostChange run for all the fields. Then TransferPage is processed.

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- When called in FieldChange in deferred mode: In deferred mode, changed fields are processed in order. The FieldChange program is terminated. Then any subsequent fields in the page order are processed with the normal FieldEdit-Field Change logic. Once that has finished, the TransferPage is processed.

When TransferPage is processed, any PeopleCode associated with the Activate event for the page being transferred to runs. This always occurs at the end, after all field processing.

If TransferPage is called multiple times during field processing, all the calls are processed at the end, in the same order the calls were made. The Activate event executes each time. The final active page is the one that was transferred to by the last call.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Restrictions on Use With SearchInit Event

You can't use this function in a SearchInit PeopleCode program.

Parameters

Parameter	Description
page_name	A String equal to the name of the page you are transferring to, as set in the page definition, prefixed with the reserved word **Page**. The page *must* be in the same component as the page you are transferring from.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

The following examples both perform the same function, which is to transfer to the JOB_DATA_4 page:

```
TransferPage(PAGE.JOB_DATA_4);
```

or

```
SetNextPage(PAGE.JOB_DATA_4);
TransferPage( );
```

See Also

Chapter 1, "PeopleCode Built-in Functions," DoModalComponent, page 171, Chapter 1, "PeopleCode Built-in Functions," SetNextPage, page 466 and Chapter 1, "PeopleCode Built-in Functions," Transfer, page 509.

Transform

Syntax

```
Transform({XmlString | &XmlDoc}AE_Program_Name,
Initial_Node_Name,
Initial_Message__Name,
Initial_Message_Version,
Result_Node_Name,
Result_Message_Name,
```

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Result_Message_Version)

Description

Use the Transform function to modify one transaction, as specified by the *Initial* parameters, to another transaction, specified by the *Result* parameters, using an Application Engine program. This is used with Integration Broker.

Generally using this function implies that you're transforming a message that you're not actually sending or receiving at the current time. By using this method, and specifying the two transactions, it's as if you're defining a relationship, without having to use the relationship component.

Note. This function does not work on the DB2 UDB for OS/390 and z/OS databases.

Considerations Using the Transform Functions

The Transform function uses an existing Application Engine program to do transformations. This enables you to break up the flow of Integration Broker and do transformations when you need to. If you wish to resuse your Application Engine programs, you can invoke them by using this function.

The TransformEx function does not use an Application Engine program to do a transformation. Instead, it does an Extensible Stylesheet Language Transformation (XSLT.) This enables you to dynamically do transformations outside of Integration Broker, such as, performing transformations on pagelets in a portal every time a page is accessed.

The TransformExCache function also does XSLT transformations without using an Application Engine program, outside of Integration Broker. Use TransformExCache when you have a large volume of similar transformations to be done. Caching technology is used with this function. You may see an increase in performance, as well as an increase in memory consumption, using this function.

Parameters

Parameter	Description
XmlString | *&XmlDoc*	Specify an already populated XmlDoc object, an XML string, or other text that you want transformed.
AE_Program_Name	Specify the name of the Application Engine program that you want to use for the transformation.
Initial_Node_Name	Specify the name of the initial node as a string.
Initial_Message_Name	Specify the name of the initial message.
Initial_Message_Version	Specify the version of the initial message that you want to use.
Result_Node_Name	Specify the result, where you want the transformed message to go to.
Result_Message_Name	Specify the name of the result message, the one to use for the output.
Result_Message_Version	Specify the version of the result message to be used.

Returns

An XmlDoc object containing the resulting XML from the transformation. Null is never returned. If you do not want to display an error to the user, place this function inside a try-catch statement.

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See Also

Chapter 1, "PeopleCode Built-in Functions," TransformEx, page 527 and Chapter 1, "PeopleCode Built-in Functions," TransformExCache, page 528.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Applying Filtering, Transformation and Translation"

TransformEx

Syntax

TransformEx(*XmlString*, *XsltString*)

Description

Use the TransformEx function to do an XSLT transformation of the specified XML string.

This function also strips off any encoding information located within the XML Declaration.

The input, output, and XSL string must all be well-formed XML. If the output is HTML, it is actually XHTML (which is well-formed XML.)

Note. This function does not work on the DB2 UDB for OS/390 and z/OS databases.

Considerations Using the Transform Functions

The Transform function uses an existing Application Engine program to do transformations. This enables you to break up the flow of Integration Broker and do transformations when you need to. If you wish to resuse your Application Engine programs, you can invoke them by using this function.

The TransformEx function does not use an Application Engine program to do a transformation. Instead, it does an Extensible Stylesheet Language Transformation (XSLT.) This enables you to dynamically do transformations outside of Integration Broker, such as, performing transformations on pagelets in a portal every time a page is accessed.

The TransformExCache function also does XSLT transformations without using an Application Engine program, outside of Integration Broker. Use TransformExCache when you have a large volume of similar transformations to be done. Caching technology is used with this function. You may see an increase in performance, as well as an increase in memory consumption, using this function.

Parameters

Parameter	Description
XmlString	Specify the XML string that you want transformed.
XsltString	Specify the XSLT string you wish to use to transform the XML string.

Returns

The output of the transformation as a string if successful, NULL otherwise.

Example

```
try
   &outStr = TransformEx(&inXML, &inXSLT);
```

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```
catch Exception &E
   MessageBox(0, "", 0, 0, "Caught exception: " | &E.ToString());
end-try;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Transform, page 525 and Chapter 1, "PeopleCode Built-in Functions," TransformExCache, page 528.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Applying Filtering, Transformation and Translation"

TransformExCache

Syntax

TransformExCache(*&XmlDoc*, *FilePath*, *XsltKey*)

Description

Use the TransformExCache function to do an Extensible Stylesheet Language Transformation (XSLT) transformation of the specified XmlDoc object.

The file specified by *FilePath* must be in well-formed XML.

Note. This function does not work on the DB2 UDB for OS/390 and z/OS databases.

Considerations Using the Transform Functions

The Transform function uses an existing Application Engine program to do transformations. This enables you to break up the flow of Integration Broker and do transformations when you need to. If you wish to resuse your Application Engine programs, you can invoke them by using this function.

The TransformEx function does not use an Application Engine program to do a transformation. Instead, it does an Extensible Stylesheet Language Transformation (XSLT.) This enables you to dynamically do transformations outside of Integration Broker, such as, performing transformations on pagelets in a portal every time a page is accessed.

The TransformExCache function also does XSLT transformations without using an Application Engine program, outside of Integration Broker. Use TransformExCache when you have a large volume of similar transformations to be done. Caching technology is used with this function. You may see an increase in performance, as well as an increase in memory consumption, using this function.

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Parameters

Parameter	Description
&XmlDoc	Specify an already instantiated and populated XmlDoc object that you want transformed.
FilePath	Specify an XSLT file. You must specify an absolute path to the file, including the file extension.
XsltKey	Specify a key to uniquely name the compiled and cached XSLT in the data buffers. This key is used both to create the item in memory as well as retrieve it. This parameter takes a string value, up to 30 characters.

Returns

An XmlDoc object containing the resulting XML from the transformation. Null is never returned. If you do not want to display an error to the user, place this function inside a try-catch statement.

Example

```
Local XmlDoc &inXMLdoc = CreateXmlDoc("");

Local Boolean &ret = &inXMLdoc.ParseXmlFromURL("c:\temp\in.xml");

Local XmlDoc &outDoc = TransformExCache(&inXMLdoc, "c:\temp\in.xsl", "INBOUND");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Transform, page 525 and Chapter 1, "PeopleCode Built-in Functions," TransformEx, page 527.

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Applying Filtering, Transformation and Translation"

TreeDetailInNode

Syntax

TreeDetailInNode(*setID*, *tree*, *effdt*, *detail_value*, *node*)

Description

Use the TreeDetailInNode function to determine whether a specific record field value is a descendant of a specified node in a specified tree.

Note. This function is not compatible with the PeopleSoft Pure Internet Architecture. However, this function is still available for use with the PeopleSoft Tree Manager Windows client, available in the 8.1 product line.

An equivalent PeopleCode tree class method or built-in function for PeopleSoft Pure Internet Architecture does not exist, however, you may achieve this same functionality using the tree classes.

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Parameters

Parameter	Description
setID	SetID for the appropriate business unit. This parameter is required. If there is no SetID, you can pass a NULL string ("", not a blank) and a blank will be used.
tree	The tree name that contains the *detail_value*.
effdt	Effective date to be used in the search. You must use a valid date.
detail_value	The *recordname.fieldname* containing the value you are looking for.
node	The "owning" tree node name.

Returns

Returns a Boolean value, True if *detail_value* is a descendant of *node* in *tree*.

Example

This example sets the value of &APPR_RULE_SET to the value at the APPR_RULE_LN record and APPR_RULE_SET fieldname, on the tree ACCOUNT.

```
&APPR_RULE_SET = TreeDetailInNode("SALES", "ACCOUNT", %Date, APPR_RULE_LN.APPR_⇒
RULE_SET, "test");
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Tree Classes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Tree Manager, "Introduction to PeopleSoft Tree Manager"

TriggerBusinessEvent

Syntax

```
TriggerBusinessEvent(BUSPROCESS.bus_proc_name,
           BUSACTIVITY.activity_name,
                 BUSEVENT.bus_event_name)
```

Description

Use the TriggerBusinessEvent funciton to trigger a business event and the workflow routings associated with that event. This function should only be used in Workflow PeopleCode. You can edit Workflow PeopleCode via the Event Definition dialog while you are defining a workflow event.

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Parameters

Parameter	Description
bus_proc_name	A string consisting of the name of the business process, as defined in the Business Process Designer, prefixed with the reserved word **BUSPROCESS.**
activity_name	A string consisting of the name of the business activity, as defined in the Business Process Designer, prefixed with the reserved word BUSACTIVITY.
bus_event_name	A string consisting of the name of the business event, as defined in the Business Process Designer, prefixed with the reserved word BUSEVENT.

Returns

Returns a Boolean value: True if successful, false otherwise. The return value is not optional.

Note. You must check the return from TriggerBusinessEvent to see if you have an error. If you have an error, all of the updates up to that TriggerBusinessEvent process are rolled back. However, if you don't halt execution, even if you have an error, all updates *after* the TriggerBusinessEvent process *are* committed. This could result in your database information being out of synch.

Example

The following example triggers the Deny Purchase Request event in the Manager Approval activity of the Purchase Requisition business process:

```
&SUCCESS = TriggerBusinessEvent(BUSPROCESS."Purchase Requisition",⇒
 BUSACTIVITY."Manager Approval", BUSEVENT."Deny Purchase Request");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetWLFieldValue, page 316 and Chapter 1, "PeopleCode Built-in Functions," MarkWLItemWorked, page 359.

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Adding Events and Routings"

Truncate

Syntax

Truncate(*dec, digits*)

Description

Use the Truncate function to truncate a decimal number *dec* to a specified precision.

Parameters

Parameter	Description
digits	A Number value that sets the precision of the truncation (that is, the number of digits to leave on the right side of the decimal point).

Returns

Returns a Number value equal to *dec* truncated to a *digits* precision.

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Example

The example sets the value of &NUM to 9, 9.99, -9, then 0.

```
&NUM = Truncate(9.9999, 0);
&NUM = Truncate(9.9999, 2);
&NUM = Truncate(-9.9999, 0);
&NUM = Truncate(0.001, 0);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Int, page 336, Chapter 1, "PeopleCode Built-in Functions," Mod, page 368 and Chapter 1, "PeopleCode Built-in Functions," Round, page 427.

Try

Syntax

```
try
Protected StatementList
catch  QualifiedID  &Id
StatementList
end-try
```

Description

Use the Try statement as part of a Try-Catch statement to trap exceptions thrown either by the system or created using the CreateException function.

Parameters

Parameter	Description
Protected StatementList	Specify the statements that are protected by the Try-Catch statement.
catch *QualifiedID &Id*	Specify the **Catch** statement at the end of the list of statements you want to protect.
QualifiedID	Specify what class of exception you are catching, that is, Exception or the name of a class extending it.
&Id	Specify a variable to be set with the caught exception.
StatementList	Specify the steps to be taken once the exception is caught.

Returns

None.

Example

```
try
   &res = 15.3 / 7 * 22.1;
catch Exception &c1
   MessageBox(0, "", 0, 0, "Caught exception: " | &c1.ToString());
end-try;
```

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See Also

Chapter 1, "PeopleCode Built-in Functions," Throw, page 503 and Chapter 1, "PeopleCode Built-in Functions," CreateException, page 112.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Exception Class"

UnCheckMenuItem

Syntax

```
UnCheckMenuItem(BARNAME.menubar_name, ITEMNAME.menuitem_name)
```

Description

Use the UnCheckMenuItem function to remove a check mark from the specified menu item.

Note. This function has been deprecated.

Unencode

Syntax

```
Unencode(URLString)
```

Description

Use the Unencode function to unencode *URLString*, converting all character codes of the form *%xx* where *xx* is a hex number, to the character represented by that number.

Parameters

Parameter	Description
URLString	Specify the string you want unencoded. This parameter takes a string value.

Returns

An unencoded URL string.

Example

For the following example, the URL is:

```
http://corp.office.com/human%20resources/benefits/401kchange_home.htm?FirstName=⇒
Gunter&LastName=D%c3%9crst
```

The encoded values are those beginning with the percentage sign (%). If you wanted to know the value in the Target Content's URL for the parameter "LastName", then the following PeopleCode would return the string "Dürst":

```
&MENU = Unencode(%Request.GetParameter("LastName"));
```

This method works for any querystring in the Target Content's URL.

If the link is constructed in a PeopleSoft Pure Internet Architecture page, and the value of a link field, you should not call EncodeURL to encode the entire URL, as the PeopleSoft Pure Internet Architecture does this for you. You must still unencode the parameter value when you retrieve it, however.

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See Also

Chapter 1, "PeopleCode Built-in Functions," EncodeURL, page 178 and Chapter 1, "PeopleCode Built-in Functions," EncodeURLForQueryString, page 180.

Ungray

Syntax

```
Ungray(scrollpath, target_row, [recordname.]fieldname)
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can also use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the Ungray function to make a gray (non-editable) page field editable, if the field was grayed with a call to the Gray function.

Note. This function remains for backward compatibility only. Use the Enabled field property instead.

If the page field is made display-only in the Page Field Properties dialog, then Ungray has no effect.

The Gray, Ungray, Hide, and Unhide functions usually appear in RowInit programs that set up the initial display of data, and FieldChange programs that change field display based on changes the end-user makes to a field.

Generally, you want to put this function on the same scroll level as the field that is being changed in RowInit (which executes on every row) or FieldChange (which executes on the current row). This simplifies the function's syntax to:

```
Ungray(fieldname)
```

A typical use of the more complex syntax is when looping through rows on a scroll on a lower level than the program.

Note. This function shouldn't be used in any event prior to RowInit.

See Also

Chapter 1, "PeopleCode Built-in Functions," Gray, page 318, Chapter 1, "PeopleCode Built-in Functions," Hide, page 321 and Chapter 1, "PeopleCode Built-in Functions," Unhide, page 536.
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Enabled
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

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Parameters

Parameter	Description
Scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number of the target row. If this parameter is omitted, the function assumes the row on which the PeopleCode program is executing.
[*recordname* **.**]*fieldname*	The name of the field to ungray. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to Ungray is in a record definition other than *recordname*.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

The following example checks to see if a person's emergency contact is the same as their home address and phone, then grays or ungrays the fields accordingly. In a typical case, this program would be in the FieldChange event.

```
If SAME_ADDRESS_EMPL = "Y" Then
   Gray(STREET1);
   Gray(STREET2);
   Gray(CITY);
   Gray(STATE);
   Gray(ZIP);
   Gray(COUNTRY);
   Gray(HOME_PHONE);
   STREET1 = PERSONAL_DATA.STREET1;
   STREET2 = PERSONAL_DATA.STREET2;
   CITY = PERSONAL_DATA.CITY;
   STATE = PERSONAL_DATA.STATE;
   ZIP = PERSONAL_DATA.ZIP;
   COUNTRY = PERSONAL_DATA.COUNTRY;
   HOME_PHONE = PERSONAL_DATA.HOME_PHONE;
Else
   Ungray(STREET1);
   Ungray(STREET2);
   Ungray(CITY);
   Ungray(STATE);
   Ungray(ZIP);
   Ungray(COUNTRY);
   Ungray(HOME_PHONE);
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Gray, page 318, Chapter 1, "PeopleCode Built-in Functions," Hide, page 321 and Chapter 1, "PeopleCode Built-in Functions," Unhide, page 536.

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Unhide

Syntax

```
Unhide(scrollpath, target_row, [recordname.]fieldname)
```

where *scrollpath* is:

```
[RECORD.level1_recname, level1_row, [RECORD.level2_recname, level2_
row, ]] RECORD.target_recname
```

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the Unhide function to make a field visible that was previously hidden with Hide. If the field was hidden by setting its Invisible property in the Page Field Properties dialog box, then Unhide has no effect.

Note. This function remains for backward compatibility only. Use the Visible field property instead.

Generally, you want to put this function on the same scroll level as the field that is being changed in RowInit (which executes on every row) or FieldChange (which executes on the current row). This simplifies the function's syntax to:

```
unhide(fieldname)
```

A typical use of the more complex syntax is when looping through rows on a scroll on a lower level than the program.

Note. This function shouldn't be used in any event prior to RowInit.

See Also

Chapter 1, "PeopleCode Built-in Functions," Hide, page 321
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Visible
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	The row number of the target row. If this parameter is omitted, the function assumes the row on which the PeopleCode program is executing.
[*recordname* **.**]*fieldname*	The name of the field to unhide. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to Unhide is in a record definition other than *recordname*.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

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Example

The following example sets security for displaying a person's password:

```
If (&DISPLAY) Then
   Unhide(EMPLOYEE.PASSWORD);
Else
   Hide(EMPLOYEE.PASSWORD);
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Gray, page 318, Chapter 1, "PeopleCode Built-in Functions," Hide, page 321 and Chapter 1, "PeopleCode Built-in Functions," Ungray, page 534.

UnhideRow

Syntax

UnhideRow(*scrollpath, target_row*)

Where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,
] **RECORD**.*target_recname*

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the UnhideRow function to programmatically unhide a row that has been hidden by HideRow. It unhides the specified row and any dependent rows at a lower scroll level.

Note. This function remains for backward compatibility only. Use the Visible row property instead.

UnhideRow works by putting the row that you unhide to the last non-hidden row in the list. When UnhideRow is used in a loop, you have to process rows from low to high to achieve the correct results.

Note. UnhideRow cannot be executed from the same scroll level where the insertion takes place, or from a lower scroll level. Place the PeopleCode in a higher scroll level record.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Row Class," Visible

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

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Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	An integer specifying which row in the scroll to unhide.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

```
AE_ROW_COUNT = ActiveRowCount(RECORD.AE_STMT_TBL);
 for &ROW = ActiveRowCount(RECORD.AE_STMT_TBL) to 1 step - 1
    UnhideRow(RECORD.AE_STMT_TBL, &ROW);
    UpdateValue(RECORD.AE_STMT_TBL, &ROW, AE_ROW_NUM, &ROW);
 end-for;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," HideRow, page 323

UnhideScroll

Syntax

UnhideScroll(*Scrollpath*)

Where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,
] **RECORD**.*target_recname*

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the UnhideScroll function to programmatically unhide a scroll area that has been hidden with HideScroll. It unhides the specified scroll and any associated scrolls at a lower level.

Note. This function remains for backward compatibility only. Use the ShowAllRows rowset method instead.

See Also

Chapter 1, "PeopleCode Built-in Functions," HideScroll, page 324 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Rowset Class," ShowAllRows.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

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Parameters

Parameter	Description
scrollpath	A construction that specifies a scroll level in the component buffer.

Returns

Optionally returns a Boolean value indicating whether the function executed successfully.

Example

This example clears the contents of a level-one hidden scroll, then unhides it:

```
ScrollFlush(RECORD.ORDER_INQ_INV);
 UnhideScroll(RECORD.ORDER_INQ_INV);
```

The following example hides or unhides a level-three scroll:

```
If APPR_QTY_SW = "N" Then
      HideScroll(RECORD.APPR_RULE_LN, CurrentRowNumber(1), RECORD.APPR_RULE_DETL,⇒
 CurrentRowNumber(2), RECORD.APPR_RULE_QTY);
   Else
      UnhideScroll(RECORD.APPR_RULE_LN, CurrentRowNumber(1), RECORD.APPR_RULE_⇒
DETL, CurrentRowNumber(2), RECORD.APPR_RULE_QTY);
   End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," HideScroll, page 324, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelect, page 429, Chapter 1, "PeopleCode Built-in Functions," RowScrollSelectNew, page 431, Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435, Chapter 1, "PeopleCode Built-in Functions," ScrollSelectNew, page 437 and Chapter 1, "PeopleCode Built-in Functions," SortScroll, page 485.

UniformSeriesPV

Syntax

UniformSeriesPV(*int_rate*,*n_per*)

Description

Use the UniformSeriesPV function to calculate the present value of a single monetary unit after a uniform series of payments at a specified interest rate.

Parameters

Parameter	Description
int_rate	A Number specifying the interest rate on the basis of which to calculate the return value.
n_per	A Number specifying the number of payments in the uniform series.

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Returns

Returns a Number equal to the value of a single unit after *n_per* payments at an interest rate of *int_rate*.

Example

The example sets &NUM to 3.790786769408448256:

```
&NUM = UniformSeriesPV(10,5);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SinglePaymentPV, page 484

UpdateSysVersion

Syntax

UpdateSysVersion()

Description

Use the UpdateSysVersion function to coordinate system changes and changes to system objects maintained by pages, such as messages and Set Tables. This function is not normally used in standard applications and should only used in PeopleSoft-provided extensions of PeopleTools.

Returns

Returns the updated system version Number.

Example

The following example could be used to maintain the version number on MESSAGE_SET_TBL, which controls the refreshing of cache files for the message entries:

```
VERSION = UpdateSysVersion();
```

UpdateValue

Syntax

UpdateValue(*scrollpath*, [*recordname*.]*fieldname*, *target_row*, *value*)

where *scrollpath* is:

[**RECORD.***level1_recname*, *level1_row*, [**RECORD.***level2_recname*, *level2_row*,]]

To prevent ambiguous references, you can use **SCROLL.** *scrollname*, where *scrollname* is the same as the scroll level's primary record name.

Description

Use the UpdateValue function to update the value of a specified field with the *value* provided. The value must be of a data type compatible with the *field*.

Note. This function remains for backward compatibility only. Use the Value field property instead.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Field Class," Value

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Accessing the Data Buffer"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Referencing Data in the Component Buffer," Specifying Data with References Using Scroll Path Syntax and Dot Notation

Parameters

Parameter	Description
Scrollpath	A construction that specifies a scroll level in the component buffer.
target_row	An integer specifying the row of the field to update.
[*recordname* **.**]*fieldname*	The name of the field that you want to update. The field can be on scroll level one, two, or three of the active page. The *recordname* prefix is required if the call to UpdateValue is in a record definition other than *recordname*.
Value	The new value to put into the target field.

Returns

None.

Example

This example updates values in the level-one scroll:

```
For &I = 1 To &ROW_CNT
   UpdateValue(RECORD.ASGN_CMP_EFFDT, &I, ITEM_SELECTED, "Y");
End-For;
```

The next example loops through rows in the level-two scroll:

```
For &I = 1 To &CURRENT_L2
   UpdateValue(RECORD.ASGN_CMP_EFFDT, &CURRENT_L1, RECORED.SOME_L2_RECORD, &I, TO_⇒
CUR, &HOME_CUR);
End-For;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," FetchValue, page 205 and Chapter 1, "PeopleCode Built-in Functions," PriorValue, page 393.

UpdateXmlDoc

Syntax

```
UpdateXmlDoc(&XmlDoc, PubID, PubNode, ChannelName, VersionName [, Message
Name [, SubNode[, Segment]]])
```

Description

Use the UpdateXmlDoc function to update a message in the message queue with the specified message version.

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Note. This function has been deprecated and remains for backward compatibility only. Use the IntBroker class UpdateXmlDoc method instead.

If *VersionName* isn't specified, the default message version is used. This method is commonly used in the OnRouteSend and OnRouteReceive PeopleCode events.

Note. This function can't be called from notification PeopleCode.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," UpdateXmlDoc

Parameters

Parameter	Description
&XmlDoc	Specify an already instantiated XmlDoc object.
PubID	Specify the PubID as a string.
PubNode	Specify the PubNode as a sting.
ChannelName	Specify the Channel name as a string.
VersionName	Specify the version name as a string.
MessageName	Specify the message name as a string. This is only used for Pub and Sub contracts.
SubNode	Specify the sub node as a string. This is only used for Pub contracts.
Segment	Specify an integer representing which segment you want to access. The default value is one, which means that if you do not specify a segment, the first segment is accessed.

Returns

A Boolean value: True if function completed successfully, False otherwise.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "XmlDoc Class"

Upper

Syntax

```
Upper(str)
```

Description

Use the Upper function to convert a text string to all uppercase. This function can be used to perform a case-insensitive string comparison. Upper does not change characters that are not letters or characters that do not have case sensitivity.

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Parameters

Parameter	Description
str	A String to convert to uppercase.

Returns

Returns a String value equal to *str* converted to all uppercase.

Example

The following example converts the contents of two string variables to uppercase before determining if they are equal to simulate a case-insensitive comparison:

```
If Upper(&STR1) = Upper(&STR2) Then
   /* do something */
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Lower, page 357 and Chapter 1, "PeopleCode Built-in Functions," Proper, page 396.

Value

Syntax

Value(*str*)

Description

Use the Value function to convert a string representing a number to the number.

To convert a number using the user's local format for the number, use the ValueUser function.

Parameters

Parameter	Description
str	A String value representing a number.

Returns

Returns the Number value represented by *str*.

Example

The example sets &VAL1 to 5.25 and &VAL2 to 12500:

```
&VAL1 = Value("5.25");
&VAL2 = Value("12,500");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," String, page 497

Chapter 1, "PeopleCode Built-in Functions," ValueUser, page 544

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ValueUser

Syntax

ValueUser(*str*)

Description

Use the ValueUser function to convert a string representing a number to the number, using the locale-specific format for the current user to interpret the number. For example, if the locale or user level personalization settings specify to use a comma as the decimal separator, the number will be interpreted based on that setting, instead of the default for the database.

To convert a number without using the user's format for the number, use the Value function.

Parameters

Parameter	Description
str	Specify the string value representing a number that you want converted to a number.

Returns

Returns the number value represented by *str*.

Example

The example sets &VAL1 to 5.25 and &VAL2 to 12500:

```
&VAL1 = ValueUser("5.25");
&VAL2 = ValueUser("12,500");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," String, page 497
Chapter 1, "PeopleCode Built-in Functions," Value, page 543 and Chapter 1, "PeopleCode Built-in Functions," IsUserNumber, page 351.

ViewAttachment

Syntax

ViewAttachment(*URLSource*, *DirAndFileName*, *UserFile* [, *NewWindow*[, *PreserveCase*]])

where *URLSource* can have *one* of the following forms:

URL.*URLname*

OR a string URL, such as

`ftp://worker:password@ftp.ps.com/`

Note. You cannot specify a different port for an attachment when using an FTP server. You can only use the default port of 21.

Note. The file attachment functionality does not support SFTP or FTPS.

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Description

Use the ViewAttachment function to enable an end-user to view a file on a system. The file is actually downloaded into the directory indicated by the **TMP** environment variable.

The viewing file is temporary, and is store on web server's public location. The viewing file may have a different name than the name the end user just typed in.

Note. .exe and .bat files are launched instead of viewed.

Security Considerations

The *FileType* parameter used with AddAttachment is only a suggestion. Specifying it does not enforce specific file types. If you do not want specific file types (such as .exe or .bat) you must write PeopleCode to discern the name and file type of the attached file and delete it before viewing it.

When the end user views attachments using the ViewAttachment function, some browsers treat documents as HTML *regardless of file extension*, and thus execute embedded java script. You may want to write a PeopleCode program to only allow specific file extensions to be viewed.

Restrictions on Use in PeopleCode Events

ViewAttachment is a "think-time" function, which means that it shouldn't be used in any of the following PeopleCode events:

- SavePreChange.
- SavePostChange.
- Workflow.
- RowSelect.
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using Methods and Built-In Functions," Think-Time Functions.

File Name Considerations

When the file is transferred using AddAttachment or PutAttachment, the following characters are replaced with an underscore:

- space
- semicolon
- plus sign
- percent sign
- ampersand
- apostrophe
- exclamation point
- @ sign
- pound sign
- dollar sign

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Parameters

Parameter	Description
URLSource	A reference to a URL. This can be either a URL name, in the form **URL**.*URLName*, or a string.
DirAndFileName	A directory and filename. This is appended to the *URLSource* to make up the full URL of the file. **Note.** The *URLSource* requires "/" slashes. Because the *DirAndFileName* parameter is appended to the URL, it also requires only "/" slashes. "\" are NOT supported in anyway for either the *URLSource* the *DirAndFileName* parameter.
UserFile	The name of the file on the source system.
NewWindow	Specify if the browser should try to use a new window to display the attachment. This parameter takes a Boolean value. The default is True.
PreserveCase	Specify a Boolean value to indicate whether the case of the directory and file name specified with *DirAndFileName* are preserved or not; true, preserve the case, false, convert the filename extension to all lower case letters. The default value is false.

Returns

An integer value. You can check for either the integer or the constant:

Numeric Value	Constant Value	Description
0	%Attachment_Success	File was attached successfully.
1	%Attachment_Failed	File was not successfully attached.
2	%Attachment_Cancelled	File attachment didn't complete because the operation was canceled by the user.
3	%Attachment_FileTransferFailed	File transfer didn't succeed.
5	%Attachment_NoDiskSpaceWebServ	No disk space on the web server.
7	%Attachment_DestSystNotFound	Cannot locate destination system for ftp.
8	%Attachment_DestSystFailedLogin	Unable to login to destination system for ftp.
9	%Attachment_FileNotFound	Cannot locate file.
10	%Attachment_DeleteFailed	Cannot delete file.
11	%Attachment_NoFileName	Attachment failed because no file name was specified.

Example

```
&retcode = ViewAttachment(URL.MYFTP, ATTACHSYSFILENAME, ATTACHUSERFILE);

If (&retcode = %Attachment_Failed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment failed");
End-If;
If (&retcode = %Attachment_Cancelled) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment cancelled");
End-If;
```


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```
If (&retcode = %Attachment_FileTransferFailed) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment failed: File⇒
 Transfer did not succeed");
End-If;

/* following error message only in PeopleSoft Pure Internet Architecture */

If (&retcode = %Attachment_NoDiskSpaceAppServ) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment failed: No disk⇒
 space on the app server");
End-If;

/* following error message only in PeopleSoft Pure Internet Architecture */

If (&retcode = %Attachment_NoDiskSpaceWebServ) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment failed: No disk⇒
 space on the web server");
End-If;

If (&retcode = %Attachment_FileExceedsMaxSize) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment failed: File⇒
 exceeds the max size");
End-If;
If (&retcode = %Attachment_DestSystNotFound) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment failed: Cannot⇒
 locate destination system for ftp");
End-If;
If (&retcode = %Attachment_DestSysFailedLogin) Then
   MessageBox(0, "File Attachment Status", 0, 0, "ViewAttachment failed: Unable to⇒
 login into destination system for ftp");
End-If;
```

In the following example, using the file object, a file is written on the application server. Because the absolute path isn't specified, the file is written to PS_SERVDIR/files directory.

The function PutAttachment takes the file from PS_SERVDIR/files directory and puts it on the ftp server specified in URL.GRADEBOOK.

The ViewAttachment function downloads the file into the user's machine and opens it for viewing.

```
/* Data buffer */
Component Rowset &Level0, &Students_Hdr, &Student_Grade;
Component Row &Level0_Row;

/* standalone rowset - populate from LAM_CLASS_ACTV */
Component Rowset &Class_Activity;
Component number &Class_Act_No;

Local File &Export_File;
Local string &Export_Line;

DoSaveNow();
```

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```
&File_Name = %OperatorId | "_" | String(CLASS_SCTN_SCTY.STRM) | "_" | String(CLASS_⇒
⇒
⇒
⇒
⇒
SCTN_SCTY.CLASS_NBR) | ".txt";

&Export_File = GetFile(&File_Name, "W");

If &Export_File.IsOpen Then
   &Export_Line = "Last,First,Emplid,";
   For &i = 1 To &Class_Activity.ActiveRowCount
      &Export_Line = &Export_Line | &Class_Activity(&i).LAM_CLASS_⇒
ACTV.DESCRSHORT.Value | ",";
   End-For;
   &Export_File.WriteLine(&Export_Line);

   For &i = 1 To &Students_Hdr.ActiveRowCount
      &Export_Line = &Students_Hdr(&i).GetRecord(Record.PERSONAL_DTA_VW).GetField⇒
(Field.NAME).Value | ",";
      &Export_Line = &Export_Line | &Students_Hdr(&i).STDNT_GRADE_HDR.EMPLID.Value⇒
 | ",";
      &Student_Grade = &Level0_Row.GetRowset(Scroll.STDNT_GRADE_HDR)(&i).GetRowset⇒
(Scroll.STDNT_GRADE_DTL);
      For &j = 1 To &Student_Grade.ActiveRowCount
         &Export_Line = &Export_Line | String(&Student_Grade(&j).STDNT_GRADE_⇒
DTL.STUDENT_GRADE.Value) | ",";
      End-For;
      &Export_File.WriteLine(&Export_Line);
   End-For;
   &Export_File.Close();
End-If;

&Put_File_Name = "files/" | &File_Name;
&ret = PutAttachment(URL.GRADEBOOK, &File_Name, &Put_File_Name, "PS_SERVDIR");
&ret = ViewAttachment(GetURL(URL.GRADEBOOK), &File_Name, &File_Name);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," AddAttachment, page 32, Chapter 1, "PeopleCode Built-in Functions," DeleteAttachment, page 151, Chapter 1, "PeopleCode Built-in Functions," GetAttachment, page 261 and Chapter 1, "PeopleCode Built-in Functions," PutAttachment, page 397.

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Understanding File Attachments and PeopleCode," Using File Attachments in Applications

ViewContentURL

Syntax

ViewContentURL(*URL_str* | URL.*URL_ID*)

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Description

Use the ViewContentURL function to launch a new browser window and navigates to the location specified by *URL_str* or URL.*URL_ID*.

The content specified by the URL is *not* wrapped by the portal template. Use this function when you want to connect to third-party content. If you want to wrap the content in the portal template, use the ViewURL function.

This is a deferred execution command: the browser is launched after any executing PeopleCode has run to completion. This function automatically launches a new browser window.

Note. The ViewContentURL function does not work if being run on a Window 95 operating system and Internet Explorer version 3.02 or greater has not been installed.

Considerations Using javascript

The JavaScript window open method uses the backslash (\) as a quote for the next character. You must use double backslashes for the ViewContentURL function to work in a JavaScript. Note the four backslashes in the beginning of the following code example:

```
ViewContentURL("\\\\PT-NFS01\\PSUSERWS\\TEMP\\TVN\\81X-PATCHES.TXT");
```

Parameters

Parameter	Description
URL_str | **URL.** *URL_ID*	Specify the location to where you want to navigate. You can specify either a URL string or a URL saved in the URL table, by specifying the reserved word **URL** followed by a dot and the URL Identifier.

Returns

None.

Example

```
If &MyPage Then
   ViewURL(URL.MYPAGE);
Else
   ViewContentURL("http://www.PeopleSoft.com");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetURL, page 315 and Chapter 1, "PeopleCode Built-in Functions," ViewURL, page 549.

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," URL Maintenance

ViewURL

Syntax

ViewURL(*URL_str* | **URL.***URL_ID* [, *NewWindow*])

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Description

Use the ViewURL function to launch the default browser and navigate to the location specified by *URL_str* or **URL**.*URL_ID*. This is a deferred execution command: the browser is launched after any executing PeopleCode has run to completion. You can also specify whether the new page launches a new browser, or replaces the current page in the browser.

Note. This function does not issue any kind of warning to the user about losing data. Your application should verify that all data is saved before launching a new page.

The content specified by the URL is automatically wrapped by the portal template. If you do *not* want to wrap the content in the portal template, use the ViewContentURL function.

Note. The ViewURL function will not work if being run on a Window 95 operating system and Internet Explorer version 3.02 or greater has not been installed. Portal applications should use the RedirectURL Response class method instead of ViewURL.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Internet Script Classes (iScript)," RedirectURL.

Parameters

Parameter	Description
URL_str | **URL.** *URL_ID*	Specify the location to where you want to navigate. You can specify either a URL string, or, a URL saved in the URL table, by specifying the reserved word **URL** followed by a dot and the URL Identifier.
NewWindow	Specify whether the new page be opened in a new in the browser, or launch a new browser. This parameter takes a Boolean value: True to launch a new browser, False to replace existing page. The default value is False.

Returns

None.

Example

```
If &MyPage Then
   ViewURL(URL.MYPAGE);
Else
   ViewContentURL("http://www.PeopleSoft.com");
End-If;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," GetURL, page 315 and Chapter 1, "PeopleCode Built-in Functions," ViewContentURL, page 548.

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," URL Maintenance

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Warning

Syntax

Warning *str*

Description

You typically use the Warning function in FieldEdit or SaveEdit PeopleCode to display a message alerting the end-user about a potentially incorrect data entry or change. It differs from the Error function in that it does not prevent the end-user from taking an action, and it does not stop processing in the PeopleCode program where it occurs.

Warning is also used in RowDelete and RowSelect PeopleCode, where its behavior is specialized. See the following sections Warnings in RowDelete and Warnings in RowSelect.

The text of the warning message (the *str* parameter), should always be stored in the Message Catalog and retrieved using the MsgGet or MsgGetText function. This makes it easier to translate the text, and it also enables you to include more detailed Explain text about the warning.

Warnings in FieldEdit and SaveEdit

The primary use of Warning is in FieldEdit and SaveEdit PeopleCode:

- In FieldEdit, Warning displays a message and highlights the relevant field.
- In SaveEdit, Warning displays a message, but does not highlight any field. You can move the cursor to a specific field using the SetCursorPos function.

See Chapter 1, "PeopleCode Built-in Functions," SetCursorPos, page 448.

Warnings in RowDelete

When the end-user attempts to delete a row of data, the system first prompts for confirmation. If the end-user confirms, the RowDelete event fires. A Warning in the RowDelete event displays a warning message with OK and Cancel buttons. If the end-user clicks OK, the row is deleted. If the end-user clicks Cancel, the row is not deleted.

Warnings in RowSelect

The behavior of Warning in RowSelect is totally anomalous and maintained for backward compatibility only. Use it to filter rows being added to a page scroll after the rows have been selected and brought to the component buffer. Warning causes the Component Processor to skip the current row (so that it is not added to the page scroll), then continue processing. No message is displayed.

Note. Do not use Warning in this fashion. Use the DiscardRow function for replacement instead.

See Chapter 1, "PeopleCode Built-in Functions," DiscardRow, page 167.

Warnings in Other Events

Do *not* use the Warning function in any of the remaining events, which include:

- FieldDefault
- FieldFormula
- RowInit
- FieldChange

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- RowInsert
- SavePreChange
- SavePostChange

Parameters

Parameter	Description
str	A string containing the text of the warning message. This string should always be stored in the Message Catalog and retrieved using the MsgGet or MsgGetText function. This makes translation easier and also enables you to provide detailed Explain text about the warning.

Returns

None.

Example

The following example shows a warning that alerts an end-user to a possible error, but allows the end-user to accept the change:

```
if All(RETURN_DT, BEGIN_DT) and
      8 * (RETURN_DT - BEGIN_DT) < (DURATION_DAYS * 8 + DURATION_HOURS) then
   warning MsgGet(1000, 1, "Duration of absence exceeds standard hours for number⇒
 of days absent.");
end-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Error, page 189, Chapter 1, "PeopleCode Built-in Functions," MsgGet, page 370, Chapter 1, "PeopleCode Built-in Functions," MsgGetText, page 372 and Chapter 1, "PeopleCode Built-in Functions," WinMessage, page 554.

Weekday

Syntax

Weekday(*dt*)

Description

Use the Weekday function to calculate the day of the week based on a date value.

Parameters

Parameter	Description
dt	A Date value. Weekday determines the day of the week that *dt* falls on.

Returns

Returns a Number value representing the day of the week. 1 is Sunday, 7 is Saturday.

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Example

If &Date_HIRED equals October 30, 1996, a Monday, then the following statement sets &DAY_HIRED to 2:

```
&DAY_HIRED = Weekday(&Date_HIRED);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369 and Chapter 1, "PeopleCode Built-in Functions," Year, page 559.

While

Syntax

```
While
 logical_expression
 statement_list
End-while
```

Description

The While loop causes the statements of the *statement_list* to be repeated until *logical_expression* is false. Statements of any kind are allowed in the loop, including other loops. A Break statement inside the loop causes execution to continue with whatever follows the end of the loop. If the Break is in a nested loop, the Break does not apply to the outside loop.

Example

The following example counts from 0 to 10:

```
&COUNTER = 1;
while &COUNTER <= 10
   WinMessage(MsgGet(21000, 1, "Count is %1", &COUNTER));
   &COUNTER = &COUNTER + 1;
end-while;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Repeat, page 417

WinEscape

Syntax

```
WinEscape()
```

Description

Note. This function has been deprecated and is no longer supported.

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WinExec

Syntax

```
WinExec(command_line, window_option [, synch_exec])
```

Description

Note. This function has been deprecated and is no longer supported.

WinMessage

Syntax

```
WinMessage(message [, style] [, title])
```

Description

Note. The WinMessage function is supported for compatibility with previous releases of PeopleTools. New applications should use MessageBox instead.

See Chapter 1, "PeopleCode Built-in Functions," MessageBox, page 362.

Use the WinMessage function to display a message in a message box.

Use the WinMessage for simple informational display, where the end-user reads the message, then clicks an OK button to dismiss the message box. WinMessage can also be used for branching based on end-user choice, in which case the message box contains two or more buttons (such as OK and Cancel or Yes, No, and Cancel). The value returned by the function tells you which button the end-user clicked, and your code can branch based on that value.

If WinMessage displays more than one button, it causes processing to stop while it waits for user response. This makes it a "user think-time" function, restricting its use in certain PeopleCode events.

The contents of the message displayed by WinMessage can be passed to the function as a string, but unless you are using the function for testing purposes you should always retrieve the message from the Message Catalog using the MsgGet or MsgGetText function. This has the advantage of making the messages much easier to localize and maintain.

Restrictions on Use in PeopleCode Events

The *style* parameter is optional in WinMessage. If *style* is omitted WinMessage displays OK and Cancel buttons, which causes the function to behave as a think-time function. To avoid unnecessary restrictions, you should always pass an appropriate value in the WinMessage *style* parameter.

If the *style* parameter specifies a single button (that is, the OK button), the function can be called in any PeopleCode event.

If the *style* parameter specifies more than one button, or if the *style* parameter is omitted, WinMessage returns a value based on user response and interrupts processing until the user has clicked one of the buttons. This makes it a "user think-time" function, subject to the same restrictions as other think-time functions which means that it cannot be used in any of the following PeopleCode events:

- SavePreChange.
- Workflow.
- RowSelect.

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- SavePostChange.
- Any PeopleCode event that fires as a result of a ScrollSelect (or one of its relatives) function calls, or a Select (or one of its relatives) Rowset class method.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using Methods and Built-In Functions," Think-Time Functions.

Restrictions on Use With a Component Interface

This function is ignored (has no effect) when used by a PeopleCode program that's been called by a Component Interface.

Message Box Icons

In the PeopleSoft Pure Internet Architecture, you can't change the icon of a message box. You can change the number and type of buttons, as well as the default button, but the message always displays with the warning icon (a triangle with an exclamation mark in it.)

Parameters

Parameter	Description
Message	Text displayed in message box. Normally you want to use the MsgGet or MsgGetText function to retrieve the message from the Message Catalog.
Title	Title of message box.
Style	Either a numerical value or a constant specifying the contents and behavior of the dialog box. This parameter is calculated by cumulatively adding either a value or a constant from each of the following categories:

Category	Value	Constant	Meaning
Buttons	0	%MsgStyle_OK	The message box contains one pushbutton: OK.
	1	%MsgStyle_OKCancel	The message box contains two pushbuttons: OK and Cancel.
	2	%MsgStyle_ AbortRetryIgnore	The message box contains three pushbuttons: Abort, Retry, and Ignore.
	3	%MsgStyle_ YesNoCancel	The message box contains three pushbuttons: Yes, No, and Cancel.

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Category	Value	Constant	Meaning
	4	%MsgStyle_YesNo	The message box contains two push buttons: Yes and No.
	5	%MsgStyle_RetryCancel	The message box contains two push buttons: Retry and Cancel.

Returns

If the *style* parameter is provided, WinMessage optionally returns a Number value. If the *style* parameter is omitted, WinMessage optionally returns a Boolean value: True if the OK button was clicked, otherwise it returns False.

The return value is zero if there is not enough memory to create the message box.

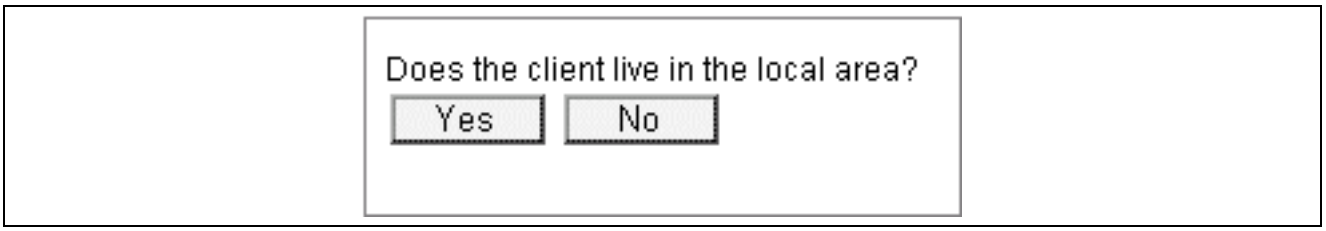
If the *style* parameter is provided, WinMessage returns one of the following Number values:

Value	Constant	Meaning
-1	%MsgResult_Warning	Warning was generated.
1	%MsgResult_OK	OK button was selected.
2	%MsgResult_Cancel	Cancel button was selected.
3	%MsgResult_Abort	Abort button was selected.
4	%MsgResult_Retry	Retry button was selected.
5	%MsgResult_Ignore	Ignore button was selected.
6	%MsgResult_Yes	Yes button was selected.
7	%MsgResult_No	No button was selected.

Example

The following example displays a message dialog box with Yes and No buttons. The message is taken from the Message Catalog. The message displayed looks like this:

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Message with Yes/No buttons

When the end-user clicks the Yes or No button, a result is passed back which the example tests and uses to control branching.

```
/* Displays Yes/No buttons in message box.  */
&RESULT = WinMessage(MsgGetText(30000, 1, "Message not found."), 4, "Test⇒
 Application");
if &RESULT = %MsgResult_Yes then
   /* Yes button was pressed -- do Yes button stuff */
else
   /* No button was pressed -- do No button stuff */
end-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Encrypt, page 181, Chapter 1, "PeopleCode Built-in Functions," MessageBox, page 362, Chapter 1, "PeopleCode Built-in Functions," MsgGet, page 370, Chapter 1, "PeopleCode Built-in Functions," MsgGetText, page 372 and Chapter 1, "PeopleCode Built-in Functions," MsgGetExplainText, page 371.

WriteToLog

Syntax

WriteToLog(*AppFenceSetting*, *String*)

Description

Use the WriteToLog function to write *String* to either the application server or the TraceSQL log file.

The WriteToLog function writes *String* to the TraceSQL log file if *AppFenceSetting* is less than or equal to the current application log fence (AppLogFence) setting in the application server configuration file (PSAPPSRV.CFG.)

Note. This is distinct from the PeopleTools LogFence capability which applies to PeopleTools level logging.

The WriteToLog function writes *String* to the TraceSQL log file in PSAPPSRV.CFG if any of the following trace options is turned on.

- TracePPR
- TraceSQL
- TracePC
- TracePIA

If any change is made to the trace options in PSAPPSRV.CFG, you must restart both the application server and web server so that the change takes effect.

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The debugging options for a Web Profile also affects the WriteToLog function. If any of the following page fields are selected (checked), the WriteToLog function writes *String* to the TraceSQL log file.

- Show Layout
- Show Overlapping Fields
- Show Stylesheet Inline HTML
- Show JavaScript Inline HTML
- Generate HTML for Testing
- Create File from PIA HTML Page

If the above conditions are not true, the WriteToLog function writes *String* to the application server log file.

See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Configuring Trace and Debug Settings"

Parameters

Parameter	Description
AppFenceSetting	Specify the level at which logging should occur, if *AppFenceSetting* is less than or equal to the current application log fence. You can use either a number or a constant value. The values are:

Value	Description
%ApplicationLogFence_Error	Allow all levels of errors to be written to the log. This is the lowest setting.
%ApplicationLogFence_ Warning	Allowing only warnings or higher to be written to the log.
%ApplicationLogFence_ Level1	Allow only this level of errors or higher to be written to the log.
%ApplicationLogFence_ Level2	Allow only this level of errors or higher to be written to the log.
%ApplicationLogFence_ Level3	Allow only this level of errors to be written to the log.

Parameter	Description
String	Specify the message text to be written to the log file.

Returns

None.

Example

```
WriteToLog(%ApplicationLogFence_Level2, "MYAPP" | &Somestring);
```


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See Also

Chapter 3, "System Variables," %ApplicationLogFence, page 609

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Debugging Your Application," Using Application Logging

Year

Syntax

Year(*dt*)

Description

Use the Year function to derive the year component of a Date value.

Parameters

Parameter	Description
dt	A Date value from which to derive the year component.

Returns

Returns a Number value between 1900 and 2078 equal to the year component in *dt*.

Example

The example sets &GRAD_YEAR to 1976:

```
&GRAD_DATE = DateValue("10/04/1976");
&GRAD_YEAR = Year(&GRAD_DATE);
```

See Also

Chapter 1, "PeopleCode Built-in Functions," Date, page 134, Chapter 1, "PeopleCode Built-in Functions," Date3, page 134, Chapter 1, "PeopleCode Built-in Functions," DateValue, page 142, Chapter 1, "PeopleCode Built-in Functions," Day, page 143, Chapter 1, "PeopleCode Built-in Functions," Days360, page 144, Chapter 1, "PeopleCode Built-in Functions," Days365, page 145, Chapter 1, "PeopleCode Built-in Functions," Month, page 369 and Chapter 1, "PeopleCode Built-in Functions," Weekday, page 552.

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CHAPTER 2

Meta-SQL

This chapter discusses:

- Meta-Structured Query Language (SQL).
- Date considerations.
- Meta-SQL placement considerations.
- Meta-SQL reference.
- Meta-SQL shortcuts.

See Also

Chapter 1, "PeopleCode Built-in Functions," SQLExec, page 487

Chapter 1, "PeopleCode Built-in Functions," ScrollSelect, page 435

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Record Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Rowset Class"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

Meta-SQL

This section discusses:

- Meta-SQL use.
- Meta-SQL element types.

Meta-SQL Use

Meta-SQL expands to platform-specific SQL substrings, causes another function to be called, or substitutes a value. Meta-SQL constructs are used in functions that pass SQL strings, such as the following:

- SQLExec.
- Scroll buffer functions (ScrollSelect and its relatives).
- PeopleSoft Application Designer dynamic and SQL views.
- Some Rowset class methods (Select, SelectNew, Fill, and so on.).
- The SQL class.
- PeopleSoft Application Engine programs.

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- Some Record class methods (Insert, Update, and so on.).
- COBOL functions.

Meta-SQL Element Types

There are three types of meta-SQL elements:

- Construct.

  Constructs are a direct substitution of a value, and help to build or modify a SQL statement.

  Examples include %Bind, %InsertSelect, and %List.
- Function.

  Functions perform actions or cause another function to be called.

  Examples include %ClearCursor, %Execute, and %ExecuteEdits.
- Meta-variable.

  Meta-variables enable substitution of text within SQL statements.

  Examples include %AsOfDate, %Comma, and %JobInstance.

Parameter Markers

Parameter markers or bind variables are most commonly used in predicates, however some database platforms allow them in the SELECT list. However, since this is not supported across all platforms, you should not code your SQL to use bind variables in a SELECT list.

In addition, do not have bind variables as the operands of the same operator. This is not supported on all platforms. DB2/400 and DB2/OS390 cannot handle this type of operation.

Date Considerations

This section discusses:

- Basic date meta-SQL guidelines.
- Date, DateTime, or Time wrappers with Application Engine programs.
- Date, DateTime, or Time wrappers for SQL and dynamic views.
- {DateTimein-prefix} in Structured Query Language (SQR).

Basic Date Meta-SQL Guidelines

You can avoid confusion when using meta-SQL such as %Datein and %Dateout if you remember to use "in" functions in the Where subclause of a SQL query and to use "out" functions in the Select (main) clause of the query. For example:

```
select emplid, %dateout(effdt) from ps_car_alloc  a where car_id = '" |⇒
```

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```
 &REGISTRATION_NO | "' and plan_type = '" | &PLAN_TYPE | "' and a.effdt = ⇒
(select max (b.effdt) from ps_car_alloc b where a.emplid=b.emplid and b.effdt <=⇒
 %currentdatein) and start_dt <= %currentdatein and (end_dt is null or end_dt >=⇒
 %currentdatein)";
```

Date, DateTime, and Time Wrappers with Application Engine Programs

Use date or time wrappers (%Datein, %TimeOut, and so on) when selecting date or time columns into memory. Different database platforms use different internal formats for these data types. Those different formats range from 1900-01-01 to 01-JAN-1900. DateTime (timestamp) formats are even more complex.

In PeopleCode (SQLExecs and the like), use both an "out" wrapper when selecting a DateTime value into memory, as well as an "in" wrapper when referencing the value as a bind variable.

In an Application Engine program, when you populate a DateTime state field in a %Select, you still must use an "out" wrapper to get the value into the standard format. But when you reference this state field in a %Bind, Application Engine automatically provides the "in" wrapper around the substituted literal or bind marker (the latter if reuse is in effect).

Actually, if you use the code `%Bind(`*`date`*`)` in the select list of another %Select statement, to load the value into another date field, Application Engine doesn't provide a wrapper (since you are selecting a value that is already in the standard format, you don't need to use a wrapper).

Date, DateTime, and Time Out Wrappers for SQL and Dynamic Views

Dynamic views containing Date, Time, or DateTime fields must be wrapped with the appropriate meta-SQL. PeopleTools uses the SQL directly from the view definition (view text) and doesn't generate anything, so no meta-SQL wrapping is done.

SQL views should not contain meta-SQL that wraps Date, Time, or DateTime fields.

{DateTimein-prefix} in SQR

In SQR, if you are using {DateTimein-prefix}, and so on, you need to do the following:

- For string or let statements when using dynamic SQL, you need to use the following:

  ```
  {DYN-Date***in/out-prefix/suffix}
  ```

- For SQL statements, you need to use the regular SQL, as follows:

  ```
  {Date*** in/out-prefix/suffix}
  ```

Meta-SQL Placement Considerations

Not all meta-SQL can be used by all programs. Some meta-SQL can be used only in Application Engine programs. Other meta-SQL can only be used as part of a SQL statement in a SQL or dynamic view. The following table lists available meta-SQL elements and where each element can be used.

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If a meta-SQL construct, function, or meta-variable is supported in PeopleCode, it is supported in all types of PeopleCode programs; that is, in Application Engine PeopleCode programs (actions), component interface PeopleCode programs, and so on.

Note. Even if a meta-SQL element is used in PeopelCode, you cannot use meta-SQL like a built-in function. You can use meta-SQL in the SQLExec function, the Select method, the Fill method, and so on.

Note. Meta-SQL is not available in SQR.

Meta-SQL elements that are available for Application Engine only are described in PeopleSoft Application Engine documentation.

Meta-SQL Element Name	Used in PeopleCode	Used in Application Engine	Used in COBOL	Used in Dynamic and SQL Views
%Abs	X	X		X
%AEProgram		X		
%AESection		X		
%AEStep		X		
%AsOfDate		X		
%AsOfDateOvr		X		
%BINARYSORT	X	X	X	X
%Bind		X		
%ClearCursor		X		
%COALESCE	X	X		X
%Comma		X		
%Concat	X	X		X
%CurrentDateIn	X	X	X	X

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Meta-SQL Element Name	Used in PeopleCode	Used in Application Engine	Used in COBOL	Used in Dynamic and SQL Views
%CurrentDateOut	X	X	X	X
%CurrentDateTimeIn	X	X	X	X
%CurrentDateTimeOut	X	X	X	X
%CurrentTimeIn	X	X	X	X
%CurrentTimeOut	X	X	X	X
%DateAdd	X	X	X	X
%DateDiff	X	X	X	X
%DateIn	X	X	X	X
%DateNull	X	X		X
%DateOut	X	X	X	X
%DatePart	X	X		X
%DateTimeDiff	X	X	X	X
%DateTimeIn	X	X	X	X
%DateTimeNull	X	X		X
%DateTimeOut	X	X	X	X
%DecDiv	X	X	X	X
%DecMult	X	X	X	X
%Delete	X			

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Meta-SQL Element Name	Used in PeopleCode	Used in Application Engine	Used in COBOL	Used in Dynamic and SQL Views
%DTTM	X	X		X
%EffDtCheck	X	X		
%Execute		X		
%ExecuteEdits		X		
%FirstRows	X	X		
%Insert	X			
%InsertSelect	X	X		X
%InsertValues	X			X
%JobInstance		X		
%Join	X	X		X
%KeyEqual	X			X
%KeyEqualNoEffDt	X			X
%LeftParen		X		
%Like	X	X		X
%LikeExact	X	X		X
%List		X		
%ListBind		X		
%ListEqual		X		

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Meta-SQL Element Name	Used in PeopleCode	Used in Application Engine	Used in COBOL	Used in Dynamic and SQL Views
%Next and %Previous		X		
%NoUppercase	X	X		X
%NumToChar	X	X		X
%OldKeyEqual	X			X
%OPRCLAUSE				X
%ProcessInstance		X		
%ReturnCode		X		
%RightParen		X		
%Round	X	X	X	X
%RoundCurrency		X		
%RunControl		X		
%Select		X		
%SelectAll	X			
%SelectByKey	X			
%SelectByKeyEffDt	X			
%SelectDistinct	X			
%SelectInit		X		
%Space		X		

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Meta-SQL Element Name	Used in PeopleCode	Used in Application Engine	Used in COBOL	Used in Dynamic and SQL Views
%SQL	X	X		X
%SQLRows		X		
%Substring	X	X	X	X
%SUBREC				X
%Table	X	X		X
%Test	X	X		
%TextIn	X	X		X
%TimeAdd	X	X		
%TimeIn	X	X	X	X
%TimeNull	X	X		X
%TimeOut	X	X	X	X
%TimePart	X	X		X
%TrimSubstr	X	X	X	X
%Truncate	X	X	X	X
%TruncateTable	X	X	X	X
%Update	X			
%UpdatePairs	X			X

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Meta-SQL Element Name	Used in PeopleCode	Used in Application Engine	Used in COBOL	Used in Dynamic and SQL Views
%UpdateStats		X	X	
%Upper	X	X		X

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Using Meta-SQL and PeopleCode"

Meta-SQL Reference

This section discusses meta-SQL elements in alphabetical order.

Note. The parameter *recname* refers to a record name, not a table name. If you specify a table name (for example, PS_ST_OPTION_PARMS) you receive a SQL error. Use the record name (for example, ST_OPTION_PARMS) instead. Also, do not use quotation marks around a record name.

See Also

Chapter 1, "PeopleCode Built-in Functions," PeopleCode Typographical Conventions, page 1

%Abs

Syntax

%Abs(*x*)

Description

Use the %Abs meta-SQL construct to return a decimal value equal to the absolute value of a number *x*.

Note. This meta-SQL construct is not implemented for COBOL.

Example

```
SELECT INVENTORY_CODE FROM INVENTORY_TABLE WHERE %ABS(NEW_AMOUNT - OLD_AMOUNT) >⇒
 SOME_ALLOWED_VALUE
```

%BINARYSORT

Syntax

%BINARYSORT(*Recname*)

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Description

Any in-memory sorting performed using COBOL language functions is performed as a binary sort in the current character set used for COBOL processing, and may not necessarily match the sort order returned by the database in response to an Order By clause. Should you require the database to return data sorted using a binary sort of its encoding rather than the default linguistically-correct sort, you must use the %BINARYSORT meta-SQL function around each column in the Where or Order By clause where binary ordering is important.

However, for z/OS implementations, keep in mind that this binary sorting is only equivalent when the COBOL program is run z/OS server. For example, the binary sort produced in COBOL differs from the binary sort produced by the database, as the database is encoded in extended binary-coded decimal interchange code (EBCDIC) and the client is in an ASCII-based encoding. Therefore, %BINARYSORT should only be used in COBOL programs that are not run using the RemoteCall function, where the z/OS platform is not supported as a RemoteCall server.

When running against non-z/OS systems, %BINARYSORT can be used in both RemoteCall and non-RemoteCall programs.

Note. Using %BINARYSORT in Where and Order By clauses negates the use of any indexes, as most databases can't use indexes for functional comparisons. (For example, `WHERE %BINARYSORT(column) > 'X'`). Use this syntax only when sorting equivalence of SQL statement results and COBOL memory order is required.

Parameters

Parameter	Description
Recname	Specify the record name to use with the sorting.

Example

```
SELECT RECNAME FROM PSRECDEFN  WHERE %BINARYSORT(RECNAME) < %BINARYSORT('xxx')
SELECT RECNAME FROM PSRECDEFN  ORDER BY %BINARYSORT(RECNAME)
```

See Also

Chapter 1, "PeopleCode Built-in Functions," RemoteCall, page 409

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Running COBOL in a Unicode Environment"

%COALESCE

Syntax

%COALESCE(*expr1, expr2, ...*)

Description

Use the %COALESCE function to return the first non-null argument provided to the function.

Note. This meta-SQL function is not implemented for COBOL.

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Parameters

Parameter	Description
expr1. . .exprn	Specify the expressions to check. **Note.** You cannot specify bind parameters using these expressions.

Example

The following example uses the PRODUCT_INFO table to organize a clearance sale of products. It gives a 10 percent discount to all products with a list price. If there is no list price, the sale price is the minimum price. If there is no minimum price, the sale price is 10.

```
SELECT product_id, list_price, min_price, %COLESCE(0.9*list_price, min_price, 10)⇒
 "Sale"
from PRODUCT_INFO
where SUPPLIER_ID = 6009;
```

%Concat

Syntax

string1 **%Concat** *string2*

Description

At runtime, the %Concat meta-SQL variable is replaced by the string concatenation operator appropriate for the relational database management system (RDBMS) being used. For example, on DB2, the %Concat meta-SQL variable is replaced with CONCAT, while on Sybase it's replaced with a +.

This meta-SQL variable is supported with the same limitations as the native concatenation operator for the RDBMS where the meta-SQL is being executed. For example, some platforms enable you to concatenate a string with a numeric value; others flag this as an error. PeopleTools makes no attempt to check or convert the data types of either of the operands.

Note. Concat is not available in COBOL, but the DYN-STMT-CONCAT field can be strung into dynamic COBOL strings to resolve into a platform-specific concatenation operator.

Example

```
SELECT 'A' %Concat 'B' FROM PS_INSTALLATION. . .

SELECT LAST_NAME %Concat ',' %Concat FIRST_NAME FROM PS_EMPLOYEE
```

%CurrentDateIn

Description

The %CurrentDateIn meta-SQL variable expands to a platform-specific SQL substring representing the current date in the Where clause of a SQL Select or Update statement, or when the current date is passed in an Insert statement.

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%CurrentDateOut

Description

The %CurrentDateOut meta-SQL variable expands to platform-specific SQL for the current date in the Select clause of an SQL query.

%CurrentDateTimeIn

Description

The %CurrentDateTimeIn meta-SQL variable expands to a platform-specific SQL substring representing the current datetime in the Where clause of a SQL Select or Update statement, or when the current date time is passed in an Insert statement.

%CurrentDateTimeOut

Description

The %CurrentDateTimeOut meta-SQL variable expands to platform-specific SQL for the current datetime in the Select clause of a SQL query.

%CurrentTimeIn

Description

The %CurrentTimeIn meta-SQL variable expands to a platform-specific SQL substring representing the current time in the Where clause of a SQL Select or Update statement, or when the current time is passed in an Insert statement.

%CurrentTimeOut

Description

The %CurrentTimeOut meta-SQL variable expands to platform-specific SQL for the current time in the Select clause of an SQL query.

%DateAdd

Syntax

%DateAdd(*date_from*, *add_days*)

Description

The %DateAdd meta-SQL function returns a date by adding *add_days* to *date_from.* The *add_days* variable can be negative.

Example

```
SQLExec("Select %dateadd(%datein('2002-02-02') , 12) from PS_INSTALLATION_TR",⇒
 &add);
WinMessage(&add);
```


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%DateDiff

Syntax

%DateDiff(*date_from*, *date_to*)

Description

The %DateDiff meta-SQL function returns an integer representing the difference between two dates in number of days.

Example

```
%DateDiff(%DateIn('1997-01-01'), %DateIn("1966-06-30'))

%DateDiff( date1_column, date2_column)

%DateDiff ( %DateAdd(date1_column, 30), date2_column)
```

The following usage is *illegal* (always use %Datein for inputting date literals):

```
%DateDiff('1997-01-01', '1996-06-30') (should use %DateIn for inputting date⇒
 literals)
```

%DateIn

Syntax

%DateIn(*dt*)

Description

The %DateIn meta-SQL variable expands into platform-specific SQL syntax for the date. Use %DateIn whenever a date literal or Date bind variable is used in a comparison in the Where clause of a Select or Update statement, or when a Date value is passed in an Insert statement.

Restrictions Using COBOL

You can only use string literals when using this construct in COBOL. You cannot use it with bind parameters in COBOL. For example, the following works in COBOL:

```
UPDATE PS_PERSONAL_DATA SET LASTUPDT = %DATEIN('2002-12-11')
```

The following SQL fails:

```
UPDATE PS_PERSONAL_DATA SET LASTUPDT = %DATEIN(:1)
```

Parameters

Parameter	Description
dt	Specify either a Date value or a date literal in YYYY-MM-DD format.

%DateNull

Syntax

%DateNull

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Description

Use the %DateNull meta-SQL variable to specify a null value for a Date field. Only use this meta-SQL in Insert or Update clauses. Do not use this meta-SQL in a Where clause.

Note. This meta-SQL variable is not implemented for COBOL.

This meta-SQL resolves into a database-specific SQL substring, as shown in the following table:

Database	Resolved Substring
Informix	empty string (’’)
DB2	NULLIF(CURRENT DATE, CURRENT DATE)
All others	NULL

Parameters

None.

%DateOut

Syntax

```
%DateOut(dt)
```

Description

The %DateOut meta-SQL variable expands to a platform-specific SQL substring representing the date in the Select clause of a SQL query.

Parameters

Parameter	Description
dt	Specify *dt* as a date column. **Note.** You cannot specify a literal value for *dt.* Code such as `%DateOut('1900-01-01')` is not allowed.

%DatePart

Syntax

```
%DatePart(DTTM_Column)
```

Description

The %DatePart meta-SQL variable returns the date portion of the specified DateTime column.

Note. This meta-SQL variable is not implemented for COBOL.

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Considerations using %DatePart

Use %DateOut meta-SQL when fetching values, as in the following example:

```
%DateOut(%DatePart(DTTM_COLUMN)) from some_table
```

If a literal is used as the parameter to %DatePart, it must be wrapped in %DateTimeIn:

```
insert into some_table values(%DatePart(%DateTimeIn('2001-01-01-12.34.56.789012')))
```

Parameters

Parameter	Description
DTTM_Column	Specify the datetime column from which you want to return the date.

%DateTimeDiff

Syntax

%DateTimeDiff(*datetime_from*, *datetime_to*)

Description

The %DateTimeDiff meta-SQL function returns a time value, representing the difference between two datetimes in minutes.

Example

The following example returns the difference in hours between the current datetime and the requested datetime:

```
%DateTimeDiff(%CurrentDateIn, RQSTDTTM) < " | RECORD.FIELDNAME * 60;
```

The following example returns the difference in minutes:

```
%DateTimeDiff(%CurrentDateIn, RQSTDTTM) < " | RECORD.FIELDNAME;
```

%DateTimeIn

Syntax

%DateTimeIn(*dtt*)

Description

The %DateTimeIn meta-SQL variable expands to platform-specific SQL for a DateTime value in the Where clause of a SQL Select or Update statement, or when a DateTime value is passed in an Insert statement.

Restrictions Using COBOL

You can only use string literals when using this construct in COBOL. You cannot use it with bind parameters in COBOL. For example, the following works in COBOL:

```
UPDATE PS_PERSONAL_DATA SET LASTUPDTTM = %DATETIMEIN('2002-12-11-11.59.00.000000')
```

The following SQL fails:

```
UPDATE PS_PERSONAL_DATA SET LASTUPDTTM = %DATETIMEIN(:1)
```

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Parameters

Parameter	Description
dtt	Specify either a DateTime bind variable or a string literal in the form YYYY-MM-DD-hh.mm.ss.ssssss.

%DateTimeNull

Syntax

```
%DateTimeNull
```

Description

Use the %DateTimeNull meta-SQL variable to specify a null valuefor a DateTime field. Only use this meta-SQL in Insert or Update clauses. Do not use this meta-SQL in a Where clause.

Note. This meta-SQL is not implemented for COBOL.

This meta-SQL resolves into a database-specific SQL substring, as shown in the following table:

Database	Resolved Substring
Informix	empty string (’’)
DB2	NULLIF(CURRENT TIMESTAMP, CURRENT TIMESTAMP)
All others	NULL

Parameters

None.

Example

```
%InsertSelect(LEDGER_KK_WK2,LEDGER_KK_WRK, CURRENCY_CD = %Bind(TO_CURRENCY)⇒
 ,POSTED_TOTAL_AMT = SUM(POSTED_BASE_AMT),POSTED_TRAN_AMT = 0,POSTED_BASE_AMT =⇒
 0,BASE_CURRENCY = %Bind(TO_CURRENCY),PROCESS_INSTANCE = %Bind(PROCESS_⇒
INSTANCE),DTTM_STAMP_SEC = %DateTimeNull)

FROM PS_LEDGER_KK_WRK

WHERE PROCESS_INST_STG = %Bind(PROCESS_INSTANCE)

AND CURRENCY_CD <> %Bind(TO_CURRENCY)

GROUP BY PROCESS_INST_STG, BUSINESS_UNIT,LEDGER, ACCOUNT, %List(FIELD_LIST, CFCC1_⇒
AK_SBR) ,STATISTICS_CODE, FISCAL_YEAR,ACCOUNTING_PERIOD
```


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%DateTimeOut

Syntax

%DateTimeOut(*datetime_col*)

Description

The %DateTimeOut meta-SQL variable expands to a platform-specific SQL substring representing a datetime column in the Select clause of an SQL query.

Parameters

Parameter	Description
datetime_col	Specify a datetime column.

%DecDiv

Syntax

%DecDiv(*a*,*b*)

Description

The %DecDiv meta-SQL function returns a number representing the value of *a* divided by *b,* where *a* and *b* are numeric expressions.

If the result needs to be picked up by a bind variable, pick it up using the Character type or PIC X(50).

Parameters

Parameter	Description
a	Specify the number to be divided.
b	Specify the number to divide by.

Example

```
%DecDiv(1000.0, :1)
```

In the example, :1 is a bind variable in SQLExec PeopleCode.

%DecMult

Syntax

%DecMult(*a*,*b*)

Description

The %DecMult meta-SQL function returns a number representing *a* multiplied by *b,* where *a* and *b* are numeric expressions.

If the result needs to be picked up by a bind variable, pick it up using the Character type or PIC X(50).

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Note. %DecMult is replaced with a simple multiplication function on all platforms except for the DB2 UDB for OS/390 and z/OS platform. On this platform, it is converted to MULTIPLY_ALT. The MULTIPLY_ALT scalar function returns the product of the two arguments as a decimal value. It is provided as an alternative to the multiplication operator, especially when the sum of the precisions of the arguments exceeds 31.

Note. If you receive an overflow error using this meta-SQL, you may need to use the CAST function on the MSSQL, ORACLE, DB2UNIX and DB2 UDB for OS/390 platforms, or the CONVERT function for SYBASE platforms, on your input first.

Parameters

Parameter	Description
a	Specify a number to be multiplied.
b	Specify a number to use for multiplying.

Example

```
%DecMult(12.3, 34.67)

%DecMult(c1 + c2, c3)
```

In the example, c1, c2, and c3 are fields of the Number data type.

%DTTM

Syntax

%DTTM(*date, time*)

Description

The %DTTM meta-SQL function combines the database date in the *date* value with the database time in the *time* value and returns a database timestamp value.

Note. This meta-SQL function is not implemented for COBOL.

Example

```
INSERT INTO TABLE1 (TIMESTAMP) SELECT %DTTM(DATE,TIME) FROM TABLE2
```

%EffDtCheck

Syntax

%EffDtCheck(*recordname* [*correlation_id1*], *correlation_id2, as_of_date*)

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Description

The %EffDtCheck construct expands into an effective date subquery suitable for a Where clause. The value for *as_of_date* is automatically wrapped in %DateIn unless *as_of_date* is already wrapped in %DateIn or refers to other database columns.

Note. This meta-SQL construct is not implemented for COBOL.

%EffDtCheck only works with effective dates. It does not take effective sequence numbers (EFFSEQ) into account. It also does not do effective-status (EFF_STATUS) checking.

Parameters

Parameter	Description
recordname	Specify the record name to use as the record in the effective-date checking. This can be a bind variable, a record object, or a record name in the form *recname.* You cannot specify a **RECORD.** *recname,* a record name in quotation marks, or a table name. **Note.** If you specify a bind variable, it should refer to a record object, not a string variable.
correlation_id1	(Optional) Specify the letter used inside the effective-dating subselect. If this parameter isn't specified, *recordname* is used.
correlation_id2	Specify the letter already assigned to the main record in the From clause of the SQL statement.
as_of_date	Specify the date to use in the effective date. This can be a bind variable, a variable, or a hard-coded date. The value for *as_of_date* is automatically wrapped in %DateIn unless *as_of_date* is already wrapped in %DateIn or refers to other database columns.

Example

The following is a generic code sample:

```
SELECT. . .
   FROM. . .
      WHERE %EffDtCheck(recordname correlation_id, as_of_date)
```

The example code resolves into the following:

```
SELECT . . .
   FROM. . .
   WHERE correlation_id.EFFDT = (SELECT MAX(EFFDT) FROM recordname
      WHERE recordname.KEYFIELD1 = correlation_id.KEYFIELD1
      AND recordname.KEYFIELD2 = correlation_id.KEYFIELD2
      AND. . .
      AND recordname.EFFDT <= %DATEIN(as_of_date))
```

In the following example, &Date has the value of 01/02/1998. The example &Rec object has an EFFDT key field.

```
SQLExec("SELECT FNUM FROM PS_REC A WHERE %EffDtCheck(:1, A, :2)", &Rec, &Date);
```

This example code resolves into the following:

```
"Select FNUM from PS_REC A where EFFDT = (select MAX(EFFDT)
from PS_REC
```

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```
    where PS_REC.FNUM = A.FNUM
    and PS_REC.EFFDT <= %DateIn('1998-01-02') )"
```

The following example uses correlation IDs:

```
SELECT A.DEPTID
FROM %Table(DEPT_TBL) A
WHERE
%EffDtCheck(DEPT_TBL B, A, %CurrentDateIn)
AND A.EFF_STATUS = 'A'
```

This example code resolves into the following:

```
SELECT A.DEPTID
FROM %Table(DEPT_TBL) A
WHERE
A.EFFDT =
(SELECT MAX(B.EFFDT)
FROM DEPT_TBL B
WHERE
A.SETID = B.SETID
AND A.DEPTID = B.DEPTID
AND B.EFFDT <=%CurrentDateIn)
AND A.EFF_STATUS = 'A'
```

%FirstRows

Syntax

%FirstRows(*n*)

Description

The %FirstRows meta-SQL variable is replaced by database-specific SQL syntax to optimize retrieval of *n* rows. Depending on the database, this variable optimizes:

- The query path.
- The number of rows returned.
- The number of rows returned per fetch buffer.

Considerations Using %FirstRows

Consider the following when using %FirstRows:

- Using %FirstRows does not return only the first *n* rows are returned.

  It means that the SQL is optimized for the first *n* rows where the platform supports it. More rows might be returned, depending on the platform.
- It is the application's responsibility to stop fetching when enough rows have been returned.
- This meta-SQL variable is not implemented for COBOL, dynamic view SQL, or Sybase.
- Do not use this meta-SQL variable if the application might require more than *n* rows fetched.

  The results of fetching more than *n* rows varies by platform. Some return the extra rows, but performance may be suboptimal. Others return the message "ROW NOT FOUND".

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- Place this meta-SQL variable between the Select statement that begins the SQL statement and the Select List statement.

  Do not use it in subqueries, views, Insert/Select statements, and so on. Do not use a wildcard (*) with the Select List statement.
- Do not use this meta-SQL variable with Distinct statements, because the code `SELECT TOP 1 DISTINCT` fails on Microsoft SQL Server.
- This meta-SQL variable is implicitly embedded in all Select statements for SQLExecs for all platforms except Oracle.
- For some applications, the use of ORACLE FIRST_ROWS hint on PeopleSoft search pages that use the %FirstRows meta-SQL variable can degrade performance.

  See *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*, "Setting Application Server Domain Parameters," OracleDisableFirstRowsHint.

Parameters

Parameter	Description
n	Specify the number of rows to optimize retrieval for.

Example

The following code checks for the existence of a row:

```
&SQL = CreateSQL("select %firstrows(1) 'x' from PS_EXAMPLE where COL1 = :1",⇒
 &temp);
```

The following populates a 10-element array:

```
&SQL = CreateSQL("select %firstrows(10) COL2, COL3 from PS_EXAMPLE_VW where COL1 =⇒
 :1", &temp);
```

%InsertSelect

Syntax

%InsertSelect([DISTINCT,]*insert_recname*, *select_recname* [*correlation_id*][, *select_recname_n* [*correlation_id_n*]] [, *override_field* = *value*]. . .)

Description

The %InsertSelect meta-SQL construct generates an Insert statement with a Select statement. It does not generate a From statement. You must specify the select records before you specify override fields.

Note. %InsertSelect has a limit of 99 override fields.

The Insert column list is composed of all the fields in the specified *insert_recname,* with the exception of LongChar or Image fields.

Note. Because of the way long values (LongChar and Image fields) are handled in the various database platforms for Insert statements, all long values in *insert_recname* are skipped in the generated Insert statement. This implies that these fields should be defined in such a manner as to allow null values.

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The corresponding value in the Select list is generated based on the following precedence:

1. If the Insert fieldname appears as an *override_field,* the corresponding *value* is used in the Select list.
2. If the Insert field name matches a field name in one of the *select_recname* variables specified, the corresponding Select field is used in the Select list.
3. The search order of the *select_recname* records is the order that they are specified in the %InsertSelect function.
4. If the Insert field name has a constant default value defined in PeopleSoft Application Designer, that value is used in the Select list.
5. A default value appropriate for the data type of the Insert field is used (blank for characters, zero for numbers, NULL for Date, Time, and DateTime values, and so on.)

Use the optional *override_field* variable to specify values for a particular field.

Note. You cannot use bind variables with the *override_field*.

For each field you specify, the matching logic described in the preceding list is not performed. Instead, the value that you specify after the equal sign is used for that field in the actual Select list. Use this technique to let PeopleTools or PeopleSoft Application Engine handle most of the fields in the record, while specifying some of them explicitly. Also, you can use *override_field* to specify aggregate functions like Sum, Max, and so on.

Note. This meta-SQL is not implemented for COBOL.

Parameters

Parameter	Description
DISTINCT	Specify if the Select statement being generated should contain a Distinct clause.
insert_recname	Specify the name of record being inserted into. You must specify a record name, not **RECORD.** *recname,* a record name in quotation marks, a bind variable, or a table name. **Note.** If the record for *insert_recname* is a temporary table, %InsertSelect automatically substitutes the corresponding table instance (PS_TARGET*nn* instead of PS_TARGET).
select_recname	Specify the name of record being selected from. You can specify more than one record. You must specify a record name, not a **RECORD.** *recname*, a record name in quotation marks, or a table name.
correlation_id	Identify the correlation ID to be used for the *select_recname* records and fields.
override_field	Specify the name of a field on *insert_recname* that you want to supply a value for (instead of using the value supplied from the *select_recname.)*
Value	Specify the value that should be used for the *override_field* instead of the value from *select_recname.*

Example

Here is a basic example:

```
%InsertSelect(AE_SECTION_TBL, AE_STEP_TBL S, AE_SECTION_TYPE = ' ')
```

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```
   FROM PS_AE_STEP_TBL S, PS_AS_STMT_TBL T
WHERE. . .
```

The example code resolves into the following:

```
INSERT INTO PS_AE_SECTION_TBL (AE_APPLID, AE_SECTION,. . ., AE_SECTION_TYPE)
SELECT S.AE_APPL_ID, S.AE_SECTION, . . . ' '
FROM PS_AE_STEP_TBL S, PS_AS_STMT_TBL T
   WHERE. . .
```

In the following example, you have a temporary table, PS_MY_TEMP, which is based on a join between two other tables, PS_MY_TABLE1 and PS_MY_TABLE2:

```
%InsertSelect(MY_TEMP, MY_TABLE1, MY_TABLE2 T2)
   FROM PS_MY_TABLE1 T1, PS_MY_TABLE2 T2
WHERE %Join(COMMON_KEYS, MY_TABLE1 T1, MY_TABLE2 T2) . . .
```

This code resolves into:

```
INSERT INTO PS_MY_TEMP (FIELD1, FIELD2 . . .)
   SELECT T2.FIELD1, T2.FIELD2, . . .
FROM PS_MY_TABLE1 T1, PS_MYTABLE2 T2
WHERE T1.FIELD1 = T2.FIELD1
AND T1.FIELD2 = T2.FIELD2 . . .
```

The following example creates a distinct Select statement.

```
%InsertSelect(DISTINCT, MY_TABLE, TABLE1, TABLE2 T2)
   FROM PS_TABLE1 T1, PS_TABLE2 T2
WHERE %Join(COMMON_KEYS, TABLE1 T1, TABLE2 T2) . . .
```

This code resolves into:

```
INSERT INTO PS_MYTABLE (FIELD1, FIELD2 . . .)
   SELECT DISTINCT T2.FIELD1, T2.FIELD2, . . .
FROM PS_TABLE1 T1, PS_TABLE2 T2
WHERE T1.FIELD1 = T2.FIELD1
AND T1.FIELD2 = T2.FIELD2 . . .
```

%InsertValues

Syntax

%InsertValues(*recname*)

Description

The %InsertValues meta-SQL construct produces a comma-separated list of the record's non-null field values. Input processing is applied to the fields in the following ways:

- If the field is a Date, a Time, or a DateTime data type, its value is automatically wrapped in %Datein, %TimeIn, or %DateTimeIn, respectively.
- If the field is a string, its value is automatically wrapped in quotation marks.
- If the field has a null value, it is not included in the list.

Note. This meta-SQL construct can only be used in PeopleCode programs, not in Application Engine SQL actions. Also, this meta-SQL construct is not implemented for COBOL.

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Parameters

Parameter	Description
recname	Specify the name of the record to be used for inserting. This can be a bind variable, a record object, or a record name in the form *recname.* You can't specify a **RECORD.** *recname,* a record name in quotation marks, or a table name.

Example

Here's an example:

```
SQLExec("Insert into TABLE (%List(NonNull_Fields, :1)) values (%InsertValues(:⇒
1))", &Rec);
```

This example code is expanded into:

```
"Insert into TABLE (FNUM, FCHAR, FDATE) values (27, 'Y', %datein('1989-11-27'))"
```

%Join

Syntax

```
%Join({COMMON_KEYS | COMMON_FIELDS}, join_recname
[ correlation_id1], to_recname [ correlation_id2]
[, override_field_list])
```

where *override_field_list* is an arbitrary-length list of fields to be substituted in the resulting text string, in the form:

```
field1 [, field2]. . .
```

Description

Use the %Join meta-SQL construct to dynamically build a Where clause joining one table to another. At runtime, the entire construct is replaced with a character string.

Note. This meta-SQL construct is not implemented for COBOL. If date key fields are not marked as required in the record definition for either of the referenced tables in the %Join clause, a Null clause check is added to the date field comparison. This additional clause can have a significant impact on the execution time for the generated SQL statement.

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Parameters

Parameter	Description
{**COMMON_KEYS** | **COMMON_FIELDS**}	Use COMMON_KEYS to specify that all common primary key fields are used in constructing a Where clause; use COMMON_FIELDS to specify all common fields, not just key fields. You can select either COMMON_KEYS or COMMON_FIELDS.
join_recname	Specify the name of the record to be joined. This can be a bind variable, a record object, or a record name in the form *recname.* You can't specify a **RECORD.** *recname,* a record name in quotation marks, or a table name.
correlation_id1	Identify the correlation ID used to relate the record specified by *join_recname* and its fields.
to_recname	Specify the name of the record to be joined to. This can be a bind variable, a record object, or a record name in the form *recname.* You can't specify a **RECORD.** *recname,* a record name in quotation marks, or a table name.
correlation_id2	Identify the correlation ID used to relate the record specified by *to_recname* and its fields.
override_field_list	Specify a list of fields that you do not want used in the join. For example, if fields A, B, and C were common to two records, and you didn't want to join on C, list C as an *override_field.*

Example

Here is an example:

```
%Join(COMMON_KEYS, PSAESECTDEFN ABC,  PSAESTEPDEFN XYZ)
```

The example code results in the following being generated:

```
ABC.AE_APPLID = XYZ.AE_APPLID
AND ABC.AE_SECTION = XYZ.AE_SECTION
AND ABC.DBTYPE = XYZ.DBTYPE
AND ABC.EFFDT = XYZ.EFFDT
```

Here's another example:

```
%Join(COMMON_FIELDS, PSAEAPPLDEFN ABC,  PSAESECTDEFN XYZ)
```

The second example results in the following being generated:

```
ABC.AE_APPLID = XYZ.AE_APPLID
AND ABC.DESCR = XYZ.DESCR
```

However, you don't want to perform the join using the DESCR field because it's a long field. Instead use *override_field,* as shown in the following code:

```
%Join(COMMON_FIELDS, PSAEAPPLDEFN ABC,  PSAESECTDEFN XYZ, DESCR)
```

This example results in the following being generated:

```
ABC.AE_APPLID = XYZ.AE_APPLID
```

You can also specify a value for a field. Suppose you want to join two tables, but not on the field C3. In addition, you would like to specify a value for C3. Your code could look like the following:

```
%Join(COMMON_FIELDS, MY_TABLE1 A, MY_TABLE2 B, C3) AND C3 = 'XX'
```

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%KeyEqual

Syntax

%KeyEqual(*recname* [*correlation_id*])

Description

The %KeyEqual meta-SQL construct expands into a conditional phrase suitable for use in a Where clause.

The conditional phrase consists of a conjunction (AND) of *[correlation_id.]keyfieldname* = '*keyfieldvalue*' phrases for each key field of the given record.

No auto-update processing is done, but other input processing is applied to the values, according to the following:

- If the field is a Date, a Time, or a DateTime data type, its value is automatically wrapped in %Datein, %TimeIn, or %DateTimeIn, respectively.
- If a value is a string, its value is automatically wrapped in quotation marks.
- If a value is NULL, the "=*value*" part is replaced with "IS NULL".

Note. This meta-SQL can only be used in PeopleCode programs, not in Application Engine PeopleCode actions. Also, this meta-SQL is not implemented for COBOL.

Parameters

Parameter	Description
recname	Specify the name of the record to use for inserting. This can be a bind variable, a record object, or a record name in the form *recname.* You cannot specify **RECORD.** *recname,* a record name in quotation marks, or a table name.
correlation_id	Identify the single-letter correlation ID to relate the record specified by *recname* and its fields.

Example

Suppose that the record &REC has three keys: FNUM, FDATE, and FSMART. Here is a code example:

```
Local record &REC;

&REC = CreateRecord(RECORD.MYRECORD);
&REC.FNUM.Value = 27;
&REC.FDATE.Value = %Date;
SQLExec("Delete from MYRECORD A where %KeyEqual(:1, A)", &REC);
```

This example expands to:

```
"Delete from TABLE A
   where A.FNUM = 27
   AND A.FDATE = %Date('1989-11-27')
   AND A.FSMART IS NULL"
```


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%KeyEqualNoEffDt

Syntax

%KeyEqualNoEffDt(*recname* [*correlation_id*])

Description

The %KeyEqualNoEffDt meta-SQL construct expands into a conditional phrase suitable for use in a Where clause.

The conditional phrase consists of a conjunction (AND) of *[correlation_id.]keyfieldname* = '*keyfieldvalue*' phrases for all key fields of the given record, except that it omits any key field named EFFDT.

No auto-update processing is done, but other input processing is applied to the values as follows:

- If the field is a Date, a Time, or a DateTime data type, its value is automatically wrapped in %Datein, %TimeIn, or %DateTimeIn, respectively.
- If a value is a string, its value is automatically wrapped in quotation marks.
- If a value is NULL, the "=*value*" part is replaced with "IS NULL."

Note. This meta-SQL can only be used in PeopleCode programs, not in Application Engine PeopleCode actions. Also, this meta-SQL is not implemented for COBOL.

Parameters

Parameter	Description
recname	Specify the name of the record to be used for inserting. This can be a bind variable, a record object, or a record name in the form *recname.* You can't specify **RECORD.** *recname,* a record name in quotation marks, or a table name.
correlation_id	Identify the single-letter correlation ID to relate the record specified by *recname* and its fields.

Example

The EMPL_CHECKLIST record has three keys: EMPLID, CHECK_SEQ, and EFFDT. Here is a code example:

```
&REC = CreateRecord(EMPL_CHECKLIST);
SQLExec("Delete from TABLE A where %KeyEqualNoEffdt(:1, A)", &REC)
```

The example expands to:

```
"Delete from TABLE A
   where A.EMPLID = 8001
   AND A.CHECK_SEQ = 00001"
```

%Like

Syntax

%Like("*Literal*")

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Description

The %Like construct expands to look for literal values. This meta-SQL should be used when looking for like values. A percent sign character (%) is appended to *literal.*

Note. This meta-SQL is not implemented for COBOL.

If you're using a bind marker (such as ":1") for the literal argument in a SQLExec, you must wrap the SQL string with the ExpandSqlBinds function. ExpandSqlBinds replaces bind markers with the actual input values.

%Like generates the following:

```
like 'literal%'
```

If the literal value contains a backslash character (\) or percent sign (%), then %Like generates the following:

```
like 'literal%' escape '\'
```

See Chapter 1, "PeopleCode Built-in Functions," ExpandSqlBinds, page 202.

Using %Like and Eliminating Blanks

Some platforms require that you use RTRIM to get the correct value. The following characters are wildcards even when preceded with the backslash (\) escape character:

- %
- _

Therefore, on some platforms, the literal must end with a percent sign (%) wildcard that isn't preceded by a backslash (\). Here are some examples:

- `literal = 'ABC%'`

  There is no need for RTRIM on any platform.

- `literal = 'ABC\%'`

  You need RTRIM on Microsoft SQL Server and DB2.

Using %Like and Trailing Blanks

Not all executions of %Like perform the same. When dealing with trailing blanks, some platforms behave as if there is an implicit percent sign (%) at the end of the comparison string, while most don't.

In the following example, if the selected column contains the string "ABCD " (with three trailing blanks. The statement may or may not return any rows:

```
select  *  from  t1 Where c like 'ABCD'
```

Therefore, it is always important to explicitly code the percent sign (%) the end of matching strings for columns where you want to include trailing blanks. The following table shows the use of implicit percent signs with specific databases:

Database	Includes Implicit Percent Sign (%)
PeopleSoft Standard Usage	Yes

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Database	Includes Implicit Percent Sign (%)
DB2/400	No
DB2/MVS	No
DB2/Unix	No
Informix	No
Microsoft SQL Server	Yes
Oracle	No
SQLBase	No
Sybase	Yes

Using %Like and Wildcards

SQL specifies two wildcards that can be used when specifying pattern matching strings for use with the SQL Like predicate. The underscore is used as a substitution for a single character within a string, and the percent sign represents any number of character spaces within a string. All supported databases use these characters as wildcards.

Parameters

Parameter	Description
literal	Specify the value to search for.

%LikeExact

Syntax

```
%LikeExact(fieldname, "Literal")
```

Description

The %LikeExact meta-SQL variable expands to look for literal values. Use this variable when exact matches are necessary, taking into account wildcards in the literal values.

Note. This meta-SQL is not implemented for COBOL.

%LikeExact generates one of the following:

- If the literal contains no wildcards:

```
fieldname = 'literal'
```

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- If the literal ends with the '%' wildcard:

```
fieldname like 'literal' [escape '\']
```

Some platforms require that you use RTRIM to get the correct value. The following characters are wildcards even when preceded with the backslash (\) escape character.

- %
- _

Therefore, on some platforms, the literal must end with a percent sign (%) wildcard that isn't preceded by a backslash (\). Here are some examples:

- `literal = 'ABC%'`

  You do not need RTRIM on any platform.

- `literal = 'ABC\%'`

  You need RTRIM on Microsoft SQL Server and DB2.

Considerations Using Bind Markers

If you're using a bind marker (such as ":1") for the literal argument in a SQLExec, you must wrap the SQL string with ExpandSqlBinds. ExpandSqlBinds replaces bind markers with the actual input values.

The following forms work:

- Application Engine SQL action (with or without the ReUse property enabled).

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE %LIKEEXACT(AE_APPL_ID, %Bind(AE_⇒
APPL_ID, STATIC))
```

  The STATIC modifier is only required if the ReUse property is enabled, but you can always use it.

- PeopleCode.

```
AE_TESTAPPL_AET.AE_APPL_ID = "AB\_C";
SQLExec("UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE %LIKEEXACT(AE_APPL_ID, :⇒
AE_TESTAPPL_AET.AE_APPL_ID)");
```

  Here is another acceptable form:

```
SQLExec(ExpandSqlBinds("UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE %LikeExact⇒
(AE_APPL_ID, :1)", "AB\_C"));
```

This form does not work:

```
SQLExec("UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE %LIKEEXACT(AE_APPL_ID, :⇒
1)", "AB\_C");
```

See Also

Chapter 1, "PeopleCode Built-in Functions," ExpandSqlBinds, page 202

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Parameters

Parameter	Description
fieldname	Specify a field to be used in the first part of the Like comparison.
literal	Specify the value to search for.

Example

Here is an example:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE %LIKEEXACT(AE_APPL_ID, 'ABC')
```

The example resolves into the following:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE AE_APPL_ID = 'ABC'
```

Here is an example:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE %LIKEEXACT(AE_APPL_ID, 'AB%C')
```

The example resolves into the following:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE RTRIM(AE_APPL_ID) LIKE 'AB%C'
```

Here is an example:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE LIKEEXACT(AE_APPL_ID, 'AB%C%')
```

The example resolves into the following:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE AE_APPL_ID LIKE 'AB%C%'
```

Here is an example:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE %LIKEEXACT(AE_APPL_ID, 'AB%C% ')
```

The example resolves into the following:

```
UPDATE PS_AE_APPL_TMP SET AE_PRODUCT = 'X' WHERE AE_APPL_ID LIKE 'AB%C% '
```

The following example shows using ExpandSqlBinds:

```
SQLExec(ExpandSqlBinds("SELECT COUNT(*) FROM PS_ITEM WHERE %LIKEEXACT(BUSINESS_⇒
UNIT, :1)", "M04"), %COUNT);
```

%NoUppercase

Syntax

```
%NoUppercase
```

Description

When processing a SQL statement, the system automatically casts all field names and possibly record names to uppercase when processing a SQL statement. When processing records from a third party, fields that are lowercase are cast into uppercase, which can create a runtime issue on case-sensitive platforms.

To prevent this, use the %NoUppercase meta-SQL statement at the beginning of the SQL statement.

Parameters

None.

Note there are not parameters, as well as no parenthesis, for this meta-SQL.

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Returns

None.

Example

```
%NoUppercase
INSERT INTO PS_RM_APP_ENG_LOG (MAP_ID
, RECNAME
, FIELDNAME
, MESSAGE_SET_NBR
, MESSAGE_NBR
, LANGUAGE_CD)
SELECT %Bind(MAP_ID)
, %Bind(RECNAME)
, ' '
,17834
, 1116
, %Bind(LANGUAGE_CD)
FROM PS_INSTALLATION
WHERE EXISTS (
SELECT 'X'
FROM SW_OPPORTUNITY SW_OPPORTUNITY
, SW_PERSON SW_PERSON
, SW_CUSTOMER SW_CUSTOMER
, SW_SALES_TEAM_VW SW_SALES_TEAM_VW
WHERE SW_OPPORTUNITY.SWCUSTOMERID = SW_CUSTOMER.SWCUSTOMERID
AND SW_OPPORTUNITY.SWSALESTEAMID = SW_SALES_TEAM_VW.SWPROVIDERGRPID
AND SW_SALES_TEAM_VW.SWPERSONID = SW_PERSON.SWPERSONID
GROUP BY SW_OPPORTUNITY.SwOpportunityId
HAVING COUNT(*) > 1)
```

%NumToChar

Syntax

%NumToChar(*Number*)

Description

Use the %NumToChar construct to transform a numeric value into a character value. Spaces are trimmed from *Number*.

Parameters

Parameter	Description
Number	Specify the number to convert to a character value. Signed numbers, as well as decimals, are acceptable.

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%OldKeyEqual

Syntax

%OldKeyEqual(*recname [correlation_id]*)

Description

The %OldKeyEqual meta-SQL construct is similar to the %KeyEqual construct, except that it uses the original values of the record fields, rather than the current values. Since the rules for which values are original and which are current are not very clear, especially for standalone record objects, avoid using this meta-SQL construct. You should use separate records to hold previous values. This can make your code clearer and more maintainable.

Note. This meta-SQL construct can only be used in PeopleCode programs, not in Application Engine PeopleCode actions. Also, this meta-SQL is not implemented for COBOL.

See Also

Chapter 2, "Meta-SQL," %KeyEqual, page 586

%OPRCLAUSE

Description

The %OPRCLAUSE metavariable is used in the view text of dynamic views. In PeopleTools 6, the %OPRCLAUSE metavariable expanded in the following manner:

```
SELECT EMPLID, ABSENCE_TYPE, oprid
FROM PS_ABSENCE_HIST
WHERE %OPRCLAUSE

SELECT EMPLID,  ABSENCE_TYPE,  OPRID  FROM PS_ABSENCE_HIST WHERE ( OPRCLASS ='⇒
HRADMIN') AND (EMPLID='8001' AND ABSENCE_TYPE='CNF') ORDER BY EMPLID, ABSENCE_TYPE
```

In PeopleTools 7, to support the new concept of a specific row-level security class, this metavariable now fills in the Where clause with the value from PSOPRDEFN.ROWSECCLASS.

%OPRCLAUSE must be either all uppercase or all lowercase.

%OPRCLAUSE translates to OprId or OprClass, following the same rules used for security on search dialog boxes. If OPRID is in the view, %OPRCLAUSE expands to OPRID = 'current operator'. If OPCLASS is in the view, %OPRCLAUSE expands to OPCLASS = 'current class'.

Example

Here is an example:

```
SELECT EMPLID, ABSENCE_TYPE, OPRID FROM PS_ABSENCE_HIST WHERE %OPRCLAUSE AND ⇒
(EMPLID='8001' AND ABSENCE_TYPE='CNF')
```

This code expands to:

```
SELECT EMPLID,  ABSENCE_TYPE,  OPRID  FROM PS_ABSENCE_HIST WHERE ( OPRID =⇒
 'PTDMO') AND (EMPLID='8001' AND ABSENCE_TYPE='CNF') ORDER BY EMPLID, ABSENCE_TYPE
```

Here's another example:

```
SELECT EMPLID, ABSENCE_TYPE, OPRCLASS FROM PS_ABSENCE_HIST WHERE %OPRCLAUSE AND ⇒
```

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```
(EMPLID='8001' AND ABSENCE_TYPE='CNF')
```

This code expands to:

```
SELECT EMPLID,  ABSENCE_TYPE,  OPRID  FROM PS_ABSENCE_HIST WHERE ( OPRCLASS =⇒
 'ALLPANLS') AND (EMPLID='8001' AND ABSENCE_TYPE='CNF') ORDER BY EMPLID, ABSENCE_⇒
TYPE
```

%Round

Syntax

%Round(*expression*, *factor*)

Description

%Round rounds an expression to a specified scale before or after the decimal point. If *factor* is a literal, it can be rounded to a negative number.

Parameters

Parameter	Description
expression	Specify an arbitrary numeric expression involving numeric constants and database columns.
factor	Specify an integer or bind variable in SQLExec PeopleCode. The range of a factor is from -31 to +31 for literals. Non-literals can only be positive.

Example

Here is an example:

```
%Round(10.337, 2) = 10.34

%Round(13.67, 0) = 14

SQLExec("SELECT %Round(field_c1, :1) from RECORD_T", field_c2, &Result);
```

In the example, field_c1 and field_c2 are two fields in the record.

The following cases are illegal, and may cause incorrect results or runtime SQL errors:

```
%Round(10.337, 2 + 1)  (factor can not be an expression)

%Round(field_c1, field_c2) (factor can not be database columns)
```

%SQL

Syntax

%SQL(*SQLid* [, *paramlist*])

where *paramlist* is a list of arguments that are used for dynamic substitutions at runtime, in the form:
arg1 [, *arg2*]. . .

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Description

Use the %SQL construct for common SQL fragments that you have already defined and want to reuse, substituting additional values dynamically. *SQLid* is the name of a SQL definition created using either PeopleSoft Application Designer or the StoreSQL function.

You can only nest up to 10 %SQL statements at a time.

Note. This meta-SQL construct is not implemented for COBOL. A SQL definition is not the same as the SQL object that is instantiated from the SQL class at runtime. A SQL definition is created either using PeopleSoft Application Designer at design time, or using the StoreSQL function. A SQL object is instantiated at runtime from the SQL class, and has methods and properties associated with it like any other object.

When a specified SQL definition has more than one version, the database type always takes precedence.

If one or more versions of a SQL definition are found for the database type of the current database connection, and if any of the versions have an effective date less than or equal to the value returned for %AsOfDate, the most recent version is used.

If no versions are found for the current database type, or if all of the versions have effective dates greater than the value returned for %AsOfDate, the system looks for an effective version of the SQL definition under the database type Generic.

If no version is found, an error occurs.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Using the SQL Editor".

Application Engine Considerations

Application Engine programs use the current date to compare with the effective date, not the date returned by %AsOfDate.

Special SQL Characters

The following meta-SQL meta-variables can be used as part of the %SQL construct to represent special characters as SQL parameters.

Meta-Variable	Description
%Comma	Represents a single comma.
%LeftParen	Allows you to pass a left parenthesis character to a %P() variable, without closing the SQL object.
%RightParen	Allows you to pass a right parenthesis character to a %P() variable, without closing the SQL object.
%Space	Represents a space.

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Parameters

Parameter	Description
SQLid	Specify the name of an existing SQL definition.
paramlist	Specify a list of arguments for dynamic substitutions at runtime. The first argument replaces all occurrences of %P(1) in the referenced SQL definition, the second argument replaces %P(2), and so forth. You can specify up to 99 arguments. **Note.** For PeopleCode, the %P should not be contained in quotation marks. `'%P(2)'` is considered to be a literal, and so isn't replaced at runtime.

Example

In the following example, the SQL definition MY_SQL was created in PeopleSoft Application Designer to be the following:

```
%P(1).EFFDT = (SELECT MAX(EFFDT) FROM ...)
```

In the following example, the %SQL statement is dynamically generated:

```
UPDATE PS_TEMP
SET ...
WHERE ...
AND %SQL(MY_SQL, PS_TEMP)
```

The previous example resolves to the following:

```
UPDATE PS_TEMP
SET ...
WHERE ...
AND PS_TEMP.EFFDT = (SELECT MAX(EFFDT) FROM ...)
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SQL Class"

%Substring

Syntax

%Substring(*source_str*, *start*, *length*)

Description

%Substring expands to a substring of *source_str*.

Note. For the DB2 LUW (DB2/UDB) database, you must ensure that the *source_str* parameter doesn't resolve to an expression greater than 1000 characters.

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Parameters

Parameter	Description
source_str	Specify the source string.
start	Specify the substring's beginning position. The first character of *source_str* is position 1.
length	Specify the length of the substring.

%SUBREC

Syntax

%SUBREC(*subrec_name, corel_name*)

Description

%SUBREC is used only in dynamic view SQL, where it expands to the columns of a subrecord. You can't use this statement in SQLExec or any other SQL statement.

Note. %SUBREC must be either all uppercase or all lowercase.

Parameters

Parameter	Description
subrec_name	Specify the name of the subrecord.
corel_name	Specify the correlation name.

Example

Suppose you have a record definition AAA_VW that is a dynamic view, with fields CHR, SUB, and NUM. The field SUB is a subrecord with fields CHR_SUB, NUM_SUB, and IMG_SUB. The view text for AAA_VW could be:

```
"select a.chr, %subrec(sub,a), a.num from ps_aaa a"
```

The Create View SQL generated by this view text would be:

```
"CREATE VIEW SYSADM.PS_AAA_VW (CHR, CHR_SUB, NUM_SUB, IMG_SUB, NUM) AS SELECT⇒
 A.CHR, A.CHR_SUB, A.NUM_SUB, A.IMG_SUB, A.NUM FROM PS_AAA A"
```

%Table

Syntax

%Table(*recname* [, *instance*])

Description

The %Table construct returns the SQL table name for the record specified with *recname.*

For example, %Table(ABSENCE_HIST) returns PS_ABSENCE_HIST.

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Note. This meta-SQL is not implemented for COBOL.

If the record is a temporary table and the current process has a temporary table instance number assigned, %Table resolves to that instance of the temporary table (that is, PS_ABSENCE_HIST*Instance Number)*.

You can override this value with the *instance* parameter. For example, if you know you want the third instance of a temporary table, you could specify it with `%Table(&MYREC, 3)`. You can use the SetTempTableInstance function to set the instance of a temporary table that is used with %Table.

This construct can be used to specify temporary tables for running parallel Application Engine processes.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Using Meta-SQL and PeopleCode," %Table

Parameters

Parameter	Description
recname	Identify the record that the table name is drawn from. This can be a bind variable, a record object, or a record name in the form *recname.* You cannot specify **RECORD.** *recname*, a record name in quotation marks, or a table name.
instance	Specify the instance of the temporary table to be used.

Example

The following function deletes records based on two other fields:

```
Function delete_draft_type(&RECNAME)

&SQL = "Delete from %Table(:1) where " | FIELD.SETID | " =
 :2 and " | FIELD.DRAFT_TYPE | " = :3";

SQLExec(&SQL, @("RECORD." | &RECNAME), SETID, DRAFT_TYPE);

End-Function;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," SetTempTableInstance, page 476

%Test

Syntax

%Test(*Prefix*, *Test*, *Suffix*)

Description

The %Test construct can be used with records that have no key values.

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Parameters

Parameter	Description
Prefix	Specify a string that is conditionally added before the expansion of the test string. You cannot use meta-SQL in this parameter.
Test	Specify a meta-SQL string to be expanded.
Suffix	Specify a string that is conditionally added at the end of the test string. You can use meta-SQL in this parameter.

Returns

If the expansion of *Test* produces only a blank (or empty) string, the entire %Test meta-SQL construct is replaced with an empty string. Otherwise, the %Test meta-SQL construct is replaced by the prefix, then the expansion of *Test,*and then the suffix.

Example

The following meta-SQL generates valid SQL even when the given record has no keys:

```
%SelectAll(:1) %Test(WHERE ,%KeyEqual(:1));
```

%TextIn

Syntax

%TextIn(*BindVariable*)

Description

%TextIn construct, when used with a bind variable, allows the insertion and updating of a text string into a LongChar field (column).

Note. This meta-SQL construct is not implemented for COBOL. This construct is mandatory for any LongChar field insertion or update to be compatible on all database platforms. If you don't use this meta-SQL wrapper, this type of operation fails on Sybase and Informix.

Parameters

Parameter	Description
BindVariable	Specify a bind variable.

Example

In the following example, :1 is a bind variable in PeopleCode:

```
&String1 = "This is a test."

SqlExec("INSERT INTO PS_TABLE1 (STMTID, SQLSTMT) VALUES (1, %TextIn(:1))",⇒
 &String1)
```

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%TimeAdd

Syntax

%TimeAdd(*datetime, add-minutes*)

Description

This construct generates the SQL that adds *add-minutes* (a positive or negative integer literal or expression, provided that the expression resolves to a data type that can be used in datetime arithmetic for the given RDBMS) to the provided *datetime* (which can be a datetime literal or expression).

Note. On some platforms, you can use *time-value* in place of *datetime.* However, this can give a SQL error on other platforms (for example, Informix) if the result of the %TimeAdd construct would result in a new date (for example, 11:59PM + 2 minutes). This meta-SQL construct is not implemented for COBOL.

Parameters

Parameter	Description
time	Specify a Time or DateTime value to add more time to.
add-minutes	Specify the number of minutes to add to *time.* This must be a numeric value or an expression that resolves to a numeric value.

Example

```
SELECT %TimeAdd(%CurrentTimeIn, 60) FROM PS_INSTALLATION
```

%TimeIn

Syntax

%TimeIn(*tm*)

Description

%TimeIn expands to platform-specific SQL for a Time value in the Where clause of a SQL Select or Update statement, or when a time value is passed in an Insert statement.

Restrictions Using COBOL

You can only use string literals when using this construct in COBOL. You cannot use it with bind parameters in COBOL. For example, the following works in COBOL:

```
UPDATE PS_PERSONAL_DATA SET LASTUPTM = %TIMEIN('11:59:00:000000')
```

The following SQL fails:

```
UPDATE PS_PERSONAL_DATA SET LASTUPTM = %TIMEIN(:1)
```

Parameters

Parameter	Description
tm	Specify a Time bind variable or a string literal in the form hh.mm.ss.ssssss.

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%TimeNull

Syntax

%TimeNull

Description

Use this meta-SQL to specify a null value for a time field. Only use this meta-SQL in Insert or Update statements. Do not use this meta-SQL in a Where clause.

Note. This meta-SQL is not implemented for COBOL.

This meta-SQL resolves into a database-specific SQL substring, as shown in the following table:

Database	Resolved Substring
Informix	empty string (”)
DB2	NULLIF(CURRENT TIME, CURRENT TIME)
All others	NULL

Parameters

None.

%TimeOut

Syntax

%TimeOut(*time_col*)

Description

%TimeOut expands to a platform-specific SQL substring representing *time_col* in the Select statement of an SQL query.

Parameters

Parameter	Description
time_col	Specify a time column.

%TimePart

Syntax

%TimePart(*DTTM_Column*)

Description

%TimePart returns the time portion of the specified datetime column.

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Note. This meta-SQL is not implemented for COBOL.

Considerations Using %TimePart

Use %TimeOut meta-SQL when fetching from the database:

```
%TimeOut(%TimePart(DTTM_COLUMN)) from some_table
```

If a literal is used as the parameter to %TimePart, it must be wrapped in %DateTimeIn,as shown in the following:

```
insert into some_table values(%TimePart(%DateTimeIn('2001-01-01-12.34.56.789012')))
```

Parameters

Parameter	Description
DTTM_Column	Specify the datetime column to return the time for.

%TrimSubstr

Syntax

%TrimSubstr(*source_str, start, length*)

Description

%TrimSubstr, like %Substring, expands to a substring of *source_str,* except that trailing blanks are removed from the substring.

Note. If you trim a string of blanks, an empty string is returned on all database platforms except Oracle, when a Null is returned. If a Null result is not acceptable, such as when using the result as a value to insert into a non-nullable column, you can turn the Null into a single blank using the %COALESCE meta-SQL with %TrimSubstr, for example: `%COALESCE( %TrimSubstr( <expression>), ' ')`

Parameters

Parameter	Description
source_str	Specify the source string.
start	Specify the substring's beginning position. The first character of *source_str* is position 1.
length	Specify the length of the substring.

See Also

Chapter 2, "Meta-SQL," %Substring, page 596

%Truncate

Syntax

%Truncate(*expression, factor*)

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Description

%Truncate truncates an expression to a specified scale before or after the decimal point.

Considerations Using %Truncate

You may get incorrect results or runtime SQL errors if you try to use an expression for *factor*. The following code example produces incorrect results:

```
%Truncate(10.337, 2 + 1)
```

Parameters

Parameter	Description
Expression	Specify an expression involving numeric constants and database columns.
Factor	Specify an integer or bind variable in SQLExec PeopleCode. The range of a factor is -30 to +31. A negative number truncates to left of the decimal point.

Example

Here is an example:

```
%Truncate(10.337, 2) = 10.33

%Truncate(13.37, 0) = 13

%Truncate(19.337, -1) = 10
SQLExec("SELECT %Truncate(field_c1, :1) from RECORD_T", field_c2, &Result);
```

In the example, field_c1 and field_c2 are two fields in the record.

%TruncateTable

Syntax

%TruncateTable(*table_name*)

Description

%TruncateTable deletes all the rows in a table.

Note. You must use a table name, not a record name, with this statement.

On all databases, the use of %TruncateTable causes an implicit commit. The rows deleted by this command, and any other pending database updates, are all committed. To postpone the commit until subsequent database updates have been successfully completed, use the SQL statement `DELETE FROM table_name` or the statement `IMPORT REPLACE WITH NULL` instead of %TruncateTable(*table_name)*. The advantage of using %TruncateTable is that its execution is faster than either of the SQL statements. %TruncateTable is often used for removing rows from a work table or a temporary table.

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If you're calling %TruncateTable from an Application Engine program step, you should commit after the step that immediately precedes the step containing the %TruncateTable statement. Also, do not use %TruncateTable on a step that is executed multiple times within a loop. In general, it's best to use this construct early in your Application Engine program as an initialization task. In addition, avoid using this meta-SQL when your Application Engine program is started from the CallAppEngine function.

Example

If you use %TruncateTable with %Table, you must specify the full name of the table. For example:

```
%TruncateTable(%Table(BAS_ELIG_DBGFLD))
```

The following is a code example:

```
%TruncateTable(PS_TEMP_TABLE)
```

%UpdatePairs

Syntax

%UpdatePairs(*recname [correlation_id]*)

Description

The %UpdatePairs construct produces a comma-separated list of *fieldname* = '*fieldvalue*' phrases for each changed field of the given record. Input processing is applied to the values in the following ways:

- If the field is a Date, a Time, or a DateTime value, its value is automatically wrapped in %Datein, %TimeIn, or %DateTimeIn, respectively.
- If the field is a string, its value is automatically wrapped in quotes.
- If the field has a null value, NULL is the given value.

Note. This meta-SQL construct can only be used in PeopleCode programs, not in Application Engine PeopleCode actions. Also, this meta-SQL construct is not implemented for COBOL.

Parameters

Parameter	Description
recname	Specify the name of the record to use for updating. This can be a bind variable, a record object, or a record name in the form *recname.* You can't specify **RECORD.** *recname,* a record name in quotation marks, or a table name.
correlation_id	Identify the single-letter correlation ID to relate the record specified by *recname* and its fields.

Example

Suppose that the record &REC has one key: FNUM, and the FCHAR field has changed. Here is an example:

```
Local record &REC;

&REC = CreateRecord(RECORD.MYRECORD);
&REC.FNUM.Value = 27;
&REC.FCHAR.Value = 'Y';
```

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```
SQLExec("Update TABLE set %UpdatePairs(:1) where %KeyEqual(:1)", &REC)
```

The example expands to:

```
"Update TABLE set FCHAR = 'Y' where FNUM = 27"
```

The following example updates all the fields on a base record (&REC) that are not also fields on the related language record (&REC_RELATED_LANG). It creates a holding record (&REC_TEMP), copies the fields to update from the base record to the holding record, and then uses the holding record for the update.

```
&UPDATE = CreateSQL("Update %Table(:1) set %UpdatePairs(:1) Where %KeyEqual(:2)");
&REC_TEMP = CreateRecord(@("RECORD." | &REC.Name));
&FIELD_LIST_ARRAY = CreateArray();
For &I = 1 to &REC_RELATED_LANG.FieldCount
   &FIELD_LIST_ARRAY.Push(&REC_RELATED_LANG.GetField(&I).Name);
End-For;

For &I = 1 to &REC.FieldCount
   If &FIELD_LIST_ARRAY.Find(&REC.GetField(&I).Name) = 0 then
      &REC_TEMP.GetField(&I).Value = &REC.GetField(&I).Value;
   End-If;
End-For;
&UPDATE.Execute(&REC_TEMP, &REC);
```

%Upper

Syntax

%Upper(*charstring*)

Description

The %Upper construct converts the string *charstring* to uppercase. You can use wildcards with *charstring,* such as the percent sign (%).

Note. This meta-SQL construct is not implemented for COBOL.

Considerations with COBOL and Unicode

COBOL's uppercase function is not Unicode-aware, and corrupts Unicode data. To use an uppercase function with COBOL, use the function supplied with PeopleTools called PTPUPPER.

The syntax to call PTPUPPER is:

```
CALL 'PTPUPPER' USING SQLRT

   <any PIC S9(4) COMP field that contains the fields
defined length (non-unicode)>

   <the String field - max PIC X(8192).>
```

The following is an example from Unicode-expanded source code:

```
01  W-WORK.

   02   W-DESCR      PIC X(90)   VALUE SPACES.
    02   W-SIZE       PIC S9(4)   COMP VALUE +30.
```

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```
CALL 'PTPUPPER' USING SQLRT
   W-SIZE OF W-WORK
   W-DESCR OF W-WORK
```

Parameters

Parameter	Description
charstring	Specify the string to convert to uppercase.

Example

```
SELECT EMPLID, NAME FROM PS_EMPLOYEES WHERE %UPPER(NAME) LIKE %UPPER(sch%)
```

Meta-SQL Shortcuts

Take advantage of the following shortcuts to use the entire list of key fields for a record.

Note. The meta-SQL shortcuts can only be used in PeopleCode programs, not in Application Engine PeopleCode actions. Also, none of the meta-SQL shortcuts are implemented for COBOL.

%Delete

Syntax

%Delete(:*num*)

Description

This is a shorthand for:

```
Delete from %Table(:num) where %KeyEqual(:num)
```

%Insert

Syntax

%Insert(:*num*)

Description

This is a shorthand for:

```
Insert into %Table(:num) (%List(Nonnull_Fields :num)) values (%InsertValues(:num))
```

%SelectAll

Syntax

%SelectAll(:*num* [*correlation _id*])

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Description

%SelectAll is shorthand for selecting all fields in the specified record, wrapping DateTime fields with %DateOut, %TimeOut, and so on.

The pseudocode looks like this:

```
Select(AllFields, :num correlation_id) from %Table(:num) prefix
```

This shortcut is only appropriate if the statement is being used in PeopleCode or PeopleSoft Application Engine to read data into memory. Dynamic views should retain the internal database formats for DateTime fields.

Using %SelectAll with CreateSQL

You can use %SelectAll with the CreateSQL function without a record object. It must subsequently be executed with the record object with which you want to do the Select statement. Here is an example:

```
  &REC_PROJ_FUNDING = CreateRecord(Record.PROJ_FUNDING); /* free standing record⇒
object */
   /* Create SQL objects */
   &SQL_PROJ_FUNDING_SEL = CreateSQL("%SelectAll(:1)" /* bind this later */);
   &SQL_PROJ_FUNDING_UPDT = CreateSQL("%Update(:1)");
   /* Populate the record object */
   &REC_PROJ_FUNDING.BUSINESS_UNIT.Value = &BU_PC;
   &REC_PROJ_FUNDING.PROJECT_ID.Value = FetchValue(Scroll.GM_PROP_PROJ_VW, &I,⇒
DERIVED_GM_PROJ.PROJECT_ID);
   &REC_PROJ_FUNDING.ANALYSIS_GROUP.Value = &ANAL_GROUP;
   &REC_PROJ_FUNDING.TRANS_DT.Value = %Date;
   &SQL_PROJ_FUNDING_SEL.Execute(&REC_PROJ_FUNDING); /* bind the %SelectAll */
   While &SQL_PROJ_FUNDING_SEL.Fetch(&REC_PROJ_FUNDING);
```

You could also move the CreateRecord SQL statements out of the loop (and then move the close statements out of the loop too).

%SelectDistinct

Syntax

%SelectDistinct(*:num* [*prefix*])

Description

%SelectDistinct is shorthand for selecting all fields in the specified record, wrapping DateTime fields with %DateOut, %TimeOut, and so on.

The pseudocode looks like this:

```
Select DISTINCT(AllFields, :num correlation_id) from %Table(:num) prefix
```

This shortcut is only appropriate if the statement is being used in PeopleCode or PeopleSoft Application Engine to read data into memory. Dynamic views should retain the internal database formats for DateTime fields.

%SelectByKey

Syntax

%SelectByKey(*:num* [*correlation_id*])

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Description

This is a shorthand for:

```
Select %List(Select_List, :num correlation_id) from %Table(:num) correlation_id⇒
 where %KeyEqual(:num, correlation_id)
```

%SelectByKeyEffDt

Syntax

%SelectByKeyEffDt(:*num1*, :*num2*)

Description

This is a shorthand for:

```
Select %List(Select_List, :num1) from %Table(:num1) A where %KeyEqualNoEffDt(:num1⇒
 A) and %EffDtCheck(:num1 B, A, :num2)
```

%Update

Syntax

%Update(:*num* [, :*num2*])

Description

This is a shorthand for:

```
Update %Table(:num) set %UpdatePairs(:num) where %KeyEqual(:num2)
```

If *num2* is omitted, the value defaults to *num*.

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CHAPTER 3

System Variables

The chapter provides an overview of system variables and then discusses each variable in detail.

Understanding System Variables

PeopleTools provides a number of system variables that provide access to system information. System variables are prefixed with the '%' character, rather than the '&' character. You can use these system variables wherever you can use a constant, passing them as parameters to functions or assigning their values to fields or to temporary variables.

In this section, we discuss each system variable.

%AllowNotification

Description

Indicates whether the Allow Notification check box for the current role's workflow routing options is selected. This system variable returns a Boolean value: True if the check box is selected (notifications allowed), False otherwise.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

%AllowRecipientLookup

Description

Indicates whether the Allow Recipient Lookup check box for the current role's workflow routing options is selected. This system variable returns a Boolean value: True if the check box is selected (recipient lookup allowed), False otherwise.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

%ApplicationLogFence

Description

Returns the current setting of the application log fence (AppLogFence) setting in the application server configuration file (PSAPPSRV.CFG.)

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Note. This is distinct from the PeopleTools LogFence capability which applies to PeopleTools level logging.

You can use this system variable to conditionally determine whether you want to do certain logging from your application. You generally use it with the following predefined PeopleCode constants.

Numeric Value	Constant Value	Description
1	%ApplicationLogFence_Error	Allow all levels of errors to be written to the log. This is the lowest setting.
2	%ApplicationLogFence_Warning	Allowing only warnings or higher to be written to the log.
3	%ApplicationLogFence_Level1	Allow only this level of errors or higher to be written to the log.
4	%ApplicationLogFence_Level2	Allow only this level of errors or higher to be written to the log.
5	%ApplicationLogFence_Level3	Allow only this level of errors to be written to the log.

Example

```
If %ApplicationLogFence > %ApplicationLogFence_Warning then
      /* do some logging */
End-if;
```

See Also

Chapter 1, "PeopleCode Built-in Functions," WriteToLog, page 557

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide, "Debugging Your Application," Using Application Logging

%AsOfDate

Description

Returns the as-of-date of the environment that the PeopleCode is running in. In most cases, this is the current date, but for Application Engine environments, it is the processing date of the Application Engine program.

%AuthenticationToken

Description

This system variable returns a single sign on authentication token for the user after SwitchUser is executed. For example, you can use this system variable to write a single sign on cookie to the http response after a new user is authenticated.

Note. This system variable returns a valid value only after SwitchUser executes successfully. The value of this system variable is the authentication token itself. The value of the AuthTokenDomain Request object property is the domain across which the authentication token is valid, set in the AuthTokenDomain configuration property in the configuration properties file.

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See Also

Chapter 1, "PeopleCode Built-in Functions," SwitchUser, page 499

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," AuthTokenDomain

%BPName

Description

%BPName is relevant when the user has accessed a page from a worklist entry. It returns a string containing the name of the Business Process for the worklist entry. It returns an empty string if the user didn't access the current page group from a worklist.

%ClientDate

Description

%ClientDate returns the current date for the current user, adjusted for the user's time zone. This is the date as specified with the current user's personalizations.

You can use this system variable as the default constant for a date field.

This is potentially one day different than the server date, which is returned with %Date.

See Also

Chapter 3, "System Variables," %Date, page 614

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Managing PeopleSoft Personalizations"

%ClientTimeZone

Description

%ClientTimeZone returns the current time zone for the current user as a three-character string. This is potentially different than the server time zone. This is the timezone as specified with the current user's personalizations.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Managing PeopleSoft Personalizations"

%Component

Description

%Component returns an uppercase character string containing the name of the current component, as set in the component definition.

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%CompIntfcName

Description

%CompIntfcName returns the name of the Component Interface, if the currently executing PeopleCode program is being run from a Component Interface. If the currently executing PeopleCode program is *not* being run from a Component Interface, this variable returns NULL (if the program is running from PeopleCode) or "Nothing" (if running from Visual Basic.)

If you use this system variable in a mobile application, %CompIntfcName returns the name of the synchronizable Component Interface represented by the mobile object. An empty string is returned if no Component Interface is active.

Note. This system variable is not valid in an iScript.

%ContentID

Description

%ContentID returns the identification of the content for the current context as a string. The format of the value depends on the type of content.

PeopleSoft Pure Internet Architecture Content Type	Content ID Format
Component	*Menu.Component.Market*/**?Page**=*Page* **&Action**=*Action* &*Key ID = Key Value …*
Script	*Record.Event.Function*/?&*Parm ID = Parm Value …*
External	URL
Homepage	tab name
Template	template name
Query	query name
Worklist	worklist name
Navigation	Business Process Map name
File	file name

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%ContentType

Description

%ContentType returns the type of content for the current content as a string.

For example, suppose your PeopleCode is part of the page USERMAIN_SELF, in this URL:

```
http://serverx/servlets/psp/eprocurement/hrms/c/MAINTAINT_SECURITY.USERMAIN_SEF.GBL
```

This system variable returns the following:

```
c
```

The content types are:

PeopleSoft Pure Internet Architecture Content Type	Value
Component	c
Script	s
External	e
Homepage	h
Template	t
Query	q
Worklist	w
Navigation	n
File	f

%Copyright

Description

This system variable returns a string suitable for use as a standard PeopleSoft copyright notice.

%Currency

Description

This system variable returns the preferred currency for the current user.

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%Date

Description

%Date returns a Date value equal to the current server date. This is potentially different than the client date, returned by %ClientDate. You can use this system variable as the default value for a date field.

See Also

Chapter 3, “System Variables,” %ClientDate, page 611

%DateTime

Description

%DateTime returns the current server date and time as a Datetime value.

Note. This variable does not return actual milliseconds. It always returns zeros for the millisecond value.

%DbName

Description

%DbName returns the name of the current database as a String value.

%DbServerName

Description

%DbServerName returns the name of the current Sybase or Informix database server as a string. This is not valid for other database types.

%DbType

Description

%DbType returns a string representing the type of the current database. The valid values are:

- APPSERVER
- DB2
- DB2UNIX
- INFORMIX
- MICROSFT
- ORACLE
- SYBASE

Note. Supported database platforms are subject to change.

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%DeviceType

Description

This system variable returns the type of the mobile device. The values are:

- %MobileDevice_Laptop
- %MobileDevice_PDA
- %OtherDevice

%EmailAddress

Description

This system variable returns the email address of the current user.

%EmployeeId

Description

%EmployeeId returns an uppercase character string containing the Employee ID of the user currently logged on. This is typically used to restrict access to an employee's own records.

%ExternalAuthInfo

Description

This system variable returns external connect information. Programmers can customize the authentication process by passing in binary data. This data is encoded with base64 encoding and passed to sign on PeopleCode as a string using this system variable.

Note. This system variable can be used only in Signon PeopleCode. This system variable isn't applicable with the PeopleSoft Pure Internet Architecture.

%FilePath

Description

This meta-variable returns the current file path as a string.

Note. This is *not* a system variable. This is a meta-variable only available in a Peoplesoft Application Engine program.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Managing Application Engine Programs," Using the Command Line to Invoke Application Engine Programs

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%HPTabName

Description

This system variable returns the name of the last homepage tab visited by the user as a string.

%Import

Description

%Import returns True if an import is being performed by PeopleSoft Import Manager and False if not.

%IntBroker

Description

Use the %IntBroker system variable to return a reference to a web services gateway object.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," IntBroker Class

%IsMultiLanguageEnabled

Description

This system variable returns True if the current user is multi-language enabled.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, "Working With Language-Sensitive Application Data"

%Language

Description

%Language returns a string value representing the current session's language as selected from the signon page.

Note. This function remains for backward compatibility only. Use the %Language_User system variable instead.

See Also

Chapter 3, "System Variables," %Language_User, page 617

Chapter 1, "PeopleCode Built-in Functions," SetLanguage, page 464

%Language_Base

Description

%Language_Base returns the base language for the current database, as set with the PeopleTools Options page.

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See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," PeopleTools Options

%Language_Data

Description

If multi-language entry is enabled, %Language_Data returns a string value representing the current data language selected by the user.

If multi-language entry is *not* enabled, %Language_Data returns the current session language.

Use %Language_Data if your application must know the language any entered application data is stored as in the component's related language records. Do not use this variable to control the user interface, such as messages or page text. For determining the language of the user interface, use the %Language_User variable.

See Also

Chapter 3, "System Variables," %Language_User, page 617

%Language_User

Description

%Language_User returns a string value representing the current session's language as selected from the signon page. This value can be changed for the current session with the SetLanguage function.

Note. The value of this system variable may not reflect the current data language if the user has multi-language entry enabled.

See Also

Chapter 1, "PeopleCode Built-in Functions," SetLanguage, page 464

%LocalNode

Description

%LocalNode returns the name of the local node for the current database as a string.

For example, suppose your PeopleCode is part of the page USERMAIN_SELF, in this URL:

```
http://serverx/servlets/psp/eprocurement/hrms/c/MAINTAINT_SECURITY.USERMAIN_SEF.GBL
```

This system variable returns the following:

```
hrms
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Adding and Configuring Nodes"

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%Market

Description

The %Market system variable returns a three-character String value for the Market property of the current component. This is useful if you want to add market-specific PeopleCode functionality to a component. For example:

```
if %Component = COMPONENT.PERSONAL_DATA then
   /* do some stuff that applies to all localized version */
   :
   :
   /* do some stuff that differs by market */
   evaluate %Market
      when = "USA"
       /* do usa stuff */
         break;
      when = "GER"
         /* do german stuff */
   end-evaluate;
end-if;
```

The Market property of a component specifies a component's target market. This property is set when a component is initially saved or cloned.

Components that are used on a global basis have a market setting of "GBL". Variations of components targeted at a specific market can have a local Market setting, for example "FRA". This enables developers to avoid cloning, renaming, and coding distinct PeopleCode in market-specific components. Instead, they can create a single component with market-specific PeopleCode, then clone the component, applying different Market property settings.

Because the %Market string is a three-character string like Country Code, Country Codes can be used as market settings where appropriate.

Considerations Using %Market in PeopleSoft Application Engine Programs

Whenever %Market resolves to no value, it is processing in global ('GBL'). The absence of a value should be treated the same as if the value is 'GBL'.

To process a non-GBL market, a row must be created in PS_AEREQUESTTBL with the desired market value placed in the MARKET field of that row.

Note. You must make this change to the table for every application engine program PeopleCode that refers to %Market.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Component Definitions"

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%MaxInterlinkSize

Description

%MaxInterlinkSize returns the current size limit of Interlink objects, as set on the PeopleTools Options page.

See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," PeopleTools Options

%MaxMessageSize

Description

%MaxMessageSize returns the current size limit of messages, as set on the PeopleTools Options page.

See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," PeopleTools Options

%Menu

Description

%Menu returns an uppercase string containing the current menu name. It can be used to restrict edits or processing to a specific menu.

Note. Do not use the %Menu variable in the SearchSave event. You may get unexpected results.

%MobilePage

Description

This system variable returns the name of the current mobile page.

Example

```
%ThisMobileObject.QE_MB_RESULTS = %MobilePage;
```

%Mode

Description

%Mode returns a String value consisting of an uppercase character specifying the action a user selected when starting the current component. The following values can be returned. You can check either for the string value ("A", "U", and so on.) or for the constant:

Numeric Value	Constant Value	Description
A	%Action_Add	Add
U	%Action_UpdateDisplay	Update/Display

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Numeric Value	Constant Value	Description
L	%Action_UpdateDisplayAll	Update/Display All
C	%Action_Correction	Correction
E	%Action_DataEntry	Data Entry
P	%Action_Prompt	Prompt

Note. This system variable is not valid with mobile PeopleCode.

%NavigatorHomePermissionList

Description

This system variable returns the navigator homepage permission list for the current user.

%Node

Description

%Node returns the name of the node from the current request object. This variable can only be used with in a request (%Request). If you need to get the node name for a message, use the PubNodeName message property instead.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Adding and Configuring Nodes"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Message Classes," PubNodeName

%OperatorClass

Description

This system variable returns a string representing the primary or base class of the current operator.

Note. This system variable is supported for compatibility with previous releases of PeopleTools. New applications should use %PermissionLists instead.

See Also

Chapter 3, "System Variables," %PermissionLists, page 624

%OperatorId

Description

%OperatorId returns an uppercase character string containing the operator currently logged on. This is typically used to restrict access to records or fields to specific operators.

Note. This system variable is supported for compatibility with previous releases of PeopleTools. New applications should use %UserId instead.

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See Also

Chapter 3, "System Variables," %UserId, page 629

%OperatorRowLevelSecurityClass

Description

This system variable returns a string representing the row-level security class of the current operator. The row-level security class is now distinct from the operator's primary class.

Note. This system variable is supported for compatibility with previous releases of PeopleTools. New applications should use %RowSecurityPermissionList instead.

See Also

Chapter 3, "System Variables," %RowSecurityPermissionList, page 625

%OutDestFormat

Description

This meta-variable returns the current output destination format as a string.

Note. This is *not* a system variable. This is a meta-variable only available in a Peoplesoft Application Engine program.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Managing Application Engine Programs," Using the Command Line to Invoke Application Engine Programs

%OutDestType

Description

This meta-variable returns the current output destination type as a string.

Note. This is *not* a system variable. This is a meta-variable only available in a Peoplesoft Application Engine program.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Engine, "Managing Application Engine Programs," Using the Command Line to Invoke Application Engine Programs

%Page

Description

%Page returns an uppercase character string containing the current page name. It is typically used to restrict processing to a specific page, which is often necessary, because PeopleCode programs are associated with record definitions that can be shared by multiple pages.

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%Panel

Description

%Panel returns an uppercase character string containing the current panel name.

Note. This system variable is supported for compatibility with previous releases of PeopleTools. New applications should use %Page instead.

See Also

Chapter 3, "System Variables," %Page, page 621

%PanelGroup

Description

%PanelGroup returns an uppercase character string containing the name of the current component, as set in the component definition.

Note. This system variable is supported for compatibility with previous releases of PeopleTools. New applications should use %Component instead.

See Also

Chapter 3, "System Variables," %Component, page 611

%PasswordExpired

Description

This system variable returns a Boolean indicating if the current user's password has expired. This system variable should be used after using SwitchUser, to verify if the password of the user that the user has just switched to is expired.

See Also

Chapter 1, "PeopleCode Built-in Functions," SwitchUser, page 499

%PerfTime

Description

Use the %PerfTime system variable to return the application server's local system time.

This variable returns only the local system time. This is different from the %Time system variable, which returns the system time from the database server, which may or may not be the same physical system as the application server.

PeopleSoft recommends using %PerfTime when measuring performance time for a specific PeopleCode program. This can enable developers to evaluate which coding logic has better performance time.

Note. Do not assume that %PerfTime returns the same time as the database server. Use %Time if you need to use a time value for your application transaction.

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Example

The following is an example of how to use %PerfTime to check performance of a PeopleCode program:

```
&startTime = %PerfTime;

Local number &nbr;
Local Rowset &Table1_rs, &Table2_rs, &Table1_cpy_rs, &Table2_cpy_rs;
Local Rowset &Table1_vw_rs;


&Table1_rs = CreateRowset(Record.PTP_TABLE1);
&Table1_cpy_rs = CreateRowset(Record.PTP_TABLE1);
&Table1_rs.Fill("WHERE PTP_SEQ_NBR <= 10001");

REM
REM  Copy using Rowset function from one RowSet to Another
REM;

&Table1_rs.CopyTo(&Table1_cpy_rs);

REM
REM USE ROWSET TO READ RESULTS FROM A JOIN WITH BIND VARIABLE
REM;

&nbr = 10001;
&Table1_vw_rs = CreateRowset(Record.PTP_TABLE1_VW);
&Table1_vw_rs.Fill("WHERE PTP_SEQ_NBR >= :1", &nbr);

REM
REM  END OF EXERCISE CODE FOR PERFORMANCE COLLECTOR
REM;


&Rs = GetRowset(Scroll.PTP_TABLE1);

&Rs.Flush();
&Rs.Select(Record.PTP_TABLE1, "WHERE PTP_SEQ_NBR <= 10005");


&timeTaken = %PerfTime - &startTime;
```

See Also

Chapter 3, “System Variables,” %Time, page 629

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%PermissionLists

Description

This system variable returns an array object containing entries for all the permission lists to which the current user belongs.

%PID

Description

This system variable returns the process ID of the process that issues it as a number. For example, if an application server has a process ID of 445656 (as seen on task manager), this system variable would return 445656 for any PeopleCode that ran on that application server (that is, from a component.) Application Engine PeopleCode run on the Application Engine server, and so on.

%Portal

Description

%Portal returns the name of the portal the current service is being accessed through, as a string. For example, suppose your PeopleCode is part of the page USERMAIN_SELF, in this URL:

```
http://serverx/servlets/psp/eprocurement/hrms/c/MAINTAINT_SECURITY.USERMAIN_SEF.GBL
```

This system variable returns the following:

```
eprocurement
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Adding and Configuring Nodes"

%PrimaryPermissionList

Description

This system variable returns a string representing the primary permission list of the current user.

%ProcessProfilePermissionList

Description

This system variable returns the process profile Permission List for the current user.

%PSAuthResult

Description

This system variable returns the result (True of False) of PeopleSoft ID and password authentication for the user signing on.

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%Request

Description

%Request returns a reference to the request object. This reference can be used like an object, that is, you can use this as part of a dot notation string. For example:

```
&LOGOUT = %Request.LogoutURL;
```

This system variable is applicable only in an internet script.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

%Response

Description

%Response returns a reference to the response object. This reference can be used like an object, that is, you can use this as part of a dot notation string. For example:

```
&CookieArray = %Response.CookieNames();
```

This system variable is applicable only in an internet script.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)"

%ResultDocument

Description

This system variable returns a string containing an HTML document displayed to a user. This system variable is used with SwitchUser to pass any messages from the sign on process (or Signon PeopleCode) to the user.

Note. This system variable can be used only in Signon PeopleCode.

See Also

Chapter 1, "PeopleCode Built-in Functions," SwitchUser, page 499

%Roles

Description

This system variable returns an array object containing entries for all the roles to which the current user belongs.

%RowSecurityPermissionList

Description

This system variable returns a string representing the row-level PermissionList of the current user. The row-level security PermissionList is distinct from the user's primary PermissionList.

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%RunningInPortal

Description

This system variable returns a Boolean value, letting you know if you're in the portal or not. This variable works in both frame templates and HTML templates.

%ServerTimeZone

Description

%ServerTimeZone returns the current time zone on the server as a three-character string.

%Session

Description

%Session returns a reference to the current, existing session. If you use %Session successfully, you don't have to use the GetSession function and Connect method. If you don't have a current session, %Session returns NULL.

Example

```
Local ApiObject &MySession

&MySession = %Session;
If Not (&MySession) Then
   /* Application level error handling */
End-If;
```

The following example is used with in a mobile application:

```
Local ApiObject &ob, &Session;
Local ApiObject &PropertyInfo;

&ob = %ThisMobileObject;
&Session = %Session;

&SaveCustomer = %ThisMobileObject.MyFavoriteCustomer;

&Customer = %Session.GetCompIntfc(COMPINTFC.CUSTOMER);
&Customer.Name="Acme Applicances";
```

%SignonUserId

Description

%SignonUserId returns the value the user typed in at the sign on page.

Note. This system variable can be used only in Signon PeopleCode.

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%SignOnUserPswd

Description

%SignOnUserPswd returns the value the user typed in at the sign on page. This value is encrypted. This ensures end-user passwords can't be "captured" by a Signon PeopleCode program.

Note. This system variable can be used only in Signon PeopleCode.

%SMTPBlackberryReplyTo

Description

This system variable returns the email address used by Blackberry to reply to, as a string, based on value in the application server configuration file for SMTPBlackberryReplyTo. This value is used in the Blackberry Response processing when Notification Templates are used.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Designing BlackBerry Email Responses"

%SMTPGuaranteed

Description

This system variable returns a Boolean value, based on value in the application server configuration file for SMTPGuaranteed. The values are:

Value in Configuration File	Value Returned by System Variable
0	False
1	True

When this value is set to True, the SendMail built-in function and the Notification Send method send emails asynchronously by publishing an Application Message (EMAIL_MSG).

When this value is set to False, the SendMail built-in function and the Notification Send method send emails synchronously by calling the SMTP server directly.

See Also

Chapter 1, "PeopleCode Built-in Functions," SendMail, page 439 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Notification Classes," Send.

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Designing BlackBerry Email Responses"

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%SMTPSender

Description

This system variable returns an email address as a string. The value is based on the value in the application server configuration file for SMTPSender. This value is used as the default sender email address for the following emails:

- TriggerBusinessEvent function
- SendMail function
- Notification class Send method

When using Notification Templates, if the Sender value is set to "System", this is the email address that is used for the Sender.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology, "Designing BlackBerry Email Responses"

%SQLRows

Description

%SQLRows returns the number of rows affected by the most recent UPDATE, DELETE, or INSERT executed through the **SQLExec** function.

%SQLRows can also be used after SELECT. It returns 0 if no rows are returned, a non-zero value if one or more rows are returned. In this case, the non-zero value does not indicate the total number of rows returned.

%SyncServer

Description

This system variable returns a reference to the SyncServer object. If you don't have a current SyncServer object, %SyncServer returns NULL.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "SyncServer Class"

%ThisMobileObject

Description

Returns a reference to the current mobile object, which is the equivalent of a row for a Component Interface object.

To get the top level object, use %ThisMobileObject.GetTopParent.

To get the immediate parent, use %ThisMobileObject.GetParent.

Example

```
Local ApiObject &ob, &Session;
```

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```
Local ApiObject &PropertyInfo;

&ob = %ThisMobileObject;
&Session = %Session;

/*********************************************************
* Set properties directly on %ThisMobileObject           *
*********************************************************/
%ThisMobileObject.date  = "2002.12.06";
%ThisMobileObject.time  = "10:30:00";
```

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Mobile Classes"

%Time

Description

%Time retrieves the current database server time.

If your application deals with time-sensitive data, use this value. If you want to measure the performance of a PeopleCode program, use the %PerfTime system variable instead.

See Also

Chapter 3, "System Variables," %PerfTime, page 622

%TransformData

Description

This system variable returns a reference to the TransformData object. If you don't have a current TransformData object, %TransformData returns Null.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Integration Broker, "Applying Filtering, Transformation and Translation"

%UserDescription

Description

This system variable returns the description (if any) listed for the current user.

%UserId

Description

%UserId returns a character string containing the user currently logged on. This is typically used to restrict access to records or fields to specific users.

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%WLInstanceID

Description

%WLInstanceID returns a string containing the name of the Worklist Instance ID for the current worklist entry. It returns a blank string if the current page was not accessed using a worklist.

%WLName

Description

%WLName returns a string containing the name of the Worklist for the current worklist entry. It returns a blank string if the current page was not accessed using a worklist.

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CHAPTER 4

Meta-HTML

This chapter provides an overview of Meta-HTML and discusses the following topics:

- Variables
- Functions
- Comments
- Alphabetical list of Meta-HTML elements

Understanding Meta-HTML

PeopleSoft Pure Internet Architecture page processing includes functionality to perform certain substitutions on the generated HTML. These substitutions are known as Meta-HTML. These Meta-HTML elements enable access to some of the environment, and in some cases, to perform browser-dependent substitutions.

The Meta-HTML processing is performed on the entire page, including the contents of any HTML areas in the page. Thus Meta-HTML can be used in an HTML area.

Meta-HTML processing is not currently done in the results of an internet script, so the iScript programmer cannot use Meta-HTML.

A limited subset of the Meta-HTML processing is also done on any JavaScript or auxiliary HTML files attached and downloaded to the web server. This processing occurs both for files attached to PeopleSoft Pure Internet Architecture pages and for files attached to an iScript.

An auxiliary file may be attached to an HTML area using the Meta-HTML %JavaScript method.

An auxiliary page may be attached to a iScript page or a PeopleSoft Pure Internet Architecture page using the Response method GetJavaScriptURL.

Each Meta-HTML element that may be used in auxiliary files is noted in its description.

Find References Tool Considerations

When you specify a definition name in an HTML area, it is *not* found using the Find References tool. It also won't be automatically renamed when a definition is renamed. All text within an HTML area is treated like a quoted string, a literal.

For example, Find References won't find the image PSLOGO or the HTML definition PT_EDITSCRIPTS.

```
<img src='%Image(PSLOGO)'>
<script src='%JavaScript(PT_EDITSCRIPTS)'></script>
```

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See Also

Chapter 4, “Meta-HTML,” %JavaScript, page 636

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, “Internet Script Classes (iScript),” GetJavaScriptURL

Variables

A Meta-HTML variable has the form %name, similar to the PeopleCode system variables. It’s replaced by the substituted value wherever it appears. In the following example, the Meta-HTML variable is replaced by the current component name:

```
%Component
```

Functions

A Meta-HTML function has the following form:

```
%name(parameter, parameter...)
```

The entire expression is replaced by a substituted value, where the parameters are used in determining the value to be substituted. The parameters are arbitrary sequences of characters separated by commas. Do *not* place quotes around the parameters unless they form part of the value to be used.

In the following example, the entire text is replaced by the contents of the message 126, 45 from the message catalog, or the phrase "Unable to load images" if that message isn’t found.

```
%Message(126, 45, Unable to load images)
```

Comments

The Meta-HTML processor recognizes two forms of comments. These comments are deleted from the generated HTML or JavaScript. They enable the application developer to comment the HTML objects in the database without increasing the size of the HTML passed to the browser.

The recognized comments are as follows:

Two slashes followed by a percent sign at the start of a line deletes everything to the end of the line containing the slashes.

```
//%  anything
```

A less-than sign, followed by an exclamation mark and a percentage sign deletes everything from those marks to the mark -->, which may be on another line.

```
<!%  anything   -->
```

These Meta-HTML comments may be used both in HTML areas and attached auxiliary files.

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Alphabetical List of Meta-HTML Elements

In this section, we discuss each Meta-HTML element. Throughout this section, typographical conventions are used to distinguish between different elements of the PeopleCode language, such as bold to indicate function names, italics for arguments, and so on.

See Also

Chapter 1, "PeopleCode Built-in Functions," PeopleCode Typographical Conventions, page 1

%Appserver

Description

At runtime %Appserver is replaced with the name of the application server.

This metavariable is valid for use in attached auxiliary files.

%AppsRel

Description

At runtime %AppsRel is replaced with the application release string.

This metavariable is valid for use in attached auxiliary files.

%Browser

Description

At runtime %Browser is replaced with the browser name as specified by the browser loading the current page.

%BrowserPlatform

Description

At runtime %BrowserPlatform is replaced with the operating system name as specified by the browser loading the current page.

%BrowserVersion

Description

At runtime %BrowserVersion is replaced by the version string as specified by the browser loading the current page.

%Cols

Syntax

%Cols(*n*)

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Description

At runtime %Cols(*n*) is replaced with COLS=*n*.

Note. For Netscape 4.x, this Meta-HTML function generates nothing (it's suppressed). This is used as a workaround for some Netscape considerations.

Parameters

Parameter	Description
n	Specify the number of columns.

This metafunction is valid for use in attached auxiliary files, but always generates COLS=n, that is, it isn't Browser-aware when used in attached files.

%Component

Description

At runtime %Component is replaced with the component name of the current component.

%Copyright

Description

At runtime %Copyright is replaced with a string suitable for use as a standard PeopleSoft copyright notice.

This metavariable is valid for use in attached auxiliary files.

%DBName

Description

At runtime %DBName is replaced with the name of the application database.

This metavariable is valid for use in attached auxiliary files.

%DBType

Description

At runtime %DBType is replaced with the type of the application database.

This metavariable is valid for use in attached auxiliary files.

%Encode

Syntax

%Encode(*anything*)

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Description

At runtime %Encode plus *anything* is replaced with the encoded string. Encoding is done according to normal URL encoding rules.

Parameters

Parameter	Description
anything	Specify the string to be encoded.

This metafunction is valid for use in attached auxiliary files.

%Formname

Description

At runtime %Formname is replaced with the name of the HTML FORM generated for the current page.

This metavariable is valid for use in attached auxiliary files.

%HtmlContent

Syntax

%HtmlContent(*ContentName*)

Description

At runtime %HtmlContent and *ContentName* are replaced by the URL suitable for referencing the content on the web server. In addition, the content is loaded into the web server's cache directory.

Parameters

Parameter	Description
ContentName	Specify the content you want to access, as a string.

%Image

Syntax

%Image(*imagename*)

Description

At runtime %Image and *imagename* are replaced by the URL suitable for referencing the image on the web server. In addition, the image is loaded into the web server's cache directory.

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Parameters

Parameter	Description
imagename	Specify the name of an image saved as an image definition in PeopleSoft Application Designer.

Example

```
<img src='%Image(PSLOGO)'>
```

%JavaScript

Syntax

%JavaScript(*HTMLDefinition*)

Description

At runtime %JavaScript and the *HTMLDefinition* are replaced by the URL suitable for referencing the .js file on the web server. In addition, the JavaScript is loaded into the web server's cache directory.

Parameters

Parameter	Description
HTMLDefinition	Specify the name of an HTML definition that contains a JavaScript program.

Example

```
<script src='%JavaScript(PT_EDITSCRIPTS)'></script>
```

%LabelTag

Description

At runtime %LableTag is replaced with the text LABEL.

Note. For Netscape 4.x, %LabelTag generates SPAN. This is used as a workaround for some Netscape considerations with the unimplemented LABEL tag.

This metavariable is valid for use in attached auxiliary files, but always generates LABEL, that is, it isn't Browser-aware when used in attached files.

%Menu

Description

At runtime %Menu is replaced by the menu name for the currently loaded component.

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%Message

Syntax

%Message(*message_set*, *message_num*, *default_msg_txt* [, *paramlist*])

where *paramlist* is an arbitrary-length list of parameters to be substituted in the resulting text string, in the form: *param1* [, *param2*]. . .

Description

%Message retrieves a message from the PeopleCode Message Catalog and substitutes in the values of the parameters into the message.

The *message_set* and *message_num* parameters specify the message to retrieve from the catalog. If the message is not found in the Message Catalog, the default message provided in *default_msg_txt* is used. Message sets 1 through 19,999 are reserved for use by PeopleSoft applications. Message sets 20,000 through 32,767 can be used by PeopleSoft users.

The parameters listed in the optional *paramlist* are referenced in the message using the % character followed by an integer referencing the position of the parameter in the function call. For example, if the first and second parameters in *paramlist* were MONDAY and 12/5/2001, they would be inserted into the message string as %1 and %2. To include a literal percent sign in the string, use %%; %\ is used to indicate an end-of-string and terminates the string at that point, this is generally used to specify fixed-length strings with trailing blanks.

The message is obtained using the current user language code.

Parameters

Parameter	Description
message_set	Specify the message set to be retrieved from the catalog. This parameter takes a number value.
message_num	Specify the message number to be retrieved from the catalog. This parameter takes a number value.
default_msg_txt	Specify the text to be displayed if the message isn't found. This parameter takes a string value.
paramlist	Specify values to be substituted into the message.

This is valid for use in attached auxiliary files.

Note. If the message is changed (or a new language version is added) after the auxiliary file has been loaded to the web server, the auxiliary file still contains the old version of the message. It is necessary to manually delete the file from the web server cache directory to get it to re-retrieve the (unmodified) auxiliary component with the (modified) message bindings.

%Page

Description

At runtime %Page is replaced by the name of the current page.

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%ServicePack

Description

At runtime %ServicePack is replaced with the application service pack string.

This metavariable is valid for use in attached auxiliary files.

%SubmitScriptName

Description

At runtime %SubmitScriptName is replaced with the name of the JavaScript function that the current page uses to submit the form when a server action is required.

This metavariable is valid for use in attached auxiliary files.

%ToolsRel

Description

At runtime %ToolsRel is replaced with the tools release string.

This metavariable is valid for use in attached auxiliary files.

%URL

Syntax

%URL(*URLIdentifier* [, **NOENCODE** | **ENCODE** | **DESCR**])

Description

The %URL Meta-HTML function finds the URL specified by *URLIdentifier* and substitutes its value. The *URLIdentifier* must already exist and have been created using URL Maintenance.

Parameters

Parameter	Description
URLIdentifier	Specify a URL Identifier for a URL that already exists and was created using the URL Maintenance page.
NOENCODE | **ENCODE** | **DESCR**	Specify any encoding or other processing to be done with the URL. ENCODE is the default value. If you specify ENCODE, special characters in the URL are encoded using standard URL encoding rules, that is, blanks are replaced with %20, and so on. If you specify NOENCODE, no encoding is done with the URL. If you specify DESCR, the description from the URL definition is used instead of the URL itself.

This metafunction is valid for use in attached auxiliary files.

Example

```
<a href='%URL(homepage)'>%URL(homepage, DESCR)</a>
```


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See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," URL Maintenance

%UserId

Description

At runtime %UserID is replaced with the current UserId.

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APPENDIX A

Viewing Trees From Application Pages

This appendix is for developers of Peoplesoft applications who want to display a tree from an application page, and enable users to select a node or leaf from the tree. It provides an overview of View Trees and discusses how to invoke View Trees from application pages.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Tree Manager, "Introduction to PeopleSoft Tree Manager"

Understanding View Trees

Use a secondary 'Tree Viewer' page, (PSTREEVIEWER), to display an existing Peoplesoft tree from an application using the same HTML format as PeopleSoft Tree Manager. It enables the user to select a node or a leaf from a tree and return the selected node or leaf back to the application.

The following PeopleTools definitions are used:

- Secondary Page: PSTREEVIEWER
- Work Page: PSTREEVIEWERWRK
- Work Record: PSTREEVIEWWRK

The work record and work page are used as a way to transfer data between an application page and the secondary page. The PSTREEVIEWWRK record contains fields that define which tree to display, whether the user has selected a node or leaf, and control fields that give the application some control over the display options of the tree.

The following fields identify the specific tree to be displayed. These values should be populated by the calling application as discussed in the following table.

Field	Description
SetID	SetID of the Tree to be displayed. Required if the tree is keyed by a setID.
SetCntrlValue	Business unit or SetCntrlValue of the Tree to be displayed. Required if the tree is keyed by a business unit or SetCntrlValue.

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Field	Description
Tree_Name	Name of the tree to be displayed. Required.
EffDt	Specify either the Tree's Effective Date, or the date to be used for finding the most current effective-dated version of the tree. Tree Viewer performs a maximum effective date test and displays the most current tree whose effective date is less than or equal to the EffDt value passed in the PSTREEVIEWWRK record.

Note. If a tree contains branches, they are ignored and shown as regular nodes. However, the root node displays with the branch icon to indicate that the tree does contain branches.

There are two methods of opening the PSTREEVIEWER secondary page from an application:

- Without 'MultiNode' Selection (Method A): Enables user to select, and application to receive a single node with level information, or a leaf with parent node information.
- With 'MultiNode' Selection (Method B): Enables user to select, and application to receive multiple nodes without level information. If user selects a leaf the parent node is returned.

The following fields indicate whether specific nodes or a leaf has been selected by the application. These fields can be populated by the calling application if it wants the position of a specific node or leaf, identifying it as the currently selected. The fields are also updated or populated on the Tree Viewer secondary page (PSTRREVIEWER), when the user selects a specific node or leaf and clicks the Select button.

If the application specifies the node value and the leaf value, the search tries to find the leaf under the specified node. This is important when a tree contains duplicate leaves. If a tree does have duplicate leaves and no node is specified, the first leaf occurrence is returned.

Field Name	Description	Remarks
Tree_Node	The Node_Id selected. Must be an exact match to the Node_Id stored in the PSTREENODE table.	Input and/or Output
Tree_Level_Num	Level number associated with the selected node.	Output
Tree_Level	Level name associated with the selected node.	Output
Tree_Level_Descr	Level description associated with the selected node.	Output

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Field Name	Description	Remarks
Leaf_Selected	Y/N flag. Indicates whether the application specified a leaf.	Input
Range_From	Range from value of the selected leaf.	Input and/or Output
Range_To	Range to value of the selected leaf.	Input and/or Output
Dynamic_Flag	Indicates whether the selected leaf is dynamic.	Output
Message_Set_Nbr	Populated in PSTREEVIEWERWRK if error occurs. For example, selected node or leaf is not found. Collapsed tree is displayed.	Output
Message_Nbr	Populated in PSTREEVIEWERWRK if error occurs. For example, specifed node or leaf is not found. Collapsed tree is displayed.	Output
Multinode	Holds list of selected nodes as a comma-separated string. Populated if Multinodeselection is set to "Y".	Output

The following fields (input) can be used to control the appearance and formatting of the Tree Viewer secondary page:

Field Name	Description
Page_Size	Determines the number of lines to be displayed on a given page. If no value is specified the default value is 60 lines per page.
Show_Leaves	Y/N flag. Controls whether the Tree Viewer displays Detail Values.

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Field Name	Description
Show_Levels	Y/N flag. Controls whether the Tree Viewer should display the Level Description next to the node description.
Multinodeselection	Y/N Flag. Default = "N"

Invoking View Trees From Application Pages

This section outlines the development steps and provides some sample code to view trees from an application page. It provides two methods of how to view trees from application pages:

- Without multi-node selection.
- With multi-node selection.

To view a tree from an application page:

1. Add the PSTREEVIEWERWRK page to your component as a hidden page.
2. Add a field to a work record that will then be used as a Command Button or Hyperlink to your secondary page.

   The user selects this button or link to invoke the Tree Viewer page. You also need to add the following sample code to the FieldChange event for this field.
3. Add the Command Button or Hyperlink to the application page.
4. Add a Secondary Page control to the application page, and set the secondary page to PSTREEVIEWER.

   The Secondary Page control *must* be placed on the page at a level higher than level 3.

   In addition, the Command button or Hyperlink to invoke the PSTREEVIEWER secondary page must be placed on the same level as a secondary page control.
5. Add the application PeopleCode, which should do the following:
   a. Set the values of the Tree's key fields on the PSTREEVIEWWRK record.
   b. Determine whether a node has been previously selected, and if so, setting the *Tree_Node* field to be the ID of the selected node:

      If a leaf has been previously selected, your code should do the following:

      — Populate the *Range_From* and *Range_To* fields with the selected leaf values

      — Set the *Tree_Node* field to the parent node

      — Set the *Leaf_Selected* field to "*Y*"
   c. Set any of the display options that you want to use.
   d. Display the Tree Viewer secondary page (PSTREEVIEWER) by calling the DoModal PeopleCode function.

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e. Optionally, check the return code value and storing the ID of the selected node if the user selected a node and clicked the OK or Select button.

```
/* Note: Keys of Tree are stored in &SetId,&TreeName variables.
Assume that application has Leaf selected with values stored in variables &Range⇒
From; &RangeTo and has parent node name stored in &TreeNode variable. QE_TREETEST_⇒
WRK Record holds input and received output values. */

/*Tree to open specification */
PSTREEVIEWWRK.SETID = &SETID;
PSTREEVIEWWRK.SETCNTRLVALUE = " ";
PSTREEVIEWWRK.TREE_NAME = &TREENAME;
PSTREEVIEWWRK.TREE_BRANCH = " ";
PSTREEVIEWWRK.EFFDT = %DATE; /* Get Latest Tree as of Today */

/* Tree appearance specification */
PSTREEVIEWWRK.PAGE_SIZE = 60;
PSTREEVIEWWRK.SHOW_LEAVES = "Y";
PSTREEVIEWWRK.SHOW_LEVELS = "Y";
PSTREEVIEWWRK.MULTINODESELECTION = "N";

/* Leaf input specification */
/* (Assuming QE_TREETEST_WK.LEAF_SELECTED ="Y"; */
PSTREEVIEWWRK.LEAF_SELECTED = QE_TREETEST_WRK.LEAF_SELECTED;
PSTREEVIEWWRK.TREE_NODE = &TreeNode;
PSTREEVIEWWRK.RANGE_FROM = &RangeFrom;
PSTREEVIEWWRK.RANGE_TO = &RangeTo;

/* Opening the PSTREEVIEWER secondary page */
&rslt = DoModal(Page.PSTREEVIEWER, " ", - 1, - 1);

/* populating the application Record (QE_TREETEST_WRK) with output values from⇒
 user selection in Tree */
If &rslt = 1 Then
   QE_TREETEST_WRK.TREE_NODE = PSTREEVIEWWRK.TREE_NODE;
   QE_TREETEST_WRK.TREE_LEVEL_NUM = PSTREEVIEWWRK.TREE_LEVEL_NUM;
   QE_TREETEST_WRK.TREE_LEVEL = PSTREEVIEWWRK.TREE_LEVEL;
   QE_TREETEST_WRK.TREE_LEVEL_DESCR = PSTREEVIEWWRK.TREE_LEVEL_DESCR;
   QE_TREETEST_WRK.RANGE_FROM = PSTREEVIEWWRK.RANGE_FROM;
   QE_TREETEST_WRK.RANGE_TO = PSTREEVIEWWRK.RANGE_TO;
   QE_TREETEST_WRK.DYNAMIC_FLAG = PSTREEVIEWWRK.DYNAMIC_FLAG;
   QE_TREETEST_WRK.MESSAGE_SET_NBR = PSTREEVIEWWRK.MESSAGE_SET_NBR;
   QE_TREETEST_WRK.MESSAGE_NBR = PSTREEVIEWWRK.MESSAGE_NBR;
End-If;
```

The following is the sample PeopleCode (Method A), which would be part of the FieldChange event triggered from a Command Button or Hyperlink command on the application page:

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In some cases, you may need to use the Component Level Record variable *&cPSTREEVIEWWRK* to set values for the tree. For example, if the application added the Tree Viewer secondary page to the application's secondary page and cannot reach the record from the component buffer. The following is the sample PeopleCode illustrating the use of the variable:

```
Component Record &cPSTREEVIEWWRK;
Component boolean &gbShowTreeLeaves;
Local number &rslt;

/* opening the Tree Viewer secondary page */

&cPSTREEVIEWWRK = CreateRecord(Record.PSTREEVIEWWRK);

&cPSTREEVIEWWRK.SETID.Value = &SETID;
&cPSTREEVIEWWRK.SETCNTRLVALUE.Value = " ";
&cPSTREEVIEWWRK.TREE_NAME.Value = &TREENAME;
&cPSTREEVIEWWRK.TREE_BRANCH.Value = " ";
&cPSTREEVIEWWRK.EFFDT.Value = %DATE; /* Get Latest Tree as of Today */;
&cPSTREEVIEWWRK.PAGE_SIZE.Value = 60;
&cPSTREEVIEWWRK.SHOW_LEVELS.Value = "Y";
&cPSTREEVIEWWRK.MULTINODESELECTION.Value = "N";

If &gbShowTreeLeaves Then
   &cPSTREEVIEWWRK.SHOW_LEAVES.Value = "Y";
Else
   &cPSTREEVIEWWRK.SHOW_LEAVES.Value = "N";
End-If;

&rslt = DoModal(Page.PSTREEVIEWER, "", - 1, - 1);

/* reading output value in a case when Component Level Record variable &c⇒
PSTREEVIEWERWRK is used. */

If &rslt = 1 Then
   QE_TREETEST_WRK.TREE_NODE = &cPSTREEVIEWWRK.TREE_NODE.value;
   QE_TREETEST_WRK.TREE_LEVEL_NUM = &cPSTREEVIEWWRK.TREE_LEVEL_NUM.value;
   QE_TREETEST_WRK.TREE_LEVEL = &cPSTREEVIEWWRK.TREE_LEVEL.value;
   QE_TREETEST_WRK.TREE_LEVEL_DESCR = &cPSTREEVIEWWRK.TREE_LEVEL_DESCR.value;
   QE_TREETEST_WRK.RANGE_FROM = &cPSTREEVIEWWRK.RANGE_FROM.value;
   QE_TREETEST_WRK.RANGE_TO = &cPSTREEVIEWWRK.RANGE_TO.value;
   QE_TREETEST_WRK.DYNAMIC_FLAG = &cPSTREEVIEWWRK.DYNAMIC_FLAG.value;
   QE_TREETEST_WRK.MESSAGE_SET_NBR = &cPSTREEVIEWWRK.MESSAGE_SET_NBR.value;
   QE_TREETEST_WRK.MESSAGE_NBR = &cPSTREEVIEWWRK.MESSAGE_NBR.value;

   EndModal(1);

Else
   EndModal(0);

End-If;
```

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Note. The name of the variable *&cPSTREEVIEWWRK* is hard-coded and should not be changed.

The segment of code in *italics* reads the results that came from the tree. (Node or leaf selected).

View Trees From Application Example–Without Multi-Node Selection (Method A)

An example of an application that uses the Tree Viewer secondary page (PSTREEVIEWER), with the Multinodeselection flag set to "**N**", is the Using Copy/Delete Tree (PSTREEMAINT) component. Navigate to the component, select any tree and click the View button.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Tree Manager*, "Maintaining Trees," Maintaining Trees.

Understanding the Tree Viewer page

Page Name	Object Name	Navigation	Usage
Copy/Delete Tree - Tree Viewer	PSTREEVIEWER	Tree Manager, Tree Utilities, Copy/Delete Tree	This page is using the Tree Viewer secondary page



Copy/Delete Tree - Tree Viewer page

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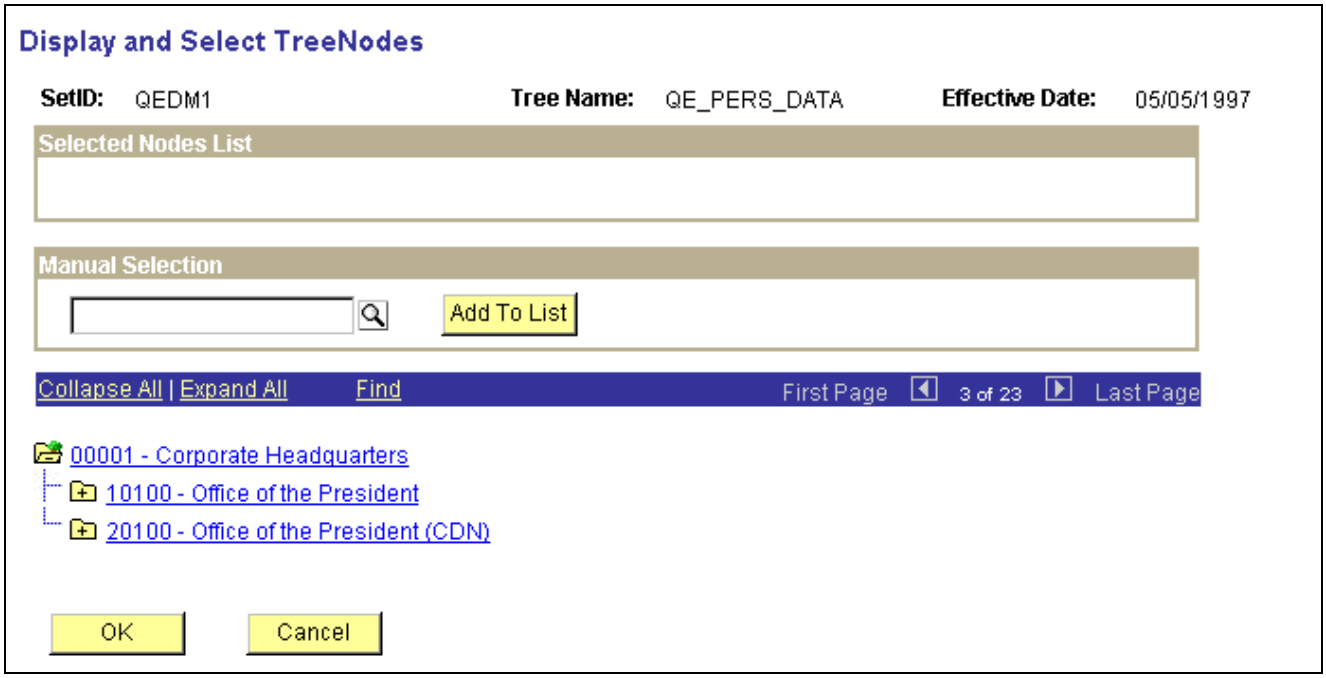
View Trees From Application Example–With Multi-Node Selection (Method B)

An example of an application that uses the PSTREEVIEWER secondary page, with the Multinodeselection flag set to "Y", is the Using Query Manager component. Navigate to the Query Manager component, select any query and click the Add Criteria Image. The Edit Criteria Properties page opens. Select *field* as the first expression then select *in tree* as the condition type. Click the New Node List link to display the Select Tree page. Click the name of the desired tree.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Tree Manager*, "Maintaining Trees".

Understanding the Display and Select TreeNodes Page

Page Name	Object Name	Navigation	Usage
Select TreeNodes	PSTREEVIEWER	Reporting Tools, Query, Query Manager	Use this page to create a list of values for Query to compare to the value from the first expression.



Select TreeNodes page

The Tree Viewer secondary page (PSTREEVIEWER) in Method B has a frame that holds the Selected Nodes List with action buttons associated with each selected node.

This page is used to select the set of nodes, get them back to the calling application, (Query Manager), and use the list of nodes as Query criteria.

To select tree nodes:

1. Highlight the desired tree node and click the Add Node icon.

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2. If you know the name of the desired node you can use the manual selection option. Enter the name of the desired node or use the Lookup button to select from a list of available nodes. Click on the Add to List button to add the node to the list.
3. The nodes you entered or selected from the list appear in the *Selected Nodes* drop-down list box.
4. Delete nodes from the list by clicking the Remove Node From List icon.
5. Display the selected node in the Tree by clicking the Find icon.
6. Click OK when the list is complete to close the *Display and Select TreeNodes* (PSTREEVIEWER secondary page).

   The selected tree setID, tree name, effective date, and selected nodes display in the Select Tree Node List dialog box.

   The list of selected nodes can be read from the Multinode field of the PSTREEVIEWWRK work record as a comma-separated string. The string can be parsed to get the node names.

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Glossary of PeopleSoft Enterprise Terms

absence entitlement This element defines rules for granting paid time off for valid absences, such as sick time, vacation, and maternity leave. An absence entitlement element defines the entitlement amount, frequency, and entitlement period.

absence take This element defines the conditions that must be met before a payee is entitled to take paid time off.

academic career In PeopleSoft Enterprise Campus Solutions, all course work that a student undertakes at an academic institution and that is grouped in a single student record. For example, a university that has an undergraduate school, a graduate school, and various professional schools might define several academic careers—an undergraduate career, a graduate career, and separate careers for each professional school (law school, medical school, dental school, and so on).

academic institution In PeopleSoft Enterprise Campus Solutions, an entity (such as a university or college) that is independent of other similar entities and that has its own set of rules and business processes.

academic organization In PeopleSoft Enterprise Campus Solutions, an entity that is part of the administrative structure within an academic institution. At the lowest level, an academic organization might be an academic department. At the highest level, an academic organization can represent a division.

academic plan In PeopleSoft Enterprise Campus Solutions, an area of study—such as a major, minor, or specialization—that exists within an academic program or academic career.

academic program In PeopleSoft Enterprise Campus Solutions, the entity to which a student applies and is admitted and from which the student graduates.

accounting class In PeopleSoft Enterprise Performance Management, the accounting class defines how a resource is treated for generally accepted accounting practices. The Inventory class indicates whether a resource becomes part of a balance sheet account, such as inventory or fixed assets, while the Non-inventory class indicates that the resource is treated as an expense of the period during which it occurs.

accounting date The accounting date indicates when a transaction is recognized, as opposed to the date the transaction actually occurred. The accounting date and transaction date can be the same. The accounting date determines the period in the general ledger to which the transaction is to be posted. You can only select an accounting date that falls within an open period in the ledger to which you are posting. The accounting date for an item is normally the invoice date.

accounting split The accounting split method indicates how expenses are allocated or divided among one or more sets of accounting ChartFields.

accumulator You use an accumulator to store cumulative values of defined items as they are processed. You can accumulate a single value over time or multiple values over time. For example, an accumulator could consist of all voluntary deductions, or all company deductions, enabling you to accumulate amounts. It allows total flexibility for time periods and values accumulated.

action reason The reason an employee's job or employment information is updated. The action reason is entered in two parts: a personnel action, such as a promotion, termination, or change from one pay group to another—and a reason for that action. Action reasons are used by PeopleSoft Enterprise Human Resources, PeopleSoft Enterprise Benefits

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Administration, PeopleSoft Enterprise Stock Administration, and the COBRA Administration feature of the Base Benefits business process.

action template In PeopleSoft Enterprise Receivables, outlines a set of escalating actions that the system or user performs based on the period of time that a customer or item has been in an action plan for a specific condition.

activity In PeopleSoft Enterprise Learning Management, an instance of a catalog item (sometimes called a class) that is available for enrollment. The activity defines such things as the costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.

In PeopleSoft Enterprise Performance Management, the work of an organization and the aggregation of actions that are used for activity-based costing.

In PeopleSoft Enterprise Project Costing, the unit of work that provides a further breakdown of projects—usually into specific tasks.

In PeopleSoft Workflow, a specific transaction that you might need to perform in a business process. Because it consists of the steps that are used to perform a transaction, it is also known as a step map.

address usage In PeopleSoft Enterprise Campus Solutions, a grouping of address types defining the order in which the address types are used. For example, you might define an address usage code to process addresses in the following order: billing address, dormitory address, home address, and then work address.

adjustment calendar In PeopleSoft Enterprise Campus Solutions, the adjustment calendar controls how a particular charge is adjusted on a student's account when the student drops classes or withdraws from a term. The charge adjustment is based on how much time has elapsed from a predetermined date, and it is determined as a percentage of the original charge amount.

administrative function In PeopleSoft Enterprise Campus Solutions, a particular functional area that processes checklists, communication, and comments. The administrative function identifies which variable data is added to a person's checklist or communication record when a specific checklist code, communication category, or comment is assigned to the student. This key data enables you to trace that checklist, communication, or comment back to a specific processing event in a functional area.

admit type In PeopleSoft Enterprise Campus Solutions, a designation used to distinguish first-year applications from transfer applications.

agreement In PeopleSoft Enterprise eSettlements, provides a way to group and specify processing options, such as payment terms, pay from a bank, and notifications by a buyer and supplier location combination.

allocation rule In PeopleSoft Enterprise Incentive Management, an expression within compensation plans that enables the system to assign transactions to nodes and participants. During transaction allocation, the allocation engine traverses the compensation structure from the current node to the root node, checking each node for plans that contain allocation rules.

alternate account A feature in PeopleSoft Enterprise General Ledger that enables you to create a statutory chart of accounts and enter statutory account transactions at the detail transaction level, as required for recording and reporting by some national governments.

analysis database In PeopleSoft Enterprise Campus Solutions, database tables that store large amounts of student information that may not appear in standard report formats. The analysis database tables contain keys for all objects in a report that an application program can use to reference other student-record objects that are not contained in the printed report. For instance, the analysis database contains data on courses that are considered

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	for satisfying a requirement but that are rejected. It also contains information on courses captured by global limits. An analysis database is used in PeopleSoft Enterprise Academic Advisement.
Application Messaging	PeopleSoft Application Messaging enables applications within the PeopleSoft Enterprise product family to communicate synchronously or asynchronously with other PeopleSoft Enterprise and third-party applications. An application message defines the records and fields to be published or subscribed to.
AR specialist	Abbreviation for *receivables specialist.* In PeopleSoft Enterprise Receivables, an individual in who tracks and resolves deductions and disputed items.
arbitration plan	The arbiter when multiple price rules match the transaction. This plan determines the order in which the price rules are applied to the transaction base price.
assessment rule	In PeopleSoft Enterprise Receivables, a user-defined rule that the system uses to evaluate the condition of a customer's account or of individual items to determine whether to generate a follow-up action.
asset class	An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.
attribute/value pair	In PeopleSoft Enterprise Directory Interface, relates the data that makes up an entry in the directory information tree.
auction event	In PeopleSoft Strategic Sourcing, a sourcing event where bidders actively compete against one another to achieve the best price or score.
audience	In PeopleSoft Enterprise Campus Solutions, a segment of the database that relates to an initiative, or a membership organization that is based on constituent attributes rather than a dues-paying structure. Examples of audiences include the Class of '65 and Undergraduate Arts & Sciences.
authentication server	A server that is set up to verify users of the system.
base time period	In PeopleSoft Enterprise Business Planning, the lowest level time period in a calendar.
benchmark job	In PeopleSoft Enterprise Workforce Analytics Solution, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.
bid response	In PeopleSoft Strategic Sourcing, the response by a bidder to an event.
billing career	In PeopleSoft Enterprise Campus Solutions, the one career under which other careers are grouped for billing purposes if a student is active simultaneously in multiple careers.
bio bit or bio brief	In PeopleSoft Enterprise Campus Solutions, a report that summarizes information stored in the system about a particular constituent. You can generate standard or specialized reports.
book	In PeopleSoft Enterprise Asset Management, used for storing financial and tax information, such as costs, depreciation attributes, and retirement information on assets.
branch	A tree node that rolls up to nodes above it in the hierarchy, as defined in PeopleSoft Tree Manager.
budgetary account only	An account used by the system only and not by users; this type of account does not accept transactions. You can only budget with this account. Formerly called "system-maintained account."

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budget check In commitment control, the processing of source transactions against control budget ledgers, to see if they pass, fail, or pass with a warning.

budget control In commitment control, budget control ensures that commitments and expenditures don't exceed budgets. It enables you to track transactions against corresponding budgets and terminate a document's cycle if the defined budget conditions are not met. For example, you can prevent a purchase order from being dispatched to a vendor if there are insufficient funds in the related budget to support it.

budget period The interval of time (such as 12 months or 4 quarters) into which a period is divided for budgetary and reporting purposes. The ChartField allows maximum flexibility to define operational accounting time periods without restriction to only one calendar.

business activity The name of a subset of a detailed business process. This might be a specific transaction, task, or action that you perform in a business process.

business event In PeopleSoft Enterprise Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

In PeopleSoft Enterprise Sales Incentive Management, an original business transaction or activity that may justify the creation of a PeopleSoft Enterprise Incentive Management event (a sale, for example).

business process A standard set of 17 business processes are defined and maintained by the PeopleSoft Enterprise product families and are supported by the Business Process Engineering group. An example of a business process is Order Fulfillment, which is a business process that manages sales orders and contracts, inventory, billing, and so forth.

See also *detailed business process.*

business unit constraints In PeopleSoft Strategic Sourcing, these constraints apply to a selected Strategic Sourcing business unit. Spend is tracked across all of the events within the selected Strategic Sourcing business unit.

business task The name of the specific function depicted in one of the business processes.

business unit A corporation or a subset of a corporation that is independent with regard to one or more operational or accounting functions.

buyer In PeopleSoft Enterprise eSettlements, an organization (or business unit, as opposed to an individual) that transacts with suppliers (vendors) within the system. A buyer creates payments for purchases that are made in the system.

buy event In PeopleSoft Strategic Sourcing, for event creators, the purchase of goods or services, most typically associated with a request for quote, proposal, or reverse auction.For bidders, the sale of goods or services.

campus In PeopleSoft Enterprise Campus Solutions, an entity that is usually associated with a distinct physical administrative unit, that belongs to a single academic institution, that uses a unique course catalog, and that produces a common transcript for students within the same academic career.

cash drawer A repository for monies and payments taken locally.

catalog item In PeopleSoft Enterprise Learning Management, a specific topic that a learner can study and have tracked. For example, "Introduction to Microsoft Word." A catalog item contains general information about the topic and includes a course code, description, categorization, keywords, and delivery methods. A catalog item can have one or more learning activities.

catalog map In PeopleSoft Enterprise Catalog Management, translates values from the catalog source data to the format of the company's catalog.

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catalog partner In PeopleSoft Enterprise Catalog Management, shares responsibility with the enterprise catalog manager for maintaining catalog content.

categorization Associates partner offerings with catalog offerings and groups them into enterprise catalog categories.

category In PeopleSoft Enterprise Campus Solutions, a broad grouping to which specific comments or communications (contexts) are assigned. Category codes are also linked to 3C access groups so that you can assign data-entry or view-only privileges across functions.

channel In PeopleSoft MultiChannel Framework, email, chat, voice (computer telephone integration [CTI]), or a generic event.

ChartField A field that stores a chart of accounts, resources, and so on, depending on the PeopleSoft Enterprise application. ChartField values represent individual account numbers, department codes, and so forth.

ChartField balancing You can require specific ChartFields to match up (balance) on the debit and the credit side of a transaction.

ChartField combination edit The process of editing journal lines for valid ChartField combinations based on user-defined rules.

ChartKey One or more fields that uniquely identify each row in a table. Some tables contain only one field as the key, while others require a combination.

checkbook In PeopleSoft Enterprise Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.

checklist code In PeopleSoft Enterprise Campus Solutions, a code that represents a list of planned or completed action items that can be assigned to a staff member, volunteer, or unit. Checklists enable you to view all action assignments on one page.

claimback In the wholesale distribution industry, a contract between supplier and distributor, in which monies are paid to the distributor on the sale of specified products or product groups to targeted customers or customer groups.

class In PeopleSoft Enterprise Campus Solutions, a specific offering of a course component within an academic term.

See also *course.*

Class ChartField A ChartField value that identifies a unique appropriation budget key when you combine it with a fund, department ID, and program code, as well as a budget period. Formerly called *sub-classification.*

clearance In PeopleSoft Enterprise Campus Solutions, the period of time during which a constituent in PeopleSoft Enterprise Contributor Relations is approved for involvement in an initiative or an action. Clearances are used to prevent development officers from making multiple requests to a constituent during the same time period.

clone In PeopleCode, to make a unique copy. In contrast, to *copy* may mean making a new reference to an object, so if the underlying object is changed, both the copy and the original change.

cohort In PeopleSoft Enterprise Campus Solutions, the highest level of the three-level classification structure that you define for enrollment management. You can define a cohort level, link it to other levels, and set enrollment target numbers for it.

See also *population* and *division*.

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collection To make a set of documents available for searching in Verity, you must first create at least one collection. A collection is set of directories and files that allow search application users to use the Verity search engine to quickly find and display source documents that match search criteria. A collection is a set of statistics and pointers to the source documents, stored in a proprietary format on a file server. Because a collection can only store information for a single location, PeopleTools maintains a set of collections (one per language code) for each search index object.

collection rule In PeopleSoft Enterprise Receivables, a user-defined rule that defines actions to take for a customer based on both the amount and the number of days past due for outstanding balances.

comm key See *communication key.*

communication key In PeopleSoft Enterprise Campus Solutions, a single code for entering a combination of communication category, communication context, communication method, communication direction, and standard letter code. Communication keys (also called *comm keys* or *speed keys*) can be created for background processes as well as for specific users.

compensation object In PeopleSoft Enterprise Incentive Management, a node within a compensation structure. Compensation objects are the building blocks that make up a compensation structure's hierarchical representation.

compensation structure In PeopleSoft Enterprise Incentive Management, a hierarchical relationship of compensation objects that represents the compensation-related relationship between the objects.

component interface A component interface is a set of application programming interfaces (APIs) that you can use to access and modify PeopleSoft Enterprise database information using a program instead of the PeopleSoft client.

condition In PeopleSoft Enterprise Receivables, occurs when there is a change of status for a customer's account, such as reaching a credit limit or exceeding a user-defined balance due.

configuration parameter catalog Used to configure an external system with PeopleSoft Enterprise. For example, a configuration parameter catalog might set up configuration and communication parameters for an external server.

configuration plan In PeopleSoft Enterprise Incentive Management, configuration plans hold allocation information for common variables (not incentive rules) and are attached to a node without a participant. Configuration plans are not processed by transactions.

constituents In PeopleSoft Enterprise Campus Solutions, friends, alumni, organizations, foundations, or other entities affiliated with the institution, and about which the institution maintains information. The constituent types delivered with PeopleSoft Enterprise Contributor Relations Solutions are based on those defined by the Council for the Advancement and Support of Education (CASE).

constraint A business policy or rule that affects how a sourcing event is awarded. There are three types of constraints: business, global, and event.

content reference Content references are pointers to content registered in the portal registry. These are typically either URLs or iScripts. Content references fall into three categories: target content, templates, and template pagelets.

context In PeopleCode, determines which buffer fields can be contextually referenced and which is the current row of data on each scroll level when a PeopleCode program is running.

In PeopleSoft Enterprise Campus Solutions, a specific instance of a comment or communication. One or more contexts are assigned to a category, which you link to

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	3C access groups so that you can assign data-entry or view-only privileges across functions. In PeopleSoft Enterprise Incentive Management, a mechanism that is used to determine the scope of a processing run. PeopleSoft Enterprise Incentive Management uses three types of context: plan, period, and run-level.
control table	Stores information that controls the processing of an application. This type of processing might be consistent throughout an organization, or it might be used only by portions of the organization for more limited sharing of data.
cost plus contract line	A rate-based contract line associated with a fee component of Award, Fixed, Incentive, or Other. Rate-based contract lines associated with a fee type of None are not considered cost-plus contract lines.
cost plus pricing	In PeopleSoft Enterprise Pricer, a pricing method that begins with cost of goods as the basis.
cost profile	A combination of a receipt cost method, a cost flow, and a deplete cost method. A profile is associated with a cost book and determines how items in that book are valued, as well as how the material movement of the item is valued for the book.
cost row	A cost transaction and amount for a set of ChartFields.
counter sale	A face-to-face customer transaction where the customer typically selects items from the storefront or picks up products that they ordered ahead of time. Customers pay for the goods at the counter and take the goods with them instead of having the goods shipped from a warehouse.
course	In PeopleSoft Enterprise Campus Solutions, a course that is offered by a school and that is typically described in a course catalog. A course has a standard syllabus and credit level; however, these may be modified at the class level. Courses can contain multiple components such as lecture, discussion, and lab. See also *class.*
course share set	In PeopleSoft Enterprise Campus Solutions, a tag that defines a set of requirement groups that can share courses. Course share sets are used in PeopleSoft Enterprise Academic Advisement.
current learning	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's in-progress learning activities and programs.
data acquisition	In PeopleSoft Enterprise Incentive Management, the process during which raw business transactions are acquired from external source systems and fed into the operational data store (ODS).
data cube	In PeopleSoft Analytic Calculation Engine, a data cube is a container for one kind of data (such as Sales data) and works with in tandem with one or more dimensions. Dimensions and data cubes in PeopleSoft Analytic Calculation Engine are unrelated to dimensions and online analytical processing (OLAP) cubes in PeopleSoft Cube Manager.
data elements	Data elements, at their simplest level, define a subset of data and the rules by which to group them. For Workforce Analytics, data elements are rules that tell the system what measures to retrieve about your workforce groups.
dataset	A data grouping that enables role-based filtering and distribution of data. You can limit the range and quantity of data that is displayed for a user by associating dataset rules with user roles. The result of dataset rules is a set of data that is appropriate for the user's roles.

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delivery method

In PeopleSoft Enterprise Learning Management, identifies the primary type of delivery method in which a particular learning activity is offered. Also provides default values for the learning activity, such as cost and language. This is primarily used to help learners search the catalog for the type of delivery from which they learn best. Because PeopleSoft Enterprise Learning Management is a blended learning system, it does not enforce the delivery method.

In PeopleSoft Enterprise Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, and rail). The delivery method is specified when creating shipment schedules.

delivery method type

In PeopleSoft Enterprise Learning Management, identifies how learning activities can be delivered—for example, through online learning, classroom instruction, seminars, books, and so forth—in an organization. The type determines whether the delivery method includes scheduled components.

detailed business process

A subset of the business process. For example, the detailed business process named Determine Cash Position is a subset of the business process called Cash Management.

dimension

In PeopleSoft Analytic Calculation Engine, a dimension contains a list of one kind of data that can span various contexts, and it is a basic component of an analytic model. Within the analytic model, a dimension is attached to one or more data cubes. In PeopleSoft Cube Manager, a dimension is the most basic component of an OLAP cube and specifies the PeopleSoft metadata to be used to create the dimension's rollup structure. Dimensions and data cubes in PeopleSoft Analytic Calculation Engine are unrelated to dimensions and OLAP cubes in PeopleSoft Cube Manager.

direct receipt

Items shipped from a warehouse or vendor to another warehouse.

direct ship

Items shipped from the vendor or warehouse directly to the customer (formerly referred to as *drop ship*).

directory information tree

In PeopleSoft Enterprise Directory Interface, the representation of a directory's hierarchical structure.

division

In PeopleSoft Enterprise Campus Solutions, the lowest level of the three-level classification structure that you define in PeopleSoft Enterprise Recruiting and Admissions for enrollment management. You can define a division level, link it to other levels, and set enrollment target numbers for it.

See also *population* and *cohort*.

document sequencing

A flexible method that sequentially numbers the financial transactions (for example, bills, purchase orders, invoices, and payments) in the system for statutory reporting and for tracking commercial transaction activity.

dynamic detail tree

A tree that takes its detail values—dynamic details—directly from a table in the database, rather than from a range of values that are entered by the user.

edit table

A table in the database that has its own record definition, such as the Department table. As fields are entered into a PeopleSoft Enterprise application, they can be validated against an edit table to ensure data integrity throughout the system.

effective date

A method of dating information in PeopleSoft Enterprise applications. You can predate information to add historical data to your system, or postdate information in order to enter it before it actually goes into effect. By using effective dates, you don't delete values; you enter a new value with a current effective date.

EIM ledger

Abbreviation for *Enterprise Incentive Management ledger.* In PeopleSoft Enterprise Incentive Management, an object to handle incremental result gathering within the scope of a participant. The ledger captures a result set with all of the appropriate traces to the data origin and to the processing steps of which it is a result.

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elimination set In PeopleSoft Enterprise General Ledger, a related group of intercompany accounts that is processed during consolidations.

entry event In PeopleSoft Enterprise General Ledger, Receivables, Payables, Purchasing, and Billing, a business process that generates multiple debits and credits resulting from single transactions to produce standard, supplemental accounting entries.

equitization In PeopleSoft Enterprise General Ledger, a business process that enables parent companies to calculate the net income of subsidiaries on a monthly basis and adjust that amount to increase the investment amount and equity income amount before performing consolidations.

equity item limit In PeopleSoft Enterprise Campus Solutions, the amounts of funds set by the institution to be awarded with discretionary or gift funds. The limit could be reduced by amounts equal to such things as expected family contribution (EFC) or parent contribution. Students are packaged by Equity Item Type Groups and Related Equity Item Types. This limit can be used to assure that similar student populations are packaged equally.

event A predefined point either in the Component Processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program that is associated with that component and that event. Examples of events are FieldChange, SavePreChange, and RowDelete.

In PeopleSoft Enterprise Human Resources, also refers to an incident that affects benefits eligibility.

event constraints In PeopleSoft Strategic Sourcing, these constraints are associated with a specific sourcing event. Spend is tracked within the selected event.

event propagation process In PeopleSoft Enterprise Sales Incentive Management, a process that determines, through logic, the propagation of an original PeopleSoft Enterprise Incentive Management event and creates a derivative (duplicate) of the original event to be processed by other objects. PeopleSoft Enterprise Enterprise Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.

exception In PeopleSoft Enterprise Receivables, an item that either is a deduction or is in dispute.

exclusive pricing In PeopleSoft Enterprise Order Management, a type of arbitration plan that is associated with a price rule. Exclusive pricing is used to price sales order transactions.

fact In PeopleSoft Enterprise applications, facts are numeric data values from fields from a source database as well as an analytic application. A fact can be anything you want to measure your business by, for example, revenue, actual, budget data, or sales numbers. A fact is stored on a fact table.

financial aid term In PeopleSoft Enterprise Campus Solutions, a combination of a period of time that the school determines as an instructional accounting period and an academic career. It is created and defined during the setup process. Only terms eligible for financial aid are set up for each financial aid career.

financial sanctions For U.S. based companies and their foreign subsidiaries, a federal regulation from the Office of Foreign Assets Control (OFAC) requires that vendors be validated against a Specially Designated Nationals (SDN) list prior to payment.

For PeopleSoft Payables, eSettlements, Cash Management, and Order to Cash, you can validate your vendors against any financial sanctions list (for example, the SDN list, a European Union list, and so on).

forecast item A logical entity with a unique set of descriptive demand and forecast data that is used as the basis to forecast demand. You create forecast items for a wide range of uses, but they ultimately represent things that you buy, sell, or use in your organization and for which you require a predictable usage.

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fund In PeopleSoft Enterprise Promotions Management, a budget that can be used to fund promotional activity. There are four funding methods: top down, fixed accrual, rolling accrual, and zero-based accrual.

gap In PeopleSoft Enterprise Campus Solutions, an artificial figure that sets aside an amount of unmet financial aid need that is not funded with Title IV funds. A gap can be used to prevent fully funding any student to conserve funds, or it can be used to preserve unmet financial aid need so that institutional funds can be awarded.

generic process type In PeopleSoft Process Scheduler, process types are identified by a generic process type. For example, the generic process type SQR includes all SQR process types, such as SQR process and SQR report.

gift table In PeopleSoft Enterprise Campus Solutions, a table or so-called *donor pyramid* describing the number and size of gifts that you expect will be needed to successfully complete the campaign in PeopleSoft Enterprise Contributor Relations. The gift table enables you to estimate the number of donors and prospects that you need at each gift level to reach the campaign goal.

GDS Abbreviation for *Global Distribution System.* Broad-based term to describe all computer reservation systems for making travel plans.

GL business unit Abbreviation for *general ledger business unit.* A unit in an organization that is an independent entity for accounting purposes. It maintains its own set of accounting books.

See also *business unit.*

GL entry template Abbreviation for *general ledger entry template.* In PeopleSoft Enterprise Campus Solutions, a template that defines how a particular item is sent to the general ledger. An item-type maps to the general ledger, and the GL entry template can involve multiple general ledger accounts. The entry to the general ledger is further controlled by high-level flags that control the summarization and the type of accounting—that is, accrual or cash.

GL Interface process Abbreviation for *General Ledger Interface process.* In PeopleSoft Enterprise Campus Solutions, a process that is used to send transactions from PeopleSoft Enterprise Student Financials to the general ledger. Item types are mapped to specific general ledger accounts, enabling transactions to move to the general ledger when the GL Interface process is run.

global constraints In PeopleSoft Strategic Sourcing, these constraints apply across multiple Strategic Sourcing business units. Spend is tracked across all of the events from the multiple Strategic Sourcing business units.

group In PeopleSoft Enterprise Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs).

In PeopleSoft Enterprise Human Resources Management and Supply Chain Management, any set of records that are associated under a single name or variable to run calculations in PeopleSoft business processes. In PeopleSoft Enterprise Time and Labor, for example, employees are placed in groups for time reporting purposes.

ideal response In PeopleSoft Strategic Sourcing, a question that requires the response to match the ideal value for the bid to be considered eligible for award. If the response does not match the ideal value, you can still submit the bid, but it will be disqualified and ineligible for award.

incentive object In PeopleSoft Enterprise Incentive Management, the incentive-related objects that define and support the PeopleSoft Enterprise Incentive Management calculation process and results, such as plan templates, plans, results data, and user interaction objects.

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incentive rule In PeopleSoft Enterprise Sales Incentive Management, the commands that act on transactions and turn them into compensation. A rule is one part in the process of turning a transaction into compensation.

incur In PeopleSoft Enterprise Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.

initiative In PeopleSoft Enterprise Campus Solutions, the basis from which all advancement plans are executed. It is an organized effort targeting a specific constituency, and it can occur over a specified period of time with specific purposes and goals. An initiative can be a campaign, an event, an organized volunteer effort, a membership drive, or any other type of effort defined by the institution. Initiatives can be multipart, and they can be related to other initiatives. This enables you to track individual parts of an initiative, as well as entire initiatives.

inquiry access In PeopleSoft Enterprise Campus Solutions, a type of security access that permits the user only to view data.

See also *update access.*

institution In PeopleSoft Enterprise Campus Solutions, an entity (such as a university or college) that is independent of other similar entities and that has its own set of rules and business processes.

integration A relationship between two compatible integration points that enables communication to take place between systems. Integrations enable PeopleSoft Enterprise applications to work seamlessly with other PeopleSoft Enterprise applications or with third-party systems or software.

integration point An interface that a system uses to communicate with another PeopleSoft Enterprise application or an external application.

integration set A logical grouping of integrations that applications use for the same business purpose. For example, the integration set ADVANCED_SHIPPING_ORDER contains all of the integrations that notify a customer that an order has shipped.

item In PeopleSoft Enterprise Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse).

In PeopleSoft Enterprise Demand Planning, Inventory Policy Planning, and Supply Planning, a noninventory item that is designated as being used for planning purposes only. It can represent a family or group of inventory items. It can have a planning bill of material (BOM) or planning routing, and it can exist as a component on a planning BOM. A planning item cannot be specified on a production or engineering BOM or routing, and it cannot be used as a component in a production. The quantity on hand will never be maintained.

In PeopleSoft Enterprise Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.

item shuffle In PeopleSoft Enterprise Campus Solutions, a process that enables you to change a payment allocation without having to reverse the payment.

itinerary In PeopleSoft Expenses, a collection of travel reservations. Itineraries can have reservations that are selected and reserved with the travel vendor. These itineraries are not yet paid for and can be referred to as *pending reservations.* Reservations that have been paid for are referred to as *confirmed reservations.*

joint communication In PeopleSoft Enterprise Campus Solutions, one letter that is addressed jointly to two people. For example, a letter might be addressed to both Mr. Sudhir Awat and Ms. Samantha Mortelli. A relationship must be established between the two individuals in the database, and at least one of the individuals must have an ID in the database.

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keyword In PeopleSoft Enterprise Campus Solutions, a term that you link to particular elements within PeopleSoft Enterprise Student Financials, Financial Aid, and Contributor Relations. You can use keywords as search criteria that enable you to locate specific records in a search dialog box.

KPI An abbreviation for *key performance indicator.* A high-level measurement of how well an organization is doing in achieving critical success factors. This defines the data value or calculation upon which an assessment is determined.

KVI Abbreviation for *Known Value Item.* Term used for products or groups of products where the selling price cannot be reduced or increased.

landlord In PeopleSoft Real Estate Management, an entity that owns real estate and leases the real estate to tenants.

LDIF file Abbreviation for *Lightweight Directory Access Protocol (LDAP) Data Interchange Format file.* Contains discrepancies between PeopleSoft Enterprise data and directory data.

learner group In PeopleSoft Enterprise Learning Management, a group of learners who are linked to the same learning environment. Members of the learner group can share the same attributes, such as the same department or job code. Learner groups are used to control access to and enrollment in learning activities and programs. They are also used to perform group enrollments and mass enrollments in the back office.

learning components In PeopleSoft Enterprise Learning Management, the foundational building blocks of learning activities. PeopleSoft Enterprise Learning Management supports six basic types of learning components: web-based, session, webcast, test, survey, and assignment. One or more of these learning component types compose a single learning activity.

learning environment In PeopleSoft Enterprise Learning Management, identifies a set of categories and catalog items that can be made available to learner groups. Also defines the default values that are assigned to the learning activities and programs that are created within a particular learning environment. Learning environments provide a way to partition the catalog so that learners see only those items that are relevant to them.

learning history In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities and programs.

lease In PeopleSoft Real Estate Management, a legally binding agreement between a landlord and a tenant, where the tenant rents all or part of a physical property from the landlord.

lease abstract In PeopleSoft Real Estate Management, a summarized version of the complete lease contract with only the important terms. The lease abstract usually fits on one page and does not include legal terminology.

ledger mapping You use ledger mapping to relate expense data from general ledger accounts to resource objects. Multiple ledger line items can be mapped to one or more resource IDs. You can also use ledger mapping to map dollar amounts (referred to as *rates*) to business units. You can map the amounts in two different ways: an actual amount that represents actual costs of the accounting period, or a budgeted amount that can be used to calculate the capacity rates as well as budgeted model results. In PeopleSoft Enterprise Warehouse, you can map general ledger accounts to the EW Ledger table.

library section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan (or template) and that is available for other plans to share. Changes to a library section are reflected in all plans that use it.

line In PeopleSoft Strategic Sourcing, an individual item or service upon which there can be a bid.

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linked section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan template but appears in a plan. Changes to linked sections propagate to plans using that section.

linked variable In PeopleSoft Enterprise Incentive Management, a variable that is defined and maintained in a plan template and that also appears in a plan. Changes to linked variables propagate to plans using that variable.

LMS Abbreviation for *learning management system.* In PeopleSoft Enterprise Campus Solutions, LMS is a PeopleSoft Enterprise Student Records feature that provides a common set of interoperability standards that enable the sharing of instructional content and data between learning and administrative environments.

load In PeopleSoft Enterprise Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Enterprise Inventory that is used to track the weight, the volume, and the destination of a shipment.

local functionality In PeopleSoft Enterprise HRMS, the set of information that is available for a specific country. You can access this information when you click the appropriate country flag in the global window, or when you access it by a local country menu.

location Locations enable you to indicate the different types of addresses—for a company, for example, one address to receive bills, another for shipping, a third for postal deliveries, and a separate street address. Each address has a different location number. The primary location—indicated by a *1*—is the address you use most often and may be different from the main address.

logistical task In PeopleSoft Enterprise Services Procurement, an administrative task that is related to hiring a service provider. Logistical tasks are linked to the service type on the work order so that different types of services can have different logistical tasks. Logistical tasks include both preapproval tasks (such as assigning a new badge or ordering a new laptop) and postapproval tasks (such as scheduling orientation or setting up the service provider email). The logistical tasks can be mandatory or optional. Mandatory preapproval tasks must be completed before the work order is approved. Mandatory postapproval tasks, on the other hand, must be completed before a work order is released to a service provider.

market template In PeopleSoft Enterprise Incentive Management, additional functionality that is specific to a given market or industry and is built on top of a product category.

mass change In PeopleSoft Enterprise Campus Solutions, mass change is a SQL generator that can be used to create specialized functionality. Using mass change, you can set up a series of Insert, Update, or Delete SQL statements to perform business functions that are specific to the institution.

See also *3C engine.*

match group In PeopleSoft Enterprise Receivables, a group of receivables items and matching offset items. The system creates match groups by using user-defined matching criteria for selected field values.

MCF server Abbreviation for *PeopleSoft MultiChannel Framework server.* Comprises the universal queue server and the MCF log server. Both processes are started when *MCF Servers* is selected in an application server domain configuration.

merchandising activity In PeopleSoft Enterprise Promotions Management, a specific discount type that is associated with a trade promotion (such as off-invoice, billback or rebate, or lump-sum payment) that defines the performance that is required to receive the discount. In the industry, you may know this as an offer, a discount, a merchandising event, an event, or a tactic.

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meta-SQL Meta-SQL constructs expand into platform-specific SQL substrings. They are used in functions that pass SQL strings, such as in SQL objects, the SQLExec function, and PeopleSoft Application Engine programs.

metastring Metastrings are special expressions included in SQL string literals. The metastrings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.

multibook In PeopleSoft Enterprise General Ledger, multiple ledgers having multiple-base currencies that are defined for a business unit, with the option to post a single transaction to all base currencies (all ledgers) or to only one of those base currencies (ledgers).

multicurrency The ability to process transactions in a currency other than the business unit's base currency.

national allowance In PeopleSoft Enterprise Promotions Management, a promotion at the corporate level that is funded by nondiscretionary dollars. In the industry, you may know this as a national promotion, a corporate promotion, or a corporate discount.

NDP Abbreviation for *Non-Discountable Products.* Term used for products or groups of products where the selling price cannot be decreased.

need In PeopleSoft Enterprise Campus Solutions, the difference between the cost of attendance (COA) and the expected family contribution (EFC). It is the gap between the cost of attending the school and the student's resources. The financial aid package is based on the amount of financial need. The process of determining a student's need is called *need analysis.*

node-oriented tree A tree that is based on a detail structure, but the detail values are not used.

Optimization Engine A PeopleTools component that Strategic Sourcing leverages to evaluate bids and determine an ideal award allocation. The award recommendation is based on maximizing the value while adhering to purchasing and company objectives and constraints.

pagelet Each block of content on the home page is called a pagelet. These pagelets display summary information within a small rectangular area on the page. The pagelet provide users with a snapshot of their most relevant PeopleSoft Enterprise and non-PeopleSoft Enterprise content.

participant In PeopleSoft Enterprise Incentive Management, participants are recipients of the incentive compensation calculation process.

participant object Each participant object may be related to one or more compensation objects.

See also *compensation object.*

partner A company that supplies products or services that are resold or purchased by the enterprise.

pay cycle In PeopleSoft Enterprise Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.

payment shuffle In PeopleSoft Enterprise Campus Solutions, a process allowing payments that have been previously posted to a student's account to be automatically reapplied when a higher priority payment is posted or the payment allocation definition is changed.

pending item In PeopleSoft Enterprise Receivables, an individual receivable (such as an invoice, a credit memo, or a write-off) that has been entered in or created by the system, but hasn't been posted.

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PeopleCode PeopleCode is a proprietary language, executed by the PeopleSoft Enterprise component processor. PeopleCode generates results based on existing data or user actions. By using various tools provided with PeopleTools, external services are available to all PeopleSoft Enterprise applications wherever PeopleCode can be executed.

PeopleCode event See *event.*

PeopleSoft Pure Internet Architecture The fundamental architecture on which PeopleSoft 8 applications are constructed, consisting of a relational database management system (RDBMS), an application server, a web server, and a browser.

performance measurement In PeopleSoft Enterprise Incentive Management, a variable used to store data (similar to an aggregator, but without a predefined formula) within the scope of an incentive plan. Performance measures are associated with a plan calendar, territory, and participant. Performance measurements are used for quota calculation and reporting.

period context In PeopleSoft Enterprise Incentive Management, because a participant typically uses the same compensation plan for multiple periods, the period context associates a plan context with a specific calendar period and fiscal year. The period context references the associated plan context, thus forming a chain. Each plan context has a corresponding set of period contexts.

person of interest A person about whom the organization maintains information but who is not part of the workforce.

personal portfolio In PeopleSoft Enterprise Campus Solutions, the user-accessible menu item that contains an individual's name, address, telephone number, and other personal information.

phase A level 1 task, meaning that if a task had subtasks, the level 1 task would be considered the phase.

pickup quantity The product quantity that the customer is taking with them from the counter sales environment.

plan In PeopleSoft Enterprise Sales Incentive Management, a collection of allocation rules, variables, steps, sections, and incentive rules that instruct the PeopleSoft Enterprise Incentive Management engine in how to process transactions.

plan context In PeopleSoft Enterprise Incentive Management, correlates a participant with the compensation plan and node to which the participant is assigned, enabling the PeopleSoft Enterprise Incentive Management system to find anything that is associated with the node and that is required to perform compensation processing. Each participant, node, and plan combination represents a unique plan context—if three participants are on a compensation structure, each has a different plan context. Configuration plans are identified by plan contexts and are associated with the participants that refer to them.

plan template In PeopleSoft Enterprise Incentive Management, the base from which a plan is created. A plan template contains common sections and variables that are inherited by all plans that are created from the template. A template may contain steps and sections that are not visible in the plan definition.

planned learning In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned learning activities and programs.

planning instance In PeopleSoft Enterprise Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.

population In PeopleSoft Enterprise Campus Solutions, the middle level of the three-level classification structure that you define in PeopleSoft Enterprise Recruiting and

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	Admissions for enrollment management. You can define a population level, link it to other levels, and set enrollment target numbers for it. See also *division* and *cohort.*
portal registry	In PeopleSoft Enterprise applications, the portal registry is a tree-like structure in which content references are organized, classified, and registered. It is a central repository that defines both the structure and content of a portal through a hierarchical, tree-like structure of folders useful for organizing and securing content references.
predecessor task	A task that you must complete before you start another task.
price breaks	In PeopleSoft Strategic Sourcing, a price discount or surcharge that a bidder may apply based on the quantity awarded.
price components	In PeopleSoft Strategic Sourcing, the various components, such as material costs, labor costs, shipping costs, and so on that make up the overall bid price.
price list	Enables you to select products and conditions for which the price list applies to a transaction. During a transaction, the system either determines the product price based on the predefined search hierarchy for the transaction or uses the product's lowest price on any associated, active price lists. This price is used as the basis for any further discounts and surcharges.
price rule	The conditions that must be met for adjustments to be applied to the base price. Multiple rules can apply when conditions of each rule are met.
price rule conditions	Conditions that select the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields relate to the transaction.
price rule key	The fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.
primacy number	In PeopleSoft Enterprise Campus Solutions, a number that the system uses to prioritize financial aid applications when students are enrolled in multiple academic careers and academic programs at the same time. The Consolidate Academic Statistics process uses the primacy number indicated for both the career and program at the institutional level to determine a student's primary career and program. The system also uses the number to determine the primary student attribute value that is used when you extract data to report on cohorts. The lowest number takes precedence.
primary name type	In PeopleSoft Enterprise Campus Solutions, the name type that is used to link the name stored at the highest level within the system to the lower-level set of names that an individual provides.
process category	In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.
process group	In PeopleSoft Enterprise Financials, a group of application processes (performed in a defined order) that users can initiate in real time, directly from a transaction entry page.
process definition	Process definitions define each run request.
process instance	A unique number that identifies each process request. This value is automatically incremented and assigned to each requested process when the process is submitted to run.
process job	You can link process definitions into a job request and process each request serially or in parallel. You can also initiate subsequent processes based on the return code from each prior request.

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process request A single run request, such as a Structured Query Report (SQR), a COBOL or Application Engine program, or a Crystal report that you run through PeopleSoft Process Scheduler.

process run control A PeopleTools variable used to retain PeopleSoft Process Scheduler values needed at runtime for all requests that reference a run control ID. Do not confuse these with application run controls, which may be defined with the same run control ID, but only contain information specific to a given application process request.

product A PeopleSoft Enterprise or third-party product. PeopleSoft organizes its software products into product families and product lines. Interactive Services Repository contains information about every release of every product that PeopleSoft sells, as well as products from certified third-party companies. These products appear with the product name and release number.

product adds The pricing functionality where buying product A gets product B for free or at a price (formerly referred to as *giveaways*).

product bidding In PeopleSoft Strategic Sourcing, the placing of a bid on behalf of the bidder, up or down to the bidder's specified amount, so that the bidder can be the leading bidder.

product category In PeopleSoft Enterprise Incentive Management, indicates an application in the PeopleSoft Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.

product family A group of products that are related by common functionality. The family names that can be searched using Interactive Service Repository are Oracle's PeopleSoft Enterprise, PeopleSoft EnterpriseOne, PeopleSoft World, and third-party, certified partners.

product line The name of a PeopleSoft Enterprise product line or the company name of a third-party certified partner. Integration Services Repository enables you to search for integration points by product line.

programs In PeopleSoft Enterprise Learning Management, a high-level grouping that guides the learner along a specific learning path through sections of catalog items. PeopleSoft Enterprise Learning Systems provides two types of programs—curricula and certifications.

progress log In PeopleSoft Enterprise Services Procurement, tracks deliverable-based projects. This is similar to the time sheet in function and process. The service provider contact uses the progress log to record and submit progress on deliverables. The progress can be logged by the activity that is performed, by the percentage of work that is completed, or by the completion of milestone activities that are defined for the project.

project transaction In PeopleSoft Enterprise Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.

promotion In PeopleSoft Enterprise Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.

prospects In PeopleSoft Enterprise Campus Solutions, students who are interested in applying to the institution.

In PeopleSoft Enterprise Contributor Relations, individuals and organizations that are most likely to make substantial financial commitments or other types of commitments to the institution.

proxy bidding In PeopleSoft Strategic Sourcing, the placing of a bid on behalf of the bidder, up or down to the bidder's specified amount, so that the bidder can be the leading bidder.

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publishing In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.

rating components In PeopleSoft Enterprise Campus Solutions, variables used with the Equation Editor to retrieve specified populations.

record group A set of logically and functionally related control tables and views. Record groups help enable TableSet sharing, which eliminates redundant data entry. Record groups ensure that TableSet sharing is applied consistently across all related tables and views.

record input VAT flag Abbreviation for *record input value-added tax flag.* Within PeopleSoft Enterprise Purchasing, Payables, and General Ledger, this flag indicates that you are recording input VAT on the transaction. This flag, in conjunction with the record output VAT flag, is used to determine the accounting entries created for a transaction and to determine how a transaction is reported on the VAT return. For all cases within Purchasing and Payables where VAT information is tracked on a transaction, this flag is set to Yes. This flag is not used in PeopleSoft Enterprise Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Enterprise Expenses, where it is assumed that you are always recording only input VAT.

record output VAT flag Abbreviation for *record output value-added tax flag.*

See *record input VAT flag.*

recname The name of a record that is used to determine the associated field to match a value or set of values.

recognition In PeopleSoft Enterprise Campus Solutions, the recognition type indicates whether the PeopleSoft Enterprise Contributor Relations donor is the primary donor of a commitment or shares the credit for a donation. Primary donors receive hard credit that must total 100 percent. Donors that share the credit are given soft credit. Institutions can also define other share recognition-type values such as memo credit or vehicle credit.

reference data In PeopleSoft Enterprise Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, and channels.

reference object In PeopleSoft Enterprise Incentive Management, this dimension-type object further defines the business. Reference objects can have their own hierarchy (for example, product tree, customer tree, industry tree, and geography tree).

reference transaction In commitment control, a reference transaction is a source transaction that is referenced by a higher-level (and usually later) source transaction, in order to automatically reverse all or part of the referenced transaction's budget-checked amount. This avoids duplicate postings during the sequential entry of the transaction at different commitment levels. For example, the amount of an encumbrance transaction (such as a purchase order) will, when checked and recorded against a budget, cause the system to concurrently reference and relieve all or part of the amount of a corresponding pre-encumbrance transaction, such as a purchase requisition.

regional sourcing In PeopleSoft Enterprise Purchasing, provides the infrastructure to maintain, display, and select an appropriate vendor and vendor pricing structure that is based on a regional sourcing model where the multiple ship to locations are grouped. Sourcing may occur at a level higher than the ship to location.

relationship object In PeopleSoft Enterprise Incentive Management, these objects further define a compensation structure to resolve transactions by establishing associations between compensation objects and business objects.

remote data source data Data that is extracted from a separate database and migrated into the local database.

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REN server Abbreviation for *real-time event notification server* in PeopleSoft MultiChannel Framework.

requester In PeopleSoft Enterprise eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.

reservations In PeopleSoft Expenses, travel reservations that have been placed with the travel vendor.

reversal indicator In PeopleSoft Enterprise Campus Solutions, an indicator that denotes when a particular payment has been reversed, usually because of insufficient funds.

RFI event In PeopleSoft Strategic Sourcing, a request for information.

RFx event In PeopleSoft Strategic Sourcing, a request for proposal or request for a quote event when bidders submit their overall best bids and during which bidders do not actively compete against one another.

role Describes how people fit into PeopleSoft Workflow. A role is a class of users who perform the same type of work, such as clerks or managers. Your business rules typically specify what user role needs to do an activity.

role user A PeopleSoft Workflow user. A person's role user ID serves much the same purpose as a user ID does in other parts of the system. PeopleSoft Workflow uses role user IDs to determine how to route worklist items to users (through an email address, for example) and to track the roles that users play in the workflow. Role users do not need PeopleSoft user IDs.

roll up In a tree, to roll up is to total sums based on the information hierarchy.

run control A run control is a type of online page that is used to begin a process, such as the batch processing of a payroll run. Run control pages generally start a program that manipulates data.

run control ID A unique ID to associate each user with his or her own run control table entries.

run-level context In PeopleSoft Enterprise Incentive Management, associates a particular run (and batch ID) with a period context and plan context. Every plan context that participates in a run has a separate run-level context. Because a run cannot span periods, only one run-level context is associated with each plan context.

saved bid In PeopleSoft Strategic Sourcing, a bid that has been created but not submitted. Only submitted bids are eligible for award.

score In PeopleSoft Strategic Sourcing, the numerical sum of answers (percentages) to bid factors on an event. Scores appear only to bidders on auction events.

SCP SCBM XML message Abbreviation for *Supply Chain Planning Supply Chain Business Modeler Extensible Markup Language message.* Supply Chain Business Modeler uses XML as the format for all data that it imports and exports.

search query You use this set of objects to pass a query string and operators to the search engine. The search index returns a set of matching results with keys to the source documents.

search/match In PeopleSoft Enterprise Campus Solutions and PeopleSoft Enterprise Human Resources Management Solutions, a feature that enables you to search for and identify duplicate records in the database.

seasonal address In PeopleSoft Enterprise Campus Solutions, an address that recurs for the same length of time at the same time of year each year until adjusted or deleted.

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section In PeopleSoft Enterprise Incentive Management, a collection of incentive rules that operate on transactions of a specific type. Sections enable plans to be segmented to process logical events in different sections.

security event In commitment control, security events trigger security authorization checking, such as budget entries, transfers, and adjustments; exception overrides and notifications; and inquiries.

sell event In PeopleSoft Strategic Sourcing, for event creators, the sale of goods or services most typically associated with forward auctions. For bidders, the purchase of goods or services.

serial genealogy In PeopleSoft Enterprise Manufacturing, the ability to track the composition of a specific, serial-controlled item.

serial in production In PeopleSoft Enterprise Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.

service impact In PeopleSoft Enterprise Campus Solutions, the resulting action triggered by a service indicator. For example, a service indicator that reflects nonpayment of account balances by a student might result in a service impact that prohibits registration for classes.

service indicator In PeopleSoft Enterprise Campus Solutions, indicates services that may be either withheld or provided to an individual. Negative service indicators indicate holds that prevent the individual from receiving specified services, such as check-cashing privileges or registration for classes. Positive service indicators designate special services that are provided to the individual, such as front-of-line service or special services for disabled students.

session In PeopleSoft Enterprise Campus Solutions, time elements that subdivide a term into multiple time periods during which classes are offered. In PeopleSoft Enterprise Contributor Relations, a session is the means of validating gift, pledge, membership, or adjustment data entry . It controls access to the data entered by a specific user ID. Sessions are balanced, queued, and then posted to the institution's financial system. Sessions must be posted to enter a matching gift or pledge payment, to make an adjustment, or to process giving clubs or acknowledgements.

In PeopleSoft Enterprise Learning Management, a single meeting day of an activity (that is, the period of time between start and finish times within a day). The session stores the specific date, location, meeting time, and instructor. Sessions are used for scheduled training.

session template In PeopleSoft Enterprise Learning Management, enables you to set up common activity characteristics that may be reused while scheduling a PeopleSoft Enterprise Learning Management activity—characteristics such as days of the week, start and end times, facility and room assignments, instructors, and equipment. A session pattern template can be attached to an activity that is being scheduled. Attaching a template to an activity causes all of the default template information to populate the activity session pattern.

setup relationship In PeopleSoft Enterprise Incentive Management, a relationship object type that associates a configuration plan with any structure node.

share driver expression In PeopleSoft Enterprise Business Planning, a named planning method similar to a driver expression, but which you can set up globally for shared use within a single planning application or to be shared between multiple planning applications through PeopleSoft Enterprise Warehouse.

short-term customer A customer not in the system who is entered during sales order entry using a template.

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single signon With single signon, users can, after being authenticated by a PeopleSoft Enterprise application server, access a second PeopleSoft Enterprise application server without entering a user ID or password.

source key process In PeopleSoft Enterprise Campus Solutions, a process that relates a particular transaction to the source of the charge or financial aid. On selected pages, you can drill down into particular charges.

source transaction In commitment control, any transaction generated in a PeopleSoft Enterprise or third-party application that is integrated with commitment control and which can be checked against commitment control budgets. For example, a pre-encumbrance, encumbrance, expenditure, recognized revenue, or collected revenue transaction.

sourcing objective For constraints, the option to designate whether a business rule is required (mandatory) or is only recommended (target).

speed key See *communication key.*

SpeedChart A user-defined shorthand key that designates several ChartKeys to be used for voucher entry. Percentages can optionally be related to each ChartKey in a SpeedChart definition.

SpeedType A code representing a combination of ChartField values. SpeedTypes simplify the entry of ChartFields commonly used together.

staging A method of consolidating selected partner offerings with the offerings from the enterprise's other partners.

standard letter code In PeopleSoft Enterprise Campus Solutions, a standard letter code used to identify each letter template available for use in mail merge functions. Every letter generated in the system must have a standard letter code identification.

statutory account Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft Enterprise, this is equivalent to the Alternate Account (ALTACCT) ChartField.

step In PeopleSoft Enterprise Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.

storage level In PeopleSoft Enterprise Inventory, identifies the level of a material storage location. Material storage locations are made up of a business unit, a storage area, and a storage level. You can set up to four storage levels.

subcustomer qualifier A value that groups customers into a division for which you can generate detailed history, aging, events, and profiles.

Summary ChartField You use summary ChartFields to create summary ledgers that roll up detail amounts based on specific detail values or on selected tree nodes. When detail values are summarized using tree nodes, summary ChartFields must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters).

summary ledger An accounting feature used primarily in allocations, inquiries, and PS/nVision reporting to store combined account balances from detail ledgers. Summary ledgers increase speed and efficiency of reporting by eliminating the need to summarize detail ledger balances each time a report is requested. Instead, detail balances are summarized in a background process according to user-specified criteria and stored on summary ledgers. The summary ledgers are then accessed directly for reporting.

summary time period In PeopleSoft Enterprise Business Planning, any time period (other than a base time period) that is an aggregate of other time periods, including other summary time periods and base time periods, such as quarter and year total.

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summary tree A tree used to roll up accounts for each type of report in summary ledgers. Summary trees enable you to define trees on trees. In a summary tree, the detail values are really nodes on a detail tree or another summary tree (known as the *basis* tree). A summary tree structure specifies the details on which the summary trees are to be built.

syndicate To distribute a production version of the enterprise catalog to partners.

system function In PeopleSoft Enterprise Receivables, an activity that defines how the system generates accounting entries for the general ledger.

system source The system source identifies the source of a transaction row in the database. For example, a transaction that originates in PeopleSoft Enterprise Expenses contains a system source code of BEX (Expenses Batch).

When PeopleSoft Enterprise Project Costing prices the source transaction row for billing, the system creates a new row with a system source code of PRP (Project Costing pricing), which represents the system source of the new row. System source codes can identify sources that are internal or external to the PeopleSoft Enterprise system. For example, processes that import data from Microsoft Project into PeopleSoft Enterprise applications create transaction rows with a source code of MSP (Microsoft Project).

TableSet A means of sharing similar sets of values in control tables, where the actual data values are different but the structure of the tables is the same.

TableSet sharing Shared data that is stored in many tables that are based on the same TableSets. Tables that use TableSet sharing contain the SETID field as an additional key or unique identifier.

target currency The value of the entry currency or currencies converted to a single currency for budget viewing and inquiry purposes.

task A deliverable item on the detailed sourcing plan.

tax authority In PeopleSoft Enterprise Campus Solutions, a user-defined element that combines a description and percentage of a tax with an account type, an item type, and a service impact.

template A template is HTML code associated with a web page. It defines the layout of the page and also where to get HTML for each part of the page. In PeopleSoft Enterprise, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft Enterprise portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.

tenant In PeopleSoft Real Estate Management, an entity that leases real estate from a landlord.

territory In PeopleSoft Enterprise Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.

third party A company or vendor that has extensive PeopleSoft Enterprise product knowledge and whose products and integrations have been certified and are compatible with PeopleSoft Enterprise applications.

tiered pricing Enables different portions of a schedule to be priced differently from one another.

time span A relative period, such as year-to-date or current period, that various PeopleSoft General Ledger functions and reports can use when a rolling time frame, rather than a specific date, is required.

total cost In PeopleSoft Strategic Sourcing, the estimated dollar cost (sum of real price dollars and potential “soft” or non-price dollars) of a particular award approach.

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travel group In PeopleSoft Expenses, the organization's travel rules and polices that are associated with specific business units, departments, or employees. You must define at least one travel group when setting up the PeopleSoft Expenses travel feature. You must define and associate at least one travel group with a travel vendor.

travel partner In PeopleSoft Expenses, the travel vendor with which the organization has a contractual relationship.

3C engine Abbreviation for *Communications, Checklists, and Comments engine.* In PeopleSoft Enterprise Campus Solutions, the 3C engine enables you to automate business processes that involve additions, deletions, and updates to communications, checklists, and comments. You define events and triggers to engage the engine, which runs the mass change and processes the 3C records (for individuals or organizations) immediately and automatically from within business processes.

3C group Abbreviation for *Communications, Checklists, and Comments group.* In PeopleSoft Enterprise Campus Solutions, a method of assigning or restricting access privileges. A 3C group enables you to group specific communication categories, checklist codes, and comment categories. You can then assign the group inquiry-only access or update access, as appropriate.

trace usage In PeopleSoft Enterprise Manufacturing, enables the control of which components will be traced during the manufacturing process. Serial- and lot-controlled components can be traced. This is maintained in the Item Master record.

transaction allocation In PeopleSoft Enterprise Incentive Management, the process of identifying the owner of a transaction. When a raw transaction from a batch is allocated to a plan context, the transaction is duplicated in the PeopleSoft Enterprise Incentive Management transaction tables.

transaction state In PeopleSoft Enterprise Incentive Management, a value assigned by an incentive rule to a transaction. Transaction states enable sections to process only transactions that are at a specific stage in system processing. After being successfully processed, transactions may be promoted to the next transaction state and "picked up" by a different section for further processing.

Translate table A system edit table that stores codes and translate values for the miscellaneous fields in the database that do not warrant individual edit tables of their own.

tree The graphical hierarchy in PeopleSoft Enterprise systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.

tuition lock In PeopleSoft Enterprise Campus Solutions, a feature in the Tuition Calculation process that enables you to specify a point in a term after which students are charged a minimum (or *locked*) fee amount. Students are charged the locked fee amount even if they later drop classes and take less than the normal load level for that tuition charge.

unclaimed transaction In PeopleSoft Enterprise Incentive Management, a transaction that is not claimed by a node or participant after the allocation process has completed, usually due to missing or incomplete data. Unclaimed transactions may be manually assigned to the appropriate node or participant by a compensation administrator.

universal navigation header Every PeopleSoft Enterprise portal includes the universal navigation header, intended to appear at the top of every page as long as the user is signed on to the portal. In addition to providing access to the standard navigation buttons (like Home, Favorites, and signoff) the universal navigation header can also display a welcome message for each user.

update access In PeopleSoft Enterprise Campus Solutions, a type of security access that permits the user to edit and update data.

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	See also *inquiry access*.
user interaction object	In PeopleSoft Enterprise Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All PeopleSoft Enterprise Sales Incentive Management user interface objects and reports are registered as user interaction objects. User interaction objects can be linked to a compensation structure node through a compensation relationship object (individually or as groups).
variable	In PeopleSoft Enterprise Sales Incentive Management, the intermediate results of calculations. Variables hold the calculation results and are then inputs to other calculations. Variables can be plan variables that persist beyond the run of an engine or local variables that exist only during the processing of a section.
VAT exception	Abbreviation for *value-added tax exception.* A temporary or permanent exemption from paying VAT that is granted to an organization. This terms refers to both VAT exoneration and VAT suspension.
VAT exempt	Abbreviation for *value-added tax exempt.* Describes goods and services that are not subject to VAT. Organizations that supply exempt goods or services are unable to recover the related input VAT. This is also referred to as exempt without recovery.
VAT exoneration	Abbreviation for *value-added tax exoneration.* An organization that has been granted a permanent exemption from paying VAT due to the nature of that organization.
VAT suspension	Abbreviation for *value-added tax suspension.* An organization that has been granted a temporary exemption from paying VAT.
warehouse	A PeopleSoft Enterprise data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.
weight or weighting	In PeopleSoft Strategic Sourcing, how important the line or question is to the overall event. Weighting is used to score and analyze bids. For RFx and RFI events, weightings may or may not appear to bidders.
work order	In PeopleSoft Enterprise Services Procurement, enables an enterprise to create resource-based and deliverable-based transactions that specify the basic terms and conditions for hiring a specific service provider. When a service provider is hired, the service provider logs time or progress against the work order.
worker	A person who is part of the workforce; an employee or a contingent worker.
workset	A group of people and organizations that are linked together as a set. You can use worksets to simultaneously retrieve the data for a group of people and organizations and work with the information on a single page.
worksheet	A way of presenting data through a PeopleSoft Enterprise Business Analysis Modeler interface that enables users to do in-depth analysis using pivoting tables, charts, notes, and history information.
worklist	The automated to-do list that PeopleSoft Workflow creates. From the worklist, you can directly access the pages you need to perform the next action, and then return to the worklist for another item.
XML link	The XML Linking language enables you to insert elements into XML documents to create a links between resources.
XML schema	An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.
XPI	Abbreviation for *eXtended Process Integrator.* PeopleSoft XPI is the integration infrastructure that enables both real-time and batch communication with JD Edwards EnterpriseOne applications.

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yield by operation In PeopleSoft Enterprise Manufacturing, the ability to plan the loss of a manufactured item on an operation-by-operation basis.

zero-rated VAT Abbreviation for *zero-rated value-added tax.* A VAT transaction with a VAT code that has a tax percent of zero. Used to track taxable VAT activity where no actual VAT amount is charged. Organizations that supply zero-rated goods and services can still recover the related input VAT. This is also referred to as exempt with recovery.

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