PeopleSoft®

PeopleSoft Currency Conversion Utility for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook

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PeopleSoft Currency Conversion
Utility for Financials, Enterprise
Service Automation and Supply Chain Management 8.8 PeopleBook
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Contents

About These PeopleBooks

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

This preface discusses:

- PeopleSoft application prerequisites.
- PeopleSoft application fundamentals.
- Related documentation.
- Typographical elements and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

Note. PeopleBooks document only page elements that require additional explanation. If a page 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 applications are defined in this preface.

PeopleSoft 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 applications.

See *Using PeopleSoft Applications.*

You might also want to complete at least one PeopleSoft introductory training course.

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft windows, menus, and pages. 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 applications most effectively.

PeopleSoft Application Fundamentals

Each application PeopleBook provides implementation and processing information for your PeopleSoft database. However, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals PeopleBook. Each PeopleSoft product line has its own version of this documentation.

The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft applications across a product line. 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 this central PeopleBook. It is the starting point for fundamentals, such as setting up control tables and administering security.

Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

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

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

See Also

PeopleSoft Customer Connection web site, http://www.peoplesoft.com/corp/en/login.asp

Ordering Printed Documentation

You can order printed, bound volumes of the complete PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM. PeopleSoft makes printed documentation available for each major release shortly after the software is shipped. Customers and partners can order printed PeopleSoft documentation by using any of these methods:

- Web
- Telephone
- Email

Web

From the Documentation section of the PeopleSoft Customer Connection web site, access the PeopleSoft Press web site under the Ordering PeopleBooks topic. The PeopleSoft Press web site is a joint venture between PeopleSoft and Consolidated Publications Incorporated (CPI), the book print vendor. Use a credit card, money order, cashier's check, or purchase order to place your order.

Telephone

Contact CPI at 800 888 3559.

Email

Send email to CPI at psoftpress@cc.larwood.com.

See Also

PeopleSoft Customer Connection web site, http://www.peoplesoft.com/corp/en/login.asp

Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.

Typographical Conventions

The following table contains the typographical conventions that are used in PeopleBooks:

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode 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 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 number 0, not 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 W.
`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.

Typographical Convention or Visual Cue	Description
. . . (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 (|).
[ ] (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.
(ISO)	Information that applies to a specific country, to the U.S. federal government, or to the education and government market, is preceded by a three-letter code in parentheses. The code for the U.S. federal government is USF; the code for education and government is E&G, and the country codes from the International Standards Organization are used for specific countries. Here is an example: (GER) If you're administering German employees, German law requires you to indicate special nationality and citizenship information for German workers using nationality codes established by the German DEUEV Directive.
Cross-references	PeopleBooks provide cross-references either below 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.

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 system.

Note. Example of a note.

A note that is preceded by *Important!* 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.

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 PeopleSoft reference and training materials. Please send your suggestions to:

PeopleSoft Product Documentation Manager PeopleSoft, Inc. 4460 Hacienda Drive Pleasanton, CA 94588

Or send email comments to doc@peoplesoft.com.

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

Common Elements in These 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.
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.
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).

Process Monitor	Click to access the Process List page, where you can view the status of submitted process requests.
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.
Request ID	An ID that represents a set of selection criteria for a report or process.
User ID	An ID that represents the person who generates a transaction.
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.

See Also

Using PeopleSoft Applications

PeopleSoft Process Scheduler

PeopleSoft Currency Conversion Utility Preface

This PeopleBook provides an overview of the PeopleSoft Currency Conversion Utility. It is not a comprehensive implementation guide to using the Currency Conversion Utility to convert your base operating currency and currency-related data. Because the Currency Conversion Utility conversion processes are very complex and deal with the conversion of extremely important financial data throughout your system, PeopleSoft *strongly* recommends that you contact PeopleSoft Global Services (PGS) for assistance in using the Currency Conversion Utility.

This preface discusses:

- Usage of Pages Used to <Process Name> sections.
- Common elements in this PeopleBook.

Note. This PeopleBook documents only page elements that require additional explanation. If a page element is not documented with the process or task for which it is used, then either it requires no additional explanation or it is documented with common elements for the part, section, or chapter.

Pages Used to <Process Name>

In the documentation, each page or panel in the application is included in an introductory table that contains pertinent information about the page. These Process Introduction Tables appear under headings that follow the naming convention of "Pages Used to <Process Name>," where the process name reflects a business process that is meant to be accomplished using the pages or panels in the table. Not all of the information is available for all pages or panels. Following is a sample table with more information about the contents of each column.

Pages Used to <Process Name>

Page Name	Object Name	Navigation	Usage
Name of the page.	The system name of the page as specified in PeopleTools Application Designer. For example, the object name of the Detail Calendar page is DETAIL_CALENDAR1.	The navigation path used to access the page.	Describes usage of the page.

Process Introduction Table example

CHAPTER 1

Getting Started with the PeopleSoft Currency Conversion Utility

This chapter discusses:

- PeopleSoft Currency Conversion Utility integrations.
- PeopleSoft Currency Conversion Utility implementation tasks.

Note. Because the Currency Conversion Utility conversion processes are very complex and deal with the conversion of extremely important financial data throughout your system, PeopleSoft *strongly* recommends that you contact PeopleSoft Global Services (PGS) for assistance in using the Currency Conversion Utility.

PeopleSoft Currency Conversion Utility Integrations

The PeopleSoft Currency Conversion Utility works within the product line database in which it is delivered. It integrates with other products delivered in the same product line database that have been designed to work with the PeopleSoft Currency Conversion Utility.

Implementing the PeopleSoft Currency Conversion Utility

The PeopleSoft Currency Conversion Utility implementation involves setting up core tables that enable your system to support various PeopleSoft Currency Conversion Utility features.

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including application and PeopleTools PeopleBooks.

Setting Up Core PeopleSoft Currency Conversion Utility Tables

The items discussed in this section provide a list of the core PeopleSoft Currency Conversion Utility tables.

Step	Reference
1. Set up new base currency.	• • Chapter 4, "Setting Up a New Base Currency," page 23
2. Specify installed products.	Chapter 5, "Setting Up Base Currency Conversion Components," Specifying Installed Products, page 36

Step	Reference
3. Create work records.	Chapter 5, “Setting Up Base Currency Conversion Components,” Creating and Assigning Work Records, page 39
4. Assign work records.	Chapter 5, “Setting Up Base Currency Conversion Components,” Creating and Assigning Work Records, page 39
5. Identify exception processes.	Chapter 5, “Setting Up Base Currency Conversion Components,” Identifying Exception Processes, page 43
6. Set up process groups.	Chapter 5, “Setting Up Base Currency Conversion Components,” Setting up Process Groups, page 45
7. Define conversion rules.	Chapter 5, “Setting Up Base Currency Conversion Components,” Defining Conversion Rules, page 51
8. Set parallel processing options.	Chapter 5, “Setting Up Base Currency Conversion Components,” Specifying Installation Options, page 37

CHAPTER 2

Introducing the PeopleSoft Currency Conversion Utility

This chapter provides an overview of the PeopleSoft Currency Conversion Utility and discusses:

- PeopleSoft Currency Conversion Utility components.
- Tracking changes made by the PeopleSoft Currency Conversion Utility.
- Conversion tasks.

Note. Because the Currency Conversion Utility conversion processes are very complex and deal with the conversion of extremely important financial data throughout your system, PeopleSoft *strongly* recommends that you contact PeopleSoft Global Services (PGS) for assistance in using the Currency Conversion Utility.

Overview of the PeopleSoft Currency Conversion Utility

The PeopleSoft Currency Conversion Utility is a generic, table-driven, rules-based PeopleSoft Application Engine application. PeopleSoft Application Engine is a PeopleTool designed to develop programs that perform high-volume, background processing against data.

The Currency Conversion Utility is designed to select specific records or groups of records within a PeopleSoft database and convert the currency and currency-related data within those records from one base currency to another based on specific rules and processes. The various programs associated with the Currency Conversion Utility are invoked by way of standard run control processes.

The Currency Conversion Utility runs conversion rules that specify which records in a database may be converted together. Selection specifications within the conversion rules are used by the Currency Conversion Utility to generate SQL "where" clauses that will be stored within Application Engine tables as SQL segments containing SQL statements. The Currency Conversion Utility engine uses these SQL statements to execute conversion rules based on the values of the selection components defined in the process groups.

The Currency Conversion Utility uses a physical State record, keyed by process instance, to define the fields used to pass values from one SQL statement to another. The Currency Conversion Utility includes an Application Engine State record—EO_CURRENCY_AET—to define the State record fields for both conversion rules and exception processes.

For each record being converted, the Currency Conversion Utility requires four Application Engine temporary tables to perform processing-related tasks during conversion.

Although the Currency Conversion Utility and its conversion processes meet Economic and Monetary Union (EMU) requirements for participating countries to convert to the euro, the PeopleSoft Currency Conversion Utility is not euro-specific. Throughout this book, we use examples that convert currencies of EMU-participating countries to the euro, but you can use the Currency Conversion Utility to convert your base operating currency or currencies to *any* currency.

Warning! This PeopleBook provides an overview of the PeopleSoft Currency Conversion Utility. It is not a comprehensive implementation guide to using the Currency Conversion Utility to convert your base operating currency and currency-related data. Because the Currency Conversion Utility conversion processes are very complex and deal with the conversion of extremely important financial data throughout your system, PeopleSoft *strongly* recommends that you contact PeopleSoft Global Services (PGS) for assistance in using the Currency Conversion Utility.

Describing PeopleSoft Currency Conversion Utility Components

This section discusses the main components of the PeopleSoft Currency Conversion Utility.

Process Groups

The PeopleSoft Currency Conversion Utility converts base currency data in process groups, which are sets of rules, each with a set of records. These process groups represent logical groupings of records within the same PeopleSoft database that all need to be converted at the same time, or use the same selection criteria. The sets of records in process groups are formed based on criteria that may include book, business unit, and currency code.

Process groups use selection component fields to select the records to be converted. These selection components serve as the run control parameters for converting data. You can modify these selection components to meet your organization’s specific business conversion requirements.

Conversion Rules

The PeopleSoft Currency Conversion Utility uses conversion rules to convert selected records containing currency and currency-related amount fields within the database. Conversion rules with the same record selection criteria may be grouped into conversion process groups.

The conversion rules within each process group can be called in a specific sequence when the process group is run. Running these rules in the specified order maintains data integrity during the conversion process by ensuring the proper dependencies between fields (for example, amounts on header and detail line records) are maintained. Conversion rules can also contain reconciliation and adjustment options to keep converted data amounts balanced.

Exception Processes

Product-specific exception processes involve converting database fields that cannot be converted by the Currency Conversion Utility, such as flags and indicators, or which involve other conversion processes not included within the logic of the utility. These exception processes can be called by the Currency Conversion Utility at specified exit points during the conversion process.

Note. The four database field types that can be converted without exception processing are currency, amount, rate multiplier, and rate divisor.

The PeopleSoft Currency Conversion Utility allows calls to PeopleSoft Application Engine exception processes written to convert or update data that falls outside of routine processing. These calls may be done as a part of, or in some cases in place of, a process group or a conversion rule, using sequencing information defined within that group or rule. PeopleSoft products that require exception processes for the Currency Conversion Utility may prepare them using the PeopleSoft Application Engine.

Tracking Field Value Changes in Your Currency Conversion

The Currency Conversion Utility has the ability to track "before" and "after" images of every field defined on a conversion rule. The fields for which the Currency Conversion Utility will maintain an audit trail are limited to fields that have been identified as conversion fields on a conversion rule. The four field types tracked are:

- Amount.
- Currency code.
- Rate multiplier.
- Rate divisor.

Note. The Currency Conversion Utility includes an option to bypass a detailed audit.

CHAPTER 3

Preparing For a Base Currency Conversion

This chapter contains information on preparing for base currency conversion using the PeopleSoft Currency Conversion Utility and discusses:

- Conversion of effective-dated tables.
- Impact of the conversion "As of Date" on effective-dated tables.
- Synchronization of effective-dated related language tables.
- Exchange rate conversions.

Note. Because the Currency Conversion Utility conversion processes are very complex and deal with the conversion of extremely important financial data throughout your system, PeopleSoft *strongly* recommends that you contact PeopleSoft Global Services (PGS) for assistance in using the Currency Conversion Utility.

Before You Begin

Before you run any currency conversion processes, we recommend that you complete a thorough analysis of your base currency conversion requirements and understand exactly what Currency Conversion Utility processes convert. Once you have determined your organization's currency conversion requirements, you can determine how to meet your base currency conversion requirements.

Each base currency conversion project has unique requirements, but this document presents some general guidelines for setting up your system for base currency conversion. These guidelines include information on product line and application conversion approaches, conversion setup requirements, and pre- and post-conversion considerations and tasks.

We assume that anyone who converts base currency using the Currency Conversion Utility has a solid understanding of the following:

- PeopleSoft databases and products.
- PeopleSoft record structures and relationships.
- PeopleSoft Application Designer.
- PeopleSoft Application Engine.
- Structured Query Language (SQL) and how to build and use SQL queries.
- How PeopleSoft applications handle currencies.
- How PeopleSoft applications use base currencies.

Also before you run any Currency Conversion Utility conversion processes, you should thoroughly understand how the utility performs certain conversion tasks. Understanding how the Currency Conversion Utility determines which data to convert can help you determine some of your basic conversion criteria, such as your conversion As Of Date and how much historical data to include in your conversion.

Because the Currency Conversion Utility's conversion processes are based on rules developed by each PeopleSoft application that is affected by the base currency conversion, the conversion approaches used by each application vary.

The amount of historical data converted by the Currency Conversion Utility depends on the product line and the applications installed on your system.

For some process groups, you can specify any As Of Date (past, present, or future). For these process groups, this gives you the flexibility to convert not only current and future-dated rows of data, but also historical data residing in your system.

Describing Currency Conversion Tasks

Converting the base operating currency in a PeopleSoft application generally involves the following phases:

- Analysis.
- Conversion.

The following sections describe some basic guidelines for the phases, tasks, and steps involved in a base currency conversion.

Note. The steps outlined here are intended to be *general* guidelines only and are not intended to represent a comprehensive base currency conversion project plan. Every site has a unique implementation.

Overview of the Analysis Phase

The initial phase in currency conversion usually involves a thorough analysis of conversion requirements to determine which business units, currencies, and PeopleSoft products need to be converted. This phase usually involves answering the following questions:

- How extensively have the installed products been customized?
- What pre-conversion tasks will need to be performed?
- When will the actual currency conversion take place?
- What other business decisions or regulatory requirements may need to be accounted for that may affect the conversion?

At a high level, the analysis phase involves completing the following steps:

1. If required, define the new base currency.

   If your new base currency is not yet defined as a currency in your system, add the new currency definitions. If you have set up the new currency, ensure that the proper exchange rates have been established prior to conversion.

2. Determine which PeopleSoft applications are installed.

   This information determines the Currency Conversion Utility conversion processes you need to review, as well as required pre- and post-conversion steps.

3. Select a conversion As Of Date.

   Carefully review your conversion requirements to determine a conversion As Of Date that is appropriate for your organization. This date is particularly important for effective-dated records.

4. Review all conversion tasks.

   Review your conversion tasks for both the Currency Conversion Utility and the affected installed applications. Include a baseline test prior to conversion.

   Note. For more information about application-specific conversion tasks, please contact PeopleSoft Global Services (PGS).

5. Determine database sizing requirements for the conversion, particularly as they relate to the space required for the temporary work records and the audit detail records.

   Thoroughly analyze your system and conversion requirements to determine how much of your system resources can be allocated for conversion. This analysis involves a number of factors, including how many applications will be converted, how many open items or transactions will be converted, what database platform you are using, whether to store detailed audit trails for converted data, and so forth.

6. Analyze customizations and conversion readiness.

   Prior to conversion, analyze any system customizations to determine how they might affect PeopleSoft Currency Conversion Utility processing. Depending on the number of system customizations, you may need to modify the PeopleSoft Currency Conversion Utility or associated processing to accommodate these changes.

7. Determine reporting customization requirements to accommodate the new currency.

   Determine if you need to modify any reports to accommodate the post-conversion data.

Overview of the Conversion Phase

The second phase of base currency conversion normally involves determining the steps required to perform the actual conversion of the base operating currency. Because this conversion phase may take place at a different time from the analysis phase, you may need to revalidate some of the analysis steps before the actual conversion takes place.

At a high level, the conversion phase involves completing the following steps:

1. Perform setup tasks pending from the analysis phase.

   This step involves procedures such as setting up the new base currency, backing up your production database, creating a copy of the production database for conversion testing, and so forth.

2. Revalidate customization analysis and determine that the conversion readiness steps have been completed.

   Identify any changes made to your system since the analysis phase, and ensure that all the pre-conversion requirements are satisfied. This step could also include another baseline test.

3. Review any customizations to Currency Conversion Utility process groups, conversion rules, and exception processes.

Review any additions, deletions, or modifications to the conversion processes associated with the PeopleSoft Currency Conversion Utility to ensure that no additional modifications are required.

4. Test Currency Conversion Utility conversion processes on affected applications.

   Perform pre-conversion tests on each of the affected applications to determine if the Currency Conversion Utility conversion processes, whether run as delivered or customized, convert your system data as expected.

5. Make modifications based on the results of testing, if necessary.

   Make any additional adjustments to the conversion processes and retest.

6. Test reporting.

   Confirm that the appropriate reports continue to run properly after conversion.

7. Do a system backup.

   Perform a complete system backup just prior to conversion.

8. Run the Currency Conversion Utility conversion processes.

   Use a step-by-step conversion checklist for running all the appropriate Currency Conversion Utility process groups.

9. Perform post-conversion processes.

   Use a checklist of the post-conversion tasks for appropriate applications.

10. Perform additional post-conversion functional testing. (Optional.)

    This step includes any additional post-conversion functional testing.

Understanding Utility Conversion of Effective-Dated Tables

In general, the conversion rules and exception processes for effective-dated tables cause the Currency Conversion Utility to insert new rows during conversion rather than update existing rows. This means that the Currency Conversion Utility conversion processes for effective-dated tables preserve the maximum amount of historical data in your tables after conversion because they won't overwrite historical data. For some conversion records, however, it's more appropriate for the Currency Conversion Utility to update (convert) the current effective-dated row instead of inserting a new current row during conversion.

Determining Your As of Date and Its Impact on Effective-Dated Tables

Most conversion processes are designed to convert records on or after the As Of Date you specify on the Currency Conversion Utility run control.

Each process group definition includes a Dates Allowed field that specifies what conversion As Of Date you can select at run time. This will vary by process group. Some process groups restrict you to selecting only the current date as the conversion As Of Date at run time. Others allow you to specify any date.

Selecting an As Of Date requires a careful analysis of your business requirements, particularly if you want to specify a historical As Of Date, where the conversion date is less than the current system date. While you may want to convert historical data, you should be aware of the implications of converting historical effective-dated data.

The following scenarios demonstrate the ways in which the As Of Date affects how the Currency Conversion Utility converts data in effective-dated tables. In general, if you want to retain the maximum amount of current, effective-dated data in your system after conversion, use an As Of Date that is in the future, but which is close to the system date at the time you convert the data.

Warning! If you use a current or past date as your conversion As Of Date for effective-dated tables, some of the current rows in those tables may be updated. If the current row has an effective date that is the same date as the conversion As Of Date, and no effective sequencing is defined for that conversion record, then the Currency Conversion Utility updates that row instead of inserting a new row.

For all these examples, assume that there is an effective-dated table with the following combination of past, present, and future rows:

- January 1, 2001
- January 1, 2003
- July 1, 2003
- October 1, 2003
- January 1, 2004

Scenario 1: Conversion As Of Date < Current Date

In the following example, the German deutsche mark (DEM) and the French franc (FRF) are the From Currencies (the original base currencies for the business units being converted). The European Union euro (EUR) is the To Currency (the new base currency for both business units).

In addition, the following example uses an As Of Date that is less than the current date.

System Date (current date)	April 1, 2003. The current system row is January 1, 2003, meaning the record's current effective date is set at January 1, 2003..
As Of Date	December 31, 2002 (a historical As Of Date).
Conversion Process	The Currency Conversion Utility uses January 1, 2001 as the conversion current row and inserts a new converted row with an effective date of December 31, 2002. Future-dated rows (January 1, 2003 and beyond) are updated (converted).
Impact	Historical data converts, but current information is *lost*.

The following shows how the table looks after conversion when using this As Of Date scenario. Values inserted or modified by the Currency Conversion Utility are in italics.

Pre-Conversion Date	Pre-Conversion Amount	Pre-Conversion Currency	Post-Conversion Date	Post-Conversion Amount	Post-Conversion Currency
Jan. 1, 2001	500	DEM	Jan. 1, 2001	500	DEM
Newly inserted row			*Dec. 31, 2002*	*250*	*EUR*
Jan. 1, 2003	2000	FRF	Jan. 1, 2003	*500*	*EUR*
July 1, 2003	2200	FRF	July 1, 2003	*550*	*EUR*
Oct. 1, 2003	2400	FRF	Oct. 1, 2003	*600*	*EUR*
Jan. 1, 2004	2600	FRF	Jan. 1, 2004	*650*	*EUR*

In this scenario, the table no longer contains the original currency code and amounts for rows after the conversion As Of Date (Jan. 1, 2003 and beyond). This may be an issue for historical and statutory reporting purposes.

Scenario 2: Conversion As Of Date = Current Date

In the following example, the German deutsche mark (DEM) and the French franc (FRF) are the From Currencies (the original base currencies for the business units being converted). The European Union euro (EUR) is the To Currency (the new base currency for both business units). We provide example conversion rows for FRF.

In addition, the following example uses an As Of Date equal to the current date.

System Date (current date) April 1, 2003. The current system row is January 1, 2003, , meaning the record's current effective date is set at January 1, 2003.

As Of Date April 1, 2003 (current date)

Conversion Process The Currency Conversion Utility uses January 1, 2003 as the conversion current row and inserts a new converted row with an effective date of April 1, 2003. Future-dated rows (July 1, 2003 and beyond) are updated (converted).

Impact No historical data is converted.

The following shows how the table looks after conversion using this As Of Date scenario. Values inserted or modified by the Currency Conversion Utility are in italics.

Pre-Conversion Date	Pre-Conversion Amount	Pre-Conversion Currency	Post-Conversion Date	Post-Conversion Amount	Post-Conversion Currency
Jan. 1, 2001	500	DEM	Jan. 1, 2001	500	DEM
Jan. 1, 2003	2000	FRF	Jan. 1, 2003	2000	FRF
Newly inserted row			*April 1, 2003*	*500*	*EUR*
July 1, 2003	2200	FRF	July 1, 2003	*550*	*EUR*
Oct. 1, 2003	2400	FRF	Oct. 1, 2003	*600*	*EUR*
Jan. 1, 2004	2600	FRF	Jan. 1, 2004	*650*	*EUR*

Scenario 3: Conversion As Of Date > Current Date

In the following example, the German deutsche mark (DEM) and the French franc (FRF) are the From Currencies (the original base currencies for the business units being converted). The European Union euro (EUR) is the To Currency (the new base currency for both business units). We provide example conversion rows for FRF.

In addition, the following example uses an As Of Date that is greater than the current date.

System Date (current date) — April 1, 2003. The current system row is January 1, 2003, meaning the record's current effective date is set at January 1, 2003.)

As Of Date — December 31, 2003 (future date)

Conversion Process — The Currency Conversion Utility uses October 1, 2003 as the conversion current row and inserts an additional row for that row with an effective date of December 31, 2003. Future-dated rows (January 1, 2004 and beyond) are updated (converted).

Impact — The Currency Conversion Utility doesn't convert historical or current data.

The following shows how the table looks after conversion using this As Of Date scenario. Values inserted or modified by the Currency Conversion Utility are in italics.

Pre-Conversion Date	Pre-Conversion Amount	Pre-Conversion Currency	Post-Conversion Date	Post-Conversion Amount	Post-Conversion Currency
Jan. 1, 2001	500	DEM	Jan. 1, 2001	500	DEM
Jan. 1, 2003	2000	FRF	Jan. 1, 2003	2000	FRF
July 1, 2003	2200	FRF	July 1, 2003	220	FRF
Oct. 1, 2003	2400	FRF	Oct. 1, 2003	2400	FRF
Newly inserted row			*Dec. 31, 2003*	*600*	*EUR*
Jan. 1, 2004	2600	FRF	Jan. 1, 2004	*650*	*EUR*

Note. Scenarios 2 and 3 are similar. Specifying a future As Of Date of June 30, 2003, or any date before July 1, 2003, in Scenario 3 would have the same net result as the current operation of Scenario 2.

Determining an As Of Date for Effective-Dated Tables with Different Current Rows

Because many effective-dated tables have different current rows, there are other considerations for selecting a conversion As Of Date. If you select a past As Of Date for a process group, some of the affected tables may fall into both Scenario 1 (where the conversion date is earlier than the As Of Date) and Scenario 2 (where the conversion date is equal to the As Of Date).

Because of this possibility, we recommend that, prior to conversion, you research the effective dates of the current rows on the tables to be converted. This helps you to determine an As Of Date that preserves the level of historical detail to comply with internal auditing needs and any external regulatory reporting requirements.

Evaluating the Impact of Your As Of Date on Reporting

The Currency Conversion Utility conversion As Of Date may have a significant impact on PeopleSoft reports used for regulatory or internal reporting, particularly if you are converting historical data. We recommend thoroughly evaluating your reporting requirements before converting historical data.

Synchronizing Effective-Dated Related Language Tables

When the Currency Conversion Utility inserts a new row with a new effective date into an effective-dated table that has an associated related language table, the two tables may become unsynchronized. To keep the original table and the related language table synchronized, the Currency Conversion Utility calls an exception process after converting the record to insert a new row into the related language table with the correct effective date. This ensures that the original table and the related language table remain synchronized.

When creating new rules, be sure to call the related language synchronization exception process after any conversion rule that inserts new rows into an effective-dated table that also has a related language table.

If you are using an exception process instead of a rule to insert a new row into an effective-dated table that also has a related language table, be sure to do a direct call to the related language synchronization exception process after the initial exception process runs.

The following sections demonstrate how this type of exception processing works.

Related Language Table: Before Conversion

The JOBCODE_TBL table:

SETID	JOBCODE	EFFDT	SURVEY_SAL	CURRENCY_CD
ADM	1500	1/1/1999	400	CAN
ADM	1550	1/1/1999	300	DEM

The JOBCODE_LANG table:

SETID	JOBCODE	EFFDT	LANG_CODE
ADM	1500	1/1/1999	INE
ADM	1550	1/1/1999	GER

Related Language Table: After Utility Conversion, Before Exception Process 1

The Currency Conversion Utility inserts a new row for the selected conversion row (DEM) with the new effective date, converted amount, and currency code (EUR).

Rows inserted by the Currency Conversion Utility are in bold. Old (pre-conversion) current rows are in italics.

The JOBCODE_TBL table:

SETID	JOBCODE	EFFDT	SURVEY_SAL	CURRENCY_CD
ADM	*1500*	*1/1/1999*	*400*	*CAN*
ADM	*1550*	*1/1/1999*	*300*	*DEM*
ADM	**1550**	**1/1/2004**	**900**	**EUR**

The JOBCODE_LANG table:

SETID	JOBCODE	EFFDT	LANG_CODE
ADM	1500	1/1/1999	INE
ADM	1550	1/1/1999	GER

Related Language Table: After Utility Conversion, After Exception Process 1

The first exception process synchronizes the exception date of the unconverted row in the JOBCODE_TBL.

Rows inserted by exception process 1 are in bold. Old (pre-conversion) current rows are in italics.

The JOBCODE_TBL table:

SETID	JOBCODE	EFFDT	SURVEY_SAL	CURRENCY_CD
ADM	*1500*	*1/1/1999*	*400*	*CAN*
ADM	**1500**	**1/1/2004**	**400**	**CAN**
ADM	*1550*	*1/1/1999*	*300*	*DEM*
ADM	1550	1/1/2004	900	EUR

The JOBCODE_LANG table:

SETID	JOBCODE	EFFDT	LANG_CODE
ADM	1500	1/1/1999	INE
ADM	1550	1/1/1999	GER

Related Language Table: After Utility Conversion, After Exception Process 1, After Exception Process 2

The second exception process inserts new rows into the JOBCODE_LANG related language table with the correct effective date for both the converted row and unconverted rows on the JOBCODE_TBL.

Rows inserted by exception process 2 are in bold. Old (pre-conversion) current rows are in italics.

The JOBCODE_TBL table:

SETID	JOBCODE	EFFDT	SURVEY_SAL	CURRENCY_CD
ADM	*1500*	*1/1/1999*	*400*	*CAN*
ADM	1500	1/1/2004	400	CAN
ADM	*1550*	*1/1/1999*	*300*	*DEM*
ADM	1550	1/1/2004	900	EUR

The JOBCODE_LANG table:

SETID	JOBCODE	EFFDT	LANG_CODE
ADM	*1500*	*1/1/1999*	*INE*
ADM	**1500**	**1/1/2004**	**INE**
ADM	*1550*	*1/1/1999*	*GER*
ADM	**1550**	**1/1/2004**	**GER**

Related Language Table: After Conversion

After the conversion rules and exception process, the tables are synchronized and all rows (converted and unconverted) have the same effective date. Rows inserted by the exception processes are in bold. Old (pre-conversion) current rows are in italics.

The JOBCODE_TBL table:

SETID	JOBCODE	EFFDT	SURVEY_SAL	CURRENCY_CD
ADM	*1500*	*1/1/1999*	*400*	*CAN*
ADM	**1500**	**1/1/2004**	**400**	**CAN**
ADM	*1550*	*1/1/1999*	*300*	*DEM*
ADM	**1550**	**1/1/2004**	**900**	**EUR**

The JOBCODE_LANG table:

SETID	JOBCODE	EFFDT	LANG_CODE
ADM	*1500*	*1/1/1999*	*INE*
ADM	**1500**	**1/1/2004**	**INE**
ADM	*1550*	*1/1/1999*	*GER*
ADM	**1550**	**1/1/2004**	**GER**

Searching for Conversion Records that Use Related Language Tables

The following SQL statement is an example of a query that could be used to determine if you have any records that may require an exception process to synchronize effective-dated related language tables with conversion records.

```
SELECT RD.RECNAME, RD.RELLANGRECNAME
FROM PSRECDEFN RD
WHERE RD.RELLANGRECNAME <> ''
AND RD.RECNAME IN
   (SELECT DISTINCT R.RECNAME
   FROM PS_EO_CURRCNV_RULE R
   WHERE (EFFDT_PROC_CD = '3'
   OR EFFDT_PROC_CD = '4'))
   AND 'EFFDT' IN
      (SELECT RF.FIELDNAME FROM PSRECFIELD RF
      WHERE RF.RECNAME = RD.RECNAME)
```

Understanding Exchange Rate Conversions (Rate Multiplier and Rate Divisor)

The PeopleSoft Currency Conversion Utility uses rate multiplier and rate divisor values to convert currency amounts. When the Currency Conversion Utility converts a taxation currency to a base currency, the utility must not only convert the taxation amount to the base amount, it must also convert the old rate multiplier and rate divisor values to the new rate multiplier and rate divisor values used to convert the new combination of currencies.

The following examples of rate multiplier and rate divisor conversions are based on the following assumptions and conversion formulas:

Run control exchange rate This value is calculated when you enter From Currency, To Currency, rate type, and effective date values on the Currency Criteria run control page. This Exchange Rate field value dictates the converted rate multiplier and converted rate divisor values.

Converted rate multiplier The formula for the new rate multiplier varies based on whether the From Currency or the To Currency is being converted.

This is the formula used to derive the converted rate multiplier when converting the From Currency.

```
Converted Rate Mult = (Original Rate Mult *
Run Control Rate Div) / (Original Rate Div *
Run Control Rate Mult)
```

This is the formula used to derive the converted rate multiplier when converting the To Currency

```
Converted Rate Mult = (Original Rate Mult *
Run Control Rate Mult) / (Original Rate Div *
Run Control Rate Div)
```

Converted rate divisor 1.

This value is usually 1 because the exchange rate is in the rate multiplier, or numerator.

Converted amount

```
Converted Amount = Original Amount / Run Control Rate Div *
Run Control Rate Mult
```

Conversion Run Control Parameters

```
To Currency: EUR
From Currency: FRF
Rate Mult = 1
Rate Div = 6
```

Example 1: Convert the To Currency (Base Currency and Base Amount)

Before conversion:

Taxation Currency	Taxation Amount	Base Currency	Base Amount	Rate Multiplier	Rate Divisor
USD	100	FRF	500	5	1

After conversion:

Changes are in bold.

Taxation Currency	Taxation Amount	Base Currency	Base Amount	Rate Multiplier	Rate Divisor
USD	100	**EUR**	**83.33...**	**0.83333...**	**1**

The following formulas are used to perform the conversion:

Converted Base Amount `500 / 6 * 2 = 83.33...`

Converted Rate Multiplier `(5 * 1) / (6 * 1) = 5 / 6 = 0.833...`

Converted Rate Divisor `1`

Old Exchange Rate `5 / 1 = 5`

Converted Exchange Rate `1 / 6 = 1.666...`

Converted Rate Multiplier `5 * 1.666 = 0.833...`

Example 2: Convert the From Currency (Taxation Currency and Taxation Amount Fields)

Before conversion:

Taxation Currency	Taxation Amount	Base Currency	Base Amount	Rate Multiplier	Rate Divisor
FRF	500	USD	100	0.2	1

After conversion:

Changes are in bold.

Taxation Currency	Taxation Amount	Base Currency	Base Amount	Rate Multiplier	Rate Divisor
EUR	**83.33**	USD	100	**1.2**	**1**

Conversion formula:

Converted Taxation Amount `500 / 6 * 1 = 83.33...`

Converted Rate Multiplier `(1 * 6) / (5 * 1) = 6 / 5 = 1.2`

Converted Rate Divisor `1`

The rate multiplier and rate divisor represent the rate used to convert the taxation currency (FROM currency) to the base currency (TO currency).

To convert the taxation currency from FRF to EUR, the rate multiplier and rate divisor must also be converted. In this case, rate multiplier and rate divisor are associated with the FROM amount/currency; that is, rate multiplier and rate divisor are converted because the FROM amount and taxation currency are converted.

CHAPTER 4

Setting Up a New Base Currency

This chapter provides an overview of setting up a new base currency and discusses how to set up the euro as a new base currency in your system.

Understanding Setting Up a New Base Currency

Before you run the Currency Conversion Utility process to convert your base operating currency, you must set up your system for the new base currency.

The following sections discuss setup criteria that are specific to the euro. The euro's unique requirements may not necessarily apply if you are converting your base operating currency to a different currency. If you are converting your base currency to a currency other than the euro, we recommend that you review these setup steps carefully to make sure they are appropriate for the currency to which you are converting. You will need to adjust the steps to meet your specific needs.

Setting Up the Euro as a New Base Currency

If you are converting your base operating currency to the euro, set up the euro as a currency in your system prior to conversion. The following sections outline a procedure that you can use to complete this task.

For your reference, following is a table of EMU-participating countries and their standard currency codes:

Country	Currency Code	Currency Denomination
Austria	ATS	Schillings
Belgium	BEF	Francs
Germany	DEM	Marks
Spain	ESP	Pesetas
Finland	FIM	Marks

Country	Currency Code	Currency Denomination
France	FRF	Francs
Ireland	IEP	Pounds
Italy	ITL	Lire
Luxembourg	LUF	Francs
Netherlands	NLG	Guilders
Portugal	PTE	Escudos

Pages Used to Set Up a New Base Currency

Page Name	Object Name	Navigation	Usage
Currency Code	CURRENCY_CD_TABLE	Set Up Financials/Supply Chain, Common Definitions, Currency, Currency Code	Sets the currency code used for a PeopleSoft application.
Currency Quotation Method	CURR_QUOTE_PNL	Set Up Financials/Supply Chain, Common Definitions, Currency, Currency Quotation Method	Set the currency quotation method for the euro and the EMU-participating currencies.
Market Rate Definition	RT_RATE_DEF_TBL	Set Up Financials/Supply Chain, Common Definitions, Market Rates, Market Rate Definition	Add or update market rate definitions for the euro and EMU-participating currencies
Market Rates	RT_RATE_PNL	Set Up Financials/Supply Chain, Common Definitions, Market Rates, Market Rates	Set up fixed exchange rates.
Cross/Reciprocal Rate Calc - Parameters (cross/reciprocal rate calculation - parameters)	RUN_EO9030	Set Up Financials/Supply Chain, Common Definitions, Market Rates, Cross/Reciprocal Rate Calc	Generates the triangulated rates between the national currency units (NCUs) that triangulate through the euro.

Step 1: Establish a Euro Currency Code

If the euro is *not defined* as a currency code in your system, add a new euro currency code.

To add the euro currency code:

1. Access the Currency Code page.
2. Add *EUR* as the new Currency Code.
3. Enter the Effective Date for this currency code, a longer Description, and a Short Description for the euro.

4. Set the Status to *Active*.
5. Optionally, you can add the euro Currency Symbol.
6. Set Decimal Positions for the euro at *2*.
7. Enter a Scale Positions value to control how many numbers appear to the left of the decimal in the currency display. Data is stored with full precision in the database itself.

   For example, if you want all million-dollar amounts displayed as the number of millions without the zeros, enter *6* as your scale position. In this case, 24,000,000 will be displayed as 24, but is stored in the database as 24,000,000.
8. Verify the Country Code.

   Generally, PeopleSoft recommends that you leave the Country Code field clear for the euro because more than one country uses this currency. However, if your installation is localized within one Eurozone country, you could enter that country on this page.

Step 2: Establish Currency Quotation Methods

This section discusses setting the currency quotation method.

Note. The settings on this page depend on whether you define a direct or indirect quotation method.

See *PeopleSoft Enterprise Components for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook*, "Defining and Storing PeopleSoft Market Rates," Defining Currency Quotations

To specify direct quotation methods for nonparticipating currencies (optional):

1. Access the Currency Quotation Method page.
2. Enter the rate Effective Date and the Status for the currency quotation method.
3. Specify that the quotation method is *Direct*, enter the Quote Units, and select or clear the Auto Reciprocate check box for this quotation method.

   Direct currency quotation methods *do not* require triangulation options.
4. Define currency quotation methods for all combinations of the currencies involved.

When setting currency quotation methods for participating currencies, keep the following in mind.

The following table contains recommended settings for defining currency quotation methods for EMU participating currencies, where:

NCU	National currency unit. EMU-participating currency, such as ATS, BEF, and so forth.
EUR	Euro.
NON	Non-EMU-participating currency.

Field	NCU-->NCU	NCU-->EUR	NCU-->NON	NON-->EUR
From Currency	NCU	NCU	NCU	NON
To Currency	NCU	EUR	NON	EUR
Quote Method	Either	Indirect	Either	Indirect
Auto Reciprocate	On	On	On	On
Triangulate	On	Off	*On*	Off
Reference Currency	EUR	Not applicable	EUR	Not applicable
Primary Visual Rate	NCU-->CUR	Not applicable	NCU-->NON	Not applicable
Cross-Rate Allow Override	Off	Not applicable	On	Not applicable
Cross-Rate Recalculate	Not applicable	Not applicable	EUR-->NON	Not applicable

For the NCU-->NON conversion, triangulation through the euro is optional. Use the settings shown in this example if you select triangulation through the euro.

Two EMU participating countries require an indirect currency quotation method. For indirect currency quotation methods, also define triangulation options.

The Currency Quotation Method page automatically reciprocates itself when you set up a From Currency that has been used as a To Currency. For example, if you define the conversion of USD to ESP as indirect and then define the ESP to USD record, this record is automatically created to indicate a quote method of direct. If you change the quote method on the ESP to USD record, the USD to ESP record is automatically updated.

The following table shows each possible field value with its reciprocal value:

Field	Value (example: USD to ESP)	Reciprocal Value (example: ESP to USD)
Quotation Basis	DIRECT	INDIRECT
	INDIRECT	DIRECT
Quote Units	Any valid value	Same value

Field	Value (example: USD to ESP)	Reciprocal Value (example: ESP to USD)
Rate Decimal Positions	4 (default value)	Same value
Auto Reciprocate	Yes	Yes
	No	No
Triangulate	Yes	Yes
	No	No
Reference Currency	Any valid value	Same value
Primary Visual Rate	FROM --> TO (example: USD --> ESP)	FROM --> TO (example: ESP --> USD)
	FROM --> REF (example: USD --> EUR)	REF --> TO (example: EUR --> USD)
	REF --> TO (example: EUR --> ESP)	FROM --> REF (example: ESP --> EUR)
Cross-Rate Allow Override	Yes	Yes
	No	No
Cross-Rate Recalculate	FROM --> REF (example: USD --> EUR)	REF --> TO (example: EUR --> USD)
	REF --> TO (example: EUR --> FRF)	FROM --> REF (example: FRF --> EUR)

Step 3: Establish Market Rate Definitions for the Euro and NCUs

To add or update market rate definitions for the euro and NCUs:

1. Access the Market Rate Definition page.
2. Enter the desired Term (in days). A zero (0) term indicates a spot rate.

   Note. Only PeopleSoft Treasury Management uses nonzero terms.

3. Enter the appropriate From Currency and To Currency.

These values are used for exchange rate pairs. When using triangulation, include a definition for each of the currency pairs involved in the triangulation.

4. In the Maximum Variance field, indicate the percentage of variance allowed when the user maintains the market rate.

   You'll get an error message if the change exceeds the specified tolerance. The default value is 2.5%.

5. In the Error Type field, enter the type of error processing that occurs if the Maximum Variance is exceeded.

   You have the following options:

   - *None*. No error processing occurs; the new rate is used, even though it exceeds the limit.
   - *Warning*. A warning displays; you can ignore it if desired and save the new rate.
   - *Stop*. Processing halts; the system prevents you from saving the new rate.

See *PeopleSoft Enterprise Components for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook*, "Defining and Storing PeopleSoft Market Rates," Setting Up and Maintaining Market Rates

Step 4: Defining Market Rates for the Euro

PeopleSoft recommends that you use the market rates listed in the following table for the euro, where:

NCU National currency unit. EMU-participating currency, such as ATS, BEF, and so forth.

EUR Euro.

NON Non-EMU-participating currency.

Page Setting	NCU-->NCU	NCU-->EUR	NCU-->NON	NON-->EUR
From Currency	NCU	NCU	NCU	NON
To Currency	NCU	EUR	NON	EUR
Maximum Variance	0	0	Any Value	Any Value
Error Types	Stop	Stop	Any Value	Any Value

Step 5: Enter Fixed Exchange Rates Between the Euro and NCUs

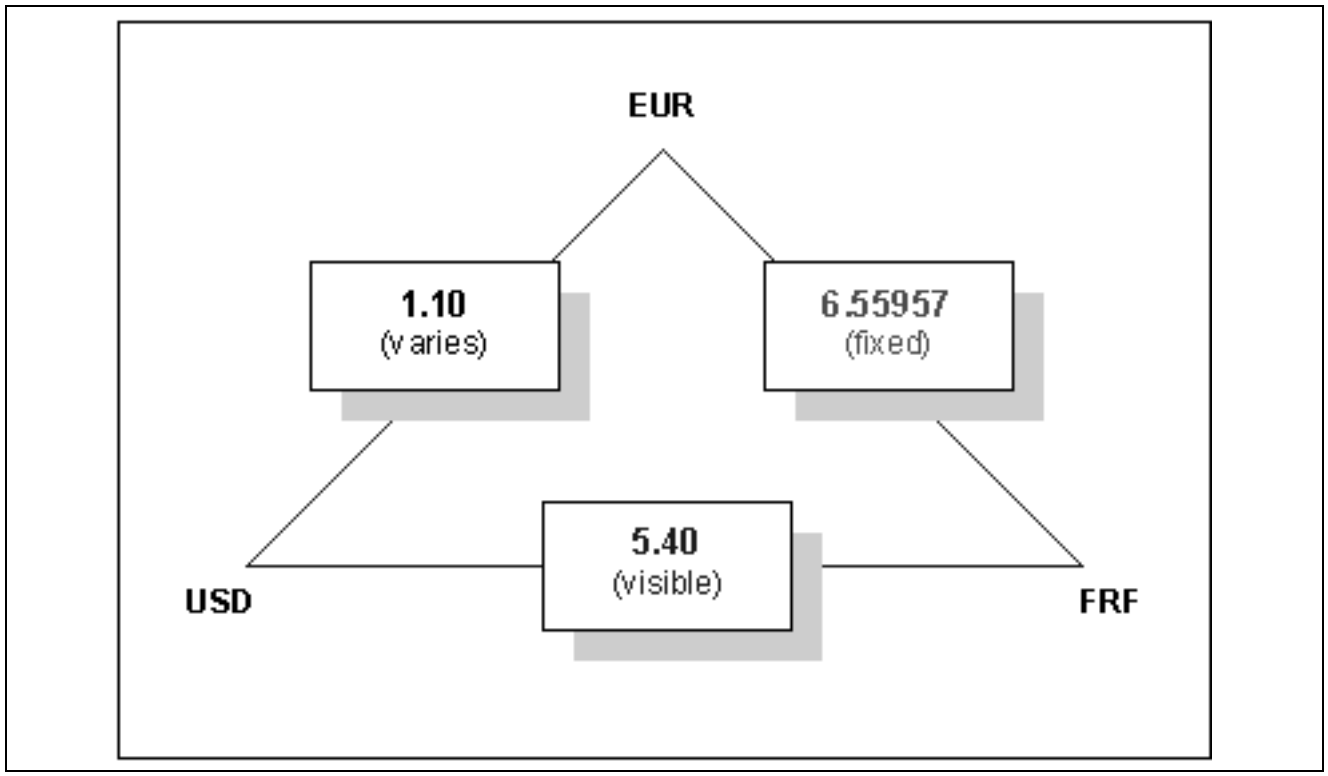
To enter a fixed exchange rate:

1. Access the Market Rates page.
2. Enter the Effective Date if it is other than the current date.
3. Enter the Rate as of the Effective Date.

The Rate field displays the visual rate, or in the case of triangulated exchange rates, the primary visual rate, which is typically the cross rate, but which can also be one of the other component rates of the triangle.

You can edit the rate for non-triangulated rates, and also for triangulated rates if a quotation method is defined for the currency pair and the Cross-Rate Allow Override check box is selected on the Currency Quotation Method page. If the override is not allowed, users can update the exchange rate values to and from the reference currency on the Exchange Rate Detail page.

The following graphic represents the three component visual rates in an exchange rate from FRF to USD, triangulating through the euro. You can access all three visual rates of a triangulated exchange rate by opening the Exchange Rate Detail page.



Component visual rates in a triangulated exchange rate

You can't edit the Rate field unless all of the following conditions are true:

- The rate is triangulated
- The primary visual rate is the cross rate.

Clear the Allow Override check box on the Currency Quotation Method page for the exchange rate's quotation method.

If a quotation method is defined for the currency pair and if the Auto Reciprocate check box for quotation method is selected, then creating or maintaining a rate for a currency pair automatically creates or updates the rate of the reciprocal currency pair. For example, if you change the USD to GBP rate, the GBP to USD rate automatically updates. You can only automatically reciprocate currency pairs for which quotation methods have been defined.

If a rate definition does not exist for the currency pair, one is automatically created with the default values of 2.5% maximum variance and warning message processing. You can use the Rate Definition text in the upper-right corner of the page to view or change the rate definition values.

If you selected the auto-reciprocate check box on the quote method in step 3, the system automatically generates the rates from EUR to the NCUs.

See *PeopleSoft Enterprise Components for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook,* "Defining and Storing PeopleSoft Market Rates," Setting Up and Maintaining Market Rates

Step 6: Set the Market Rates for EMU-Participating Countries

Use the following table to define the rates for EMU-participating countries as of January 1, 1999:

Country	From	To	Rate
Austria	ATS	EUR	13.7603
Belgium	BEF	EUR	40.3399
Germany	DEM	EUR	1.95583
Spain	ESP	EUR	166.386
Finland	FIM	EUR	5.94573
France	FRF	EUR	6.55957
Ireland	IEP	EUR	.787564
Italy	ITL	EUR	1936.27
Luxembourg	LUF	EUR	40.3399
Netherlands	NLG	EUR	2.20371
Portugal	PTE	EUR	200.482

Note. Enter these rates into the system only once for each rate index and rate type. If you are defining fixed exchange rates for the euro, use an effective date of January 1, 1999.

Step 7: Verify Details

To view the details of the Rate Definition, click the Rate Definition link in the upper right corner of the Market Rates page.

You can view additional rate information on the Exchange Rate Detail page, which you can access by clicking the Exchange Rate Detail icon to the right of the Rate Field. This page displays the rules by which the exchange rate is calculated. You can modify the Rate value if necessary. The following table describes the information on the Exchange Rate Detail page.

Rate Quotation Basis Displays the quotation basis for the exchange rate as defined on the Currency Quotation Method page. If no quotation method is defined, the quotation basis is *Direct.*

Quote Units Displays the quote units for the exchange rate as defined in the Currency Quotation Method page. If no quotation method is defined, the quote units field is set to *1*.

Triangulate Displays the Triangulate setting for the exchange rate as defined in the Currency Quotation Method page. If no quotation method is defined, the Triangulate setting is *N*.

Reference Currency Displays for triangulated exchange rates only and shows the reference currency used in the triangulated exchange.

Current Quote Displays the current exchange rate used to convert the From currency to the To currency. A direct, non-triangulated rate shows quote units (or 1) on the left side of the equal sign and the visual rate on the right, for example:

1 USD = 1.40000000 CAD

An indirect, non-triangulated rate displays the visual rate on the left side of the equal sign and quote units (or 1) on the right, for example:

1.400000000 CAD = 1 USD

A triangulated rate displays two component rates of the triangle: The rate for converting the From currency to the Reference currency, and the rate for converting the Reference currency to the To currency, for example:

1.25 USD = 1 EUR = 6.8 FRF

Historic Quote Displays a quote indicating the quotation method originally used by a historic exchange rate, if the system determines that the quotation method originally used by the historic rate was different from the current quotation method. For example, the Historic Quote field displays a quote if the historic rate converted the From currency to the To currency directly using a calculated reciprocal rate, but the current quotation method for the currency pair is now indirect. The field would also display a quote if the historic quote method was non-triangulated and the current quote method is triangulated. If the system does not determine that the historic and current quote methods are different, the Historic Quote field displays *Not Applicable*.

Exchange Rate Displays a single visual rate for non-triangulated exchange rates or all three component visual rates for triangulated exchange rates. The cross rate for triangulated exchange rates is editable only if the Allow Override check box is selected in the exchange rate's quotation method definition.

See *PeopleSoft Enterprise Components for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook*, "Defining and Storing PeopleSoft Market Rates," Setting Up and Maintaining Market Rates

Step 8: Generate Triangulated Rates Between NCUs

In this step, you generate the triangulated rates between the NCUs that triangulate through the euro.

Note. The triangulated rates between the NCUs only need to be generated once for each rate index and rate type.

To generate triangulated rates between NCUs:

1. Access the Calculate Cross/Reciprocal Rt - Parameters page.
2. Select the appropriate Language.
3. Select the Market Rate Index and the Term.

   Note. All applications other than PeopleSoft Treasury Management use the default Index, *MODEL*, and a Term of *0*.

   ---

4. Select the From Common Currency.
5. Select the Exchange Rate Type.
6. Select the As of Date pertaining to the exchange rate used in this rate calculation.
7. Select the Generate Report check box if you want to generate a report that displays the exchange rates and the reciprocal and cross-rate calculations.
8. Select the Override Existing Rates check box if you want this calculated rate to override rates for this Exchange Rate Type currently on the Exchange Rate table (regardless of the As of Date).
9. Select the Generate Reciprocal Rate check box to have the system automatically calculate reciprocal rates for you.

   Note that PeopleSoft does not directly manipulate the exchange rates; rather, the system uses numerator and denominator values such that:

   ```
   From currency * RATE_MULT/RATE_DIV = To currency
   ```

   Suppose you want a reciprocal rate between US dollars and French francs. You enter USD to FRF = 5; the system automatically generates the reciprocal rate FRF to USD = 1/5, or 0.2.
10. If needed, choose to have the system automatically Generate Cross Rates.

    For example, for cross-currency rates between dollars, francs, and German deutsche marks, you enter USD to FRF = 5 and USD to DEM = 1.43; the system automatically generates FRF to DEM = 1.43/5 = 0.286. If you choose to generate cross rates, select a From Currency and a To Currency. The To Curr field is useful if you need a particular rate. You can enter a wild card of % in either field or both fields to indicate from all or to all currencies.
11. Select the Rate Triangulate check box to have the system convert two currencies through a third currency.
12. After you've made the appropriate selections, click Run.

PeopleSoft recommends that you use the following cross/reciprocal rate calculation settings for the euro:

Field	Setting
From Common Currency	EUR (the euro currency code)
As of Date	01/01/1999
Generate Report	Optional
Override Existing Rates	ON
Generate Reciprocal	OFF. This is unnecessary if the autogenerate reciprocal check box is selected.
Generate Cross Rates	OFF
Rate Triangulate	ON
From Cur and To Cur	When you specify the wild card value (%), the process generates triangulated rates for all currency pairs that triangulate through the euro (the value specified in the From Common Currency field), including both NCU:NCU pairs as well as NCU:CUR pairs. If desired, you can specify each of the individual NCU:NCU currency pairs instead.

See *PeopleSoft Enterprise Components for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook*, "Defining and Storing PeopleSoft Market Rates," Calculating Currency Rates

Step 9: Enter Exchange Rates Between Euro and Non-Eurozone Currencies

Use the same Market Rate page that you used to enter exchange rates between the euro and NCUs (or other rate import mechanisms) to record exchange rates between the euro and non-Eurozone currencies. Typically, you maintain these rates just as frequently as you maintain other rates in your system.

See *PeopleSoft Enterprise Components for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook*, "Defining and Storing PeopleSoft Market Rates," Setting Up and Maintaining Market Rates

Step 10: Generate Triangulated Rates Between NCUs and Non-Eurozone Currencies

Use the same Cross/Reciprocal Rate Calc (cross/reciprocal rate calculation) process (EO9030) that you used to generate triangulated rates between the euro and NCUs to generate the triangulated rates between the NCUs and the non-Eurozone currencies that triangulate through the euro. Run this process to generate new triangulated rates each time you maintain exchange rates between the euro and non-Eurozone currencies.

PeopleSoft recommends that you use the following settings for euro conversion:

Field	Setting
From Common Currency	EUR (the euro currency code)
As of Date	Same date as used for maintenance of euro to non-Eurozone currency rates
Generate Report	Optional
Override Existing Rates	ON. This is necessary if you maintain euro to non-Eurozone rates more than once each day
Generate Reciprocal	OFF. This is unnecessary if you select the autogenerate reciprocal check box.
Generate Cross Rates	OFF
Rate Triangulate	ON
From Cur and To Cur	When you specify the wild card value (%), the process generates triangulated rates for all currency pairs that triangulate through the euro (the value specified in the From Common Currency field), including both NCU:NCU pairs as well as NCU:CUR pairs. If desired, you can specify your criteria more precisely so that the NCU:NCU rates are not regenerated each time this process is run, since they will not change after 01/01/99.

See *PeopleSoft Enterprise Components for Financials, Enterprise Service Automation and Supply Chain Management 8.8 PeopleBook,* "Defining and Storing PeopleSoft Market Rates," Calculating Currency Rates

CHAPTER 5

Setting Up Base Currency Conversion Components

This section contains an overview of base currency conversion and provides information about how to set up the basic components required by the PeopleSoft Currency Conversion Utility for converting base currencies including:

- Specifying installation information.
- Creating and assigning work records.
- Identifying exception processes.
- Setting up process groups.
- Defining conversion rules.

Note. Because the Currency Conversion Utility conversion processes are very complex and deal with the conversion of extremely important financial data throughout your system, PeopleSoft *strongly* recommends that you contact PeopleSoft Global Services (PGS) for assistance in using the Currency Conversion Utility.

Overview of Base Currency Conversion Components

PeopleSoft Currency Conversion Utility uses three basic components for converting base operating currencies.

- Process groups

  The Currency Conversion Utility converts data by process group. Process groups contain conversion rules or exception processes that convert data for one or more products within the same product line.

- Conversion rules

  For each PeopleSoft product with base operating currency data that the Currency Conversion Utility can convert, some PeopleSoft products provide a set of specific conversion rules. If available, PeopleSoft delivers these rules with the Currency Conversion Utility, and you can customize them to fit your business needs.

- Exception processes

  In certain cases, the Currency Conversion Utility supports certain external conversion steps that occur in conjunction with the utility's data conversion. To handle these external conversion processes, the Currency Conversion Utility calls exception processes associated with conversion processes.

Specifying Installation Information

The Currency Conversion Utility requires some fundamental installation information for your site. This section discusses these settings.

Pages Used For Installation Information

Page Name	Object Name	Navigation	Usage
Installed Products	EO_PS_PRODUCT	Enterprise Components, Currency Conversions, Select Products for Conversion	Identify which products are installed for a PeopleSoft product line.
Installation Options	CCU_INSTALL_OPT	Enterprise Components, Currency Conversions, Select Parallel Process Option	Set up parallel processing so that you can run the Currency Conversion Utility on two or more machines at the same time. **Note.** PeopleSoft strongly recommends that you do not run the same process group on different machines if you run the Currency Conversion Utility with parallel processing enabled. You risk corrupting your data if you attempt to run the same process group in parallel on multiple machines.

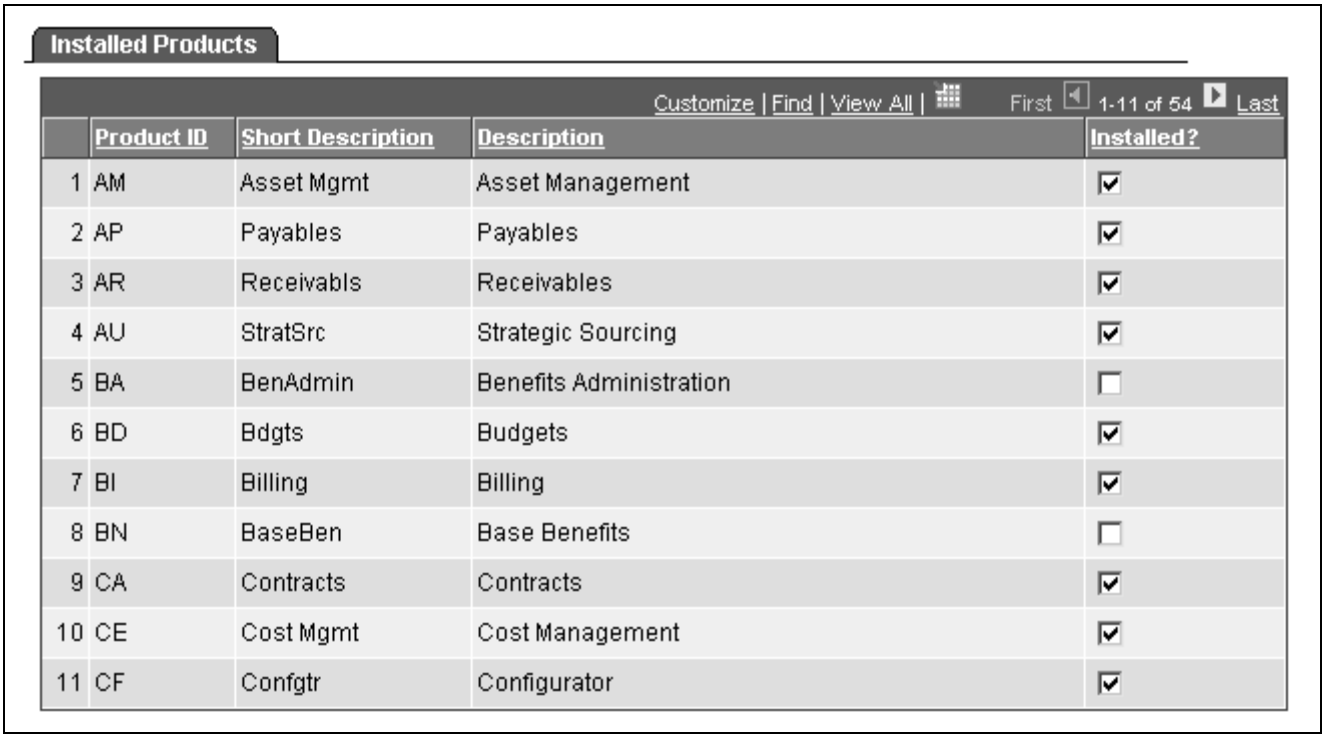
Specifying Installed Products

Access the Installed Products page, and make the appropriate modifications.

The Installed Products page is where you specify which products are installed for a particular product line.

If the Currency Conversion Utility encounters a conversion rule owned by a product that is not identified on the Installed Products page as an installed product, and no other installed product identified on this page uses that table specified in the rule, the Currency Conversion Utility bypasses the conversion rule for that table.

The Currency Conversion Utility also bypasses any exception processes for a product that is not specified on the Installed Products page.



Installed Products

Customize | Find | View All | First 1-11 of 54 Last

	Product ID	Short Description	Description	Installed?
1	AM	Asset Mgmt	Asset Management	☑
2	AP	Payables	Payables	☑
3	AR	Receivabls	Receivables	☑
4	AU	StratSrc	Strategic Sourcing	☑
5	BA	BenAdmin	Benefits Administration	☐
6	BD	Bdgts	Budgets	☑
7	BI	Billing	Billing	☑
8	BN	BaseBen	Base Benefits	☐
9	CA	Contracts	Contracts	☑
10	CE	Cost Mgmt	Cost Management	☑
11	CF	Confgtr	Configurator	☑

Installed Products page

Product ID The two-letter code designating the product.

Short Description An abbreviated description of the product

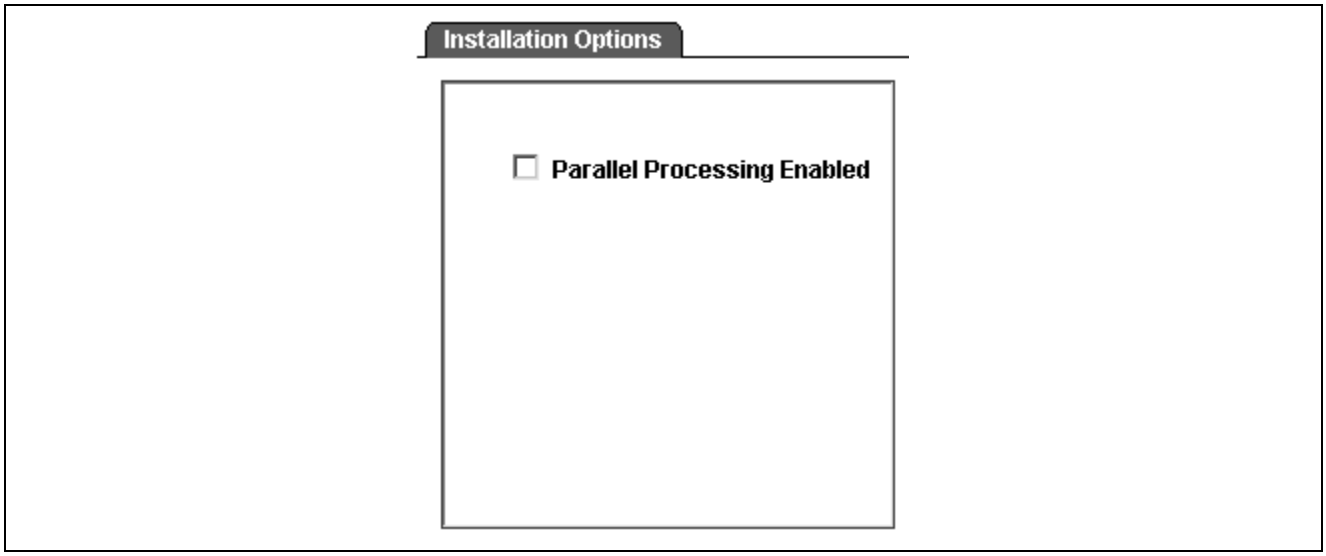
Description A complete description of the product.

Installed? Use to select your installed PeopleSoft products.

Note. The Currency Conversion Utility is always delivered with one product installed: Enterprise Components (PS/EO). It is important to note that this product will *not* be identified on the Installed Products page. However, the Currency Conversion Utility requires it for conversion processing and you must identify *all* other installed products on the Installed Products page during setup.

Specifying Installation Options

Access the Installation Options page.



Installation Options page

In most cases, you will probably run all of the Currency Conversion Utility conversion processes one at a time using a single machine to drive the conversion. This serial conversion process helps to minimize any processing conflicts or duplications during Currency Conversion Utility conversion. However, if you run the Currency Conversion Utility on two (or more) machines at the same time, you *must* enable parallel processing before you run any conversion processes.

Warning! PeopleSoft strongly recommends that you do not run the same process group on different machines if you run the Currency Conversion Utility with parallel processing enabled. You risk corrupting your data if you attempt to run the same process group in parallel on multiple machines.

Parallel Processing Enabled

To enable parallel processing, select the Parallel Processing Enabled check box. Selecting this check box sets the PROCESS_PARALLEL field value on the Currency Conversion Utility's installation options setup table (PS_CCU_INSTALL_OPT) to Y (yes). The default for this flag is off, or N (no).

During conversion, the Currency Conversion Utility's EO_CURRENCY Application Engine program uses this field value to determine whether to use a TRUNCATE or a DELETE for clearing the TEO temporary tables associated with the conversion record. Because TRUNCATE is a faster process that also requires less disk space, the Currency Conversion Utility uses this method by default whenever the Parallel Processing Enabled check box is clear (or disabled).

Note. TRUNCATE is a platform-dependent command.

Note. The Currency Conversion Utility runs whether or not parallel processing is enabled.

Creating and Assigning Work Records

The Currency Conversion Utility uses a specific set of temporary tables, or work records, to store and manipulate data during conversion. Depending on how you set up and define conversion processing, the Currency Conversion Utility uses two, three, or all four of these temporary tables during conversion. You associate these temporary work records with the conversion record using the Work Record Assignment page. You can also assign these work records on the Conversion Rule page when you define the conversion rule.

Page Used to Assign Work Records

Page Name	Object Name	Navigation	Usage
Assign Work Records	EO_CC_WORKREC	Enterprise Components, Currency Conversions, Assign Work Records	Assign the PeopleSoft Currency Conversion Utility's temporary work records to a utility conversion record. You must create the work records before assigning them to a conversion record.

Creating the Required Work Records

You must create four work records for each Currency Conversion Utility conversion record. These records need the suffixes _TEO1, _TEO2, _TEO3, and _TEOA. _TEOA is the audit record. Depending on how the conversion rule is defined, the Currency Conversion Utility uses two or three of the _TEO*n* work records to store data temporarily during conversion. The temporary work records are copies of the original record definition with two additional fields added.

This section discusses the processes for creating these work records.

Naming Convention for Conversion Work Records

Currency Conversion Utility work records use the following naming convention:

```
[record reference]_TEO[x]
```

For example, the following work records are associated with the ANALYSIS_GROUP table:

- APPBANK_TEO1
- APPBANK_TEO2
- APPBANK_TEO3
- APPBANK_TEOA

The [record reference] portion of the work record name is user-defined and can contain up to ten characters.

Note. The Currency Conversion Utility requires the _TEO[x] portion of the work record name. This designation is referenced throughout the Currency Conversion Utility's SQL statements and PeopleCode. This designation is a slight variation on the standard TAO naming convention used for PeopleSoft Application Engine temporary work records and helps to clearly identify these work records as those associated with the Currency Conversion Utility.

The Currency Conversion Utility engine uses the TEO1, TEO2, and TEO3 suffixes to determine which temporary record to use to store data during various steps in the conversion process. The TEOA suffix identifies the work record that stores the before-and-after audit details for the conversion record.

Creating TEO1, TEO2, and TEO3

To save time and prevent errors, PeopleSoft recommends that you follow these steps to first create the TEO1 work record from the original conversion record and then clone the TEO2 and TEO3 work records from the TEO1 work record.

To create the TEO1, TEO2, and TEO3 work records:

1. Open the conversion record in Application Designer.

   The conversion record is the record on which the fields reside that you need converted.

2. Select File, Save As, and save the conversion record as a TEO*n* work record.

   Currency Conversion Utility work record names can have up to ten characters, plus a *required* four-character _TEO*n* suffix.

   Note. You do not need to save any PeopleCode on the original record in the TEO*n* work records.

3. Remove all key field designations from the TEO*n* work record.

   The field definitions on the TEO*n* work records must be identical, and they must be in the same order as the fields on the original record.

4. Insert the EO_PROCESS_INST and EO_FROM_CURRENCY fields to the TEO*n* work record.

   The following two fields must be added to the TEO*n* work records in the *exact* location described:

   EO_PROCESS_INST Must be the *first* field in the work record definition.

   EO_FROM_CURRENCY Must be the *last* field in the work record definition.

5. Specify the EO_PROCESS_INST field as a duplicate order key field on the TEO*n* work record.

   This field must be the *only* key on the TEO*n* work record.

6. Remove any record or field relationship information from the TEO*n* record properties. Remove any record properties associated with a TEO*n* record before saving the record definition.

   To remove the record properties from the work record:

   - Open the appropriate record in Application Designer.
   - Click the Properties icon or select File, Object Properties to open the Record Properties for the work record.
   - Select the Use tab, and make sure the record properties of the TEO1, TEO2, and TEO3 record definitions are all blank (particularly the Set Control Field). This does not affect the TEOA record definition.

     Note. Removing these record properties from the TEO*n* work records is not required for Currency Conversion Utility conversion. However, it does prevent the TEO*n* work records associated with a conversion record that is part of a Record Group from appearing in system audits as orphan records.

7. Specify the tablespace for the TEO*n* work record.

This is required for platforms that use tablespaces. The TEO1 work record uses the CULARG1 tablespace. The TEO2 and TEO3 work records use the corresponding CULARG2 and CULARG3 tablespaces.

To set the tablespace for the work record, select Tools, Data Administration, Set Tablespace. Select the appropriate tablespace Space Name for the selected work record. Click OK to save the tablespace designation for this work record.

8. Save the TEO*n* work record.
9. Repeat these steps to create the other two TEO*n* work records, or clone them from the first.

   Remember to change the tablespace designations on the other two work records regardless of whether you create them individually or clone them from the first work record.

10. Build the TEO*n* tables using the Application Designer SQL Build utility.

    The Currency Conversion Utility returns an error if the TEO*n* tables are not built at the time you run the conversion. Data is stored in the TEO1, TEO2, and TEO3 work records only during the actual conversion, so it is safe to build or rebuild the TEO*n* work records at any time.

Note. If you modify the original conversion record after you have created the TEO*n* work records, you *must* recreate the TEO*n* records associated with that record to ensure that the modifications are included in the work records.

Creating TEOn Work Records for Records that Contain Subrecords with Key Fields

If you are creating TEO1, TEO2, and TEO3 work records for a conversion record that contains a subrecord with key fields, first clone the subrecord, rename it, and remove the keys. You need to use this cloned subrecord within the primary TEO*n* records in place of the original subrecord. All the fields within the cloned subrecord must use the same names and remain in the same order as the original subrecord.

Creating the TEOA Audit Detail Record

The TEOA audit detail work record stores the before-and-after conversion details for the fields converted on the conversion record. The field definitions on the Currency Conversion Utility _TEOA work record must be identical to, and in the same order as the fields on the EO_CURRENCY_DTL record. To save time and prevent errors, clone the EO_CURRENCY_DTL record and rename it using the [recname]_TEOA work record naming convention.

To create the TEOA work record:

1. Open the EO_CURRENCY_DTL record in Application Designer.
2. Select File, Save As, and save this record as a TEOA work record.

   We recommend that you use the same naming convention for the TEOA work record that you used for the TEO1, TEO2, and TEO3 work records for the same conversion record. The Currency Conversion Utility requires that the audit detail work record name use a _TEOA suffix.

   You do not need to save any PeopleCode on the original record in the TEO*n* work records.

3. Specify the tablespace for the TEOA work record.

   This is required for platforms that use tablespaces. The TEOA work record uses the CULARGE tablespace.

   To set the tablespace for the work record, select Tools, Data Administration, Set Tablespace. Select the *CUAUDIT* space name for the selected work record. Click OK to save this tablespace designation for this work record.

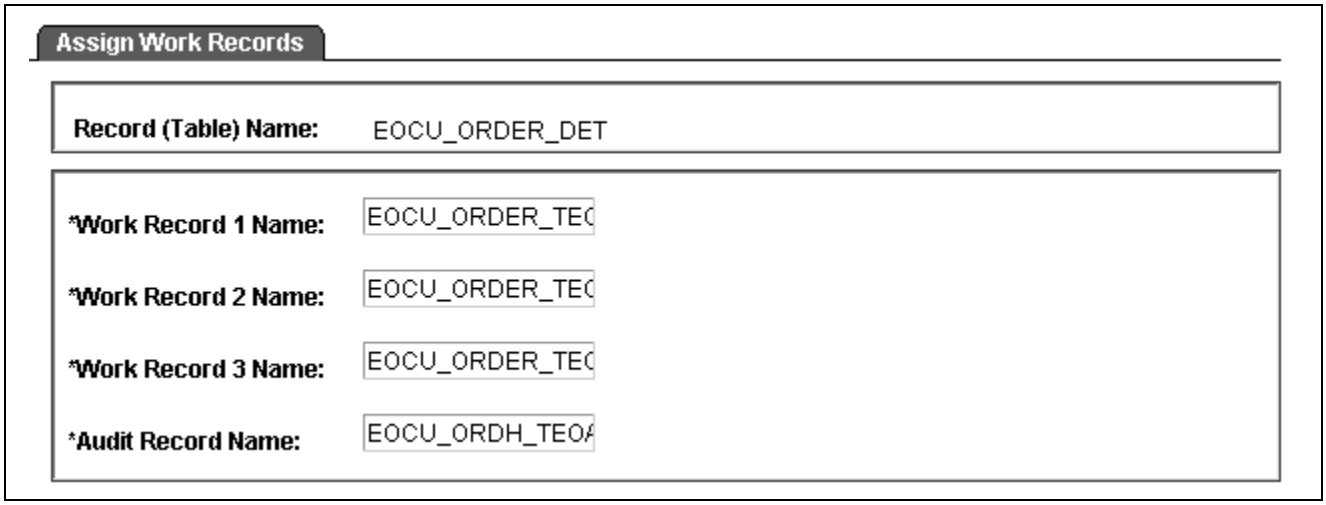
4. Save the TEOA work record.
5. Build the TEOA work record, using the Application Designer SQL Build utility.

   The Currency Conversion Utility returns an error if you have selected an audit processing option on the run control and the TEOA table is not built at the time that you run the conversion.

Note. Because the TEOA work record is a clone of a Currency Conversion Utility table (EO_CURRENCY_DTL), not the original conversion record, you do not need to rebuild the TEOA table if the original conversion record changes.

Assigning Utility Work Records to Conversion Records

Access the Assign Work Records page.



Assign Work Records page

Note. The PeopleSoft Currency Conversion Utility does not validate the record names when you enter them on this page. This means you can assign work record names to a conversion record before the work records have actually been created. However, work records using the correct structure and using the *exact* names specified on this page must exist at the time that the record is converted or the Currency Conversion Utility will return an error.

Record (Table) Name The name of the record with which to associate the specified work records.

Work Record N Name The names of the work records (with _TEO1, _TEO2, and _TEO3 suffixes) used to identify the records that the Currency Conversion Utility uses to hold data temporarily for this record during conversion. Once the original conversion record is converted, the Currency Conversion Utility truncates these TEO1, TEO2, and TEO3 temporary work records so that they contain no data.

Audit Record Name The name of an audit record (with a _TEOA suffix) that identifies the record that the Currency Conversion Utility uses to store before-and-after audit details for the conversion record during conversion. The data stored in this table is available after conversion is complete.

Identifying Exception Processes

Exception processes are product-specific conversion processes (external to the Currency Conversion Utility) that the utility calls at certain exit points during conversion to perform various conversion-related tasks not handled within the logic of the utility.

Understanding Exception Processes

Exception processes are required when field types other than amount, currency code, rate multiplier, and rate divisor fields must be converted, or when conversion-related tasks are required for application tables that cannot be handled by the Currency Conversion Utility.

The Currency Conversion Utility can call exception processes at the process group level or at the conversion rule level. Process group exception processes contain conversion steps that are not record-specific. Conversion rule exception processes relate to a specific database record.

Process group exception processes can run before, after, or in place of *all* the conversion rules for a process group. Conversion rule exception processes can run before, after, or in place of a *specific* conversion rule within a process group. You specify the timing and sequencing for an exception process when you associate the exception process with either a process group or a conversion rule.

Note. You can associate both Before and After exception processes with the same conversion rule or process group. However, because In Place Of exception processes are designed to run *instead of* a conversion rule or a process group, you cannot associate In Place Of exception processes and Before or After exception processes with the same process group or conversion rule.

Exception processes can be PeopleSoft Application Engine programs:

The Currency Conversion Utility calls Application Engine programs *directly*.

The Currency Conversion Utility calls PeopleSoft Component Interfaces *indirectly* through a directly-called Application Engine program assigned to a utility conversion process.

If you have to create a new exception process, create it as an Application Engine program or as a Component Interface. You define the calling Application Engine program information on the Exception Process setup page. When the process group runs, the Currency Conversion Utility calls the Application Engine application, which then executes the Component Interface exception process.

In general, exception processes do not do updates or commit any work directly to the database during conversion. When a process group runs, the Currency Conversion Utility uses a run control tracking table to keep a record of all conversion tasks in a process group run, including exception processes. Reasons for using this tracking table include the following:

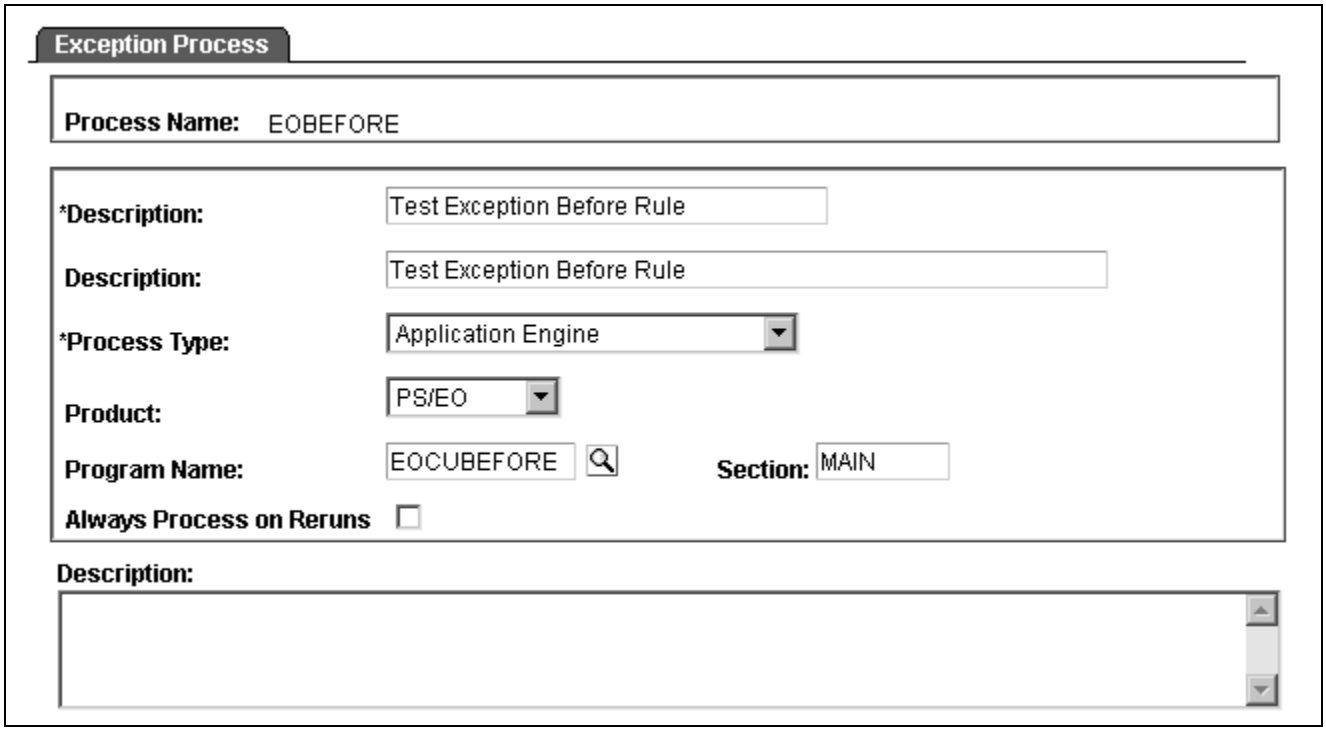
- A Currency Conversion Utility conversion rule may need the results of conversion-related activity performed by the exception process, or vice versa, during conversion before the update.
- If the Currency Conversion Utility halts conversion prior to the successful completion of an entire process group, the information in this tracking table enables the utility to skip the successfully completed conversion steps in the process group and restart processing at the correct step. In some cases, however, you may want a conversion exception process to always execute, even during restarts. For example, an exception process may perform a particular validation task, without actually making any data updates.

Pages Used to Identify Exception Processes

Page Name	Object Name	Navigation	Usage
Exception Process	EO_CURRCNV_EXCP	Enterprise Components, Currency Conversions, Define Exception Processes	Identify exception processes to be called during the execution of a currency conversion process group.

Identifying Utility Exception Processes

Access the Exception Process page.



Exception Process page

The Exception Process setup page populates a Currency Conversion Utility table with information about available exception processes. Once an exception process is added to this table, you can associate it with a process group or a conversion rule. You develop and define exception processes outside the Currency Conversion Utility; however, you must identify them within the utility before you can associate them with process groups or conversion rules.

The exception processes must already exist in the database before you can identify them as a Currency Conversion Utility exception process on this page.

Process Name Identifies the exception process.

Description/Long Description A brief and long description of the exception process, respectively.

Process Type Select one of the following:

- *Application Engine*

• *Component Interface*

Product Select the product with which the exception process is associated, where *PS* refers to "PeopleSoft" and <*two-letter-code*> refers to the PeopleSoft product. For example, *PS/AM* is PeopleSoft Asset Management.

Program Name/Section Enter the name of the Application Engine program or the Component Interface. Also, where appropriate, specify the section to be called.

Always Process on Reruns Enable this check box for programs that are not "one-time-only" and should be called each time a particular process group runs or is restarted.

Comments Specify the logic of the program so that future developers can determine why/if the program should continue to be called. Comments should include a brief description of what the exception process is designed to do, any customization considerations, timing issues, or pre- or post-conversion tasks.

Setting up Process Groups

The Currency Conversion Utility combines related conversion tasks into process groups. Conversion records and tasks can be included in the same process group either because they must all be converted at the same time to maintain data integrity or because they can all be selected using the same selection fields. The Currency Conversion Utility runs one process group at a time.

Understanding Process Groups

The PeopleSoft Currency Conversion Utility uses Process Groups to identify logical groupings of database records that all must be converted at the same time. The Currency Conversion Utility will convert one process group at a time.

In general, you define process groups based on how currency-related data would logically be converted from a *business* (functional) point of view. Each process group contains conversion criteria that convert currency-related data from a *system* (technical) point of view.

Each process group contains one or more *selection components* that identify the field types used to access the records to convert. All the conversion rules within the same process group use the same selection components. The Currency Conversion Utility uses the values of process group selection components as the conversion criteria for the process group. In effect, each selection component for the process group becomes a run control parameter.

Process groups define:

• Selection components for the identifying the record or records to be converted

• Timing for any process group level (non-record specific) exception processes.

Currency Conversion Utility process groups are not limited to a single product. As long as the records selected for conversion within the same database use the same selection components, you have the option to include conversion rules for records in multiple products within the same process group.

Conversely, the Currency Conversion Utility does not require that all records using the same selection components be included in the same process group. Different process groups can use the same selection components. The decision regarding whether to convert records that use the same selection components in the same process group depends on table interdependencies and functional (business) conversion requirements.

Because process groups can convert data across multiple products within the same database, the process group *covered products* identifies all the products that include conversion rules or exception processes within a single process group.

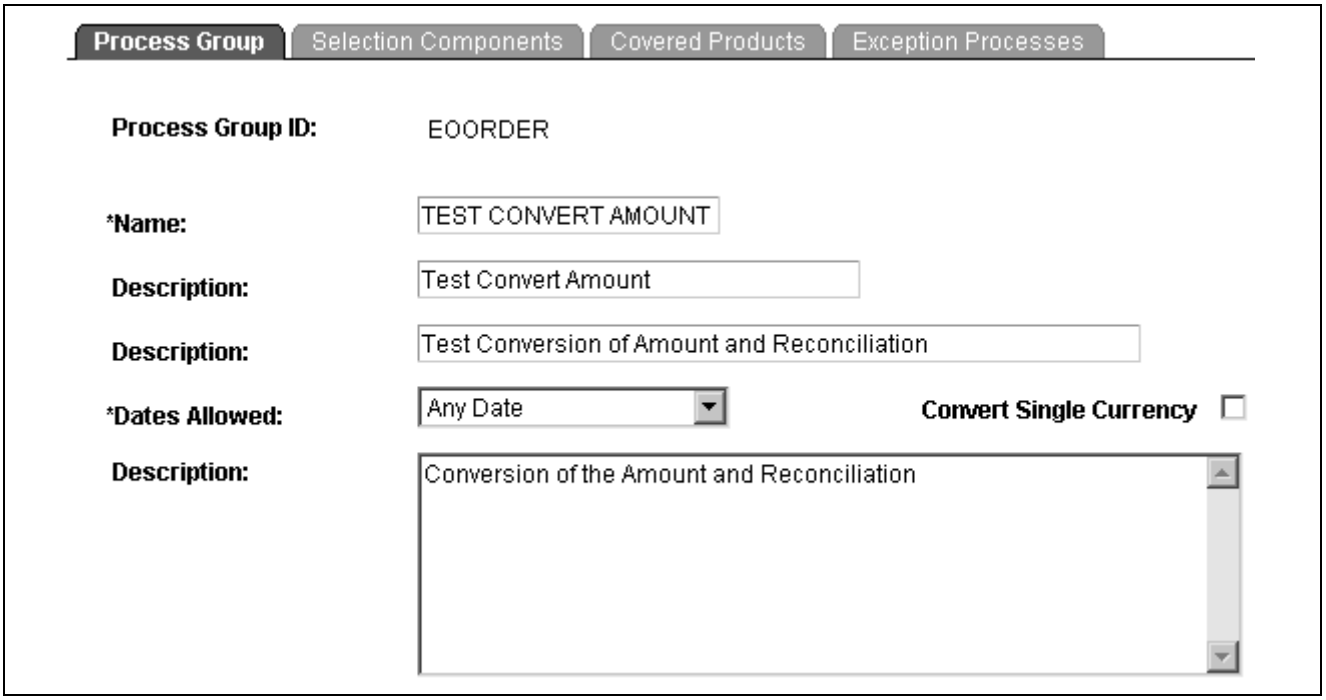
In some cases, there may be product-specific conversion processes that are not record-specific and that must run in conjunction with a process group. You can associate these process group *exception processes* with a process group, and the Currency Conversion Utility calls them in their defined sequence when the process group is run.

Pages Used with Process Groups

Page Name	Object Name	Navigation	Usage
Process Group	EO_PROC_GROUP	Enterprise Components, Currency Conversions, Create Process Groups, Process Group	Define general information about a process group.
Selection Components	EO_PROCGRP_COMP	Enterprise Components, Currency Conversions, Create Process Groups, Selection Components	Specify the selection components for this process group.
Covered Products	EO_PROCGRP_PROD	Enterprise Components, Currency Conversions, Create Process Groups, Covered Products	Identify those products that contain conversion rules or exception processes within a process group.
Exception Processes	EO_PROCGRP_EXCP	Enterprise Components, Currency Conversions, Create Process Groups, Exception Processes	Associate non-record-specific exception processes with a process group.

Setting up Process Groups

Access the Process Group page. The Process Group page provides general identification information for the process group



Process Group page

Dates Allowed Use to specify which data the Currency Conversion Utility selects for conversion when the process group runs. In some cases, a process group should not convert future or historical data, particularly if there is both effective-dated and noneffective-dated data on the record.

Any Date. Selects all records that meet the selection criteria, regardless of date.

Current and Future. Selects only current- and future-dated records that meet the selection criteria. Does not select past-dated records.

Current and Past. Selects records that meet the selection criteria that have dates up to and including the current date. Does not select future-dated records.

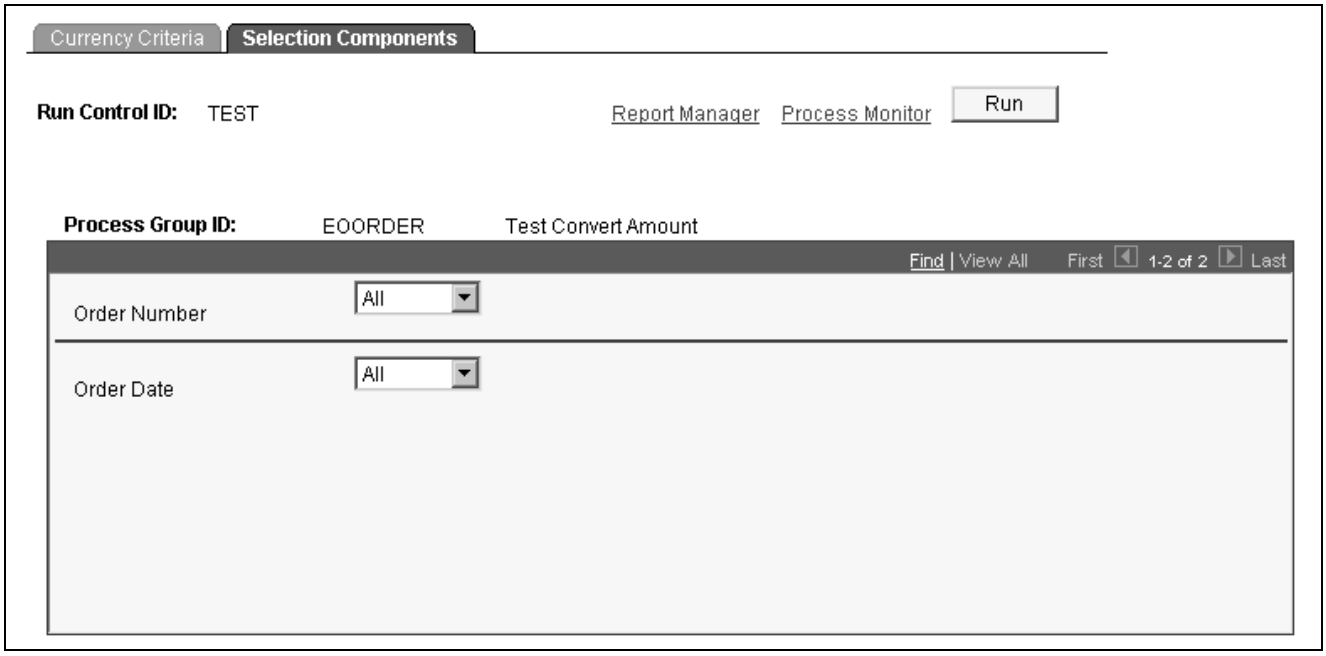
Current Date Only. Selects only current-dated records that meet the selection criteria.

Convert Single Currency Limits a process group so that it converts from a single currency when the process group runs. In certain instances, a process group should be limited so that it converts from a single currency only. For example, if a price list contains items in multiple currencies, you should prevent the Currency Conversion Utility from attempting to convert the same item in multiple currencies to the same currency.

Description Include requirements for running the process group, such as timing issues, manual processes that must be performed in conjunction with the process group, database status before conversion, and so forth.

Defining Process Group Selection Components

Access the Selection Component page.



Selection Components page

The Selection Components page identifies the selection components (run controls) for the process group.

Selection components represent the type of fields the Currency Conversion Utility uses to select the initial subset of rows within the database record to be converted. All the conversion rules within the same process group use the same selection components.

When working with selection components, keep the following in mind:

- Each process group can contain up to ten selection components.
- Every process group must contain a Currency Code selection component, which must be the first selection component in the process group. The value for this currency code will be used as the "from" currency (the pre-conversion currency) on the run control page. The Currency Conversion Utility is able to convert multiple "from" currencies during the same run control—as long as they are all being converted to the same "to" currency.
- At the time the Currency Conversion Utility converts a process group, you will be able to specify whether to convert all the values of a selection component, only those that fall between two values, or only those that equal a specific value.
- Valid selection component data types are *Char* (character) and *Date*.

Component Name Enter a component name for each of the selection component field types for the process group.

A *Currency Code* selection component is required for every process group and must be the *first* selection component in the process group. The Currency Conversion Utility uses the value for this component as the From Currency (the pre-conversion currency) when the process group runs.

You can define up to ten selection components for each process group.

At the time you run a process group, you can specify whether to convert all the values of a selection component, only those that fall between two values, or only those that equal a specific value.

Data Type The *types* of fields that the Currency Conversion Utility uses to select the initial subset of rows within the conversion record that the process group can convert. Within the conversion rule selection path, you define the actual field names that represent the selection components on each conversion record within the process group.

Valid selection component data types are *Char* (character) and*Date.*

Adding Selection Components to Existing Process Groups

To add a new selection component to an existing process group:

1. Insert a new row in the Selection Components page.

   The Currency Conversion Utility inserts new selection components for process groups with existing conversion rules inserted at the end of the existing selection component list. You can add a new selection component to the middle of the existing process group selection component list *only* if there are no conversion rules defined for the process group.

2. Enter the details for the selection component.

   Enter the selection component name and the data type.

Note. If you add a new selection component to an existing process group, you must add selection path information for the field that represents that selection component for the conversion record to *all* of the conversion rules within that process group. You should also review any exception processes associated with the process group to determine if they need modification.

Deleting Selection Components from Existing Process Groups

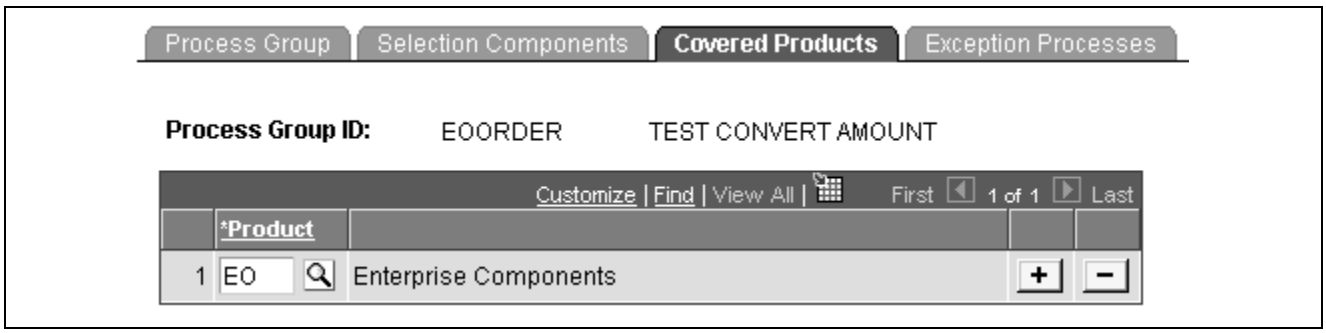
You can delete a selection component from a process group using the Process Groups - Selection Component page *only* under either of the following conditions:

- You have not yet defined any conversion rules for the process group.
- You have removed every reference to the selection component in the selection path for every conversion rule within that process group.

Once you remove all the references to the selection component in the rule's selection path, you can delete the selection component from the process group.

Identifying Process Group Covered Products

Access the Covered Products page. The Covered Products page identifies the database products affected by the process group.



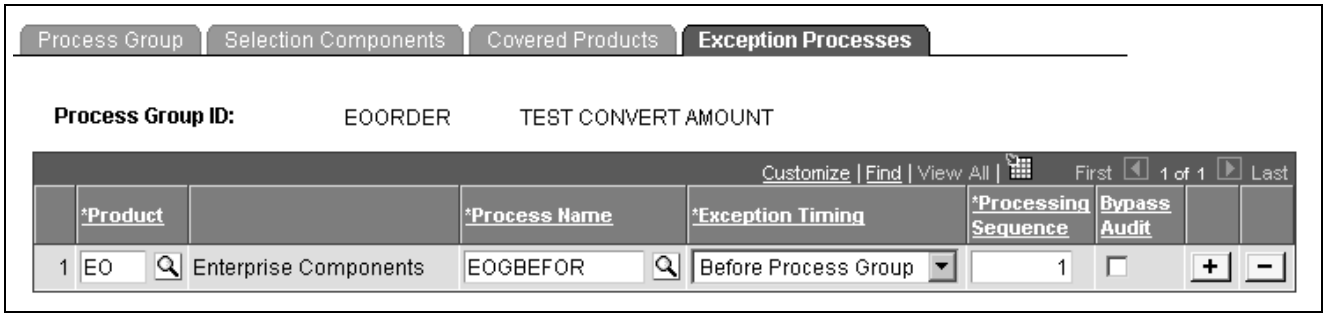
Covered Products page

Product Identify all products that contain conversion rules or exception processes in the process group, *including the owner of the process group*. Every Currency Conversion Utility process group must have at least one covered product identified.

Note. If you define a conversion rule or exception process for a process group but don't identify the product owner of the rule or exception process as a covered product for that process group, the Currency Conversion Utility does not execute the rule or exception process when the process group runs.

Associating Exception Processes with Process Groups

Access the Exception Processes page.



Exception Processes page

The Exception Processes page will identify any external exception processes associated with the process group.

When working with exception processes, keep the following in mind:

- The exception process must already exist and be identified on the Exception Process setup page. The product owner of the exception process must be a covered product for the process group.
- A process-group-level exception process can only be assigned to a process group once. There is no limit to the number of exception processes that can be associated with a process group.

Product Identify the PeopleSoft product.

Process Name Specify the exception process name of the product exception process that you want to associate with this process group.

Exception Timing Tells the Currency Conversion Utility when to call the exception process. Values are:

- *Before Process Group*. Calls the exception process, in processing sequence order, before any of the conversion rules in the process group run.
- *After Process Group*. Calls the exception process, in processing sequence order, after all of the conversion rules in the process group run.
- *In Place of Process Groups*. Runs the exception process, in processing sequence order, in place of any conversion rules in the process group.

The Currency Conversion Utility can call both *Before Process Group* and *After Process Group* exception processes. However, because *In Place of Process Group* exceptions bypass any other conversion processes defined for the process group, you cannot associate both *In Place Of Process Group* and *Before Process Group* or *After Process Group* exception processes with the same process group.

Note. You do not need to define any conversion rules for process groups that call In Place Of Process Group exception processes. These exception processes run *instead* of the process group.

Processing Sequence Use to determine the order in which to call exceptions, if more than one exception process in the process group uses the same exception timing. Processing sequence numbers must be unique within each exception timing category.

Bypass Audit Use to bypass the audit logic in the exception process.

Because process-group-level exception processes are not record-specific, and are therefore not directly associated with Currency Conversion Utility conversion records or conversion fields, the utility does not store before and after audit images for them. To store audit images, logic must be included within the exception process to retrieve the data to convert, create a before-and-after audit trail, and update the appropriate database records with converted data.

Defining Conversion Rules

Use the Currency Conversion Utility's Conversion Rules component to define and maintain the conversion rules associated with a process group.

Overview of Defining Conversion Rules

Conversion rules define the following:

- SQL WHERE clause that the Currency Conversion Utility uses to retrieve the rows that are eligible for conversion within a conversion record.
- Selection path for the record to be converted.
- Table joins for fields on the selected record.

- Fields to be converted on the selected record.
- Reconciliation or adjustment methods for any post-conversion amount discrepancies.
- Timing for running any conversion rule (record-level) exception processes.

All the conversion rules within the same process group use the same selection components, but the names of the fields that represent those selection components may be different on different records within the process group. Field names defined within the conversion rules correspond to the selection components for the process group.

For example, if a process group contains a selection component of *Business Unit*, a conversion rule would specify the field name on the record (BUSINESS_UNIT) that represents that selection component. You assign field names to *all* the process group selection components for *every* conversion rule within the process group. Selection components must be valid for the process group to which the conversion rule belongs.

Note. In certain instances, you may need to include a rule in a process group for a record that does not use all the selection components defined for the process group. While the Currency Conversion Utility allows you to save the conversion rule without all the selection components defined, you receive a warning that selection components are missing whenever you try to save the Conversion Rules component or regenerate the SQL for this product's conversion rules.

If you want to further refine the criteria for determining which rows in the record the Currency Conversion Utility selects for conversion by a rule, you can include additional selection information in the selection path for fields other than selection components.

For example, you may want a conversion rule to select only rows that contain a certain value or have a certain status, but you don't want the field that holds this value to be one of the selection components on the run control. Instead, you can use the selection path to define additional selection specifications that must be met before the Currency Conversion Utility selects a row for conversion. These selection specifications can include specific field values, run control components, or subselects.

The Currency Conversion Utility uses selection path specifications to generate the SQL WHERE clauses for selecting which records to convert. These specifications are stored as parameters for easy maintenance. They are also stored in the SQL repository as portions of SQL statements used in the Currency Conversion Utility's PeopleSoft Application Engine steps and sections.

For effective-dated records, the conversion rule also specifies whether to update the converted row, insert a new effective dated row with no effective sequence number, or insert a new effective-dated row using the next effective date sequence number. The Currency Conversion Utility can also call exception processes associated with a single conversion record when the process group runs. The conversion rule for that record specifies when and how to invoke these rule-level exception processes.

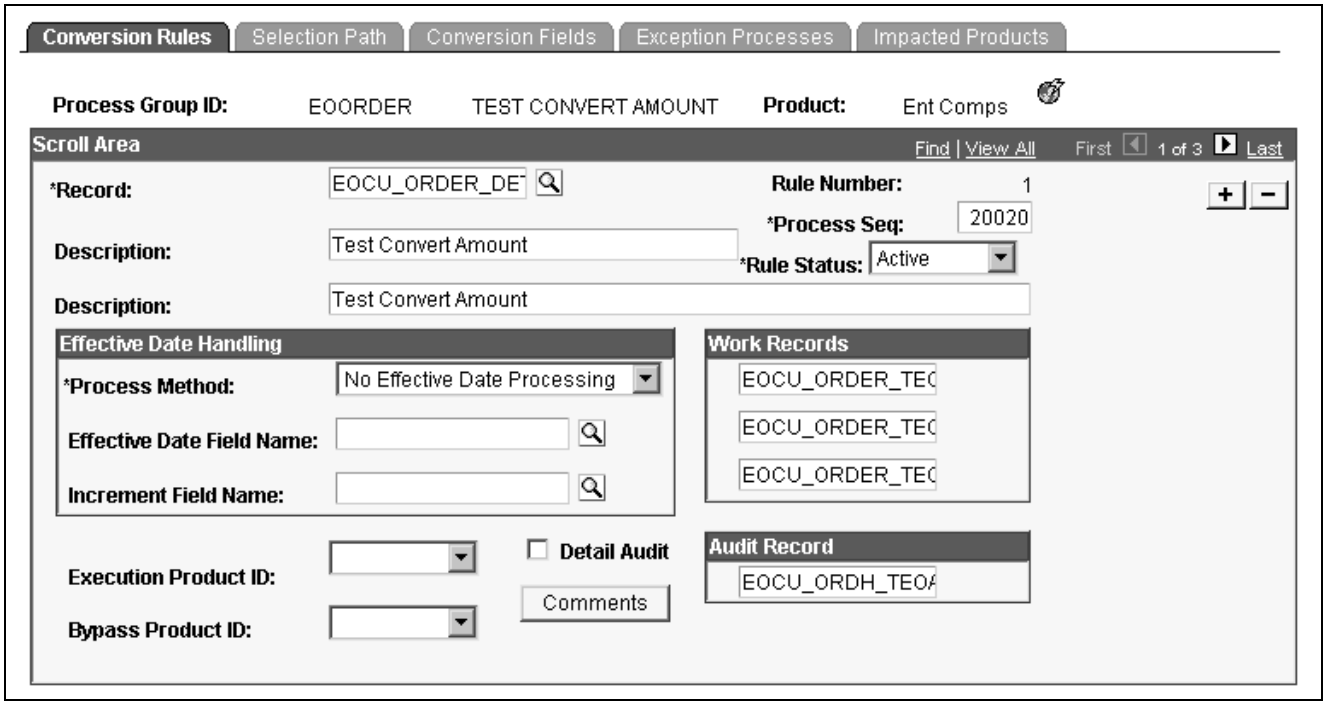
Pages Used with Conversion Rules

Page Name	Object Name	Navigation	Usage
Conversion Rules	EO_CURRCNV_RULE	Enterprise Components, Currency Conversions, Create Conversion Rules, Conversion Rules	Define general information about the conversion rules for a single product within a process group.
Conversion Rules - Selection Path	EO_CCR_SEL_PATH	Enterprise Components, Currency Conversions, Create Conversion Rules, Selection Path	Define the path to the fields that represent the process group selection component fields for the conversion record.
Subselect	EO_SPATH_SBSEL	Select the Subselect Exists? option and click the Subselect button on the Conversion Rules - Selection Path page.	Add a subquery to the selection path for the conversion rule.
Conversion Rules - Conversion Fields	EO_CCR_CNV_FLDS	Enterprise Components, Currency Conversions, Create Conversion Rules, Conversion Fields	Identify the fields on the conversion record with values that the Currency Conversion Utility converts to the new currency when the process group runs.
Join Parameters	EO_RECON_JOIN	Click the Join Parameters button on the Conversion Rules - Conversion Fields page.	Define the relationship between the conversion record and the reconciliation record. These joins may involve selecting additional field values. The direction of the join is from the conversion record to the reconciliation record.
Conversion Rules - Exception Processes	EO_CCR_EXCP	Enterprise Components, Currency Conversions, Create Conversion Rules, Exception Processes	Associate an exception process with a conversion rule.
Conversion Rules - Impacted Products	EO_CCR_IMP_PROD	Enterprise Components, Currency Conversions, Create Conversion Rules, Impacted Products	Identify any products other than the conversion record owner that use the conversion record. At run time, the Currency Conversion Utility executes the conversion rule if you have an impacted product installed, even if you don’t have the product owner installed.

Setting up Conversion Rules

Access the Conversion Rules page. The process group ID must already exist. The product owner of the conversion record must be identified as a covered product for the process group.

The Conversion Rules page also identifies any record-specific exception processes that need to be called during the conversion process. The rule will tell the Currency Conversion Utility when and how to invoke these exception processes.



Conversion Rules page

Product In most cases, the product owner of a conversion rule is the product that owns the record in the database.

When you save your work on this page, PeopleCode automatically generates corresponding SQL statements and stores them to the SQL repository.

Click this button to regenerate the SQL for all the conversion rules and conversion-rule level exception processes for a single product in a process group.

Record Specify the name of the record converted by the conversion rule.

Description/Long Description Identify the rule.

Rule Number A system-generated number uniquely identifying each conversion rule within a process group. The rule number values are sequential, however they do not identify the rule processing sequence.

The rule number helps the system distinguish between rules when more than one conversion rule is defined for the same record within the same process group.

Process Seq (process sequence) Specify in what order to call a conversion rule relative to all the other rules within the same process group. Process sequence numbers do not have to be consecutive as long as they are sequential relative to each other and are unique for each of the conversion rules within the same process group.

Rule Status Specify whether or not the rule is active. At run time, the Currency Conversion Utility only executes conversion rules with an active status.

Effective Date Handling

This group box provides information about whether a conversion record is effective-dated, and if so, how to handle the conversion for that record.

Process Method For the effective-date record, specify the appropriate effective date process method.

Effective Date with Eff Seq (effective date with effective sequencing). Indicates that the record is effective-dated with an effective sequence.

Effective Date, No Eff Seq (effective date, no effective sequencing). Indicates that the record is effective-dated without an effective sequence.

No Effective Date Processing. Indicates that the record is not effective-dated; or that the record is effective-dated, but the Currency Conversion Utility should treat it as if it isn't.

Effective Date Field name If the conversion record is effective-dated, the Currency Conversion Utility automatically populates the Effective Date Field Name field with the standard PeopleSoft *EFFDT* field name if that field exists on the conversion record. If the *EFFDT* field name does not exist on the conversion record, enter the field name on the conversion record that holds the effective date value.

If the conversion record is effective-dated and uses an effective sequence, the Currency Conversion Utility populates the Increment Field Name field with the standard PeopleSoft *EFFSEQ* field name if that field exists on the conversion record. If that field does not exist on the conversion record, specify which field on the record contains the effective sequence number that should be incremented in order for the Currency Conversion Utility to insert a new effective date row.

Increment Field Name Provide an additional key value that can be used as a "tie breaker" when two identical rows are returned.

Work Records

Use the Work Records group box to provide the Currency Conversion Utility with a set of work records it can use to store data temporarily for each record while it's being converted. If you have already created these records in Application Designer and defined these work records using the Work Record Assignment page, the system automatically populates the work record fields for the listed records. If you have not previously specified these work records on the Work Record Assignment page, enter their names on this page; the work records can be specified in either location.

Note. These records must be in place prior to running the conversion process.

Audit Record

Use the Audit Record group box to provide the Currency Conversion Utility with an audit work record it can use to store before-and-after audit detail images for the conversion record. If you have already defined this work record using the Work Record Assignment page, the system populates the audit work record field for this record on this page. If you have not previously identified this audit work record, enter the name of this record.

By default, the Currency Conversion Utility generates a conversion audit trail by capturing before and after images of every conversion field on the conversion record that changed as a result of the conversion. If you want to use this default process for creating an audit trail, leave the Detail Audit check box clear for each rule.

The process group run control page contains a Run All Detail Audits check box that overrides the Detail Audit check boxes for individual conversion rules. If the Run All Detail Audits check box is selected for the process group on the run control, the Currency Conversion Utility generates detail audits for *all* the conversion rules in the process group, regardless of whether or not the Detail Audit check box is set for an individual rule. If you want to create a detail audit only for a specific conversion record or records, you have to clear the Run All Detail audits check box on the process group run control page and select the Detail Audit check box for each record on the Conversion Rule page. When the process group runs, the Currency Conversion Utility generates an audit trail for the specified conversion records only.

Working with the Execute Product ID or Bypass Product ID Options

Occasionally, when you are creating conversion rules, you may need to specify whether a particular conversion rule should execute if you have a particular product installed. You may also want to include different options for selecting rows in the conversion record if you have a particular product installed. To tell the Currency Conversion Utility to execute a conversion rule only if you have a particular product installed, enter the product in the Execution Product ID field. Alternatively, to tell the Currency Conversion Utility to bypass a conversion rule if you have a particular product installed, enter the product in the Bypass Product ID field.

The Currency Conversion Utility uses a number of factors to determine whether to execute a conversion rule. These factors include the product that owns the conversion record, the execute product, the bypass product, and the impacted products. These factors also include products that have any exception processes associated with the conversion record. For example, there may be two different ways to select rows for the same record, depending on whether you have a particular product installed. You could define one conversion rule with one selection path for the conversion record if you have the product installed. If you do not have that product installed, then you want the Currency Conversion Utility to retrieve the rows using a different conversion rule with a different selection path. To do this, you can define two different rules for the same record, each with different selection paths. In most cases, you don't want the Currency Conversion Utility to execute both rules when the process group runs. To prevent this, you specify on the conversion rule the product that determines whether the Currency Conversion Utility should execute or bypass a conversion rule when the process group runs. The Currency Conversion Utility's criteria for executing or bypassing a conversion rule are the following:

- The owning product and the impacted products are treated as a set.
- If any of the rule's owning or impacted products are installed, the rule is a candidate for execution.
- If you identify an Execute Product ID check box, the Currency Conversion Utility executes the rule only if you have the execute product installed and it is specified as an impacted product for the rule.
- If you identify a Bypass Product ID, the Currency Conversion Utility executes the rule only if you *don't have* the bypass product installed.
- If you specify both an Execute Product ID and a Bypass Product ID for the same rule, and both products are installed, the bypass option takes precedence and the rule isn't executed.

Example 1: Execute/Bypass Product ID

If these are the product specifications:

Owning Product Product A

Impacted Products Product B, Product C, Product D

Execute Product Product D

Bypass Product Product E

Then the rule is executed as follows:

Installed Products	Execute Rule?
Product A, Product B	No
Product A, Product D	Yes
Product C, Product D	Yes
Product A, Product E	No
Product A, Product D, Product E	No
Product D	Yes

Example 2: Execute/Bypass Product ID

If these are the product specifications:

Owning Product Product A

Impacted Products Product B, Product C, Product D

Execute Product Product G not impacted

Bypass Product Product E

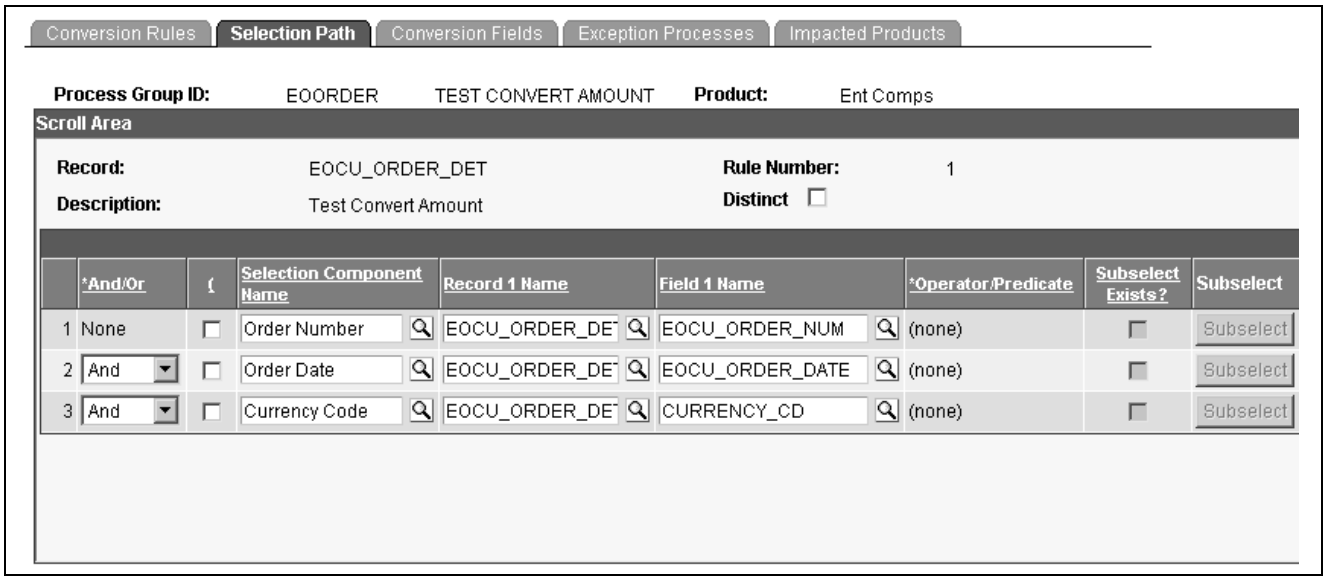
Then the rule is executed as follows:

Installed Products	Execute Rule?
Product A, Product B	No
Product C, Product D	No

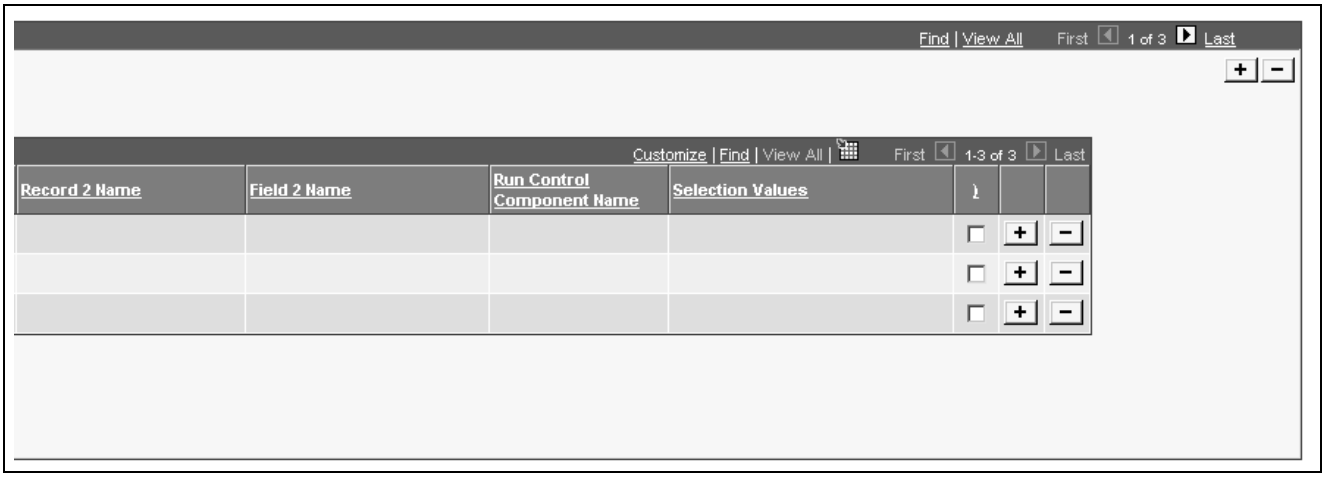
Installed Products	Execute Rule?
Product A, Product E	No
Product B, Product G	Yes
Product A, Product E, Product G	No
Product G	No. **Note.** Although Product G is identified as an execute product for this rule, it is not specified as one of the impacted products for the rule, so the Currency Conversion Utility does not execute the conversion rule.

Specifying the Selection Path for the Conversion Record

Access the Conversion Rules - Selection Path page. The process group ID must already be defined. The product owner of the conversion record must be a covered product for the process group.



Conversion Rules - Selection Path page (1 of 2)



Conversion Rules - Selection Path (2 of 2)

The selection path defines the SQL WHERE clause that the Currency Conversion Utility uses to select rows for conversion for this conversion record. The selection path can include additional parameters for selecting the rows that the SQL statement returns. If a selection component field does not actually reside on the conversion record itself, you can join the other record or records to the selection path using join parameters defined on this page.

For the specified Process Group ID and Product, select the Record for which you want to define a selection path. The system automatically populates the Description and Rule Number fields, based on the selected record.

There may be times when the Currency Conversion Utility returns multiple rows with duplicate key values (resulting in a SQL Cartesian product). To return only one row for each key value, select the Distinct check box to include a DISTINCT in the SQL WHERE clause generated for this conversion rule.

Note. PeopleSoft recommends you use the DISTINCT option only when absolutely necessary because it may adversely affect performance.

Select a Selection Component Name from the prompt list. This list includes only those selection component values that you have defined for the process group.

The And/Or field enables you to include standard Boolean operators in your selection path SQL WHERE clause. The left and right parentheses delineate SQL OR clauses. Select them using the (and) check boxes.

If the field for the process group selection component is located on the conversion record, use the Record 1 Name and Field 1 Name fields to identify the record and field name for that selection component.

Use the SQL Operator/Predicate field to compare the Field 1 Name to specific selection or field values. Valid values include the following standard SQL operators and predicates:

Operator/Predicate	Definition
<	Less than
<=	Less than or equal to

Operator/Predicate	Definition
< >	Doesn't equal
=	Equals
>	Greater than
> =	Greater than or equal to
BETWEEN	Values found within two objects or string patterns
EXISTS	True or false based on subquery
IN	Values found within another set of values
LIKE	Values that match a string pattern
NOT BETWEEN	Values not found within two objects or string patterns
NOT EXISTS	True or false based on subquery
NOT IN	Values not within another set of values
NOT LIKE	Values that do not match a string pattern

If a subselect is required for a field on the Conversion Rules - Selection Path page, select the Subselect Exists? check box and click the activated Subselect button to launch the Subselect page.

If fields on the conversion record derive their values from other records, map the Record 2 Name and Field 2 Name fields to the Record 1 Name and Field 1 Name fields as follows:

Record / Field	Description
Record 1 Name Field 1 Name	The table and field from which the field on the conversion record field derives its value.
Record 2 Name Record 2 Field Name	The conversion field and record name.

You can also use the Conversion Rules - Selection Path page to associate run control components with conversion rule selection specifications, using a value in the Run Control Component Name field. Valid run control component values are *%AsOfDate*, *%CurrentDate*, *%ProcessInstance*, and *%ToCurrency*.

Values in the Selection Values field represent specific values to which the Field Name 1 is compared using the Operator/Predicate. In order for the Currency Conversion Utility properly to generate the SQL for the conversion rule, enter character values within single quotation marks in the Selection Values field.

Specifying Multiple Selection Values in the Selection Path

If you are specifying more than one character selection value for the same field using the Operator/Predicate *IN* or *NOT IN*, enter each value in single quotes and separate them using commas. The Currency Conversion Utility automatically inserts the parentheses when the SQL generates. To compare a Field 1 Name to multiple Selection Values, use commas to separate them. Use single quotes for each character in the field.

Including Subselects in the Selection Path

Access the Subselect page.

The Currency Conversion Utility populates the values in the Process Group ID, Product, Record, Rule Number, Description, Main Select Line Number, Record, Field Name, and Operator/Predicate fields by default, taking them from the Conversion Rules - Selection Path page.

If required, identify the appropriate SQL Function for this subselect. Valid values for the SQL Function field are *(none)*, *AVG*, *MAX*, *MIN*, and *SUM*.

In the Subselect Recrd (subselect record) field, enter the name of the subselect record. In the Subselect Field, select the appropriate field from the list of fields on the subselect record.

Use the X check box to include an *X* in your subselect query. If you use an *X* in your subquery, you do not need to specify a Subselect Field name.

You define the subselect SQL WHERE clause in a way that is similar to the way it is defined on the Conversion Rules - Selection Path page. The And/Or field contains the standard Boolean operators used in SQL statements. The left and right parentheses delineate SQL OR clauses. Select them by selecting the (and) check boxes.

Use the Record 1 Name field to specify the subselect record 1 name and use the Field 1 Name field to select the appropriate Field 1 Name from the list of fields on the Record 1 Name.

Use the Operator field to select an operator to compare subselect field values to fields on other records, to specify values for run control component names, or to define specific select values for a field.

Note. Do not use *EXISTS* or *NOT EXISTS* as operators when you define the path from the conversion record to the related record. The Currency Conversion Utility does not support subselects for related record joins.

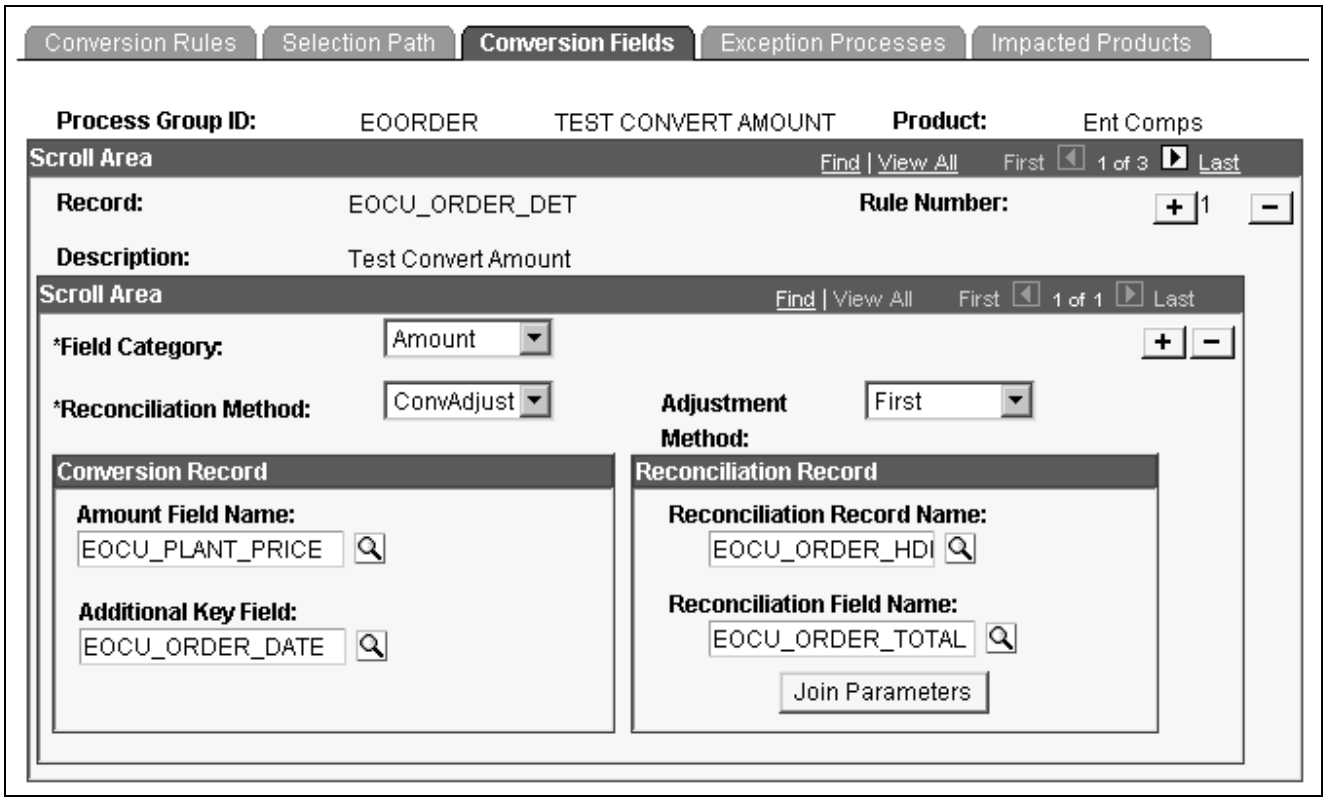
If fields on the subselect record derive their values from other records, map values in the Record 2 Name and Field 2 Name fields to those in the Record 1 Name and Field 1 Name fields.

Select the Of Primary From check box to indicate that the Record 2 Name is the record specified in the primary selection path query, rather than a record specified in the subselect.

You can compare the Field 1 Name in the subselect to a value in the Run Control Component Name field. Valid values for this field are *%AsOfDate*, *%CurrentDate*, *%ProcessInstance*, and *%ToCurrency*. You can also compare fields to specific selection values in the subselect definition. Enter character selection values using single quotes. Use commas to separate multiple values.

Defining Conversion Fields on Conversion Records

Access the Conversion Rules - Conversion Fields page. The process group ID must already be defined. The product owner of the conversion record must be a covered product for the process group.



Conversion Rules - Conversion Fields page

The Currency Conversion Utility converts the following Field Categories (types): *Amount*, *Currency*, and *R(ate) Mult/Div.* The page dynamically changes depending on which field category you have selected. If you are defining more than one conversion field on a conversion record for the same conversion rule, add a new row on this page to define the field type and reconciliation or adjustment method for each field.

Defining Amount Conversion Fields

If the value in the Field Category field is *Amount*, select the amount field name from the list of fields on the conversion record. For amount fields on interrelated tables (such as voucher lines and voucher headers), conversion may result in rounding discrepancies that cause these amounts not to match or balance. To resolve any amount field rounding issues that may arise during conversion, specify a value in the Reconciliation Method field for each amount field and specify the reconciliation record name and reconciliation field name to which the amount field is reconciled.

Note. If you select a Reconciliation Method, Amount Field Name, Reconciliation Record Name, and Reconciliation Field Name field values are required for amount conversion fields. The Currency Conversion Utility returns an error if you try to save this conversion rule without specifying values for these fields.

In the example shown on the Conversion Rules - Conversion Field page above, the conversion record and field (EOCU_ORDER_DET.EOCU_PLANT_PRICE) is being reconciled with the EOCU_ORDER_HDR.EOCU_ORDER_TOTAL record and field. The specified reconciliation method, *ConvAdjust* (convert and adjust), along with the adjustment method *First* (largest absolute value), tell the Currency Conversion Utility that once the EOCU_ORDER_DET record is converted, all of the EOCU_PLANT_PRICE rows that are children of the EOCU_ORDER_TOTAL row will have their EOCU_PLANT_PRICE field values summed.

If the sum of the converted record field values doesn't equal the converted value on the related record, the Currency Conversion Utility adds the amount of the discrepancy to the converted record amount, which is the first in the record.

Amount field category Reconciliation Methods include the following:

AdjustOnly (adjust only)	Doesn't convert the amount. Adjusts the amount of one of the rows in the series to make the sum of the rows in the series match the amount on the related record.
ConvAdjust (convert and adjust)	Converts the rows and adjusts the amount of one of the rows in the series to make the sum of the rows in the series match the amount on the related record.
No Recon (no reconciliation)	Identifies the name of the amount field on the conversion record, but the field is not reconciled to any other field.
SumBased (sum-based value)	Doesn't convert the amount. Derives the amount by summing the amounts of the related rows.
SumRevSign (sum-based value, reverse the sign)	Doesn't convert the amount. Derives the amount by summing the amounts of the related rows and then reversing the sign.

If you specify a reconciliation method that requires the amount of one of the rows in a series to be adjusted (*ConvAdjust* or *AdjustOnly*), you also have to specify a value in the Adjustment Method and Additional Key Field fields.

The Currency Conversion Utility provides the following amount Adjustment Method field values:

First	Selects the record and field in the series with the lowest sequencing number.
Largest	Selects the record and field in the series with the largest amount.
LargestABS **(largest absolute value)**	Selects the record and field in the series containing the amount with largest absolute value.
Last	Selects the record and field in the series with the highest sequencing number.
SmallestABS **(smallest absolute value)**	Selects the record and field in the series containing the amount with smallest absolute value.
Smallest	Selects the record and field in the series with the smallest amount.

If you select either the *First* or *Last* as the Adjustment Method for reconciling an amount field, the Additional Key Field uniquely defines each record in the series and must be a number field. If you select any of the other adjustment methods, use the Additional Key Field to select the record to be adjusted if there is more than one row selected with the same amount.

Defining Currency Code Conversion Fields

For the Field Category field value of *Currency*, select a value for the Currency Field Name field from the available list of fields on the conversion record.

Defining Rate Multiplier and Rate Divisor Conversion Fields

For the Field Category field value of *R Mult/Div* (rate multiplier or rate divisor), enter the rate multiplier field in the Rate Multiplier Field Name field, and the rate divisor field in the Rate Divisor Field Name field. Select from the available number and signed number fields on the conversion record.

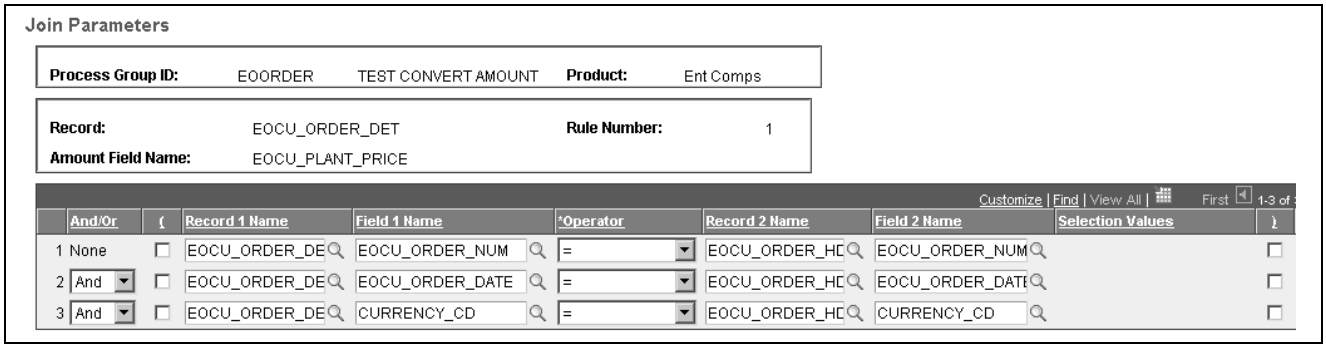
The Rate Multiplier and Rate Divisor exchange rate fields require that you identify the name of both field types and which currency uses these field values (the currency converted from or the currency converted to).

In general, the Rate Multiplier and Rate Divisor fields are only converted as a result of a corresponding currency code being converted. The options in the Currency Direction group box indicate whether the currency code being converted is the From Currency or the To Currency for the rate multiplier and rate divisor pair. The Currency Conversion Utility returns an error message if either the Rate Multiplier or Rate Divisor field contains a value of zero for any of the From currencies at run time.

See Chapter 3, "Preparing For a Base Currency Conversion," Understanding Exchange Rate Conversions (Rate Multiplier and Rate Divisor), page 19.

Defining Join Parameters for Amount Conversion Fields

Access the Join Parameters page.



Join Parameters page

The Join Parameters page provides information about how to join the conversion record to the related reconciliation record. The example above represents the following SQL WHERE clause:

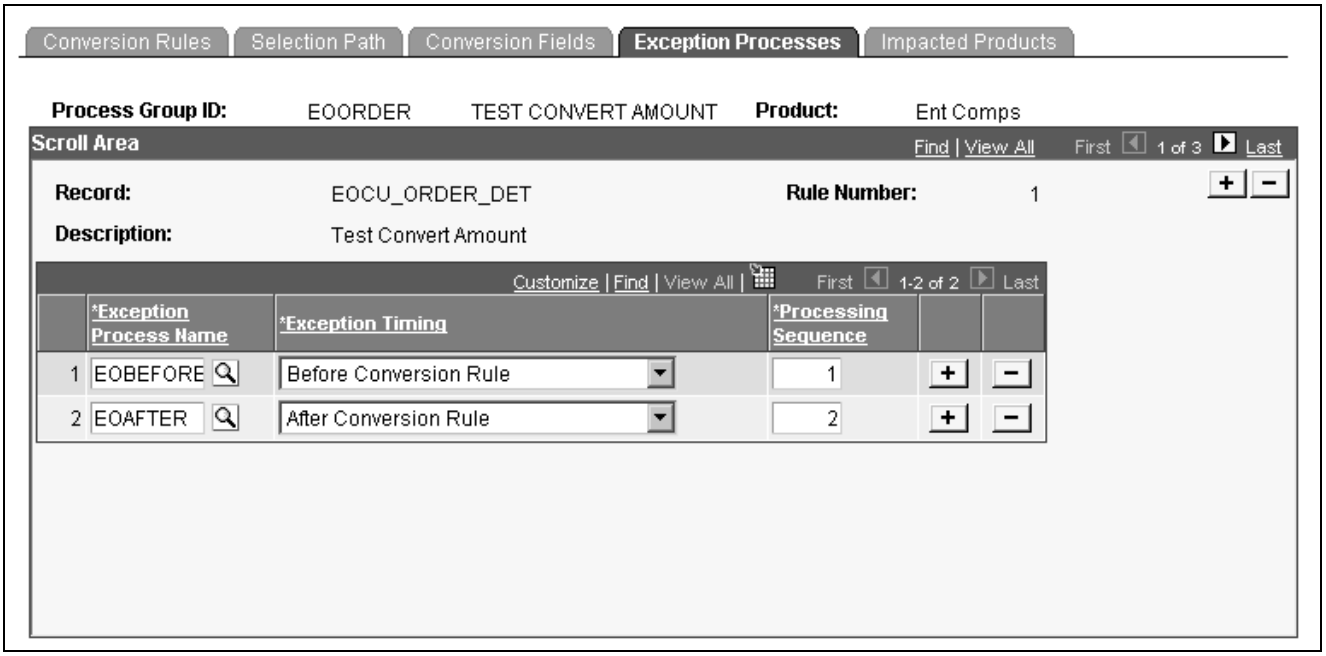
Enter the Record 1 Name and Field 1 Name from the conversion record and the related fields on the related record using the Record 2 Name and Field 2 Name fields. For each field that you join, enter the appropriate Operator. If additional fields are required to join the conversion record to the related record, add the field and record names and specify any Selection Values.

Note. Do not use *EXISTS* or *NOT EXISTS* as operators when you define the path from the conversion record to the related record. The Currency Conversion Utility doesn't support subselects for related record joins.

You can also compare a Field 1 Name to a specific selection value. Enter character values using single quotes. Separate multiple values with commas. The selection values for join parameters are similar to those for the conversion rule selection path.

Associating Exception Processes with Conversion Rules

Access the Conversion Rules - Exception Processes page. The exception process must already exist and be identified on the Exception Process setup page. The product owner of the exception process must be a covered product for the process group.



Conversion Rules - Exception Processes page

Occasionally, converting a particular conversion record may involve logic that cannot be included within the conversion rules. In addition, the Currency Conversion Utility may have to modify other related records when a particular conversion record is converted. To handle this record-specific logic, you can associate exception processes with specific conversion records. When the process group runs, the Currency Conversion Utility calls these record-specific exception processes before, after, or in place of the conversion rule for that conversion record.

Note. For Before Conversion Rule and After Conversion Rule exception processes, the Currency Conversion Utility creates audit trail data for the conversion fields defined in the conversion rule. For In Place Of Conversion Rule exception processes, no audit process occurs.

Exception Process Name Select the exception process name.

Exception Timing Specify the Exception Timing for running the exception process relative to the conversion rule.

Before Conversion Rule. Calls the exception process, in processing sequence order, before the conversion rule for the specified conversion record in the process group.

After Conversion Rule. Calls the exception process, in processing sequence order, after the conversion rule for the specified conversion record in the process group.

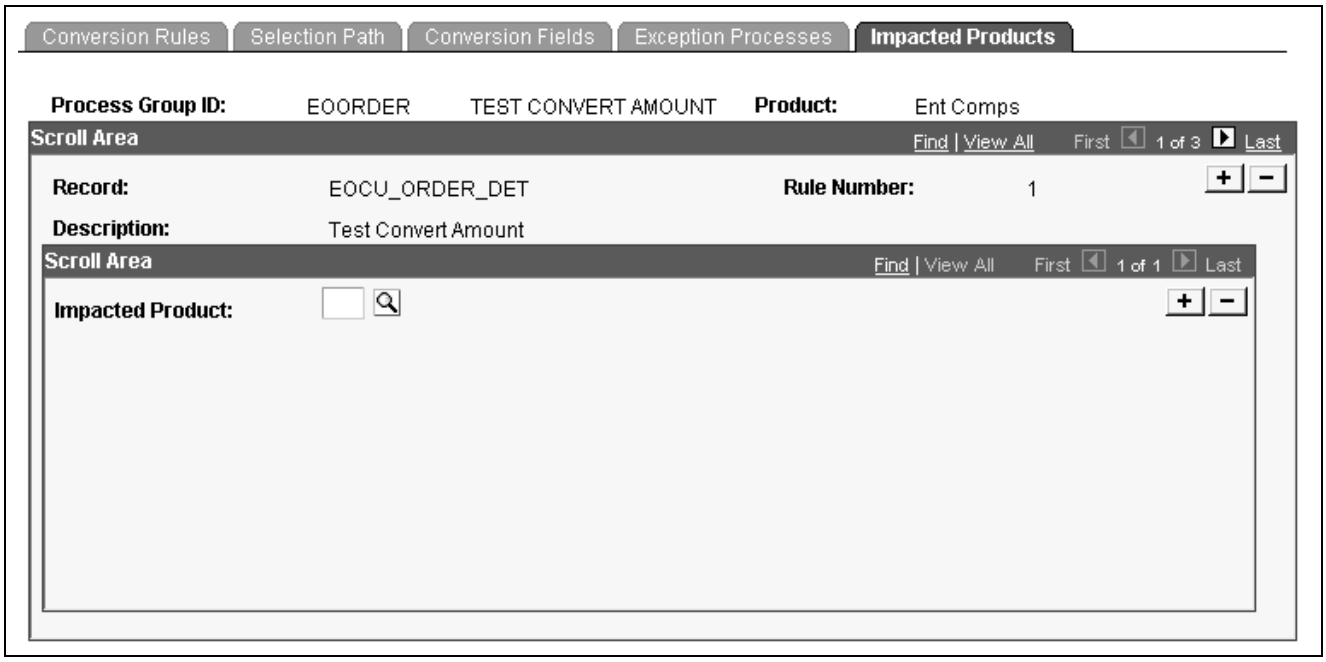
In Place Of Conversion Rule. Runs the exception process, in processing sequence order, in place of the conversion rule for the specified conversion record in the process group.

Processing Sequence If more than one record-level exception process associated with a conversion rule uses the same exception timing, the value that you select in the Processing Sequence field tells the Currency Conversion Utility in which order to call them.

The Currency Conversion Utility can also call exception processes at the process group level (non-record specific).

Identifying Products Impacted by Conversion Rules

Access the Conversion Rules - Impacted Products page. The product owner of the conversion must be a covered product for the process group.



Conversion Rules - Impacted Products page

Note. An *impacted product* is one that uses the conversion record specified on the conversion rule. A *covered product* is one that has defined conversion rules or exception processes for a particular process group. An impacted product may or may not be identified as a covered product for the process group. An *installed product* is one that is installed on the database.

Impacted Product For the specified Process Group ID, Product, and conversion Record, select the product name. Add a new row for each additional product that uses the record converted by the conversion rule. If you don't have a particular PeopleSoft product installed, the Currency Conversion Utility doesn't execute the conversion rules for that product when the process groups that include those rules run.

However, if a conversion record owned by one product is used by another product in the database, the Currency Conversion Utility may need to run the conversion rule for a product anyway.

For example, other products in the same database may use a setup table owned by one product. Even if you don't have the product that owns the table installed, this setup table is still installed for that database. If this table contains conversion fields used by installed products that are being converted, the Currency Conversion Utility needs to run the conversion rule for this table to maintain data integrity.

Reviewing Process Group Details

The Currency Conversion Utility provides several inquiry pages that you can use to review details about conversion rules and exception processes for each process group.

Pages Used to Review Process Group Details

Page Name	Object Name	Navigation	Usage
Rules	EO_INQUIRY	Enterprise Components, Currency Conversions, Review Process Groups, Rules	View the details of the conversion rules on a process group.
Conversion Field Details	EO_INQ_FLD_SBP	Click the Lookup Conversion Fields button on the Rules page.	View information about the conversion rules for a single product in a process group. View details about the fields on the conversion record that the Currency Conversion Utility converts.
Rule Exception Processes	EO_INQ_EXCP_SBP	Click the Exception Processes button on the Rules page.	View information about the exception processes associated with a conversion rule.
Selection Path Details	EO_INQ_SPTH_SBP	Click the Look Up Selection Path button on the Rules page.	View information about the selection path defined for a specific conversion rule.
Review Process Groups - Exceptions	EO_EXCP_INQUIRY	Enterprise Components, Currency Conversions, Review Process Groups, Exceptions	View the details of exception processes associated with a process group.

Using the Conversion Rules Inquiry

Access the Rules page.

The process group and conversion rules must already be defined.

Select a Process Group ID from the list of valid values. To narrow the scope of the inquiry, enter Product ID, From Proc Seq (from process sequence), and To Proc Seq (to process sequence) values.

If you want to see all the rules for a particular process group, enter only the Process Group ID value.

Once you've selected your parameters, click the Load Process Group Rules button to display the following information about the process group.

Product ID Product owner of the conversion rules displayed on the inquiry page.

Rule Number Rule instance number for the conversion rule.

Rule Status Whether the rule is active or inactive.

Processing Sequence Sequence that determines the order that the conversion rule is converted relative to the other conversion rules defined for this process group.

Record (Table) Name The name of the record converted by the conversion rule.

Description The short description of the conversion rule as defined on the Conversion Rules page.

Execution Product ID The name of the product which, if installed on the system, forces the Currency Conversion Utility to execute the conversion rule.

Bypass Product ID The name of the product which, if installed on the system at run time, forces the Currency Conversion Utility to bypass the rule.

Date Processing Method Indicates whether the conversion record is effective-dated, or whether or not the record should be treated as effective-dated during conversion.

Effective Date Field Name If the conversion record is effective-dated, the name of the field on the conversion record that holds the effective date value.

Increment Field Name If the conversion record is defined as effective-dated with an effective sequence, the name of the field on the conversion record that holds the effective sequence number.

Detail Audit Indicates whether the Detail Audit check box has been selected on the Conversion Rules page for this conversion record.

Rule SQLID The SQL object name for this conversion rule in the SQL repository.

Viewing Conversion Field Details

Access the Conversion Field Detail inquiry page.

The display-only Conversion Field Details page includes information on each field defined on the conversion record. This online inquiry report includes the name of each field converted, what type of field it is, the currency direction (for Rate Multiplier and Rate Divisor fields only), whether there is any reconciliation or adjustment method and related records and fields defined, and the Field SQLID number for the conversion field.

Viewing Conversion Rule Exception Process Details

Access the Rule Exception Processes inquiry page.

The Rule Exception Processes inquiry page displays the details for any record-level exception processes associated with the conversion rule. Information on this page includes the name and description of the exception process and timing and sequence for the exception process.

Viewing Conversion Rule Selection Path Details

Access the Selection Path Details inquiry page.

The conversion rule Selection Path Details inquiry page displays the selection path defined for the conversion record. The information on this page defines the SQL WHERE clause used by the Currency Conversion Utility at run time to select the rows on the conversion record that are candidates for conversion when the process group is run. Information included on this path includes all the information defined on the Selection Path page for this conversion record. This online inquiry page does not display details for subselects defined in the selection path.

Using the Conversion Exception Process Inquiry

Access the Review Process Group - Exceptions page.

You must complete the Conversion Rules Details page first.

Select a Process Group ID from the list of valid values. To narrow the scope of the inquiry, you can enter Product ID, From Proc Seq (from process sequence), and To Proc Seq (to process sequence) values.

If you want to see all of the exceptions processes for a particular process group, enter only the Process Group ID value.

Once you've selected your inquiry parameters, click the Load Process Group Rules button to view the inquiry results.

This inquiry view includes the ID of the product that owns the exception process, the name and description of the exception process, and timing and sequencing information.

CHAPTER 6

Describing the Currency Conversion Utility Engine

This chapter provides an overview of the PeopleSoft Currency Conversion Utility engine, and describes:

- Utility tables.
- Utility run control tables.
- Utility Application Engine components.
- Utility PeopleCode functions.
- Utility objects and exception processes.
- Utility conversion restarts.
- Audit trails for converted data.

Overview of the Currency Conversion Utility Engine

The Currency Conversion Utility is a rules-based, table-driven utility written in PeopleTools Application Engine that converts the base operating currency in PeopleSoft applications from one or more currencies to a single different currency.

The Currency Conversion Utility uses conversion rules grouped into process groups to select and convert amount, currency code, and exchange rate (rate multiplier and rate divisor) fields on specific records in a database. These rules include selection specifications to generate SQL WHERE clauses that are stored within SQL Repository.

The Currency Conversion Utility engine combines these rule-generated SQL segments with utility engine SQL and run-time variables to convert base operating currency data.

Why Application Engine?

Application Engine is a PeopleTool designed for building batch or online applications that perform high volume, background SQL processing. Application Engine (AE) applications are sets of SQL statements organized into sections, each of which includes one or more steps that perform a business process by executing SQL. Most AE steps consist of a single SQL statement.

Advantages of using the Application Engine for the Currency Conversion Utility include:

- Encapsulation.

  Since Application Engine applications reside completely within the database, the Currency Conversion Utility is stored directly within the PeopleSoft database.

- Effective-dating.

  Application Engine applications can be effective-dated, which means that the Currency Conversion Utility steps can be archived and modified.

- SQL/Meta-SQL Support.

  SQL can be written or modified directly within AE applications, or copied from any SQL utility into Application Engine applications. Application Engine also supports meta-SQL.

- Platform Flexibility.

  Application Engine can call different versions of a section for different platforms. So, while the Currency Conversion Utility is optimized for SQLServer, it can be easily modified for other database platforms.

- Set Processing Support.

  Application Engine supports SQL set processing, which improves performance by processing data in groups (or sets) of rows, rather than processing data row by row.

- Object Orientation.

  Since the Application Engine works within the PeopleSoft system, changes or upgrades to the Currency Conversion Utility are seamless.

- Portability.

  Application Engine applications can be exported and imported into PeopleSoft databases using the PeopleTools Data Mover.

See Also

PeopleTools 8.44 PeopleBook: PeopleSoft Application Engine

Describing Utility Tables

This section includes information on the tables used by the Currency Conversion Utility for base currency conversion.

Utility Conversion Tables

The following are the principal Currency Conversion Utility records referenced during one or more of the utility conversion processes. The tables are listed in alphabetical order.

EO_CC_WORKREC (Work Records Associated with Conversion Records)

This Currency Conversion Utility table stores the name of each conversion record defined in a process group as well as the names of the temporary work records defined for it. TEO*n* work records are clones of the conversion record with the keys removed and two additional Currency Conversion Utility-required fields added that contain data only during conversion.

The TEOA work record is a clone of the EO_CURRENCY_DTL work record used to store before and after audit details of the fields converted on the conversion record. Data in the TEOA work record is available after conversion.

Field Name	Description
RECNAME	Name of the conversion record (a table with a conversion rule defined for it within a Currency Conversion Utility process group)
TEO1_RECNAME	Identifies the name of _TEO 1 record associated with conversion record specified in RECNAME
TEO2_RECNAME	Identifies the name of _TEO 2 record associated with conversion record specified in RECNAME
TEO3_RECNAME	Identifies the name of _TEO 3 record associated with conversion record specified in RECNAME
TEOA_RECNAME	Identifies the name of _TEO A record associated with conversion record specified in RECNAME

EO_CCR_CNV_FLDS (Conversion Fields on Conversion Records)

This Currency Conversion Utility table stores details about the fields on the conversion record that will be converted when the rule is executed. The FIELD_SQLID field in this table contains an identifier associated with the various SQL objects generated for each conversion field defined on the conversion record. This field is not a key on this record, but a value must exist in this field prior to conversion or the Currency Conversion Utility cannot properly convert the field. PeopleCode generates FIELD_SQL values on the Conversion Fields page when the component is saved, or in batch by running the EO_BUILDRULE Business Component. SQL objects are stored in the SQL Repository and can be viewed in Application Designer.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Two character product code identifier for the owner of the process group
RULE_INSTNC_NBR	Numeric identifier for each conversion rule defined for each product in the process group. Numbers are unique within each product that has rules defined in the process group.
FLD_INSTNC_NBR	Numeric identifier for each conversion field on the conversion record that will be modified by the Currency Conversion Utility when the process group runs. Numbers are unique within each conversion rule within each process group.

Field Name	Description
FIELD_CATEGORY	Field type of the conversion field: *A* (amount field), *C* (currency rode field), *R* (rate multiplier and rate divisor fields)
AMT_FLDNAME	Field name of the Amount conversion field defined on the conversion rule
CURR_FLDNAME	Field name of the Currency Code conversion field on the conversion rule
RATE_MULT_FLDNAME	Field name of the Rate Multiplier conversion field defined on the conversion rule
RATE_DIV_FLDNAME	Field name of the Rate Divisor conversion field defined on the conversion rule
CURR_DIRECTION	Specifies which currency direction the Rate Mult/Rate Div fields represent for their related amount fields on the conversion record (the "from" currency or the "to" currency).
ADDTL_KEY_FLDNAME	Used only for amount conversion fields that have a reconciliation method defined. If the values reconciliation fields in multiple rows match the value of the conversion field for selected reconciliation method, specifies an additional key field that can be used by the Currency Conversion Utility to determine which row to update during reconciliation.
RECON_RECNAME	Used only for amount conversion fields that have a reconciliation method defined. Specifies the name of the record that can be used during reconciliation of an amount conversion field.
RECON_FLDNAME	Used only for amount conversion fields that have a reconciliation method defined. Specifies which field on the reconciliation record will be used during reconciliation of an amount conversion field.
RECON_METHOD	Identifies the reconciliation method to be used to reconcile an amount conversion field

Field Name	Description
ADJUST_METHOD	Used only for amount conversion fields that have an adjustment reconciliation method defined. Specifies the method for adjusting the conversion field.
FIELD_SQLD	SQL Repository identifier for the various SQL objects generated by PeopleCode on the Currency Conversion Utility Conversion Fields page for each conversion field.

EO_CCR_EXCP (Exception Process for Conversion Rules

This Currency Conversion Utility table stores the names of exception processes associated with specific conversion rules that can be called by the utility engine at the time those rules are executed. The Currency Conversion Utility executes conversion rule level exception processes based on the timing (CCR_TIMING_CD) and processing sequence (PROCESSING_SEQ). The PROCESSING_SEQ numbers must be unique within each timing code and are separate from the processing sequence number defined for the conversion rule itself.

This table includes the following fields:

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Product owner of the conversion process group
RULE_INSTNC_NBR	Unique identifier for the conversion rule within the process group
EXCP_PROC_NAME	Identifies the name of the exception process associated with the conversion rule
CCR_TIMING_CD	Specifies when the Currency Conversion Utility should call the exception process (before the conversion rule executes, after the conversion rule executes, or in place of the conversion rule)
PROCESSING_SEQ	Specifies the processing sequence for this exception process relative to other exception processes for this conversion rule that use the same timing code (references CCR_TIMING_CD)
AE_SECTION	Application Engine section

EO_CCR_IMP_PROD (Conversion Rule Impacted Products)

This Currency Conversion Utility table identifies products other than the owner of the conversion record that use the record converted by a particular conversion rule. If a conversion rule has an impacted product defined for it, the Currency Conversion Utility will execute the conversion rule even if the product that owns the conversion rule is not installed.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Product owner of the process group
RULE_INSTNC_NBR	Unique identifier for the conversion rule within the process group
IMP_PROD_ID	Two character product code for the product (other than the conversion record owner) that uses the record converted by the conversion rule

EO_CCR_SEL_PATH (Conversion Rule Selection Paths)

This Currency Conversion Utility table contains the details for the selection path defined for the conversion rule. The selection path represents the SQL WHERE clause portion of the conversion rule. The RECNAME_n and FLDNAME_n fields on this record are used for joins in the path to the selection component fields. The conversion record and the selection component conversion fields on the conversion record are defined in the RECNAME_2 and FLDNAME_2 fields.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group.
PROD_ID	Product owner of the process group.
RULE_INSTNC_NBR	Unique identifier for the conversion rule within the process group.
CR_INSTNC_NBR	Unique identifier for each row defined within the selection path (field is invisible on page).
SEQNUM	Unique sequence number for each row defined within the selection path (field is invisible on page).
LEFT_PAREN	Used to include a left parenthesis for a particular row in the selection path.

Field Name	Description
AND_OR_OPR	Specifies either an AND or OR operator for a particular row in the selection path.
RECNAME_1	Generally, the table that contains the field from which the conversion record selection component field derives its value.
FLDNAME_1	Generally, the field on the RECNAME_1 table from which the conversion record selection component field derives its value.
RECNAME_2	Generally, the name of the conversion record for this rule.
FLDNAME_2	Generally, the name of the conversion selection component field on the conversion record for this rule.
COMP_INSTNC_NBR	Indicates which selection component instance number is referenced on a particular row of the selection path. This instance number corresponds to the selection component defined for this process group on the process group selection components table.
DATE_IND	Date Indicator
OPR_PREDICATE1	Standard SQL operator/predicate used to compare the FLDNAME_1 field to the run control component value specified in the RCNTL_COMP_NBR field or to the field values specified in the SELECT_VALUES field
RCNTL_COMP_NBR	Used to compare FLDNAME_1 in the selection path to one of the rule run control component values defined in EO_CURRCNV_COMP.
SELECT_VALUES	Specific values for which FLDNAME_1 is compared using the operator/predicate
RIGHT_PAREN	Used to include a right parenthesis in a particular row in the selection path
SELECT_X	Used when a subselect is defined for the selection path. Includes an "X" in SQL SELECT statement within the subselect definition.

Field Name	Description
SQL_FUNCTION	Used when a subselect is defined for the selection path. Conditionally makes the Select X and SQL Function fields on the subselect definition page available or unavailable for entry, depending on whether the SELECT_X field has been selected.
SBSEL_RECNAME	Record for which the subselect is defined
SBSEL_FLDNAME	Field on the subselect record identified in the SBSEL_RECNAME field included as part of the subselect definition
RCD_ALIAS	Record alias

EO_CURRCNV_COMP (Rule Run Control Component Prompt Table)

This Currency Conversion Utility table stores the run control component meta-SQL prompt values that can be included in a conversion rule selection path definition.

Field Name	Description
RCNTL_COMP_NBR	Unique identifier for the run control component meta-SQL value
RCNTL_COMP_NAME	Run control component meta-SQL name
AE_FLD_FORMAT	Field format for the run control component meta-SQL in Application Engine
COMP_DATA_TYPE	Data type for the run control component: *N* (numeric); *C* (character); or *D* (date)

EO_CURRCNV_EXCP (Exception Process Prompt Table)

This Currency Conversion Utility table stores information about all the exception processes (either process group level or conversion rule level) that can be called by the utility during conversion. The values in this table are used as prompt values for process group and conversion rule exception process definitions. While the Currency Conversion Utility can execute exception processes written in Application Engine, or that are PeopleSoft Business Components, the utility calls all exception processes initially through the Application Engine name and section identified for the exception process on this record.

Field Name	Description
EXCP_PROC_NAME	Unique Currency Conversion Utility reference name for the exception process. This name is specific to the Currency Conversion Utility and does not have to match the actual name of the exception process program itself.
DESCR	Short description of exception process
DESCR50	50 character description of exception process
PROC_TYPE_CD	Information-only field that identifies the exception process type (Application Engine application or Business Component).
ALWAYS_RUN	Specifies whether the Currency Conversion Utility should always execute an exception process in the event of a process group restart or a rerun.
AE_PRODUCT	Identifies the product owner of Application Engine exception process
AE_APPLID	Identifies the Application Engine application name for the exception process
AE_SECTION	Identifies the Application Engine application section name for the exception process
DESCRLONG	Long description of the exception process

EO_CURRCNV_RULE (Conversion Rule Definitions)

This table contains information on all the conversion rules defined for the process groups. When a process group is selected on the run control, the Currency Conversion Utility selects and processes conversion rules within that process group according the specified order (PROCESSING_SEQ) for installed products (PROD_ID).

The RULE_SQLID field in this table contains an identifier associated with the various SQL objects generated for each conversion rule. This field is not a key on this record, but a value must exist in this field prior to conversion or the Currency Conversion Utility cannot properly convert the rule.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Product owner of conversion rule
RULE_INSTNC_NBR	Unique identifier for the conversion rule within the process group

Field Name	Description
RECNAME	Name of conversion record the rule is defined for
DESCR	Short description of conversion rule
DESCR50	50 character description of conversion rule
PROCESSING_SEQ	Unique number that specifies the processing sequence for each conversion rule relative to all other conversion rules within the process group
EXECUTE_PROD_ID	Two-character product identifier for a product that requires a conversion rule be executed. If this product is identified to the Currency Conversion Utility as an installed product, the utility will execute the rule if the rule product owner is not installed.
BYPASS_PROD_ID	Two character product identifier for a product that requires a conversion rule to be bypassed. If this product is identified to the Currency Conversion Utility as an installed product, the utility will not execute the rule.
EFFDT_PROC_CD	Specifies whether or not to treat the conversion record as effective dated.
ALIAS_DT_FLDNAME	Used if effective dated processing is specified for the conversion rule. If EFFDT is not the field that holds the effective date on the conversion record, identifies which field does.
INCRMNT_FLDNAME	Used if effective dated processing with effective sequencing is specified for the conversion rule. If EFF_SEQ is not the field that holds the effective date sequence number on the conversion record, identifies which field does.
BYPASS_DTL_AUDIT	Used in conjunction with the Audit Processing field on the process group run control page. If "As Defined" is specified as the audit process method on the process group run control, the Currency Conversion Utility will only generate audits for those rules where this field is selected.
RULE_SQLID	SQL Repository identifier for the various SQL objects generated by PeopleCode on the Currency Conversion Utility Conversion Rule page for the conversion rule.
SEL_DISTINCT_FLAG	Specifies whether a DISTINCT should be included in the SQL SELECT statement for the rule
CCR_STATUS	Sets the status of a particular conversion rule to active or inactive. The Currency Conversion Utility engine only executes rules with a CCR_STATUS value of *A* (active).
DESCRLONG	Long description of the conversion rule

EO_PROC_GROUP (Process Groups)

This Currency Conversion Utility table stores general information about the process groups. A process group must exist in this table before any rules can be defined for it.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROC_GRP_NAME	Name of process group
DESCR	Short description of process group
DESCR50	50 character description of process group
DATES_ALLOWED	Specifies which date or dates will be permitted on the process group run control as the conversion As Of Date.
DESCRLONG	Long description of process group

EO_PROCGRP_COMP (Process Group Selection Components Prompt Table)

This Currency Conversion Utility table stores the selection components defined for each process group. These values are used as prompts on the selection path definitions for rules defined for the process groups.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
COMP_INSTNC_NBR	Unique identifier for each selection component defined for the process group
SEL_COMP_NAME	Selection component name
COMP_DATA_TYPE	Selection component data type: *C* (character) or *D* (date)

EO_PROCGRP_EXCP (Exception Processes for Process Groups)

This Currency Conversion Utility table stores the names of exception processes associated with process groups that can be called by the utility engine at the time the process group is run. The Currency Conversion Utility executes process group level exception processes based on the timing (PROCGRP_TIMING_CD) and the processing sequence (PROCESSING_SEQ). PROCESSING_SEQ numbers must be unique within each timing code and are separate from the processing sequence numbers defined for the rules within the process group.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Product that owns exception process
EXCP_PROC_NAME	Exception process name based on the exception process name defined on the EO_CCR_EXCP table

Field Name	Description
PROCGRP_TIMING_CD	Specifies when the Currency Conversion Utility should call the exception process (before the process group starts executing any conversion rules, in place of the process group conversion rules, or after all the process group conversion rules have completed)
PROCESSING_SEQ	Specifies the processing sequence for this exception process relative to other exception processes for the same process group that use the same timing code (references PROCGRP_TIMING_CD)
AE_SECTION	Application Engine section

EO_PROCGRP_PROD (Covered Products for Process Groups)

This Currency Conversion Utility table identifies a process group's "covered products." Covered products are those products that have conversion rules or exception processes defined for a process group. This table is referenced throughout the Currency Conversion Utility pages and records.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Product that has a conversion rule or exception process associated with the process group

EO_PS_PRODUCT (Installed Products)

This table defines for the Currency Conversion Utility which products are considered "installed" at the time the utility runs. The products delivered in this table vary depending on the product line and include only those products that have been identified as potentially being impacted by the conversion rules or conversion processes delivered with the Currency Conversion Utility. In general, the Currency Conversion Utility will only execute conversion processes for products identified as installed on this table. The Installed Products page uses this table. Only the INSTALLED_SW field is editable on this page.

Field Name	Description
PROD_ID	Two character product code
DESCRSHORT	Short description of product name
DESCR	Description of product name

Field Name	Description
INSTALLED_SW	User-defined flag that specifies whether a product is installed
ALWAYS_INSTLD_SW	Identifies a product that the Currency Conversion Utility considers to be always installed. For example, the product *EO* is associated with the Currency Conversion Utility engine itself and therefore must always be "installed" in order for the utility engine to run. This field is not visible on the Installed Products page.

EO_RECON_JOIN (Conversion Rule Reconciliation Join)

This table defines the join from the conversion record to the reconciliation record when a reconciliation record and field are defined.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Product owner of conversion rule
RULE_INSTNC_NBR	Unique identifier for the conversion rules defined for a product within the process group
CR_INSTNC_NBR	Unique identifier for each row defined within the rule selection path (field is invisible on page).
JOIN_INSTNC_NBR	Unique identifier for each row defined within the join parameters selection path (field is invisible on page).
SEQNUM	Unique sequence number for each row defined within the join parameters selection path (field is invisible on page).
LEFT_PAREN	Used to include a left parenthesis for a particular row in the join parameters selection path.
AND_OR_OPR	Specifies either an AND or OR operator for a particular row in the join parameters selection path.
RECNAME_1	Conversion record name
FLDNAME_1	Field on the conversion record that will be joined to the reconciliation record field

Field Name	Description
RECNAME_2	Reconciliation record name
FLDNAME_2	Field on the reconciliation record that will be joined to the conversion record field
DATE_IND	Date Indicator
OPR_PREDICATE2	Standard SQL operator/predicate used to compare the FLDNAME_1 in the join reconciliation selection path to RECNAME_2.FLDNAME_2 or to a set of specific field values in the SELECT_VALUES field
SELECT_VALUES	Specific values for which FLDNAME_1 is compared using the operator/predicate
RIGHT_PAREN	Used to include a right parenthesis in a particular row in the join selection path

EO_SPATH_WH (Conversion Rule Subselect Selection Path)

This Currency Conversion Utility table contains the details for the selection path for subselects defined within a conversion rule selection path. The selection path represents the SQL WHERE clause portion of the subselect.

Field Name	Description
PROC_GRP_ID	Unique identifier for the process group
PROD_ID	Product owner of conversion rule
RULE_INSTNC_NBR	Unique identifier for the conversion rule within the process group
CR_INSTNC_NBR	Unique identifier for each row defined within the rule selection path (field is invisible on page).
WH_INSTNC_NBR	Unique identifier for each row defined within the subselect selection path (field is invisible on page).
SEQNUM	Unique sequence number for each row defined within the subselect selection path (field is invisible on page).

Field Name	Description
LEFT_PAREN	Used to include a left parenthesis for a particular row in the selection path.
AND_OR_OPR	Specifies either an AND or OR operator for a particular row in the subselect selection path.
RCNTL_COMP_NBR	Used to compare FLDNAME_1 in the subselect selection path to one of the rule run control component values defined in EO_CURRCNV_COMP.
RECNAME_1	Table that contains the field from which the conversion record field derives its value
FLDNAME_1	Field on the RECNAME_1 table from which the conversion record field derives its value
DATE_IND	Date Indicator
OPR_PREDICATE2	Standard SQL operator/predicate used to compare the FLDNAME_1 field to the run control component value specified in the RCNTL_COMP_NBR field or to the field values specified in the SELECT_VALUES field
MAIN_FROM_FLAG	Record of Primary From
RECNAME_2	Conversion record for this rule
FLDNAME_2	Conversion field on the conversion record for this rule
SELECT_VALUES	Specific values for which FLDNAME_1 is compared using the Operator/Predicate
RIGHT_PAREN	Indicates a right parenthesis used to delineate a SQL "OR" clause

Utility Run Control Tables

This section provides information on the Currency Conversion Utility's run control records.

RUN_CNTL_CC_EO (Parent Run Control)

This parent run control record stores the values for fields entered on the Currency Conversion Utility's Conversion Criteria run control page.

Field	Description
OPRID	Operator ID for the user at run time
RUN_CNTL_ID	Unique run control identifier for the run control instance
PROC_GRP_ID	Name of the process group selected on the run control
RT_TYPE	Exchange rate type for the To Currency code specified on the run control
RATE_EFFDT	Effective date of the exchange rate type specified for the To Currency code on the run control
CURRENCY_CD	To Currency (the new base operating currency)
ASOF_DT	Conversion date specified on the run control. Depending how on the process group was defined, this date may be a historical date, the current date, or a future date.
RUN_ALL_AUDITS	Determines whether or not the Currency Conversion Utility will generate before and after audit details for the conversion fields converted by the utility. Audit processing options determine whether audits will be generated only for specific rules or for all rules.
RUN_STATUS_CD	Represents the status of the process group run control instance (not yet run, in process, completed)

RUN_CNTL_CC1_EO (Run Control Selection Components Values)

This is a child record of RUN_CNTL_CC_EO parent run control record. This table stores the selection component run control values entered on the Selection Component run control page at run time.

Field	Description
OPRID	Operator ID for the user at run time
RUN_CNTL_ID	Unique run control identifier for the run control instance
COMP_INSTNC_NBR	Identifier for each selection component defined for the process group
COMP_DATA_TYPE	Selection component data type (character or date)

Field	Description
SELECT_OPER	Specifies whether each selection component value on the run control represents all values, only a single value, or a range of values
CHAR_FROM	For a character selection component field type, specifies a single value for a selection component or the first in a range of values for the selection component
CHAR_TO	For a character selection component field type, represents the second value if a range of values is specified for a run control component
DATE_FROM	For a date selection component field type, specifies a single value for a selection component or the first in a range of values for the selection component
DATE_TO	For a date selection component field type, represents the second value if a range of values is specified for a run control component

RUN_CNTL_CC2_EO (Run Control From Currency Exchange Rates)

This table is a child of the RUN_CNTL_CC_EO parent run control record. This table contains the exchange rates for the From Currency values (the original base operating currency or currencies) specified on the process group run control. The Rate Multiplier and Rate Divisor fields are determined based on the From Currency relationship to the To Currency specified on RUN_CNTL_CC_EO for the run control ID.

Field Name	Description
OPRID	Operator ID for the user at run time
RUN_CNTL_ID	Unique run control identifier for the run control instance
CURRENCY_CD	Currency codes for the From Currency or Currencies specified on the Conversion Criteria page on the process group run control
RATE_MULT	Rate Multiplier exchange rate value for the From Currency and the To Currency
RATE_DIV	Rate Divisor exchange rate value for the From Currency and the To Currency

RUN_CNTL_CC3_EO (Process Group Run Control Tracking Record)

This table tracks the progress of each conversion action or task performed by the Currency Conversion Utility for each process group run control process instance. Values in this table are not populated from the run control panel; they are inserted and updated dynamically during Currency Conversion Utility conversion as each task is started and completed.

Not all fields in this table are populated for every conversion run. Fields in this table are populated depending on what process the Currency Conversion Utility is performing at the time.

Field Name	Description
OPRID	Operator ID for the user at run time
RUN_CNTL_ID	Unique run control identifier for the run control instance
PROC_GRP_ID	Name of the process group selected on the run control
PROD_ID	Product identifier for the product owner of the conversion task identified on each row
RULE_INSTNC_NBR	Numeric identifier for the conversion rule number associated with the task performed for the product identified in the PROD_ID field
FLD_INSTNC_NBR	Numeric identifier for each conversion field task associated with the rule instance number identified in the RULE_INSTNC_NBR field
AE_APPLID	Name of the Application Engine application performing the conversion task step on the row
AE_SECTION	Name of the Application Engine application section associated with the AE_APPLID field for the conversion task steps on the row
AE_STEP	Name of the Application Engine application step associated with the Application Engine program and section identified in the AE_APPLID and AE_SECTION fields on the row
EO_AUDIT_FLAG	Specifies the audit processing method selected on the process group run control associated with the task

Field Name	Description
COMPLETE_SW	Indicates whether a conversion task for a row has completed successfully
PROCESS_INSTANCE	System-generated Instance ID from the Process Scheduler

An example of how this table is used during conversion processing is discussed in another section of this PeopleBook.

See Chapter 7, "Converting Base Currency Data," Restarting and Rerunning Currency Conversion Utility Run Controls, page 134.

RUN_CNTL_CC4_EO (Conversion Rule Report Run Control)

This run control table is used for the Currency Conversion Utility conversion rules report.

Field Name	Description
OPRID	Operator ID for the user at run time
RUN_CNTL_ID	Unique run control identifier for the run control instance
LANGUAGE_CD	Language code selected for the report
PROC_GRP_ID	Name of the process group selected for the report
PROD_ID	Within the process group, specifies the product for which the report rules will be generated
AE_STMT_SW	Specifies whether the SQL statements defined for each conversion rule should be included in the report output
CCR_STATUS_SW	Specifies whether the conversion rule is active or inactive

RUN_CNTL_AUD_EO (Audit Detail Run Control Tracking Record)

This table tracks audit detail processing for conversion rules in a process group run control process instance. Depending on which audit detail method is selected on the process group run control, rows may be generated for all the conversion records in a process group, or only for selected records. Rows are inserted in this table dynamically during Currency Conversion Utility conversion after the rule for the record has completed.

Field	Description
RUN_CNTL_ID	Unique run control identifier for the run control instance
PROCESS_INSTANCE	Process instance ID for the process group for which audit details are being generated
TEOA_RECNAME	Name of the TEOA record that will store the audit details

Describing Utility Application Engine Components

The Currency Conversion Utility consists of three Application Engine applications. Two of these AE applications work together to perform virtually all of the Currency Conversion Utility base currency conversion processes. The third is a Currency Conversion Utility-owned exception process used only for specific currency processing requirements.

The EO_CURRENCY application is the primary Currency Conversion Utility processing engine. The CURRENCY application executes a single process group at a time, along with the process group's associated selection criteria, conversion rules, and exception processes.

The FUNCLIB_EO function library contains PeopleCode functions used in conjunction with PeopleCode on the Conversion Rules and Conversion Fields pages to generate the SQL objects used by the EO_CURRENCY during conversion.

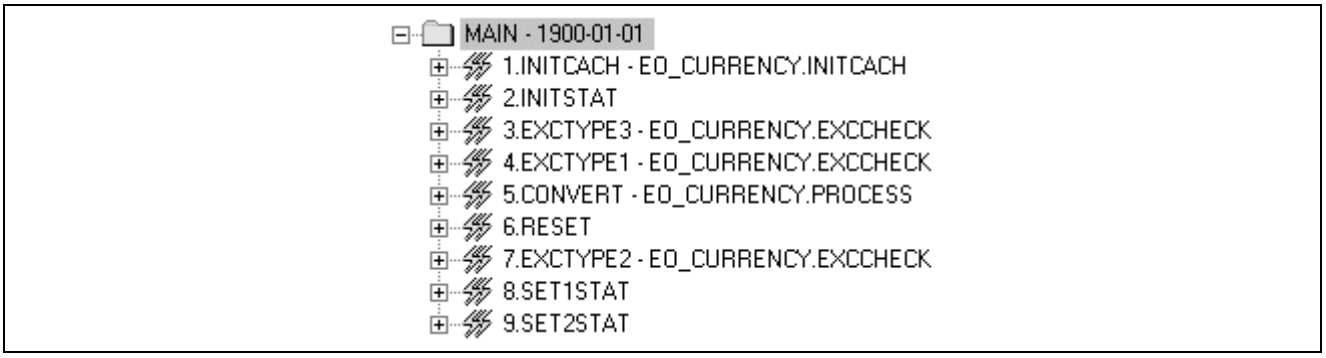
EO_CURRENCY (Utility Conversion Engine)

The EO_CURRENCY Application Engine application is the Currency Conversion Utility engine. At run time, the engine dynamically combines SQL objects and variables from the Currency Conversion Utility State records with static SQL stored in the utility's Application Engine application to select and convert base operating currency data.

This section contains summaries of the primary sections for the Currency Conversion Utility's EO_CURRENCY application.

MAIN (Main Section of EO_CURRENCY)

The MAIN section of EO_CURRENCY contains nine major processing steps.



MAIN section of EO_CURRENCY

Step	Description
INITCACH	Calls the INITCACH section which initializes values in the Currency Conversion Utility's primary State record from the process group run control table and adds certain other variables not stored on the run control tables. In the event of a process group restart (not rerun), loads the last Process Instance number when a run control instance does not yet have a status of *Complete* and the OPRID and run control ID matches an existing row in the RUN_CNTL_CC3_EO run control tracking record. Initializes process group selection component values to *ALL* (1=1).
INITSTAT	Sets the display status for the run control ID on run control Conversion Criteria page to *In Process*.
EXCTYPE3	Calls EXCCHECK (Exception Processing Section) if any exception processes exist for the process group with an *In Place Of Process Group* timing code. Calls the exception processes in the specified processing sequence. See the following "EXCCHECK (Exception Processing Section)" subtopic.
EXCTYPE1	Calls EXCCHECK (Exception Processing Section) if any exception processes exist for the process group with a *Before Process Group* timing code. Calls the exception processes in the specified process sequence. See the following "EXCCHECK (Exception Processing Section)" subtopic.
CONVERT	Executes PROCESS (Main Rule Processing Section) for the active conversion rules defined for the process group. See the following "PROCESS (Main Rule Processing Section)" subtopic.
RESET	Sets the rule instance number field in the Currency Conversion Utility's primary State record to *0*. This field is used to populate the process instance in the RUN_CNTL_CC3_EO run control tracking record. For processing done at the process group level, the rule instance number is not applicable.

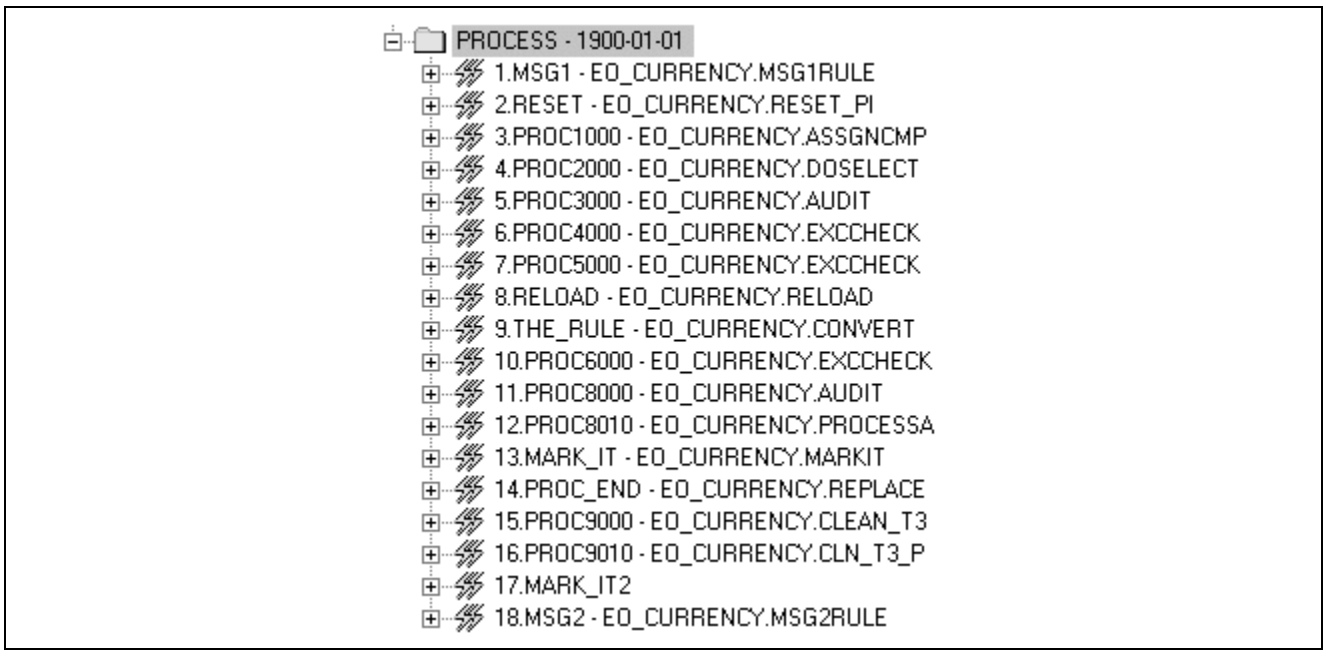
Step	Description
EXCTYPE2	Calls the EXCCHECK (Exception Processing Section) if any exception processes exist for the process group with an *After Process Group* timing code. Calls the exception processes in the specified processing sequence. See the following "EXCCHECK (Exception Processing Section)" subtopic.
SET1STAT	If errors were encountered in any exception processes, sets the status field on the RUN_CNTL_CC_EO record to *E* (Error). This status field displays on the Conversion Criteria page for the run control.
SET2STAT	If no errors were encountered for any exception processes, sets the status field on the RUN_CNTL_CC3_EO run control tracking record *C* (Completed).

PROCESS (Main Rule Processing Section)

This section includes all of the various tasks defined for the conversion rules in the process group, including generating before and after audit details for the conversion fields defined on the rules, executing any exception processes associated with conversion rules, and reconciling any amount fields according to the prescribed reconciliation method.

In the event of a process group restart, this section checks the RUN_CNTL_CC3_EO run control tracking record to see if the conversion rule has previously completed successfully for the same OPRID and run control ID. In this case, the Currency Conversion Utility will bypass any completed rules.

For this section to execute for a specific rule, the product owner, the execute product, or an impacted product for the conversion rule must be identified as installed on the Currency Conversion Utility's Installed Products page. If the bypass product on the rule page is installed, the rule is skipped.



PROCESS section of EO_CURRENCY.CONVERT

All the steps in the section are evaluated for each conversion rule in the process group.

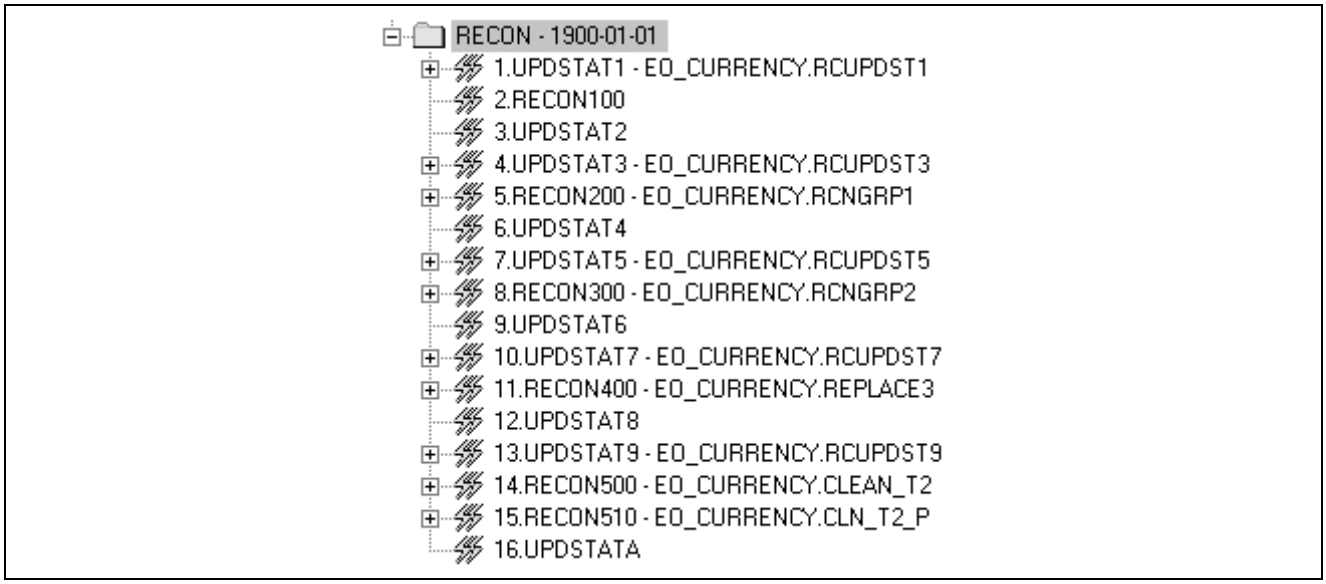
Step	Description
MSG1	Sends a message to the log that the conversion rule has started.
RESET	Used for process group restarts. If a process group does not complete successfully and the run control is restarted, calls the RESET_PI section to set the current EO_PROCESS_INST to equal the LAST_PROCESS_INST, so that the conversion process can pick up where it left off without re-executing any already completed steps.
PROC1000	Calls the ASSGNCMP section to assign the process group selection components based on the parameters entered on the process group run control.
PROC2000	Calls the DOSELECT section to select the conversion row candidates from the conversion record and copy them into the TEO1 work record.
PROC3000	If an audit processing method is specified on the process group run control, calls the AUDIT section to write the "before" audit details for the conversion fields defined on the rule to the TEOA audit detail record.
PROC4000	Calls EXCCHECK (Exception Processing Section) if any exception processes exist for the conversion rule with an *In Place Of* timing code. Calls the exception processes in the specified processing sequence. See the following "EXCCHECK (Exception Processing Section)" subtopic.

Step	Description
PROC5000	Calls EXCCHECK (Exception Processing Section) if any exception processes exist for the conversion rule with a *Before* timing code. Calls the exception processes in the specified processing sequence. See the following "EXCCHECK (Exception Processing Section)" subtopic.
RELOAD	Calls the RELOAD section to move rows from the TEO1 work record into the TEO3 work record to begin rule conversion processing.
THE_RULE	Calls the CONVERT section to process all the conversion tasks for the conversion rule and to perform any amount field reconciliations.
PROC6000	Calls EXCCHECK (Exception Processing Section) if any exception processes exist for the conversion rule with an *After* timing code. Calls the exception processes in the specified processing sequence. See the following "EXCCHECK (Exception Processing Section)" subtopic.
PROC8000	If an audit processing method is specified on the process group run control, calls the AUDIT section to write the "after" audit details for the conversion fields defined on the rule to the TEOA audit detail record.
PROC8010	Writes a row to the RUN_CNTL_ AUD_EO audit detail run control tracking record, specifying the run control ID, the process instance, and which TEOA record was modified with before and after conversion field details.
MARK_IT	Inserts a new row into the RUN_CNTL_CC3_EO run control tracking record for the conversion rule. This row is the "flag" for the entire conversion rule. Sets COMPLETE_SW field for the row to *N* to indicate rule has started.

Step	Description
PROC_END	Updates the conversion record with the converted data by: Removing rows from the conversion record with the same keys as rows in the TEO3 work record Writing the converted rows from the TEO3 work record to the conversion record.
PROC9000	If parallel processing is enabled, calls the CLEAN_T3 section to delete rows from the TEO3 work record for the process instance.
PROC9010	If parallel processing is not enabled, calls the CLN_T3_P section to delete or truncate all rows from the TEO3 work record for the process instance. This section contains platform-specific code steps.
MARK_IT2	Updates the COMPLETE_SW field on RUN_CNTL_CC3_EO (established in MARK_IT step) to *Y* when the rule completes successfully.
MSG2	If the rule completes successfully, writes a message to the log

RECON (Reconciliation Processing Section)

Steps in the RECON section reconcile data in amount conversion fields that have a reconciliation method specified on the conversion rule. The reconciliation process uses the TEO2 work record associated with the conversion record to temporarily store data during reconciliation.



RECON section of PROCESS.THE_RULE

Step	Description
UPDSTAT1	Inserts a row into RUN_CNTL_CC3_EO for step RECON100 and sets COMPLETE_SW field to *N* to indicate step has started.
RECON100	Insert rows for amount fields with a reconciliation method specified into the TEO2 work record. This record is the "holding area" for reconciliation rows.
UPDSTAT2	Updates COMPLETE_SW field to *Y* on RUN_CNTL_CC3_EO for step RECON100 to indicate step has completed.
UPDSTAT3	Inserts a row into RUN_CNTL_CC3_EO for step RECON200 and sets COMPLETE_SW field to *N* to indicate step has started.
RECON200	For sum-based reconciliation methods, inserts the appropriate reconciled rows into the TEO1 work record from the TEO2 and TEO3 work records.
UPDSTAT4	Updates COMPLETE_SW field to *Y* on RUN_CNTL_CC3_EO for step RECON200 to indicate step has completed.

Step	Description
UPDSTAT5	Inserts a row into RUN_CNTL_ CC3_EO for step RECON300 and sets COMPLETE_SW field to *N* to indicate step has started.
RECON300	For adjustment reconciliation methods, inserts the appropriate adjusted rows into the TEO work record from the TEO2 and TEO3 work records.
UPDSTAT6	Updates COMPLETE_SW field to *Y* on RUN_CNTL_CC3_EO for step RECON300 to indicate step has completed.
UPDSTAT7	Inserts a row into RUN_CNTL_ CC3_EO for step RECON400 and sets COMPLETE_SW field to *N* to indicate step has started.
RECON400	Inserts converted rows from the TEO1 work record into the TEO3 work record. Deletes or truncates rows from the TEO1 work record, depending on the platform and whether or not parallel processing is enabled.
UPDSTAT8	Updates COMPLETE_SW field to *Y* on RUN_CNTL_CC3_EO for step RECON400 to indicate step has completed.
UPDSTAT9	Inserts a row into RUN_CNTL_ CC3_EO for step RECON500 and sets COMPLETE_SW field to *N* to indicate step has started.
RECON500	If parallel processing is enabled, deletes rows from the TEO2 work record.
RECON510	If parallel processing is not enabled, deletes or truncates rows from TEO2 (platform-specific).
UPDSTATA	Updates COMPLETE_SW field to *Y* on RUN_CNTL_CC3_EO for step RECON500 to indicate step has completed.

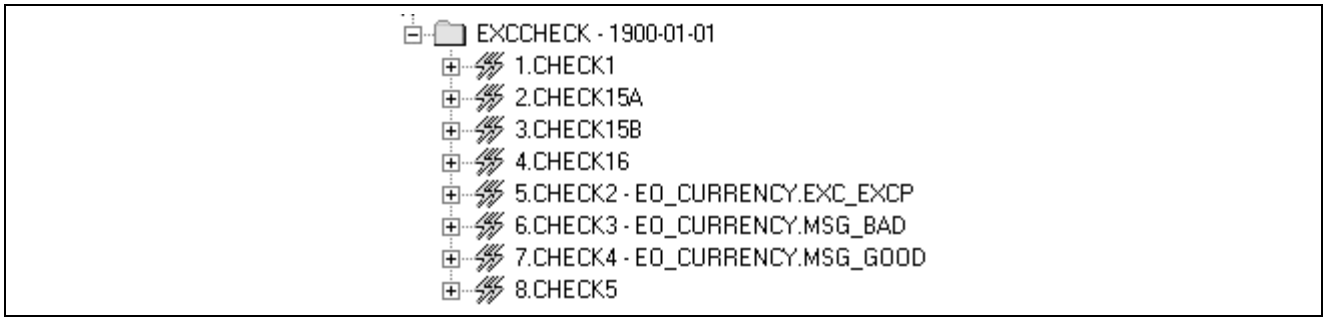
EXCCHECK (Exception Processing Section)

The EXCCHECK section is used for both process group level exception processes and conversion rule exception processes. This section evaluates whether an exception process exists for the specified type and timing code and if any exist, executes them in the specified processing sequence.

If an exception process does not complete successfully, the Currency Conversion Utility engine will still cycle through the other remaining engine steps — *without converting any data*. To determine if an exception process returned an error, you will need to check the log for the process instance.

The exception process must exist, be identified on the Exception Processes page, and the exception process product owner identified as an installed product on the Currency Conversion Utility's Installed Products page in order for the steps in this section to execute for that exception process.

In the event of a process group restart (not rerun), this section checks the RUN_CNTL_CC3_EO run control tracking record to see if the exception process has previously completed successfully for the same OPRID and run control ID. In this case, unless an exception process has been defined to always execute on restarts, the Currency Conversion Utility will bypass any completed exception processes.



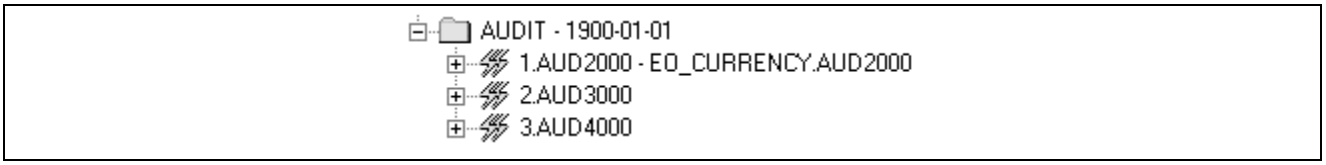
EXCCHECK section

Step	Description
CHECK1	Sets the check status field on the State record to "N" if the exception process does not already have a status of *N* (Not Executed) or *C* (Complete). Used to keep messages from being posted to the log if a prior exception process did not complete successfully.
CHECK15A	Checks the RUN_CNTL_CC3_EO run control tracking table to see if a row already exists for the exception process with the same OPRID and process instance.
CHECK16B	If a row does not already exist for the exception process, inserts a row into the RUN_CNTL_CC3_EO run control tracking record with a COMPLETE_SW field of *N* (Not Executed). Used when more than one exception process exists within the same type (process group or conversion rule) with the same timing code.
CHECK16	Resets the COMPLETE_SW field and process instance on the RUN_CNTL_CC3_EO run control tracking record to "N".
CHECK2	Calls the EXC_EXCP section that then executes the exception process program.
CHECK3	If the exception process does not complete successfully, calls the MSG_BAD section which places an informational error message in the log.

Step	Description
CHECK4	If the exception process completes successfully, calls the MSG_GOOD section which places an informational message in the log.
CHECK5	If the exception process completes successfully, adds a row to RUN_CNTL_CC3_EO run control tracking table.

AUDIT (Audit Detail Processing)

This section executes when one of the audit processing options is selected on the process group run control. The steps in this section capture the before and after values of the conversion fields defined on the rule for the conversion record. It runs twice: once before the rule begins and then again after the rule has completed and the fields are converted. The data captured by these steps is stored in the TEOA audit detail for the conversion record.



AUDIT Section

Step	Description
AUD2000	Inserts a new row into the RUN_CNTL_CC3_EO run control tracking record and sets the COMPLETE_SW field to *N*
AUD3000	Selects and inserts new rows for each of the conversion fields defined on the conversion record into the TEOA audit detail record defined for the conversion rule.
AUD4000	Updates the RUN_CNTL_CC3_EO run control tracking record and sets the COMPLETE_SW field to *y*

Utility State Records

The Currency Conversion Utility uses two Application Engine physical State records, keyed by process instance, to define the fields used to pass bind variables and other values during conversion. The Currency Conversion Utility's primary State record defines the cache fields for both conversion rules and exception processes.

Note. The primary State record fields with a "USER_" prefix can be used to store bind variables for exception processes. All other bind variable fields in this record are used exclusively by the Currency Conversion Utility engine.

EO_CURRENCY_AET

The Currency Conversion Utility's EO_CURRENCY_AET State record stores variables used during utility conversion. This is the primary State record for the EO_CURRENCY application.

Field	Description
PROCESS_INSTANCE	System-generated run control process instance number
RUN_CNTL_ID	Run control ID entered on the process group run control page
OPRID	Operator ID in effect at run time for the process instance
TO_CURRENCY	Currency code specified on the process group run control as the "To Currency" (the new base currency)
DECIMAL_POSITIONS	Decimal precision for the currency specified in TO_CURRENCY
RT_TYPE	Rate type for the currency specified in TO_CURRENCY
RATE_EFFDT	Effective date for the rate type specified in RT_TYPE
ASOF_DT	Date the Currency Conversion Utility engine will use as the "current" system date for the current process instance.
PROC_GRP_ID	Process group for the current process instance
PROD_ID	Product owner of the conversion task in process
RULE_INSTNC_NBR	Rule instance number for the rule in process
FLD_INSTNC_NBR	Field instance number for the field in process
RECON_FLG	Stores single-character variables during various Currency Conversion Utility steps
COMPLETE_SW	Used in conjunction with the RUN_CNTL_CC3_EO run control tracking record. Updated at various points during conversion to indicate whether a conversion task has started or has completed successfully.
CHECK_STATUS	Flag used by the Currency Conversion Utility to determine processing status
RECON_METHOD	Used if the rule in process specifies a reconciliation method
EFFDT_PROC_CD	Used if the rule in process specifies an effective date processing method
SEL_DISTINCT_FLAG	Used if the rule in process specifies that a DISTINCT has to be included in the main SELECT statement for the conversion record

Field	Description
FIELD_SQLID	SQL object ID for the conversion field in process. PeopleCode generates Object ID on the Conversion Fields page.
RULE_SQLID	SQL object ID for the rule in process. PeopleCode generates Object ID on the Conversion Rule page.
AE_RCN_STEP	[not used]
AE_SECTION	Application Engine section in process
AE_APPLID	Application Engine ID in process
AE_STEP	Application Engine step in process
RECNAME	Name of the conversion record for the rule in process
RECON_RECNAME	Used if the rule specifies a reconciliation method. Specifies the name of the reconciliation record identified for the rule in process.
RUN_ALL_AUDITS	Specifies the type of audit processing selected on the run control
EO_AUDIT_FLG	Used if an audit processing method is selected on the run control. Specifies whether the AUDIT detail represents the "before" or the "after" values
LAST_PROCESS_INST	Used during process group restarts. Stores previous system-generated process instance number.
RECNAME_AUDIT	Used for conversion field audits. Stores the record name for the audit in process.
RECNAME_UPDATE	Used for process group restarts. Stores the record name for the rule in process.
TEO1_RECNAME	TEO1 work record for the rule in process
TEO2_RECNAME	TEO2 work record for the rule in process
TEO3_RECNAME	TEO3 work record for the rule in process
TEOA RECNAME	TEOA work record for the rule in process
EXCP_PROC_STATUS	Status indicator for the exception process in process
BYPASS_DTL_AUDIT	Used in conjunction with the audit processing method specified on the run control to determine whether audit details will be generated for the rule in process
PROCGRP_TIMING_CD	Specifies the timing code (before, after, or in place of) for a process-group level exception process

Field	Description
SELECT_OPER*n*	Specifies the operator value for selection components (other than currency code) defined for the process group in process. The *n* represents the selection component number for selection component defined for the process group in process.
FLDC*n*A or B	Used to store a character value for a selection component specified on the run control for the current process group (18 available fields). The "B" field is used only when a range of values is specified on the run control. The *n* represents the selection component number for selection component defined for the process group in process.
FLDD*n*A or B	Used to store a date value for a selection component specified on the run control for the current process group (18 available fields). The "B" field is used only when a range of values is specified on the run control. The *n* represents the selection component number for selection component defined for the process group in process.
BNDV*n*	Name of each selection component defined for the current process group (9 available fields). The *n* represents the selection component number for selection component defined for the process group in process.
COUNT_PAIRS	Count for the rate multiplier/rate divisor field pairs on the rule in process
CURRENT_PAIR	Current rate multiplier/rate divisor field pair on the rule in process
USER_CHAR*n*	Character fields available for use and update by exception processes (13 available fields)
USER_COUNT*n*	Counter (numeric) fields available for use and update by exception processes (4 available fields)
USER_DATE*n*	Date fields available for use and update by exception processes (3 available fields)
USER_DTTM1	Date/time field available for use and update by exception processes
USER_NBR*n_len*	Numeric fields available for use and update by exception processes (4 available fields)
USER_NBR*n_Slen*	Signed numeric fields available for use and update by exception processes (8 available fields)

EO_CURRENC2_AET

The Currency Conversion Utility's EO_CURRENC2_AET State record contains fields that store the keys on the conversion record. The Currency Conversion Utility engine uses these variables stored in these fields when the engine inserts or updates converted rows back into the original conversion record.

Field	Description
PROCESS_INSTANCE	System-generated Instance ID from the Process Scheduler.
TFLD*c*	Stores key character field values from the conversion record (16 available fields where *c* = A to P)
TFLD_*c*	Stores key date field values from the conversion record (5 available fields where *c* = A to E)
TFLD__*c*	Stores key date/time stamp field values from the conversion record (5 available fields where *c* = A to E)
TFLD___ *c*	Stores key time field values from the conversion record (2 available fields where *c* = A to B)

Utility SQL Objects

The Currency Conversion Utility engine executes a series of SQL statements to perform various tasks required for converting base currency data. Some of these SQL statements select and convert data on the conversion record; some perform reconciliations.

Each Currency Conversion Utility SQL statement is made up of SQL segments. Some of the segments are only applicable to a conversion rule, while other segments are only applicable to a conversion field. These SQL segments are stored as SQL objects in the SQL Repository.

The Currency Conversion Utility generates the SQL segments stored in the utility SQL objects using PeopleCode on the rule definition tables in the Conversion Rules component. These objects are generated when the rule is saved or when the Build Conversion Rules process runs.

At run time, the Currency Conversion Utility engine (the EO_CURRENCY Application Engine program) dynamically retrieves the appropriate SQL segments from the SQL Repository and, along with the run time bind variables from the utility's State records, combines them with the "static" SQL in the utility engine to select, convert, and update data in various tables and fields.

Utility SQL Object Names

SQL object names can contain up to 30 characters. Currency Conversion Utility SQL objects in the SQL Repository use the following naming convention:

- EO_ (this is the product identifier for the Currency Conversion Utility engine)
- Process group ID (up to ten characters)
- Conversion rule product owner ID (two characters)
- Rule instance number (three digits - zero fill)
- Field instance number (three digits - zero fill)
- Currency Conversion Utility SQL segment (up to five characters)

• _XXX (the SQL segment type - an underscore and three characters)

PeopleCode on tables in the Conversion Rules component concatenates values for these items when the rule is saved as follows:

```
EO_[Process Group ID] | [Product ID| [Rule Instance Number] |
[Field Instance Number] | [SQL segment] _[Segment Type]
```

Example of Conversion Rule SQL Object

Process Group ID: CBS

Rule Product Owner ID: HR

Rule Instance Number: 1

Field Instance Number: [defaults to 0]

Segment: CNVWH

SQL Object ID: EO_CBSHR001000CNVWH_WHR

Example of Conversion Field SQL Object

Process Group: GLBUCURCON

Product: AM

Rule Instance Number: 5

Field Instance Number: 7

Segment: AUDIT

SQL Object ID: EO_GLBUCURCONAM005007AUDIT_SEL

Utility SQL Segment Types

The SQL object suffix is used in the object name to indicate which portion of the SQL statement will use the object. The Currency Conversion Utility SQL objects use the following suffixes:

Type	Description
_FRM	Used in a FROM clause
_SEL	Used in a SELECT clause
_WHR	Used in a WHERE clause
_SET	Used in a SET clause to SET values

Rule and Field SQL Segments

Some of the Currency Conversion Utility SQL objects only apply to conversion rules, while others only apply to conversion fields. Following is a list of SQL object suffixes with descriptions of their purpose and the Currency Conversion Utility element (rule or field) to which they apply.

SQL Segment	SQL Segment Type	Description	Where Used
AKEYS	_WHR	Contains an "equal" comparison for each key field on the conversion record. Used in several Currency Conversion Utility steps that move data between the conversion record and its TEO3 work record.	Conversion Rule
AUDIT	_SEL	Contains a portion of the SELECT clause used to insert before and after rows into the TEOA audit detail record defined for the conversion record.	Conversion Field
CFROM	_FRM	Provides the list of the tables and their associated aliases used in the FROM portion of the SELECT statement used for selecting rows from the conversion record. Contains the names of the records identified in the selection path of the conversion rule.	Conversion Rule
CSL0	_SEL	Provides the field list for the SELECT clause used to move amount field and currency code field rows into the TEO1 work record from the TEO3 work record. Includes conversion calculations for amount fields and replaces "from" currency code fields with the "to" currency. Does NOT include conversion calculations for rate multiplier and rate divisor fields. Used in conjunction with the CWH0 SQL object for the same conversion rule.	Conversion Rule
CSL*n* where the value of *n* is 1 through 15	_SEL	Provides the field list for the SELECT clause used to move rate multiplier and rate divisor field pair rows into the TEO1 work record from the TEO3 work record. Includes conversion calculations for a single pair of rate multiplier and rate divisor fields on the row. The number following CSL is the pair occurrence number. For example, if there are three pairs of rate multiplier/rate divisor fields being converted on the rule, the CSL1 SQL object will include conversion calculations for the first pair, the CSL2 SQL object will include conversion calculations for the second pair, and the CSL3 SQL object will contain conversion calculations for the third pair. Used in conjunction with the CWH*n* SQL object with the corresponding number in place of *n*. For example, the CSL2 SQL object is used with the CWH2 SQL object for the same conversion rule.	Conversion Rule

SQL Segment	SQL Segment Type	Description	Where Used
CWH0	_WHR	Provides a portion of the WHERE clause used insert conversion records into the TEO1 work record from the TEO3 work record. This SQL object always contains the value 1 = 1. Used in conjunction with the CSL0 SQL object for the same conversion rule.	Conversion Rule
CWH*n* where *n* is 1 through 15	_WHR	Provides a portion of the WHERE clause used to move rate multiplier and rate divisor field pair rows into the TEO1 work record from the TEO3 work record. This SQL object is used for a single rate multiplier and rate divisor pair on the row. This portion of the WHERE clause restricts selection to only the rows where neither the rate multiplier nor the rate divisor field has a value of zero. The number following CSL is the pair occurrence number. Used in conjunction with the CSL*n* SQL object with the corresponding number in place of *n*. For example, CWH2 SQL object is used with the CSL2 SQL object for the same conversion rule.	Conversion Rule
CNVWH	_WHR	Provides a portion of the WHERE clause used to insert selected conversion rows from the conversion record into the TEO1 work record. Used in conjunction with the RECORD and CFROM SQL objects for the same conversion rule.	Conversion Rule
EFFS1	_SEL	Used for conversion records identified as effective dated on the conversion rule. Provides a portion of the SELECT clause used to insert new effective-dated or effective dated/effective-sequenced rows from the conversion record into the TEO1 work record. Contains a list of fields on the conversion record to be inserted into the work record, with the following substitutions: The value of the effective date field is set to the conversion As Of Date specified on the process group run control. The value of the effective sequence number field is set to 1 (used only for effective date records that use effective date sequencing). Used in conjunction with the EFFW1 SQL object for the same conversion rule.	Conversion Rule

SQL Segment	SQL Segment Type	Description	Where Used
EFFS2	_SEL	Used for conversion records identified as effective dated on the conversion rule. Provides a portion of the SELECT clause used to insert new effective dated/effective-sequenced rows from the conversion record into the TEO1 work record. Contains a list of fields on the conversion record to be inserted into the TEO1 work record, with the following substitution: Sets the value of the new effective sequence number as the old effective sequence number plus 1 Used in conjunction with the EFFW2 SQL object for the same conversion rule.	Conversion Rule
EFFW1	_WHR	Used for conversion records identified as effective dated on the conversion rule. Provides a portion of the WHERE clause used to insert new effective-dated or effective dated/effective-sequenced rows from the conversion record into the TEO1 work record. The other portion of the WHERE clause is provided by CNVWH SQL object for the conversion rule. Rows selected will vary by the type of effective date processing specified for the conversion rule: For effective dated records with no effective sequence number, selects current rows where the effective date is the most recent date less than or equal to the conversion As Of Date specified on the process group run control. For effective dated records with an effective sequence number, selects current rows with the highest effective sequence number where the effective date is the most recent date less than or equal to the conversion As Of Date specified on the process group run control not equal to the conversion As Of Date specified on the process group run control (these rows became effective before the conversion As Of Date). Used in conjunction with the EFFS1 SQL object for the same conversion rule.	Conversion Rule

SQL Segment	SQL Segment Type	Description	Where Used
EFFW2	_WHR	Used for conversion records identified as effective dated with effective sequencing on the conversion rule. Provides a portion of the WHERE clause used to insert new effective dated/effective-sequenced rows from the conversion record into the TEO1 work record. The other portion of the WHERE clause is provided by CNVWH SQL object for the conversion rule. Selects rows where the effective date for the highest effective sequence number row is equal to the conversion As Of Date specified on the process group run control Used in conjunction with the EFFS2 SQL object for the same conversion rule.	Conversion Rule
EFFWO	_WHR	Used for conversion records identified as effective date or effective dated with effective sequencing on the conversion rule. Provides a portion of the WHERE clause used to insert new effective dated or effective dated/effective-sequenced rows from the conversion record into the TEO1 work record. The other portion of the WHERE clause is provided by CNVWH SQL object for the conversion rule. Selects rows where the effective date for the highest effective dated row or highest effective dated sequence number row is greater than the conversion As Of Date specified on the process group run control	Conversion Rule
GRPBY	_WHR	Used for inserting rows into the TEO2 work record for reconciliation processing. Contains a list of join fields for the conversion and reconciliation records used to group the result set. Used in conjunction with the RFROM , RSLCT, and RCNWH SQL objects for the conversion rule.	Conversion Field
LKEYS	_SEL	Contains a list of the keys on the conversion record (used for Oracle-specific processing)	Conversion Rule
LONG	_SEL	Used to select rows from a record that contains a long character field type (used for Oracle-specific processing)	Conversion Rule
MFROM	_FRM	Contains the name of the conversion record	Conversion Rule
RKEYS	_WHR	Contains a list of keys on conversion record.	Conversion Rule

SQL Segment	SQL Segment Type	Description	Where Used
RWHR	_WHR	Used for inserting records into the TEO2 work record for reconciliation processing. Provides the WHERE clause that joins the conversion record and the reconciliation record. Used in conjunction with the RFROM, RSLCT, and GRPBY SQL objects for the conversion rule.	Conversion Field
RECRD	_SEL	Contains a list of all the fields on the conversion record	Conversion Rule
SELCT	_SEL	Used in reconciliation processing. Contains a list of fields to select and insert rows from the TEO2 and TEO3 work records into the TEO1 record after reconciliation. For adjustment reconciliation methods, contains a formula for generating the adjusted amount on the amount field being reconciled. Used in conjunction with the WHERE SQL object for the conversion rule.	Conversion Field
SKEYS	_SET	Contains a clause to set the values of the keys for the conversion record equal to the bind variables stored in the EO_CURRENC2_AET State record. Used during the final update of the converted rows from the TEO3 work record back into the conversion record.	Conversion Rule
SLINE	_SEL	Contains a list of the fields on the EO_CURRENC2_ AETState record that hold the values for the keys on the conversion record. Used during the final update of the converted rows from the TEO3 work record back into the conversion record.	Conversion Rule
WHERE	_WHR	Used in reconciliation processing. Contains the WHERE clause used to select and insert rows from the TEO2 and TEO3 work records into the TEO1 record after reconciliation. Used in conjunction with the SELCT SQL object for the conversion rule.	Conversion Field

Selection Component SQL Objects

The Currency Conversion Utility also creates SQL objects for each conversion rule that represent the three possible operators a user can choose for a selection component at run time (all values, a single value, or a range of values). Which of the SQL objects is retrieved by the Currency Conversion Utility at run time will depend on which operators are selected on the run control Selection Components page for the process group.

The Currency Conversion Utility creates a unique SQL segment for each selection component for each operator value. At run time, the Currency Conversion Utility retrieves the appropriate SQL object based on what operator is specified for that selection component on the run control page.

PeopleCode generates the selection component SQL objects by concatenating the RULE_SQLID with the SQL segment and type.

For example, the following SQL object contains the "Between" SQL segment for the "Book" selection component for LEASE_BOOK conversion record (rule instance number 1) in the AMCURRCONV process group.

```
  Rule SQLID        ->   EO_AMCURRCNVAM00100
+  SQL Segment/Type  ->                      B3 SEL
------------------          ------------------------
   SQL Object        ->   EO_AMCURRCNVAM00100B3 SEL
```

This SQL object stores the following SQL segment:

```
A2.LEASE_BOOK  BETWEEN %Bind(FLDC3A) AND %Bind(FLDC3B)
```

The FLDC3A and FLDC3B bind variables are retrieved from the State record at run time and represent the actual values for the range of books selected for conversion on the Selection Components run control page.

Selection Component SQL Segments

The Currency Conversion Utility uses the following SQL segments and types for selection component operator SQL objects:

SQL Segment	SQL Segment Type	Description
ALL	_WHR	Selects all values for the specified selection component on the conversion record. This is the default operator on the run control Selection Components page. Contains the value 1 = 1
B*n*	_WHR	Selects a range of values (inclusive) for the selection component specified on the run control.
E*n*	_WHR	Selects a single value for the selection component specified on the run control.

Selection Component Run Control Parameters Stored on the State Record

At run time, the Currency Conversion Utility stores the following selection component parameters in the primary State record. The value of *n* is the number (2 through 9) of the selection component other than currency code defined for the process group.

Run Control Parameter	Field in the State Record
To Currency	TO_CURRENCY
As Of Date	ASOF_DT
Selection Component *n* Operator	SELECT_OPER *n*
Selection Component *n* First Value	FLDC *n* A if character field, FLDD *n* A if date field
Selection Component *n* Second Value	FLDC *n* B if character field, FLDD *n* B if date field (used only when a range of values is specified)
Selection Component *n* Name	BNDV *n*

Regenerating SQL Objects for Conversion Rules

To force regeneration SQL objects for all of the Currency Conversion Utility conversion rules for all products, you can either manually generate the objects using the Conversion Rules page, or run the EO_BUILDRULE business component process.

Overview of Regenerating Utility SQL Objects

In general, you should regenerate the SQL objects anytime you make a significant change to a conversion rule. Regenerating the SQL objects ensures that the SQL segments stored in the SQL objects contain the updated SQL.

Whenever you enter a new rule or modify an existing rule, PeopleCode automatically creates or updates the SQL objects for that conversion rule when you save the Conversion Rules component.

You can also manually regenerate SQL objects by clicking on the button with the "world" icon on the Conversion Rules page. Clicking on this button regenerates the SQL objects for all of the conversion rules for a single product within a single process group.

Regenerating Utility SQL Objects using EO_BUILDRULE

Use the EO_BUILDRULE business component when you need to regenerate the SQL objects for *all* of the conversion rules for all process groups. You may want to do this just before testing or if you have made substantial customizations to the Currency Conversion Utility processes and want to ensure that all of the SQL objects for the rules exist and are up to date.

Usage	To regenerate the SQL objects for all of the conversion rules in all process groups. This business component is the EO_BUILDRULE Application Engine program.
Object Name	EO_BUILDRULE
Navigation	*Define Business Processes, Convert Currency, Process, Build Conversion Rules*
Prerequisites	Process groups and conversion rules must already be defined.
Access Requirements	None

To run the EO_BUILDRULE business component, create a new *Run Control ID*. Select the appropriate *Language* and click on the *Run* button to initiate the Process Scheduler request.

To view the names of the SQL objects generated by the EO_BUILDRULE process, use the Conversion Rule inquiry pages.

Describing Utility PeopleCode Functions

This section provides descriptions of the Currency Conversion Utility PeopleCode functions stored in the FUNCLIB_EO function library. Also included is information on which of these functions are used to build the Currency Conversion Utility SQL segments that perform various tasks during conversion.

FUNCLIB_EO Functions

The FUNCLIB_EO function library contains PeopleCode functions used in generating Currency Conversion Utility SQL segments. The table describes where the function is used, and a brief description of what the function does.

Function	Where Used	Description
AddToList	BuildReconSections SelectFromAndWhere	Produces aliases for any calling function.
AddToReconList	BuildReconSections	Loads the scroll used by BuildReconSections to create the GRPBY and RSLCT statements.

Function	Where Used	Description
BuildAllKeysSegment	Main Program	Establishes the key fields for each record involved in the conversion, including subrecords associated with conversion records, and writes the SQL segments that join the conversion records on the keys (AKEYS_WHR, EFFWO_WHR, EFFW1_WHR and EFFW2_WHR).
BuildAuditSegments	Main Program	Constructs the segments used in audit processing for conversion fields associated with conversion rules (AUDIT_SEL).
BuildConvertSegment	Main Program	Builds the convert segment for each rule (CSL*n*, CWH*n*).
BuildReconSections	BuildAuditSegment	Used when a reconciliation is specified for a record (RFROM_FRM, GRPBY_WHR and RCNWH_WHR).
BuildReconSelect	BuildReconSections	Builds the WHERE_WHR, RSLCT_SEL, and the SELCT_SEL statements.
BuildReconWhere	BuildReconSelect	Builds the WHERE clause for reconciliation segments.
BuildRecordSegment	Main Program	Constructs the RECRD_SEL, EFFS1_SEL and EFFS2_SEL segment(s) for each rule.
BuildSQLID	Main Program	Builds the Rule SQLID and Field SQLID for all SQL components.
EstablishOperPredicate	BuildReconSections SelectFromAndWhere	Runs through the operator values that are associated with the selection path and any reconciliations for a rule.
FetchAndSetValues	BuildReconSections SelectFromAndWhere	Function returns values for Recon Join and Path subselect records determined by scroll variables.

Function	Where Used	Description
SelectFromAndWhere	Main Program	Builds out the All (1=1), B (between) and E (Equal to) SQL statements for the run control components (ALL_WHR, B*n*_WHR, E*n*_WHR, CFROM_FRM and CNVWH_WHR).
UpdateSQLRepos	All functions	Writes the SQL statement to the SQL repository using either the Rule or Field SQLID for each function that builds a SQL segment.

Functions that Build Utility SQL Segments

Following is a list of the PeopleCode functions that build and store the SQL segments stored in the SQL objects in the SQL Repository. Each SQL segment generated by Currency Conversion Utility PeopleCode functions is stored as a separate SQL object in the repository.

Segment Name	Built by Function	Function Location
AKEYS	BuildAllKeysSegment	FUNCLIB_EO.RULE_SQLID.FF
AUDIT	BuildAuditSegments	FUNCLIB_EO.RULE_SQLID.FF
CFROM	SelectFromAndWhere	FUNCLIB_EO.RULE_SQLID.FF
CSL0	BuildConvertSegment	FUNCLIB_EO.RULE_SQLID.FF
CSL1-15	BuildConvertSegment	FUNCLIB_EO.RULE_SQLID.FF
CWH0	BuildConvertSegment	FUNCLIB_EO.RULE_SQLID.FF
CWH1-15	BuildConvertSegment	FUNCLIB_EO.RULE_SQLID.FF
CNVWH	SelectFromAndWhere	FUNCLIB_EO.RULE_SQLID.FF
EFFS1	BuildRecordSegment	FUNCLIB_EO.RULE_SQLID.FF
EFFS2	BuildRecordSegment	FUNCLIB_EO.RULE_SQLID.FF
EFFW1	BuildAllKeysSegment	FUNCLIB_EO.RULE_SQLID.FF

Segment Name	Built by Function	Function Location
EFFW2	BuildAllKeysSegment	FUNCLIB_EO.RULE_SQLID.FF
EFFWO	BuildAllKeysSegment	FUNCLIB_EO.RULE_SQLID.FF
MFROM	Main Program	EO_CURRCNV_RULE.RULE_ SQLID.SPre
GRPBY	BuildReconSections	FUNCLIB_EO.RULE_SQLID.FF
RFROM	BuildReconSections	FUNCLIB_EO.RULE_SQLID.FF
RSLCT	BuildReconSelect	FUNCLIB_EO.RECON_ FUNCTIONS.FF
RCNWH	BuildReconSections	FUNCLIB_EO.RULE_SQLID.FF
RECRD	BuildRecordSegments	FUNCLIB_EO.RULE_SQLID.FF
SELCT	BuildReconSelect	FUNCLIB_EO. RECON_ FUNCTIONS.FF
WHERE	BuildReconSelect	FUNCLIB_EO. RECON_ FUNCTIONS.FF

Describing Utility Objects and Exception Processes

This section provides information on Currency Conversion Utility engine objects that are available for use by exception processes.

Exception processes are conversion processes called by the Currency Conversion Utility that can convert data or perform other conversion tasks using logic not included in the utility engine. Exception processes can be defined at the process group level or the conversion rule level. A process group-level exception process is not directly related to the record being converted. A conversion rule-level exception process relates to a specific conversion record. Exception processes can be called in place of, before, or after process groups or conversion rules.

Utility Records Available for Use by Exception Processes

The following Currency Conversion Utility records are available for exception processes:

- *State Record.* Exception processes can use the primary Currency Conversion Utility State record (EO_CURRENCY_AET). There are a number of fields on this record that are available to exception processes.

- *Run Control Records.* The Currency Conversion Utility includes three run control records that can be used by exception processes. Data can be extracted from the run control records based on the operator and run control ID fields stored in the State record.
- *Temporary Work Records.* Each conversion record has three work records associated with it stored in the cache record in the TEO*n*_RECNAME fields. Two of these work records are available for conversion rule exception processes.

Exception processes can be written in Application Engine or Business Components. If the exception process is not written in Application Engine, an Application Engine program must be used to call the exception process program. This Application Engine "driver" program is the exception process that is defined to the Currency Conversion Utility.

Exception Processes and the Utility State Records

Exception processes can use the Currency Conversion Utility's State records to store and retrieve data during conversion. The primary Currency Conversion Utility State record (EO_CURRENCY_AET) contains a number of "USER" fields that are not used for utility engine processing. These fields can be used by exception processes.

Generally, most of the exception processes delivered with the Currency Conversion Utility are Application Engine programs that use their own State records.

In most cases, exception processes do not perform any commits to the database. The Currency Conversion Utility engine generally does commits.

Exception Process Status Flag

The Currency Conversion Utility State record contains an exception process status flag field (EXCP_PROC_STATUS). The Currency Conversion Utility uses this field to determine the conversion status of the exception process.

Valid values for EXCP_PROC_STATUS include:

A	Active
C	Successfully Completed
E	Completed with Errors
N	Not Yet Processed
P	Processing Now

The default value for this field is *N* (Not Yet Processed). When an exception process is started, the exception process sets the EXCP_PROC_STATUS flag on the primary State record to *P* (Processing Now).

If the exception process completes successfully, the exception process then updates the EXCP_PROC_STATUS field value to *C* (Successfully Completed) or *N* (Not Yet Processed).

The Currency Conversion Utility then evaluates the status flag and continues only if the status flag value is *C* or *N*. If the exception process has set a status flag value of *A*, *E*, or *P*, the Currency Conversion Utility halts conversion processing.

The Currency Conversion Utility updates the exception process status flag from *C* to *N* before starting each new exception process.

Exception Processes and Run Control Records

All of the run control records associated with the Currency Conversion Utility engine processing (RUN_CNTL_EO_xx) are available to exception processes. Data can be extracted from the run control records based on the Operator ID and the Run Control ID fields stored on the Currency Conversion Utility State record.

Exception Processes and Utility Work Records

The Currency Conversion Utility uses three temporary work records assigned to each conversion record to perform conversion tasks. Depending on how a conversion rule is defined, the Currency Conversion Utility engine will use either two or three of these work records to store or update data during conversion.

Note. The Currency Conversion Utility for PeopleSoft HRMS also delivers additional work records that use a _TEO4 suffix. These work records are generally used as temporary work records for HRMS exception processes and are usually clones of the original record. Because these work records are specific to HRMS exception processes, they do not contain the additional two Currency Conversion Utility-required fields on the TEO1, TEO2, and TEO3 work records for conversion rules that are required by the Currency Conversion Utility engine.

Because all of the actual conversion work is done in these temporary tables instead of directly in the conversion record itself, exception processes associated with specific records (conversion rule-level exception processes) can use two of these three work records to access data during the conversion process.

In most cases, conversion rule-level exception processes do not directly modify or insert rows directly into the conversion record. This is because rule level exception processes that run before or after the conversion rule may be dependent on changes made to the conversion record by the Currency Conversion Utility (or vice versa). Once a rule and its associated rule-level exception processes have completed successfully, the Currency Conversion Utility replaces the pre-conversion data in the application table (the conversion record) with the converted data from the work records.

If the exception process runs before the conversion rule, it should use the TEO1 work record. If it runs after the conversion rule, it should use the TEO3 work record.

Exception processes determine the work record names by referencing the following bind variable fields in the Currency Conversion Utility EO_CURRENCY_AET State record:

Cache Field Name	Description
TEO1_RECNAME	Contains the name of the record used by exception processes with before or in place of exception process timing specified.
TEO3_RECNAME	Contains the name of the record used by exception processes with after exception process timing specified.

Describing Utility Conversion Restarts

When you run a process group, the Currency Conversion Utility executes all of the steps in the EO_CURRENCY Application Engine program for each conversion rule in that process group. Which steps get executed will depend on how the rule was defined and what conversion criteria were selected at run time.

Data in the conversion record for each conversion rule is not updated unless all the steps required for converting that record complete successfully. The Currency Conversion Utility's restart process tracks the progress of these conversion steps on a run control tracking record. If an error occurs during one of these activities that causes the Currency Conversion Utility to halt the conversion before a process group completes successfully, you will first have to correct the error and then either restart or rerun the process group.

See Chapter 7, "Converting Base Currency Data," Restarting and Rerunning Currency Conversion Utility Run Controls, page 134.

The Currency Conversion Utility's restart process enables you to continue running a process group that has halted during conversion without having to rerun an entire process group from the beginning. This process tracks the Currency Conversion Utility's successfully completed tasks so that it knows where to begin conversion processing in the event of a restart.

Warning! The Currency Conversion Utility's restart process is designed primarily for troubleshooting and analysis purposes and should not be used during the actual conversion. If the Currency Conversion Utility encounters an error during the actual conversion, we recommend that you first correct the error, restore the pre-conversion data, and then rerun the process group using a new run control ID. If you restart the existing run control instead of restoring the original data and rerunning the process group using a new run control, you run the risk of incorrectly converting data.

The Currency Conversion Utility tracks the progress of conversion rules and exception processes for a run control process instance using a status field on the utility RUN_CNTL_CC3_EO run control tracking table. This status field is updated each time a conversion rule or exception process completes successfully. If an error occurs during conversion, the Currency Conversion Utility uses this flag during restarts to determine where to continue conversion once the error is resolved.

In some cases, an exception process may have to re-execute during a restart even if it has already successfully completed. For example, an exception process may check a status flag on another record in order to determine if a rule should execute. The Currency Conversion Utility provides a check box on the exception process definition panel to identify an exception process that should always run even during a restart.

Note. This conversion activity tracking relates to restarts of the same Currency Conversion Utility process group run control, *not* Application Engine restarts.

Overview of Utility Conversion Restarts

The Currency Conversion Utility engine uses a series of Application Engine sections and steps to perform various conversion functions and tasks during conversion. The Currency Conversion Utility tracks each of these conversion activities using the AE Section (AE_SECTION) and AE Step (AE_STEP) fields on the RUN_CNTL_CC3_EO record. Before executing each conversion activity, the Currency Conversion Utility first inserts a row into RUN_CNTL_CC3_EO for that activity and sets the COMPLETE_SW field for that row to *N* (Not Complete). Once the activity has completed successfully, the Currency Conversion Utility then updates the complete switch flag for that row to *Y* (Complete) and moves on to the next conversion activity.

If there is more than one conversion field for a conversion rule, the RUN_CNTL_CC3_EO record uses the Field Instance Number to differentiate between the conversion activities for each of the conversion fields on the conversion rule.

If a conversion activity is for the entire rule rather than a single conversion field, the Currency Conversion Utility sets the Field Instance Number on the RUN_CNTL_CC3_EO record to zero. An example of this is the "Rule Complete Marker" row in the RUN_CNTL_CC3_EO table used to mark the successful completion of an entire conversion rule.

If any error occurs before the conversion record is updated, the Currency Conversion Utility abends and does not perform a commit for that conversion record. To continue conversion, you will have to correct the error, and either restart or rerun the process group.

See Chapter 7, “Converting Base Currency Data,” Restarting and Rerunning Currency Conversion Utility Run Controls, page 134.

When you restart a process group run control after correcting an error, the Currency Conversion Utility looks at the RUN_CNTL_CC3_EO record to determine where to restart processing. Unless an exception process has been defined to always execute on restarts, the Currency Conversion Utility will bypass all of the rows in this table with complete switch flags of *Y* and will restart at the first task with a complete switch flag of *N*.

Process Group Restart Example

The following example shows how the Currency Conversion Utility uses the conversion tracking information stored on the RUN_CNTL_CC3_EO run control tracking record to determine where to begin conversion processing in a process group restart.

Note. This example is for illustrative purposes and includes only a subset of the sections and steps in the Currency Conversion Utility engine (EO_CURRENCY).

Conversion Assumptions

Field	Value or Description
Run Control ID	AMCURCON_1
Product ID	AM
Rule Instance Number	7
Conversion Record	COST
Conversion Fields	FROM_CUR COST
Reconciliation Record and Field	RETIREMENT.RETIREMENT_AMT (for the COST field)

Initial Run of Process Group

In this example, we are running a PeopleSoft Asset Management process group that has been run for the first time. The process group's first six rules have completed successfully and the Currency Conversion Utility has updated the conversion records with converted data, and performed commits. Even though these rows will not show in this example, each of these successfully completed conversion rules would have a "Rule Completion Marker" row in the RUN_CNTL_CC3_EO tracking record.

This example tracks the conversion tasks for Rule Instance 7 in this process group.

The Currency Conversion Utility first inserts a row for the utility's DO SELECT section into the RUN_CNTL_CC3_EO record and sets the complete switch flag for that row to *N*. The Currency Conversion Utility's DO SELECT section selects rows from the conversion record and inserts them into that record's TEO1 work record. Once this task is complete, the Currency Conversion Utility updates the complete switch flag for the DO SELECT tracking row to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341

Initial run on RUN_CNTL_CC3_EO: Example 1

The Currency Conversion Utility retrieves the first conversion field (FROM_CUR) from the conversion record (Field Instance 1) and prepares to insert the before conversion image for that field into the TEOA audit detail table for that conversion record. The Currency Conversion Utility first inserts an AUDIT row into the RUN_CNTL_CC3_EO tracking table and sets the complete switch flag for that row to *N*. Note that for the AUDIT row, the Currency Conversion Utility uses an AE_STEP value of *1* for the before audit image, rather than the name of an AE_STEP to indicate this row represents the before (pre-conversion) value of the conversion field.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	**AUDIT**	**1**	**N**	**341**

Initial run on RUN_CNTL_CC3_EO: Example 2

Once the Currency Conversion Utility's AUDIT step successfully inserts the before image of the conversion field into the record TEOA audit table, the utility updates the complete switch flag for this row in the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	**Y**	341

Initial run on RUN_CNTL_CC3_EO: Example 3

The Currency Conversion Utility then retrieves the next conversion field (COST) from the conversion record (Field Instance Number 2), and prepares to insert the before conversion image into the audit table for the conversion record. The Currency Conversion Utility first inserts a second AUDIT row for this field into the tracking table and sets the complete switch flag for that row to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	**AUDIT**	**1**	**N**	**341**

Initial run on RUN_CNTL_CC3_EO: Example 4

Once the Currency Conversion Utility has successfully inserted the before image of this conversion field into the record's TEOA table, the Currency Conversion Utility then updates the complete switch flag for this row in the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	**Y**	341

Initial run on RUN_CNTL_CC3_EO: Example 5

The Currency Conversion Utility prepares to move the conversion rows in the TEO1 work record to the TEO3 work record. The Currency Conversion Utility first inserts a RELOAD/RL_2000 row into the tracking table and sets the complete switch flag for this row to *N*. Note that since this is a rule-level task not related to a specific conversion field, the Currency Conversion Utility uses a Field Instance Number of *0*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	**RELOAD**	**RL_2000**	**N**	**341**

Initial run on RUN_CNTL_CC3_EO: Example 6

Once the RELOAD/RL_2000 step successfully moves the rows from the TEO1 work record to the TEO3 work record, the Currency Conversion Utility updates the complete switch flag for this row in the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	**Y**	341

Initial run on RUN_CNTL_CC3_EO: Example 7

The Currency Conversion Utility prepares to remove rows from the TEO1 work record. The Currency Conversion Utility first inserts a RELOAD/RL_3000 row into the tracking table and sets the complete switch for that row to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	**RELOAD**	**RL_3000**	**N**	**341**

Initial run on RUN_CNTL_CC3_EO: Example 8

Once the Currency Conversion Utility successfully removes rows from the TEO1 work record, the utility then updates the complete switch flag for this row to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	RELOAD	RL_3000	**Y**	341

Initial run on RUN_CNTL_CC3_EO: Example 9

The Currency Conversion Utility prepares to convert the data. The Currency Conversion Utility first inserts a CONVERT/DOCO1000 row into the tracking table and sets the complete switch for that row to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	RELOAD	RL_3000	Y	341
0	**CONVERT**	**DOCO1000**	**N**	**341**

Initial run on RUN_CNTL_CC3_EO: Example 10

The Currency Conversion Utility's CONVERT section converts data by selecting, converting, and moving rows as needed between the TEO1 and TEO3 work records. When all the conversion processing on these TEO records is complete, the Currency Conversion Utility updates the tracking table for the CONVERT row with a *Y* and performs a commit.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	RELOAD	RL_3000	Y	341
0	CONVERT	DOCO1000	**Y**	341

Initial run on RUN_CNTL_CC3_EO: Example 11

The Currency Conversion Utility's RECON100 step inserts rows with calculated amounts (in this case, where the calculated amounts are sums of amounts on related detail records) into the TEO2 work record. Once these rows are successfully inserted, the Currency Conversion Utility updates the complete switch flag on the tracking table for this row to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	RELOAD	RL_3000	Y	341
0	CONVERT	DOCO1000	Y	341
2	RECON	RECON100	**Y**	341

Initial run on RUN_CNTL_CC3_EO: Example 12

The Currency Conversion Utility then inserts a RECON/RECON200 row into the tracking table and sets the complete switch for that row to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	RELOAD	RL_3000	Y	341
0	CONVERT	DOCO1000	Y	341
2	RECON	RECON100	Y	341
2	**RECON**	**RECON200**	**N**	**341**

Initial run on RUN_CNTL_CC3_EO: Example 13

The Currency Conversion Utility's RECON section includes steps that can perform several different types of reconciliations. In this example, a reconciliation method is not required for this conversion field so the Currency Conversion Utility skips this task and simply updates the complete switch for this row in the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	RELOAD	RL_3000	Y	341
0	CONVERT	DOCO1000	Y	341
2	RECON	RECON100	Y	341
2	RECON	RECON200	**Y**	341

Initial run on RUN_CNTL_CC3_EO: Example 14

The Currency Conversion Utility then inserts a new RECON/RECON300 row into the tracking table and sets the complete switch for that row to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	341
1	AUDIT	1	Y	341
2	AUDIT	1	Y	341
0	RELOAD	RL_2000	Y	341
0	RELOAD	RL_3000	Y	341
0	CONVERT	DOCO1000	Y	341
2	RECON	RECON100	Y	341
2	RECON	RECON200	Y	341
2	**RECON**	**RECON300**	**N**	**341**

Initial run on RUN_CNTL_CC3_EO: Example 15

In this example, the Currency Conversion Utility then encounters an error during reconciliation and halts conversion processing for this process group.

At this point in the conversion process, the TEO3 work record is populated with converted rows for Rule Instance 2, and the TEO2 work record is populated with calculated totals from sums of amounts on related detail records.

Note that there is no Rule Complete Marker row (a row with null AE Section and AE Step fields) for this conversion rule. This means that this rule did not complete successfully.

Rule Complete Marker Row

After the Currency Conversion Utility has successfully completed all of the conversion steps for a conversion rule, including any after conversion rule exception processes, the utility inserts a "Rule Complete Marker" row in the tracking table for this conversion rule to indicate that the rule completed successfully. This Rule Complete Marker Row is distinct from other tracking rows because it has a Field Instance Number of *0* and has Nulls in the AE_SECTION and AE_STEP fields. These Nulls mark the beginning of the Currency Conversion Utility process that updates the conversion record with converted data. The complete switch for this row is initially set to *N*.

The Currency Conversion Utility updates the conversion record with the rows of converted data by first selecting rows on the conversion record with keys that match the converted rows in that record's corresponding TEO3 work record. The Currency Conversion Utility then deletes the selected rows in the conversion record, inserts converted rows from the TEO3 record into the conversion record, and performs a commit.

Once the Currency Conversion Utility successfully inserts all the converted rows from the TEO3 record into the conversion record, the utility updates the complete switch flag on the RUN_CNTL_CC3_EO "Rule Complete Marker" row to *Y*. This indicates that this conversion rule (and any exception processes associated with that conversion rule) has completed successfully and the Currency Conversion Utility has performed a commit.

If for any reason the insert of the converted rows from the TEO3 record into the conversion record does not complete successfully, the Currency Conversion Utility does not update any of the rows in the conversion record, does not do a commit, does not update the complete switch flag on the run control tracking record, and rolls back to the last successfully completed conversion task.

Once you correct the error and you restart this process group run control, the Currency Conversion Utility scans the RUN_CNTL_CC3_EO table and bypasses any rows with complete switch flags and restart at the first task with a complete switch flag of *N*.

Restart of Process Group Run Control

Once the error for Process Instance 341 has been corrected, you can now restart the same process group to continue the conversion. To restart this run control, you open the existing run control for this process group and click on the Run button to restart the run control. This creates a new Process Instance number (342).

The Currency Conversion Utility's restart process first scans the RUN_CNTL_CC3_EO tracking table and selects those rows for the process group that do not contain a Rule Complete Marker row. In this example, the result set consists of all conversion rules with a Rule Instance Number of 7 or higher.

The Currency Conversion Utility selects rows in the tracking table with a Rule Instance Number of 7 that have a complete switch flag of *N* and the original Process Instance number (341) and updates these rows to the current process instance (342). The Currency Conversion Utility also updates the Process Instance number in the corresponding TEO1, TEO2, and TEO3 tables as well. The RUN_CNTL_CC3_EO tracking table now contains the following:

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	**342**
1	AUDIT	1	Y	**342**
2	AUDIT	1	Y	**342**
0	RELOAD	RL_2000	Y	**342**
0	RELOAD	RL_3000	Y	**342**
0	CONVERT	DOCO1000	Y	**342**
2	RECON	RECON100	Y	**342**
2	RECON	RECON200	Y	**342**
2	RECON	RECON300	N	**342**

Restart on RUN_CNTL_CC3_EO: Example 1

The Currency Conversion Utility then begins reprocessing where it left off, at the first row in this table with a complete switch flag entry of *N* (Rule Instance Number 7, Field Instance Number 2, AE_SECTION RECON, AE_STEP RECON300).

The RECON300 step inserts the reconciled rows from the TEO3 work record back into the TEO1 work record, where the appropriate row's COST field contains the correctly adjusted amount based on the difference between the calculated total in the TEO2 work record and the RETIREMENT_AMT field on the associated RETIREMENT record. Once these rows have been successfully inserted, the Currency Conversion Utility updates the complete switch flag in the tracking table for this row to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	**Y**	342

Restart on RUN_CNTL_CC3_EO: Example 2

The Currency Conversion Utility prepares for the next reconciliation step and inserts a new row into the tracking table with a complete switch flag set to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	**RECON**	**RECON400**	**N**	**342**

Restart on RUN_CNTL_CC3_EO: Example 3

The RECON400 step deletes rows from the TEO3 work record, moves rows from the TEO1 work record to the TEO3 work record, and deletes rows from the TEO1 work record. Once these tasks are complete, the Currency Conversion Utility updates the complete switch flag for this row on the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	**Y**	342

Restart on RUN_CNTL_CC3_EO: Example 4

The Currency Conversion Utility prepares for the next reconciliation step and inserts a new row into the tracking table and sets the complete switch flag for that row to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
2	**RECON**	**RECON500**	**N**	**342**

Restart on RUN_CNTL_CC3_EO: Example 5

The RECON500 step removes rows from the TEO2 work record. Once this task is complete, the Currency Conversion Utility updates the complete switch flag for this row on the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
2	RECON	RECON500	**Y**	342

Restart on RUN_CNTL_CC3_EO: Example 6

Because there are no more conversion fields on this conversion rule in this process group, the Currency Conversion Utility then prepares to insert the after conversion images into the conversion record's TEOA audit table. The Currency Conversion Utility selects the first conversion field (FROM_CUR, Field Instance Number 1), inserts a new row into the tracking table, and sets the complete switch flag for this row to *N*. Note that the Currency Conversion Utility uses the number *2* as the after conversion image identifier instead of an AE_STEP name.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
1	**AUDIT**	**2**	**N**	**342**

Restart on RUN_CNTL_CC3_EO: Example 7

Once the Currency Conversion Utility successfully inserts the after conversion image of the FROM_CUR field into the TEOA audit table, the utility updates the complete switch flag for this row on the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
1	AUDIT	2	**Y**	342

Restart on RUN_CNTL_CC3_EO: Example 8

The Currency Conversion Utility then selects the next conversion field on this rule (COST) and prepares to insert the after conversion image for this field into the audit table. The Currency Conversion Utility first inserts a new row into the tracking table for this Field Instance Number (2) and sets the complete switch flag for this row to *N*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
1	AUDIT	2	Y	342
2	**AUDIT**	**2**	**N**	**342**

Restart on RUN_CNTL_CC3_EO: Example 9

Once the Currency Conversion Utility inserts the after conversion image of the COST field into the TEOA audit table, the utility updates the complete switch flag on this row in the tracking table to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
1	AUDIT	2	Y	342
2	AUDIT	2	**Y**	342

Restart on RUN_CNTL_CC3_EO: Example 10

The Currency Conversion Utility then prepares to insert the newly converted data from the TEO3 work record into the conversion record. The Currency Conversion Utility first inserts a "Rule Completion Marker" row into the tracking table and sets the complete switch flag for that row to *N*. This row does not contain either an AE_SECTION or AE_STEP.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
1	AUDIT	2	Y	342
2	AUDIT	2	Y	342
0			**N**	**342**

Restart on RUN_CNTL_CC3_EO: Example 11

To update the conversion record, the Currency Conversion Utility first deletes the rows with keys matching the keys on the rows in the TEO3 work record from the application table, and then inserts records from TEO3 work record into the conversion record. The Currency Conversion Utility then truncates rows from both the TEO1 work record and the TEO3 work record. Once these tasks have been successfully completed, the Currency Conversion Utility updates the Rule Complete Marker row for this Rule Instance Number on the tracking table and sets the complete switch flag for this row to *Y*.

FLD_INSTNC_NBR	AE_SECTION	AE_STEP	COMPLETE_SW	PROCESS_INSTANCE
0	DOSELECT		Y	342
1	AUDIT	1	Y	342
2	AUDIT	1	Y	342
0	RELOAD	RL_2000	Y	342
0	RELOAD	RL_3000	Y	342
0	CONVERT	DOCO1000	Y	342
2	RECON	RECON100	Y	342
2	RECON	RECON200	Y	342
2	RECON	RECON300	Y	342
2	RECON	RECON400	Y	342
1	AUDIT	2	Y	342
2	AUDIT	2	Y	342
0			**Y**	342

Restart on RUN_CNTL_CC3_EO: Example 12

The Currency Conversion Utility has completed conversion processing for Rule Instance Number 7. All of the TEO work records for this record are now empty.

Creating an Audit Trail for Converted Data

The Currency Conversion Utility can create audit details (before and after images) of the conversion records on the conversion rules that have been converted by the utility. These conversion fields include those field types converted by the Currency Conversion Utility: Amount, Currency Code, and exchange rates (Rate Multiplier, Rate Divisor).

The Currency Conversion Utility does not include logic to automatically create audit details for exception processes called at the process group level, or exception processes called in place of a conversion rule. The Currency Conversion Utility can, however, track audit details for conversion rule-level exception processes called before or after conversion rules within a process group.

Generating Detail Audits for Conversion Fields

The Currency Conversion Utility automatically generates a detail audit for every conversion field defined on an active conversion record in a process group when that process group is run. You have the option to turn this setting off for the entire process group and run the detail audit only for selected conversion records within that process group.

The *Audit Proc* (processing) audit detail option is selected for every new Currency Conversion Utility process group run control. When this option is selected, the Currency Conversion Utility creates a detail audit for every field on every record converted by the utility when this process group is run. This audit detail does not include fields modified by process group level exception processes called by the Currency Conversion Utility for this process group.

If you want the Currency Conversion Utility to create detail audits for specific conversion records only, and not for the entire process group, select *As Defined* on the run control. The Currency Conversion Utility will then create detail audits for *only* those conversion records where the Detail Audit on the Conversion Rule page definition has been selected.

The *Detail Audit* flag on the Conversion Rules page tells the Currency Conversion Utility to create before and after audit detail for the current conversion record only. Selecting this check box causes the Currency Conversion Utility to create a detail audit of this conversion record if the As Defined audit processing option is selected on the process group run control.

The standard Audit Processing option on the run control overrides the Detail Audit rule flag.

Generating Detail Audits for Exception Processes

In most cases, the Currency Conversion Utility does not automatically create detail audits for data converted by exception processes. The Currency Conversion Utility can create detail audits only for exception processes associated with a specific record that run before or after a conversion rule. The Currency Conversion Utility cannot generate audit details for process group level exception processes (not record specific) or for exception processes that run in place of conversion rules. If audit details are required for these exception processes, logic to perform the before and after audit must be included within the exception process.

Audits for Conversion Rule Level Exception Processes

For run before and run after conversion rule exception processes, the Currency Conversion Utility retrieves data based on the rule selection path and maintains before and after audit detail for conversion fields defined on the conversion rule. The Currency Conversion Utility performs updates to the database based on conversion data stored in selected work records.

For run in place of conversion rule exception processes, the Currency Conversion Utility does not maintain an audit trail. Retrieving and moving data to the conversion record occurs only if selection criteria is provided on the conversion rule. If selection criteria is not defined on the rule, logic to perform the audit normally must be included within the exception process itself.

Audits for Process Group Level Exception Processes

The Currency Conversion Utility does not create audit detail for process group level exception processes. To generate audit details for this type of exception processes, audit logic must be included within the exception process itself to retrieve the necessary data, provide a before and after audit "snapshot," and update the appropriate database tables after conversion.

CHAPTER 7

Converting Base Currency Data

This chapter provides an overview of Currency Conversion Utility Application Engine process (EO_CURRENCY) run controls and discusses:

- Restarting and rerunning Currency Conversion Utility process run controls.
- Running the Currency Conversion Utility process.

Note. Because the Currency Conversion Utility conversion processes are very complex and deal with the conversion of extremely important financial data throughout your system, PeopleSoft *strongly* recommends that you contact PeopleSoft Global Services (PGS) for assistance in using the Currency Conversion Utility.

Overview of Currency Conversion Utility Process Run Controls

The Currency Conversion Utility process run controls are similar to standard PeopleTools Process Scheduler run controls. However, there are some additional safeguards built into the Currency Conversion Utility process run controls to ensure that converted data does not get corrupted if an error occurs in the middle of conversion.

When you run a process group, the entire Currency Conversion Utility process runs for each conversion rule in that process group. The sections and steps that are actually executed at run time depends on how the rule is defined and which data is selected for conversion. The Currency Conversion Utility does not actually update the conversion record with converted data until all the required Currency Conversion Utility engine steps are completed successfully for that record's conversion rule.

The Currency Conversion Utility process tracks the successful completion of exception processes using a status setting on the utility's primary State record. When an exception process completes successfully, the Currency Conversion Utility process updates the RUN_CNTL_EO_CC3 run control tracking record and continues on to the next conversion step. If at any point during this process an error occurs, the Currency Conversion Utility process abends, no data on the conversion record is updated, and the process rolls back to the last successfully completed conversion process for the process group. The Currency Conversion Utility process does this so that data in the conversion record does not become partially converted. To prevent partial updates to a record if an error occurs in the middle of conversion, the following restrictions apply to Currency Conversion Utility process run controls:

- You can use a Currency Conversion Utility process run control only once for a specific set of conversion criteria for a process group.
- You cannot change or delete a Currency Conversion Utility process run control once it has begun processing.
- You must create a new run control for each new set of conversion criteria for a process group.

Once a run control starts processing, the Currency Conversion Utility process locks it from further changes by setting a flag on the process run control tracking table and modifying the run control pages so that the fields are no longer selectable. The Currency Conversion Utility process does this because the data in the detail audit tables for the conversion records are tied to the run control.

Restarting and Rerunning Currency Conversion Utility Run Controls

The Currency Conversion Utility process provides a restart process that enables you to continue running a process group run control that is not successfully completed. Because the process handles its own restart capability, the normal PeopleSoft Application Engine restart function is not available. Determining whether to restart or rerun a process group run control depends on several factors, including:

- Is the Run Status field value set to *Completed* or *In Process*?
- Are you doing a pre-conversion analysis or running the actual conversion?
- What type of error did you encounter?
- Do you want to use the same run control criteria you used the last time you ran the same run control?

Restarting a Process Group Run Control

In general, you can restart a Currency Conversion Utility run control if an error occurs before a process group run control is completed and you want the utility to continue conversion processing without rerunning the entire process group from the beginning.

Before you decide whether to rerun or restart a process group, you need to correct the error that caused the Currency Conversion Utility to abend. Once you have corrected the error, carefully consider any post-conversion data integrity issues before you decide whether to restart a process group.

To restart a run control, open the run control ID for the process group you want to restart and click the Run button. You cannot modify any of the conversion criteria on the existing *In Process* run control page. If you need to change conversion criteria, you must rerun the process group with a new run control. You can restart a run control as long as it is not yet completed, or in other words, it still has a run control status of *In Process*.

When you restart an *In Process* run control, the Currency Conversion Utility does not re-execute all of the conversion steps in the process group. Instead, the Currency Conversion Utility skips any completed conversion steps for that run control process instance and restarts conversion processing at the last successfully completed conversion task.

The Currency Conversion Utility's restart process is designed for pre-conversion analysis and testing because it speeds conversion processing. This may be particularly helpful when you troubleshoot process groups with large amounts of data that take a long time to run. Restarting the process group run control from where it abended instead of rerunning it from the beginning can help you quickly analyze which Currency Conversion Utility processes complete successfully and which processes may need further modifying before the actual conversion.

However, PeopleSoft strongly recommends that you do *not* use the Currency Conversion Utility restart during the actual conversion. If you encounter an error during the actual conversion and restart the same process group run control without restoring the data and running the process group again from the beginning, there is no guarantee that all your data will be converted correctly, even if you have fixed the error and the process group appears to complete successfully. In some cases, an exception process may need to re-execute during a Currency Conversion Utility restart even if it has already successfully completed. For example, the exception process may check or set a status flag in a different table required for conversion to continue, or set a required value. There is a check box on the Exception Process page to identify any exception process that should always re-execute even during a restart.

Rerunning a Process Group Run Control

When you rerun a process group, the Currency Conversion Utility re-executes the entire process group from beginning to end. You must create a new run control ID when you rerun a process group. You must rerun a process group if you are running the same process group using different conversion criteria. For example, if you decide to convert two business units separately and you run a process group once for the first business unit, you must create a new run control to rerun the same process group for the second business unit. In both cases, all of the conversion tasks within that process group execute both times that you run the process group. You must also rerun a process group if you are running the same conversion criteria for the same process group and the run control is already completed. For example, if you modify a rule or exception process for a process group and want to use the same conversion criteria as a previously completed run control, you must create a new run control ID and rerun the process group.

If you rerun a process group using the same conversion criteria, you should always restore the original pre-conversion data in the conversion records first. If you don't, you run the risk of incorrectly processing already converted data. This is particularly important for effective-dated tables where new rows are inserted during conversion. We recommend that you rerun all the process groups as one of the final pre-conversion testing and analysis steps prior to the actual conversion. Rerunning process groups from beginning to end against a copy of the production database prior to the actual conversion helps ensure that all conversion rules and exception processes complete successfully and that all the data converts correctly.

If the Currency Conversion Utility does encounter an error during the actual conversion, we strongly recommend that you do not restart the process group run control. Instead, you should correct the error, restore the original data, and rerun the process group using a new run control ID. Otherwise, you run the risk of incorrectly converting data.

Using the Currency Conversion Utility Process

To run the Currency Conversion Utility process on a process group, specify the process group conversion criteria on the process run control pages. Based on these conversion criteria, the Currency Conversion Utility process executes the appropriate process group conversion rules and calls any associated exception processes to select and convert data. The Currency Conversion Utility process runs for one process group at a time.

In this section, we discuss:

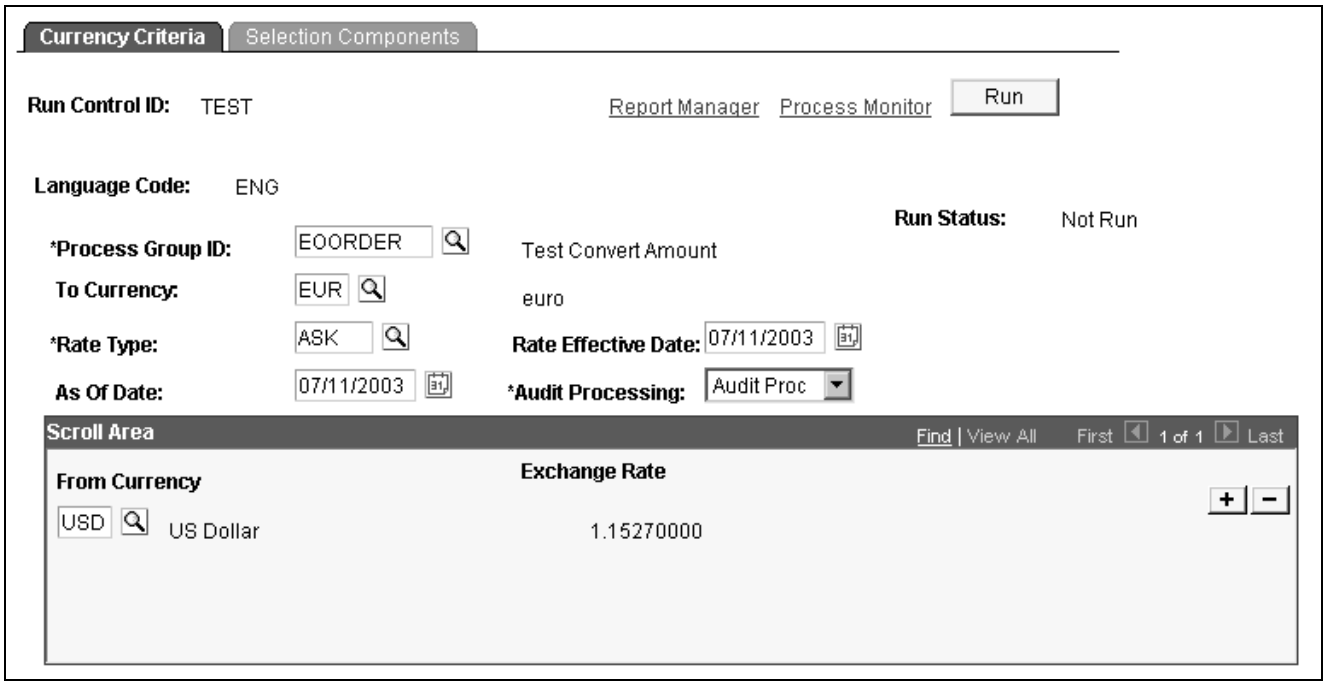
- Specifying currency criteria run control parameters.
- Specifying selection component run control parameters.
- Running the Currency Conversion Utility process.

Pages Used To Use the Currency Conversion Utility Process

Page Name	Object Name	Navigation	Usage
Currency Criteria	RUN_CNTL_CC_EO	Enterprise Components, Currency Conversions, Process Currency Conversion, Currency Criteria	Provide specific rate information for the From Currency or Currencies and the To Currency that the Currency Conversion Utility uses during the conversion process.
Selection Components	RUN_CNTL_CC1_EO	Enterprise Components, Currency Conversions, Process Currency Conversion, Selection Components	Specify conversion parameters for additional process group selection components (if any).

Specifying Currency Criteria Run Control Parameters

Access the Currency Criteria page.



Currency Criteria page

To run a process group, you first specify the currency criteria that the Currency Conversion Utility process should use for conversion. You must specify at least one From Currency (the original base currency), along with information on the To Currency (the new base currency).

Process Group ID Select the appropriate process group.

To Currency Specify the currency to which you're converting.

Rate Type Specify the Rate Type you want to use as the conversion basis.

As Of Date

Specify the date. The default is the current date. If you want to convert data as of a specific date, specify that date as the As Of Date. The Currency Conversion Utility selects conversion records beginning with the record that is effective on that date.

See Chapter 3, "Preparing For a Base Currency Conversion," Determining Your As of Date and Its Impact on Effective-Dated Tables, page 10.

Audit Processing

Specify the value based on how you want the Currency Conversion Utility to generate detail audits for all the conversion fields on the conversion rules in the process group. If you want to run detail audits for certain rules, clear this check box and select the Detail Audit check box on the Conversion Rules page.

As Defined. Generates audit details for those rules that have the Audit Detail check box selected on the Conversion Rules page.

Audit Proc (audit processing). Generates audit details for those rules that have the Audit Detail check box selected on the Conversion Rules page.

Bypass All. Does not generate audit details for any of the conversion rules in the process group.

From Currency

Specify the currency from which you're converting. Insert a new row for each additional From Currency value.

Exchange Rate

Displays the selected currency's conversion rate, based on the To Currency, From Currency, Rate Type, and Rate Effective Date.

The Currency Conversion Utility can convert multiple From Currencies for the same process group, as long as all of the following are true:

- You are converting all the From Currencies to the same To Currency.
- You have not selected the Convert from Single Currency check box on the process group setup page.
- The process group does not have an exception process associated with it that limits the process group to only one From Currency.

Run Status

Changes to reflect the status of the run control for the conversion. You can use the PeopleTools Process Monitor to view the status of conversion run controls. The Currency Conversion Utility sets the Run Status field value based on the following statuses of conversion processing.

Not Run. A run control that has been defined, but not yet run.

In Process. The run control has started, but is not yet completed.

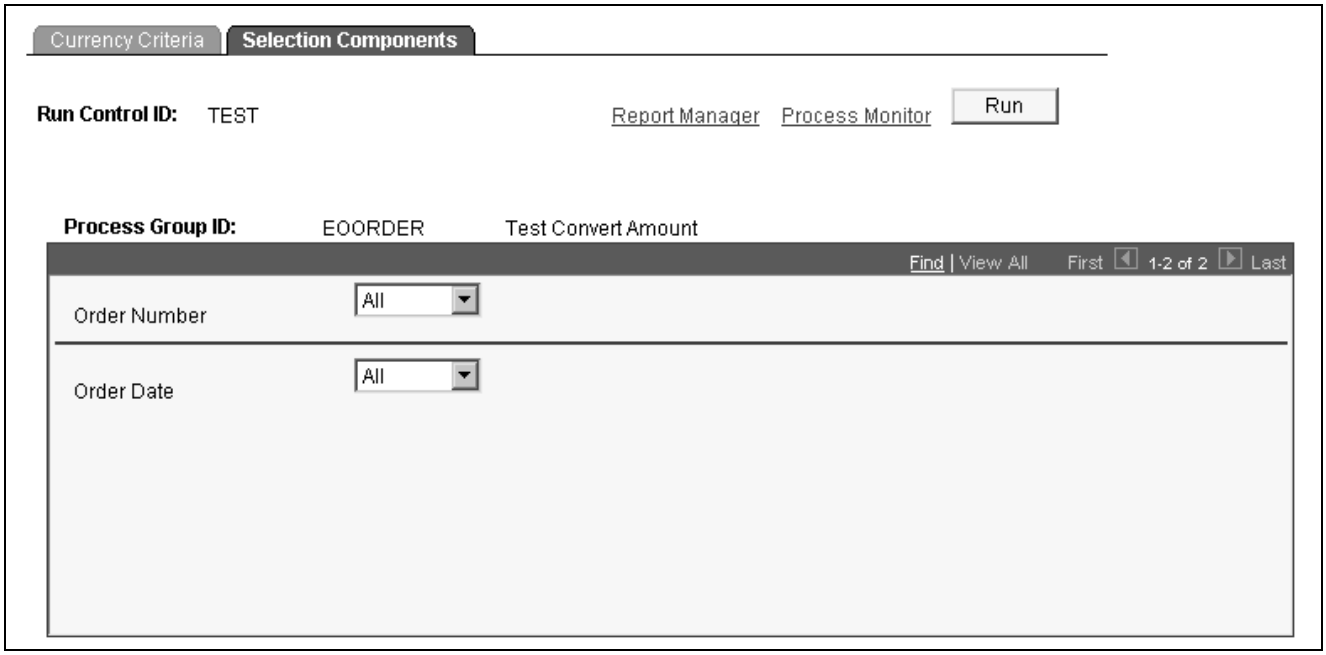
Ran with Errors. The run control is completed, but controlled errors were encountered during conversion.

Completed. The run control ran to completion with no errors.

Note. You cannot modify, alter, or delete a Currency Conversion Utility run control once it is in process; that is, once it no longer has a status of *Not Run*. This ensures that the Currency Conversion Utility correctly identifies where to restart converting data if a process group does not complete all its conversion processes successfully and has to be restarted.

Specifying Selection Component Run Control Parameters

Access the Selection Components page.



Selection Components page

If there are any additional selection components for the process group, you use the Selection Components page to specify which value or range of values to use for these fields at run time.

Because each process group can have a different set of selection components, the Selection Components page changes dynamically to reflect the selection components defined for the process group. Fields on this page can include characters or dates, depending on the selection component type. Character entry fields are free-format. Case-sensitive information must be entered correctly.

For each additional selection component defined for the process group, choose the operator that should be used to select values during conversion:

- *All.*

  Includes all values for that selection component.

- *Equal.*

  Specifies a single value for the selection component. When you select this operator, this page displays an additional data entry field where you can specify the value for the selection component.

- *Between.*

Specifies a range of values for the selection component. When you select this operator, this page displays two additional data entry fields where you enter the From value and Through value of the selection component. The From value must be less than the Through value. The range is inclusive of the From and Through values.

Running the Currency Conversion Utility Process

Once you have defined the process group currency criteria and any selection component values, run the Currency Conversion Utility process on the process group by clicking the Run button. You can view the status of the run control using the Process Monitor. The following page control elements appear on the Process Monitor page:

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).

Process Monitor Click to access the Process List page, where you can view the status of submitted process requests.

Run Click to access the PeopleSoft Process Scheduler request page, where you can specify where a process or job runs and the process output format.

Once the process group is completed successfully, you can query the tables or run your regular reports to verify that the data has converted successfully.

See Also

PeopleTools 8.44 PeopleBook: PeopleSoft Process Scheduler

Glossary of PeopleSoft 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.

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 Human Resources, PeopleSoft Benefits Administration, PeopleSoft Stock Administration, and the COBRA Administration feature of the Base Benefits business process.

action template In PeopleSoft 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 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.

agreement In PeopleSoft 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 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.

AR specialist Abbreviation for *receivables specialist.* In PeopleSoft Receivables, an individual in who tracks and resolves deductions and disputed items.

arbitration plan In PeopleSoft Enterprise Pricer, defines how price rules are to be applied to the base price when the transaction is priced.

assessment rule In PeopleSoft 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 Directory Interface, relates the data that makes up an entry in the directory information tree.

authentication server A server that is set up to verify users of the system.

base time period In PeopleSoft Business Planning, the lowest level time period in a calendar.

benchmark job In PeopleSoft Workforce Analytics, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.

book In PeopleSoft 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."

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 event In PeopleSoft Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

	In PeopleSoft 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 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 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.
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 Catalog Management, translates values from the catalog source data to the format of the company’s catalog.
catalog partner	In PeopleSoft 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.
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 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 Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.
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.*
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.
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, PeopleSoft maintains a set of collections (one per language code) for each search index object.

collection rule In PeopleSoft 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.

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.

condition In PeopleSoft 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. 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.

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 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 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.

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 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.

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 Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, rail, and so on). 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.

directory information tree In PeopleSoft Directory Interface, the representation of a directory's hierarchical structure.

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 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 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.

elimination set In PeopleSoft General Ledger, a related group of intercompany accounts that is processed during consolidations.

entry event In PeopleSoft 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 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.

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 Human Resources, also refers to an incident that affects benefits eligibility.

event propagation process In PeopleSoft 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.

	Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.
exception	In PeopleSoft Receivables, an item that either is a deduction or is in dispute.
exclusive pricing	In PeopleSoft 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 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.
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.
fund	In PeopleSoft 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.
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.
group	In PeopleSoft Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs). In PeopleSoft 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 Time and Labor, for example, employees are placed in groups for time reporting purposes.
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, user interaction objects, and so on.
incentive rule	In PeopleSoft 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 Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.
item	In PeopleSoft Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse). In PeopleSoft 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 Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.
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.

LDIF file Abbreviation for *Lightweight Directory Access Protocol (LDAP) Data Interchange Format file.* Contains discrepancies between PeopleSoft 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.

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.

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.

load In PeopleSoft Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Inventory that is used to track the weight, the volume, and the destination of a shipment.

local functionality In PeopleSoft 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 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.
match group	In PeopleSoft 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 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.
meta-SQL	Meta-SQL constructs expand into platform-specific Structured Query Language (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 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 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.
node-oriented tree	A tree that is based on a detail structure, but the detail values are not used.
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 and non-PeopleSoft 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 Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.
pending item	In PeopleSoft 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.

PeopleCode PeopleCode is a proprietary language, executed by the PeopleSoft application processor. PeopleCode generates results based upon existing data or user actions. By using business interlink objects, external services are available to all PeopleSoft applications wherever PeopleCode can be executed.

PeopleCode event An action that a user takes upon an object, usually a record field, that is referenced within a PeopleSoft page.

PeopleSoft 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.

plan In PeopleSoft 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 Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.

portal registry In PeopleSoft 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.

price list In PeopleSoft Enterprise Pricer, 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 In PeopleSoft Enterprise Pricer, defines 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 condition In PeopleSoft Enterprise Pricer, selects the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields are related to the transaction.

price rule key In PeopleSoft Enterprise Pricer, defines the fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.

process category In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.

process group In PeopleSoft 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.

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 category In PeopleSoft Enterprise Incentive Management, indicates an application in the Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.

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 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 Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.

promotion In PeopleSoft Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.

publishing In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.

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 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 Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft 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*.
reference data	In PeopleSoft Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, channels, and so on.
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 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.
REN server	Abbreviation for *real-time event notification server* in PeopleSoft MultiChannel Framework.
requester	In PeopleSoft eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.
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.

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.

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.

serial genealogy In PeopleSoft Manufacturing, the ability to track the composition of a specific, serial-controlled item.

serial in production In PeopleSoft Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.

session 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 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.

single signon With single signon, users can, after being authenticated by a PeopleSoft application server, access a second PeopleSoft application server without entering a user ID or password.

source transaction In commitment control, any transaction generated in a PeopleSoft 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.

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.

statutory account Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft, this is equivalent to the Alternate Account (ALTACCT) ChartField.

step In PeopleSoft Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.

storage level In PeopleSoft 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 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.

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 Receivables, an activity that defines how the system generates accounting entries for the general ledger.

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.

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, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.

territory In PeopleSoft Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.

TimeSpan A relative period, such as year-to-date or current period, that can be used in various PeopleSoft General Ledger functions and reports when a rolling time frame, rather

	than a specific date, is required. TimeSpans can also be used with flexible formulas in PeopleSoft Projects.
trace usage	In PeopleSoft 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 systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.
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 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.
user interaction object	In PeopleSoft Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All 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 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 data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.

work order In PeopleSoft 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.

worksheet A way of presenting data through a PeopleSoft 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 schema An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.

yield by operation In PeopleSoft 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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