PeopleSoft®

Enterprise PeopleTools 8.45 PeopleBook: PS/nVision

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Enterprise PeopleTools 8.45 PeopleBook: PS/nVision
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Contents

About This PeopleBook

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 conventions 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 *Enterprise PeopleTools 8.45 PeopleBook: 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 website. 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, https://www.peoplesoft.com/corp/en/login.jsp

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 website, access the PeopleBooks Press website under the Ordering PeopleBooks topic. The PeopleBooks Press website is a joint venture between PeopleSoft and MMA Partners, the book print vendor. Use a credit card, money order, cashier's check, or purchase order to place your order.

Telephone

Contact MMA Partners at 877 588 2525.

Email

Send email to MMA Partners at peoplesoftpress@mmapartner.com.

See Also

PeopleSoft Customer Connection, https://www.peoplesoft.com/corp/en/login.jsp

Typographical Conventions and Visual Cues

This section discusses:

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

Typographical Conventions

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

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, 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 letter *O*.
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press the W key.
`Monospace font`	Indicates a PeopleCode program or other code example.
" " (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).

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

Visual Cues

PeopleBooks contain the following visual cues.

Notes

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

Note. Example of a note.

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

Important! Example of an important note.

Warnings

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

Warning! Example of a warning.

Cross-References

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

Country, Region, and Industry Identifiers

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

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

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

Country Identifiers

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

See *About These PeopleBooks*, "ISO Country and Currency Codes," ISO Country Codes.

Region Identifiers

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

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

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

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

Currency Codes

Monetary amounts are identified by the ISO currency code.

Appendix A, "ISO Country and Currency Codes" ISO Currency Codes.

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

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications

PS/nVision Preface

This preface provides a general overview of the contents discussed in PS/nVision.

PS/nVision

This book covers the use of PS/nVision, PeopleTools software that you use to design and create Microsoft Excel spreadsheet reports on PeopleSoft data. It covers the basic concepts behind PS/nVision, how to run PS/nVision reports, how to create the layouts on which reports are based, and how to secure and tune PS/nVision.

CHAPTER 1

Getting Started with PS/nVision

This chapter provides an overview of PS/nVision and discusses how to implement PS/nVision.

PS/nVision Overview

PS/nVision retrieves information from your PeopleSoft database and places it into a Microsoft Excel spreadsheet, in a form that helps you see the big picture, explore details, and make decisions. You use familiar Excel commands to format and analyze the data. With PS/nVision, you spend your time analyzing results rather than summarizing data and entering it into a spreadsheet.

PS/nVision works *within* spreadsheets. You access PS/nVision features from a special PS/nVision menu within Microsoft Excel to create templates (layouts) for data retrieval. Once you create a report layout (XNV file), you can use it to automatically format data.

You can also create a custom front-end macro sheet for point-and-click access to reports and reporting functions. The PS/nVision interface is similar to a Web browser, with customizable buttons and displays.

PS/nVision selects data from your PeopleSoft database using ledgers, trees, and queries. Queries are useful for extracting data from sources other than ledgers, so you should be familiar with PeopleSoft Query concepts, especially query result sets, before working with PS/nVision. Also, tree data is used to limit the query results, so you should be familiar with nodes and detail values.

PS/nVision Implementation

Although PeopleSoft delivers a number of PS/nVision layouts that you can use to run PS/nVision reports, chances are that you want to create your own report layouts and set up PS/nVision to suit your particular needs. Use the following steps, as appropriate.

Note. These setup steps assume that you have already installed and implemented your PeopleSoft applications, that you are familiar with PeopleSoft Query, that you have set up your ledgers in PeopleSoft General Ledger (if you are using PS/nVision to run ledger-based reports), and that you have set up ChartField trees in PeopleSoft Tree Manager (if you are using PS/nVision to run reports based on tree nodes and detail values).

Basic PS/nVision Setup

The following table lists the basic setup tasks that you perform to create and run your own PS/nVision report layouts.

Step	Reference
Set up the PeopleSoft Configuration Manager settings for your Microsoft Windows client. You must define the directories where PS/nVision looks for various file types on the nVision tab on the Edit Profile dialog box in Configuration Manager. **Note.** If, when you first try to access PS/nVision, you see an error message saying that your client machine is not configured for nVision, you may also need to click Install Workstation on the Client Setup tab in Configuration Manager to load important PS/nVision DLL files to your machine's Windows registry.	See Chapter 11, "Personalizing PS/nVision," Using Configuration Manager, page 97.
Set up PeopleSoft Process Scheduler settings for the PeopleSoft Pure Internet Architecture.	See Chapter 15, "Running PS/nVision Reports on the Web," Configuring PS/nVision on the Web, page 156.
Plan your layouts.	See Chapter 3, "Using Layouts," page 11.
Create layouts.	See Chapter 3, "Using Layouts," Creating Layouts, page 14. See Chapter 4, "Creating Tabular Layouts," page 21. See Chapter 5, "Creating Matrix Layouts," page 27. See Chapter 6, "Creating Ledger-Based Matrix Layouts," page 53.
Define report scopes (optional).	See Chapter 7, "Defining Report Scopes," page 57. See Chapter 15, "Running PS/nVision Reports on the Web," Creating Scope Definitions, page 156.
Define drilldown layouts (optional).	See Chapter 8, "Using DrillDown," page 65. See Chapter 15, "Running PS/nVision Reports on the Web," Using DrillDown on the Web, page 169.
Define nPlosion criteria, defaults, and style sheets (optional).	See Chapter 9, "Using nPlosion," page 75.
Define report distributions based on tree nodes and other scope variables (optional).	See Chapter 17, "Distributing Reports in PS/nVision," page 183. See Chapter 15, "Running PS/nVision Reports on the Web," Configuring the Report Node , page 156.
Set up PS/nVision security.	See Chapter 13, "Setting Up PS/nVision Security," page 123.

Advanced PS/nVision Setup

The following table lists advanced setup tasks you can perform to configure PS/nVision to meet your organization's needs.

Task	Reference
Set up advanced PS/nVision options (optional). This includes selecting whether or not to display warning messages and dialog boxes when PS/nVision runs reports, creating virtual ledgers, and enabling trace files.	See Chapter 10, "Using Advanced PS/nVision Options," page 85.
Personalize PS/nVision (optional).	See Chapter 11, "Personalizing PS/nVision," page 97. See Chapter 15, "Running PS/nVision Reports on the Web," Configuring PS/nVision on the Web, page 156.
Develop Visual Basic applications that call PS/nVision features (optional).	See Chapter 12, "Using the PS/nVision Visual Basic Interface," page 111.
Tune PS/nVision performance (optional).	See Chapter 14, "Tuning PS/nVision Performance," page 135.

Other Sources of Information

In the implementation planning phase, take advantage of all PeopleSoft sources of information, including the installation and upgrade guides, release notes, red papers, updates and fixes posted to PeopleSoft Customer Connection, PeopleSoft curriculum guides, and other PeopleBooks.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Getting Started with Enterprise PeopleTools

CHAPTER 2

Understanding PS/nVision

This chapter describes how to:

- Access PS/nVision.
- Create report instances and layouts.
- Use Excel features.

Accessing PS/nVision

You can access PS/nVision from a the web or from Windows. You can use any of the following three navigation paths:

- From a *PeopleSoft Windows-based application:* Select Go, nVision.
- From *Microsoft Windows:* Select Start, Programs, PeopleSoft 8, nVision. Enter a database name, user ID, and password as you would to start any PeopleSoft application.
- From the *Web:* Select Reporting Tools, PS/nVision.

Note. For PS/nVision to appear in the Microsoft Windows navigation path, select the nVision checkbox, located under the Configuration Manager, Client Setup tab.

Using Windows, when PS/nVision starts, it automatically opens Microsoft Excel. The PS/nVision program itself appears minimized on the Windows taskbar. You can click the PS/nVision icon to open the PS/nVision window, but unless a specific PS/nVision dialog box is currently active in Excel, the PS/nVision window is blank.

Important! Don't close this window—it will end your PS/nVision session, even though Excel is still running.

You initiate PS/nVision commands using the nVision menu in the Excel menu bar or—depending on your setup—by using a special spreadsheet file, NVSUSER.xls, which opens when you start PS/nVision. When you close Excel, PS/nVision is automatically closed as well.

Note. In PS/nVision for Microsoft Windows, you use the PeopleSoft Configuration Manager to configure the locations of various PS/nVision files such as layouts, templates, and spreadsheets.

Note. If, when you first try to access PS/nVision in Microsoft Windows, you see an error message saying that your client machine is not configured for nVision, you may also need to click Install Workstation on the Client Setup tab in Configuration Manager to load important PS/nVision DLL files to your machine's Windows registry.

See Also

Chapter 11, "Personalizing PS/nVision," Personalizing NVSUSER.XLS, page 101

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Using PeopleSoft Configuration Manager," Configuring nVision

Creating Report Instances and Layouts

Each Excel spreadsheet created with PS/nVision is a report *instance* or a report *layout*. A report instance contains data that PS/nVision has retrieved from your PeopleSoft database.. Every report instance is based on a report layout. PS/nVision uses the specified layout to determine the data to retrieve for the report and how to display it.

Creating a PS/nVision report is a three-step process:

1. Define a *report layout* that specifies the ledgers, criteria, or queries to use for the report and how to format the report.

   The report layout is an Excel spreadsheet that doesn't include actual PeopleSoft data; it defines the structure of the report—query information, criteria, text, formulas, graphics, formatting, or other information. Once a layout has been saved, you can use it repeatedly to run reports.

2. Create a report *request*, specifying the layout and runtime options for the report.

3. Run the report request, using the nVision menu in Microsoft Excel, the Run button on the request dialog box, or a button/macro that calls PS/nVision to run the report.

   As the report runs, a copy of the layout, called an *instance*, is populated with data and is saved as a normal spreadsheet file. You can produce multiple instances of the report. For example, you might provide an inventory report for each location within your organization. Each instance is an individual report with up-to-the-minute data from your database, selected and formatted according to the instructions in the report layout.

Note. If you're using a scope with your report, you can produce several instances from one layout with one report request.

Most PeopleSoft applications deliver predefined PS/nVision report layouts (such as Salaries by Department, Balance Sheet, Profit and Loss, and Operations Summary). As with any spreadsheet, a layout spreadsheet can be cloned and modified; you may rarely need to build one from scratch.

Besides the features that are available through PS/nVision, you can use Excel features to personalize layouts (and the resulting reports). For example, Excel includes dynamically linked charting and drawing tools for creating colorful graphs and diagrams. Because the layout is the basis for all reports produced from it, you can format and enhance the report once and get the benefits automatically each time the report is run.

Note. If you're working with PeopleSoft Financials products, you may be interested in using ledgers with PS/nVision and taking advantage of the TimeSpan feature to define reports that roll from period to period without any changes to the layout. Using TimeSpans, the same layout can retrieve year-to-date data based on the as of date for which the report is requested.

See Also

Chapter 7, “Defining Report Scopes,” page 57

Chapter 6, “Creating Ledger-Based Matrix Layouts,” page 53

Layout and Instance Example

To help you visualize the relationship between a report layout and a report instance, this section includes a sample matrix layout with unique data selection criteria for individual rows and columns. Following the layout is an example of a report based on the layout. The Sales and Costs columns specify account numbers, and the rows specify department numbers. In the final report, each cell contains the data for the account number (column) and department number (row) that intersect at that cell.

%APN%			
Department	Description	Sales	Costs
Tree Node for Sales Depts.	Label Associated with Department Table	Software License Revenue Account 600000	Sales Expense Accounts $00000 and $01000
Sales Departments		sum	sum

Sample layout

October			
Department	Description	Sales	Costs
0200	San Francisco	4,800	2,774
0210	Chicago	3,500	1,883
0220	New York	4,800	2,774
0230	Paris	3,800	1,994
0240	Tokyo	5,700	1,778
Sales Departments		23,600	11,203

Sample report

The sample layout contains several types of information:

- Text.

  This refers to text that appears as-is in all report instances. In the sample above, the column headings are standard text that remains the same in all reports created from the layout.

- PS/nVision variables.

PS/nVision replaces variables with values when you run a report. The sample layout uses the %APN% variable for the time period reported on. When PS/nVision creates a report with this layout, it replaces the variable with the period covered by the report. If you use a scope to produce multiple instances of a report, you can use variables in the report heading so each reader knows what data the report contains.

- PS/nVision labels.

  PS/nVision examines the tree structure and determines where to obtain the appropriate label for either a tree node or a detail value. In the example, PS/nVision relates a sales department description to the department table entry for each department corresponding to the Sales Depts tree node.

- PS/nVision selection criteria.

  Selection criteria specify the data to retrieve from your PeopleSoft database. For example, the Sales column in the sample layout has criteria that direct PS/nVision to retrieve data from the Sales account.

- Microsoft Excel formulas.

  These perform calculations on the report data. In the example, the bottom row automatically displays totals of the Sales and Costs columns. You could add a calculated column, Gross Income, calculated via an Excel formula that subtracts Costs from Sales.

- Formatting.

  Formatting information includes attributes such as font size, underlining, column width, print options, and so on. You design your layouts using familiar Excel methods; any formatting and enhancements you place in the layout appear in all reports created from it.

Using Excel Features

In addition to the functionality provided by PS/nVision for retrieving data from your PeopleSoft database, you still have all the Microsoft Excel features at your disposal. This section describes how to:

- Insert formulas.
- Insert and format text.

Inserting Formulas

Formulas allow you to perform calculations, sum column or row data, compute variances, calculate ratios, and so forth. You can use cell references such as =C2+C3, name references such as =Revenue-Expenses, or worksheet functions (see the Excel documentation or online help for a list of commands). All formulas begin with an = (equals) sign. You can use a number of formula operators for calculations. The most common are listed in the following table.

Symbol	Description	Purpose
+	Plus sign	Addition
–	Minus sign	Subtraction
*	Asterisk	Multiplication

Symbol	Description	Purpose
/	Slash	Division
:	Colon	Range
	Space	Intersection
,	Comma	Union
–	Hyphen	Negation
%	Percent sign	Percent
&	Ampersand	Text concatenation operator

To enter a formula, click in the cell on your worksheet where you want the formula or text to appear, and begin typing. As you type, your cursor appears in the Excel formula bar (the rectangular box just below the menu bar, above the worksheet). The Cancel and Enter buttons appear to the left of the cursor.

Excel formula bar

Inserting and Formatting Text

Text is used mainly for column and row headings, captions, and callouts. Excel has a number of formatting features to enhance the appearance of text in your worksheet.

Formatting is also straightforward, provided that you know where to look for the commands. To resize columns and rows in Excel, either highlight the row or column and drag its border, or select Format, Column Width or Format, Row Height. You can also select Column Width, Best Fit to automatically set the width for headings. Don't select Best Fit until you have typed the longest line in the column.

To wrap column headings within a cell, select Format, Cells and then select Wrap Text on the Alignment tab.

Note. You can use conventional Excel commands for additional formatting.

See Also

Microsoft Excel User's Guide

Excel online help.

CHAPTER 3

Using Layouts

This chapter provides an overview of layouts and describes how to:

- Compare tabular layouts, matrix layouts, and QueryLink.
- Work with layouts.
- Create layouts.

Understanding Layouts

PS/nVision enables you to import information directly from your database into an Excel spreadsheet, so you can spend your time analyzing results rather than summarizing data and entering it into your spreadsheet.

To specify the data you want to bring into Excel, you use a report layout. A report layout is an Excel spreadsheet used as a template to define how a report looks and the type of information that goes into the spreadsheet's different cells. A layout does not contain data from the database. Rather, it specifies what data should be mapped directly into your report.

You don't need to create a new layout every time you run a report. Once you have created a library of report layouts, select the existing layout that best suits your needs. PS/nVision keeps track of the layout used in any given report, so to run an existing report you simply select nVision, Report Request and specify the report name or simply click the Run Reports button from the NVSUSER homepage. The correct layout is loaded automatically.

Comparing Tabular Layouts, Matrix Layouts, and QueryLink

PS/nVision offers two kinds of report layouts: tabular layouts and matrix layouts. The major difference between them is how they specify the data to retrieve from the database. In general, tabular layouts lend themselves to detailed transaction reporting, while matrix layouts are more appropriate for summarized reporting and analysis.

Tabular layouts are simpler. They use a query defined in PeopleSoft Query to retrieve data. The columns in the report correspond to the fields returned by the query; the rows in the report correspond to the rows in the query result set. You can specify a heading row, a first result row, and a totals row (if you need one). You can also use scopes in a tabular layout to filter your results.

Matrix layouts have data selection criteria based on the intersection of columns and rows in the spreadsheet, creating a criteria matrix. The data retrieved for an individual cell is determined by a combination of the criteria for its column and its row. Unless you are specifying a query in the matrix layout, all matrix layouts must have at least one TimeSpan, at least one ledger, and at least one ChartField as criteria.

You can specify a ledger, a query, or both a ledger and a query to retrieve data. For PeopleSoft Financials applications, matrix layouts most often use ledgers for data retrieval. PS/nVision knows automatically the tables to access and the fields to retrieve based on the ledger definition.

QueryLink is a PeopleSoft Query feature that enables you to send the results of a query directly to an Excel spreadsheet, bypassing the need for a PS/nVision layout. Any query results sent to Excel through QueryLink are based on the QUERY.XLT Excel template. To make any permanent changes to spreadsheets derived through QueryLink, make the changes to QUERY.XLT.

The table below shows some of the key differences between tabular and matrix layouts, as well as differences between these layouts and QueryLink.

Feature/Function	Matrix Layout	Tabular Layout	QueryLink
Data sources	Multiple queries and ledgers; labels.	Single query.	Single query.
Data	Numbers in matrix, text in labels and variables.	Text and numbers.	Text and numbers.
Data delivery	Matrix intersections of field criteria and queries (amounts) of label and field criteria (text).	Selected query result columns, one data row per spreadsheet row.	All query result columns, one data row per spreadsheet row.
Layouts	One per workbook.	Multiple worksheets per workbook.	None: produces one sheet in template workbook (QUERY.XLT).
Selection criteria	Scope Business Unit Effective Dates Query/Ledger TimeSpan Field Label String	Scope Query	Query
PS/nVision variables	Yes	No	No
Scope	Multiple instances from the layout workbook.	Multiple instances from the layout workbook.	None
nPlosion	Rows and columns.	None	None

Feature/Function	Matrix Layout	Tabular Layout	QueryLink
Drilldown from instance	Yes	No	No
TimeSpans	Yes, with data keyed by year, period.	No	No
Number of layout sheets allowed	One	Many	One

Working With Layouts

Creating a layout depends, in general, on type of layout. However, some basic tasks are common to all layout types. This section describes how to:

- Specify criteria.
- Use nPlosion (matrix layouts only).
- Set a TimeSpan.
- Specify setIDs and business units.
- Enter effective dates.

Specifying Criteria

Data selection is the heart of the PS/nVision layout. The database values retrieved for a matrix-based report are the results of intersecting criteria defined in the matrix layout. These criteria tell PS/nVision exactly the database values to retrieve and where to put them. The values retrieved from a tabular layout are not row and column intersections but the results of a query. Each instance is a list file representing either a partial or complete answer set for that query.

You can specify data selection criteria at the level of the entire spreadsheet, a row or column, or an individual cell. Generally, you specify criteria at the highest level it applies to. So, if you have criteria that apply to the entire worksheet, you specify them at the worksheet level; if you have criteria that are unique to a single cell, you apply them to that cell only.

If there is a conflict between row and column criteria, the row overrides the column criteria. Cell criteria override all other criteria, followed by row, column, and finally worksheet criteria at the lowest level of the hierarchy.

Note. nVision should not use trees with a mixture of dynamic details and range details. The results returned from the reports using such trees could be inaccurate.

See Also

Chapter 5, “Creating Matrix Layouts,” Criteria Types, page 29

Using nPlosion

nPlosion is a feature you can specify within your field criteria. If field criteria uses a tree node value, nPlosion automatically adds rows or columns that contain the sublevels (while subtotaling) as well as detail values found under the tree nodes that you specify. This creates a group of rows or columns that can be summarized—showing just the tree node value—or expanded to show the detail values *and* the summarized value.

You can also use nPlosion to show detailed TimeSpan information.

See Also

Chapter 9, "Using nPlosion," page 75

Setting a TimeSpan

A TimeSpan limits query or ledger results to those from a particular time span. Although you can use TimeSpan in a query-based matrix layout, it's more commonly used in ledger-based matrix layouts.

See Also

Chapter 6, "Creating Ledger-Based Matrix Layouts," Using TimeSpans, page 55

Specifying SetIDs and Business Units

PS/nVision uses the setID you specify when creating a matrix layout to determine available choices when you define layout criteria. If the Use Business Unit in nVision option is clear, the setID can be omitted. If one is entered, it must be valid. To set the Use Business Unit in nVision option on or off, select PeopleTools, Utilities, Administration, PeopleTools Options.

Note. The Use Business Unit in nVision option is selected by default because essentially, all PeopleSoft applications are now using business units.

Entering Effective Dates

When you define a matrix layout, you must always enter an effective date. Like the setID, this controls which values are available for you to select when defining criteria. For some criteria, you can override the global effective date. Generally, it's a good idea to use an effective date as late as any control (tree, department, and so on.) you might want to use in the layout. The effective date used for prompting while designing a layout is not used when running the report; instead, the as of date for trees and other controls is specified in the report request when running a report.

Creating Layouts

This section describes how to:

- Plan a layout.
- Open an existing layout.
- Create a new layout.
- Save a spreadsheet as a layout.
- Choose a layout type.

- Define a layout definition.

Planning a Layout

Before you begin to define a layout online, you should do some planning and outlining on paper so you fully understand what data you want to retrieve, what you want the resulting reports to look like, and so on. The following checklist is a good way to cover your bases before you start defining a layout.

- Outline your report specifications on paper showing desired rows, columns, and headings.
- Examine existing layouts and copy them, if possible, instead of starting from scratch.
- Determine the naming convention for your layout, scope, report request, and instances.
- Determine at which levels (worksheet, column, row, or cell) you should specify the queries and ledgers, fields, and labels you want to use as your criteria.
- Identify existing PeopleSoft queries that might support your query criteria. If they don't exist, you'll have to create them. Do you want to use TimeSpans?
- Identify existing PeopleSoft trees that might support your field criteria, because it's simpler to use tree nodes than to specify detail values as your field criteria. Do you want to use nPlosion?

Opening an Existing Layout

You can open an existing layout to copy the report and then make minor changes to it.

Note. Excel reports in HTML format are sensitive to column width and do not allow text to bleed into adjacent empty cells. If you merge the cell (containing the text that is cut off) with adjacent cells, the text is not cut off when the worksheet is converted to HTML format.

To open an existing layout:

1. Select nVision, Open Layout or click Open Layout from NVSUSER.

   The Open nVision Layout dialog box appears.

2. Select a layout (.xnv) file.

   The directory this dialog box opens to is defined in Configuration Manager.

3. Specify whether you want to create the layout as read-only or not.
4. Click Open.
5. Once the file is open, select Save as Layout from the nVision menu and give the layout a new name.

See Also

Chapter 11, "Personalizing PS/nVision," Using Configuration Manager, page 97

Creating a New Layout

You can create a new layout.

To create a new layout:

1. Select nVision, New Layout.

   The Create New nVision Layout dialog box appears.

2. Enter a name in the *File name* field.

   PS/nVision supports file names up to 50 characters in length. You cannot change the default .xnv extension.

3. Specify whether you want to open the new layout as read-only.

   Select this option enables you to open layouts in read-only mode. This protects shared layouts from accidental changes and eliminates Excel messages indicating that the layout is in use (or resides on a read-only network drive). Changes made to a read-only layout are not saved and are not reflected in the report instances produced.

4. Click Save.

   The new layout is created, saved, and opened for you to define.

See Also

Chapter 3, “Using Layouts,” Choosing a Layout Type, page 16

Saving a Spreadsheet as a Layout

You can save an existing Excel spreadsheet or layout as a new layout.

To save an Excel spreadsheet or layout as a new layout:

1. From nVision, open the spreadsheet using File, Open.
2. Select nVision, Save As Layout.

   The Save As nVision Layout dialog box appears.

   You use this dialog box to save an open Excel spreadsheet (.xls file) as an nVision layout (.xnv file), or to save an open layout as a new layout.

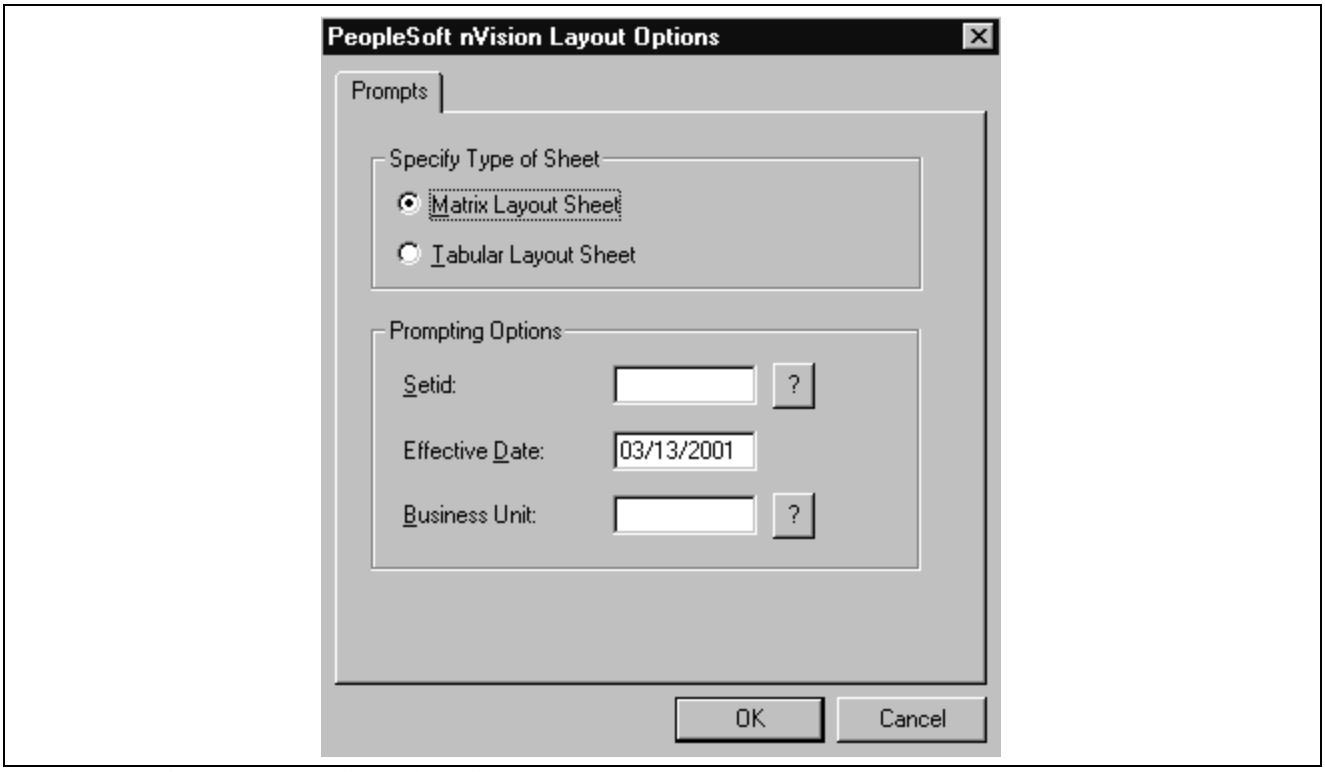
3. Type in a file name and click Save.

   An Excel spreadsheet opens in PS/nVision.

4. Enter any text, such as headings in the columns and rows, that you need to type in manually.

Choosing a Layout Type

When you first create a new layout, the type—matrix or tabular—isn’t yet defined.



PeopleSoft nVision Layout Options dialog box

To specify a layout type:

1. Select nVision, Layout Definition.

   The PeopleSoft nVision Layout Options dialog box appears.

2. Select either Matrix Layout Sheet or Tabular Layout Sheet.

3. Enter a setID, effective date, and business unit.

   A setID identifies the table set you want to work with and corresponds to the set control value used in establishing table set sharing within the PeopleSoft database.

   The effective date determines which values in PeopleSoft tables are valid at the time you develop the report. The effective date is not the same as the as of date that is entered in the report request. (The as of date determines the current period for data retrieval.)

   The business unit represents part of your corporation that is independent with regard to one or more operational or accounting functions. PeopleSoft General Ledger business units typically comprise individual entities for accounting purposes.

   Note. The values you enter here do not determine the setID and effective date used for the reports—runtime controls are specified on the report request. Instead, PS/nVision uses the setID and effective date you enter here to determine the data you can choose from during the creation of your layout.

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4. Click OK.

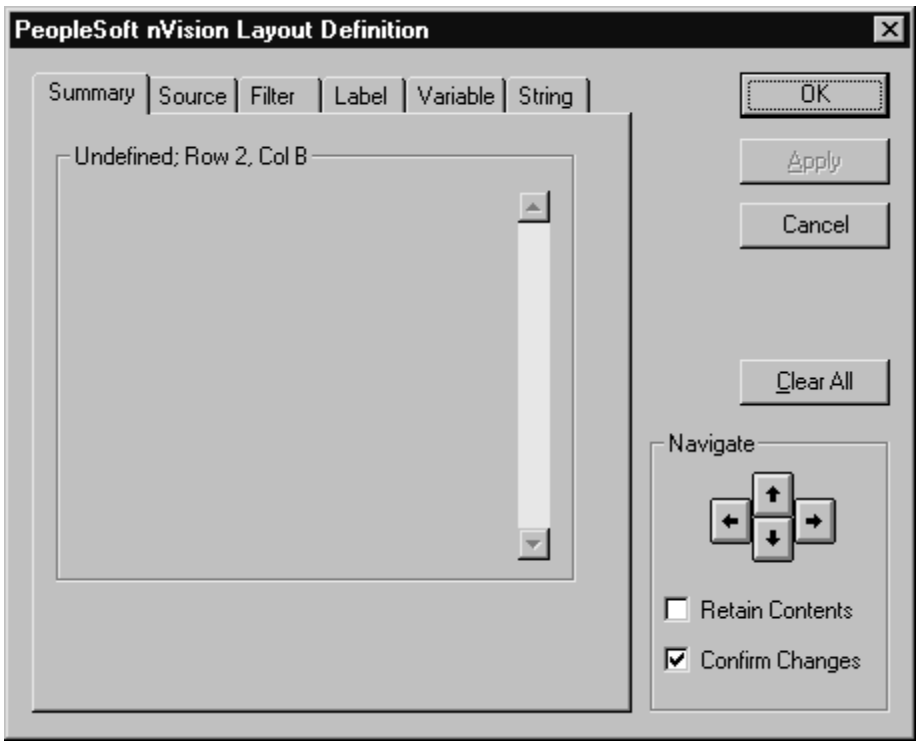
   The nVision Layout Definition dialog box appears, prompting you to define your layout further.

Specifying a Layout Definition

You set layout options for your report using the nVision Layout Definition dialog box. The tabs at the top of the dialog box vary depending on the type of layout you are creating. Click a tab to select layout criteria or special nVision functionality for your worksheet.

Informational Group Boxes

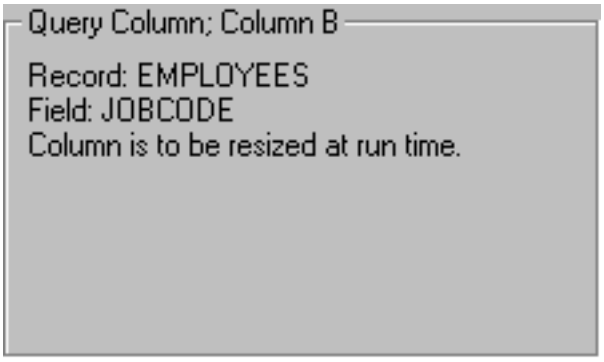
A group box in the upper-left corner of the Summary tab displays information about the contents and location of the selected cells.



Layout Definition dialog box − Summary tab

When there is no PS/nVision information stored in the current selection, the group box appears as it does in this illustration. The box is titled *Undefined*, followed by the location of the cells selected. If you have an entire row selected, the name of that row appears; the same applies to columns. If you have the entire worksheet selected, the location text is *Sheet Defaults.*

If the current selection contains PS/nVision information, the title of the group box reflects that. Also, the details about that information are displayed as the contents of the group box, as shown below.



Informational group box displaying PS/nVision cell contents

Note. When you view a PS/nVision layout, you'll notice that Row 1 and Column A are always hidden. PS/nVision reserves them to store control information, such as data selection criteria; you cannot use Row 1 or Column A in your layout. The first available column is B, and the first available row is 2. Whenever you open a new layout definition, the cell pointer is automatically placed at cell B2—the leftmost and uppermost cell available for use in the layout.

Navigating Within Layouts

To move between cells and columns, use the navigate buttons in the dialog box.

For example, clicking the right arrow moves the cell pointer in Excel one cell to the right. You can select individual cells, or you can select entire rows and columns by navigating to the uppermost and leftmost sides of the layout. You can also select the entire worksheet by navigating to the top-left corner of the layout. The new cell selection is displayed in the informational group box title.

Navigate group box

Select the Retain Contents option to preserve the currently displayed information in the informational group box when you navigate elsewhere. You can then apply the same information to the new cells and make only minor changes, if necessary.

Clear the Confirm Changes check box to stop being prompted to save your changes each time you change the PS/nVision information and navigate elsewhere. This can save time if you're creating a new layout. When this option is cleared, changes you've made to the current row, column, and so on are automatically saved when you use the arrow keys.

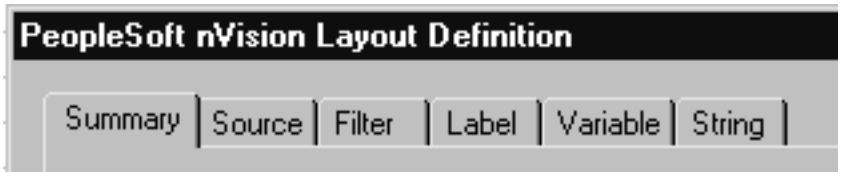
Dialog Box Control Buttons

The OK button will close the dialog box, allowing you to access the Excel menus or to enter text into the worksheet manually. The Clear All button removes any existing criteria from the current selection. When you click Clear All, the Apply button becomes available, allowing you to apply your changes. You can also click Cancel to exit the sheet without clearing criteria.

Note. If you have clicked Clear All and you navigate to another cell or other area of the layout, your criteria are permanently deleted unless you click Cancel before you move the cursor.

Layout Definition Tabs

There are six tabs at the top of most Layout Definition dialog boxes. Not all layout types require the same information, so not all of these tabs appear with each type of layout.



Layout Definition tabs

Using these tabs, you can specify options for your worksheet and for rows and columns. The controls on the dialog box vary depending on whether you have a cell, row, column, or the entire worksheet selected.

Possible tabs are:

Summary	Displays the information about the contents and location of the selected cell.
Source	Allows you to choose query, ledger, and TimeSpan criteria as well as some nPlosion options.
Filter	Identifies specific detail values from PeopleSoft trees. These act to limit query, ledger, and label criteria.
Label	Retrieves descriptive field values from either tree nodes or detail values. Like queries and ledgers, these criteria also perform the role of a data source—although the data is always textual rather than numeric.
Variable	Displays information that is specific to each report request and report instance—for example, scope instance number, reporting period, and other information that can change when you use a different scope.
String	Allows you to build multilingual layouts. Certain text strings are replaced by specially formatted strings whose user-language equivalents are retrieved from a table in the database.

CHAPTER 4

Creating Tabular Layouts

This chapter provides an overview of tabular layouts and describes how to:

- Create tabular layouts.
- Map tabular layout columns.
- Define layout options.
- Create report titles.

Understanding Tabular Layouts

Tabular layouts use PeopleSoft queries to retrieve data. Unlike matrix layouts, tabular layouts don't rely on the intersection of rows and columns to retrieve data. The columns in the report correspond to the fields selected by the query. The rows display the entire query result set, although you can use a scope to limit the results. By using query criteria, you can retrieve data from almost any table in a PeopleSoft database.

When defining a tabular layout, you select a query, then select the query columns to use and the layout columns to map them to.

See Also

Chapter 5, "Creating Matrix Layouts," page 27

Creating Tabular Layouts

To create a tabular layout:

1. Create a new layout.
2. Define the layout as a tabular layout.
3. Select nVision, Layout Definition.

   The Layout Options dialog box appears.
4. Select Tabular Layout Sheet and click OK.

   You can also optionally select a setID, effective date, and business unit to be used as prompts when searching for your layouts.

   The Layout Definition dialog box appears.
5. Select the Source tab to specify the query name you want to use.

6. Select a query name from the drop-down list and click OK.

   Because you've chosen to create a tabular layout sheet, PS/nVision knows that you'll be basing this layout on a query. Therefore, the only option available in the Type drop-down list is *Query.*

7. Map the layout columns to query columns.

   See Chapter 4, "Creating Tabular Layouts," Mapping Tabular Layout Columns, page 22.

8. Define options for your worksheet, rows, and columns.

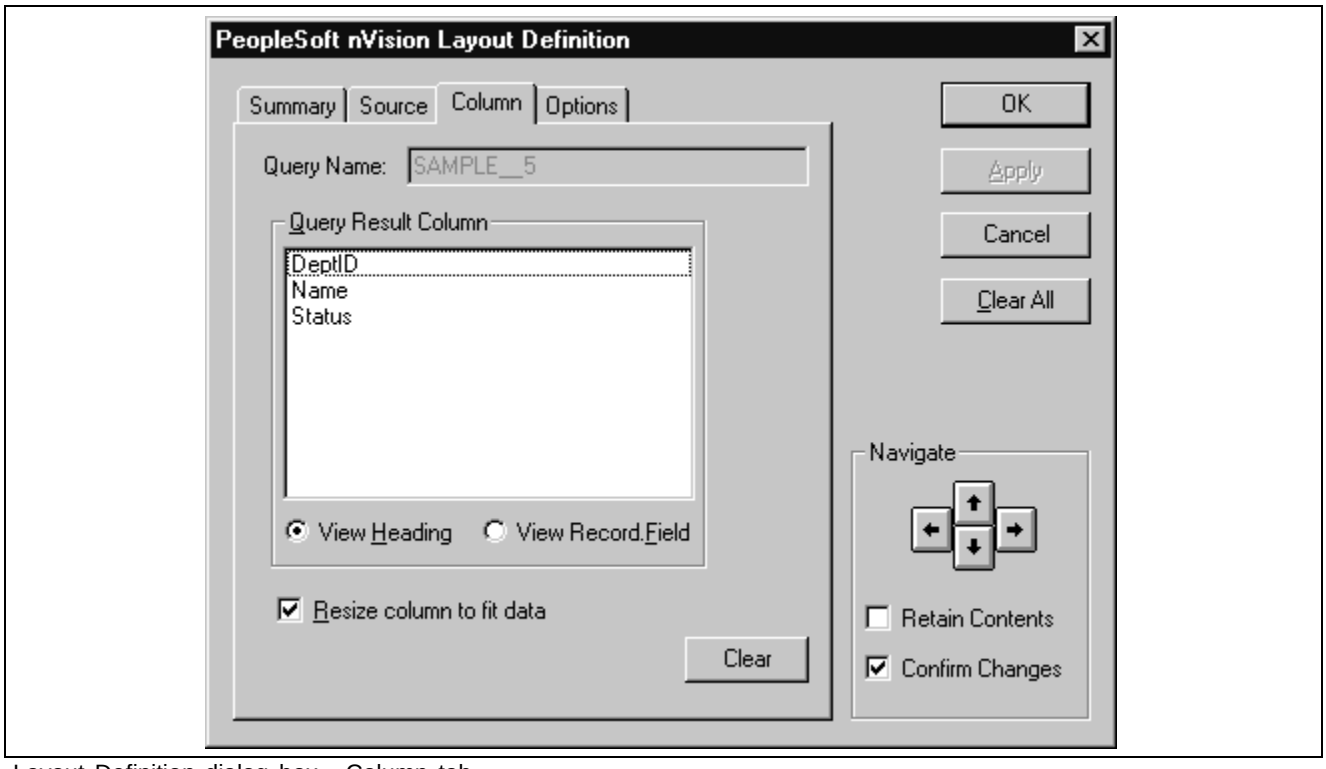
   See Chapter 4, "Creating Tabular Layouts," Defining Layout Options, page 23.

See Also

Chapter 3, "Using Layouts," Creating Layouts, page 14

Mapping Tabular Layout Columns

Make sure that the layout columns are mapped to the appropriate query columns. When a report based on the layout is run, these columns contain the data returned by the query.



Layout Definition dialog box - Column tab

To map layout columns to query columns:

1. From the Layout Definition dialog box, select a layout column to map to a query column.

   Use the Navigate buttons to select a result column in the layout. The column appears as dark gray when selected, and the column tab appears on the Layout Definition dialog box.

2. Select the Column tab that appears on the Layout Definition dialog box.

You use this tab to map a query result column to the selected layout column.

3. Select a query result column.

   The list box shows the output columns associated with the selected query. By default, the list box displays the headings assigned to the result columns in PeopleSoft Query, and View Heading is selected. To see the names of record fields associated with each result column, select View Record Field.

4. Select *Resize column to fit data* to use Excel's AutoFit command to adjust column width at runtime.

   This makes the column as wide as the defined field length when a report is run.

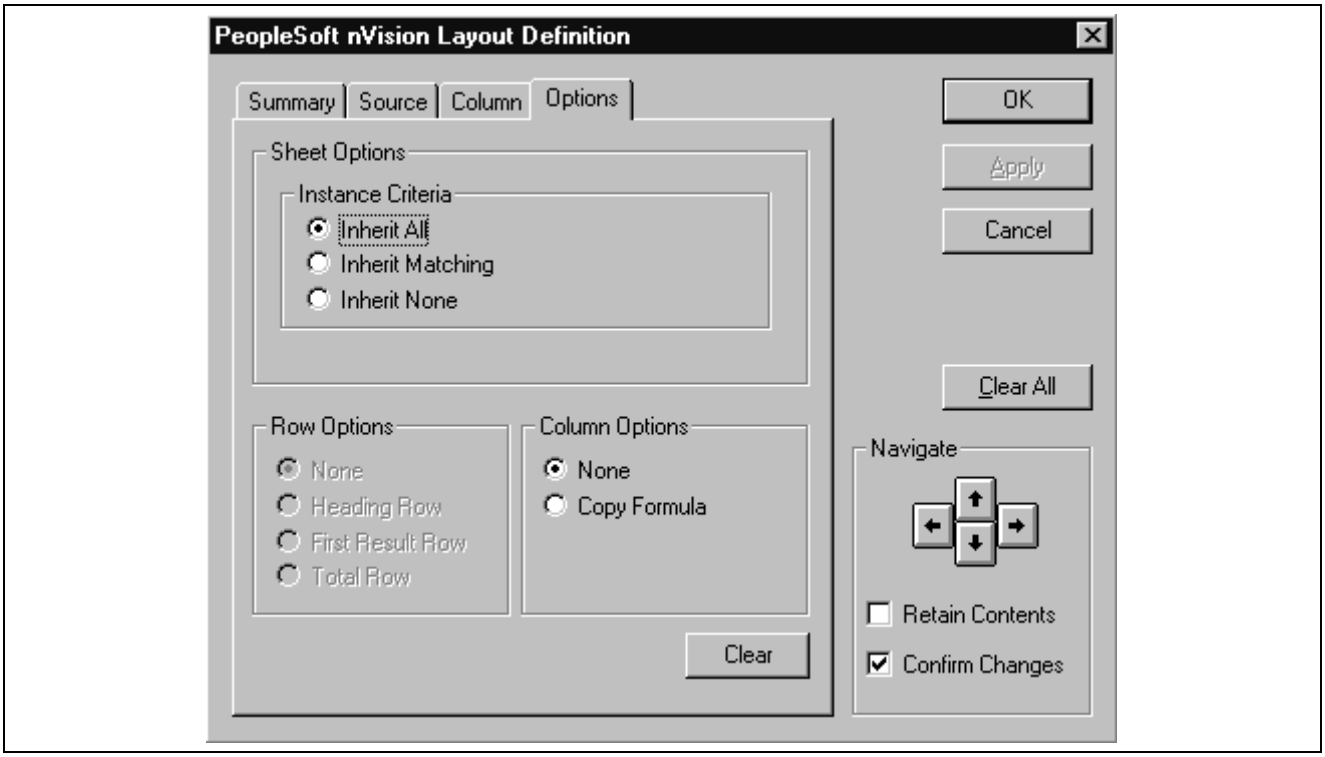
5. Click Apply to save changes and map a different query column to a different layout column, or click OK to save changes and close the dialog box.

   The name of the column you selected is inserted into the third cell of the selected column as a temporary label. When you run a report, this label does not appear. However, you can define a row to display column headings in the report.

   If you clicked Apply, navigate to a new column and repeat steps 3 and 4 to map another query result column.

Defining Layout Options

Select the Options tab on the Layout Definition dialog box.



Layout Definition dialog box - Options tab - Tabular Layouts

The controls available in the dialog box vary depending on whether you have a cell, row, column, or the entire worksheet selected.

Note. If the Options tab doesn't appear, you may have to deselect a column or the worksheet.

Sheet Options

These options apply to the entire layout.

Instance Criteria Select an option to dictate how PS/nVision applies the scope specified in the report request. With a tabular layout, PS/nVision implements scope by adding selection criteria to the query that the layout uses. For each report instance, it adds a criterion that restricts the returned values to those subsets that correspond to the current value of the scope variables. Options include:

Inherit All: Select to have criteria specified in the scope definition apply to the layout. If PS/nVision doesn't find scope definition criteria in the query's table, it displays an error message.

Inherit Matching: Select to specify that only the scope definition criteria found in the query are inherited. PS/nVision ignores all scope definition criteria not found in the query's table.

Inherit None: Select to indicate that PS/nVision should not use the assigned scope when processing the query.

Row Options

These options are available only if you've selected a layout row.

None No special functionality is applied to the selected row. This is the default.

Heading Row The selected row displays the heading of each query column in the layout. If you don't choose a heading row, the layout uses Row 3 as the heading row.

First Result Row The selected row displays the first row of data returned by the query. The rest of the data rows are inserted immediately below this row.

Note. You must define one first result row in your layout.

Total Row The selected row can contain Excel formulas that perform calculations on the result rows in the column. You define the total row in position relative to the first result row; in the report instances, the total row actually appears relative to the last data row. For example, if you leave one blank row in the layout between the first result row and the total row, there will be one blank row between the end of the query data and the totals.

Note. After you select this option, you must manually enter the Excel formulas you want in your total row.

All PS/nVision dialog boxes must be closed before you can manually insert cell contents.

If a formula is to operate on an entire column, be sure to specify a range starting with the first result row and ending one row down. When reports are run, the range is expanded to include all the inserted result rows.

Column Options

These options are available only if you've selected a layout column. Options are:

None No special functionality is applied to the selected column. This is the default.

Copy Formula Any Excel formula found at the intersection of the selected column and the total row is copied to all rows in the column. This allows you to easily create columns that perform calculations based on the other layout columns. For example, if your query returns projected and actual budget data, you might want to add a column that displays the variance.

Note. After you select this option, close the Layout Definition dialog box and access the layout. Highlight the cell at the intersection of the total row and the calculated column and enter the Excel formula you want to use for the column.

See Also

Chapter 7, "Defining Report Scopes," page 57

Creating Report Titles

Since you can't insert variables into a tabular layout, you can't generate report titles automatically, as you would using a matrix layout. To create a report title in a tabular layout, insert a second sheet into your Excel workbook and create a matrix layout. Use the %RTT% variable to create the report title in the matrix layout, and then do an intra-sheet reference in Excel; the report title appears on your tabular report.

See Also

Excel documentation.

CHAPTER 5

Creating Matrix Layouts

This chapter provides an overview of matrix layouts and describes how to:

- Create matrix layouts.
- Define matrix layout criteria.
- Define query or ledger criteria.
- Apply filter criteria.
- Use label criteria.
- Add variable criteria.
- Define string criteria.

Understanding Matrix Layouts

Typically, the PeopleSoft data you report on is in one or more large tables with lots of details—usually ledgers. Using a PS/nVision matrix layout, you can fashion that raw data into a summarized form.

Matrix layouts have data selection criteria associated with columns and rows in the spreadsheet, creating a criteria matrix. The data retrieved for an individual cell is determined by combining the criteria for its column and row.

Example

To illustrate a matrix layout, let's take a simple example. Assume a table on the database appears as follows:

Office	Product	Sales
CHICAGO	PAPER	1,000
BOSTON	SODA	2,000
BOSTON	BOXES	1,200
TORONTO	PAPER	1,500
VANCOUVER	BOXES	5,000

Office	Product	Sales
COPENHAGEN	PAPER	2,000
PARIS	SODA	1,200
TOKYO	PAPER	4,000
SINGAPORE	SODA	1,000
SINGAPORE	PAPER	2,000

A table like this one could get very large in a typical business—too large to tell the manager of sales how the enterprise is doing. From this very large and detailed table, PS/nVision can build a report that summarizes sales by region and product category, with the option to break these down into offices and individual products.

Assuming that the company defines a tree that groups offices into a hierarchy of sales districts, countries, and international regions, we could use that tree to define rows of a PS/nVision report, with one row for each region. Similarly, we could use a tree of products to put different types of products—office supplies, consumer products, and so on—into separate columns. The table below shows an example of how the summarized report might look.

Region	Beverages	Office Supplies
Asia Pacific	1,000	6,000
North America	2,000	8,700
Western Europe	1,200	2,000

Common Elements Used in This Chapter

Navigate buttons Use these buttons in the Layout Definition dialog box to select a row, column, or cell.

Retain Contents If you clicked Apply in the Layout Definition dialog box and you want to reuse all or part of the criteria you just applied, select this option. It preserves all the dialog box information when you navigate to a new cell selection.

Matrix Layout Components

To create a matrix-based report, you define intersecting criteria in the layout. For example, the Beverages column in the example displays sales data where the product type is a beverage. The row criterion limits the displayed data even further. The first row displays only the data for the Asia Pacific region. The second row displays only the data for the North America region, and so on.

You can specify data selection criteria at the level of the entire spreadsheet, or at the level of a row, column, or individual cell. Generally, you specify criteria at the highest applicable level to avoid repeating criteria at the lower levels. If you have criteria that apply to the entire worksheet, (ledgers and TimeSpans are common global criteria), you specify them at the worksheet level (cell A1). If you have criteria that apply to a row, the criteria are entered in column A for that row. Column criteria are entered in Row 1 in the applicable column, and criteria that are unique to a single cell are entered in that cell only.

Note. Cell criteria affect the efficiency of the report, so they should be used only when necessary.

nPlosion

If a field criterion uses a tree node value, nPlosion automatically adds rows or columns that contain the detail values found under that tree node in the format you specify in your layout. This creates a group of rows or columns that can be summarized—showing just the tree node value—or expanded to show the detail values and the summarized values.

You can also use nPlosion to show detailed TimeSpan information.

TimeSpan

A TimeSpan limits query or ledger results to those from a particular time period. Although you can use TimeSpans in a query-based matrix layout, they are more commonly used in ledger-based layouts.

SetIDs and Business Units

PS/nVision uses the setID you specify when creating a matrix layout to determine available choices when you define layout criteria. If the Use Business Unit in nVision option is clear, the setID can be omitted, but it is recommended that you specify one. If one is entered, it must be valid. To set the Use Business Unit in nVision option, from the web select PeopleTools, Utilities, Administration, PeopleTools Options.

Effective Dates

When you define a matrix layout, you must always enter an effective date. Like a setID, this controls available values for defining criteria. For some criteria, you can override the global effective date.

See Also

Chapter 5, “Creating Matrix Layouts,” Defining Query or Ledger Criteria, page 37

Chapter 9, “Using nPlosion,” Defining nPlosion Criteria, page 76

Chapter 6, “Creating Ledger-Based Matrix Layouts,” Using TimeSpans, page 55

Criteria Types

There are six types of matrix-layout criteria:

- Query criteria.

These retrieve an aggregate results column from a PeopleSoft query. The criteria act as data sources for the selected cells.

- Ledger criteria.

  Using ledger criteria is an alternative to using query criteria as a data source. While you can use both ledger and query criteria in the same layout, you'll typically use one type or the other.

Note. You select either Query or Ledger criteria on the Definition Layout - Source tab.

- Label criteria.

  These retrieve descriptive field values from either tree nodes or detail values. Like queries and ledgers, these criteria also perform the role of a data source—although the data is always textual rather than numeric.

- Filter criteria.

  These identify specific detail values from PeopleSoft trees. These criteria act to limit query, ledger, and label criteria.

- Variable criteria.

  Because you can generate many different report instances from one layout—using report scopes—hard-coded text is not an effective way of labeling a layout. Using PS/nVision variables, you can display information that is specific to each report request and report instance (for example, scope instance number, reporting period, and so on).

- String criteria.

  You can include strings from the PeopleTools Strings table in a matrix layout. These strings are language-sensitive and are automatically translated to a user's selected language when the report runs.

Four kinds of criteria—query, ledger, filter, and label—can be combined with other criteria to retrieve specific values. In fact, two of these types—filter and label—return nothing when used alone. They *must* be combined with another criteria type for any data to be retrieved and displayed. The two remaining criteria types—variable and string—can *only* be used alone. The criteria types can be used in the following ways:

- Query or ledger only.

  When you use only a query or only a ledger as criteria, the retrieved data for the specified cell is the same as if you ran the query externally. All values for the specified column are aggregated and displayed.

- Query/ledger with field. (Field selected as filter criteria).

  This is the most commonly used criteria combination. It allows you to limit the values retrieved from the data source (the query or ledger criteria). Essentially, the filter criteria act as a SQL Where clause, limiting the data source results to the rows in which a particular field is found to have the values you specify. You can specify more than one field or field value, in which case the cell displays the combined value of all the query or ledger results that match the filter criteria.

- Label with field.

  As with query and ledger criteria, filter criteria act as a SQL Where clause to limit label criteria to specific values. You use this combination to retrieve descriptive data to identify rows or columns in a report. If you specify more than one field value in this criteria combination, however, the results are not combined. Instead, only one value (label) appears.

- Variable only.

  Variable criteria can be defined only at the cell level—one variable per cell—and only for cells containing no other criteria.

- String only.

String criteria can only be defined at the cell level—one string per cell—and only for cells containing no other criteria.

In addition to the rules defined above, criteria must not return values for an infinite number of cells. For example, you can define query criteria alone at the cell level because the results are displayed in just one cell. But query criteria in a column with no intersecting filter criteria would—if they were allowed to—return cell after cell of the same value, throughout the entire column. The same situation would occur if you defined criteria at the worksheet level and intersected them with criteria in a row or column.

PS/nVision does not prevent you from defining your criteria in this way, but it does not return any data for these situations. To define criteria at the worksheet level, define the intersecting criteria at the cell level, ensuring data retrieval for a finite number of cells.

For combined criteria, valid level combinations are worksheet and cell, row and cell, column and cell, cell and cell, and row and column.

See Also

Chapter 6, “Creating Ledger-Based Matrix Layouts,” page 53

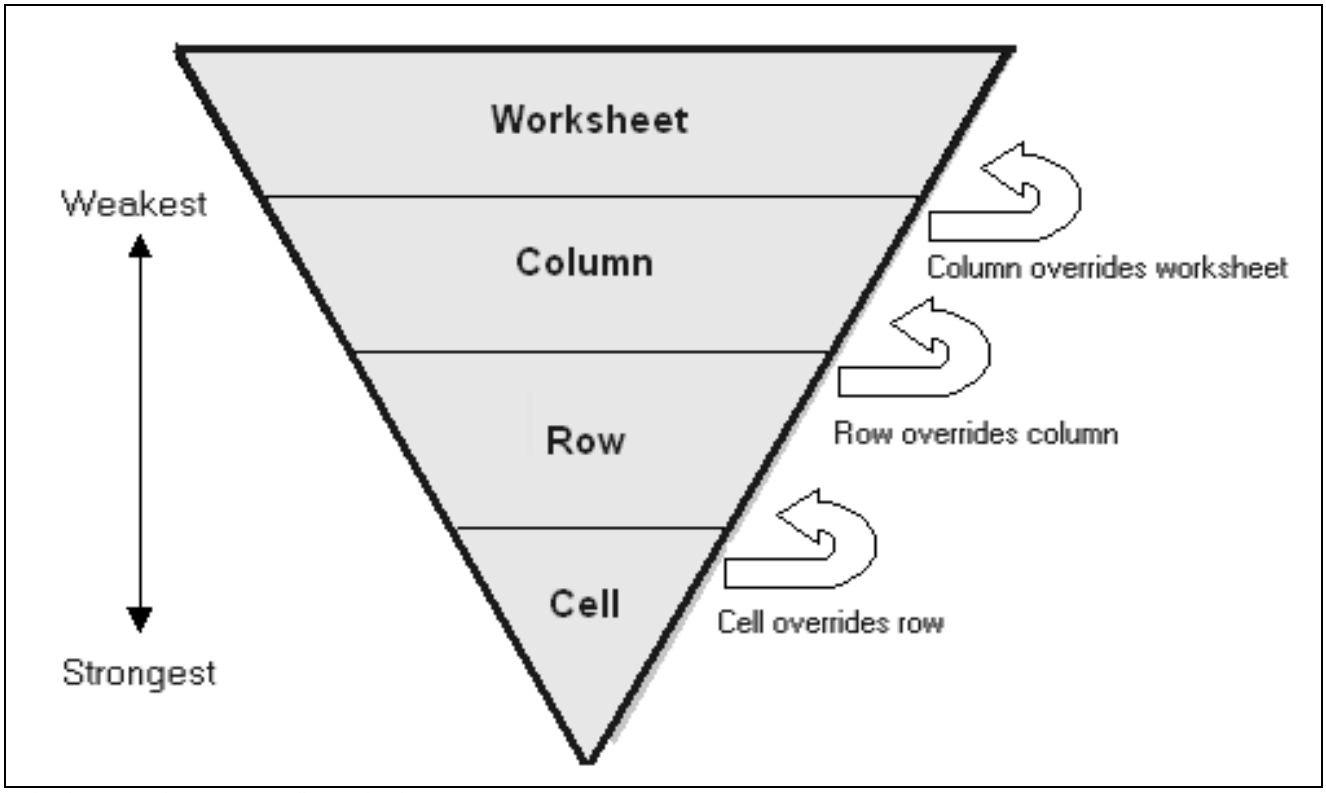
Criteria Inheritance Rules

Cells specified by intersection or by single-cell criteria inherit their selection criteria according to the following rules:

- Criteria defined at the worksheet level specify defaults for the entire worksheet. Criteria at the worksheet level are combined with criteria for columns, rows, and cells, except where the row, column, or cell criteria give a different value for the same criterion. In this case, the worksheet criteria are overridden.
- For the intersection of row and column criteria, criteria are combined where possible. For example, if a row with vendor ID filter criteria intersects with a column using query criteria, both criteria determine the resulting cell value. But if a row and column conflict—for example, if both specify a training location—the row overrides the column criteria.

  However, there is a distinction between filter criteria (for example, Product tree nodes), and criteria types limited to one source, such as query or ledger data source, TimeSpan, and reversal. Data source, TimeSpan and reversal criteria follow the override rules, but filter criteria are added as you go through the sheets, columns, and rows (but not cells). Filter criteria accumulate through this process without regard for the fields they reference.
- A cell can inherit other criteria, such as ledger or TimeSpan, from the sheet, column, and row levels. A cell’s individual criteria, such as a ledger, overrides anything inherited from another level. However, because a cell might need to exclude criteria for a field, PS/nVision ignores inherited filter criteria at the cell level.
- After the above rules have been applied to constructing a query to retrieve data for a group of rows and columns, any instance criteria (from either a scope or the parent instance of a DrillDown) are applied. These do not replace filter criteria from the layout; the instance criteria are added to the other filter criteria (either sheet, column, row, or cell).

The illustration below summarizes inheritance rules for non-filter criteria.



Inheritance rules for non-filter criteria

Criteria Usage

The following tables shows how each criteria type can be used at each level.

Query Criteria

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Cell	Yes	Yes	Filter	When used alone, filter criteria return query column totals. When combined, the filter criteria must be defined in same cell.
Row	Yes	No	Filter	Filter criteria can be defined in cells or intersecting columns.

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Column	Yes	No	Filter	Filter criteria can be defined in cells or intersecting rows.
Worksheet	Yes	No	Filter	Filter criteria can be defined in cells only.

Ledger Criteria

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Cell	Yes	Yes	Filter	When used alone, ledger criteria return ledger amount column totals. When combined, the filter criteria must be defined in same cell.
Row	Yes	No	Filter	Filter criteria can be defined in cells or intersecting columns.
Column	Yes	No	Filter	Filter criteria can be defined in cells or intersecting rows.
Worksheet	Yes	No	Filter	Filter criteria can be defined in cells only.

Label Criteria

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Cell	No	na	na	na

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Row	Yes	No	Filter	Filter criteria can be defined in cells or intersecting columns.
Column	Yes	No	Filter	Filter criteria can be defined in cells or intersecting rows.
Worksheet	No	na	na	na

Filter Criteria

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Cell	Yes	No	Query, Ledger, and Label .	Query/ledger criteria can be defined in same cell, intersecting rows or columns, or the entire worksheet. Label criteria can be defined in intersecting rows or columns.
Row	Yes	No	Query, Ledger, and Label .	Query, ledger, and label criteria can be defined in intersecting columns.
Column	Yes	No	Query, Ledger, and Label	Query, ledger, and label criteria can be defined in intersecting rows.
Worksheet	Yes	na	na	na

Variable Criteria

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Cell	Yes	Yes	None	Variables can only be used alone and at the cell level.
Row	No	na	na	na
Column	No	na	na	na
Worksheet	No	na	na	na

String Criteria

Level	Used at this level?	Used alone?	Combined with other criteria?	Restrictions
Cell	Yes	Yes	None	Strings can only be used alone and at the cell level.
Row	No	na	na	na
Column	No	na	na	na
Worksheet	No	na	na	na

Creating Matrix Layouts

To create a matrix layout:

1. Create a new layout by selecting nVision, New Layout.
2. Give your layout a name.

   It is saved as an XNV file.
3. Enter descriptive titles as appropriate in the rows and columns that you plan to use.

   These titles are not required, but they can be helpful to mark the rows and columns for which you will define criteria.
4. Select nVision, Layout Definition to display the Layout Options dialog box.

5. Define your layout as a matrix layout and define prompting options.
6. Click OK.
7. Open a criteria row and column by selecting nVision, Options, Show Row and Column Criteria.
8. Place your cursor in the cell where you want to add criteria.
9. Double-click the cell or select nVision, Layout Definition to display the Layout Definition dialog box.
10. Add criteria to the layout.

    See Chapter 5, "Creating Matrix Layouts," Defining Matrix Layout Criteria, page 36.

    The type of criteria you define determine the tabs on the Layout Definition dialog box you use.

    Add worksheet-level criteria first. This will always be cell A1.

    To add row criteria, place your cursor on column A, rows 2 through xxx.

    To add column criteria, place your cursor on row 1, columns B through xxx.

    To add cell criteria, place your cursor anywhere within the spreadsheet that you want the result to appear.

Note. As you create a matrix layout, run an occasional report request based on the layout. This gives you some indication that the layout will work as you expect.

See Also

Chapter 3, "Using Layouts," Creating Layouts, page 14

Chapter 5, "Creating Matrix Layouts," Creating Matrix Layouts, page 35

Defining Matrix Layout Criteria

This section provides an overview of the process of defining layout criteria. For details on implementing different criteria types, see the following sections.

To define matrix layout criteria:

1. Select the Source tab.

   In most cases, you'll select the Source tab first to define worksheet-level criteria (cell A1).

   Define the data source and general TimeSpan for the layout. Applying criteria at the worksheet level helps make the report run more efficiently, because you do not have to restate the general criteria in the rows, columns, or cells. You can assign any criteria at the worksheet level that you wish (including data from the Filter tab). Whatever you assign in cell A1 can be overridden in the row, column, or cell criteria.

   There is a restriction on returning infinite cell values. If you define query or ledger criteria at the worksheet level, you can only display results by using cell-level intersections. Row, column, or worksheet-level intersecting criteria are ignored.

   Note. The Ledger type option is not available if you don't use PeopleSoft financial products.

2. Select the Filter tab.

   Use the options on this tab to establish criteria based upon ChartFields and to define nPlosion for the ChartFields you selected. This tab is used for defining row, column, or cell criteria.

Note. Based on the current cell selection and layout criteria previously applied, some buttons on the Filter tab may not be available.

3. Define nPlosion defaults.

   Setting nPlosion defaults can save time when defining row and column criteria. You set these defaults using the nVision Layout Options dialog box, which you get to by selecting nVision, Layout Options.

4. Define column, row, and cell criteria—in that order.

   Use the Navigate buttons to select each column, row, or cell. Then apply criteria types by selecting the appropriate tabs.

   At the column level—with no previously defined criteria—use the Summary and Label tabs. At the row level—with no previously defined criteria—use the Summary, Source, Filter, and Label tabs. At the cell level—with no previously defined criteria—use the Summary, Source, Filter, Label, Variable, and String tabs.

   By defining worksheet, column, row, and cell criteria—in that order—you define layout criteria in ascending order of precedence. At the cell level, any criteria you enter override conflicting criteria defined at higher levels. So if you've defined column-level query criteria and you define a different query for a cell in that column, the query criteria for the cell overrides the column criteria. Remember that if you define filter criteria at the cell level, they are combined with other filter criteria defined at higher levels.

5. Define other layout features.

   You may want to provide additional text and Excel formulas to the report layout. This is also a good time to specify fonts and formatting that you'd like to apply to any report instances based on this layout.

   To enter cell information manually, you must close the Layout Definition dialog box.

6. Save the new layout.

   Click the Save button on the Excel toolbar or select File, Save to save the layout under the name you established earlier.

7. Run a test report.

   You should run a report request based on this layout to verify that the report layout works properly. When you make the report request, you should see PS/nVision populate a report instance with data from your PeopleSoft database.

See Also

Chapter 9, "Using nPlosion," page 75

Chapter 16, "Running PS/nVision Reports in the Microsoft Windows Client," Creating Report Requests, page 173

Chapter 3, "Using Layouts," Specifying a Layout Definition, page 18

Defining Query or Ledger Criteria

This section describes how to:

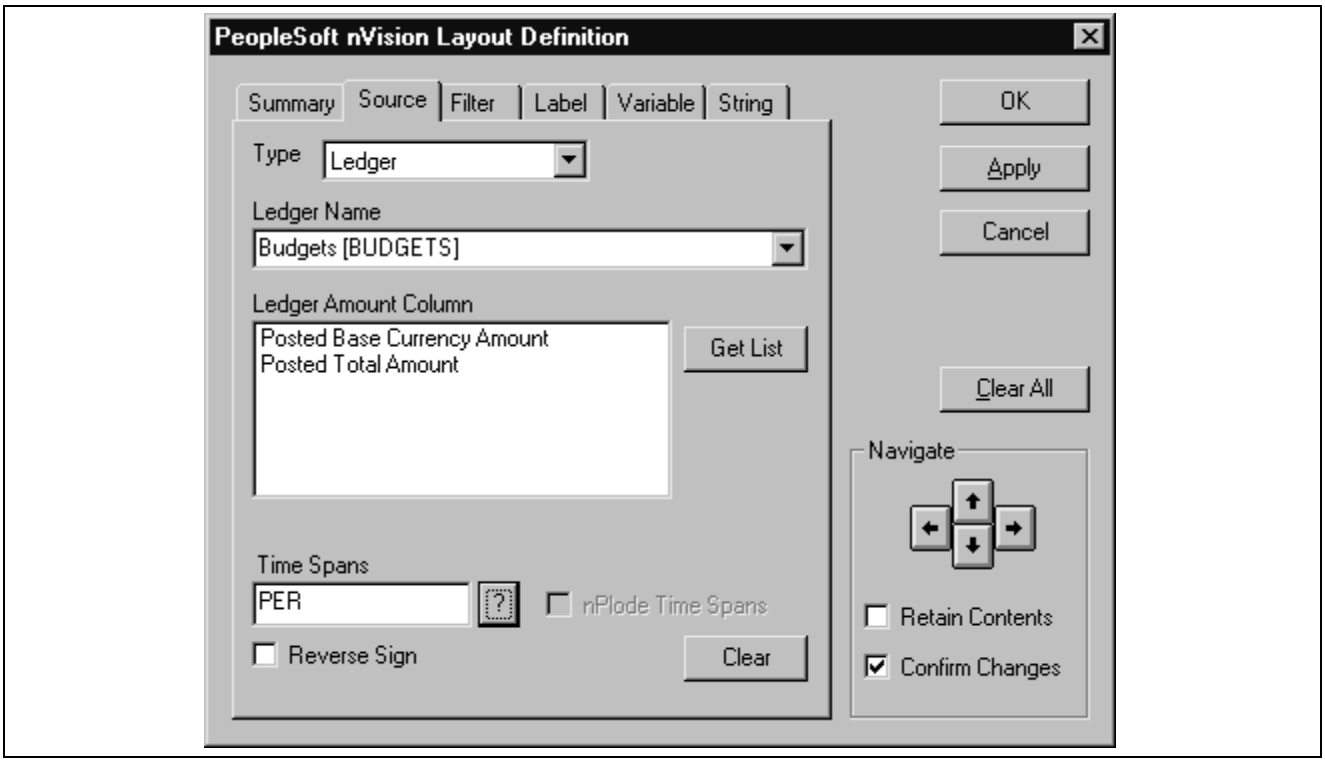
- Choose ledger criteria.

• Choose query criteria.

Choosing Ledger Criteria

Click the Source tab on the Layout Definition dialog box.

Select Ledger from the drop-down box. Like query criteria, you can apply ledger criteria at the worksheet, column, row, or cell level.



Layout Definition dialog box - Source tab

Ledger Name Select the ledger to use.

Ledger Amount Column Click the Get List button and select an amount column from the list.

TimeSpans Select a TimeSpan to limits the amount of information returned in your report.

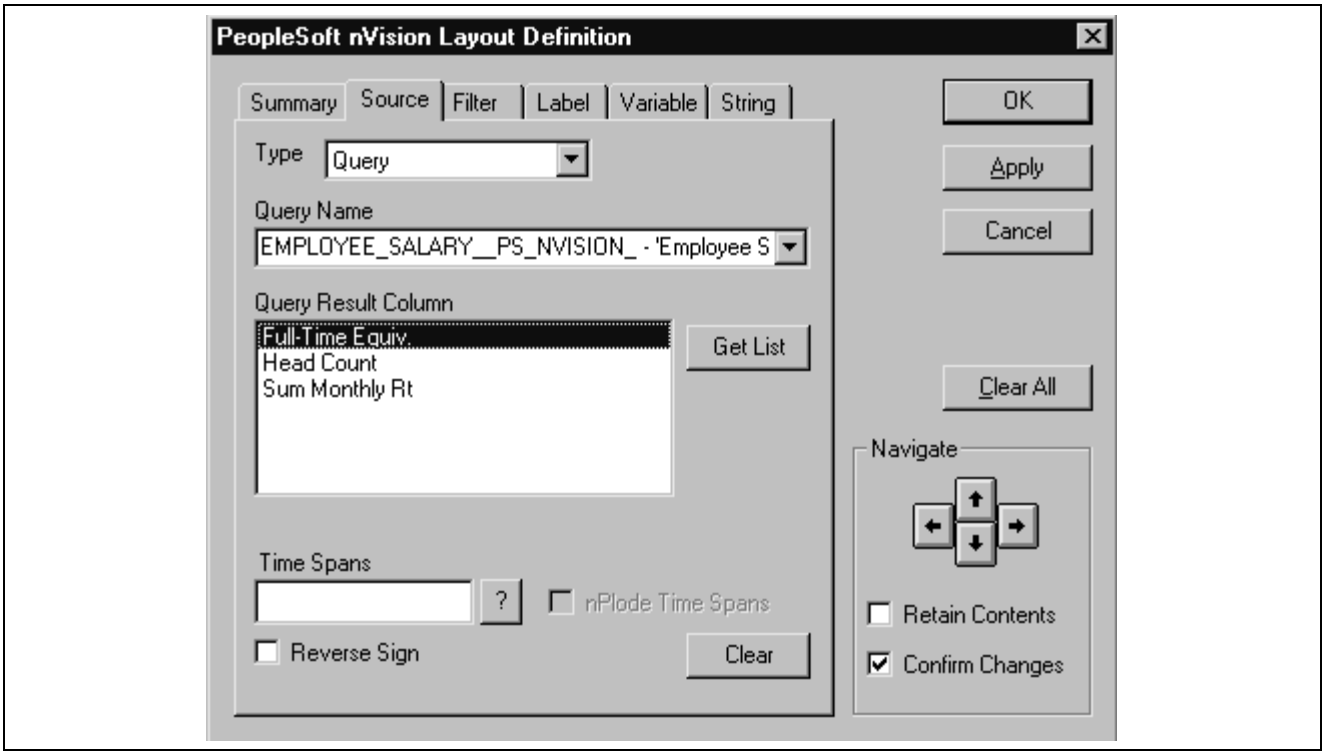
Reverse Sign Select to change the sign of the amounts returned from the database.

See Also

Chapter 6, “Creating Ledger-Based Matrix Layouts,” page 53

Choosing Query Criteria

You use a query created with PeopleSoft Query to specify data to be returned to the matrix. Query criteria specify both a query and a query column. You can choose only columns that are the result of a SQL aggregate function, such as Sum or Count.



Layout Definition dialog box - Source tab

To define query criteria:

1. From the Layout Definition dialog box, select the row, column, or cell to which you want to apply query criteria.
2. Click the Source tab to view the query criteria options.

   The Source tab of the Layout Definition dialog box appears. Use it to specify the aggregate query column that you want to use as a data source.
3. Select *Query* from the Type menu.

   You can also choose *None.*
4. Specify the query name and click the Get List button.

   A list of aggregate columns appear in the Query Result Column list box.
5. Select an aggregate column from the list.

   If the query doesn't contain any aggregate columns, you'll see *(no entries)* displayed in the list box.

   An aggregate query column is either:

   - A data column with an aggregate function (such as Sum or Count).
   - An expression containing an aggregate function, with the Aggregate box selected.
6. (Optional.) Choose a TimeSpan to limit the query data.
7. To have columns or rows containing TimeSpan details automatically inserted, select *nPlode TimeSpans.*
8. To reverse the sign of the amounts returned from the database, select *Reverse Sign.*

   For example, you might want to see revenue reported as a positive number. This is normally set for query criteria at the cell, row, or column level rather than at the worksheet level.

9. Click Apply to save changes and define query criteria for a different group of cells, or click OK to save changes and close the dialog box.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Query, "Working with Advanced Query Options," Working with Aggregate Functions

Chapter 6, "Creating Ledger-Based Matrix Layouts," Using TimeSpans, page 55

Chapter 9, "Using nPlosion," page 75

Applying Filter Criteria

This section provides an overview of filter criteria and describes how to:

- Select filter criteria options.
- Add field and tree node values to filter criteria.
- Add field and detail values to filter criteria.
- Add criteria values.
- Remove fields and values from criteria.

Understanding Filter Criteria

Filter criteria comprise field, or dimension criteria combined with query or ledger criteria. They display a value from the query column results. You can combine filter criteria with label criteria to display a tree node or detail value as a descriptive label. Using nPlosion, one row or column of filter criteria can generate multiple detail rows or columns.

You can apply filter criteria at the column, row, or cell level.

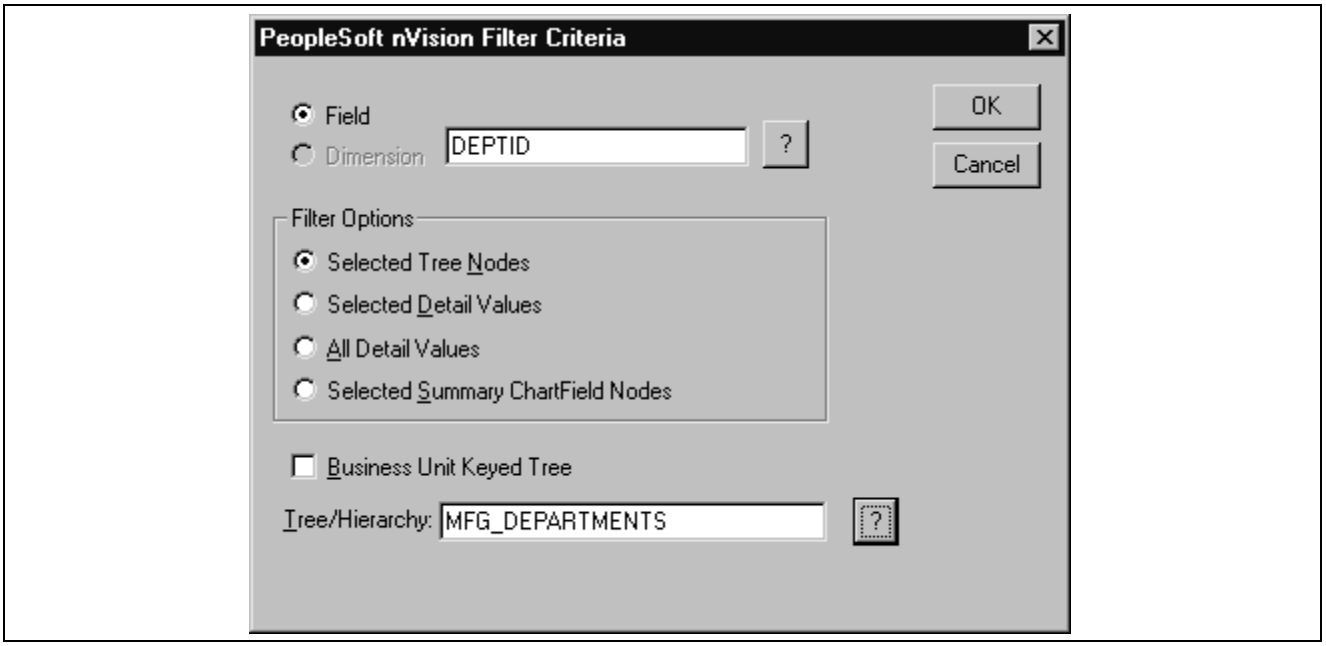
Filter criteria consist of one or more tree detail values. If you select more than one value for your filter criteria, the total of all specified values is used to limit intersecting query or ledger criteria, and the results are displayed as one consolidated value. However, where multi-value filter criteria intersect with label criteria, the label values cannot be combined. Only the first label retrieved appears.

When defining filter criteria, you can use detail values summarized under particular tree nodes, or detail values from value tables. If a value table is entered on filter criteria, it will be used for prompting and nPlosion labeling. During nPlosion, if some field values do not exist on the value table or if nVision cannot find corresponding labels in the value table for some field values, nVision will not include the amount for those values in the nPloded result.

Note. If the value table specified for nPloded labels has an incomplete set of values, the total may be different from a non-nPloded total.

Selecting Filter Criteria Options

To define filter criteria, click the Add button on the Filter tab of the Layout Definition dialog box. The Filter Criteria dialog box appears.



Filter Criteria dialog box

You use this dialog box to select the fields and field values to use as filter criteria.

The text box to the right of the Field radio button displays fields that will be used as criteria. It displays values for only one field at a time—whichever field is selected in the upper text box.

You add fields to this list by clicking the Search button and selecting field names. To choose from a list of fields, type in a partial name before clicking Search.

You use the Filter Options radio buttons to specify the source of the field values you want to add to the filter criteria: selected tree nodes, selected detail values, or all detail values. If your database contains ledgers, you'll see a fourth radio button, Selected Summary ChartField Nodes.

If you choose Selected Summary ChartField Nodes, the Tree field appears, prompting you to choose a tree from which you will select node values to use as criteria. You can choose any tree that uses the specified field for its node values and is defined for the setID and effective date associated with the layout.

If your criteria is based on a business unit keyed tree, select the check box.

See Also

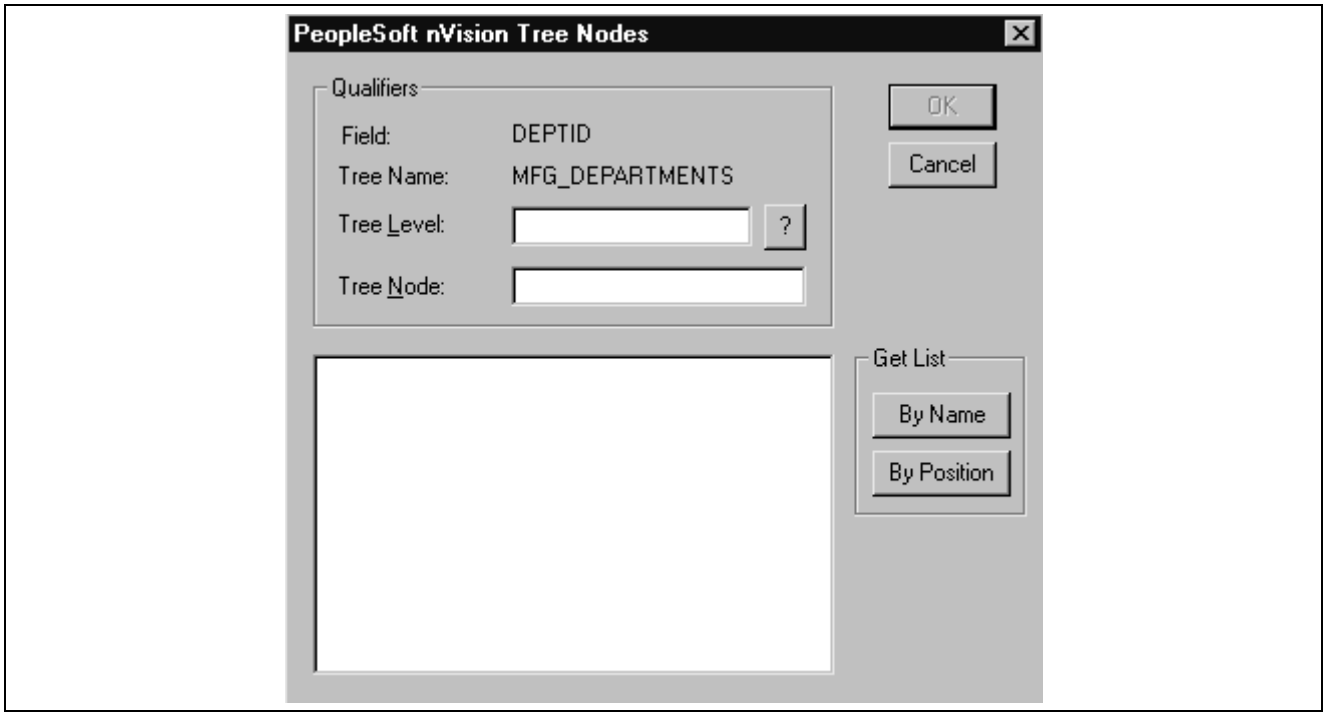
Chapter 6, "Creating Ledger-Based Matrix Layouts," Using Filter Criteria, page 55

Chapter 6, "Creating Ledger-Based Matrix Layouts," Using Summary ChartField Nodes, page 55

Chapter 7, "Defining Report Scopes," Multiple Scope Fields, page 57

Adding Field and Tree Node Values to Filter Criteria

Use the following procedure to access the PeopleSoft nVision Tree Node dialog box.



Tree Nodes dialog box

To add a field and tree node values to filter criteria:

1. On the Filter Criteria dialog box, click the prompt button to the right of the Field radio button.
2. Select a field name and click OK.
3. Enter a partial tree name in the Tree/Hierarchy field and click the prompt button.
4. Select a tree and click OK.

   The Tree Nodes dialog box appears.
5. If you know the exact node you want to add, enter it in the Tree Node field and click OK.

   The dialog box closes and you'll be returned to the Filter tab of the Layout Definition dialog box, where you'll see the added node in the Filter tab's list box.
6. (Optional.) Apply a node list filter.

   To limit node choices to a particular level, choose a valid tree level. To limit node choices to a particular tree branch, enter the tree node at the top of the branch.
7. Display the node list.

   To see an alphabetical listing of the tree nodes, click By Name. Use this button if you've specified a tree level. If you've also specified a tree node, it must be a valid node in the level or no nodes will be displayed in the list.

   To see the hierarchical node structure of the tree—similar to what you'd see in Tree Manager—click By Position. Use this button if you've specified a tree node. If you've also specified a tree level, it is ignored.

Note. You can use the two list filtering buttons together to help you find the nodes you want. For example, you might first want to see nodes at a particular tree level, displayed alphabetically—using By Name—to find the higher-level node you want. Then you can specify that tree node and use By Position to see the portion of the tree headed by that node.

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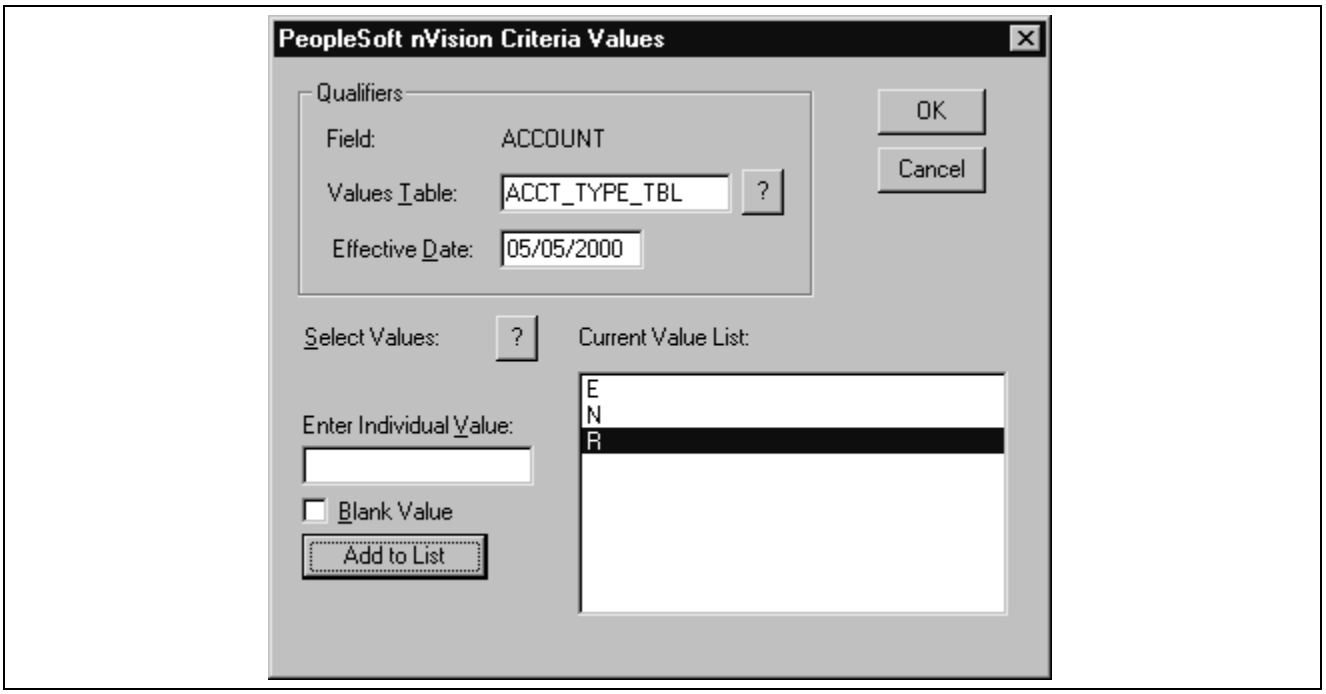
8. Highlight the nodes you want to add.
9. Click OK to add the highlighted nodes.

   The Field Nodes dialog box closes. You can now see the new node values listed in the Filter tab's tree control list box.

Adding Field and Detail Values to Filter Criteria

Use the following procedure to access the PeopleSoft nVision Criteria Values dialog box.



Criteria Values dialog box

To add a field and detail values to filter criteria:

1. At the Filter tab, click the Add button.

   The Filter Criteria dialog box appears.
2. Enter a field name.
3. Select either *Selected Detail Values* or *All Detail Values.*

   Note. If the field is a DrillDown child layout, you can choose all detail values from a tree node. The All Detail Values option is used primarily with nPlosion and DrillDown features.
4. If you selected All Detail Values, enter a values table name.
5. Click OK.

   If you selected All Detail Values, the Field Name dialog box closes and the Filter tab appears again. You can skip the rest of this procedure (you don't need to add specific values, since you are using all of them).

   If you chose Selected Detail Values, the Criteria Values dialog box appears. You use this dialog box to specify the tree detail values you want to add to your filter criteria.
6. In the Qualifiers group box of the Criteria Values dialog box, specify a values table.

7. (Optional.) Enter a new effective date.

   The default effective date is the value you specified when creating the layout definition.

8. Select the values to add.

   If you know the value you want, enter it in the *Enter Individual Value* field and click OK. Otherwise, use the prompt button to display a list of detail values from the Values Table you specified. You can select multiple values before clicking the Add to List button.

9. Select the Add Blank Value check box—with the Enter Individual Value field empty—to include a null value. Click the Add to List button.

   When you click the Add to List button, a null value is added to the list, represented graphically by *(None)* in the Current Value List text box. The null value is added to the top of the list in the list box, but the actual null value is inserted at the bottom of the list on the Filter tab.

   You can change the order of a value by using the order selection controls on the Filter tab.

10. Click OK to save your changes and to close the Criteria Values dialog box.

11. Click OK again to close the Layout Definition dialog box.

See Also

Chapter 8, “Using DrillDown,” page 65

Adding Criteria Values

To add additional criteria values:

1. On the Filter Criteria dialog box, select a specified field.

   If you haven’t specified any fields, you must do so now. During that procedure you’ll be prompted to add criteria values.

2. Click the Add button.

3. At the new dialog box, add your values.

Removing Fields and Values From Filter Criteria

To remove a field and its values from filter criteria:

1. On the Filter Criteria dialog box, select the field to remove.

2. Click the Delete button.

To remove a field value from filter criteria:

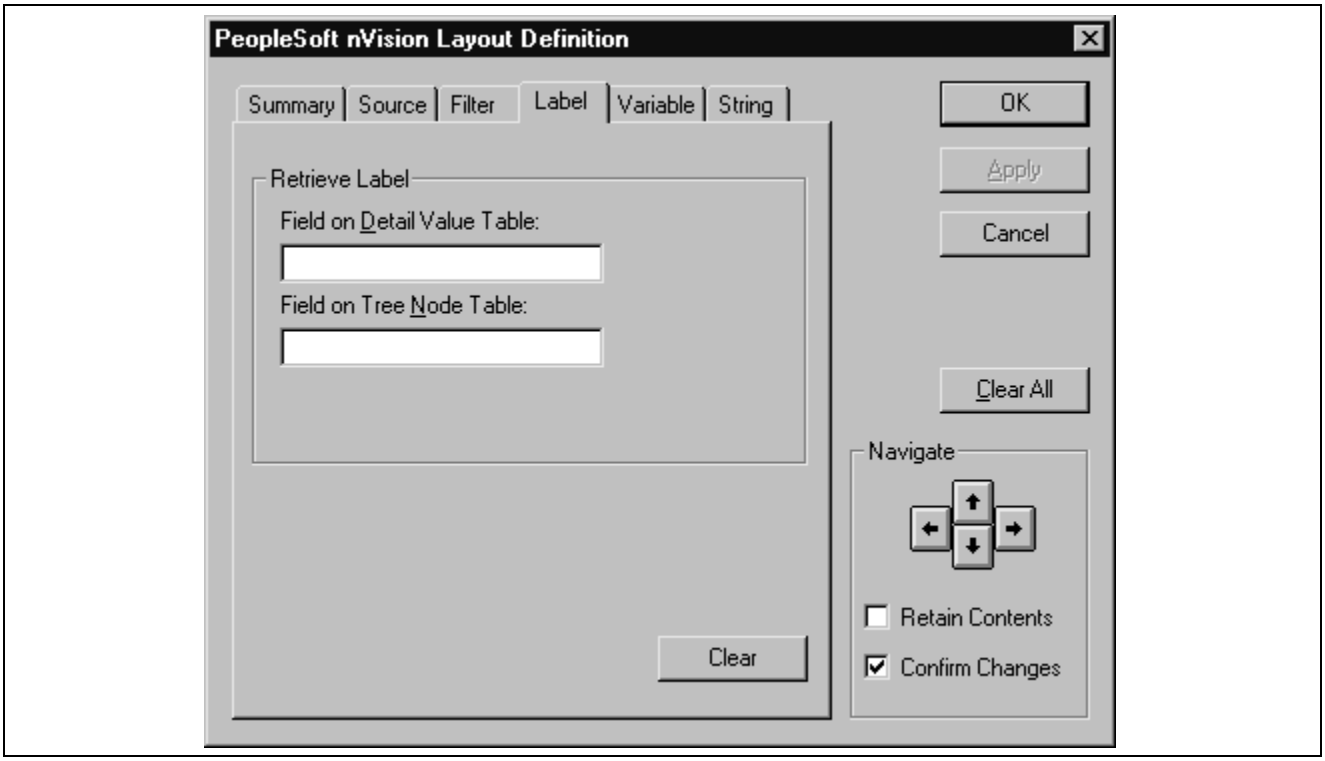
1. On the Filter Criteria dialog box, select the field value you want to remove.

2. Click the Delete button.

Using Label Criteria

You can use label criteria to add descriptive information that corresponds to filter criteria you've defined in the rows and columns of the layout. When you define label criteria, you specify a tree node name or a detail value as the label source. PS/nVision uses this information to generate row and column labels automatically at runtime from detail or tree node records in the database. When you run the report, the rows and columns appear with their labels. Report labels are particularly useful with nPloded rows and columns, since these are generated by PS/nVision, and you don't have a chance to label them yourself.

You can define label criteria at the row or column level. They cannot be defined in any row or column that already contains other criteria types. To label filter criteria entered in the rows of the layout, specify the label criteria in an intersecting column; if you're labeling filter criteria columns, put the label criteria in a row.



Layout Definition dialog box - Label tab

To define label criteria:

1. On the Layout Definition dialog box, select the row or column to which you want to apply label criteria.
2. Select the Label tab.
3. Use the Retrieve Label group box to specify where you want the label to be retrieved from.

   If you're labeling filter criteria that are based on detail table values, use the *Field on Detail Value Table* field to specify a label source. You should also use this field if you want to label the nPloded rows or columns of node-based filter criteria. Enter either the field name itself or a descriptive field from the detail value table, which is defined in the tree structure.

   Note. If you're using fiscal-year TimeSpans, you can also specify a special label for nPloded TimeSpans by entering *ACCOUNTING_PERIOD* in the Field on Detail Value Table field.

If you're labeling filter criteria based on tree node values, use the *Field on Tree Node Table* field to specify a label source. For detail or summary tree node values, enter either *TREE_NODE* or *DESCR*, as these are the only descriptive fields on the TREE_NODE_TBL (as delivered).

For node-oriented trees, enter either the field name itself or another descriptive field from the table that supplies the node values, as defined in the tree structure. For example, for filter criteria based on nodes in the DEPT_SECURITY tree, you might use *DEPTID*, *DESCR*, or *SHORTDESCR*.

4. Choose your runtime options.

   The Runtime Options group box is not visible until you enter a field name in the Retrieve Labels group box.

   If you select *Put labels in blank cells only*, the labels won't overwrite any text, PS/nVision variable, or strings you've inserted in the layout.

   If you've selected a column, you can also select *Resize column for labels.* This automatically applies the Excel AutoFit command to the column at runtime, which makes the column as wide as the widest label.

5. Click Apply to save your changes and define label criteria for a different row or column, or click OK to save your changes and close the dialog box.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Tree Manager, "Introduction to PeopleSoft Tree Manager," Defining Types of Trees

Adding Variable Criteria

This section provides an overview of variable criteria and explains how to define the criteria.

Understanding Variable Criteria

You insert PS/nVision variables into the layout to display heading information that might change from report to report, or between report runs. For example, you could use a variable to automatically insert the report ID you specify in the Report Request dialog box, so you don't restrict this layout to a single purpose. Remember that your layout may be used with a scope that changes its contents, which could make a hard-coded title misleading.

You can define variable criteria at the cell level only—one variable per cell—and the variable must be the only element in that cell.

Note. In addition to using PS/nVision variables in your layouts, you can also use some of these variables in the Instance Controls section of the Report Request dialog box.

When inserting a variable into a cell, you select it from the Variable tab of the Layout Definition dialog box. Because there are many different variables to choose from, the dialog box displays them by category. Tables describing the variables in each category follow.

Note. When you choose a variable, you select its three-letter code. However, when a variable is used in a layout or report request, its code must be enclosed in percent signs (for example, %RID%). The following tables omit the percent signs.

Report Request Variables

Most of the values returned by these values are defined on the Report Request dialog box.

Variable	Returned Value	Sample Value	Remarks
DTS	Detail or Summary (nPlosion enabled or disabled)	S	Defined on the Report Request dialog box. S=Summary (nPlosion disabled). D=Detail (nPlosion enabled).
ICT	Instance Counter	1	Starts at 1 and is incremented by 1 for each additional instance.
IDN	Instance Directory Name	C:\USER\NVISION \INSTANCE	Full path. Defined on the Report Request dialog box (by the Directory Template field).
IFN	Instance Output File Name	<varies>.XLS	Defined on the Report Request dialog box (by the File Template field). The .XLS extension is included.
LAN	Language Template	ENG	Defined on the Report Request dialog box.
LYN	Layout Name	<varies>	Defined on the Report Request dialog box. (Does not include the .XNV extension.)
OPC	User Class	ALLPANLS	Provided by the PeopleSoft security tables.
OPL	User Language	ENG	Provided by the PeopleSoft security tables.
OPR	User ID	WPS004	Provided by the PeopleSoft security tables.
RID	Report Name	<varies>	Defined on the Report Request dialog box.
RBK	Report Book Name		
RTT	Report Title	<varies>	Defined on the Report Request dialog box.

Date and Time Period Variables

These values help you label layouts where different accounting periods are reported in each instance.

Variable	Name	Sample Value	Remarks
APA	Period Abbreviation	DEC	
APN	Period Name	December	
ASD	As of Reporting Date	1995-12-31	Defined on the Report Request dialog box.
AST	As of Tree Date	1996-01-01	Defined on the Report Request dialog box.
FY2	Year (YY)	95	
FY4	Year (YYYY)	1995	
PED	End Date of Current Period	1995-12-31	
PER	Accounting Period	12	

Scope-Related Variables

These values help you label layouts for which you've defined a report scope. A scope is used to define multiple instances of a report based on different field values. For example, you could produce an instance of an expense report for each department, or an operations summary for each business unit.

Variable	Name	Sample Value	Remarks
BUV	Business Unit Name	M04	Defined on the Report Request dialog box.
BUN	Business Unit Description	US1 Manufacturing	
SCN	Scope Name	DEPARTMENT	
SCD	Scope Description	Sales Departments	
SFN	Scope Field Name	DEPTID	

Variable	Name	Sample Value	Remarks
SFV	Scope Field Value	FINDEVELOP	
SFD	Scope Field Description	Financial Development	
STN	Scope Tree Name	FUNCROLLUP	
STD	Scope Tree Description	Functional Organization	
SLN	Scope Tree Level Name	DIVISION	
SLD	Scope Tree Level Description	Instances for each division	
DES	Scope Descriptive Field	FINDEVELOP	A user-defined variable that retrieves descriptive information from a field in either the detail value table or the tree node table.

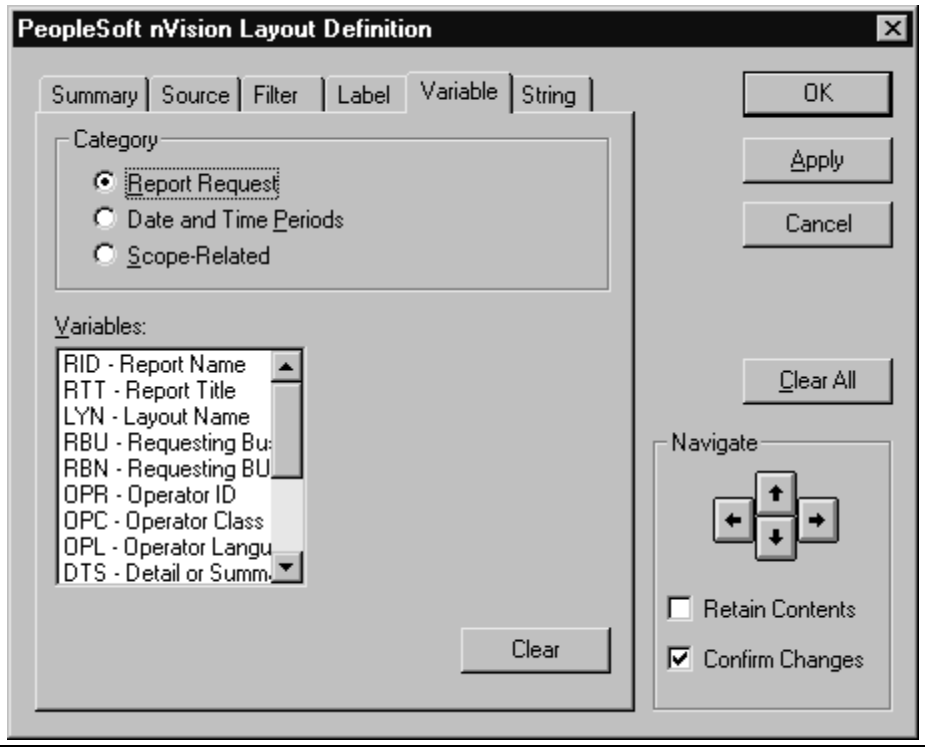
See Also

Chapter 16, “Running PS/nVision Reports in the Microsoft Windows Client,” Creating Requests, page 173

Chapter 7, “Defining Report Scopes,” page 57

Defining Variable Criteria

Access the PeopleSoft nVision Layout Definition dialog box – Variable tab.



Layout Definition dialog box – Variable tab

To define variable criteria:

1. On the Layout Definition dialog box, select the cell to which you want to apply variable criteria.
2. Select the Variable tab.
3. Select the appropriate category, then choose a variable.
4. If you selected one of the Date and Time Periods variables, specify a ledger.

   When you select *Date and Time Periods*, and you click a variable in the Variables list, the Ledger field appears.
5. If you selected one of the Scope-Related variables, fill in the *Scope Field* field, if necessary.

   When you select any Scope-Related variable except SCN or SCD, the Scope Field text box appears to the right of the Variables field.

   If the layout uses a scope that has multiple fields, use the Scope Field box to specify the scope field on which to base the variable you want to insert. For example, if you defined a scope using the Department and Product fields, and wanted a descriptive field from the Department table to appear on your report, you would enter DEPTID as the scope field.

   Note. If you don't specify a scope field, the default value is the first field defined in the scope.
6. If you selected the DES variable, indicate where to retrieve the descriptive information.

   The Descriptive Field (DES) variable is user-defined and retrieves text information from either the tree node table or detail value table associated with a field in the scope. For example, if your scope is based on DEPTID, and creates an instance for each tree node at the Division level, you can use variables to identify each instance with the division name and related information from the tree node.

Use the *Field on Detail Value Table* field to retrieve descriptive information from any text field on the detail values table that is associated with the scope field. For example, if you were generating instances of a report using a scope based on detail values of the Department field, you could enter the name of any descriptive field, such as the Manager_Name field, on the Department table, and the text contained in that field would appear on each department's instance of the report.

Use the *Field on Tree Node Table* field to retrieve descriptive information from any text field on the tree node table (usually named TREE_NODE_TBL) when using a tree-based scope. For example, if you added a field for the manager responsible for each node in your tree, you could retrieve this information by specifying the field name, such as Mgr_Name, from the tree node table.

7. Click Apply to save your changes and define filter criteria for a different cell, or click OK to save your changes and close the dialog box.

Defining String Criteria

Layouts typically contain a fair amount of constant text, such as the column headings "Last Year to Date" or "Current Budget." With PS/nVision, you can build multilingual layouts where these text strings are replaced by specially formatted strings whose user-language equivalent is retrieved from a table in the database. These string names are somewhat like user-defined PS/nVision variables.

String criteria are inserted into layout cells with the following format:

%.<name>,R<program>%

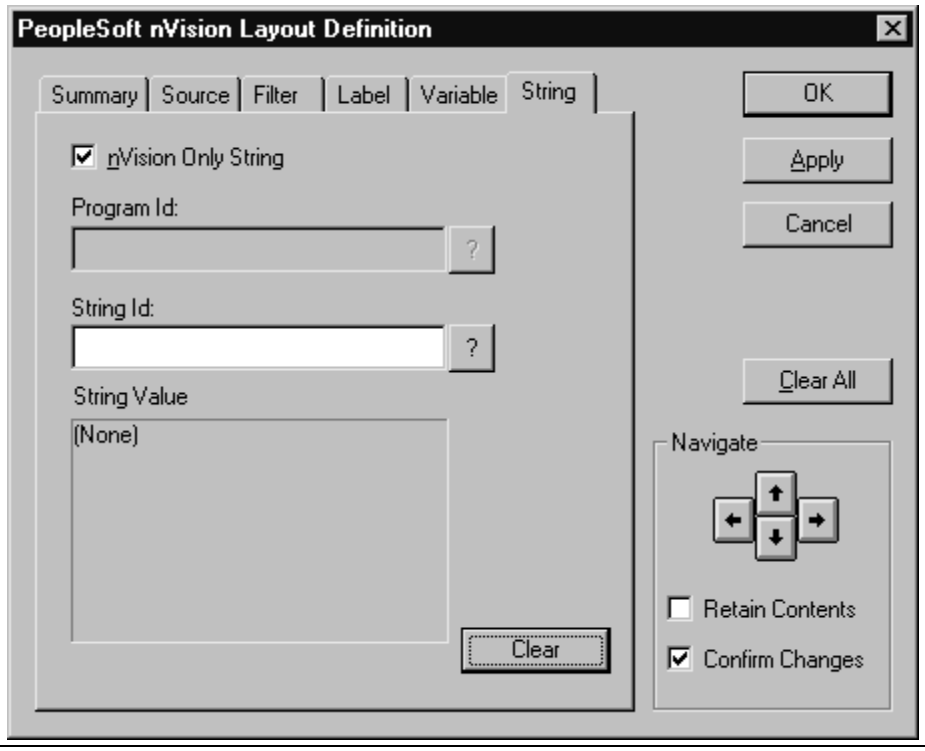
Name is the string name as described in the following table and *program* is the program ID group that contains the string definition. For example:

%.STDHDG_PAGE_NO,RSTDHDGTR%

In this example, the string name is STDHDG_PAGE_NO and the program ID is STDHDGTR.

When you select a string to insert, you can choose from strings created specifically for use with PS/nVision, that is, strings with a program ID of NVISION. If you insert one of these strings, the program name does not appear in the string. For example:

%.DATE_LABEL%



Layout Definition dialog box - String tab

To define string criteria:

1. On the Layout Definition dialog box, select the cell to which you want to apply string criteria.
2. Select the String tab.
3. Clear the nVision Only String check box if appropriate.

   By default, this tab will show you only those strings that were created for use with PS/nVision—those with a program ID of NVISION. To select from all available strings, clear the check box.
4. If nVision Only String is cleared, choose a program ID.
5. Choose the string ID of the string you want to insert.

   You can choose from the strings assigned to the program ID that you specified.

   Note. If nVision Only String is selected, the program ID is NVISION.
6. Click Apply to save your changes and define string criteria for a different cell, or click OK to save your changes and close the dialog box.

CHAPTER 6

Creating Ledger-Based Matrix Layouts

This chapter provides an overview of ledger-based matrix layouts and describes how to:

- Define ledger criteria.
- Use filter criteria.
- Add label criteria.
- Use nPlosion.

Understanding Ledger-Based Matrix Layouts

A ledger is a special type of query in PS/nVision, with an implied aggregate operation (Sum) and record and field names specified through the ledger definition. In PS/nVision, a ledger-based layout is essentially a matrix layout that uses the ledger table in place of a query. Typically, you use ledger-based layouts with applications such as PeopleSoft General Ledger or Enterprise Performance Management. While ledgers and queries can be used in the same report, ledger and query specifications are mutually exclusive for a row or column, because a row, column, or cell can have only one data source.

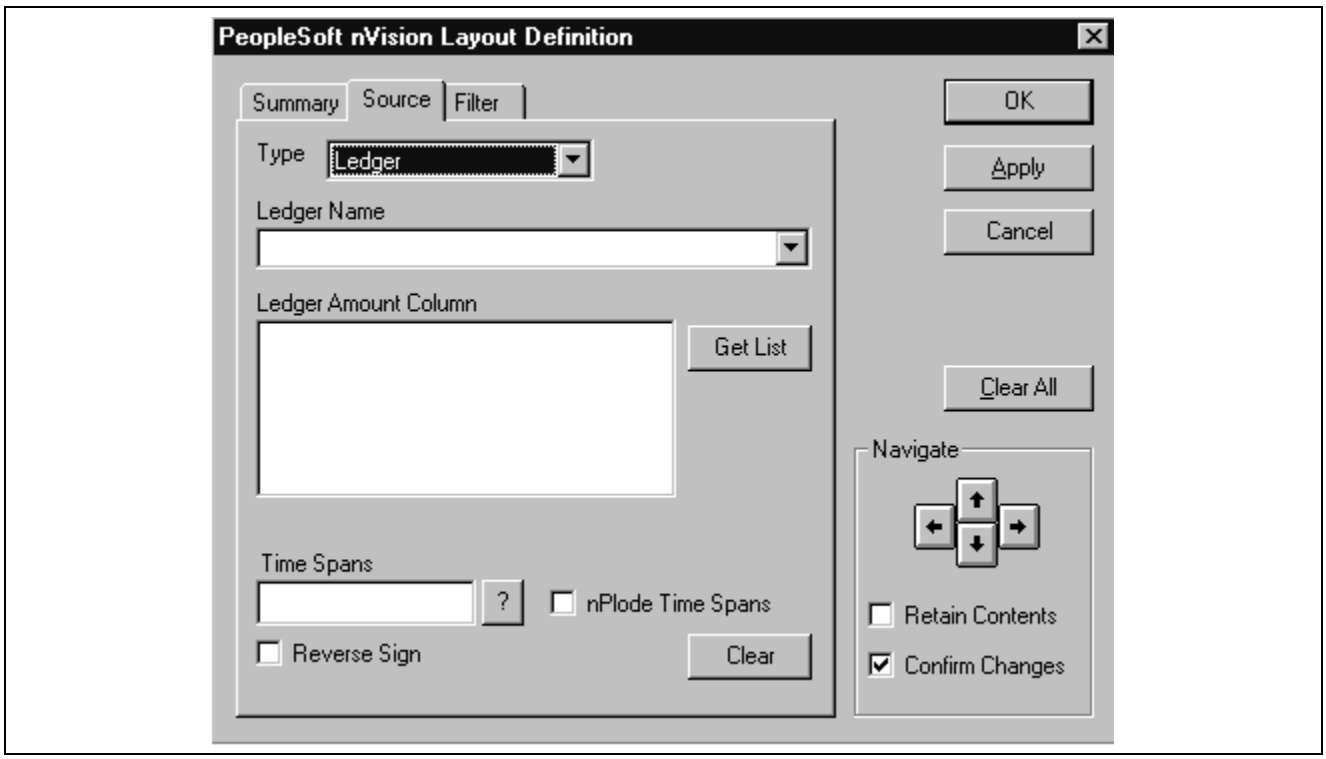
This chapter discusses the differences between working with ledger-based layouts and reports versus query-based matrix layouts.

See Also

Chapter 5, “Creating Matrix Layouts,” page 27

Defining Ledger Criteria

When you define ledger criteria, you can choose the same options as with query-based matrix layouts. As with query criteria, you can apply ledger criteria at the worksheet, column, row, or cell level.



Layout Definition dialog box − Source tab

To define ledger criteria:

1. On the Layout Definition dialog box, select the row, column, or cell to apply ledger criteria.

   Use the Navigate controls to select the location.

2. Select the Source tab and select *Ledger* as the source type.
3. Select a ledger from the Ledger Name drop-down list.
4. Choose a ledger amount column by clicking the Get List button and clicking the available columns that are displayed.
5. Choose a TimeSpan to limit the ledger data.
6. To have columns or rows containing TimeSpan details automatically inserted, select *nPlode TimeSpans.*

   The nPlode TimeSpans option appears only if you have a row or column selected.

7. To reverse the sign of the amounts returned from the database, select *Reverse Sign.*

   For example, you may want to see revenue reported as a positive number. This is normally set for query criteria at the cell, row, or column level, not the worksheet level.

8. If the ledger contains separate credit and debit columns, they appear in the *Ledger Amount Column* field. Select the amount to report on.
9. Click Apply to save your changes and define ledger criteria for a different group of cells, or click OK to save your changes and close the dialog box.

   If you clicked Apply and you want to reuse all or part of the criteria you just applied, select the Retain Contents option. This preserves the dialog box information when you navigate to a new cell selection. Then repeat the procedure to define more ledger criteria.

Using TimeSpans

TimeSpans express fiscal-year and accounting-period ranges relative to the main as of date specified in the report request. TimeSpans control the periods for which data is extracted from the database. Many TimeSpans are expressed relative to the current period, so that they automatically adapt the content of a report to the report as of date. TimeSpans are required when you are using ledgers, but are optional with queries.

An example of using TimeSpans is an earnings summary report that compares earnings from the end of 2000 to the end of 2001, broken down by four quarters. Revenue from operations and net earnings are listed down the left side of the report, while quarterly earnings are displayed across the top of the report as column headings. You select the appropriate QTR TimeSpan for each quarter at the column level. Then you specify the Accounts ledger in the criteria for the entire spreadsheet. For the rows, specify the individual accounts whose earnings you want to report on.

Relative Adjustment Periods

Use the following example to specify the Relative Adjustment Period. To retrieve *x* number of periods back:

```
"BaseAdjustmentPeriod - x" where BaseAdjustmentPeriod =
(FirstAdjustmentPeriod - 1).
```

For example, FirstAdjustmentPeriod = 901 (For period 1). BaseAdjustmentPeriod = 900. To specify the last two adjustment periods, Relative StartAdjustmentPeriod should be 898.

To retrieve x number of periods ahead:

```
"BaseAdjustmentPeriod + x".
```

Using the example above, to retrieve two periods ahead, define Relative EndAdjustmentPeriod as 900 + 2 = 902.

Using Filter Criteria

As with other matrix layouts, you use filter criteria to specify the character field values (such as ACCOUNT) selected for rows and columns of the report.

As in query-based layouts, filter criteria can be expressed in terms of detail values or tree nodes, and can be nPloded to generate multiple detail rows or columns. However, with ledger-based layouts, filter criteria also can be expressed as summary ChartField nodes.

Using Summary ChartField Nodes

When defining filter criteria for a database containing ledgers, you can use summary ChartField nodes as criteria values. This retrieves data from a summary ledger ChartField that contains tree nodes as values. Detail ledger ChartFields serve as keys to the detail ledger by categorizing posted total amounts. You can 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. The maximum length of a node name is 20 characters.

For example, values contained in a Department ChartField (such as DEPTID 0100, 0200, 0300, and so forth) on a detail ledger can be rolled up (using an organizational tree) into a Division ChartField on a summary ledger. These values could be stored with summary ChartField node names such as Sales, Marketing, and Administration.

Summary trees or summary ChartField nodes can be used to access data from a summary ledger of this type. We recommend that you use summary trees because they you can create different rollups of the summarized nodes and use nPlosion on them. When drilling down, summary trees also provide the option of translating summary criteria to the corresponding detail criteria back in the general ledger. When specifying criteria via a summary tree, click the Selected Tree Nodes radio button in conjunction with the summary ChartField.

Note. PS/nVision does not support translation of summary ChartField nodes when drilling down to the detail ledger. Use the summary tree criteria.

To add a field and summary ChartField node values to filter criteria:

1. Follow the procedure for adding tree node values.

   See Chapter 6, “Creating Ledger-Based Matrix Layouts,” Using Filter Criteria, page 55.

2. From the Field Name dialog box, select *Selected Summary ChartField Nodes.*

Adding Label Criteria

Label controls are available on ledger-based layouts, just as they are with any matrix layout.

If you are basing the layout on a ledger, you can retrieve label text from a number of fields defined in Application Designer for a ChartField’s detail or tree node table. You can also specify a special label for nPloded TimeSpans in the format YYYY-PP (year-period) by entering ACCOUNTING_PERIOD as the Detail Values field.

Using nPlosion

For PeopleSoft General Ledger, note that nPlosion is available for detail ledger ChartFields or summary ledger ChartFields that contain detail values, and for summary ledger ChartFields accessed through summary trees. nPlosion is not available for summary ledger ChartFields specified as Selected Summary ChartField Nodes. For other applications, nPlosion is available for criteria fields that have value tables listing the valid values of the field (usually, this is the prompt table for that field).

See Also

Chapter 9, “Using nPlosion,” page 75

CHAPTER 7

Defining Report Scopes

This chapter provides an overview of report scopes, and describes how to:

- Define scopes.
- Work with existing scopes.
- Use scope-related variables.

Understanding Report Scopes

A report scope allows you to create multiple instances of a report using a single report layout and report request. Using a scope, each report instance contains data specific to an individual field value, such as a business unit or department, or to a group of values, such as a tree node that summarizes all sales departments. In this way, each report instance can share the same layout, while containing data unique to these field values. You might run three instances of an expense report that share the same layout but contain the expenses of one division each.

When defining a report request, you can use the scope feature to create multiple instances of a report from a single request.

You can specify more than one field in the scope to create instances that represent combinations of values of multiple fields. For example, you can use a multifield scope to create an instance for each product line (a grouping of products) within each region (a grouping of departments).

Whenever you use scope to produce multiple instances of a report, use PS/nVision variables in the layout headings to identify the content of each report.

See Also

Chapter 5, “Creating Matrix Layouts,” Adding Variable Criteria, page 46

Multiple Scope Fields

When you define a new scope, you must determine how many instances to produce and how each instance is summarized.

If your scope is based on two or more fields (such as business unit and product), PS/nVision normally produces a report instance for each combination of the selected nodes or detail values for all specified fields. However, you might have data for only a subset of these combinations—for example, if each business unit sells only a subset of the total list of products. You could limit the number of report instances produced by defining multiple scopes, specifying only the valid combinations, and using different report requests to apply these scopes to appropriate layouts. But if you’re working with many combinations, a better solution is to create a field combination table containing only the field value combinations you want for your scope. If you specify a field combination table, PS/nVision generates an instance of the report for only those field values that are listed as valid combinations on the table.

You create a field combination table in Application Designer just as you would any other custom table. After creating the table with the combinations of fields to use, you point to that table from the Field Combination Table field in the Scope Definition dialog box.

You can also create a dynamic record that is populated by a query and includes only the combinations of field values that actually have data for that reporting period. This eliminates printing blank pages (report instances) when you have fields that have no data for a particular reporting period.

Note. When you create a combination table, you need only include the scope fields whose values you want to limit, but you can also include SETID and EFFDT. You can populate the table using a SQL tool as well, but a better option might be to create a simple page to update the table.

If you specify field values using tree nodes, PS/nVision uses the combination table to determine if the underlying details are valid before producing an instance for a tree node. For example, if an instance is requested for each product and division (a rollup of departments on an organization tree), PS/nVision determines whether any departments in each division are valid in combination with a particular product. In this case, the combination table should contain a DEPTID and PRODUCT field, with each row containing the valid department/product combinations.

Using Business Unit Keyed Trees

Report scopes can be defined using business unit keyed trees by adding a valid business unit to the scope definition. A setId must still be entered as the key field for the scope, and the business unit entered is used for selecting business unit keyed trees. At the field level, you must select the BU Keyed Tree check box to limit the tree selection list to those trees keyed by the business unit entered.

At run time, the requesting business unit is used as a replacement for the business unit entered when defining the scope. Therefore, if a tree with the same name is defined for multiple business units, the same scope can be used for each version.

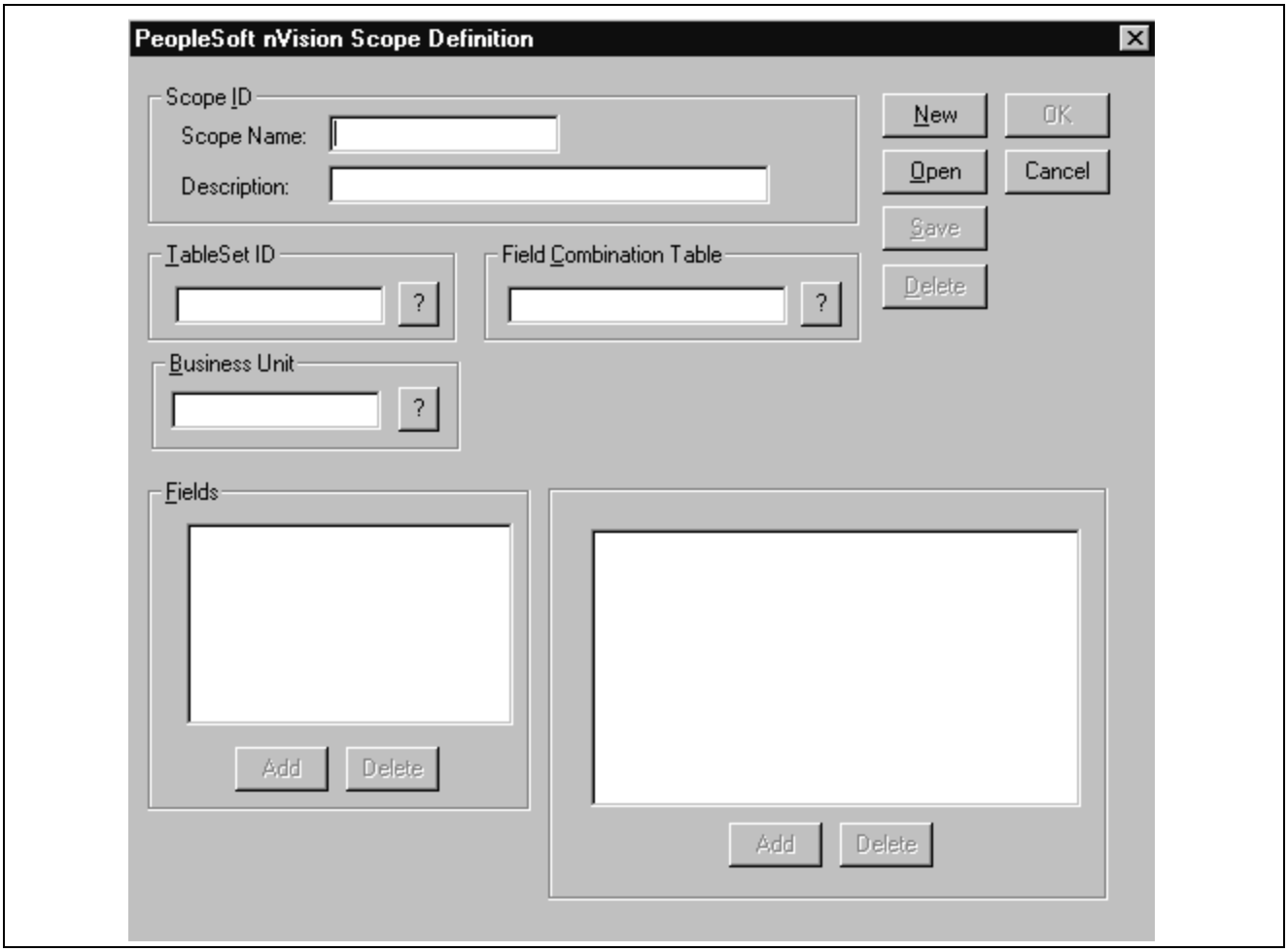
Defining Scopes

This section describes how to:

- Create new scopes.
- Select scope fields.
- Choose tree levels and tree nodes.

Creating New Scopes

Access the Scope Definition dialog box by selecting nVision, Scope Definition.



Scope Definition dialog box

To define a new scope:

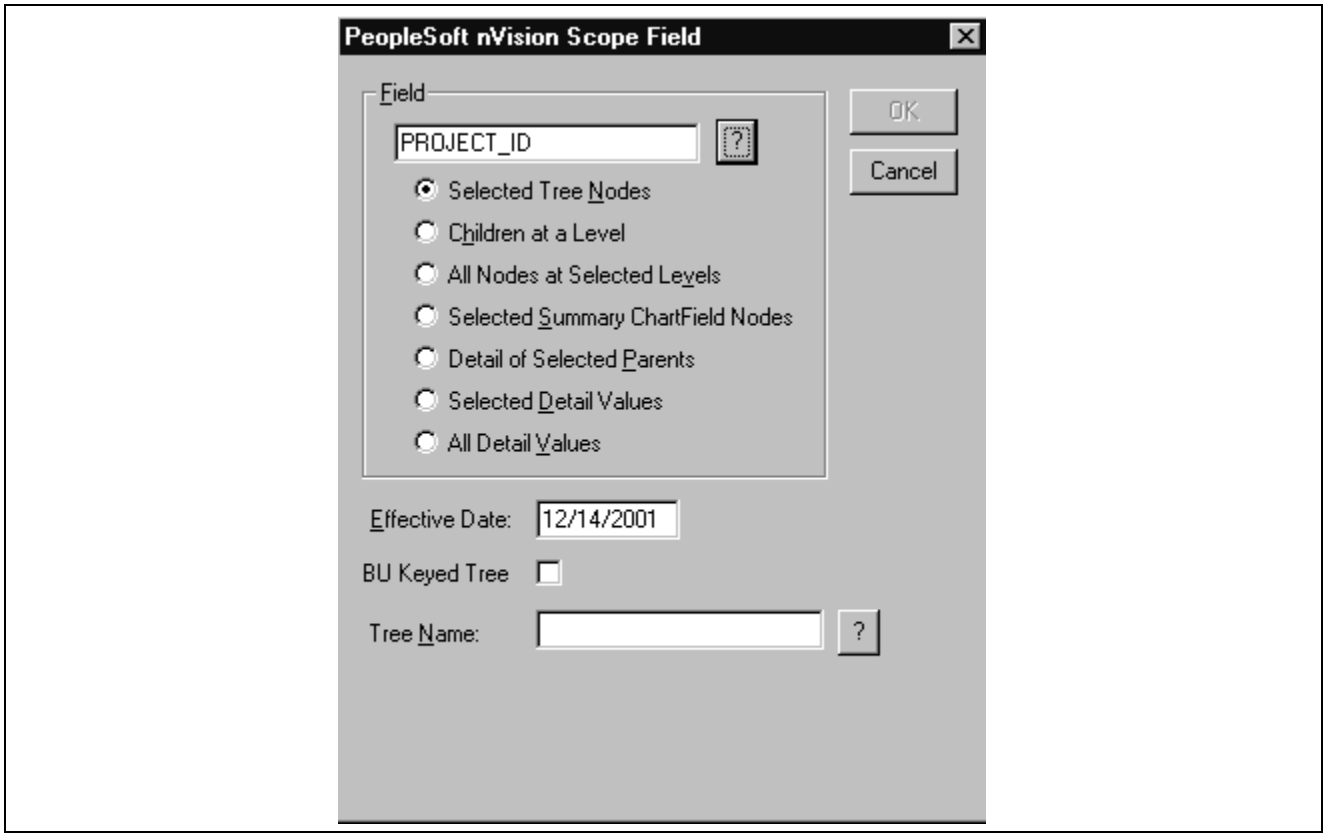
1. Select New.
2. Enter a scope name and a description.

   You may use up to ten characters for the scope name and up to thirty characters for the scope description.
3. Enter the setID for this scope.
4. If you are defining your scope using business unit keyed trees, enter the business unit.
5. If you are using multiple scope fields, enter the appropriate tables in the Field Combination Table field.
6. Add fields to the screen by clicking the Add button.

   The Scope Field dialog box appears.

Selecting Scope Fields

Access the Scope Field dialog box.



Scope Field dialog box

For each field you add to a scope, you specify the source of the field values and the values to use. This is similar to defining field criteria in a matrix layout.

Each of the radio buttons on the Scope Field dialog box selects different set of values for building your scope:

- Tree Node (Summary) Instances: Selected Tree Nodes, Children at a Level, All Nodes at Selected Levels.
- Used with Summary Ledgers only: Selected Summary ChartField Nodes.
- Detail Value (Detail) Instances: Detail of Selected Parents, Selected Detail Values, All Detail Values.

Field Enter a field to add to your scope

Selected Tree Nodes Select to create an instance for each tree node that you choose. When you type the field name, you're then prompted to enter a tree name and level.

Children at a Level Select to create an instance for each tree node at a specified tree level that is a child of the parent node. The parent nodes need not be the immediate parent of nodes at the specified level. When you type the field name, you're prompted to specify a tree name and a tree level.

All Nodes at Selected Levels Select to create an instance for every node at each selected level. When you type the field name, you're prompted to specify a tree name and levels.

Selected Summary ChartField Nodes Select to create an instance for every specified node in a tree used to create a summary ledger. (This option applies only to users of PeopleSoft General Ledger.) PeopleSoft recommends using summary trees rather than the summary ChartField nodes.

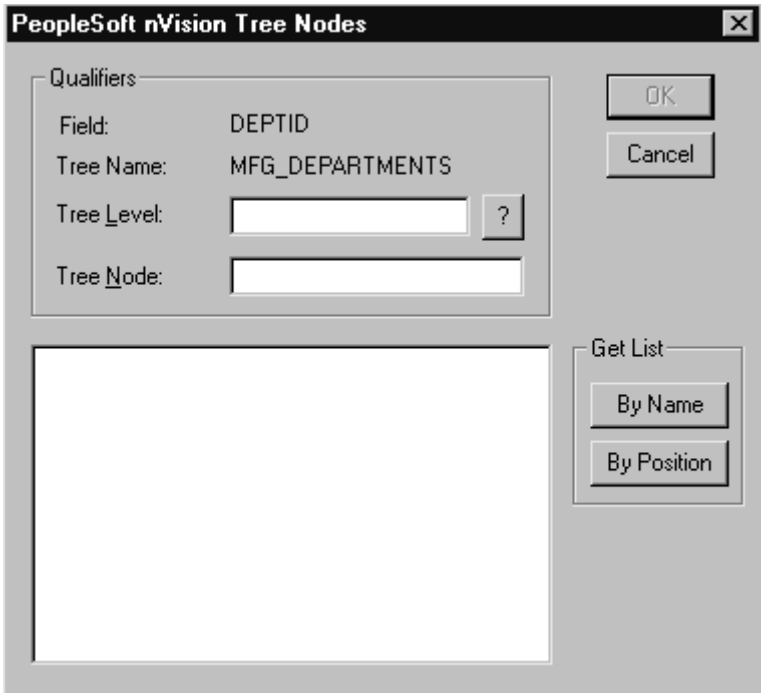
	When detail values are summarized into tree nodes, a different ChartField must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters). When you type a field name, you're prompted to specify a tree name and level.
Detail of Selected Parents	Select to create an instance for each detail value associated with the specified tree nodes.
Selected Detail Values	Select to create an instance for each detail value that you specify. This option activates the Value Table field, where you can specify the table that contains the values you want to select.
All Detail Values	Select to create an instance for all detail values. This option activates the Value Table field, where you can specify the table that contains the values you want to use.
Effective Date	Enter a date to determine the trees you can choose from.
BU Keyed Tree	Select check box to limit tree selection to trees keyed by the business unit entered on the Scope Definition screen.
Tree Name	Select the required tree for your scope. The list is filtered based on the setID or business unit, and field entered.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Tree Manager, "Introduction to PeopleSoft Tree Manager," Working with Tree Concepts

Choosing Tree Levels and Tree Nodes

If you selected the All Nodes at Selected Levels, Selected Tree Nodes, Children at a Level, or Detail of Selected Parents options in the Scope Field dialog box, you're prompted to specify the tree levels that contain the nodes you want to use.



Tree Nodes dialog box

To select tree levels and nodes

1. Select a level.
2. Place the cursor in the Tree Node field and click to get a list of nodes either by name or by position.
3. Select the nodes to use for your report.
4. Click OK.

   The Scope Definition dialog box now shows your fields and tree nodes.
5. Save the scope by clicking Save on the dialog box.

Note. Make sure to click Save when you are finished with your scope. Clicking OK closes the dialog box without saving your scope.

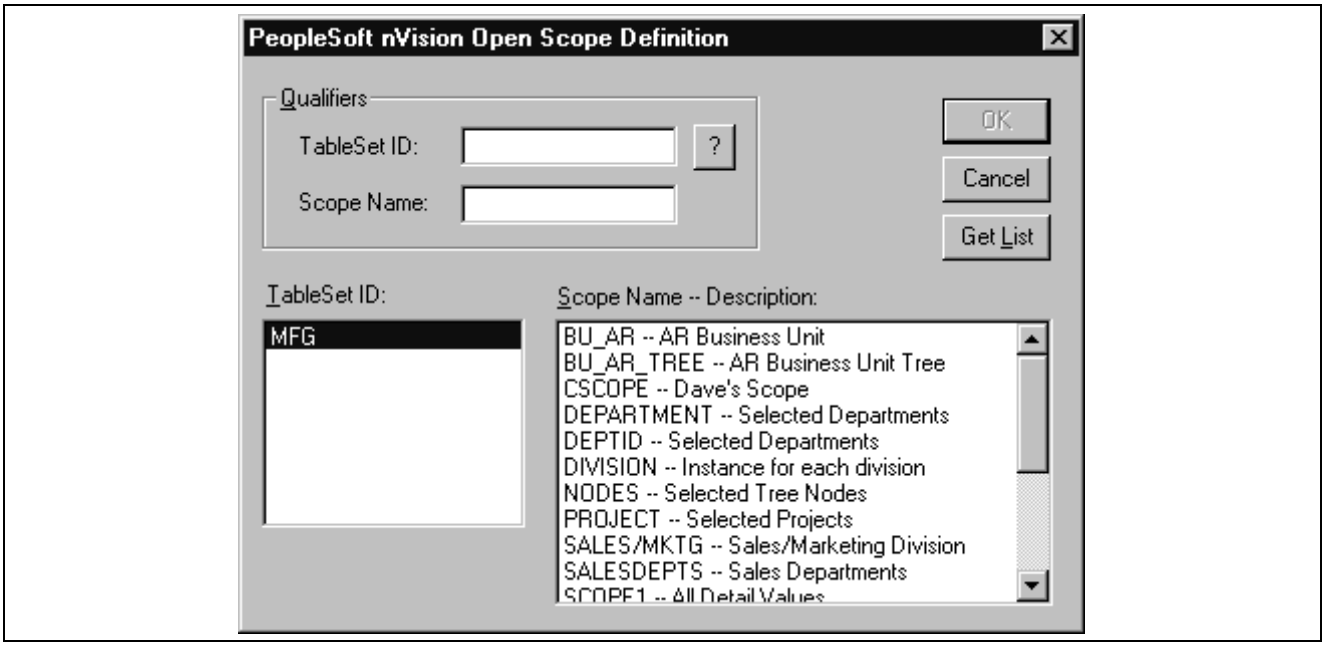
Working With Existing Scopes

This section describes how to:

- Open existing scopes.
- Delete existing scopes.
- Add fields and values to existing scopes.
- Remove fields and values from existing scopes.

Opening Existing Scopes

At the Scope definition dialog box, click Open to access the Open Scope Definition dialog box.



Open Scope Definition dialog box

To open an existing scope:

1. At the Scope Definition dialog box, click Open.

   The Open Scope Definition dialog box appears.

2. Click Get List to see a list of available scope definitions.

   In the TableSet ID list box you see a list of setIDs; in the Scope Name - Description list box you see a list of scope definitions for each setID.

   You can limit the list by entering qualifiers into either the TablesSetID or Scope Name fields before clicking Get List.

3. Select a scope definition from the list.

4. Click OK.

Deleting Existing Scopes

To delete an existing scope:

1. Open the scope that you want to delete.

2. Click the Delete button.

Adding Fields and Values to Existing Scopes

To add additional field values to a scope:

1. Open the Scope Definition dialog box and click Add in the Fields selection area.

   The Scope Field dialog box appears.

2. Enter the new scope fields and related values, and click Save.

3. Click OK to return to the NVSUSER homepage.

See Also

Chapter 7, “Defining Report Scopes,” Selecting Scope Fields, page 59

Removing Fields and Values From Existing Scopes

To remove a field from a scope definition:

1. In the Scope Definition dialog box, select the field to remove.
2. Click the Delete button in the Fields group box.

To remove a field value from a scope definition:

1. At the Scope Definition dialog box, select the Field whose value you want to remove.
2. In the right-hand list box, select the value to remove.
3. Click the Delete button in the right-hand group box.

Using Scope-Related Variables

Using scope-related variables is discussed in the *Creating Matrix Layouts* chapter.

See Chapter 5, “Creating Matrix Layouts,” Adding Variable Criteria, page 46.

CHAPTER 8

Using DrillDown

This chapter describes:

- How to use DrillDown.
- DrillDown navigation.
- DrillDown layout formats.

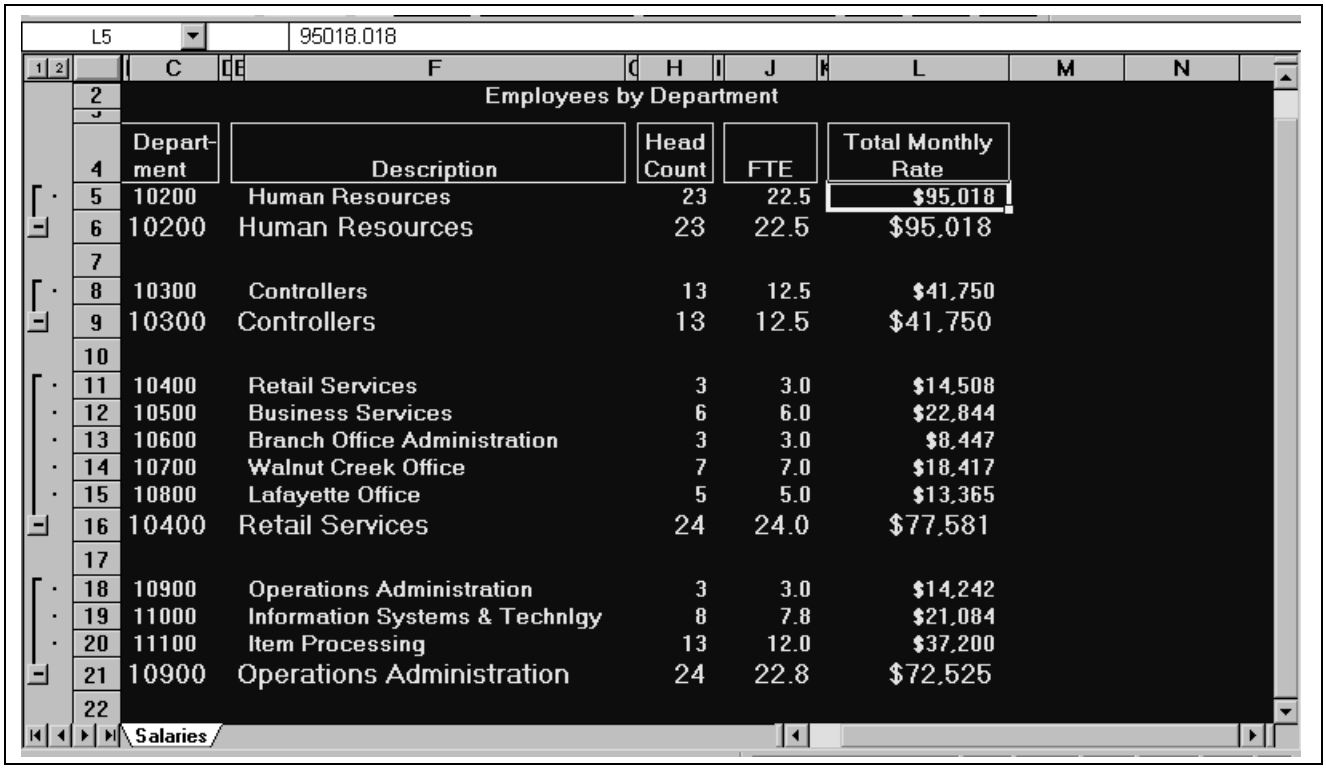
Using DrillDown

DrillDown enables you to select a cell in your report and expand it according to new criteria contained in a special DrillDown layout. This is useful when reporting is based on summary ledgers, as it provides underlying details when and where they are needed.

Note. Although DrillDown layouts are created in PS/nVision on the Windows client, DrillDown can be run with a browser on any report that you have access to in Report Manager.

The following report was run based on the Emplsal layout delivered with the PeopleTools Demo database (PTDMO). By expanding nPloded rows, you can review details about the data in the report. But what if you want to review the monthly salaries of individual employees, and this isn't in your original report layout? With DrillDown, you can create a DrillDown layout that expands cell data to show monthly employee salary rates.

In the following illustration, L5 is the cell we're drilling down on, representing the total monthly rate for the Human Resources department.



Selecting a cell for DrillDown in a sample layout

After selecting a cell, pick the DrillDown layout you want to use from the nVision, DrillDown menu. The results appear in a DrillDown report, as shown in the following illustration.

Drill3

	B	C	D	E	F	G
2						
3	**EmplID**	**Name**	**Department**	**Job Code**	**Head Count**	**Sum Monthly Rt**
4						
5	7705	Holt,Susan	10200	G061	1	2920
6	8121	Gregory,Jan	10200	6001	1	1900.578
7	8300	Vincent,Catherine	10200	G033	1	3928.038
8	8412	Little,Paula	10200	1503	1	2820
9	8641	Dobbs,Janice	10200	1101	1	9725.784
10	8750	Fuller,Darlene	10200	G032	1	2544.982
11	8840	Hill,Jeffrey M.	10200	7102	1	528.667
12	8894	Smith,Bernice	10200	G038	1	3674.813
13	8895	Gonzalez,Gemma	10200	1406	1	5384.513
14	F001	Larçon,Marcel	10200	2003	1	2013.109
15	G001	Gaston,Claudia	10200	G060	1	5456.356
16	G002	Matthews,Steven	10200	1504	1	2632.228
17	G003	Bishoff,Allan	10200	G001	1	8602.479
18	G006	Scott,Martin	10200	G030	1	4758.934
19	G011	Sherwood,Steven	10200	G002	1	7061.429
20	G012	Sherwood,Nancy	10200	G070	1	4600
21	G015	Kelly,William	10200	1407	2	10167.52
22	G100	Peterson,Beth	10200	G082	1	3609.088

Sheet1

Report resulting from DrillDown

The DrillDown layout inherits all the criteria of the selected cell on the original report and provides a sub-report with the details you need.

Because DrillDown depends on child layouts, you might want to create a library of common layouts to use. These might include:

- Accounts by department.
- Products by cost center.
- Accounts by period.
- Departments by benefit plan.

A number of generic reports are provided with your system and can be tailored or cloned as needed. Many of these layouts employ nPlosion, so you can view both summary and detail levels in your sub-report.

You can also perform a series of DrillDowns on cells in reports until you've reached the level of detail that you need.

DrillDown is available from matrix layouts only. However, the layout that displays the results of the DrillDown can be either matrix or tabular. For example, you might produce a financial report using a matrix layout, then select one of the amounts and drill down to another matrix layout that breaks down the departments and products that were summarized into that amount. From that report, you might select a department/product combination and drill down, this time using a tabular layout that queries the individual sales transactions. This is the end of the DrillDown trail, because you can drill further only from a matrix report.

Note. A PeopleTools upgrade may cause the web server domain name, port number, or servlet path required to access web server resources in the PeopleSoft Pure Internet Architecture to change. As a result, PS/nVision drilldown operations on reports that were created prior to upgrade would fail. This is primarily because drilldown hyperlinks are by design hard-coded into PS/nVision reports. We have provided a simple search and replace utility that you can use to replace old hyperlinks with new ones. This MS Excel macro is located in the PS_HOME\nVision directory.

See Also

Chapter 15, "Running PS/nVision Reports on the Web," Using DrillDown on the Web, page 169

Using Inherited Criteria

The key to DrillDown is the passing of selection criteria from a parent cell to its child using the DrillDown layout. The child layout may have criteria of its own (possibly on other fields than those mentioned in the parent), but any conflicts in criteria must be resolved so that the child query accesses a subset of the data selected from the parent query.

Think of inherited criteria as the equivalent of a scope for the resulting report. The DrillDown layout can have criteria (including nPlosion) for fields that weren't included in the original report, and it can have criteria for fields that defined the selected amount from the original report.

Criteria for fields from the original report override any specified in the DrillDown layout, with the exception of nPlosion options, which enable you to see more detail than in the original report.

Within a DrillDown layout, you can specify TimeSpan nPlosion without entering a TimeSpan, since the DrillDown layout inherits the TimeSpan of the original report.

Ledger Inheritance

Ledger criteria can be overridden in a child layout, either by ledgers specified in the child layout or by queries to access tables that don't contain the LEDGER field.

An example of a ledger-based DrillDown that expands ledger criteria compares budget to actual expenditures. Assume that you want to drill down from a budget variance report produced at the business unit level and compare the actuals to budget for each department. You can construct a DrillDown layout with DEPTID nPloded in the rows and columns for actuals, budget, and variance. Because PS/nVision allows this layout to override the inherited ledger, you can see each department's budget performance in a single picture.

Soft Inheritance

You can create a DrillDown with multiple TimeSpans. This is called *soft inheritance* for TimeSpans. To do this you define a DrillDown layout with multiple columns and various combinations of ledgers and TimeSpans.

For example, you have a ledger total posted amount for the year 2001. You want to show year 2001's detail amounts, which make up this total amount in one column, with 2000's detail amounts in the column beside it. You define a DrillDown layout with two amount columns. One column has no TimeSpan, (although you might specify nPlode TimeSpans), and the other column specifies a TimeSpan, such as YTD-1YR. When you drill down, the first column inherits the TimeSpan, year 2001, from the parent cell; and the other overrides the TimeSpan from the parent cell and uses its own defined year 2000 TimeSpan.

Note. Soft inheritance only controls when you drill down to a tabular layout. It does not function for matrix layouts.

Using DrillDown Instances

Because DrillDown instances may be quite numerous and temporary, PS/nVision doesn't save them automatically as it does for parent instances. Also, since these instances are generated without a report request, there are no directory and file name templates. Therefore, PS/nVision performs the following operations when creating the instances:

1. Saves the layout as a temporary template sheet (DRILL.XLT) in your TEMP directory.
2. Opens an instance of the template; this causes Excel to assign a name such as DRILL1.
3. Populates the instance as usual but neither saves nor closes it. You can save it (assigning a name at save time) or close it without saving it once you are finished using it.

DrillDown Navigation

Unlike nPlosion, DrillDown does not require you to enable it before running your report. Run a report, select a cell to expand, and then select nVision, DrillDown, click the drill button on the toolbar, or use a predefined item on the Drill menu. The predefined Drill menu items are most convenient because they can be personalized to express common DrillDown actions for your organization.

To create a new DrillDown layout, select nVision, New Layout and define your selection criteria just as you would a report layout. Save the layout in the directory identified as DrillDown Layouts on the nVision tab of PeopleSoft Configuration Manager.

Remember that criteria from the selected cell in the parent instance are inherited in the child layout. Reports inherit criteria from the parent cell so you get the same summary amount in the detail report, but you also get the summary amount broken into its component details. This produces a single report instance containing a subset of the data selected in the parent instance, but the data is separated into one or two dimensions to show more detail.

Jump Back

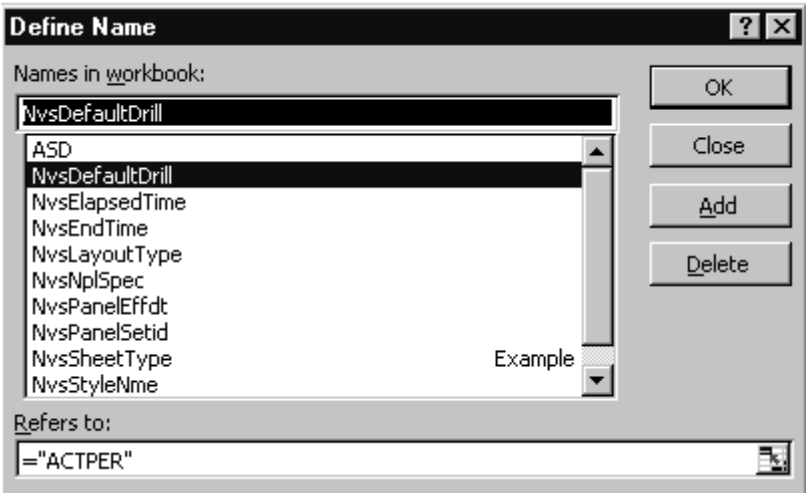
Once you've reviewed the result of a DrillDown report, the Jump Back command from the nVision menu (CTRL+SHIFT+J) returns you to the cell from which you drilled down. This occurs even if you closed the parent report.

ReDrill

To repeat a DrillDown starting from a different cell on the parent report, press CTRL+SHIFT+I. For example, you've drilled down from the current year's Travel Expense amount, showing balances by detail account and department. Now you want to see the same breakout for last year's amount. Jump back to the original report, select last year's amount, and press CTRL+SHIFT+I.

AutoDrill

For both ledger-based and query-based matrix reports, AutoDrill is a quick and easy DrillDown method. To use AutoDrill, define a default DrillDown layout within the parent layout by using the Excel Insert, Name, Define command to define the name NvsDefaultDrill as a string with the name of the default DrillDown layout in the parent layout.



Define Name dialog box

After running a report, you can use AutoDrill in various ways:

- Double-click one of the amount cells. (The NvsUser front end generally sets double-click to call the PS/nVision AutoDrill function).
- Choose AutoDrill from the nVision menu in Excel.
- Click the AutoDrill button on the nVision toolbar.

AutoDrill checks to see if the instance you are drilling from has a default DrillDown layout. If the default DrillDown layout is defined, PS/nVision runs that layout.

Note. The default DrillDown layout may contain a matrix or tabular layout or both.

If there is no default DrillDown layout, PS/nVision checks the data source in the parent instance for the cell you are drilling from. If it is a ledger, PS/nVision asks you to choose a DrillDown layout. If it is a query, PS/nVision adds the inherited criteria to the same query and then runs the query in QueryLink mode. To show the underlying detail from a query designed for matrix reporting, PS/nVision removes aggregate functions, such as Sum, from the query. This causes the query to show the lowest level of the detail from the database. This modification of the query happens only when drilling down in QueryLink mode.

To get an intermediate level of detail in a query-based report using AutoDrill, define a default tabular layout in NvsDefaultDrill. You might want to define a slightly different query to aggregate the intermediate level of detail you need, and then build the default DrillDown layout using this query.

See Also

Chapter 11, “Personalizing PS/nVision,” Personalizing NVSUSER.XLS, page 101

Chapter 11, “Personalizing PS/nVision,” Using Configuration Manager, page 97

DrillDown Layout Formats

Basic DrillDown layouts typically have one data row and one data column. These simple layouts take data already selected on a report and expand it in two dimensions. Both columns and rows may specify nPlosion and automatic labeling of inherited and nPloded data.

Note. A DrillDown layout can be as complex as you like. For example, if you're building a DrillDown layout you expect to be used from a corporate-level management report, you could design it with departments grouped into regions, with nPlosion to detail. If you drill down to this layout from a regional report, PS/nVision filters the layout criteria through the inherited criteria, and all the other regions have zeros.

Since DrillDown layouts are based on a simple matrix, set up a library of layouts based on the field and TimeSpan combinations most common for your reporting and analysis needs.

For example, if you frequently select an amount from a summary income statement and expand it to show that amount broken down by individual accounts, you could create a DrillDown layout that uses nPlosion to expand account detail in the rows and that breaks out a TimeSpan to the individual accounting periods in the columns. Alternatively, you might want to see the value broken out by department in the rows and product in the columns.

Let's say that you specify All Detail Values in the DrillDown layout as the selection criterion for a field, and the cell you're drilling down from on the original report used a specific tree node for its criteria. In this case, the report from the DrillDown nPlodes only the detail values for that tree node, creating a row or column for each in addition to a summary column based on the tree node.

If the parent cell had no criteria for a field specified on the child as all detail values, the child report lists amounts for all values in the specified field.

DrillDown and Summary Ledger

When using DrillDown from a report based on a summary ledger, you can either translate summary ledger criteria into the corresponding detail ledger or drill down within the summary ledger.

To drill down within the summary ledger using the web, define the name *NvsTranslateLedger* in the DrillDown layout. PS/nVision reads this defined name at runtime.

- If the value is *Y*, summary ledger criteria is translated into the corresponding detail ledger.
- If the value is *N*, then DrillDown within summary ledger is selected.
- If *NvsTranslateLedger* is not defined, summary ledger criteria is translated into the corresponding detail ledger.

To define the name *NvsTranslateLedger* in the DrillDown layout:

1. Use the Excel Insert, Name, Define command to define the name *NvsTranslateLedger*.
2. Define the name as a string with either *Y* or *N* for the value.

Note. If you're using the Windows client, PS/nVision continues to ask whether to drill within the summary ledger or drill to the corresponding detail ledger.

DrillDown and Queries

When drilling down from a ledger-based report, you can use predefined queries (built into PeopleSoft Query) in the following ways:

- Use a matrix DrillDown layout that specifies query, rather than ledger, criteria.

  This provides a matrix report that accesses tables other than ledgers, but inherits all the field criteria (business unit, account, and so on) from the parent report.

- Drill down to a tabular layout, inheriting the field criteria from the parent report.

  This is useful for seeing the details of transaction data, such as journals and voucher lines.

- Drill down to a query without a layout.

  The query inherits the criteria and runs to Excel in QueryLink mode.

When drilling down from a query-based report, you can use another query in a matrix layout, in a tabular layout, or without a layout. The query you use must be capable of inheriting the criteria from the cell you're drilling down from.

In any case, PS/nVision bends the rules of inheritance slightly to allow you to see the needed data. The ledger construct (which implies a special query against a specific type of table defined in PeopleSoft General Ledger) is replaced by the query specification. The implied field criteria for the inherited ledger (for example, LEDGER=ACTUALS) may or may not be inherited. While drilling down to journals within the PeopleSoft General Ledger application requires criteria for the LEDGER field (since journals may exist for various ledgers), drilling down to Accounts Payable voucher data only makes sense from the Actuals ledger, and the voucher tables don't include the LEDGER field. PS/nVision thus looks at the records being queried and includes criteria for the Ledger field only if it is present.

Naming Conventions

Use a three-character naming convention for DrillDown layouts, so that the fields and accounting periods in the layout are easily identified in the Open Layout dialog box. The PS/nVision DrillDown layouts supplied with the system use the abbreviations described in the following table.

Abbreviation	DrillDown Layout
ACT	Account
BUS	Business Unit
DEP	Department ID
PRD	Product
PRJ	Project
PER	Accounting Period

Each layout is named RRRCCCXX.XNV, where RRR is the abbreviation for a field expanded in the rows, CCC is the abbreviation for a field expanded in the columns, and XX is an optional identifier for a specific layout or version of RRRCCC.

Note. With Windows 95, Windows NT, and other more recent versions of Windows, file names can be long and descriptive, but a consistent convention is still a good idea. For example, you might want to name a DrillDown layout *DepartmentByProduct*.

DrillDown Layout Directory

Store DrillDown layouts in a separate directory from the parent standalone layouts. The directory path is specified on the nVision tab of the PeopleTools Configuration Manager. The DrillDown layout path can contain multiple directories, which are searched in sequence. The DrillDown directory is also defined in the PeopleSoft Process Scheduler configuration for your report server.

See Also

Chapter 11, “Personalizing PS/nVision,” Using Configuration Manager, page 97

CHAPTER 9

Using nPlosion

This chapter provides an overview of nPlosion and describes how to:

- Define nPlosion criteria.
- Define nPlosion defaults.
- Enable nPlosion for specific situations.
- Use style sheets with nPlosion layouts.

Understanding nPlosion

You use nPlosion to expand rows or columns containing field criteria. When enabled, nPlosion automatically creates individual rows or columns for each detail value defined in the criteria—whether those values are defined specifically or implicitly (by association with a parent tree node). A detail row or column is generated for the blank [or *(None)*] value if you are nPloding a tree containing a blank.

You can only enable nPlosion at the row or column level. When you enable nPlosion for a row, PS/nVision inserts the detail or summary value rows immediately above the nPloded row. Detail and summary value columns are inserted to the left of an nPloded column. If you've intersected label criteria with an nPloded row or column, descriptive text identifies each nPloded amount. (If you don't use labels, you may have trouble identifying the detail rows that are dynamically included in the report.)

Note. For PeopleSoft General Ledger, nPlosion is available for detail ledger ChartFields or summary ledger ChartFields that contain detail values. You may also use nPlosion for summary ledger ChartFields accessed through summary trees. nPlosion is not available for summary ledger ChartFields specified as selected summary ChartField nodes.

Note also that you cannot use nPlosion for a summary tree ChartField filter if the ledger's corresponding ChartField type is detail. Nor can you use nPlosion for a detail Chartfield filter if the ledger's corresponding ChartField type is summary. Attempting to nPlode in these situations returns an Excel error, "PS/nVision returning the Excel error code #N/A to the affected cells."

For other applications, nPlosion is available for criteria fields that have value tables with field values (usually, this is the prompt table for that field).

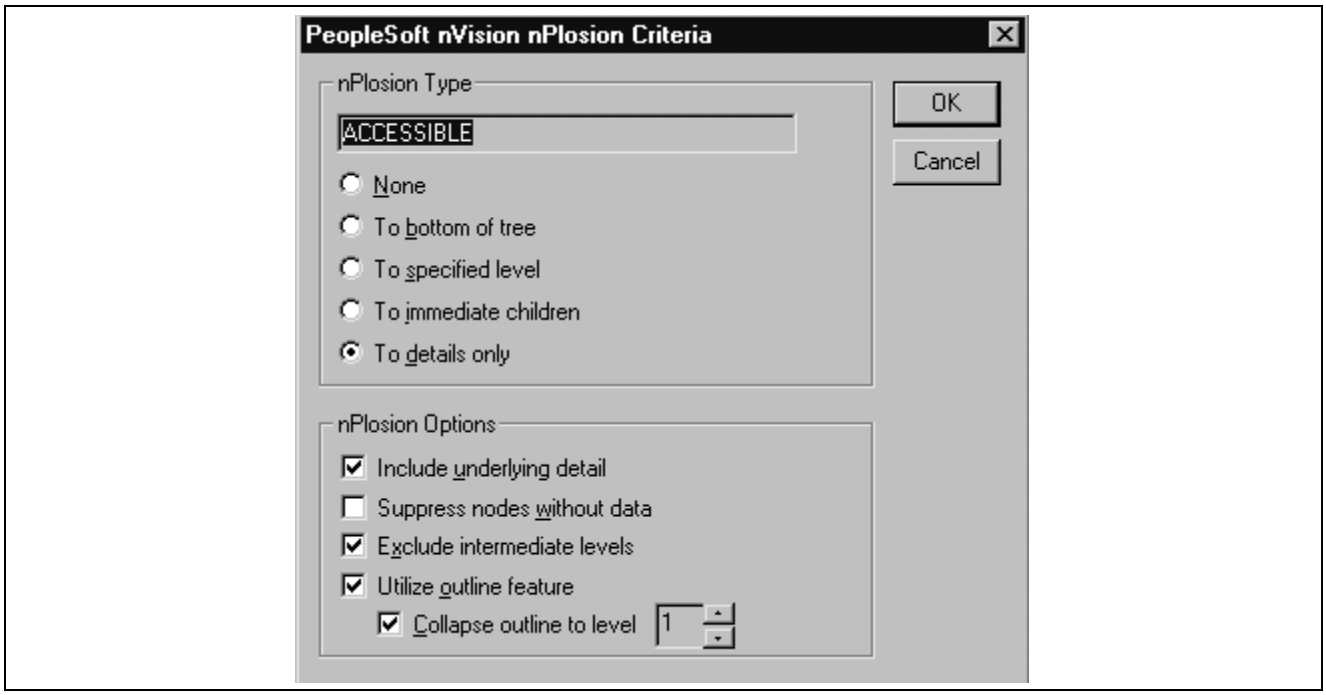
When processing nPlosion, PS/nVision uses the Excel outline feature to group the detail or summary rows or columns and associate them with their total. Once a report has been generated that contains nPloded values, you can use the Excel outlining symbols to collapse and expand the nPloded entries. Outlining symbols automatically appear in the report's left margin (for rows) or above the worksheet (for columns).

In web-based PS/nVision reporting, you can still use outlining in full nPlosion. Currently, neither Internet Explorer nor Netscape Navigator can display the + and − symbols or expand or collapse an outline if the reports are produced in HTML format. With Internet Explorer and the Excel add-in reports produced in XLS format can be displayed with full Excel features, including outlining.

The nPlosion feature is particularly useful when used with the DrillDown feature, which enables you to select cells in your report and expand them to intermediate or detailed levels of summarization in an ancillary sub-report.

Defining nPlosion Criteria

Access the nPlosion Criteria dialog box. Select column or row to nPlode, then go to nVision, Layout Definition, Filter tab. Select the required field and click the nPlosion button.



nPlosion Criteria dialog box

nPlosion Type

There are four different nPlosion types, which can be combined with nPlosion options to create different reports depending on the data you want to retrieve.

None Select to disable nPlosion for this field. If you have previously selected a type of nPlosion, you must select None to remove the selection.

To bottom of tree Select to nPlode all the way to the bottom of a tree (including detail values) from a selected node. If you decide to include detail, then all sub-nodes are also displayed with summary values of the rollup for those nodes.

To specified level Select to nPlode down a tree to the specified node, including or excluding intermediate data. This will enable you to retrieve any branch of data from a given tree.

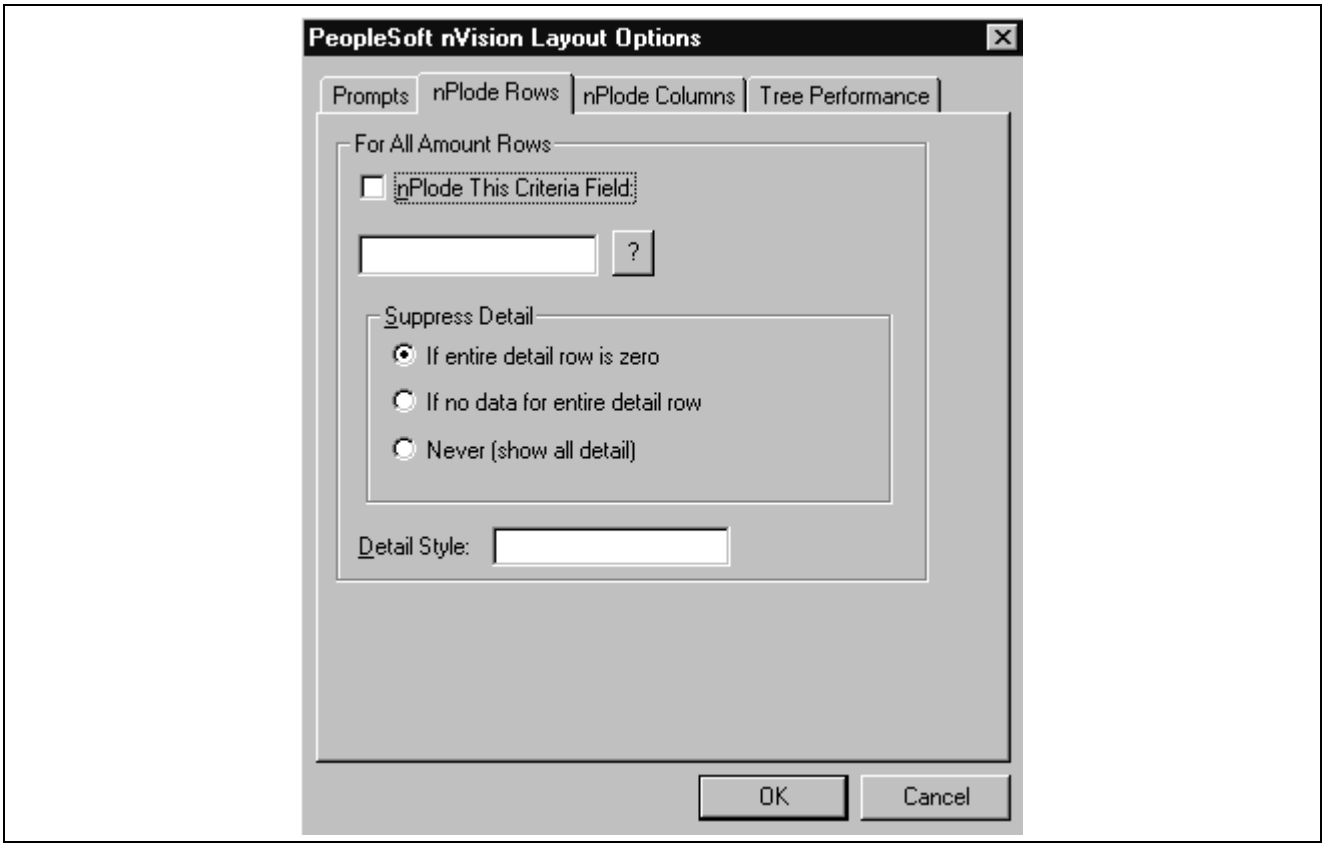
To immediate children	Select to nPlode one level below a selected tree node.
To details only	Select to nPlode from a given node to all its detail values.

nPlosion Options

Include Underlying Detail	When trying to nPlode from a node to another sub-node or to the bottom of the tree, select to include all of the detail and summary sub-values for each sub-node.
Suppress Nodes Without Data	Select to suppress nodes or sub-nodes with a value of zero from the report instance.
Exclude Intermediate Levels	Select to exclude intermediate sub-nodes if a report is being nPloded from a node to another level or to the bottom of the tree.
Utilize Outline Feature	Select to roll up summary and detail information using Excel outline functionality. If this check box is cleared, none of the information is rolled up.

Defining nPlosion Defaults

Access the PS/nVision Layout Options dialog box.



Layout Options dialog box − nPlode Rows tab

To define nPlosion defaults:

1. Select any row, column, or cell that does not contain selection criteria—or select the entire worksheet.
2. Select nVision, Layout Options and select the nPlode Rows tab of the nVision Layout Options dialog box.

   The nPlode Rows tab of the Layout options dialog box appears.
3. Choose whether to enable a default nPloded criteria field for all rows, or columns, or both.

   To define a default nPloded field for all rows, select *nPlode This Criteria Field* in the For All Amount Rows group box. Enter or select a field name in the field below the check box.

   To define a default nPloded field for all columns, select the nPlode Columns tab and select the *nPlode This Criteria Field* check box in the For All Amount Columns group box.

   Enabling row- or column-wide nPlosion can be useful when, for example, you have a large layout where you wouldn't want to specify nPlosion for each individual row or column.
4. (Optional.) Specify the default fields to be nPloded.

   If a column or row contains multiple criteria fields, nPlosion only occurs for the single field that you select here—unless you've specifically enabled nPlosion for those other fields on the Criteria tab of the Layout Definition dialog box.
5. Select the conditions you want to suppress nPlosion for rows and columns.

   The Suppress Detail options enable you to suppress the creation of detail rows and columns under certain circumstances, as follows:

Option	Effect
If entire detail column/row is zero	Creates detail columns or rows for a field value only if there is a corresponding positive or negative amount. Suppresses rows with zero amounts in all columns, or columns with zero amounts in all rows.
If no data for entire detail column/row	Creates detail columns or rows for each field value if amounts for that value are present on the query, even if those amounts net to zero.
Never (show all detail)	Creates detail columns or rows for all details under the nodes being nPloded.

   The zero suppression options are independent. The node suppression option overrides the detail suppression option when they are in conflict. In other words, if zero nodes are suppressed, their underlying details are also suppressed. To see all details for all nodes, even if zero, you should turn off zero suppression at both levels.
6. Specify a detail style to be applied to the detail rows and columns.

   Style selection and defaults appear in the Excel Format, Style dialog box. The column format is used for nPloded values if a row style is not specified.

See Also

Chapter 14, "Tuning PS/nVision Performance," Setting Tree Performance Options , page 146

Enabling nPlosion for Specific Situations

You can enable or disable nPlosion for specific

- Criteria fields.
- Query or ledger TimeSpans.
- Report requests.

To enable or disable nPlosion for a specific criteria field, choose a field from the Fields and Dimensions list on the Filter tab of the Layout Definition dialog box, then click the nPlode button. This generates underlying details only for the criteria fields you specify.

To enable or disable nPlosion for a query/ledger TimeSpan, select or clear nPlode TimeSpan on the Source tab of the Layout Definition dialog box. This option is only available if you have a TimeSpan specified. This generates detail rows and columns for the individual periods in the TimeSpan (for example, the periods comprising year-to-date).

To enable or disable nPlosion for a report request, open the Report Request dialog box and select or clear Enable nPlosion If Specified In Layout. You can specify summary rows or columns before or after nPlode rows or columns based on an Excel option in layout. To set this, open your layout in Excel and select Data, Group and Outline, Settings.

See Also

Chapter 5, “Creating Matrix Layouts,” Applying Filter Criteria, page 40

Chapter 6, “Creating Ledger-Based Matrix Layouts,” Using TimeSpans, page 55

Chapter 16, “Running PS/nVision Reports in the Microsoft Windows Client,” Creating Report Requests, page 173

Using Style Sheets with nPlosion Layouts

With nPlosion styles, you can control the layout and appearance of the multilevel hierarchy of rows and columns nPlosion generates. In PS/nVision, the styles for your summary rows and columns come directly from the styles that you have defined in the summary rows and columns in your layout. The styles for all nPloded rows or columns in your report are controlled by nPlosion Styles, but not the styles defined in the summary rows or columns. You define nPlosion styles either by using Style Sheet Wizard or by directly applying the styles from the Excel menu bar using PS/nVision nPlosion style naming conventions. This section describes how to:

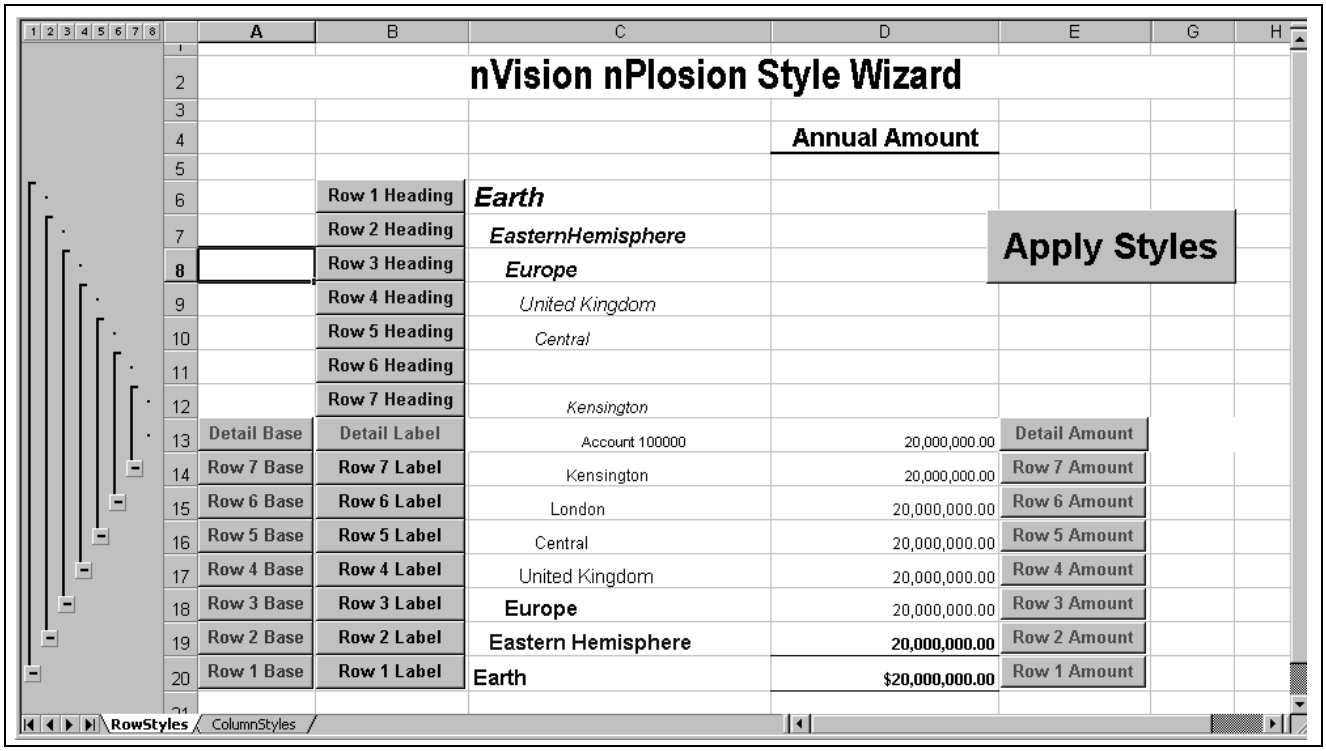
- Use the style sheet wizard.
- Modify style by Excel menu bar.
- Change the style sheet directory location.

Note. If a level is missing within the hierarchy, the next-lower-numbered level that is defined takes on the missing level’s style attributes.

Note. You can also format nPloded detail rows or columns by selecting Format, Cells from the Microsoft Excel menu bar when you create a report layout. However, by default, PS/nVision nPlosion style sheets override any such manual formatting of nPloded detail rows or columns. If you want nPloded details to appear in the format that you applied from the Excel menu bar rather than the nPlosion style sheet, you must define the name NvsSkipDetailStyles using the Define Name dialog box (Insert, Name, Define from the Excel menu bar), entering the value =1 in the Refers to field.

Using the Style Sheet Wizard

The Style Sheet Wizard is used to create and edit nPlosion styles, which are stored in a special Excel worksheet provided with PS/nVision.



nVision nPlosion Style wizard

There are two kinds of nPlosion styles:

- The RowStyles tab displays Row styles.
- The ColumnStyles tab displays Column styles.

Seven levels of each style are provided, as well as a separate style for detail values.

The Style sheet Classical.xls is shipped with the PS/nVision product. Create your own style sheet wizard by saving the Classical.xls file under a different name in the Style Sheet directory location. Configure the Style Sheet directory location using Configuration Manager.

Note. The Base style can be overridden by modifying any of the other styles that come after it. For example, you could make a particular field shaded, even though the base style for that row or column does not include shading.

Opening nPlosion Style Wizard

To open the nPlosion Style Wizard:

1. Click the Format Style Sheets button on nVision's toolbar.
2. Choose the Classical.xls style sheet and click OK.

   The RowStyles tab of the nVision nPlosion Style Wizard is displayed.

The Style Sheet displays a rollup of data for eight rows and eight columns (Excel has a limitation of rolling data up into only eight outlines). The following table shows the four types of styles that can be applied to each row and column:

Heading	An outlined row or column of data has two parts. When opened, the top portion of the outline is considered the header, and the bottom portion is considered the Label. The Heading does not contain any data; it is strictly for display purposes.
Label	The bottom portion of the outline. The Label is the only thing displayed if the outline is collapsed.
Amount	Any numeric data that will be a result of an nPlosion.
Base	The formatting options for the Heading, Label, and Amount styles.

Note. If there are style settings for the Label, Header, or Amount, they will override the Base Style setting.

Modifying a Style

To modify a style:

1. Click the button with the name of the style you want to modify.

   Excel's Style dialog is displayed.
2. Click the Modify button to make changes to the style's display attributes, and then click OK.

   Excel's Format Cells dialog is displayed.
3. Make more changes to styles by clicking the appropriate Style button.
4. If you do not have any PS/nVision report layouts open, you can save the current styles by selecting File, Save. This allows you to modify styles globally in the style worksheet, then apply the new styles to any report layout you wish.

   If you have a style at the Label, Header, or Amount level, this will override the Base style.

Note. All Row Style settings override the Column Style settings.

See Also

For more information about how to use the Excel Format Cells dialog, refer to your Microsoft Excel documentation.

Applying Styles to a Report Layout

To apply styles to a report layout:

1. Open a report layout in nVision.
2. Open the nVision Styles Wizard and modify styles as needed.
3. When you have finished modifying styles, click the Apply Styles button on the Style Wizard.

   A drop-down list of all open layouts is displayed.
4. Select the required layout and click OK.

Modifying Styles Using the Excel Menu Bar

The Style Sheet Wizard is designed so you can easily take advantage of the Excel Style formatting settings and to properly use the designed nVision Style naming convention. You can accomplish the same effect by simply opening a layout, and selecting Format, Styles from the Excel menu bar. The Style dialog will appear and you can create styles using the same naming convention as the Style Wizard.

The following table shows examples of the naming convention for PS/nVision nPlosion styles.

Note. If you apply the styles both from the Style Sheet Wizard and the Excel Menu Bar, the last applied style takes effect.

RxxH	The Header Style for any given level at a Row, where “R” represents a Row, “xx” represents the number of the level (i.e., 01, 02, etc. − 00 represents the detail level), and “H” represents the Header Style.
RxxL	The Label Style for any given level at a Row, where “R” represents a Row, “xx” represents the number of the level (i.e., 01, 02, etc. − 00 represents the detail level), and “L” represents the Label Style.
CxxA	The Amount Style for any given level at a column, where “C” represents a Column, “xx” represents the number of the level (i.e., 01, 02, etc. − 00 represents the detail level), and “A” represents the Amount Style.
CxxB	The Base Style for any given level at a column, where “C” represents a Column, “xx” represents the number of the level (i.e., 01, 02, etc. − 00 represents the detail level), and “B” represents the Base Style.

Note. Detail Row and Column Style settings are represented by the “00” level.

Configuring the Style Sheet Directory Location

Your style sheet directory is indicated by PeopleSoft Configuration Manager for PS/nVision on Windows or by the Process Scheduler configuration file for PS/nVision on web.

To configure the style sheet directory using Configuration Manager for PS/nVision on Windows:

1. Select Go, Configuration.
2. Select the Profile tab, select a profile to edit, and then select the nVision tab to view or change PS/nVision settings.
3. Enter the location of the PeopleSoft style sheets.

PeopleSoft delivers a set of style sheets that can be located at <PS_HOME>\Excel\Style Sheets.

To configure the style sheet directory using the Process Scheduler configuration file for PS/nVision on Web:

1. Select Start, Command Prompt.

2. Change the directory to <PS_HOME>\appserv\.
3. Type *psadmin.*
4. Press ENTER

   The PeopleSoft Server Administration menu appears.
5. Select option 2 (Process Scheduler).
6. Press ENTER.

   The PeopleSoft Process Scheduler Administration menu appears.
7. Select option 3 (Configure a Process Scheduler Configuration) from the Process Scheduler Administration menu.
8. Enter the number that corresponds to the desired database.
9. Press ENTER.

   A message about shutting down the Process Scheduler is displayed. Enter *y* to continue.
10. Reply *n* to the question: Do you want to change any values <y/n> [n]? for all sections until you get to the nVision section, and then answer *y.*

    Make the following change:

Parameter	Description
StyleDir	Enter the default location where PS/nVision keeps nPlosion Styles (these are usually inherited by the layout that the user is designing).

11. Accept the defaults for the remaining options.

See Also

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Using PeopleSoft Configuration Manager"

CHAPTER 10

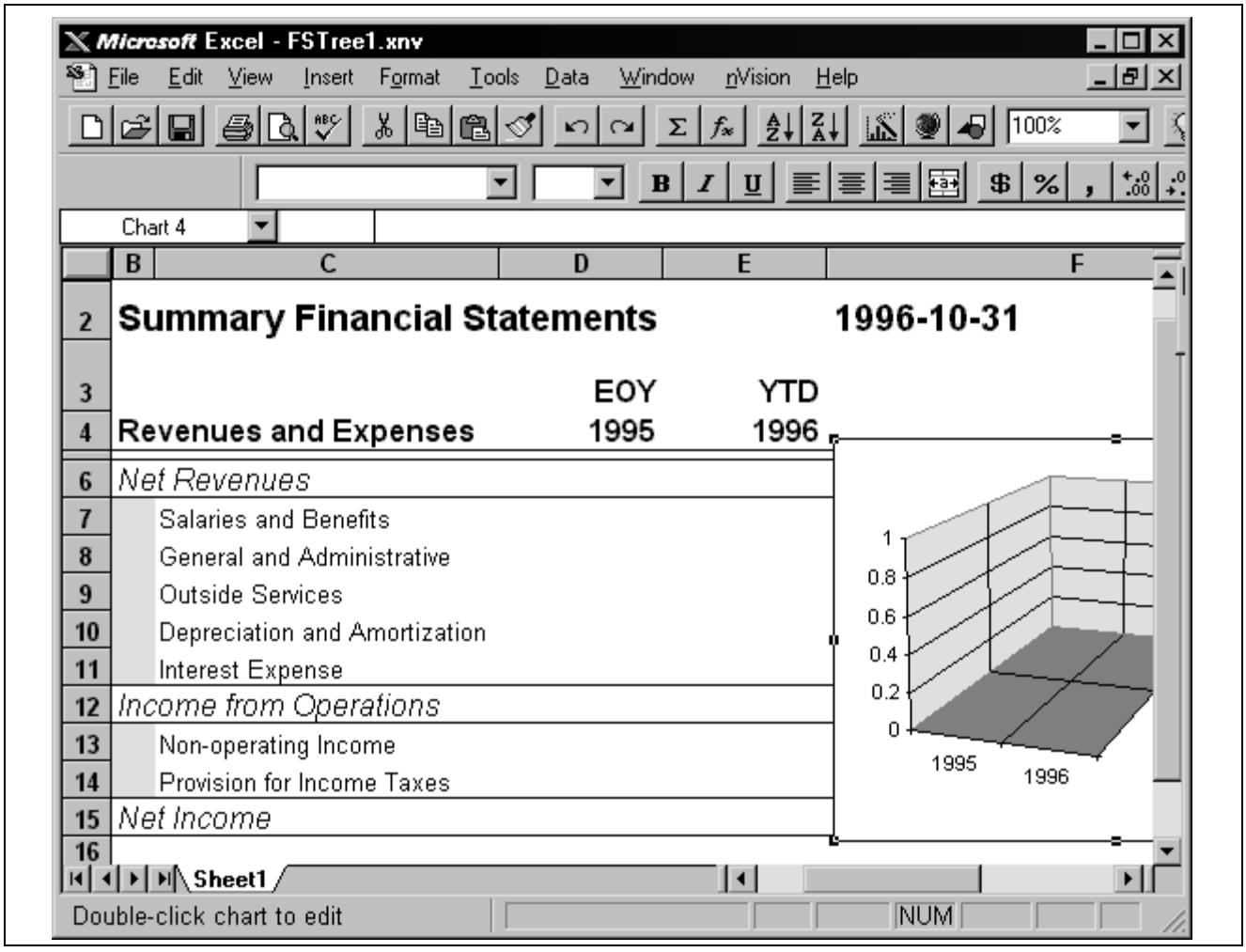
Using Advanced PS/nVision Options

This chapter describes how to:

- Enhance report layouts.
- Set PS/nVision options.
- Create virtual ledgers.
- Use PS/nVision-defined names.
- Format dates.
- Enable trace files.
- Dismiss unattended dialogs.

Enhancing Report Layouts

You can use Excel to personalize the display and printing of your layout, including the use of built-in graphics and charts. Any elements that you define in the layout carry into the reports that you run.

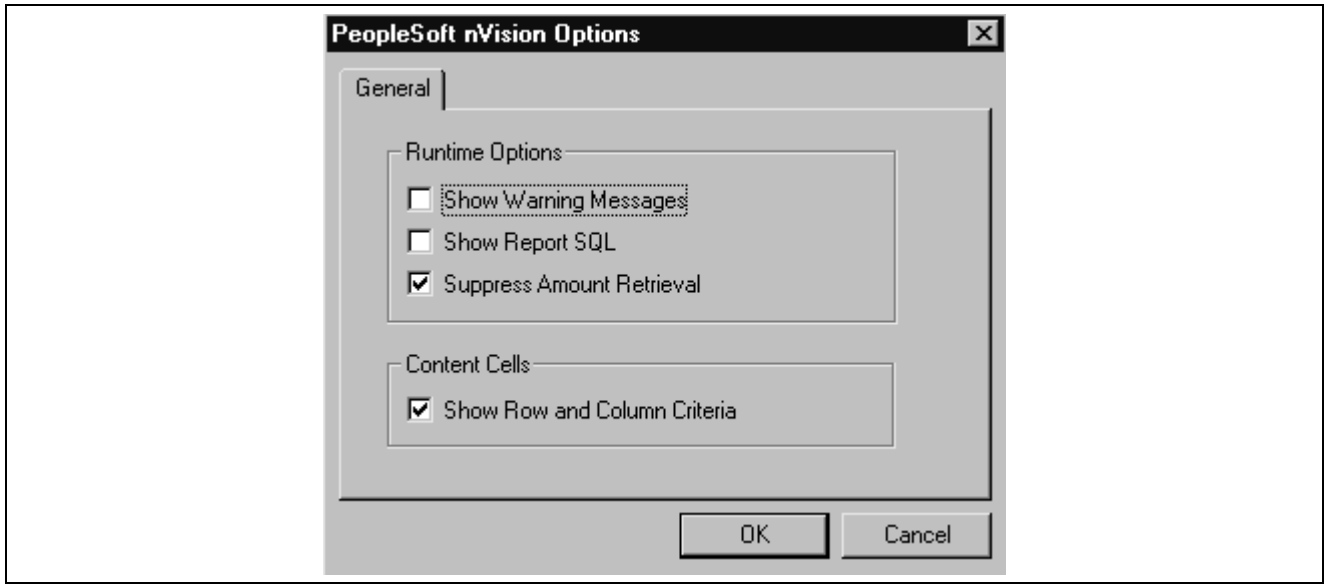


Including graphics, tables, colors, and banners in a spreadsheet

When you have completed refinements to the layout, remember to select File, Save from Excel.

Setting PS/nVision Options

Access the Options dialog box by selecting nVision, Options from the toolbar.



nVision Options dialog box

Show Warning Messages Select to see warning messages and dialog boxes when PS/nVision creates a new directory or overwrite a file. If you don't select this box, PS/nVision runs with as little prompting as possible. This is ideal if you plan overnight or lunch-time report runs.

Show Report SQL Select to see the SQL statements that retrieve the labels and amounts for your report. As PS/nVision prepares to execute each statement, a SQL reference dialog box appears. Click OK to continue or Cancel to stop the report at that point. You can copy the SQL statements to the Microsoft Windows Clipboard by pressing the TAB key until the text is selected, then pressing CTRL+INS or CTRL+C. Select this box only if you intend to step through the report run, as you must click OK after each statement.

Suppress Amount Retrieval Select to have PS/nVision run the layout to make sure that all selection criteria are valid. PS/nVision does not retrieve amounts, so you can test the layout without waiting for data to be selected. This is useful in combination with other options when debugging a report. If you also select Show Report SQL, you can determine if the displayed SQL will retrieve the data you want.

Show Row and Column Criteria Select to see the contents of Row 1 and Column A, which are reserved by PS/nVision for data selection criteria when you create a layout. Content cells typically contain codes that relate to the ledger, TimeSpan, field criteria, and query names.

Creating Virtual Ledgers

A virtual ledger is an alternate view of ledger data used only for PS/nVision reporting. For instance, you might want to join data from another table (such as a product category table) with ledger data at reporting time.

You can also use a virtual ledger to provide an alternate security view for different groups of users. For example, you might want to provide an alternate view of the LOCAL ledger for users who need data secured by PROJECT, while other ledger users have access secured by DEPTID. You can set up a virtual ledger called PROJLOCAL, which is a view of the LOCAL ledger secured by PROJECT.

The following example shows the steps for creating the virtual ledger PROJLOCAL.

To create a virtual ledger:

1. In Application Designer, create an authorization table (AUTH_PROJ_TBL) with OPRID and PROJECT columns.
2. Create a page to maintain the authorization table.
3. Open the LEDGER record and use Save As to create a new record.
4. Name this new record LED_PROJLOCAL_VW.
5. Delete any unnecessary columns and create any additional columns.

   In this example, we'll add OPRID, since this view is used for security, and we'll delete PROCESS_INSTANCE and TIMESTAMPS since these aren't used for reporting.

   The view text must contain the following features:

   - Since we're using this view for security, it must deliver the OPRID (or OPRCLASS or ROWSECCLASS) field. This is the first item in the SELECT list below.
   - To get security by Project, the view joins the project authorization table to the ledger, making only the rows with matching projects visible for each user.
   - The SELECT list must deliver the name of the virtual ledger to satisfy the PS/nVision "...LEDGER='PROJLOCAL'..." criteria, even though the rows retrieved are really ACTUALS. (See the third item in the SELECT list of the sample view text that follows.)
   - The Where clause must include "... AND LEDGER = 'LOCAL' ..." to select the desired rows from the real ledger .

   The view text looks like this:

```
select b.oprid,
       a.business_unit,
       'PROJLOCAL',
       a.fiscal_year,
       a.accounting_period,
       a.account,
       a.deptid,
       a.product,
       a.project,
       a.affiliate,
       a.currency_cd,
       a.statistics_code,
       a.posted_total_amt
  from ps_ledger a,
       ps_auth_proj_tbl b
 where a.ledger='LOCAL'
   and a.project=b.project
```

6. Save the record definition and create the SQL view.

7. Create a ledger definition for PROJLOCAL, specifying LED_PROJLOCAL_VW as the reporting view record name. The other record and field names can be the same as for LOCAL.
8. Use the Ledgers for a Business Unit page to associate the new ledger with the business units that will be using it.

In PS/nVision layouts, use PROJLOCAL, rather than LOCAL, in the Ledger criteria for reports to be run by the project accounting users.

Using PS/nVision-Defined Names

This section describes the names PS/nVision defines and looks up in layout and instance files. Many of these are used for internal purposes, but several, such as NvsEndTime, are intended for users.

Warning! The values of these names, except for rare exceptions, are managed by PS/nVision and are not intended to be changed by customers. It's much safer to think of them as read-only. The names whose values you may change are indicated in italics in the following table. Never change the value of the names *not* highlighted in italics.

Some names are used only in matrix or tabular layouts, but many apply to both. See the Sheet Type column. The Level column indicates if the name is defined at the file (workbook) level or at the sheet level.

Some strings begin with *V* to avoid problems if the string was null. Names of this type show *V* at the beginning of the Values column.

Name	Sheet Type	Level	Values	Comments
NvsDateToNumber	Both	File	Y/N	*Y* indicates to convert database dates (for example, the %ASD% variable) to the Excel native date format. Default *N*.
NvsDrillHyperLink	Both	File	URL string	Stores the static part of the DrillDown URL. PS/nVision generates a DrillDown URL for each drillable cell in the delivery instance to invoke the Run DrillDown page. The full URL stores the information about the Run DrillDown page (static) and location of the drillable cell (dynamic).
NvsElapsedTime	Both	File	Excel date /time	Indicates the elapsed time to produce this instance. To see this elapsed time in the instance, enter the formula *=NvsElapsedTime* in a cell and format the cell with a time format.
NvsEndTime	Both	File	Excel date /time	Indicates the time this instance was saved. To see this time in the instance, enter the formula *=NvsEndTime* in a cell and format the cell with a date or date/time format.

Name	Sheet Type	Level	Values	Comments
NvsInstanceHook	Both	Sheet	Reference	Indicates the name or reference of macro to be run on completion of instance.
NvsLayoutType	Both	Sheet	M3	Indicates layout version (unchanged for several years).
NvsParentRef	Both	File	Reference	Stores the reference of the cell from which this instance drilled down.
NvsSheetType	Both	Sheet	M/T	*M* = matrix, *T* = tabular, *undefined* = non-layout.
NvsASD	Both	File	Vyyyy-mm-dd	Stores the as of date from the report request.
NvsAutoDrillOk	Matrix	File	Y/N	Indicates whether this instance includes a PeopleSoft Query data source; this controls whether the AutoDrill menu appears.
NvsDefaultDrill	Matrix	File	layout[,D]	In layout, specifies default DrillDown layout for NvsAutoDrill (usually associated with double-click). Appending *D* to the layout name causes PS/nVision to translate summary ledgers to detail for this layout, without asking the user. For example, NvsDefaultDrill might be defined as *=ActPer,D*.
NvsTranslateLedger	Matrix	File	Y/N	Indicates whether the DrillDown is within a summary ledger (*N*) or detail ledger (*Y*).
NvsInstSpec	Both	File	Criteria string	Specifies instance criteria. An instance for a division might look like *%,FDEPTID, TMFG_ DEPARTMENTS, NPRODUCTS*. On a DrillDown instance, may also include TimeSpan and other criteria.
NvsInstSpec1 … NvsInstSpec9	Both	File	Criteria string	ContinuesNvsInstSpec. This allows PS/nVision (beginning in PeopleTools 8.1) to handle larger strings of instance criteria despite the Excel limitation of 255 characters per defined name. Because null strings cause problems, PS/nVision defines unused criteria continuations as a single comma, =",".

Name	Sheet Type	Level	Values	Comments
NvsNplSpec	Matrix	File	Criteria string	Specifies nPlosion Options, from nPlosion Options dialog box. Contains default nPlosion fields, as well as zero-suppression options, for rows and columns.
NvsPanelBusUnit	Both	File	Vbusunit	Indicates the business unit used for prompting when designing a layout. Added in PeopleTools 8 so the user could choose between business unit or setID as the basis of prompting when selecting trees (In PeopleTools 8, trees can be keyed by either setID or SETCNTRLVALUE, and PS/nVision supports the use of business unit as SETCNTRLVALUE.) This value is entered on the Prompt dialog box and used only during layout design. When running reports, PS/nVision uses either the requesting business unit or its designated setID as the key for a given tree.
NvsPanelEffdt	Both	File	Vyyyy-mm-dd	Indicates the layout effective date (governs prompting). Entered on the Prompt dialog box.
NvsPanelSetid	Both	File	Vsetid	Indicates the setID used for prompting while entering layout criteria.
NvsReqBU	Both	File	Vbusunit	Stores the requesting business unit from the report request.
NvsReqBUOnly	Both	File	VY/VN	Stores the Data from Requesting Business Unit only option from the report request.
NvsSkipDetailStyle	Both	File	0/1	The value *0* indicates that nPloded details appear in the format applied using the nPlosion style sheet. The value *1* indicates that nPloded details ignore the nPlosion style sheet applied to the report layout, and take their style attributes from the Microsoft Excel formatting.
NvsTransLed	Matrix	File	VY/VN	Indicates whether summary ledgers were translated to detail when producing this instance. Used during DrillDown to know whether inherited criteria are already translated.
NvsTreeASD	Matrix	File	Vyyyy-mm-dd	Stores the tree as of date from the report request.

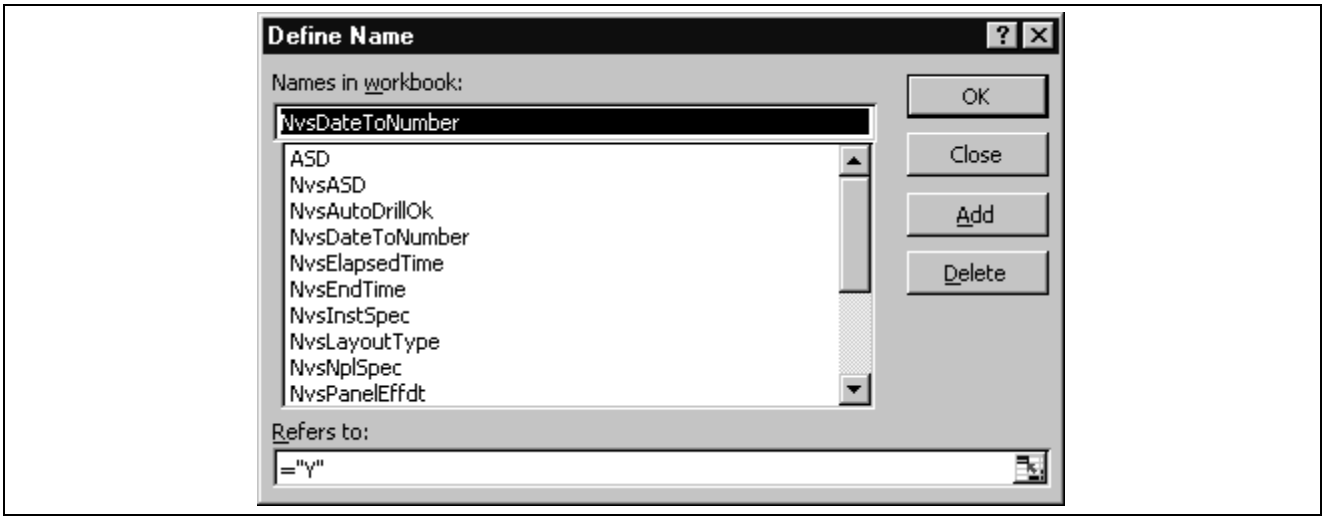
Name	Sheet Type	Level	Values	Comments
NvsTree.treename	Matrix	Sheet	yyyyy	Indicates tree performance options for a tree name. Each character is a Y/N option corresponding to an option on the Tree Performance Options dialog box, in sequence:
NvsValTbl.fieldname	Matrix	File	Record name	In a layout, identifies the record name of the value table from which values and labels come for a criteria field. For DEPTID, the defined name for the value table is NvsValTbl.DEPTID, and its value might be "DEPARTMENT_TBL".
NvsAnswerCol	Tabular	Sheet	Reference	Refers to a column of data returned in a tabular report. Can be used to create references to any column of data, including all delivered answer rows.
NvsQueryName	Tabular	Sheet	Query name	Stores the name of the query that provides the data for this tabular layout or instance.
NvsRowCount	Tabular	Sheet	Integer	Records the number of rows delivered to this tabular instance sheet.
NvsInstCritOpt	Tabular	Sheet	R/S/I	Dictates how inherited criteria are to be handled for fields that don't appear in the current data source. *R* = required (error if inherited fields not present); *S* = Select criteria for those fields that match, ignore others; *I* = Ignore all inherited criteria.

Formatting Dates

PS/nVision can deliver dates in two different formats. Those formats can be applied to matrix layouts (for variables such as %ASD%), tabular layouts, and the Excel template QUERY.XLT. (This is used in QueryLink when PeopleSoft Query delivers a query answer to Excel). These two formats are:

- Excel format, in which a date is represented by a number (12/31/99 is represented as 36525). Excel formatting can be used to display the date in a variety of formats.
- String format ('1999-12-31')

You define the name NvsDateToNumber in your layout or QUERY.XLT to indicate the format you want to use. *Y* in NvsDateToNumber means to force dates to Excel numeric format, while *N* indicates to use the string format. The default for NvsDateToNumber is *N* for backward compatibility. The definition (accessed through the Excel menus Insert, Name, Define) looks like this:



Define Name dialog box

Unlike NvsInstanceHook, NvsDateToNumber is defined at the workbook level—you don't qualify the name using the sheet name.

Setting Trace Files

Trace files are useful for generating troubleshooting and debugging information. You can configure trace files to be generated for PS/nVision processes: each nVision process generates its own trace file with timestamped entries, making troubleshooting easier. You can set the trace level to specify how much detail the trace files will show.

Enabling Trace Files

By default, PS/nVision does not generate trace files because extensive tracing can affect system performance. You can enable tracing and determine the tracing level when debugging is needed.

Tracing for PS/nVision on Windows

You configure tracing in PS/nVision on Windows using the Trace_Level setting in PeopleSoft Configuration Manager. The default value is 0.

See *Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration*, "Using PeopleSoft Configuration Manager".

Tracing for PS/nVision on the Web

You configure PS/nVision tracing on the web using the Trace Level setting in the PeopleSoft Process Scheduler configuration file's nVision section. The default value is 0.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*, "Using the PSADMIN Utility".

Tracing Levels

Five tracing levels are supported for PS/nVision: 0, 1, 2, 3, and 4. The following table shows the level of tracing for each value:

Tracing Level	Description
0	No tracing; no log files are generated. This is the default setting.
1	The lowest level of tracing. With this setting, nVision generates basic, high-level process flow and status information. This setting can be used to check whether nVision was launched successfully and whether it is able to connect to Microsoft Excel and process requests. Some of the key entries in Level 1 settings are: Command Line arguments, Trace Level, Excel Process ID, Run Control Name, Report Name, Business Unit, Drill Layout, and Instance Name. A common scenario for which to use this level is if a PS/nVision process exits immediately after processing.
2	This level contains entries from level 1 plus additional information. A high-level code flow is recorded with this setting.
3	This level includes tracing up to level 2 and SQL statements. For Microsoft Windows, PS/nVision runtime SQL can be displayed by selecting the Show Report SQL option from Menu, nVision, Options. The same SQL statements will be written into the log file by changing the trace level to 3.
4	This level is the highest and includes tracing up to level 3 plus additional function calls, output values, and other detail information. This setting can be used for identifying intermittent problems and random behaviors.

Viewing Trace Files

The trace file's output filename has the format *psnvs_[process ID of psnvs.exe].nvt*. For example: *psnvs_123.nvt*. You can view the trace file from both Windows-based and web-based PS/nVision.

Viewing the Trace Files for PS/nVision on Windows

In Microsoft Windows PS/nVision, the trace file is generated in your system temporary directory; for example *c:\temp\psnvs_123.nvt*

Note. PS/nVision does not delete files generated in tracing for Microsoft Windows PS/nVision. You can delete the trace files from the temporary directory to save disk space.

Viewing the Trace Files on the Web

On the web, since PeopleSoft Process Scheduler initiates all PS/nVision processes, it is also responsible for displaying PS/nVision trace information in the Process Monitor after PS/nVision reports are run to completion. The PS/nVision trace files are independent of the Process Scheduler's status of the report running, and are always posted regardless of your output types or formats. Trace files are secured by the same user list as the report, so only the same set of users can view them.

PS/nVision trace files are automatically purged when the reports are purged in the timeframe that you have set from the Process Scheduler System Purge Option. You can view trace files from the View Trace/Log page in Process Monitor for your completed process instance. To view a trace file:

1. Select PeopleTools, Process Scheduler, Process Monitor.
2. Find the process instance that runs your nVision report, then click Details to access the Process Detail page.
3. Click View/Trace Log to access the Message Log page.
4. Click the nVision Trace link to view the trace file.

   If Process Scheduler has restarted your nVision report running process, multiple nVision trace files are generated (one for each retry).

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Defining PeopleSoft Process Scheduler Support Information," Defining System Settings

Dismissing Unattended Dialogs

PS/nVision can detect and close unattended dialogs on the batch server. To use this feature, you must enable the EnablePollDialogs and set the PollDialogSeconds parameters in the PeopleSoft Process Scheduler.

The EnablePollDialogs parameter is disabled (with setting equal to 0) by default, but if you have problems with unattended dialogs generated from PS/nVision in batch mode, you are suggested to change the setting to *Enabled* for debugging purposes. You can do this using the Process Scheduler's PSADMIN utility. Use the PollDialogSeconds parameter to specify how often to cycle polling for unattended dialogs. When EnablePollDialogs is enabled, the PollDialogSeconds parameter must be set to a value greater than 0.

Note. PS/ nVision will close only the dialogs originating from PS/nVision and Microsoft Excel.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*, "Using the PSADMIN Utility".

CHAPTER 11

Personalizing PS/nVision

This chapter provides an overview of personalization options and describes how to:

- Use Configuration Manager.
- Personalize NVSUSER.XLS.
- Set report preferences.
- Customize the style sheet wizard.
- Customize delivered VBA wizards.
- Change the startup file.
- Use PS/nVision API functions.

Understanding PS/nVision Personalization

You can personalize numerous PS/nVision options through Configuration Manager and can even change the user interface for reporting and DrillDown. PS/nVision provides an Excel workbook (NVSUSER.XLS) with a custom DrillDown menu and buttons for common actions. From this starting point, you can construct a custom user interface for your organization or even for selected groups of users.

Note. PS/nVision also supports previous versions of personalized and non-personalized NVSUSER.XLM files.

PeopleSoft delivers NVSUSER as a starting point. You can use it with minimal modifications, make major enhancements, or replace it altogether.

Using Configuration Manager

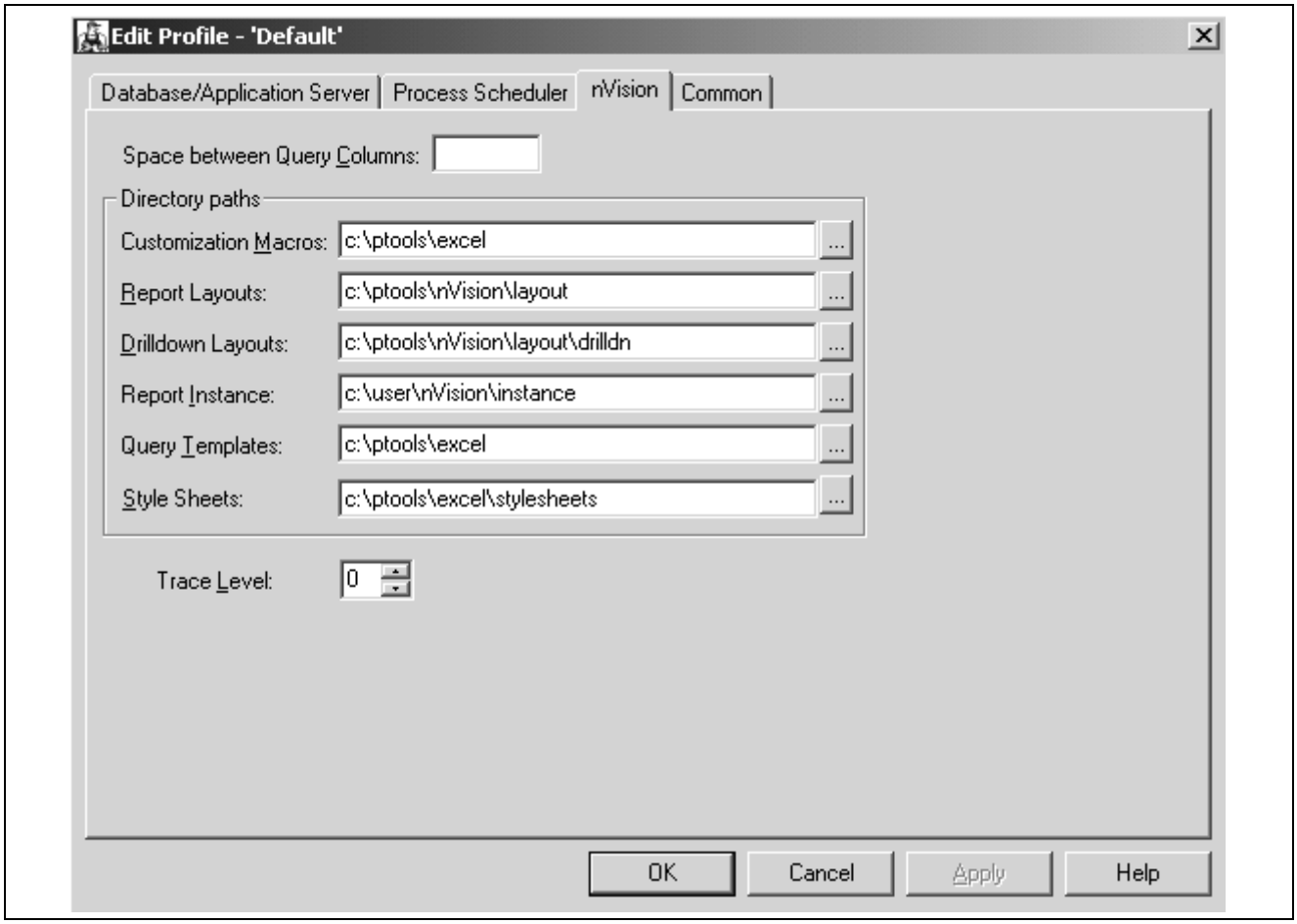
PeopleTools provides Configuration Manager to maintain PeopleSoft-specific configuration information in the Windows Registry. You should use Configuration Manager to maintain PS/nVision settings (and other PeopleTools settings) rather than editing the Windows Registry directly.

This section describes how to:

- Change Configuration Manager settings.
- Define directory paths.
- Specify formatting options.

Changing Configuration Manager Settings

Access Configuration Manager.



Configuration Manager − General settings for nVision

To access Configuration Manager:

1. Select Start, Programs, PeopleSoft 8, Configuration Manager.
2. Select the Profile tab.
3. Select the profile to change and click Edit.
4. Select the nVision tab on the Edit Profile dialog box.

The settings on this dialog box control where PS/nVision looks for various file types. PeopleSoft Query Link, the feature that enables you to send PeopleSoft Query output to a spreadsheet, also refers to these Configuration Manager settings.

Note. Changes made with Configuration Manager do not take effect until you sign on to the system. If you're signed on while making changes to Configuration Manager, you'll have to sign off and sign back on to see the effect of the changes.

The following table describes the settings available for PS/nVision in Configuration Manager.

Control	Description
Space Between Query Columns	Sets the number of blank Excel characters that PeopleSoft Query Link places between query output columns. To eliminate spacer columns, set this value to 0. Spacer columns improve readability, but can be problematic with Excel list features (such as filters or subtotals), or if you want to export data to another program.
Personalization Macros	Specifies the directory path PS/nVision should search for macros used with PS/nVision and PeopleSoft Query Link. It is usually %PS_HOME%\EXCEL. This is also the path PS/nVision searches for the user macro sheet (normally NVSUSER.XLS) if it is not found in the layout directory path.
Report Layouts	Specifies the directory path PS/nVision should search for layout files. They're usually in \USER\NVISION\LAYOUT, but you might also have a shared layout directory on the network. The layout directory path is also searched first for the user macro file (normally NVSUSER.XLS), allowing you to use a personalized front-end macro sheet rather than the standard one for the organization.
DrillDown Layouts	Specifies the directory that contains PS/nVision DrillDown layouts, usually \USER\NVISION\LAYOUT \DRILLDN.
Report Instance	Specifies the directory into which PS/nVision places report instances. This can be overridden via the directory template on the Report Request dialog box.
Query Templates	Specifies where to look for the QUERY.XLT file. This file defines the Excel styles used to format output. If no template directory is specified, or if PS/nVision doesn't find Query.XLT there, it searches in the personalization macro path.
Style Sheets	Specifies the directory of predefined nPlosion styles for the style sheet.

Note. These settings are for the Windows version of PS/nVision. To run PS/nVision through Process Scheduler, the configuration settings are in [nVision] section of $PSHOME\APPSERV\PRCS\$databasname\psprcs.cfg

Defining Directory Paths

You can specify paths containing multiple directory locations for layouts and several other types of files. Within a path, semicolons separate directory names, and the directories in the path are searched in the order listed. For example, the layout path might contain the following:

C:\USER\NVISION\LAYOUT;N:\PS\NVISION\LAYOUT

When PS/nVision starts, it searches the layout directories in sequence for NVSUSER.XLS. If PS/nVision can't find it in any of these directories, it looks in the macro directory path. If it can't find NVSUSER.XLS, it looks for NVSUSER.XLM. Similarly, when PS/nVision opens or runs a report, it searches the layout directories in sequence until it finds the layout. The same path options exist for the Excel installation path, macros, templates, and DrillDown layouts.

In addition, when searching a directory path, PS/nVision looks first for a subdirectory with the name of the current user's language. For example, if the language setting in Configuration Manager is French, PS/nVision searches the following directories in sequence for the layout directory in the example above:

C:\USER\NVISION\LAYOUT\FRA

C:\USER\NVISION\LAYOUT

N:\PS\NVISION\LAYOUT\FRA

N:\PS\NVISION\LAYOUT

This enables users of different languages to share the same settings while maintaining layouts in multiple languages.

Specifying Formatting Options

The PeopleSoft Query Link portion of PS/nVision uses a standard Microsoft Excel template, QUERY.XLT, to format data retrieved from a query. QUERY.XLT contains some special styles that you can personalize. Use the Excel Format, Styles option and save your changes to QUERY.XLT.

Note. The location of QUERY.XLT is specified on Configuration Manager's nVision tab in the Query Templates dialog box.

The following table lists the special PeopleSoft styles you can apply to QUERY.XLT.

Style Name	Data Type Formatted
PSChar	Character fields (such as names).
PSDate	Dates.
PSDec	Numbers with decimal places, such as dollar amounts.
PSInt	Integers (such as years).

Style Name	Data Type Formatted
PSHeading	Column headings.
PSSpacer	Space between data columns.

Personalizing NVSUSER.XLS

The NVSUSER worksheet provided by PeopleSoft includes macros to personalize the user menu and toolbar.

This section describes how to:

- Customize buttons.
- Add buttons with the button wizard.
- Customize menus.
- Make Excel row and column indicators visible.
- Change the toolbar.

See Also

Chapter 11, “Personalizing PS/nVision,” Using PS/nVision API Functions , page 107

Customizing Buttons

Each button on the NVSUSER sheets has a macro assigned to it to perform some function. As delivered, NVSUSER has buttons grouped into Run, View, and Command groups. You can change the groupings and meanings of the buttons. You can also format the button sheet to personalize its color and appearance.

To change the macro a button is assigned to:

1. Position the mouse pointer over the button (it becomes a hand), but don’t click it.
2. Right-click and select Assign, Macro from the shortcut menu.
3. Enter the name of the macro you want to run when the button is clicked.
4. Click OK to complete the assignment.

Note. If you have macros that were created using Excel 95, you will see the Excel Edit Name dialog box when defining the name for the cell in which the macro begins. Select the Command-type option to identify your macro as a Command macro. This dialog box does not appear for later versions of Excel.

Adding Buttons With the Button Wizard

To use the button wizard:

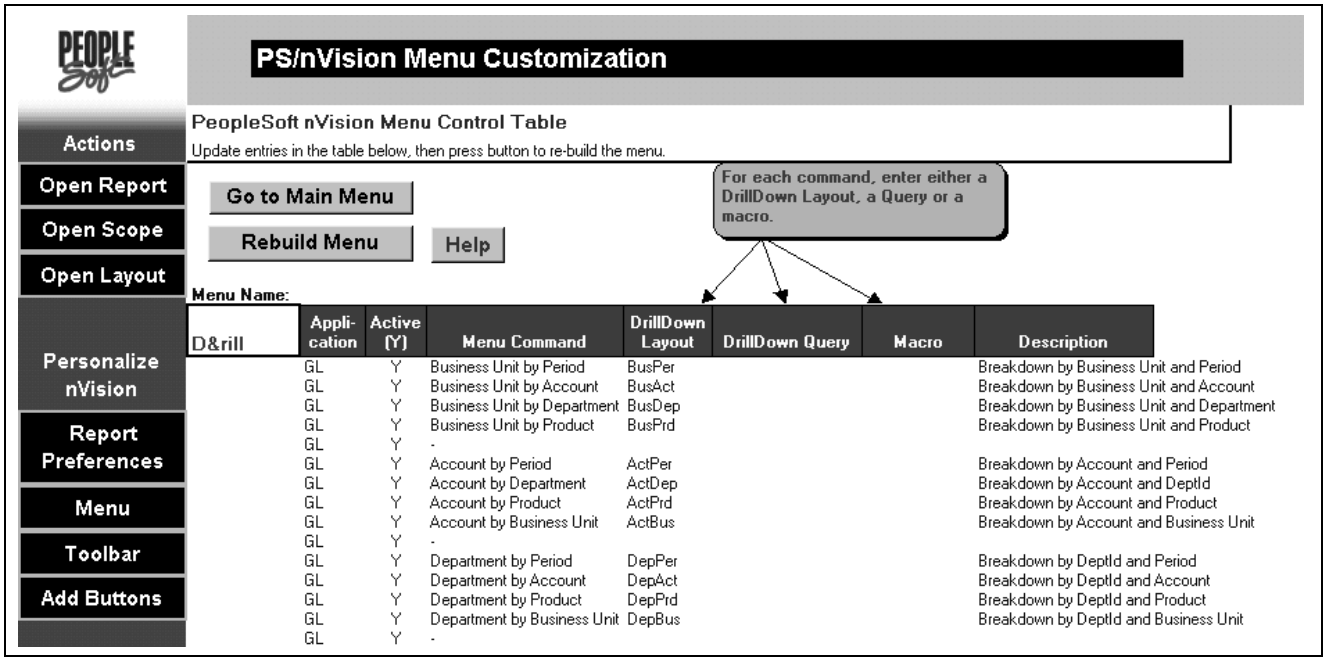
1. Click Add Buttons from the NVSUSER.XLS home page.
2. Select whether to run a report or view a report. Click Next.

3. Choose either your report request or your instance. You can navigate to an instance from the button with ellipses on it.
4. Click Next.
5. Type in a caption for your button.
6. (Optional) Choose a picture for your button by clicking the Image button and navigating to the location of an image file.
7. Click Finished.

The new button is placed directly below the lowest-positioned button in a specific Run or View category. Once initially placed on the sheet, the button can be moved or changed accordingly. However, try not to ungroup buttons with images. If necessary, remember the defined button name before ungrouping; then, when regrouped, rename the button group accordingly. To ungroup the button, right-click it, select the ungroup function from the menu, and make your changes. To regroup, right-click it again and select the regroup function from the menu.

Customizing Menus

Access the Menu Control Table page by clicking on the PSMenu tab on NVSUSER.XLS.



Menu Control Table page

You can select a DrillDown layout, DrillDown query, or a macro to run when a menu command is selected.

Application Identifies the application that uses this menu item. This makes it easier to enable or disable the actions associated with an application by setting its Active check box. The Application field is not used by the supplied macros, but acts as a description on this page.

Active Enter *Y* to make the menu item active or *N* to keep it in the table but deactivate it.

Menu Command Enter the text that appears when the user pulls down the menu.

DrillDown Layout Select a layout, present in your DrillDown layout path, to be used in a matrix or tabular DrillDown.

DrillDown Query	Enter a query name to be used in a PeopleSoft Query Link-style tabular DrillDown.
Macro	Enter the name of a macro to run when the item is selected.
Description	Enter descriptive text to appear in the status bar when a user highlights the command.

Rebuilding the Menu

To rebuild the menu with new information that has been entered, click the Rebuild Menu button.

Making Excel Row and Column Indicators Visible

To make Excel row and column indicators visible for both the PeopleSoft menu and toolbar sheets:

1. Select Excel menu Tools, Options.
2. On the View tab select the Row & column headers check box and click OK.

   Row indicators (1,2,3, and so on.) and column indicators (A,B,C, and so on.) become visible.
3. Insert or delete rows or columns by clicking a row or column indicator to highlight the row or column.
4. After you're done making changes to the PeopleSoft menu or toolbar sheet, hide the row and column indicators by clearing the Row & column headers check box before saving the modified NVSUSER.XLS.

Changing the Toolbar

To personalize the toolbar:

1. Select the Toolbar tab on the NVSUSER.xls.
2. (Optional.) Edit the name of the toolbar in the Toolbar Name box.
3. Set the location of the toolbar in the Docking Position box.

   You can enter left, right, top, or bottom to have the toolbar docked accordingly, or you can select float to have the toolbar float over the spreadsheet.
4. Edit the table of tool commands, adding, changing, and deleting items to get the toolbar you want.
5. For each tool you add or change, specify one of the following actions.
   - A layout, present in your DrillDown layout path, to be used in a matrix or tabular DrillDown.
   - A query name to be used in a PeopleSoft Query Link-style tabular DrillDown.
   - The name of a macro to run when the tool button is clicked.
6. For each tool, also specify the following:
   - Active. *Y* to make the tool active; *N* to keep it in the table, but not in the toolbar.
   - Face. The name of the picture that identifies the tool. Either use a picture already defined on the Toolbar worksheet or design your own using a drawing program such as Paintbrush. The picture must be 16 pixels square. Copy the picture from the drawing program and paste it onto the Toolbar worksheet. While it is selected, enter a name for it, and enter this name in the Face column.
   - Gap. To leave a gap between tools, enter *gap* in the Face column.
   - Status text. Enter descriptive text to appear in the status bar when the mouse rests over the tool.
   - Tip text. Enter a brief description to appear in a tool tip when the mouse rests over the tool.

7. When the table is, as you want it, click Rebuild Toolbar to build the new toolbar.

Setting Report Preferences

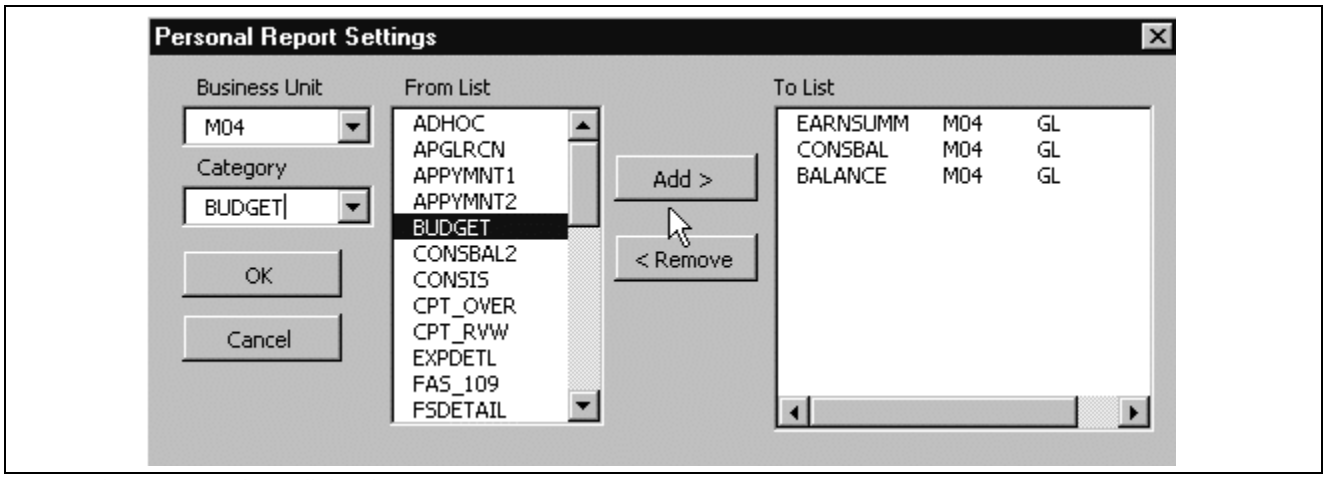
NVSUSER allows you to store personalized, categorized report requests. You can quickly view frequently used requests by category and run them with a click of a button. One NVSUSER can be stored on a remote server location and still allow individual users to view requests from any client workstation. In addition, you can view and copy other users' Report Request preferences if given the proper security access to alleviate the redundancy setup process.

This section describes how to:

- Set report request preferences.
- Copy a user's report request preferences.
- Customize the report instance view.

Setting Report Request Preferences

Access the Personal Report Settings dialog box.



Personal Report Settings dialog box

To set report request preferences:

1. Click Report Preferences on the NVSUSER homepage.

   The Personal Report Settings dialog box appears.
2. Select an appropriate business unit.
3. (Optional.) Enter a new category or select an existing one.
4. Select the reports you want for that category and click Add or Remove.
5. Click OK.

   The information is stored in the NVSReports tab of NVSUSER.xls

Copying a User's Report Request Preferences

To view or copy another user's report request preferences:

1. Click the Operator button on the NVSUSER homepage.

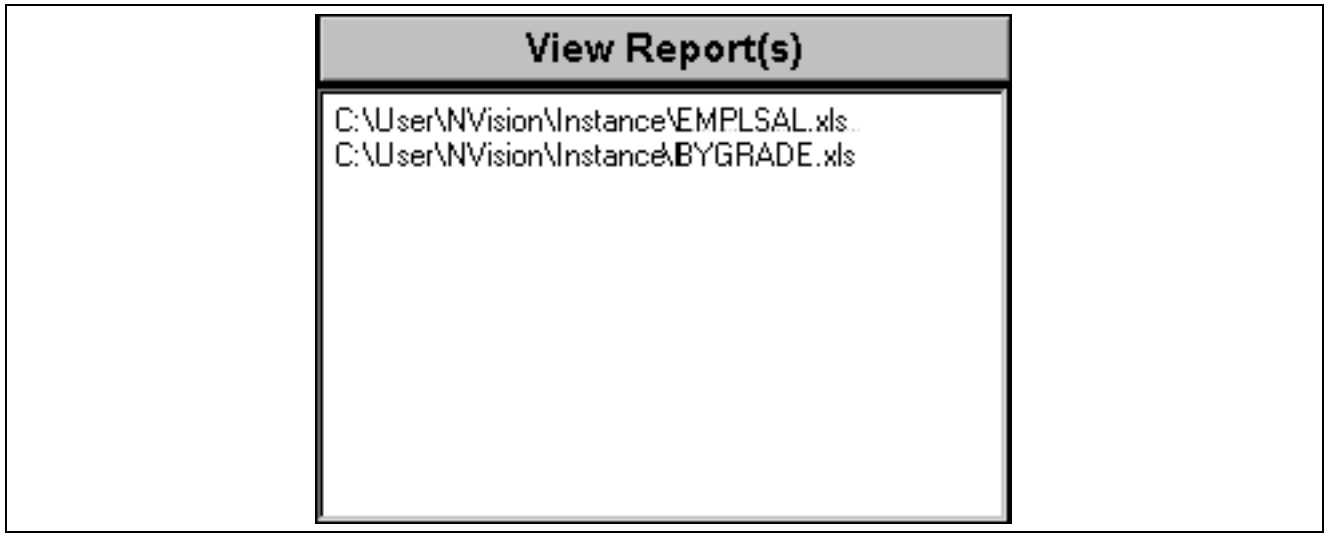
   Another dialog box appears with a drop-down list of all users who have already set and stored report request preferences on this NVSUSER.xls.

2. Select a user from the list to access that user's report references and personalized categories.
3. Click the Copy button to copy the other user's preferences.
4. Click the Report Preferences button to see your report settings.

Note. When you copy another user's preferences, your previous preferences are deleted. You cannot change another user's report request preferences without copying them first.

Customizing the Report Instance View

From the NVSUSER homepage, you can pull in report instances from folders that you specify. You can then select reports from the list and open them without having to navigate through a file directory system.



View Reports group box from the NVSUSER homepage

For example, if a series of report books were being run overnight and placed into a common file location, a manager could log in to the NVSUSER homepage and all the reports would be pulled from the specified directories.

To personalize the report instance view:

1. Select Go, Configuration.
2. Select the Profile tab.
3. Select the profile to change and click Edit.
4. Select the nVision tab on the Edit Profile dialog box.
5. Enter or navigate to the location of your report instance files.

   You can have more than one folder listed, but you must have them separated by semicolons. However, Excel does have a limit of 255 characters.

Customizing Delivered VBA Wizards

NVSUSER delivers VBA forms to perform functions from storing information in the PeopleSoft system to creating a button to run a report. To find the VBA forms, select Tools, Macros, Visual Basic Editor from the Excel menu bar.

The VBA forms provide several examples of using Visual Basic PeopleSoft APIs to personalize PS/nVision. These features can add tremendous depth to your reporting ability.

Several VBA wizards take advantage of the PeopleSoft Open Query method to pull information from the PeopleSoft system. To use this method, you need create a query in the PeopleSoft system.

There are also examples of VBA forms passing prompt values to the queries. The following table lists queries that PS/nVision accesses and wizards that use them.

Query	VBA Wizard
NVS_OPERATORS	NVSUSER.xls
NVS_PERSNL_RPTS	NVSUSER.xls, Personal_Settings
NVS_CATEGORY	NVSUSER.xls, Personal_Settings
NVS_RPT_ID	Personal_Settings, Button Wizard
NVS_MENU	PSDrill
NVS_MENU_BAR	PSDrill
NVS_MENU_ITEM	PSDrill
NVS_MENU_PANEL	PSDrill
NVS_MENU_PNL_KEYS	PSDrill

See Also

Microsoft Visual Basic Applications manual

Chapter 12, “Using the PS/nVision Visual Basic Interface,” page 111

Changing the Startup File

When you start PS/nVision, it opens NVSUSER.XLS by default. If it cannot locate NVSUSER.XLS, it looks for the NVSUSER.XLM file.

If you start PS/nVision from a Microsoft Windows shortcut, you can specify a different startup file on the PS/nVision command line. Include the -SF argument followed by the name of the startup file. For example, to have PS/nVision open the file NVSDEV.XLS, enter a command similar to the following in the Target edit box in the Properties dialog box for the shortcut.

c:\pt800\bin\client\winx86\psnvs.exe -SFNVSDEV.XLS

This feature enables you to provide different startup files for different classes of users.

Note. PS/nVision searches for the startup file in the same directories where it looks for its default startup file.

See Also

Chapter 11, "Personalizing PS/nVision," Using Configuration Manager, page 97

Using PS/nVision API Functions

PS/nVision has an API function interface. The Excel macros that you write can use these functions to gain access to PS/nVision features. This table describes the API functions.

Note. None of these functions may be called within a macro called via NvsInstanceHook.

Interface Function	Purpose	Arguments	Example
NvsAutoDrill	Performs an AutoDrill, like selecting the AutoDrill menu item. AutoDrill is only usable in reports based on queries, and in ledger-based reports for which the NvsDefaultDrill name is defined in the layout, specifying the name of the layout to run as an AutoDrill.	None	=NvsAutoDrill()
NvsDrillDown	Start a matrix DrillDown, like the DrillDown item on the nVision menu. The user will choose a DrillDown layout from the Open dialog box.	None	=NvsDrillDown()

Interface Function	Purpose	Arguments	Example
NvsDrillLayout	Run a matrix DrillDown using a specified layout.	Layout name	=NvsDrillLayout ("ACTPER.XNV")
NvsDrillQuery	Run a tabular DrillDown using a specified Query.	Query name	=NvsDrillQuery ("Journals")
NvsJumpBack	Jump back to the sheet and cell from which the current sheet drilled down (same as Jump Back command.)	None	=NvsJumpBack()
NvsLayoutDefn	Show the Layout Definition dialog box for the selected row, column, or cell. This is the equivalent of the nVision, Layout Definition menu item.	None	=NvsLayoutDefn()
NvsNewLayout	Creates a new layout, like the New Layout menu item.	None	=NvsNewLayout()
NvsOnWindow	Activate PS/nVision menus for the current window. This is required when your macro opens a sheet, since Excel does not signal PS/nVision that the new sheet has been activated.	None	=NvsOnWindow()
NvsOpenFile	Open an Excel worksheet, waiting if necessary in case another user on the network is accessing the file. If the file is opened successfully, call NvsOnWindow to update menus. Optional arguments say whether to update links to other documents and if file is to be opened read-only.	filespec, updlinks, readonly	=NvsOpenFile ("FSDEMO.XLS", TRUE, FALSE)
NvsOpenLayout	Open a layout, like the Open Layout menu item.	None	=NvsOpenLayout()

Interface Function	Purpose	Arguments	Example
NvsOpenReport	Open a report request, like clicking the Open button in the Report Request dialog box.	None	=NvsOpenReport()
NvsOpenScope	Open an existing scope definition, like clicking the Open button in the Scope Definition dialog box.	None	=NvsOpenScope()
NvsReDrill	Repeat the most recent DrillDown from the currently selected amount cell.	None	=NvsReDrill()
NvsReport Request	Display the Report Request dialog, like the nVision, Report Request menu item.	None	=NvsReportRequest()
NvsRunCurrent	Runs the current report, like the nVision, Run Current Report menu item.	None	=NvsRunCurrent()
NvsRunQuery	Run a specified query, without inheriting DrillDown criteria.	Query name	=NvsRunQuery ("AP Journals")
NvsRunReport	When used without a parameter, prompts the user to select a report to run, then runs the selected report. With a parameter, runs a specified matrix report, without showing the report key dialog or Report Request.	Business Unit, Report ID	=NvsRunReport() ("M04","ISDEMO")

Interface Function	Purpose	Arguments	Example
NvsSaveAsLayout	Prompts user to save the layout with a new name, like the nVision, Save As Layout menu item.	None	=NvsSaveAsLayout()
NvsScopeDefn	Opens the Scope Definition dialog box, like the nVision, Scope Definition menu item.	None	=NvsScopeDefn()

CHAPTER 12

Using the PS/nVision Visual Basic Interface

You can develop powerful Visual Basic applications with the PS/nVision Visual Basic programming interface. The objects and related methods referenced in this section provide the ability to call PS/nVision features programmatically for common reporting and analysis tasks. This chapter describes:

- Designer object methods.
- Session object methods.
- Instance hooks.

Note. Object methods are listed in order based on their functionality.

Using Designer Object Methods

Creates an instance of PS/nVision.

The following is an example.

```
Dim objnVision As Object
Dim objDesignerCmd As Object
Dim strAppName As String
strAppName = "PSnvision.nvsdesigner"
Set objnVision = CreateObject(strAppName)
Set objDesignerCmd = objnVision.DesignerCmd
```

After you finish with the Designer object, clear the PS/nVision object by setting it equal to nothing, as in the following example:

```
Set objnVision = Nothing
```

Designer Object Methods

The following shows details of designer object methods.

Connect

Syntax

```
Connect([in, optional] BSTR startMacro)
```

Description

This method enables the user to sign on to the PeopleTools application.

Example

```
‘ Straight Connection
objDesignerCmd.Connect
‘ Connection and run macro
objDesignerCmd.Connect("MacroName")
```

Disconnect

Description

This method enables the user to sign off from the PeopleTools application.

Example

```
objDesignerCmd.Disconnect
```

ResetEnvironment

Description

This method resets the working directory and other environment settings needed for PS/nVision to process reports.

Example

```
objDesignerCmd.ResetEnvironment
```

StartMenu

Description

This method causes the designer to register its menu within the grid.

Example

```
objDesignerCmd.StartMenu
```

OnWindow

Description

This method refreshes the designer window, including PS/nVision menus.

Example

```
objDesignerCmd.OnWindow
```

OpenFile

Syntax

```
OpenFile([in] BSTR filename, [in, optional] BOOL
 updatelinks, [in, optional] BOOL readonly)
```

Description

This method opens a new or existing PS/nVision report layout.

Parameters

There are three arguments associated with this method: the file name (with full path) and two optional arguments: update links and read only.

Example

```
ObjDesignerCmd.OpenFile("c:\user\BALANCE.xls", TRUE, FALSE)
```

OpenLayout

Description

This method opens an existing layout.

Example

```
objDesignerCmd.OpenLayout
```

NewLayout

Description

This method creates a new layout.

Example

```
objDesignerCmd.NewLayout
```

SaveAsLayout

Description

This method saves the worksheet as a layout.

Example

```
objDesignerCmd.SaveAsLayout
```

DefineLayout

Description

This method invokes the PS/nVision Layout Definition dialog box.

Example

```
objDesignerCmd.DefineLayout
```

LayoutOptions

Description

This method invokes the PS/nVision Layout Options dialog box.

Example

```
objDesignerCmd.LayoutOptions
```

ReportRequest

Description

This method opens an existing report request.

Example

```
objDesignerCmd.ReportRequest
```

RunCurrent

Description

This method runs a defined or previously opened report request.

Example

```
objDesignerCmd.RunCurrent
```

RunReport

Syntax

```
RunReport([in] BSTR BusUnit,
 [in] BSTR RptRqst)
```

Description

This runs a specific report.

Parameters

There are two arguments required for this request: business unit and report request name. The report request must be in uppercase letters.

Example

```
objDesignerCmd.RunReport("M04", "BALANCE")
```

Options

Description

This to opens the Options dialog box.

Example

```
objDesignerCmd.Options
```

PerfOpts

Description

Same as LayoutOptions with just one selection.

Example

```
objDesignerCmd.PerfOpts
```

OpenScope

Description

This method displays the Open Scope dialog box and then the Scope Definition dialog box, assuming the user chooses a scope.

Example

```
objDesignerCmd.OpenScope
```

ScopeDefn

Description

This method invokes the Scope Definition dialog box.

Example

```
objDesignerCmd.ScopeDefn
```

DrillDown

Description

Initiate DrillDown sequence.

Example

```
objDesignerCmd.DrillDown
```

DrillLayout

Description

Performs a DrillDown using the specified child layout.

Example

```
objDesignerCmd.DrillLayout
```

AutoDrill

Description

If a default DrillDown layout is defined (as DefaultDrill) in the active instance, drills down using that layout.

For ledger reports, the default drill string may include a *D*, which indicates that any summary ledgers should be translated to detail. If no default layout is defined, for a query-based instance, drill down to that query in DrillQuery (QueryLink) mode. For a ledger-based instance, have the user select the DrillDown layout, as in DrillDown.

Example

```
objDesignerCmd.AutoDrill
```

ReDrill

Description

Drills the selected cell using the most recently selected DrillDown layout.

Example

```
objDesignerCmd.ReDrill
```

DrillQuery

Description

Performs a DrillDown using the specified query.

Example

```
objDesignerCmd.DrillQuery
```

JumpBack

Description

Implements commands to activate the parent instance of the current child DrillDown.

Example

```
objDesignerCmd.JumpBack
```

RunQuery

Description

Runs the specified query with no inherited criteria. Not used for DrillDown.

Example

```
objDesignerCmd.RunQuery
```

Using Session Object Methods

This object retrieves information about the current session.

The following is an example.

```
Dim objnVision As Object
Dim objSessionCmd As Object
Dim strAppName As String
Dim strDatabaseType As String
strAppName = "PSnvision.nvsdesigner"
Set objnVision = CreateObject(strAppName)
Set SessionCmd = objnVision.SessionCmd
```

After finishing with the session object, clear the PS/nVision object by setting it equal to nothing, as in the following example:

```
Set objnVision = Nothing
```

Session Object Methods

The following shows details of the session object methods.

DBType

Description

This property retrieves database types for the current session.

Example

```
strDatabaseType = SessionCmd.DBType
```

DBName

Description

This property retrieves the database's name for the current session.

Example

```
strDatabaseName = SessionCmd.DBName
```

ToolsRelDB

Description

This property retrieves the tool release database version for the current session.

Example

```
strToolReleaseDatabase = SessionCmd.ToolsRelDB
```

ServerName

Description

This property retrieves the server's name for the current session. It retrieves nothing if the user is logged on in two-tier.

Example

```
strServerName = SessionCmd.ServerName
```

OprId

Description

This property retrieves the user's ID for the current session.

Example

```
strOperatorId = SessionCmd.OprId
```

TwoTier

Description

This property identifies whether or not the current session is two-tier. If the return value is TRUE (or a value of 1), the current session is two-tier.

Example

```
bTwoTier = SessionCmd.TwoTier
```

ShowWarnings

Description

This property retrieves or sets a ShowWarnings option for the current session.

Example

Retrieve Example:

```
Dim bShowWarnings As Boolean
bShowWarnings = SessionCmd.ShowWarnings
```

Set Example:

```
Dim bShowWarnings as Boolean
bShowWarnings =  True
SessionCmd.ShowWarnings = bShowWarnings
```

AmountSql

Description

The AmountSql property retrieves or sets an Amount SQL option for the current session.

Example

Retrieve Example:

```
Dim bAmountSql As Boolean
bAmountSql = SessionCmd.AmountSql
```

Set Example:

```
Dim bAmountSql as Boolean
bAmountSql =  True
SessionCmd.AmountSql = bAmountSql
```

ReadConfig

Syntax

```
ReadConfig([in] BSTR ConfigDir)
```

Description

This method retrieves the directory paths of a given PS/nVision Configuration Manager setting (as defined in the Windows Registry). If the user has multiple directory paths in the same configuration setting, it retrieves them all. The available configuration settings that can be retrieved are:

- InstanceDir
- LayoutDir
- TemplateDir
- MacroDir
- StyleDir
- DrillDownDir

Example

```
Dim strDirPath as String
strDirPath = SessionCmd.ReadConfig("LayoutDir")
```

ReadConfigDir

Syntax

```
ReadConfigDir([in] BSTR ConfigDir,
 [in] WORD nPosition)
```

Description

This method retrieves one directory path of a given PS/nVision Configuration Manager setting (as defined in the Windows Registry). This differs from the ReadConfig method: it parses out the list of available directories by providing a number representing the position of the directory in the list. For example, if you had two directories, such as c:\user\nVison\layout and c:\user, and you wanted just the c:\user directory, you would pass in the number two. If the user is looking for the second directory and there is only one, then nothing is retrieved. The list of available configuration settings that can be retrieved is as follows:

- InstanceDir
- LayoutDir
- TemplateDir
- MacroDir
- StyleDir
- DrillDownDir

Example

```
Dim strDirPath as String
strDirPath = SessionCmd.ReadConfig("LayoutDir", 2)
```

This retrieves the second directory listed.

Instance Hooks

Beginning with Excel 97, Microsoft began using Visual Basic as the programming language to write macros. In earlier versions of Excel, you had to create a macro sheet to use the NvsInstanceHook. Now, whether recording your macro or writing Visual Basic code within the Visual Basic Editor, you can invoke the PS/nVision Instance Hook directly from the module within a Visual Basic project without having to create a macro sheet.

Instance hooks allow user-written macros to be executed by PS/nVision after delivering the data to a report instance but before saving the instance. Instance hooks are supported for both matrix and tabular layout sheets. With an instance hook, you can:

- Refresh a pivot table based on data delivered in the instance.
- Change the delivered outline level. (For example, compress reports so the user starts with the top level.)
- Apply subtotals or AutoFilter to data delivered in a tabular instance.
- Do high-level zero-suppression or resort data.
- In general, use Excel features that can’t be applied in the layout because they require data.

Within an Instance Hook macro, you can call any other Visual Basic methods or functions. But you should avoid calling PS/nVision functions and closing Excel.

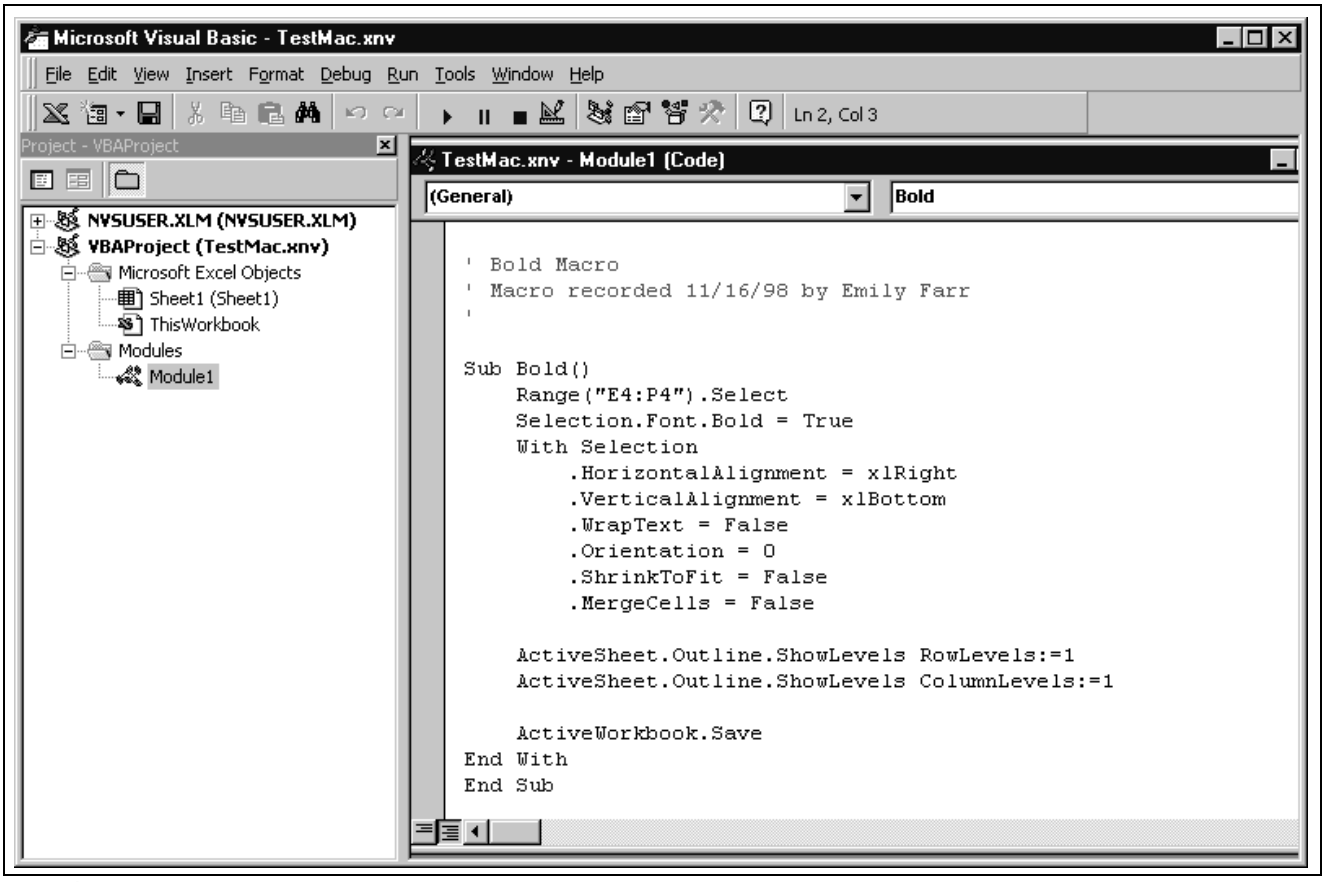
To use instance hooks, identify the layout sheets in the layout workbook (.XNV file) to which you want to apply post-delivery processing. For each sheet, define the name NvsInstanceHook to refer to the name of the first cell of an Excel 4 macro sheet or the name of a Visual Basic procedure.

The defined name *NvsInstanceHook* is sheet-specific. You need to either define the same name on multiple sheets or, the preferred method, enter the sheet name and an exclamation point (!) with the name when defining it. By doing this you can fire different macros for different layout sheets in the same workbook. The resulting name looks like *Sheet1!NvsInstanceHook.*

To record a macro from within Excel, select Tools, Macro, Record a Macro.

To write a macro from within Excel, select Tools, Macro, Visual Basic Editor.

The following example shows a module that combines a recorded macro with additional code that has been added through the editor.



Sample macro

The macro bolds and right-aligns the nPloded TimeSpan columns, collapses the outline of the nPloded rows and columns, and saves the instance.

After creating the macro module, return to your PS/nVision layout and attach it using NvsInstanceHook.

To attach a macro using NvsInstance Hook:

1. Select the cell in the layout.
2. Select Insert, Name, Define.

   For the name, enter the sheet name followed by an exclamation point and the text *NvsInstanceHook.* For example, *Sheet 1!NvsInstanceHook.*
3. Enter the name of the macro in the *Refers to* field.

For the name, enter the name of Excel Visual Basic Module, where the macro is located, followed by a period and the name of the Excel VB Macro. For example, *Module1.MacroName*

4. Click Add.
5. Click OK.

Your macro is executed after the PS/nVision Instance is created.

CHAPTER 13

Setting Up PS/nVision Security

This chapter describes how to:

- Secure PS/nVision elements.
- Secure report distribution.
- Secure report data.
- Implement PS/nVision ledger-based security.
- Implement PS/nVision query-based security.

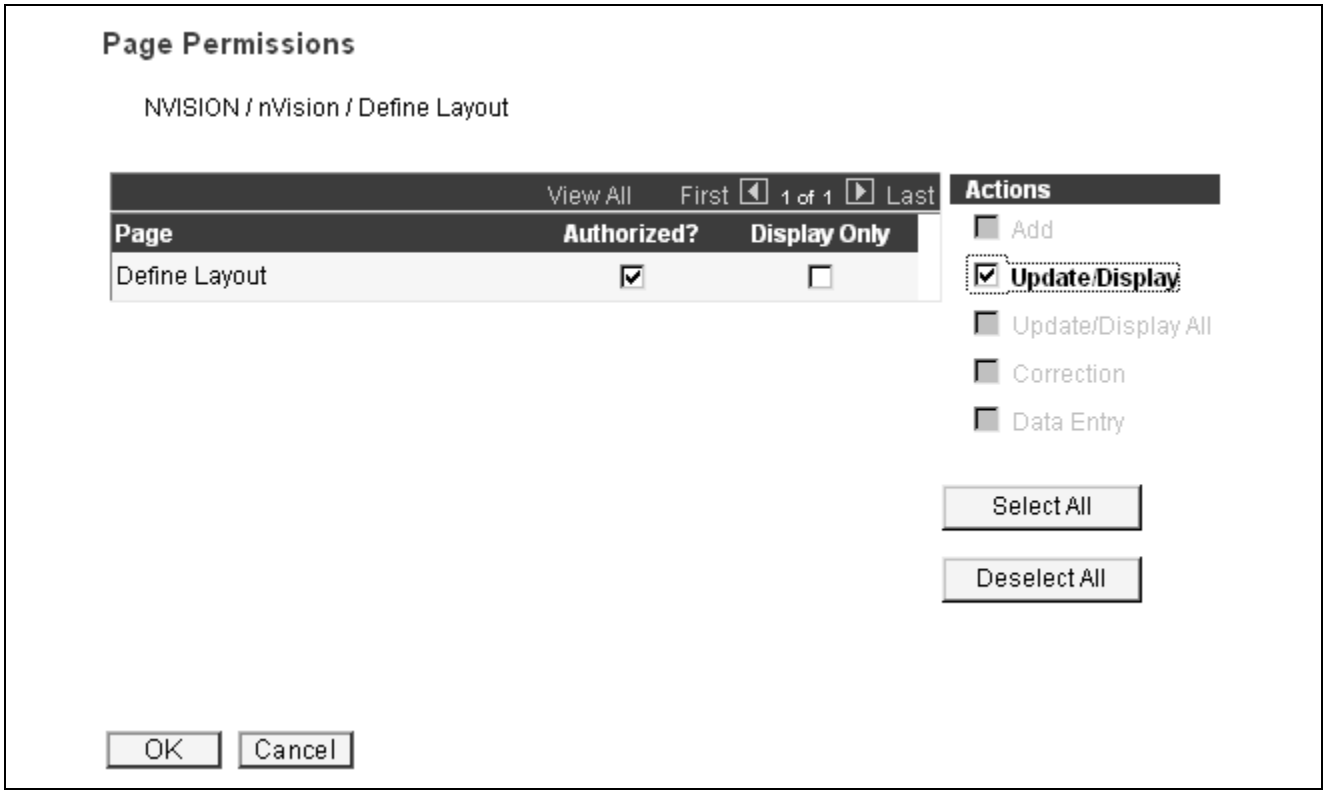
Securing PS/nVision Elements

This section describes how to:

- Secure PS/nVision menu items.
- Secure report layouts.
- Secure report requests.

Securing PS/nVision Menu Items

Using PeopleSoft Security, you can specify page permissions to control the operations users perform with PS/nVision. Authorizations specified here apply to both the Windows client and the PeopleSoft Pure Internet Architecture.



Page Permissions page

To set component permissions:

1. Select PeopleTools, Security, Permissions & Roles, Permission Lists.
2. Select the required nVision Permission List.
3. Select the Pages tab.
4. Click the Edit component link , corresponding to the required menu, to display the Component Permissions page.
5. Click Edit Pages for a component to display the Page Permissions page.
6. Change the settings to authorize the action or keep it as display-only.

   When choosing page permissions, you must select both an action and the Authorized check box. For example, when allowing a user to run report requests, you must select Update/Display and the Authorized check box beside the RUN_REPORT page name on the Page Permissions page.
7. Click OK.

Important! If no items are authorized, you cannot run PS/nVision at all.

---

nVision is controlled through individual components associated with the REPORT_ BOOKS and NVISION menus.

The following table contains the available PS/nVision page permissions and the actions they control.

Page Permission	Action Controlled
DEFINE_LAYOUT	Allows the user to use the Open Layout, Layout Definition, and similar menus in Excel.
OPEN_REPORT	Enables the Open button on the Report Request dialog box on the Windows client.
EDIT_REPORT	Allows the user to modify values on the Report Request dialog box. **Note.** The EDIT_REPORT setting does not control access to report layout (Excel XNV) files. To restrict users from accessing XNV files entirely, use the Network Security settings.
RUN_REPORT	Allows the user to run report requests using the Run button on the Report Request dialog box, the Run Current Request menu item on the Windows client, and the Run button on the web report request.
SAVE_REPORT	Enables the Save button on the Report Request dialog box on both the Windows client and the web. **Note.** When you make changes to a report request, it is automatically saved when you run the request. To save a report request without running it, click the Save button. It is not possible to make a change to a report request without saving it.
DELETE_REPORT	Enables the Delete button on the Report Request dialog box on both the Windows client and the web.
OPEN_SCOPE	Enables the Open button on the Scope Definition dialog box on the Windows client.
EDIT_SCOPE	Allows the user to modify values in the Scope Definition dialog box on the Windows client.
SAVE_SCOPE	Enables the Save button on the Scope Definition dialog box on the Windows client.
DELETE_SCOPE	Enables the Delete button on the Scope Definition dialog box on the Windows client.
PERFORMANCE_OPTS	Enables the nVision Performance menu item, by which you access the Tree Performance Options dialog box.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Setting Up Permission Lists"

Securing Report Layouts

Report layouts (XNV files) are stored on a file server and not in the PeopleSoft database. Set up network security so that only appropriate users are allowed to modify or delete report layout (XNV) files in the network's report layout directories.

With web-based PS/nVision reporting, reports launched from the browser are run through PeopleSoft Process Scheduler and are executed on a report server. The file server that stores the layouts is associated with the report server.

A report server is a Windows NT machine with PS/nVision (PeopleTools client software), Excel, and PeopleSoft Process Scheduler installed on it. Process Scheduler selects the layout from the PS/nVision layout directory path defined in the Process Scheduler configuration. If you restrict access to this directory on the report server, unauthorized users cannot modify shared report layouts. Additionally, access to the PS/nVision directories on the Process Scheduler report server should be restricted.

If the report is run using the Windows client, a user authorized to define layouts can point to the PS/nVision layout directory (as defined in Configuration Manager) on the local drive and then modify and save the layout.

If a user has a PS/nVision user profile defined in PeopleSoft Security where only RUN_REPORT is selected, and all other settings (for example, EDIT_REPORT, SAVE_REPORT) are cleared, the user cannot create a new report request, because the Save button is disabled.

Note. When the report request is run, access to ledger or record data itself is still controlled by the row-level security defined for that user.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Understanding PeopleSoft Process Scheduler"

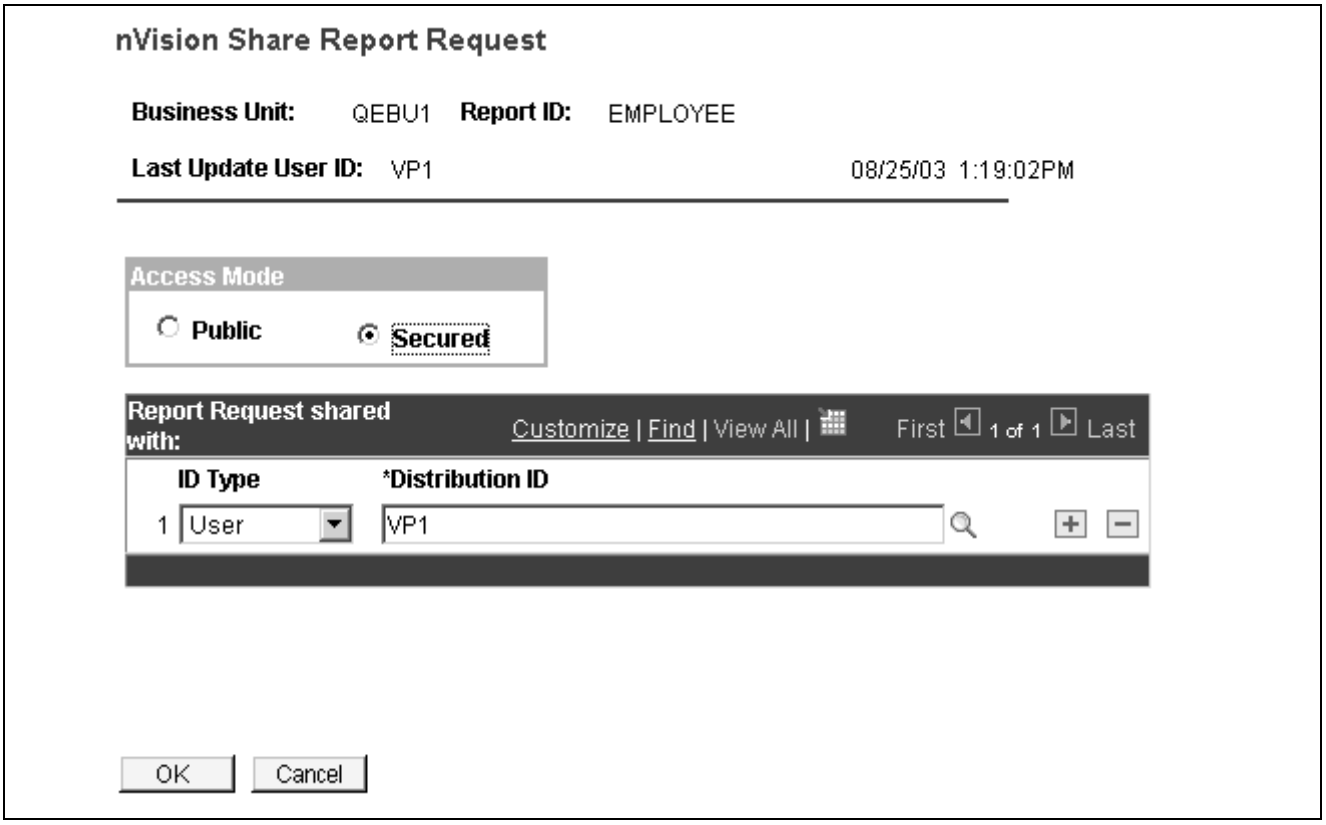
Securing Report Requests

In web-based PS/nVision reporting, the procedures and processes used to run a report are performed using the different pages of the Report Book menu. Those actions include defining and running report requests, defining and running report books, defining scopes, and running DrillDowns. You can control access to these menu items and customize the pages to allow users restricted access to certain report requests.

Note. In the Scope and Delivery Templates hyperlink on the nVision Report Request, the system automatically displays an nVision output option page based on the Output type. These secondary pages' security permissions are inherited from the parent Report Request page, and the Display Only option set in the nVision Report Request component for these pages is ignored.

By default, only the creator of a report request has full access to that request. The creator can choose to share the report request with other users or to change the access mode using the Share This Report Request link on the Report Request page.

Click Share This Report Request to display the Access Mode page, where report request creators can view or change the access mode.



nVision Share Report Request page

Access Mode Specifies the access availability for the report request. Public means all users can view or modify the request. Secured means that only the specified users have full access to the report.

By default, users have the right to share report requests and access the Security Report Request page. You can change the default value using the Use Secure Rep Rqst in nVision option on the PeopleTools Options page to restrict the users with this right.

See *Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration*, "Using PeopleTools Utilities," PeopleTools Options.

Note. If you change the access mode from Secured to Public, all the users and groups who had access to the report will be removed. If you then change the access mode back to Secured, you'll need to re-assign the users and groups.

ID Type Select User to add a user, or Role to add a user role.

Distribution ID Enter a valid user or role name, or select one from the prompt. You can add more users by clicking the + sign. If you selected User from the ID Type list, the prompt displays valid users; if you selected Role, user roles are displayed.

Since report requests are keyed by business unit, the business unit validation is done for each shared user or role when a report request is opened. If a user or role does not have access to a business unit, that user will not have access to the report request even if given access through the Access Mode page.

Note. If a report book contains a report request to which a user does not have access, that user will not be able to view that report request. A message is displayed when the user opens the report book.

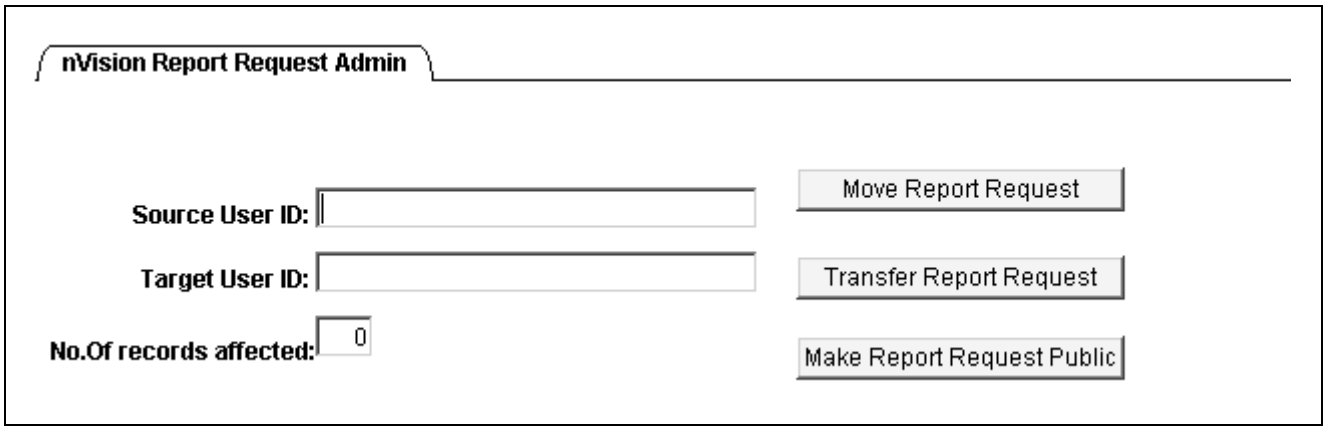
In Windows-client PS/nVision reporting, you can utilize the PS/nVision VBA interface to programmatically create a customized report request to restrict users to certain parameters and functions of the report requests.

Administering Report Requests

You can use the nVision Report Request Admin page to administer your report requests, including:

- Removing a request
- Transferring a request from one user to another
- Making a request public

Access the nVision Report Request Admin page at PeopleTools, Utilities, Administration, nVision Report Request Admin.



nVision Report Request Admin page

Source User ID The user whose report requests will be administered.

Target User ID The user ID to which the selected report requests will be transferred if Transfer Report Request is selected.

No. of Records Affected The number of records that will be affected (moved, transferred, or made public) by the selected operation

Move Report Request Click to remove the source user's report request. If the report request is not shared by any other user, the report request will be deleted. If the report request has been shared by users other than the source user, only the source user will be removed.

Transfer Report Request Click to remove the source user from the report request and grant access to the target user.

Make Report Request Public Click to make all report requests owned by the source user available for any user to view and edit.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Setting Up Permission Lists"

Securing Report Distribution

You have different security considerations for distribution based on the type of output: file, email, or web.

When you output reports as files, remember that files are stored in the directories and files that you specified in the directory templates and file templates. These directories and files are on your file server and are not stored in the PeopleSoft database. You must set up network security to map the accessibility of the reports and ensure that unauthorized users do not have access to these reports on your file server.

When you output reports as email, you control who receives the reports using the email template in the report request. You can specify precise email addresses in the email template, or indirectly specify email addresses by user ID or role ID. If you specify your email recipients using role or user IDs, then the email addresses from those profiles are used.

When you output reports via the web, the reports are distributed through Report Manager. You control who receives the reports using security templates in the report requests. If nothing is entered in the security template, the default recipient is the user who runs the report.

You can associate a scope with the email template or the web security template using %DES% variables. You must specify who can modify the email template or the security template from the report request, and who can access the values of the %DES% variable in the table associated with the scope.

Additionally, when a report is distributed through email or web, it uses the report server to run the report and then distribute the output. In the report server, the directory templates and file templates from the report requests are used as temporary locations to store the intermediate files before the reports are transferred to the report repository or to the email system. Access to the file server that stores the intermediate reports should be secured through your network security. Set up PeopleSoft Process Scheduler as a Tuxedo Service so that PS/nVision reports can be run in the background and no data can be viewed during the report execution time.

Implementing PS/nVision Ledger-Based Data Security

This section includes an overview of PS/nVision ledger-based data security and describes how to:

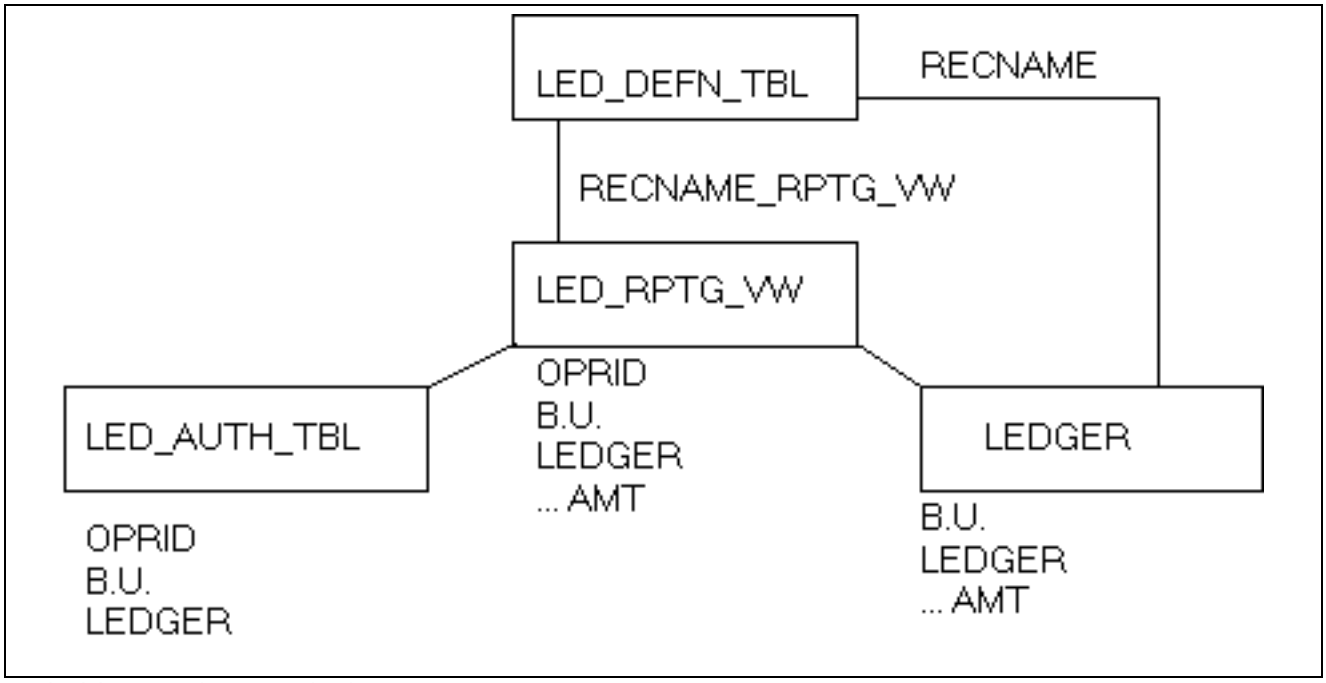
- Use the Reporting view.
- Use the Authorization table.
- Use ledger reporting view access.
- Restrict ledger access.

Understanding PS/nVision Ledger-Based Data Security

With PS/nVision row-level ledger security, you can restrict access to specified rows of ledger data. PS/nVision employs a view that joins an Authorization table (maintained by you through a page) with the Ledger table to select the rows a user is authorized to see. You can set up an Authorization table based on any ChartField.

When you define a ledger, you specify the physical table that stores the ledger data in the database. You can also define a record (view) for reporting purposes. If you define a reporting view, PS/nVision uses this record in place of the physical Ledger table. By joining the Ledger table with the Authorization table, the user only sees the rows that they’re authorized to see.

The following diagram illustrates the approach.

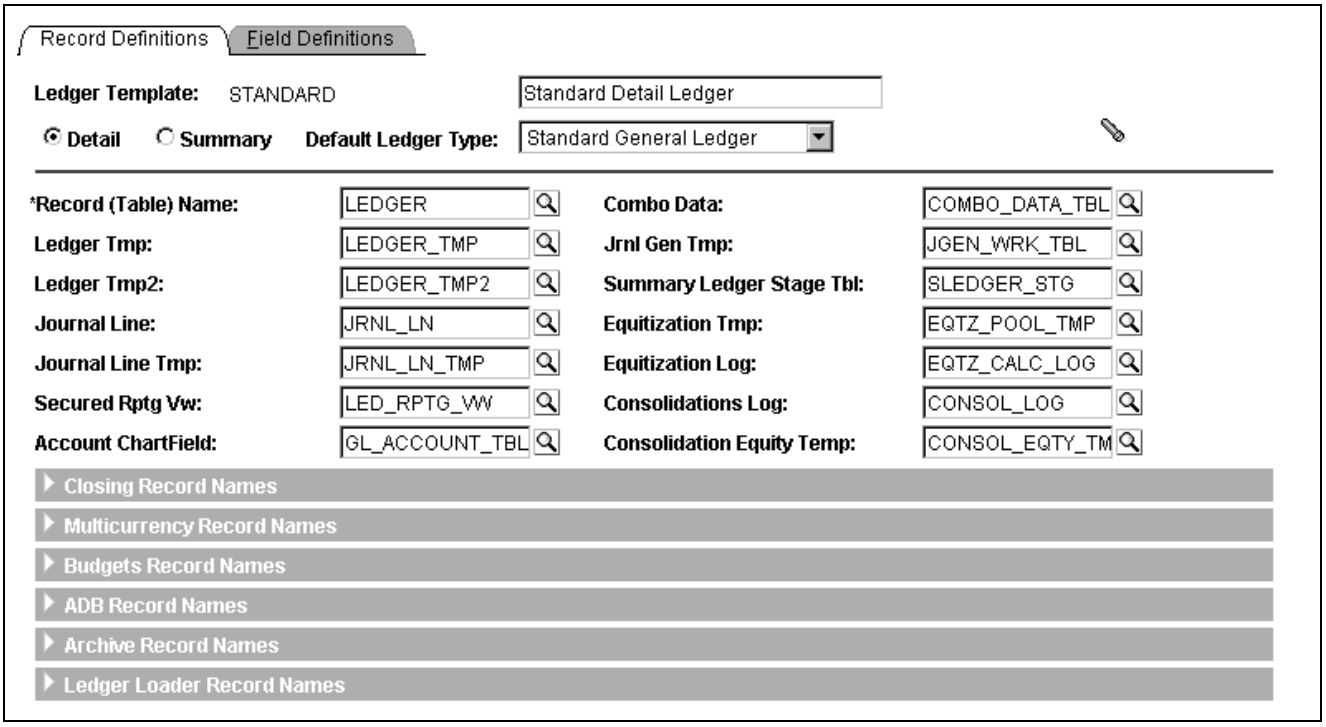


PS/nVision security customization

Using the Reporting View

The Reporting view, like the Ledger table, is named on the Ledger Template page in the Secured Rptg Vw field. To open the Ledger Template page, select Process Financial Information, Maintain Ledgers, Use, Ledger Template, Record Definitions. In the following example, this view (LED_RPTG_VW) is defined as follows:

```
SELECT A.OPRID, L.BUSINESS_UNIT, L.LEDGER, L.ACCOUNT,...
FROM PS_LEDGER L, PS_AUTH_TBL A
WHERE L.BUSINESS_UNIT = A.BUSINESS_UNIT
  AND L.LEDGER = A.LEDGER
```



Record Definitions page

Normally, the view includes all the columns in the Ledger table, plus the OPRID field, but there is no requirement to include all ledger columns. The OPRID field is defined as a key to the view. Reporting views can be defined differently for different ledgers. The OPRCLASS or ROWSECCCLASS fields, or any combination of the OPRID, OPRCLASS, or ROWSECCLASS fields, can be used instead of the OPRID field. In the user profile found in Maintain Security, you can use the OPERID field as the user ID, the OPRCLASS field as the primary class, and the ROWSECCLASS field as the row-level security class for the user.

With this example view, only users that belong to the specified OPRID, OPRCLASS or ROWSECCLASS from the LED_AUTH_TBL can see those business units and ledgers.

PeopleSoft provides a template Authorization table and Reporting view. By changing the definition of the view and the underlying Authorization table, you can revise the security to be at the department level or any other ChartField. The personalized view can use BETWEEN, OR, and LIKE statements to implement more flexible (though less efficient) security views.

For example, you could add DEPT_FROM and DEPT_TO to the Authorization table. Each user would have access to all departments that fall within the ranges for their user ID and role. The Reporting view could include:

```
WHERE ... L.DEPTID BETWEEN A.DEPT_FROM AND A.DEPT_TO
```

This might carry a performance cost on some database platforms, but it can ease the process of maintaining the Authorization table, all transparent to PS/nVision.

Changes to the view are made using Application Designer. Changes to authorizations are made through a page that maintains authorized ChartField values for each user. No changes are required to PS/nVision.

To ignore security on a ledger, leave the Reporting view field on the Ledger Definition page blank. PS/nVision will access the base ledger record.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Understanding PeopleSoft Security"

Using the Authorization Table

The Authorization table is maintained by a page that can be personalized. Each valid combination of user ID or role and the secured ChartField values (or ranges) must be defined in this table. Since the system administrator who has access to this page (through the Administer Security pages) can change all security provisions—there is no trickle down of authority.

Using Ledger Reporting View Access

To get data from a ledger, PS/nVision uses a Select statement from the Reporting view, not the actual Ledger table, using the user's ID or primary permission list as part of the Where clause. PS/nVision checks the record definition of the Reporting view and determines whether it includes OPRID, OPRCLASS, or ROWSECCLASS in its keys, and generates the appropriate phrase in its Where clause. Individual users are not given direct database access, for example using a GRANT, to either the Ledger table or the Reporting view. (Using GRANT is specific to Oracle.)

Here's a sample of a Select of ledger data as used by PS/nVision, in which both OPRID and OPRCLASS are specified in your Authorization table.

```
SELECT ACCOUNT, SUM(POSTED_TOTAL_AMT)
 FROM PS_LED_RPTG_VW
WHERE BUSINESS_UNIT = 'NEWGN'
   AND LEDGER = 'ACTUALS'
   AND FISCAL_YEAR = 1993
   AND ACCOUNTING_PERIOD BETWEEN 9 AND 12
   AND ACCOUNT IN ('800100','800200','800300')
   AND DEPTID = '0300'
   AND OPRID = 'GLUSER' and OPRCLASS = 'MANAGER'
GROUP BY ACCOUNT
```

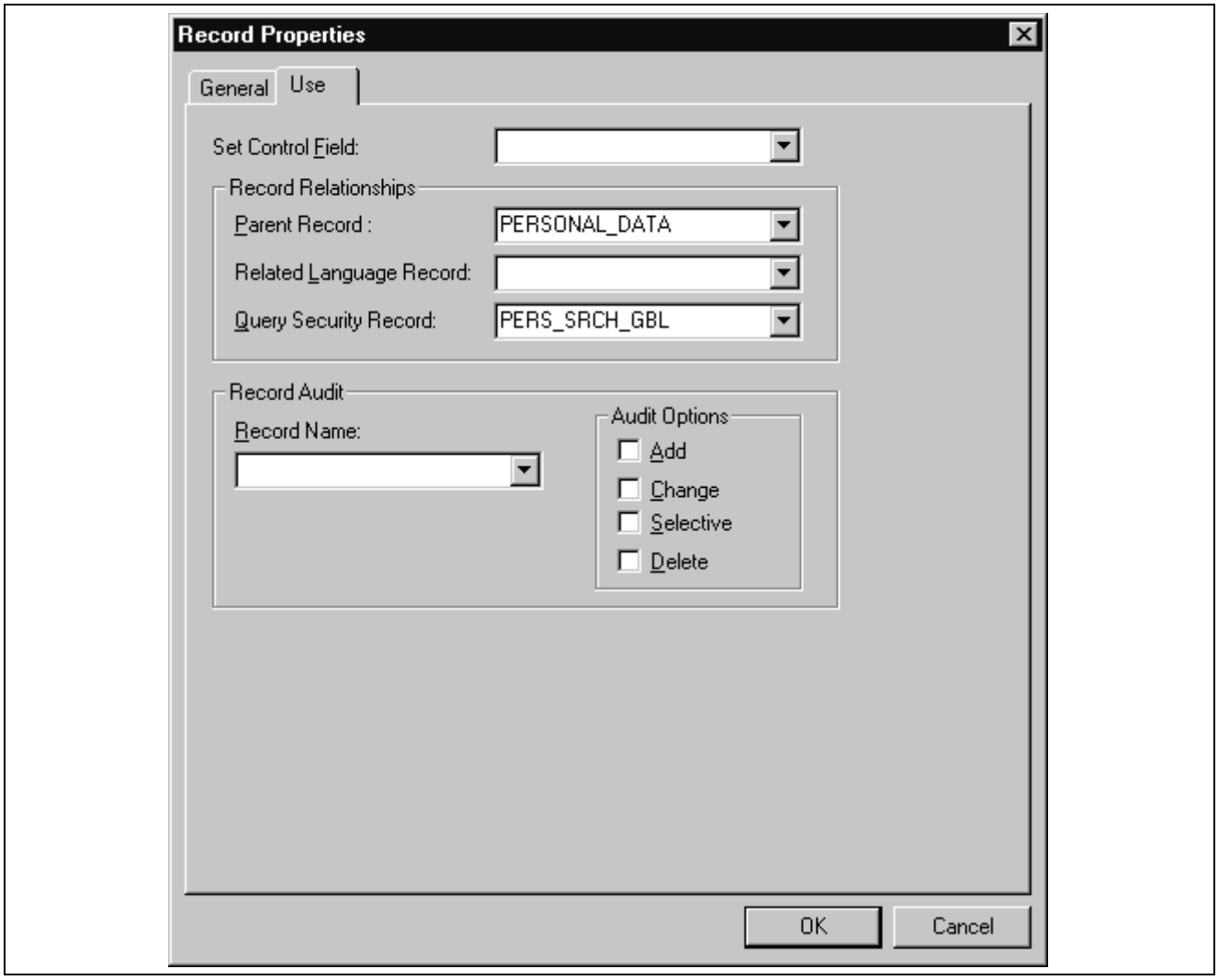
Restricting Ledger Access

Using the nVision Ledger Security page in PeopleSoft Security, you can restrict what ledgers a user is authorized to access. Select Define Business Rules, Administer Security, Use, nVision Ledger Security.

nVision Security

Implementing PS/nVision Query-Based Data Security

PeopleSoft Query restricts users to specific rows of data by employing a similar approach to the ledger Reporting view. Each record definition can have a query security record defined that joins the record data with authorization record data to restrict the returned result set.



Record Properties page

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer, "Planning Records, Control Tables, and TableSets," Record Definition Planning

CHAPTER 14

Tuning PS/nVision Performance

This chapter discusses how to:

- Understand PS/nVision SQL.
- Assigning ledger tables.
- Understand indexes and PS/nVision tuning.
- Set tree performance options.
- Use tree tables.

Understanding PS/nVision SQL

This section discusses:

- PS/nVision SQL basics.
- Tree joins.
- Combination rules.
- Capture of PS/nVision SQL.

PS/nVision SQL Basics

PS/nVision produces a great variety of reports from multiple database tables. The SQL statements it generates are not overly complex but are sensitive to the performance of the underlying database, especially in the following areas:

- Large tables (ledgers often have millions of rows) make efficient use of essential indexes.
- The use of trees and reporting (security) views causes multiple tables to be joined. The database's efficiency in processing these joins dictates most PS/nVision performance.
- Most PS/nVision aggregate queries are defined with minimal built-in criteria and could tire your database server if executed without the added criteria of a PS/nVision layout.

Unlike traditional batch-reporting tools, PS/nVision supports interactive, focused reporting using a probing or querying approach to database access. PS/nVision queries tend to be more numerous than traditional report writers but also more focused on the specific data the user needs to see.

Much of this chapter focuses on the performance aspects of retrieving information from ledgers for financial reporting. However, most of the information is equally applicable to other types of "fact" tables, particularly when trees are used to retrieve the data.

Tree Joins

PS/nVision often relates tree node criteria to data tables by joining the data table to a tree selector table. This selector table contains a row for every detail range defined for the tree in PeopleSoft Tree Manager and is keyed by SELECTOR_NUM (a system-generated constant number for all the rows representing a particular tree) and the tree node number. Because some database platforms join tables efficiently only if the field sizes match, we use up to 30 selector tables, one for each supported field length. Each selector table has RANGE_FROM_nn and RANGE_TO_nn columns matching the corresponding field size.

The following is a typical Select statement for selection via nodes on a single tree.

```
SELECT L.TREE_NODE_NUM, SUM(POSTED_TOTAL_AMT)
FROM PS_LEDGER A, PSTREESELECT06 L
WHERE A.LEDGER='ACTUALS'
  AND A.FISCAL_YEAR=1991
  AND A.ACCOUNTING_PERIOD BETWEEN 1 AND 9
  AND A.ACCOUNT>=L.RANGE_FROM_06
  AND A.ACCOUNT<=L.RANGE_TO_06
  AND L.SELECTOR_NUM=198
  AND (L.TREE_NODE_NUM BETWEEN 1612345 AND
 3098765
   OR L.TREE_NODE_NUM BETWEEN 3512345 AND
 4098765) GROUP BY TREE_NODE_NUM
```

The bold part of this statement accomplishes the tree criteria selection. If the report had tree criteria for other fields, their selector tables would be added to the From list and similar Join criteria to the Where clause. The Group By clause returns an answer row for each node that has a detail range attached to it; these node numbers are used to post amounts from the answer set into the appropriate rows or columns of the report.

See Also

Chapter 14, "Tuning PS/nVision Performance," Using Tree Tables, page 150

Combination Rules

PS/nVision tries to retrieve the data for each report instance with as few Select statements as possible. It examines all row and column criteria to determine which can be combined. It then builds a Select statement to retrieve each intersection of a combined group of rows with a combined group of columns. The following built-in rules should be understood when you design indexes:

- Different ledgers cannot be combined.
- Different TimeSpans cannot be combined.
- nPloded rows or columns cannot be combined with non-nPloded rows or columns.
- To be combined, multiple rows or columns must have criteria for the same set of fields, and each field's criteria must be of the same type. (For example, selected tree nodes cannot be combined with selected detail values).
- If criteria for a field are specified by tree node, they can be combined only if they use the same tree.
- If the combined rows or columns have identical criteria for a particular field, the criteria are included in the Where clause, but a Group By clause on that field is not required. But if different rows or columns in the group have different criteria, PS/nVision adds this field (or the corresponding tree node number) to the Group By clause to retrieve a value for use in posting the answer set to the appropriate rows or columns of the report.
- A single Select statement can retrieve amounts for multiple combined rows and columns.

- Different scope instances are retrieved with separate Select statements.

Some additional rules apply for layouts defined using queries rather than ledgers:

- Different queries are not combined.
- References to different answer columns in the same query can be retrieved with a single Select statement if they meet the above tests.

Capture of PS/nVision SQL

To examine the SQL produced by PS/nVision, you can capture the statements in one of two ways:

- Use the Show Report SQL option in the PS/nVision Options dialog box. This option causes PS/nVision to display each Select statement used to retrieve labels or amounts in a dialog box. You can select the text with the mouse, then copy (CTRL+C) it to the Clipboard, then paste (CTRL+V) the text into another application, such as Notepad, WordPad, an interactive SQL tool, or a text editor. You can then save the text to a file or work with it within the application.

  Note. To capture the SQL without waiting for it to execute, you can also turn on the Suppress Amount Retrieval option. PS/nVision generates all the SQL but does not execute Select statements for amounts.

- Turn on the PeopleTools SQL trace through the Trace tab on the Configuration Manager. This causes the SQL statements executed by PeopleTools to be written to a file you specify.

Assigning Ledger Tables

Each ledger is assigned to a database table, but different ledgers might not be stored in the same table. Some ledgers need different amount formats (for example, number of decimal places) or a different field configuration than others. Summary ledgers must be stored in different tables than their corresponding detail ledgers.

Because each installation of PeopleSoft General Ledger has different ChartFields and reporting requirements, each installation must assign ledger tables and indexes to meet its requirements and ensure good reporting performance.

Understanding Indexes and PS/nVision Tuning

This section provides an overview of indexes and discusses:

- Optimizers.
- Filter factors.
- Index matching.
- Ledger access paths.
- Access path analysis.
- Index column suggestions.

Understanding Indexes

An index is a faster way to find data. At a simple level, an index works like the tabs on a large dictionary; you can go directly to all the words that begin with a particular letter. After that, you need to do some additional searching, taking advantage of the fact that the words are stored in alphabetical sequence. The range of words on a page is generally printed at the top, so you don't have to scan through individual words until you find the page you want. Many database systems include a type of index, often called a primary, or clustered, index, that has the same sequence as the data.

But suppose you're looking something up in an atlas. Here, data is generally stored in geographical sequence. If you're looking up Majorca, you're likely to look it up first in the alphabetical index, then search the page that has a map of the Mediterranean. Data is accessed through an attribute different from its storage attribute.

Suppose you wanted to find all the words in the dictionary derived from Finnish words. Unless you had a dictionary with an etymological index, you'd be in for a very time-consuming scan of the data pages. This type of access should be avoided when accessing large database tables, because it's very slow even on the fastest server.

Typically, the Where clause in a query contains a mixture of criteria resolvable through an index and criteria resolvable only through access to the data pages. To be efficient, use the index criteria to limit the number of data rows searched.

Multi-Column Indexes

Relational databases allow indexes over multiple columns, so that if we have Where criteria for two or more columns in the index, the database manager can use one index to satisfy criteria on multiple columns at a time. Having the pertinent criteria columns in an index, however, does not guarantee that that index will be used, or that it will be used effectively on all the columns that have criteria.

Optimizers

Most relational database systems include a cost-based optimizer, a complex program responsible for choosing an access path to satisfy a particular query, such as a Select statement issued by PS/nVision. Using statistics stored in the database, the optimizer tries to determine the index to use for each of the tables accessed in the query and the table access sequence that yields the data with minimal searching.

Some database optimizers have a choice between cost-based and "rule based" optimizers. For PS/nVision, and for most PeopleSoft software, we strongly recommend use of the cost-based optimizer because:

- PS/nVision creates dynamic SQL based on the report criteria you provide. Rule based optimizers are designed for static SQL that is written following its rules.
- Cost-based optimizers adapt much better to changes in data and indexes, because they use statistics in their optimum access path calculations.

This discussion of tuning PS/nVision's SQL performance assumes use of a cost-based optimizer.

Filter Factors

Although it might be named differently, a *filter factor* applies to all optimizers. It estimates how effective a particular index will be in narrowing a search.

Assume we have a table in which financial results are stored by fiscal year, period, and account number. The table has two indexes, one on fiscal year and another on account. Assume that our query contains the following:

```
WHERE FISCAL_YEAR = 1994 AND ACCOUNT='500120'
```

If the table has data for 4 fiscal years and 800 accounts, then the filter factor for the fiscal year index is ¼ or 0.25; and the filter factor for the account index is 1/800 or 0.00125. Using the index for fiscal year narrows the search to about one fourth of the total table, which is not that great. But using the index for account narrows the data searched to about one eight hundredth of the total table and will be much more efficient. Of course, an index combining fiscal year and account would be even better.

The measure of the selectivity of an index, or a column within an index, is often called its *cardinality*. Cardinality is the number of discrete values in that column or the number of discrete combinations represented by a multicolumn index. Cardinality is one of the most important statistics used by optimizers to choose indexes and access paths. Like most other statistics, cardinality is updated on request rather than constantly.

When data changes substantially, update the statistics so the optimizer has accurate information. Updating statistics requires different processes on different database platforms.

See Also

PeopleTools Installation Guide for Your Platform

Index Matching

The effective filter factor for an index is the combined cardinalities for the index columns actually used in a particular access. For example, if an index is built over FISCAL_YEAR, LEDGER, and ACCOUNT, and the table contains 4 years, 5 ledgers, and 800 accounts, the potential filter factor is 1/(4*5*800), or 1/16000, or 0.0000625. However, if the ACCOUNT field in the index couldn't be used because of the nature its criteria, the filter factor would be only 1/20, which isn't very selective.

Here are some general rules about matching index columns:

- Database systems provide direct access to data very quickly if the criteria can be processed through an optimized look-up process (such as searching a tree structure) within the index. Scanning index pages to satisfy criteria is much slower, although it's usually much faster than scanning the corresponding data.
- Columns are matched from left to right in the order they were specified when the index was created. If, for example, an index is created over DEPTID, BUSINESS_UNIT, and ACCOUNT, but no criteria were provided for BUSINESS_UNIT, only the DEPTID field in the index would be matched, even if criteria were specified for ACCOUNT.
- To get index matching on multiple columns, the leftmost columns must have simple criteria, often equality (such as FISCAL_YEAR=1996). More complex criteria, such as In (...), Between, or a Join to another table, generally either prevent a random-access match on the index column or prevent matching any of the columns to its right.

Ledger Access Paths

As a general rule, it is most efficient to access ledger data through trees by accessing the tree table first, then using the detail ranges (or values) for the selected nodes to select the desired rows from the ledger. If the Select statement joins multiple trees, the database engine should choose the one that best fits the available indexes or the one with the highest cardinality (if multiple indexes are possible).

Access Path Analysis

There are different techniques for showing the access path for a given SQL statement.

DB2

First, create a PLAN_TABLE if your database doesn't already have one. You can find a sample Create statement in the DB2 Performance Tuning guide.

Include the SQL statement in the following and execute it via a utility like SPUFI:

```
DELETE FROM PLAN_TABLE WHERE QUERYNO=nnn;
EXPLAIN PLAN SET QUERYNO=nnn FOR
statement;
```

where *nnn* is a number you assign to this statement.

Retrieve the plan from the PLAN_TABLE with the following Select statement.

```
SELECT QBLOCKNO, PLANNO, TNAME, ACCESSNAME, METHOD, ACCESSTYPE,
 MATCHCOLS, INDEXONLY, PREFETCH, SORTC_GROUPBY
FROM PLAN_TABLE
WHERE QUERYNO=nnn
ORDER BY QBLOCKNO, PLANNO;
```

The table contains other plan information; these are generally the most pertinent columns for PS/nVision queries.

Oracle

First, create a PLAN_TABLE if your database doesn't already have one. Here is a sample Create statement:

```
CREATE TABLE PLAN_TABLE(
STATEMENT_ID VARCHAR2(254),
TIMESTAMP DATE,
REMARKS VARCHAR2(80),
OPERATION VARCHAR2(30),
OPTIONS VARCHAR2(30),
OBJECT_NODE VARCHAR2(128),
OBJECT_OWNER VARCHAR2(30),
OBJECT_NAME VARCHAR2(30),
OBJECT_INSTANCE  NUMERIC,
OBJECT_TYPE VARCHAR2(30),
OPTIMIZER VARCHAR2(255),
SEARCH_COLUMNS NUMERIC,
ID NUMERIC,
PARENT_ID NUMERIC,
POSITION NUMERIC,
other long);
```

You can use SQL*Plus to evaluate access plans interactively. First, include the SQL statement in the following code and execute it.

```
DELETE FROM PLAN_TABLE WHERE QUERYNO=nnn;
EXPLAIN PLAN SET STATEMENT_ID = 'nnn' FOR
statement;
```

where *nnn* is an identifier you assign to this statement.

Retrieve the plan from the PLAN_TABLE with the following Select statement:

```
SELECT LPAD(' ',2*LEVEL)||OPERATION,OPTIONS,OBJECT_NAME,
  OBJECT_INSTANCE,SEARCH_COLUMNS
```

```
FROM PLAN_TABLE
WHERE STATEMENT_ID='nnn'
CONNECT BY PRIOR ID = PARENT_ID
  AND STATEMENT_ID='nnn'
START WITH ID = 1
  AND STATEMENT_ID='nnn'
ORDER BY ID;
```

This retrieves the plan in a hierarchical tree format, in which the steps are evaluated from inside out, then top to bottom. The first step listed (not indented) is actually the final step in the plan, and is preceded by the step on the following line. For example, a Join is presented first, followed by two indented lines showing the two tables joined and the indexes used to access them.

Index Suggestions

For PS/nVision, designing indexes can be difficult, because different reports can have different criteria. The following rules make things easier.

Index Column	Suggestion
Fiscal_Year	When using a TimeSpan (required for ledger reporting but optional for queries), PS/nVision always generates an equality for fiscal year (for example, FISCAL_YEAR=1996). If the TimeSpan requires data from multiple fiscal years, PS/nVision generates multiple Select statements, one for each fiscal year. This makes Fiscal_Year a good candidate for the first column in a multicolumn index.
Ledger	When accessing ledger data, PS/nVision retrieves data from only one ledger at a time, so this column is guaranteed to have an equality. Ledger is thus a good choice as the second column in a multicolumn index.
Business_Unit	If you use the report request option to retrieve data from the requesting business unit only, PS/nVision generates an equality (for example, BUSINESS_UNIT='M04') for this column. If this is the most common way of requesting reports, or if you use a scope to get instances by business unit, use business unit as the second or third column in a multicolumn index, especially if you have many business units in the same ledger table. If most of your reporting accesses multiple business units in a single instance, position it in the index as you would any other field.

Index Column	Suggestion
Accounting_Period	When using TimeSpans, accounting period is specified using either an equality (ACCOUNTING_PERIOD = 12) or a range (ACCOUNTING_PERIOD BETWEEN 10 AND 12). If you do a lot of reporting for the current period, or other single periods (such as current period a year ago), it may improve performance to have an alternate index beginning with accounting period. A good optimizer will use this index only when accounting period has an equality.
Account	In many companies, Account is the field with the highest cardinality. It also has criteria in almost all ledger reports, in part because PS/nVision enforces this rule. Use it as the next index column following the columns that you expect to have equalities.

Using Trees

This section provides an overview of using trees with PS/nVision and discusses how to:

- Enhance tree performance with SQL techniques.
- Set tree performance options.
- Understand restrictions on tree performance options.
- Optimize indexes with dynamic selectors.

Understanding Trees and PS/nVision

PS/nVision performance may suffer when trees are used, especially when the SQL statements used to retrieve data access two or more trees at once. On some database platforms, the Where criteria used with most tree joins can cause the database optimizer to choose the wrong access path, making the PSTREESELECTnn table an obstacle to performance rather than an aid. This often happens when the tree uses ranges of detail values.

To address these performance issues, PS/nVision includes techniques for building SQL that implement tree criteria, and also implements SQL that is readily understood by database optimizers, yielding better access paths with less need for index tuning and so on. Additionally, you have control over the techniques used, so you can tune the performance of individual reports.

Enhancing Tree Performance with SQL Techniques

PS/nVision includes a number of SQL techniques to improve performance whenever trees are used. You can use static selectors or dynamic selectors. You can specify *where* or *how to* use selectors. A *selector* represents nodes of a single tree and is represented by the set of rows in the PSTREESELECTnn table having a single SELECTOR_NUM value.

Static Selectors

A static selector represents the entire tree, and it remains valid until the tree changes. For all database platforms, these selectors contain ranges (unless the tree had no ranges).

Static selectors do not need to be rebuilt except when the tree changes. However, the SQL statements that join static selectors to fact tables (such as ledgers) can be complex because they include both range predicates (if the tree has ranges) and node criteria to select that portion of the tree required on a particular section of a report. This can be difficult for database optimizers to process, especially if multiple trees use this technique.

Note. You should not run reports while you are modifying trees; it could lead to incorrect results.

Dynamic Selectors

A dynamic selector is created for use in a section of a single report, so it only lasts to the end of the report request. This section, however, may be selected several times, especially if the report uses a scope to produce multiple instances.

In addition to the ability to use a pre-existing (static) selector, PS/nVision can build one on the fly when preparing to run a report. This technique can boost performance, but can also create more overhead, especially if there are multiple users running the same report (using static selectors, users can share selectors).

PS/nVision builds each dynamic tree selector for a specific set of criteria (such as a set of rows or the current instance node), so that a selector (SELECTOR_NUM value) has exactly the nodes needed for a group of rows or columns to be retrieved with a Select statement. This eliminates the need for the often-cumbersome selection criteria PS/nVision generates for a static selector:

```
TREE_NODE_NUM BETWEEN x AND y OR TREE_NODE_NUM BETWEEN...
```

A dynamic selector creates a new SELECTOR_NUM value that PS/nVision uses and then deletes once the report is complete. Therefore, distribution statistics (or *skew* statistics) are not present for that selector. (Distribution statistics are still a factor for static selectors.) With certain PS/nVision reports, the absence of distribution statistics can improve performance significantly; that's because distribution statistics can make the SELECTOR_NUM criteria appear less selective to the database system optimizer, preventing the optimizer from accessing the selector table first.

The disadvantage of dynamic selectors is that one or more selectors may be needed to process a single report. In some cases, the time used to create the selectors can exceed the time saved by using them. Dynamic selectors are most effective on joins that drive the access path; static selectors may be just as fast, or faster, for additional criteria that do not affect the access plan.

Single-Value Selectors

Use single-value selectors only in conjunction with dynamic selectors. Combining dynamic and single-value selector techniques improves the performance of PS/nVision in many cases where trees are used.

Single-value selectors enable a more efficient equi-join between PSTREESELECTnn.RANGE_FROM_nn and the criteria field in the fact table (the one you are selecting data from). In building the dynamic selector, we do not merely copy the ranges of values (such as account numbers) from PSTREELEAF into PSTREESELECTnn. Instead, we join the tree ranges to the underlying detail table (such as the GL_ACCOUNT_TBL), and insert the individual detail values into the RANGE_FROM_nn column of PSTREESELECTnn. This may generate more rows in this table, but it can also generate a more efficient join without maintaining the tree with individual detail values (the only way you could get equi-joins without this option).

A disadvantage of this technique is that, especially where the tree has large ranges containing many detail values, single value selectors can contain many more rows than ranged selectors have. Unless the join is processed in a more efficient manner, the number of rows in the selector can mean slower join processing.

Suppress Join

The suppress join technique eliminates a SQL join by retrieving the detail ranges associated with the selected node and coding them in the Select statement. This technique is most effective in the following cases:

- The selected tree is used in the scope you expect to be used with this report, and each instance of that report is a tree node.
- The node or nodes selected represent a relatively small number of detail values or ranges.

The suppress join technique cannot be used where PS/nVision needs to group the answer set by tree node number, because these numbers are not available without joining the data to the tree. This happens, for example, if multiple rows or columns with otherwise similar criteria select different nodes of this tree. This is typical in the rows of most financial reports. However, if nPlosion to underlying details is specified for these rows or columns, the suppress join technique can be used, because PS/nVision can Group By the detail values rather than tree nodes.

Additionally, when the selected node (or nodes) includes large numbers of detail ranges, the suppress join technique may not be practical or efficient. While PS/nVision can build the very large statements that can result in this case, use of the suppress join technique when tree nodes refer to very large lists of detail ranges can be slower than the other techniques, or even fail to run because the statements exceed the size limits imposed by your database platform.

Sub-Select Tree Selector

The sub-Select method is very similar to a join. Instead of adding the tree selector to the From list of the main query, the tree selector criteria and its relation to the data (for example., DEPTID) in the main query is within an "Exists (Select ...)" clause in the Where portion of the main query. This is called a correlated sub-query, because part of the criteria in the sub-Select relates to data in the main query (A.DEPTID=B.RANGE_FROM_05). This is what makes it so much like a join. Database engines and optimizers differ in how they handle this syntax. Some process a correlated sub-query just like a join, while others are subtly different. You may need to experiment to determine which works better for which reports on your database platform.

Data from the sub-Select statement cannot be included in the main Select list; thus, none can be visible to the program (for example, PS/nVision) that is running the query. This is because the sub-Select statement is hidden in the Where clause, rather than appearing in the From clause. When PS/nVision retrieves multiple nodes of data for different rows or columns of a report, it uses the node number (from the tree selector) to distinguish the data, and this means a join is required. If you specify either sub-Select or Suppress Join in this case, PS/nVision ignores the option and forces a join. You need to specify join options even if not using a join method, because you may get a join after all. If you don’t see a performance benefit using the sub-Select method, we recommend using join instead, because it can be used whether or not tree node criteria are needed in the answer set.

Additional Options

Before the tree performance options were added, PS/nVision invoked the following type of syntax when joining a selector for a tree with ranges:

```
WHERE _ field >= L.RANGE_FROM_nn AND field <= L.RANGE_TO_nn _
```

This syntax is equivalent to using the Between predicate. It resulted in better access plans on the DB2/MVS platform. PS/nVision now includes an option to generate the following syntax:

```
WHERE _ field BETWEEN L.RANGE_FROM_nn AND L.RANGE_TO_nn _
```

This syntax should result in better access plans on certain database platforms.

Note. This option is only relevant to trees that use range selectors.

SQL Examples

Below is an example of the SQL alternatives made possible through the use of tree performance options. Here is the default query (with the node criteria highlighted):

```
SELECT L1.TREE_NODE_NUM, SUM(A.POSTED_TOTAL_AMT)
  FROM PS_LEDGER A, PSTREESELECT05 L, PSTREESELECT06 L1
 WHERE A.LEDGER='ACTUALS' AND
       A.FISCAL_YEAR=1996 AND
       A.ACCOUNTING_PERIOD BETWEEN 1 AND 8 AND
       L.SELECTOR_NUM=216 AND
       A.BUSINESS_UNIT>=L.RANGE_FROM_05 AND
       A.BUSINESS_UNIT<=L.RANGE_TO_05 AND
      (L.TREE_NODE_NUM BETWEEN 1000000000 AND
1666666665) AND
       A.CURRENCY_CD='USD' AND
       L1.SELECTOR_NUM=215 AND
       A.ACCOUNT>=L1.RANGE_FROM_06 AND
       A.ACCOUNT<=L1.RANGE_TO_06 AND
      (L1.TREE_NODE_NUM BETWEEN 1916275676 AND
 1923430847) AND
       A.STATISTICS_CODE=' '
GROUP BY L1.TREE_NODE_NUM;
```

Here's an alternative query using the Suppress Join technique for business unit criteria and a dynamic, single-value selector for ACCOUNT:

```
SELECT L1.TREE_NODE_NUM, SUM(A.POSTED_TOTAL_AMT)
  FROM PS_LEDGER A, PSTREESELECT06 L1
 WHERE A.LEDGER='ACTUALS' AND
       A.FISCAL_YEAR=1996 AND
       A.ACCOUNTING_PERIOD BETWEEN 1 AND 8 AND
       (A.BUSINESS_UNIT BETWEEN 'B0006' AND
 'B0006'
        OR A.BUSINESS_UNIT BETWEEN 'B5030' AND
 'B5030'
        OR A.BUSINESS_UNIT BETWEEN 'B9013' AND
 'B9014'
        OR A.BUSINESS_UNIT BETWEEN 'B0015' AND
 'B0015'
        OR A.BUSINESS_UNIT BETWEEN 'B9026' AND
 'B9026'
        OR A.BUSINESS_UNIT BETWEEN 'B0019' AND
 'B0031'
        OR A.BUSINESS_UNIT BETWEEN 'B0016' AND
 'B0018') AND
       A.CURRENCY_CD='USD' AND
       L1.SELECTOR_NUM=1215 AND
       A.ACCOUNT=L1.RANGE_FROM_06 AND
       A.STATISTICS_CODE=' '
GROUP BY L1.TREE_NODE_NUM;
```

Next is another form of the same query, with dynamic business unit selectors and dynamic ACCOUNT selectors:

```
SELECT L1.TREE_NODE_NUM, SUM(A.POSTED_TOTAL_AMT)
  FROM PS_LEDGER A, PSTREESELECT05 L, PSTREESELECT06 L1
 WHERE A.LEDGER='ACTUALS' AND
       A.FISCAL_YEAR=1996 AND
       A.ACCOUNTING_PERIOD BETWEEN 1 AND 8 AND
       L.SELECTOR_NUM=1216 AND
       A.BUSINESS_UNIT = L.RANGE_FROM_05
AND
       A.CURRENCY_CD='USD' AND
       L1.SELECTOR_NUM=1215 AND
       A.ACCOUNT=L1.RANGE_FROM_06 AND
       A.STATISTICS_CODE=' '
GROUP BY L1.TREE_NODE_NUM;
```

Setting Tree Performance Options

PS/nVision and PeopleSoft Tree Manager each provide a number of techniques and tuning options that can dramatically improve reporting performance. These performance enhancement techniques apply to both query-based and ledger-based layouts.

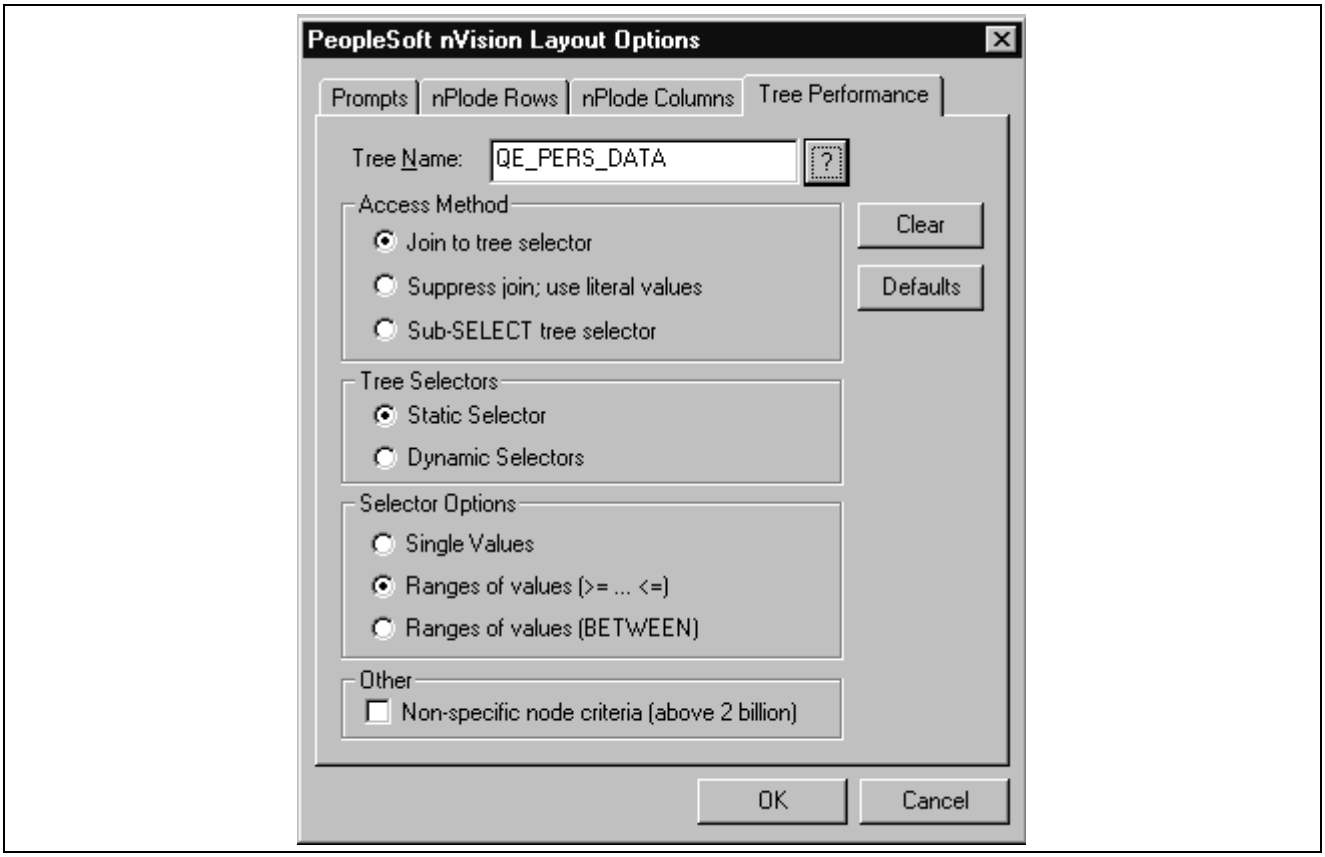
To change the technique used for a given tree, you can specify the technique using the Tree Performance Options dialog box in PeopleSoft Tree Manager. To override any Tree Manager settings and specify the technique used for a particular report layout, you specify the technique using the Tree Performance tab on the Layout Options dialog box in PS/nVision.

The tree performance options enable you to control the database access techniques PS/nVision uses to implement tree criteria for your report. These options can have a dramatic effect on how fast your reports run.

In setting these options, work with your database administrator to determine the best options, and to ensure that indexes are tuned for the SQL techniques selected. You should be prepared for some trial and error to find the best settings for your data and reporting requirements.

Note. The performance-tuning information presented here is intended for database administrators and advanced PS/nVision users who understand how PS/nVision accesses relational databases. The techniques discussed are not useful for casual users or for customizing performance on a workstation-by-workstation basis.

Access the Tree Performance tab by selecting nVision from the Excel menu, then Open Layout, Layout Options, then selecting Tree Performance.



Layout Options dialog box − Tree Performance tab

Tree performance options are saved in the sheets named NvsTree.*treename* for each specified tree.

You are setting performance options for a specific layout, one tree at a time. Optimum performance often is achieved using different techniques for different trees, depending on the nature of those trees and the way each tree is used in the report.

If you do not specify the tree performance options for a tree used in a report layout, and no performance options are defined in Tree Manager for that tree, PS/nVision uses the same SQL techniques used in the past on your database platform.

Join to tree selector

Select to include the tree selector table in the From clause and use join criteria to select the appropriate rows from the fact table. This method is sometimes used by PS/nVision even when another method is specified, if tree node information is needed to produce the report.

Suppress join; use literal values

Select to eliminate a SQL join by retrieving the detail ranges associated with the selected node and coding them in the Select statement.

If you select the suppress join technique, but PS/nVision cannot use it because of the need to group results by tree node, it will automatically use the join method you select (that is, either static or dynamic). However, if PS/nVision can use the suppress join technique, it ignores the selector options for this tree. Therefore, pick a selector technique in addition to selecting the suppress join option.

Note. This option is not available for use with winter trees.

Sub-SELECT tree selector	Select to add the tree selector to the From list of the main query. The tree selector criteria and its relation to the data in the main query is within an Exists clause in the Where portion of the main query..
Static Selectors	Select to build a selector that represents the entire tree and remains valid until the tree changes.
Dynamic Selectors	Select to creates a new tree selector for use in a section of a single report. The dynamic selector represents just the requested nodes.
Single values	Used only with dynamic selectors. Select to cause PS/nVision or PeopleSoft Query to build a selector using the individual detail values (from the detail table specified in the tree structure) that fall within the detail ranges of the selected nodes.
Range of values (>= <=)	For a tree with ranges of values, select to make the selectors more compact (fewer rows) and less likely to become obsolete as detail values are added. For some database optimizers, the syntax “fieldname >= RANGE_FROM_nn AND fieldname <= RANGE_TO_nn” gets a better access plan than BETWEEN.
	Note. If you specify one of the range syntax options, but the tree has no ranges, PS/nVision uses the single-value syntax (field = L.RANGE_FROM_nn).
Range of Values (BETWEEN)	Select to use the syntax “fieldname BETWEEN RANGE_FROM_nn AND RANGE_TO_nn”. This is a better choice for ranged selectors on most database platforms.
Non-specific node criteria (above 2 billion)	Select to prevent the optimizer from selecting the driving criteria field based on how inclusive the node number criteria are. This option has been used on DB2 when criteria for multiple trees were present. Unless you are a DB2 customer who has tuned your database around this "extra" criteria, we recommend that you not use this option.

Note. Trees with a mixture of dynamic detail and range detail are not supported by nVision. Reports generated using such trees may not be accurate.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Tree Manager, “Creating Trees,” Setting Tree Performance Options

Chapter 10, “Using Advanced PS/nVision Options,” Using PS/nVision-Defined Names, page 89

Understanding Restrictions on Tree Performance Options

In certain cases, PS/nVision may override the specified tree SQL technique. The dynamic selector technique is not used when a field has tree criteria in multiple dimensions (for example, both row and column). This can also happen at DrillDown time if criteria for a field are inherited from multiple dimensions (for example, the scope and column) of the parent report. With the dynamic selector technique unavailable, PS/nVision uses either the suppress join technique (if requested and if feasible) or the static selector technique.

You cannot select the single value option with static selectors because the static selector remains unchanged until the tree changes. However, the addition of single values to the fact table, which the tree detail is based on, doesn’t affect a tree change. The single-value options exist for dynamic selectors and for enabling you to control the syntax used with ranged selectors.

PS/nVision ignores the suppress join technique if specified for a tree with summary ChartField node criteria. Summary ChartField nodes, or detail values in summary trees, are tree nodes from a detail tree rather than values from a database field. In addition, PS/nVision does not support translation of summary ChartField nodes when drilling down to the detail ledger, so we recommend that you use the summary tree criteria.

The suppress join technique is available for reports based on summary trees, as long as tree node information is not needed to group the result. This means it may be possible to re-code some reports that use detail value criteria for summary trees for performance reasons.

These performance-enhancement techniques are not used when retrieving labels (such as account descriptions). Labels for detail fields associated with tree criteria are retrieved using static selectors. The SQL code used to retrieve labels is defined at a different level from the SQL used to retrieve amounts, so it isn't possible to use the same dynamic selectors for both.

Because criteria from multiple rows and columns are combined with the instance (scope) criteria in a single Select statement, SQL statements generated by PS/nVision can be long and complex. While current releases of PS/nVision no longer enforce a statement size limit, every database platform has a maximum statement size, and even statements shorter than the maximum may be inefficient. You control statement size through judicious use of the performance options.

Here are the common causes of oversized SQL statements:

- Use of the suppress join technique on a tree (or trees) from which nodes representing too many detail ranges are requested.

  Suppressing a join can be very useful, but is recommended only when criteria from a given tree require a relatively short list of detail values or ranges.

- Use of static selectors with a very long list of nodes.

  PS/nVision combines node number ranges for sibling nodes where possible, so it takes lots of nodes to exceed the limit. Use of dynamic selectors makes the SQL much shorter.

- An extremely long list of detail values.

  The messages that indicate a statement is too long vary from platform to platform. For statements made long by tree criteria, the most successful solution is generally to use the dynamic selectors technique on one or more of the trees involved.

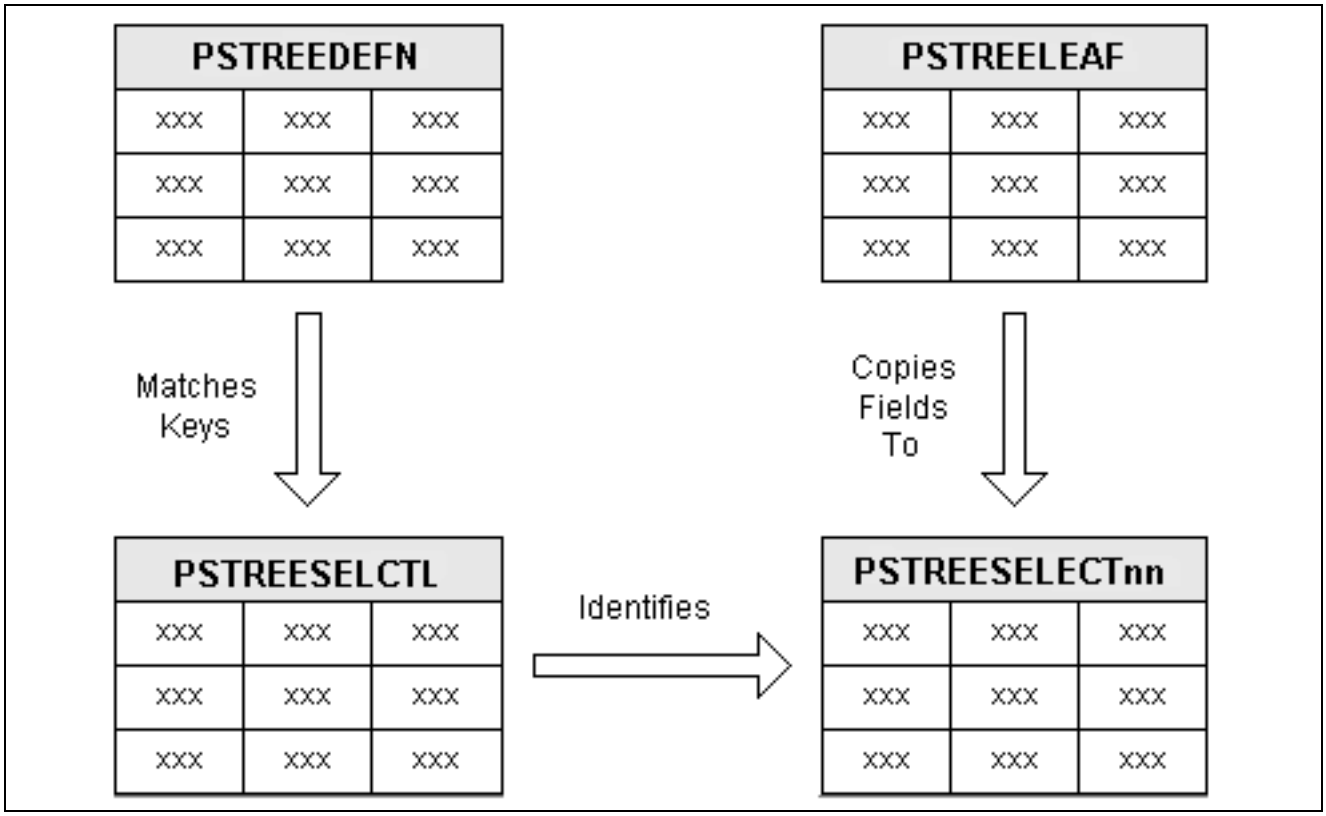
Optimizing Indexes With Dynamic Selectors

If you use the dynamic selector technique heavily for certain criteria fields, you should try an index on that field's selector table that is optimized around this technique. For example, let's say ACCOUNT is a six-character field (meaning its selector table is PSTREESELECT06) and you plan to use dynamic selectors, with single values, for the ACCOUNT trees on most of your production reports. You should create an index on PSTREESELECT06 on SELECTOR_NUM and RANGE_FROM_06, since these are the only fields that will appear in the Where clause with single-value dynamic selectors. But also bear in mind the following:

- Other fields that are the same size may use the same selector table, so you might not want to eliminate an index if removing it would penalize those reports.
- Although only SELECTOR_NUM and RANGE_FROM_06 will appear in the Where clause, TREE_NODE_NUM may appear in the Select list (if PS/nVision needs to Group By tree node). An index that includes this field as well would enable index-only access (that is, access with no need to read the data table) when using this selector.
- Index use varies depending on the optimizer and the volume and distribution of data, so experiment to get optimum results.

Using Tree Tables

It's helpful to understand the structure of the various tree tables that PS/nVision uses and how they interact. The main tables used are PSTREEDEFN, PSTREELEAF, PSTREESELCTL, and PSTREESELECTnn.



Tree tables used by PS/nVision

The sections below provide details on each of these tables.

PSTREEDEFN: Tree Definition

The following shows the details of the PSTREEDFN table.

Description

This system table defines an effective-dated version of a tree.

Fields

Field Name	Type	Length	Format	Long Name
SETID	Char	5	Upper	SetID
SETCNTRLVALUE	Char	5	Upper	Set control value. Alternative to setID

Field Name	Type	Length	Format	Long Name
TREE_NAME	Char	18	Upper	Tree name
EFFDT	Date	10		Effective date
EFF_STATUS	Char	1	Upper	Status as of effective date
VERSION	Nbr	10	Raw B	Version
TREE_STRCT_ID	Char	18	Upper	Tree structure ID
DESCR	Char	30	Mixed	Description
ALL_VALUES	Char	1	Upper	All values
USE_LEVELS	Char	1	Upper	Use levels
VALID_TREE	Char	1	Upper	Valid tree
LEVEL_COUNT	Nbr	3		Level count
NODE_COUNT	Nbr	5	Raw B	Node count
LEAF_COUNT	Nbr	5	Raw B	Leaf count
TREE_HAS_ RANGES	Char	1	Upper	Tree has ranges
DUPLICATE_ LEAF	Char	1	Upper	Allow duplicate leaf
TREE_ CATEGORY	Char	18	Upper	Category
TREE_ACC_ METHOD	Char	1	Upper	Tree access method

Field Name	Type	Length	Format	Long Name
TREE_ACC_ SELECTOR	Char	1	Upper	Tree access selector
TREE_ACC_SEL_ OPT	Char	1	Upper	Tree access selector option

PSTREELEAF: Tree Leaf

The following shows the details of the PSTREELEAF table.

Description

This user table defines the data value ranges that are the leaves of a tree. For each leaf node (nodes without children), one or more ranges define the detail values that correspond to that node.

Fields

Field Name	Type	Length	Format	Long Name
SETID	Char	5	Upper	SetID
SETCNTRLVALUE	Char	5	Upper	Set control value
TREE_NAME	Char	18	Upper	Tree name
EFFDT	Date	10		Effective date
TREE_BRANCH	Char	20	Upper	Tree branch name
TREE_NODE_ NUM	Nbr	10	Raw B	Tree node number
RANGE_FROM	Char	30	Upper	Range from
RANGE_TO	Char	30	Upper	Range to
DYNAMIC_ RANGE	Char	1	Upper	Dynamic range
OLD_TREE_ NODE_NUM	Char	1	Upper	Old tree node

PSTREESELCTL: Tree Selection Control

The following shows the details of the PSTREESELCTL table.

Description

This system table controls and manages static selectors (see PSTREESELECTnn). Each row in this table corresponds to a row in PSTREEDEFN and to a group of rows (with the same SELECTOR_NUM) in PSTREESELECTnn. This table is only used for static selectors.

Fields

Field Name	Type	Length	Format	Long Name
SETID	Char	5	Upper	SetID
SETCNTRLVALUE	Char	5	Upper	Set control value
TREE_NAME	Char	18	Upper	Tree name
EFFDT	Date	10		Effective date
VERSION	Nbr	10	Raw B	Version
SELECTOR_NUM	Nbr	10	Raw B	Selector number
SELECTOR_DT	Date	10		Selector date
TREE_ACC_SEL_OPT	Char	1	Upper	Tree access selector option
LENGTH	Nbr	5	Raw B	Length

PSTREESELECTnn: Tree Select Work-Size nn

The following shows the details of the PSTREESELECTnn table.

Description

These system tables define selectors used by PS/nVision to speed tree-based data selection. A selector table is defined for every possible detail field length (nn = 01-30); thus this description applies to tables named PSTREESELECT01, PSTREESELECT02, and so on, through PSTREESELECT30.

Fields

Field Name	Type	Length	Format	Long Name
SELECTOR_NUM	Nbr	10	Raw B	Selector number
TREE_NODE_ NUM	Nbr	10	Raw B	Tree node number
RANGE_FROM_ nn	Char	n	Upper	Range from
RANGE_TO_nn	Char	n	Upper	Range to

PSTREESELNUM: Tree Selector Number

The following shows the details of the PSTREESELNUM table.

Description

PS/nVision uses this table to assign a unique SELECTOR_NUM value to each tree selector as it is built. This table has only one row.

Fields

Field Name	Type	Length	Format	Long Name
SELECTOR_NUM	Nbr	10	Raw B	Selector number

CHAPTER 15

Running PS/nVision Reports on the Web

This chapter provides an overview of PS/nVision web services and describes how to:

- Configure the report node.
- Create scope definition.
- Set up report requests.
- Submit report requests.
- Use report books.
- Use DrillDown.

Understanding PS/nVision Reporting on the Web

Users with Internet access can run, view, DrillDown and distribute PS/nVision reports through a browser, without needing PeopleSoft installed on client machines. Users can send reports as email attachments rather than requiring recipients to navigate to a location on a file server.

PS/nVision on the web includes the following:

- Internet versions of report requests, report books, and scope definitions.
- Output in both Excel (XLS) and HTML formats.
- DrillDown for both Excel and HTML reports.
- Email options to send PS/nVision reports to individual users or users in specified roles.
- Integration with Process Scheduler and Report Manager to send bursting report instances to designated users or users in specified roles.
- Support for multiple PS/nVision sessions when PS/nVision is invoked from PeopleSoft Process Scheduler.
- A restart feature that allows the system to restart a process if it is marked *No Success*.

Note. To take full advantage of the web features, you need Microsoft Office 2000 on the PS/nVision report server. Microsoft Office 2000 is *not* required on any other servers or on any computers used to initiate report books or report requests from the browser. A report server is a Windows NT machine with PS/nVision (PeopleTools client software), Excel, and PeopleSoft Process Scheduler installed. Process Scheduler is needed to schedule all PS/nVision processes. Office 2000 is required for creating reports in HTML format.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Defining PeopleSoft Process Scheduler Support Information," Defining Process Definitions

Configuring PS/nVision on the Web

PS/nVision processes on the web are all run via Process Scheduler. All the equivalent settings that PS/nVision needs in the Windows client (such as layout directory and instance directory) are defined in the nVision section of the Process Scheduler Configuration file. Other configurable options include:

- The EnableDrillDownDownForFile parameter, which supports DrillDown on File output type reports in the web-based nVision environment. The setting only takes effect when the report request is defined to run in File output type on the web. By default, EnableDrillDownDownForFile is set to be 0 (false). When the option is set to 1, users are allowed to access the report instances in the instance directory and drill down the report instances on the web. When the option is set to 0, the generated report instances are not drillable.
- The EnablePollDialogs and PollDialogSeconds parameters, which dismiss unattended PS/nVision dialog boxes.

  Note. Because this option can affect performance, it should be used with caution.

- The TraceLevel option, which allows you to generate and view trace logs specifically for PS/nVision.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Using the PSADMIN Utility"

Chapter 10, "Using Advanced PS/nVision Options," Setting Trace Files, page 93

Chapter 10, "Using Advanced PS/nVision Options," Dismissing Unattended Dialogs, page 95

Chapter 11, "Personalizing PS/nVision," Using Configuration Manager, page 97

Configuring the Report Node

Both PeopleSoft Process Scheduler and Report Manager use report distribution nodes to deliver PS/nVision reports. The distribution node definition specifies the report repository location and the location of the stored content (the files) for Report Manager. When PS/nVision creates a report instance, it passes the physical file location information to PeopleSoft Process Scheduler. Process Scheduler then passes the file to Report Manager using the information defined on the Distribution Node page.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Setting Server Definitions," Setting Distribution Options

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Setting Server Definitions," Defining Report Nodes

Creating Scope Definitions

Select Reporting Tools, PS/nVision, Define Scope.

See Chapter 7, “Defining Report Scopes,” page 57.

See Chapter 16, “Running PS/nVision Reports in the Microsoft Windows Client,” Creating Report Requests, page 173.

Creating a scope definition on the web is similar to defining it in the Windows client with the following exception: You cannot specify an effective date for the tree node table or value table. The current date is used as the effective date.

Scopes are defined based on a tree node record or a value table such as Department table or Product table. By defining your scope based on a table that includes an email address or user ID for each value you can direct each scope based-report instance to a different user. For example, the record shown below can be used with a scope definition as a value table to have each report instance emailed or posted to a different user in Report Manager.

Department (DEPTID)	Description (DESCR)	Manager	Email Address (EMAILID)	User ID (OPRID)
12000	Sales Canada	John Smith	john_ smith@abc.com	U:JOHNSMITH
13000	Sales USA	Jane White	jane_ white@abc.com	U:JANEWHITE
14000	Sales Asia	Asia Manager	Kathy_ Lin@abc.com;U: PeterYu;R: AsiaManager	U:KathyLin;U: PeterYU;R: AsiaManager

Scope variables are used in the Email and Security templates the same way that you use them to create unique file names with the File template or directory names with the Directory template in your report request. The Scope Descriptive Variable (%DES%) is used to select a related field value from the Scope Value table or the Tree Node table. You can use values for email addresses, user Ids, or role Ids. The general syntax of the %DES% variable is:

```
%DES.[scope field].[detail field].[node field]%
```

If your scope is based on a value table, replace [node field] with [detail field]. The [detail field] is repeated so that the basic format of the syntax remains the same.

Note. The %DES% variable requires the associated field value be in the same table that the scope is based on.

Email Template Variables

To have each report instance sent as email to the associated department manager’s email address you would enter the following values in your email template:

%DES.DEPTID.EMAILID.EMAILID%

This tells PS/nVision to use the associated email address from the EMAILID field from the value table where the DEPTID is located. You need to specify email as the output type on the report request.

The scope descriptive variable (%DES%) is used to select a related field value from the scope value table. For example, if your scope were based on the record shown above, you would produce three report instances, and each instance would be sent to the associated email address. The report for department 12000 would be emailed to john_smith@abc.com, and the report for 13000 would be emailed to jane_white@abc.com. The report for department 14000 would be emailed to several recipients—Kathy Lin, Peter Yu, and the email addresses for the users who belong to the role Asia Manager. You can specify the user email addresses associated with users and roles in the user profiles of Maintain Security.

Security Template Variables

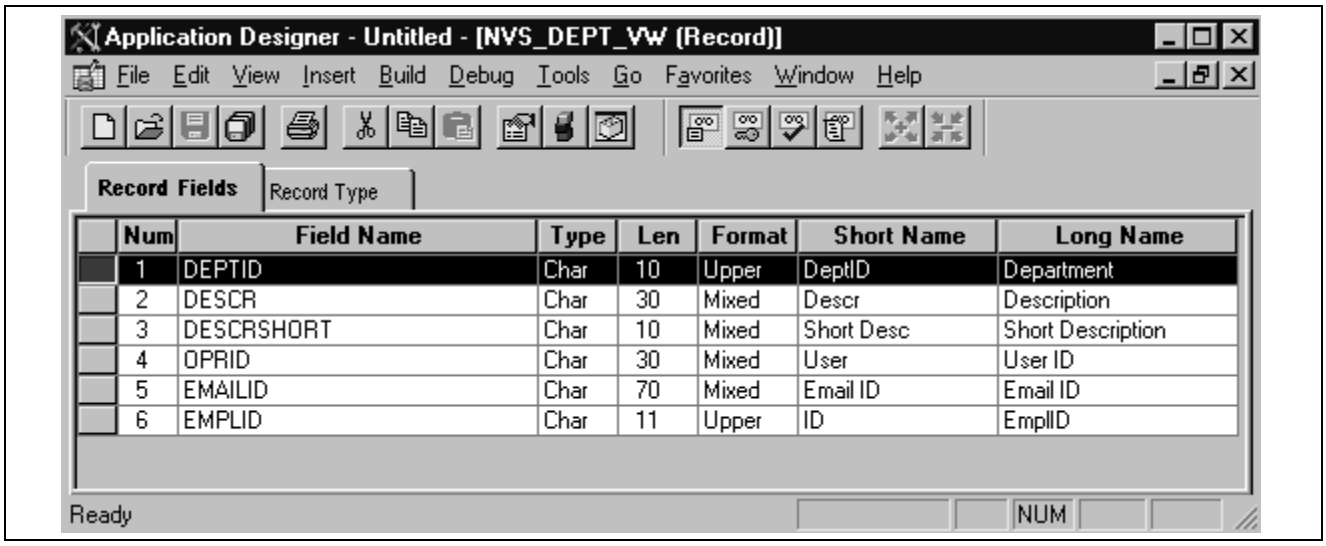
Using the record above for the value table, you could post each report instance to Report Manager for the associated user. In this case you would use web as the output type and enter the following variables in the security template:

%DES.DEPTID.OPRID.OPRID%

The report for department 12000 would be posted to Report Manager for user JOHNSMITH, and the report for 13000 would be posted for user JANEWHITE. John Smith would not be able to access the Department 13000 report. The report for department 14000 would be posted to Report Manager for Kathy Lin, Peter Yu, and the other users belonging to the role Asia Manager.

Sample Record Definition

The record definition shown below was used to create a view that joins the department record (DEPT_TBL) with a PeopleSoft security record (PSOPRDEFN).



Application Designer: NVS_DEPT_VIEW page

SQL View Text

The SQL view text joins the PS_DEPT_TBL.MANAGER_ID with the PSOPRDEFN.EMPLID in security. The email address and user ID (OPRID) are taken from PSOPRDEFN.

```
SELECT B.DEPTID
, B.DESCR
, B.DESCRSHORT
, 'U:' + A.OPRID
, A.EMAILID
, A.EMPLID
```

```
FROM PSOPRDEFN A
, PS_DEPT_TBL B
WHERE B.EFFDT = (
SELECT MAX(B_ED.EFFDT)
FROM PS_DEPT_TBL B_ED
WHERE B.DEPTID = B_ED.DEPTID
AND B_ED.EFFDT <= SUBSTRING(CONVERT(CHAR,GETDATE(),121), 1, 10))
AND A.EMPLID = B.MANAGER_ID AND B.MANAGER_ID <> ''
```

Note. This is a simple example with Microsoft SQL database platform specific syntax and should not be used without careful evaluation. You may get unpredictable results if the scope definition returns more than one row from the value table for each scope value.

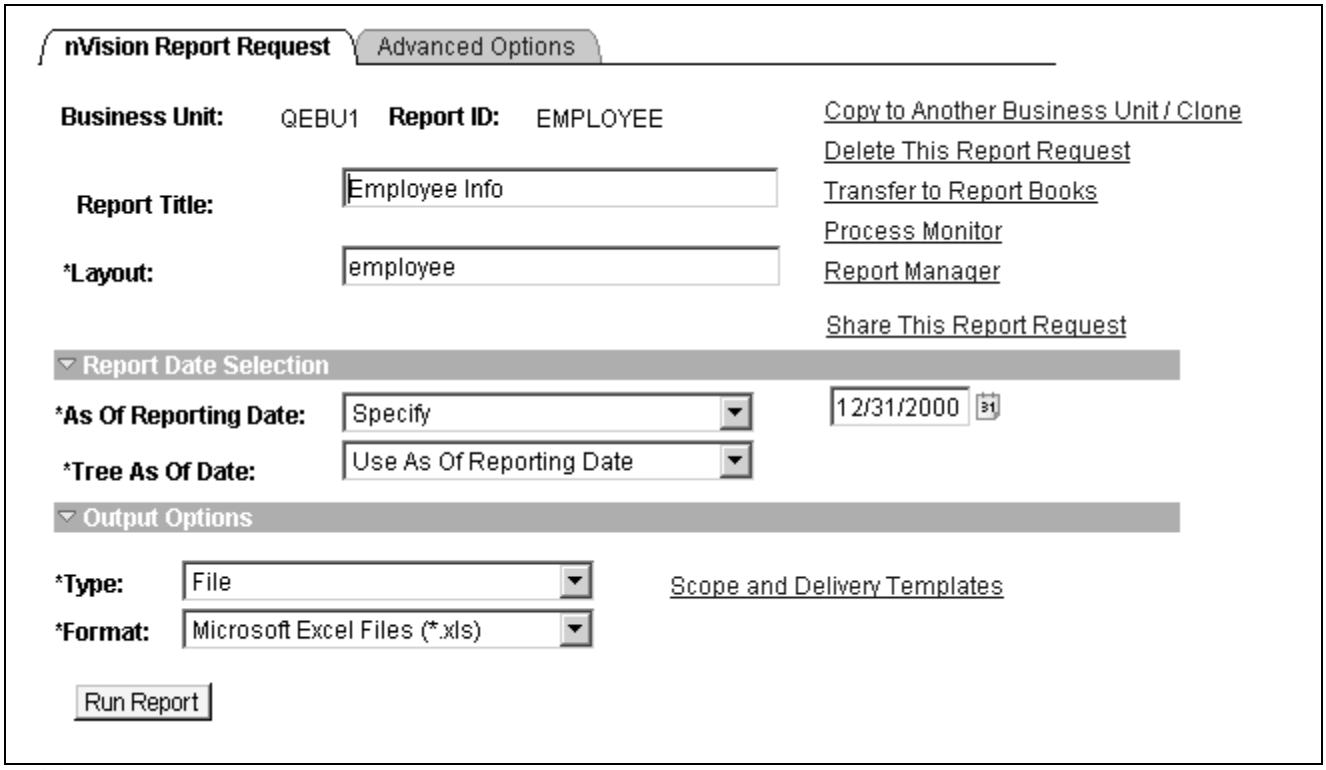
Setting Up Report Requests

This section describes how to:

- Create report requests.
- Configure delivery templates.
- Use portal folders.
- Copy report requests.
- Set advanced options.

Creating Report Requests

Access the nVision Report Request page.



nVision Report Request page

Select Reporting Tools, PS/nVision, Define Report Request to display the Report Request search page.

By default, report requests you create are secure, meaning that they are available only to you and to any users or groups you assign. You can make a report request public, allowing access to any user.

The report request security options are configurable using the PeopleTools Options page.

See Chapter 16, "Running PS/nVision Reports in the Microsoft Windows Client," Creating Report Requests, page 173.

See Chapter 13, "Setting Up PS/nVision Security," Securing Report Requests, page 126.

See *Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration*, "Using PeopleTools Utilities," PeopleTools Options.

Searching Report Requests

When you search for report requests, the search returns only the reports to which you have access. These include your own report requests, any to which you have been given access by other users, and any that are public.

Configuring Delivery Templates

Click Scope and Delivery Templates on the nVision Report Request page.

See Chapter 16, "Running PS/nVision Reports in the Microsoft Windows Client," Creating Report Requests, page 173.

Report Request template options allow you to use PS/nVision variables or static text to specify report delivery options, including using portal folders. Using this page, you can also specify scope fields to personalize reports. Template options are displayed dynamically based on your output type on the PS/nVision Web Output page—only the options that you must specify for that output type appear. By combining scope and DES variables in templates, you can have different instances of the same report delivered to different email addresses, or posted to individual users in Report Manager.

To see all available template options, select Scope and Delivery Templates − View All from the Advanced Options tab of the Report Request page.

Using Portal Folders

Portal folders can be used to organize nVision report results into meaningful groups. When creating a report request with the output option of *Web* or *Window*, you can select the top level folder, and then define a sub folder where the report result will be posted. Sub folders can be created dynamically by using nVision variables to generate the folder names, or statically by entering the actual folder name. Sub folders will be created under the selected top level folder and can be viewed from Report Manager.

To create a sub folder:

1. Select Reporting Tools, PS/nVision, Define Report Request.
2. Enter report request information. Select *Web* or *Window* as the Output Option.
3. Click on the Scope and Delivery Templates link to display the nVision Web Output page
4. Choose the Top Level Folder from the Folder Name drop-down list.
5. Enter the name of your sub folder in the Directory Name Template field. You can use variables to create unique folder names.

   If the folder doesn't exist, PS/nVision will create the folder in Report Manager. For example:

   ```
   Reports\%SFV%- %RID%
   \My Folder\Finance Reports
   ```

Selecting Portal Folders

Portal folders can be selected from:

- Distribution Detail page.

  Select report request and run report. Change Output Type to *Web* or *Window* and then click on the Distribute To icon.

- Scope and Delivery Templates - nVision Web Output page.
- Process Definition page.

  Select PeopleTools, Process Scheduler, Processes. Select Process Type as nVision-Report and enter NVSRUN as the Process Name. Select Destination tab.

Note. Sub folders can only be created from the Enter Delivery Options - nVision Web Output page.

At runtime, Process Scheduler will create the top level folder based on the following priority order:

- Distribution Detail page.
- Enter delivery Options - nVision Web Output page.
- Process Definition page.

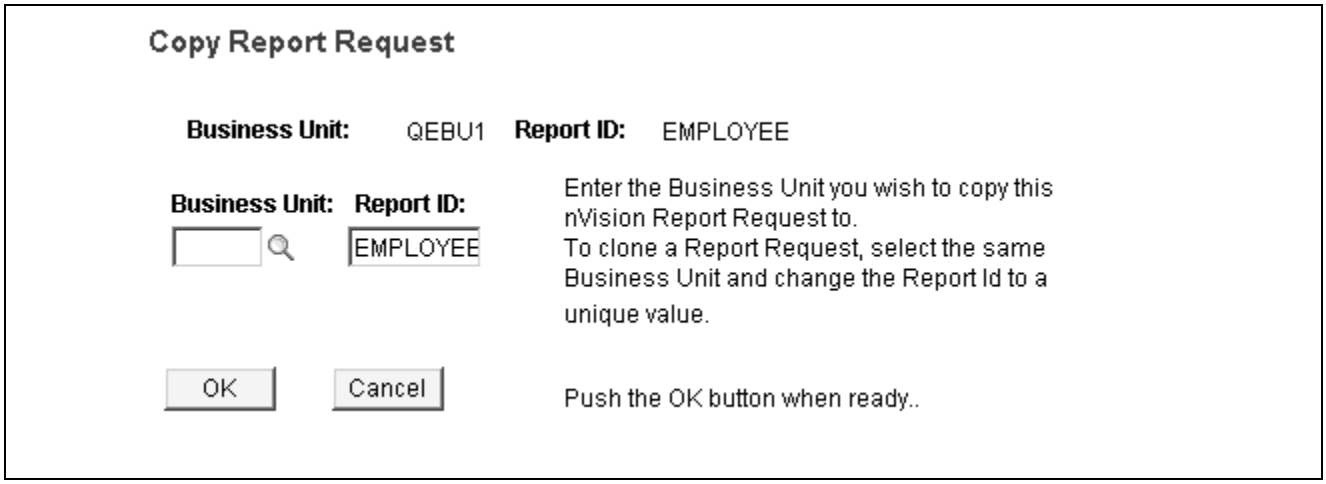
If a folder has not been selected on any of the above pages, the default folder defined by the administrator will be used.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications, "Working With Processes and Reports"

Copying Requests

Select Copy to Another Business Unit/Clone from the nVision Report Request page.



Copy Report Request page

Business Unit Select a business unit to copy the report request to.

To clone the request, choose the same business unit as the original request.

Report ID Text Box Enter a new report ID to copy the report request to another business unit. Enter the same report ID to clone the request.

Security and Copying Report Requests

When you copy a secure report request, all the groups and users associated with that request are copied from the original request to the new copy.

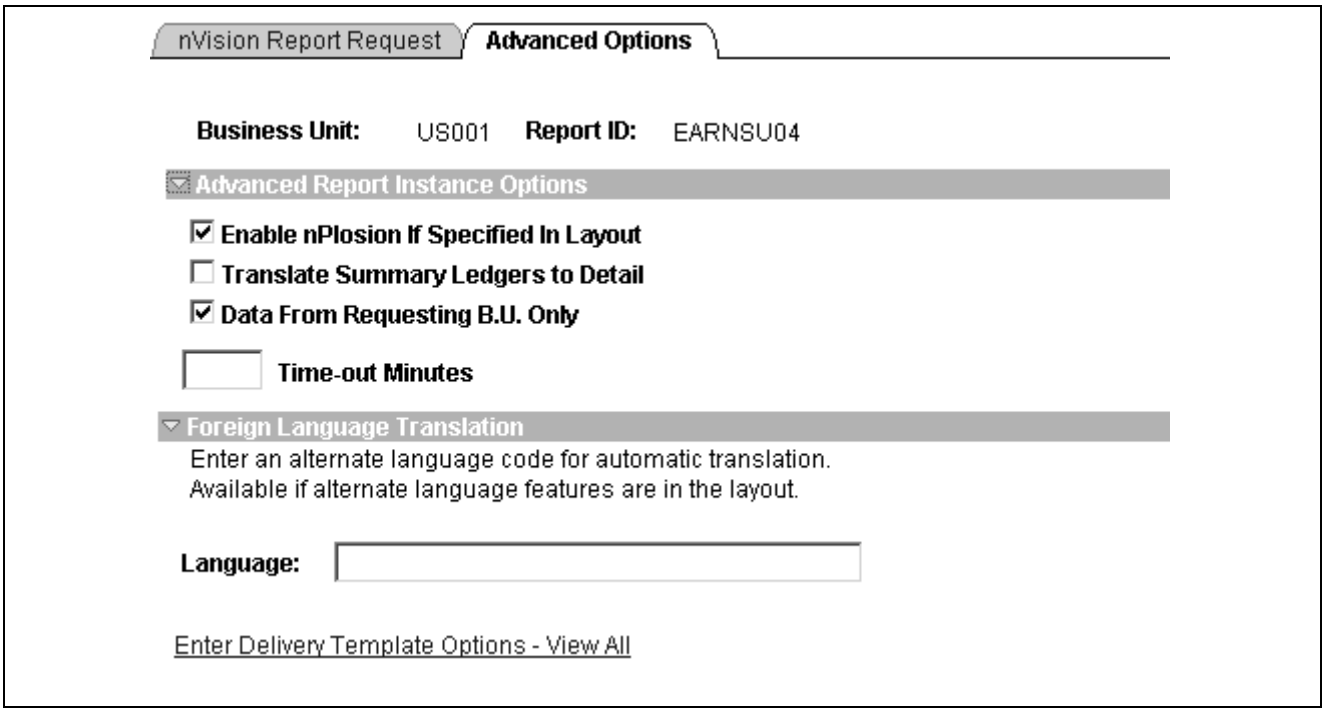
If you want to copy a report request to another existing report request, the existing request must either be public or you must have access to it. If you do not have access, an error message will display. Note also that if you copy a report request to another report request, only those users and groups with access to the original will have access to the target after the copy. Any users or groups who had access to the target prior to the copy but not the original are removed from the access list; if you want them to have access, you must re-assign it after the copy is complete.

For example, assume users A and B have access to Report Request 1, and users A and C have access to Report Request 2. If User A copies Report Request 1 to Report Request 2, following the copy only users A and B will have access to Report Request 2—user C no longer has access.

Setting Advanced Options

Select the Advanced Options tab on the nVision Report Request page.

This page allows you to change high level specifications for your report request.



nVision Report Request Advanced Options page

See Chapter 16, "Running PS/nVision Reports in the Microsoft Windows Client," Creating Report Requests, page 173.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Global Technology, "Understanding Global Reporting and Data Analysis Tools," Understanding PS/nVision Reporting in a Global Implementation

Chapter 16, "Running PS/nVision Reports in the Microsoft Windows Client," Creating Report Requests, page 173

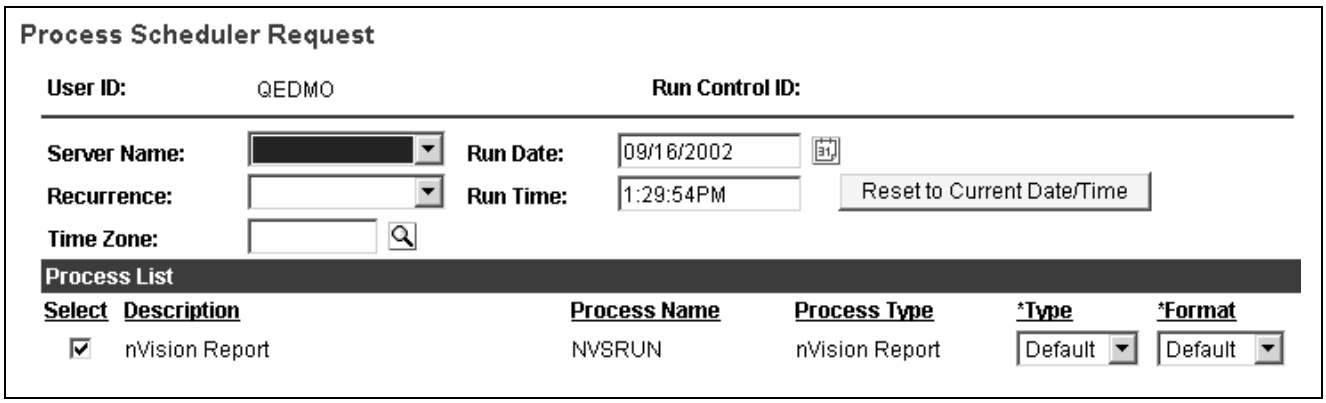
Submitting Report Requests

This section describes how to:

- Run reports.
- Set report distribution.

Running Reports

Select the Run Report button to display the Process Scheduler Request page.



Process Scheduler Request page

Choose *Default* in the Type and Format menus to use the options specified in the report request, or override the request by making new choices.

PS/nVision reports have two different formats for creating report instances: HTML and Excel. Both formats are valid with all output types. To use HTML, Excel 2000 or later must be installed on your PS/nVision report server.

The Type menu includes these choices:

Email Sends the report instances using email. The mail server to deliver the reports must be specified in the Process Scheduler Configuration file.

File Saves the report instances in a specified file directory in the file server of your PS/nVision report server. The directory of the file server must be specified in the Process Scheduler Configuration file.

PS/nVision variables can be used when identifying the output destination.

Printer Sends the report instances to a network printer. All destination printers must be set in the PS/nVision report server. The default printer is the default printer for the report server.

Web Sends each report instance to Report Manager. The Process Scheduler server that runs the report must be associated with the distribution node to deliver the reports to Report Manager.

Window Results of the process request will be automatically delivered to a new browser window, and a copy sent to Report Manager.

This option is not valid for report books, or when a scope has been included in the report request. An error message will display and the output type will change to *Default.*

Note. When you select to run the process request, a new browser window opens and displays the processing page. When processing is complete the results will be delivered to this window. If the window is closed before processing is complete, you will need to go to Report Manager to view the results. The Process Scheduler server that runs the report must be associated with the distribution node to deliver the reports to Report Manager.

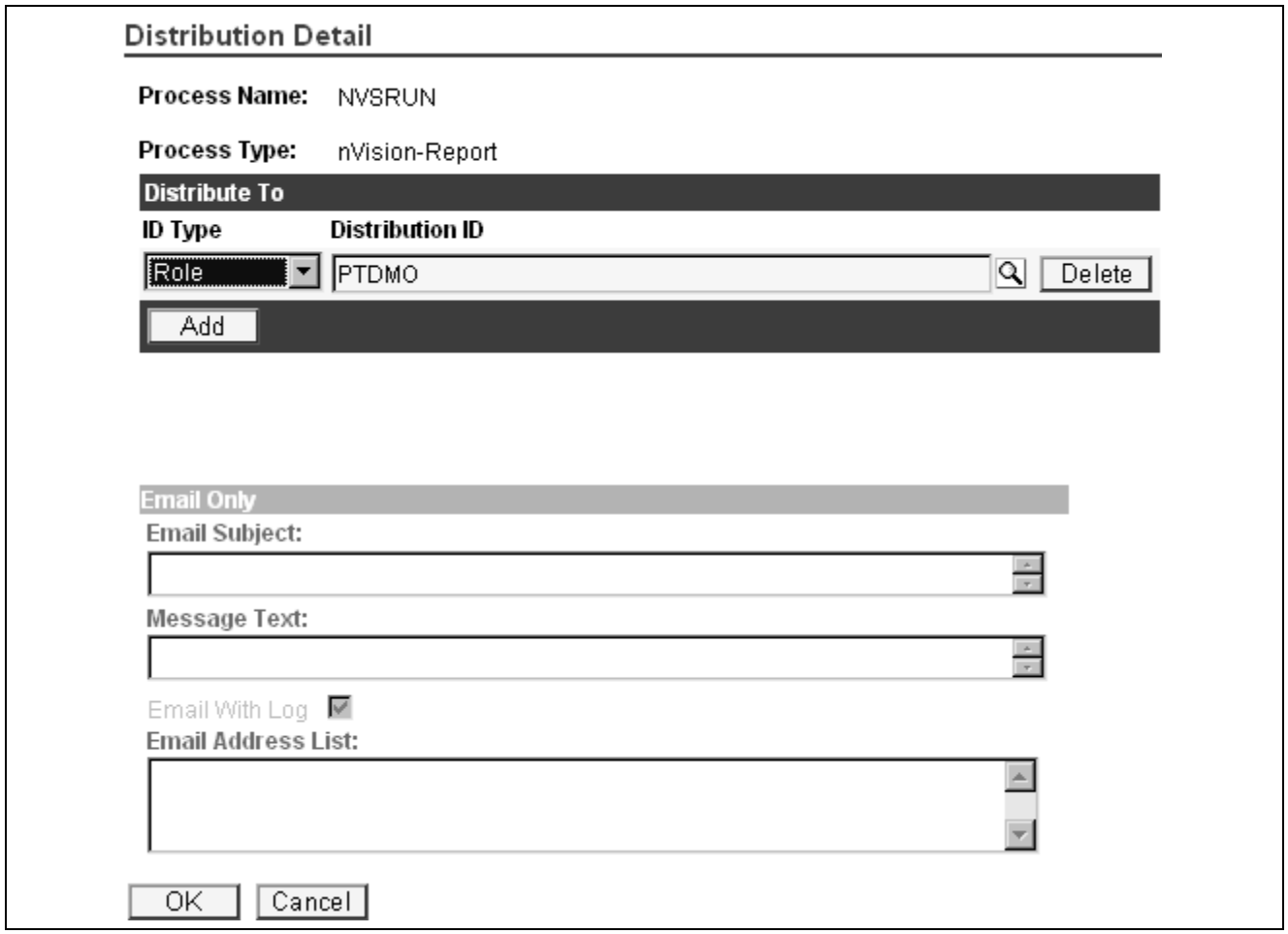
Important! This output type is not available if the user does not have REN Server *Report Window* permission, or there is no active REN Server cluster available for Reporting.

To grant access to the new browser window, the permission lists of the users must include full access to the Realtime Event Notification permission for Reporting Window and the WEBLIB_RPT web library with full access.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*, "Submitting and Scheduling Process Requests"; *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*, "Defining PeopleSoft Process Scheduler Support Information," Defining Event Notifications and Configuring a REN Server and *Enterprise PeopleTools 8.45 PeopleBook: Security Administration*, "Setting Up Permission Lists," Defining Permissions.

Setting Report Distribution

Select the Distribution icon to display the Distribution Detail page. This page appears only when the output type is web, window, or email.



Distribution Detail page

This page enables you to choose the recipients of your report instances separate from what you have specified in your report request. If the output type is email, beside email addresses you can also enter an email subject and message. If you are entering a list of email addresses, make sure to use a semicolon (;) to separate each address from the others.

Note. To distribute reports to a role ID or a user ID using email, all recipients must have an email address entered in their Security user profile.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Administering User Profiles"

Using Report Books

This section describes how to:

- Define report books.
- Run report books.
- Set type and output options.
- Run multiple report books.

Understanding Report Books

You can group multiple report requests into a single report book. Report book features include:

- An interface to Process Scheduler Manager.

  Using a browser, you schedule a group of reports to run using a Process Scheduler request. Your reports are executed on the server in the format that you choose, and you can run the entire report book with the same output type and format without changing any individual component requests. You can also schedule your report books to run at a particular time on a regular basis.

- An effective status associated with each request in the report book.

  You can set individual report requests within a report book as inactive. Inactive report requests remain part of the report book but are not run as part of a request.

- Security associated with each request in the report book.

  Each individual report request in a report book has its own security setting that allows it to be accessed by specific users and groups or by the public.

- A method for individual report requests to inherit dates from the report book.

  You can run an entire report nook using the same as of date, without changing any individual component requests.

- Multiple nVision sessions can be scheduled on a single report server.

  Each nVision session is associated with its own Excel executable. This enables you to maximize use of your report server without requiring multiple report servers for multiple report books.

- Robust batch processing of message logging.

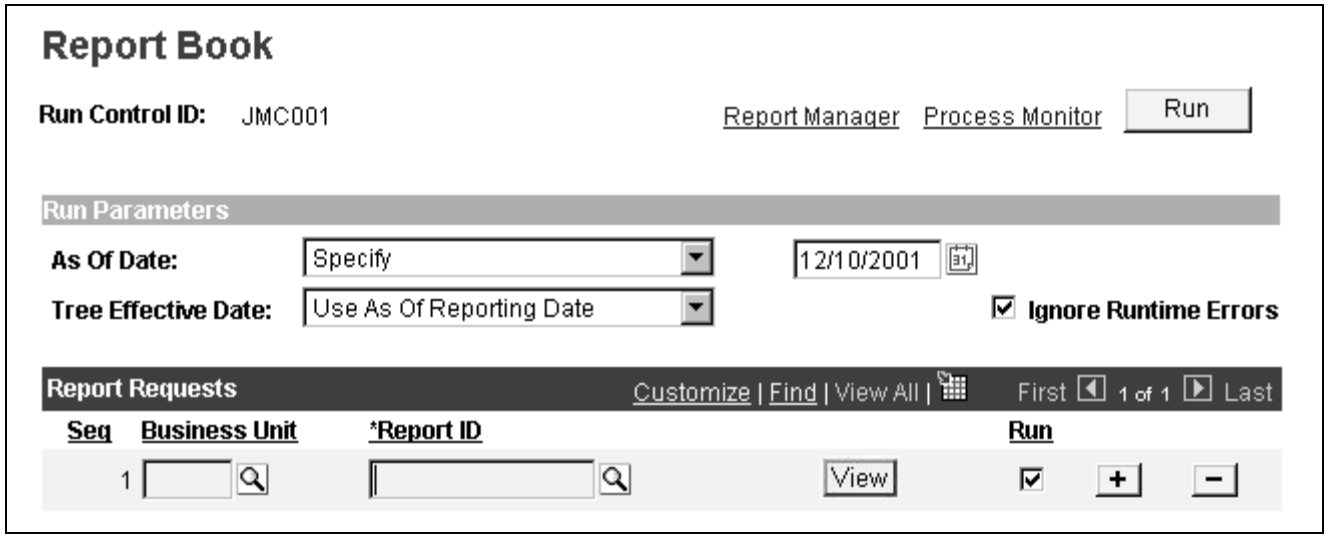
  You can generate an entire set of reports without the process being interrupted due to an error condition.

Note. Date and time variables are resolved based on the calendar being used by the PS/nVision report server that runs the report.

Defining Report Books

Before creating a report book, make sure you have report requests defined for all the reports you want to include in the book. The report book is a list of requests, not a substitute for the request. You might also want to review the requests you plan to use to ensure they use the desired scope and layout, and ensure that you have access to all the reports you want to include in the report book.

Open a report book by selecting Reporting Tools, PS/nVision, Define Report Book. Then from the Define Report Book page you enter the run control ID of an existing report book to modify it, or select the Add a New Value tab to create a new report book.



Report Book page

As Of Date

Select Default to use the As Of Date from the report request.

Select Today's Date to use the current date for the report.

Select Business Unit Reporting Date to use the date specified for the business unit.

Select Specify to enter the date you want to report on.

Tree Effective Date

Select Default to use the specified Tree Effective Date from the report request.

Select Specify to enter the date you want to report on.

Select Use As of Reporting Date to create the report based on the As Of Reporting Date that you've specified in the report.

Ignore Runtime Errors

Select this check box to keep the entire Report Book from stopping if one of the reports encounters an error.

Note. In such a case, the completion status will be *Success* even though one or more reports may have had errors.

View button

Click to launch another browser window displaying the report request.

Business Unit and Report ID Select the business unit and report ID of the report requests for this report book. To reorder your entries, insert or delete rows as necessary.

Run Select for all reports you want to run when this book is requested.

For example, you might define a book of reports to be run at month end, and include a report that is only run quarterly, but select its Run indicator only at quarter end.

 Adds a new, blank row, allowing you to enter a new report request.

Note. You cannot add a report request to a report book if you do not have access to it.

 Deletes the current row.

Running Report Books

Access the Report Book page.

You can run all the reports in a group or select specific reports by selecting their check boxes in the *Run* column.

Note. If the report book contains secured report requests to which you don't have access, these report requests will appear inactive and you will not be allowed to select them.

Report books are run through Process Scheduler Request page. However, when the report begins to run, you are returned to the Report Book page. If you want to check the status of your job, select the link to Process Monitor, where you can view the status of your job. Click Report Manager to see the list of reports that you have access to.

If you chose to run all the report requests in a report book that contains secured report requests, only those requests to which you have access will be run. PS/nVision will not process reports you don't have access to, and an error message will appear in the error log.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Submitting and Scheduling Process Requests"

Chapter 13, "Setting Up PS/nVision Security," Securing Report Requests, page 126

Selecting Type and Output Options

Choose *Default* in the Type and Format menus to use the options specified in the report book, or override the report book by making new choices.

See Chapter 15, "Running PS/nVision Reports on the Web," Running Reports, page 163.

Running Multiple Report Books

To define your process server to handle multiple report book jobs:

1. Select PeopleTools, Process Scheduler Manager, Use, Server Definitions.
2. Choose the server name you're using for your report books (generally this is PSNT).

   On the lower half of the page, you'll see the list of servers available.

3. Find the process type named nVision − Report Book and make sure that the Max Concurrent field is set to the required number.

   This allows multiple report book jobs to run concurrently.

Using DrillDown on the Web

DrillDowns are run on the PS/nVision report server (like report requests and report books), and are accessible through Report Manager. You can also select to run the DrillDown using the output type of *Window,* which automatically delivers the results to a new browser window. A copy of the results will also be accessible through Report Manager.

You can drill down on individual cells within the report by clicking on the amount cells within an HTML report or by selecting the cell and using Drill from the nVisionDrill menu for an Excel report. This section describes how to:

- Install required software to drill down on Excel reports.
- Register DrillDown layouts.
- Use DrillDown.
- Use DrillDown with multiple application servers.

A drilldown result report inherits the output format of its parent report. So if the parent instance is in Excel format, then the drilldown result is in Excel format.

Note. DrillDown in a web browser does not include the AutoDrill, Drill-to-Query, and Drill-to-Panel options.

Installing Required Software to Drill Down on Excel Reports

To drill down on Excel reports, the Microsoft VBA (Visual Basic Application) add-in DrillToPIA.xla file needs to be installed on your client machine. This file is stored in the %PS_HOME%\Excel directory on the Application Server. Your System Administrator will need to distribute a copy of this file to all users who need to drilldown on Excel reports on the Web. The file is not required if you are drilling down from reports that are in HTML format.

Note. If a non-English version of Excel is used, translated versions of DrillToPIA.xla can be found in the %PS_HOME%\Excel\%LANG% directory on the Application Server.

To load the add-in DrillToPIA.xla file into the Excel environment:

1. Place the file DrillToPIA.xla into the Excel add-in directory

   If Microsoft Office is installed in %MS_OFFICE%, then the Excel add-ins directory is %MS_OFFICE%\Office\Library.

2. Launch Excel, select Tools, Add-ins, and then select DrillToPIA in the Add-ins dialog box.

   The nVisionDrill menu appears in the Excel menu bar.

Note. To remove the add-in from the Excel menu, clear DrillToPIA from the Add-Ins dialog box.

Registering DrillDown Layouts

All DrillDown layouts are created in the Windows version of PS/nVision, but can be used in both Windows and a browser.

When you register a DrillDown layout, you associate it with a Process Scheduler server. You can have a set of DrillDown layouts specific to financial applications registered to a Process Scheduler server that is dedicated to financial applications and have a set of DrillDown layouts specific to Human Resources registered to its own Process Scheduler server. To make a DrillDown layout available to multiple Process Scheduler servers, register the DrillDown layout on each server. When you drill down, you can choose a report server to run the report.

To register a DrillDown Layout:

1. Select Reporting Tools, PS/nVision, Register Drilldown Layout.
2. Enter a server name, or use the Search button to select from a list of available servers.

   The Drilldown Layouts page appears.
3. Add another row to the page.
4. Enter the name of the DrillDown layout and its description. The name of the layout must match the name of the DrillDown layout that you created in Windows.
5. Click Save.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Submitting and Scheduling Process Requests," Setting Report Distribution

Chapter 8, "Using DrillDown," DrillDown Layout Formats, page 70

Chapter 8, "Using DrillDown," DrillDown and Summary Ledger, page 71

Using DrillDown

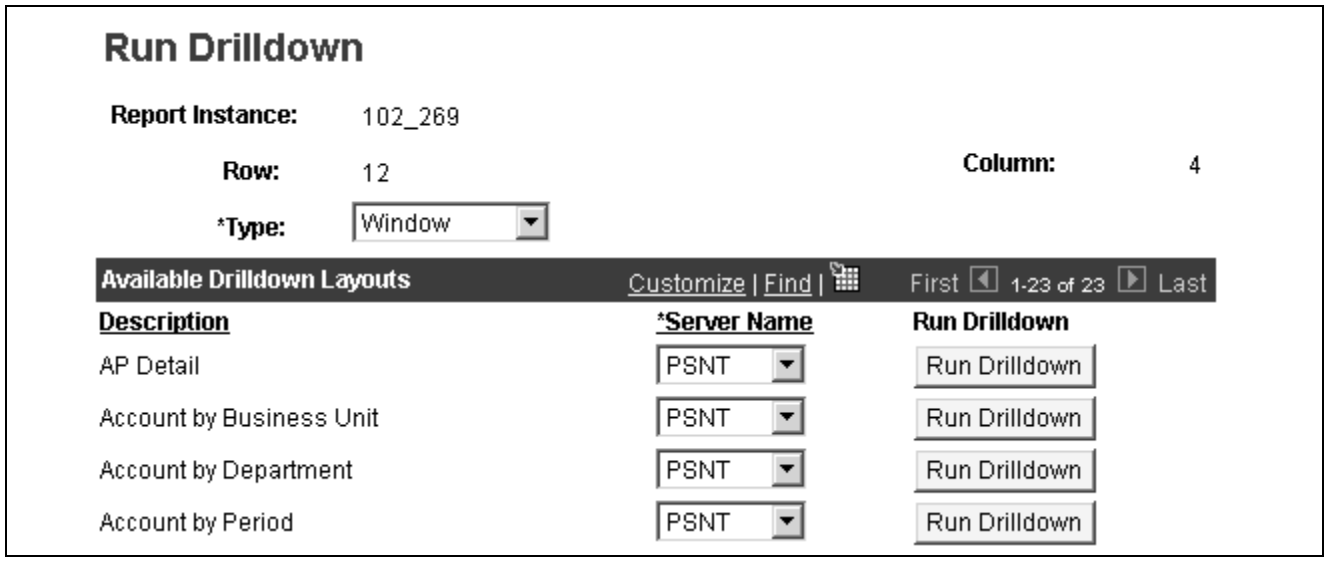
Once a report has been run as *web*, *window,* or *file* output, you can open it and run drill down on specific amount fields.

Note. To drill down on a report that will be run as *file* output, you must first set the Process Scheduler configuration for the nVision - EnableDrillDownForFile option as *1*.The default value is *0,* which means drilldown is disabled.

Note also that if you drill down on a report that has been run to file output, and you are not logged onto a PeopleSoft domain—or the PeopleSoft webserver domain that you are logged onto is not the report server's webserver domain—and your ByPassSignOn Web server configuration property is set to *True,* then you will not be able to access the drilldown results. The system will return the signon page with an error message indicating that your default password is not authorized.

Finally, please note that a PeopleTools upgrade may cause the web server domain name, port number, or servlet path required to access web server resources in the PeopleSoft Pure Internet Architecture to change. As a result, PS/nVision drilldown operations on reports that were created prior to upgrade would fail. This is primarily because drilldown hyperlinks are by design hard-coded into PS/nVision reports. We have provided a simple search and replace utility that you can use to replace old hyperlinks with new ones. This MS Excel macro is located in the PS_HOME\nVision directory.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*, "Using the PSADMIN Utility," Editing the PeopleSoft Process Scheduler Configuration File.



Run DrillDown page

To perform a DrillDown on a HTML or Excel report:

1. Open the report in Report Manager.
2. Click the link for the field that you want to drill on for a HTML report, or highlight the field you want to drill on for an Excel report. Click on the Drill menu when the cell is selected.

   The Run Drilldown page is displayed in a new browser window.

   For HTML reports, a field is drillable if you pass your cursor over the field and the cursor changes to a hand. For Excel reports, if the selected cell is not drillable, you receive a warning message.
3. Select the output type *Window* or *Web* from the Type drop-down list.
4. Select the server you want your report to run on for the drilldown layout you want.

   The dropdown list only includes the servers that have the associated layout registered with them.
5. Click Run Drilldown for the drilldown layout you want to use.
   - *Web:* The Report Manager Report List page appears again.
   - *Window:* Result of the DrillDown will be automatically delivered to a new browser window, and a copy sent to Report Manager.

   Note. When you select to run the DrillDown, a new browser window opens and displays the processing page. When processing is complete the results of the DrillDown will be delivered to this window. If the window is closed before processing is complete, you will need to go to Report Manager to view the results.
6. On the Report Manager, Report List page, click Refresh.

   After your DrillDown runs, it appears as a report in your report list. DrillDown report descriptions always include *DR*, the parent process instance number, and the original report description.
7. Click the Report link for the DrillDown to display the Report Index page.
8. Click the link for the DrillDown to see the DrillDown results.

Web-based DrillDowns *persist*—they are files that permanently exist on your report server, not just temporary files as in the Windows client. DrillDown instances in the Web can be viewed and distributed in the same manner as any other report that you run on the browser.

CHAPTER 16

Running PS/nVision Reports in the Microsoft Windows Client

Most end users create report requests, run and distribute reports, and view reports using Report Manager on the Web in the PeopleSoft Pure Internet Architecture. This chapter is written for developers who use the Windows environment to perform the same tasks. This chapter describes how to:

- Create report requests.
- Run reports.
- Work with report instances.

See Also

Chapter 15, "Running PS/nVision Reports on the Web," page 155

Creating Report Requests

This section describes how to:

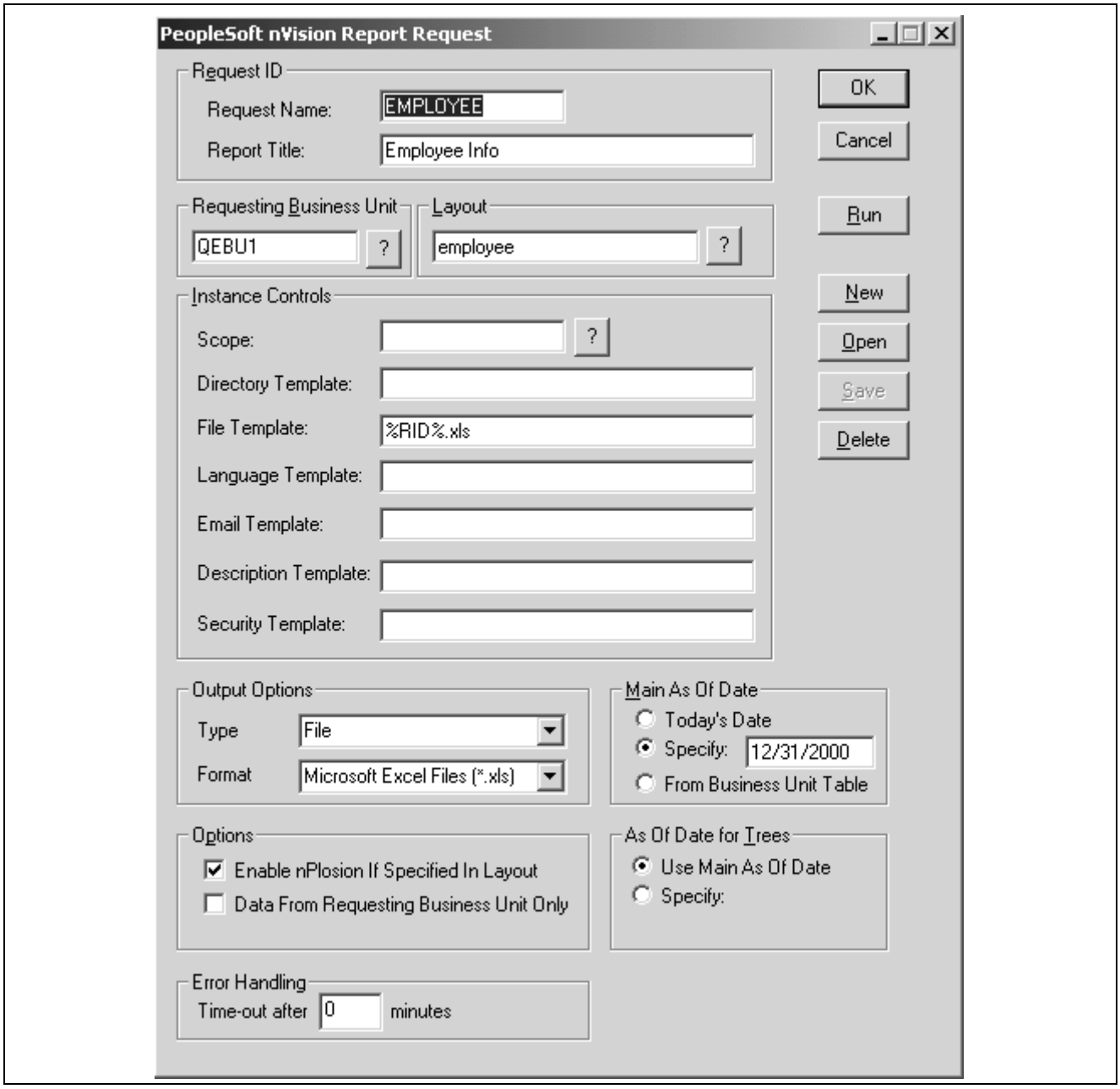
- Create requests.
- Open existing report requests.
- Delete report requests.

See Also

Chapter 7, "Defining Report Scopes," page 57

Creating Requests

Access the Report Request dialog box by selecting nVision, Report Request.



Report Request dialog box

Before you can run a PS/nVision report, you must create a corresponding report request. Each report request is a collection of report-specific information such as request name, report title, associated layout, scope, and so on. In a report request, you can use the Scope feature to create multiple instances of a report from a single request.

Use this dialog box to enter information about the report you're running, such as what layout to use, what time period to report on, and where to store the reports. This information makes up a report request, which you can save and reuse.

Note. Excel does not support the following characters in its file names: < > ? [ ] : | or *. PS/nVision has an additional restriction of not allowing the characters of / \ " or ' in report names and not allowing % or a space at the beginning of report names.

While you run the report, its layout file is opened in read-only mode to protect the layout from accidental changes while the report runs. To modify the layout file, open the layout from the nVision menu or from the Open Layout button on the NVSUSER homepage.

Note. Report requests created in PS/nVision for Windows are public. If you want to create secured report requests, you must use PS/nVision on the web, where requests are secured by default.

Request ID

Request Name Enter a name to identify your report request. By naming and saving report requests, you can retrieve all the information of a report request the next time you run the report. You can use the %RID% variable within a layout to display name of a report instance.

Report Title Enter a description to describe your report request. Use the %RTT% variable within a layout to display this title on a report instance.

Requesting Business Unit Enter the business unit that the report belongs to. You can retrieve data for this business unit alone or for several business units. Use the %RBN% variable on your layout to show the description of the requesting business unit on a report instance. To show the value of the requesting business unit, use the %RBU% variable.

Layout Select the report layout (the XNV file) to use for this report. The directory for saving layouts is found in Configuration Manager on Windows and in Process Scheduler Configuration file on Web. Use the %LYN% variable on your layout to show the layout name on a report instance.

Instance Controls

Most report layouts enable you to create multiple instances of a report using a single report request. For example, you might run three instances of an expense report that differ only in the division they report on.

Note. If you enter a list of values in any template field, make sure to use a semicolon to separate each item.

Scope Select a scope definition to specify the data each report instance includes and how many instances PS/nVision creates. For example, you can select a scope to create multiple instances of a report based on specific values for a field, such as instances for business unit, department, or product. Use the %SCN% variable on your layout to show the scope name on the report instance.

See Chapter 5, “Creating Matrix Layouts,” Adding Variable Criteria, page 46.

If you create multiple report instances, you must ensure that each instance has a unique directory or file name, or each new instance will overwrite the previous one. Use variables in the Directory Template and File Template fields to have PS/nVision generate directories or names on each instance it creates. For example, if you’re running a report for multiple business units, you can have the business unit appear as part of the file name, or you can opt to save each instance into a different directory.

Directory Template Enter a directory name from the nVision report server for your instances. Use variables to create unique directory names. If a directory does not exist, PS/nVision creates one. If this field is blank, PS/nVision on Windows uses the directory specified in the Report Instance path

setting in Configuration Manager. PS/nVision on the Web uses the path specified in Process Scheduler Configuration file.

For example, you can use \\<servername>\Directory 1\Directory 2, but you have to make sure all the subdirectories under the servername (which comes from the combination of directory template and file template) are accessible from your client machine.

Examples:

Q:\Reports\%SFV%-%RID%.htm

C:\%FY4%%RTT%\

Include the %BUV% and %APA% variables to yield directories that indicate the business unit and as of accounting period for which the report was produced.

Example: C:\User\nVision\%BUV% and %APA%

This creates a directory for each business unit and as of date combination.

File Template

Enter the file name to give report instances. You can include PS/nVision to dynamically create file names at runtime. The %RID% variable instructs PS/nVision to use the Request Name value as the file name, with the appropriate extension according to your output format. Use the %IFN% variable to use the file name in the layout. If this field is blank, PS/nVision uses the layout name as the default file name. For example:

expense.xls

%RID%.htm

%FY4%%RTT%.xls

The instance counter variable %ICT% causes each instance to be consecutively numbered. For example, for a report named OPSUM, the file template %RID%%ICT% creates files named OPSUM1.XLS, OPSUM2.XLS, and so on for each instance generated by this report request.

Language Template

Enter an alternate language code for automatic translation on the report instances. This is available only if alternate language design features are included in the layout design.

If you are applying a scope to the report request, you can enter a string containing one or more PS/nVision variables (like the File Template and Directory Template fields). For example:

ENG

%DES.DEPTID.LANGUAGE_CD.LANGUAGE_CD%

Email Template

Enter a list of email addresses or use variables to specify who receives report instances.

There is no default for this template. You must have values in this field if your output type is EMAIL, or the instances will not be sent. If you use role or users in your email templates, the email addresses associated with these users are entered into their user profiles in Security.

You can enter up to 254 characters in this field. If you have a long list of email addresses, use the role or user variables. To enter a list of email addresses, make sure to use a *semicolon* to separate each address. For example:

username@xxx.com

username1@xxx.com;username2@yyy.com

%DES.DEPTID.EMAILID.EMAILID%

R:Manager ;U:SMITHJ

Note. If you want to email a multi-tab spreadsheet or a spreadsheet with an image (a graph, pivot table, or an embedded image), you must run the report with an output type of .XLS or distribute it through the Web using Report Manager. Images that are attached to a spreadsheet cannot be emailed in .HTML format.

Description Template Enter a description of the report instances for identification in Report Manager, or use variables to create the descriptions dynamically. For example:

Stmt. Rev & Exp or Vacation Register

%SFV%

Security Template Enter user Ids, role Ids or variables to give specific users access to report instances in Report Manager. To authorize a user ID, enter a U followed by a colon before the user ID. To authorize a role, enter an R followed by a colon before the role ID. If this field is blank, the report is automatically distributed to the user running the report. For example:

R:VP1

U:SMITHJ

%DES.DEPTID.OPRID.OPRID%

Output Options

Type Choose between sending output to a file or sending it to a local printer. Email, window, and web output types are not valid choices unless you are running a report from your browser.

Format Select either an Excel file (.xls) or HTML file format (.htm).

Main As Of Date

Set the reporting period for this report. Many report layouts associated with PeopleSoft Financials applications report on data over a given accounting period, such as the current quarter or year-to-date. PS/nVision uses the main as of date to determine the meaning of any TimeSpans used in the layout. The date you choose is compared to the calendar to determine the current period, and TimeSpans are then evaluated relative to that period. Available options are:

Today's Date Select to use today's date.

From Business Unit Table Select to use the date as specified on the business unit table.

Specify Select to specify another date for the report.

Options

Enable nPlosion If Specified In Layout Select to enable nPlosion. This specification overrides the specification in layout. If you don't select this check box, nPlosion is disabled—even if the layout definition uses it.

Data From Requesting Business Unit Only Select to make the report reflect data from the requesting business unit only. nVision will add the WHERE criteria for requesting business, either from layout or scope definition, *if* there is no any explicit BUSINESS_UNIT criteria. This option is selected by default

Clear the check box for PS/nVision to extract data for all business units with the criteria specified within the layout unless the business unit is specified in report scope.

Translate Summary Ledgers to Detail Select to retrieve data from the underlying detail ledger whenever you specify a summary ledger in a layout. This option is not available if the Selected Summary ChartField Nodes method was used in the layout to retrieve summary ledger balances.

As Of Date for Trees

Use these options to specify trees that are in effect as of the reporting date by selecting Use Main As Of Date. Or you can specify a different date and use a set of trees in effect on that date. For example, you may have a reporting structure set to go into effect in three months (remember that trees are effective-dated). You can choose to run the report using the new tree structure by specifying the future effective date of the new tree.

Error Handling (Timeout)

Use this option to specify the maximum processing time for this process. The system will kill the process if processing exceeds this time. The default value is specified in the Process Definition. If a nonzero value is specified in the report request, that value is used—if the report request's value is zero, the value from the Process Definition is used. If no value is specified in the Process Definition, a default value of 15 minutes is used.

See Also

Chapter 5, "Creating Matrix Layouts," Adding Variable Criteria, page 46

Chapter 7, "Defining Report Scopes," page 57

Chapter 11, "Personalizing PS/nVision," Using Configuration Manager, page 97

Chapter 6, "Creating Ledger-Based Matrix Layouts," Using TimeSpans, page 55

Chapter 9, "Using nPlosion," page 75

Chapter 13, "Setting Up PS/nVision Security," Securing Report Requests, page 126

Applying Scopes to Your Reports

A report scope allows you to create multiple instances of a report using a single report layout and report request. Using a scope, each report instance is generated with data specific to an individual field value (such as a business unit or department) or to a group of values (such as a tree node summarizing all sales departments). In this way, each report instance can share the same layout, while containing data unique to these field values.

For example, if you have a report request with a scope that produces one income statement for each division in the company, you could use a scope variable in the Email template to have each divisional report emailed to that division's VP. Or you could make each VP's report available in Report Manager by using a scope variable in the Security template.

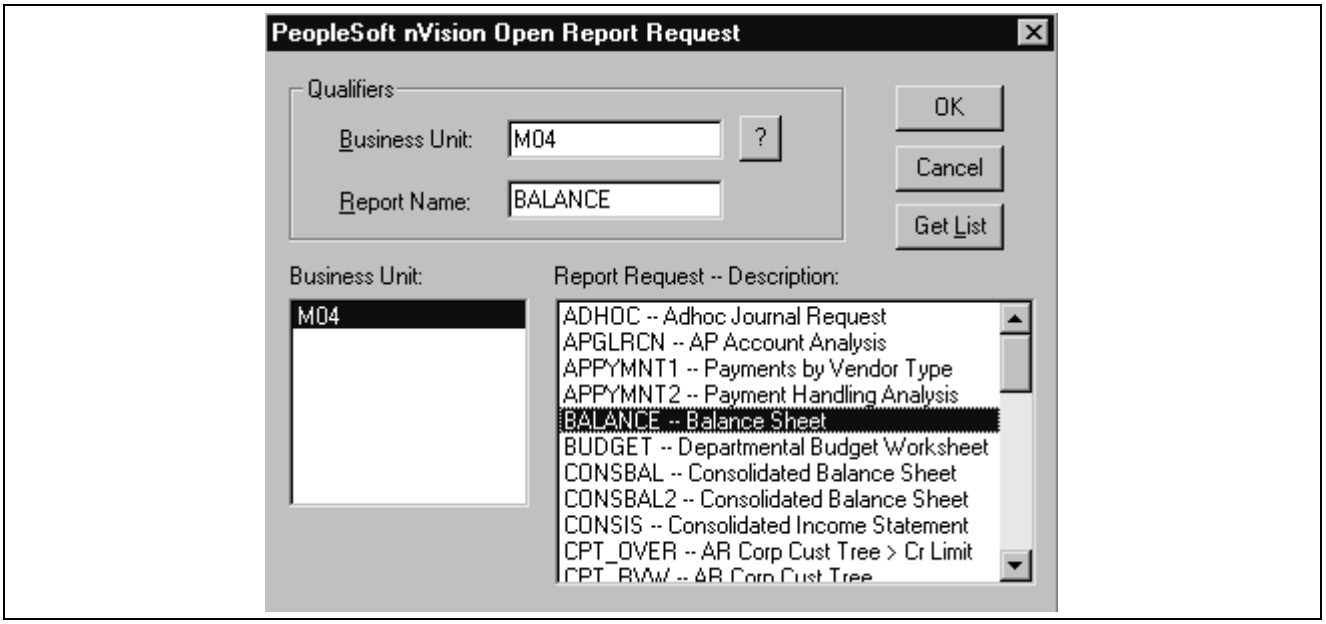
Scope variables are used in the Email and Security templates the same way that you use them to create unique file names with the File template or directory names with the Directory template in your report request. The Scope Descriptive Variable (%DES%) is used to select a related field value from the Scope Value table or the Tree Node table. You can use values for email addresses, user Ids, or role Ids. The general syntax of the %DES% variable is:

```
%DES.[scope field].[detail field].[node field]%
```

Note. The %DES% variable requires the associated field value be in the same table that the scope is based on.

Opening Existing Report Requests

Access the Open Report Request dialog box.



Open Report Request dialog box

To open an existing report request:

1. Click Open on the Report Request dialog box.
2. Enter a business unit.
3. Click Get List to see a list of requests in the list box.

   After you click the Get List button, if the Report Request list is too long to scroll through, enter a partial report name and click Get List again.
4. Click a report request and click OK, or double-click a report name in the list.

   The Open Report Request dialog box closes and the report request information appears in the Report Request dialog box.

Deleting Report Requests

To delete a report request:

1. Select nVision, Report Request.
2. Open the report request you want to delete.
3. Click Delete.

Running Reports

This section describes how to:

- Run a report from a report request.
- Run a report from the NVSUSER homepage.

Understanding Running Reports

As PS/nVision runs the report, it does the following:

- Creates a copy of the layout for each instance of the report.
- Calls the database to extract information defined in the layout of the report, replacing the selection criteria with specific values.
- Examines the report request, scope, and accounting calendars to transform PS/nVision variables into values.

Excel then performs the calculations you entered on the layout. The finished report—a normal Excel spreadsheet—appears on your screen. This spreadsheet is also saved in the directory you specified.

If you produced multiple instances of a report, each instance is saved in the specified directory and all but the last instance is closed, to save Excel memory.

Running a Report from a Report Request

When you run a report from the Report Request dialog box, PS/nVision opens the layout for you, checks the detail values and trees that you've specified as valid, extracts the data from your database, and enables Excel to run its functions.

To run a report from the Report Request dialog box:

1. Select nVision, Report Request from the menu.

   The Report Request dialog box appears.
2. Open or create a new report request.
3. Modify the report request as necessary.
4. To save any changes, click Save.

   When you run the report, the dialog box closes and unsaved changes are lost.
5. Click Run.

Note. To run the last opened report request, select nVision, Run Current Report. The report request last opened in the Report Request dialog box runs automatically.

Running a Report from the NVSUSER Homepage

There are several ways that you can run a report from the NVSUSER homepage. If you have a report layout open on your screen, click the run current report button. The report runs and the results appears on your screen.

To run a report from your Preferences list:

1. From the NVSUSER homepage, select any number of report requests from your Report Request list.
2. Click the arrow buttons to move the reports to other positions in the queue, if necessary.
3. Click Run Report(s).

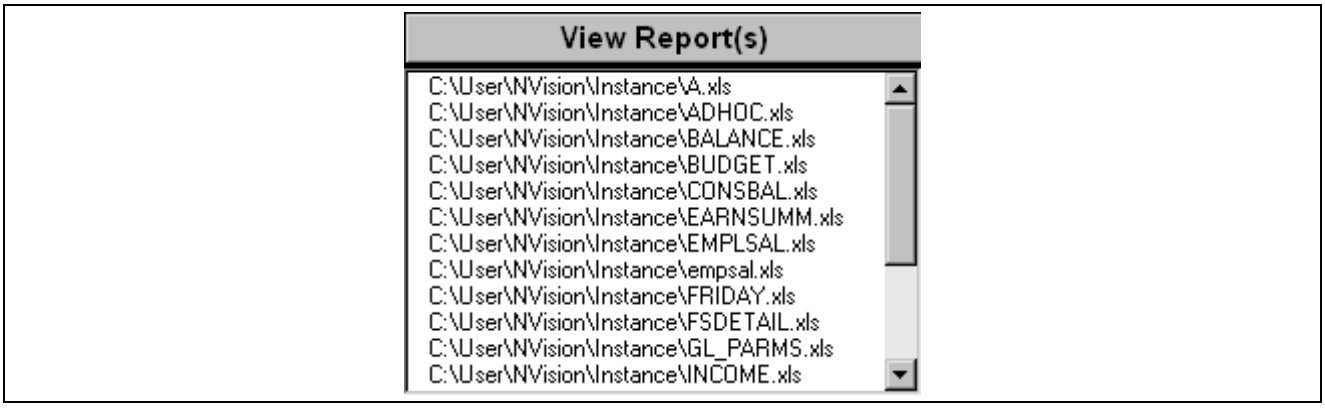
The reports are run in sequential order from top to bottom.

See Also

Chapter 11, “Personalizing PS/nVision,” Setting Report Request Preferences, page 104

Working With Report Instances

After running a report, the last report instance created remains open. If other report instances were also created, you can select File, Open to review those reports. For reports you view frequently, you can create buttons in the NVSUSER homepage to open these report instances. NVSUSER also displays a list of files in the View Reports list. This list comes from the directory that you specify in Configuration Manager.



View Reports list with current instances

The layout upon which a report instance is based is never modified when the report is run. You can return to the layout by selecting it from the Window menu, or, if PS/nVision is not open, selecting nVision, Open Layout.

You print a report instance just as you would print any other Excel spreadsheet, by selecting File, Print. If you select the Printer as your output type when you request the report, your reports are printed as they are generated.

See Also

Chapter 11, “Personalizing PS/nVision,” page 97

CHAPTER 17

Distributing Reports in PS/nVision

This chapter describes report distribution in PS/nVision.

Understanding Report Distribution

Email and security templates in a report request are the key entries for PS/nVision report distribution. In most of cases you will use the scope variable %DES% for the distribution setting so the reports can be distributed to different recipients according to different values in its scope field. However, you can also override the distribution recipients in Process Scheduler Request page for a particular running of a report request.

In general, there are two ways to specify the content of email and security templates:

1. You can specify the same set of recipients for all report instances from a report request. In this way, you specify a set of user ids (U:<user id>) or role ids (R:<role id>) in the email or security template, or a set of email addresses for the email template.

   If you use user ids or role ids in the email template, you need to make sure that the corresponding users have valid email addresses specified in their User Profile settings.

2. You can use scope variable %DES% in the email and security templates to select a related field value from a value table or a tree node table that the scope field is based on.

   The field values in the scope table need to be populated in the same way, as you would specify them in the first option. The general syntax of the %DES% variable is the following:

   ```
   %DES%.[scope field].[detail field].[node field]
   ```

   PS/nVision evaluates the %DES% variable to the value of the detail field in the value table or the node field in the tree node table for the scope field. In all cases, the detail fields or the node fields are the email and web distribution fields and must be presented in the scope tables.

Distributing Reports for Scopes Based on Tree Nodes

If your scope is defined based on PeopleSoft tree nodes, you can attach routing information to the tree that can be used for bursting PS/nVision reports.

The following section provides an example how to distribute PS/nVision reports for scopes based on tree nodes. The basic steps include:

- Clone tree node table - create record DEPT_NODE_TBL.
- Clone tree node page − create page DEPT_NODE_TBL.

- Grant access to tree node pages.
- Update tree structures to use the new node table and node page.
- Populate routing information.
- Link routing information into PS/nVision.

In this example, you have a scope DIVISIONS with scope field DEPTID based on the node table in DEPARTMENTS tree. The tree structure for DEPARTMENTS tree is DEPTID. In tree structure DEPTID, the node table is TREE_NODE_TBL, the node page is DEPARTMENT and the detail field is DEPTID.

Cloning Tree Node Table - Creating Record DEPT_NODE_TBL

Since your scope is based on tree nodes, the key to get appropriate distribution information into the tree is to modify the tree node table to include additional distribution fields. You need to add the additional fields, DISTLIST and EMAIL_TO, to the node table to be the distribution fields for web and email distribution separately. You can run the following SQL scripts to move the nodes from record TREE_NODE_TBL to record DEPT_NODE_TBL, while adding the two new fields to record DEPT_NODE_TBL.

To move all nodes where the tree has detail values based on a given field (such as DEPTID), use the following script. You will need to change the field name in quotes to the field you want to key from.

```
INSERT INTO PS_DEPT_NODE_TBL
SELECT DISTINCT A.SETID, A.TREE_NODE, A.EFFDT, A.EFF_STATUS,
 A.DESCR, ' ', ' '
  FROM PS_TREE_NODE_TBL A, PSTREENODE B
  WHERE A.TREE_NODE = B.TREE_NODE
     AND B.TREE_NAME IN (SELECT C.TREE_NAME
  FROM PSTREEDEFN C, PSTREESTRCT D
  WHERE D.TREE_STRCT_ID = C.TREE_STRCT_ID
    AND ( C.EFFDT = B.EFFDT
     AND C.SETID = B.SETID
     AND D.DTL_FIELDNAME = 'DEPTID' ))
```

To move all nodes for a given tree name, use the following script. You will need to change the tree name in quotes to the tree name you want to key from.

```
INSERT INTO PS_DEPT_NODE_TBL
SELECT DISTINCT A.SETID, A.TREE_NODE, A.EFFDT, A.EFF_STATUS,
 A.DESCR, ' ', ' '
  FROM PS_TREE_NODE_TBL A, PSTREENODE B
  WHERE A.TREE_NODE = B.TREE_NODE
     AND B.TREE_NAME = 'DEPARTMENTS'
```

To move all nodes where the tree is based on a specific tree structure ID, use the following script. You will need to change the structure name in quotes to the structure ID you want to key from.

```
INSERT INTO PS_DEPT_NODE_TBL
SELECT DISTINCT A.SETID, A.TREE_NODE, A.EFFDT, A.EFF_STATUS,
 A.DESCR, ' ', ' '
  FROM PS_TREE_NODE_TBL A, PSTREENODE B
  WHERE A.TREE_NODE = B.TREE_NODE
     AND B.TREE_NAME IN (SELECT C.TREE_NAME
  FROM PSTREEDEFN C
  WHERE C.TREE_STRCT_ID = 'DEPTID'
```

```
AND ( C.EFFDT = B.EFFDT
 AND C.SETID = B.SETID ))
```

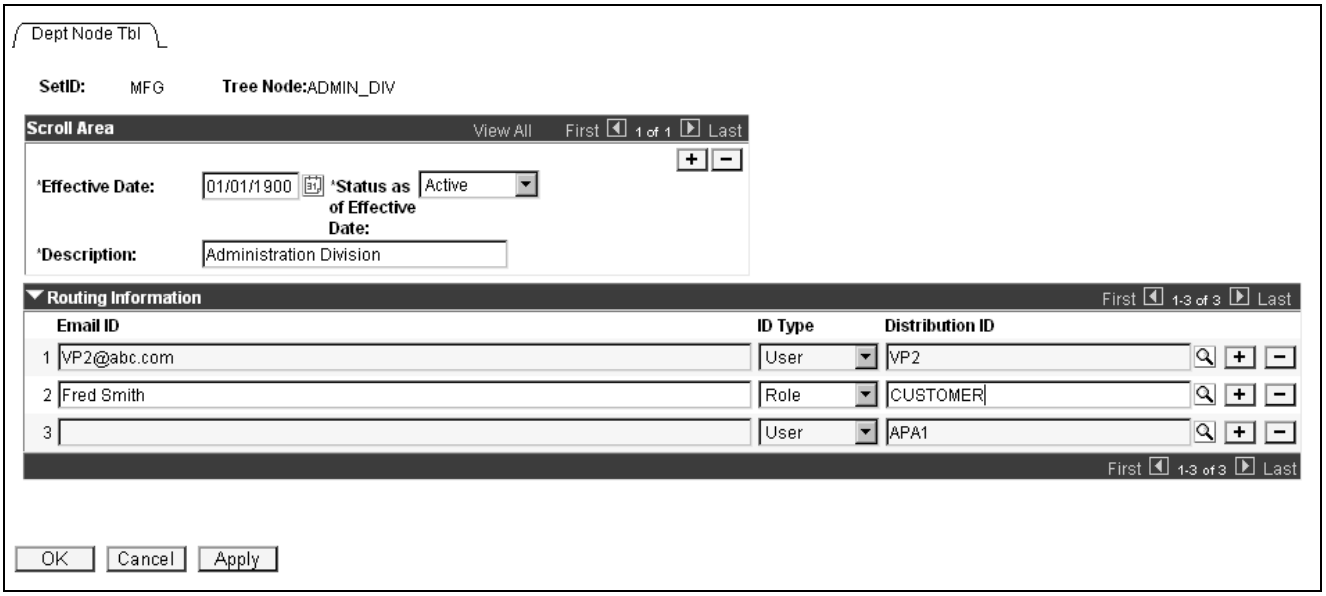
Cloning Tree Node Page - Creating Page DEPT_NODE_TBL

In Application Designer, clone DEPARTMENT page to a new DEPT_NODE_TBL page.

Add new page fields (Routing Information section below) to be the data population area for record field DISTLIST and EMAIL_TO in the new node table DEPT_NODE_TBL.

Note. Page DEPT_NODE_TBL has associated PeopleCode to construct a single DISTLIST and EMAIL_TO for each node in the node table with the multiple recipients (Email ID or Distribution ID) that users enter in the Routing Information of the page.

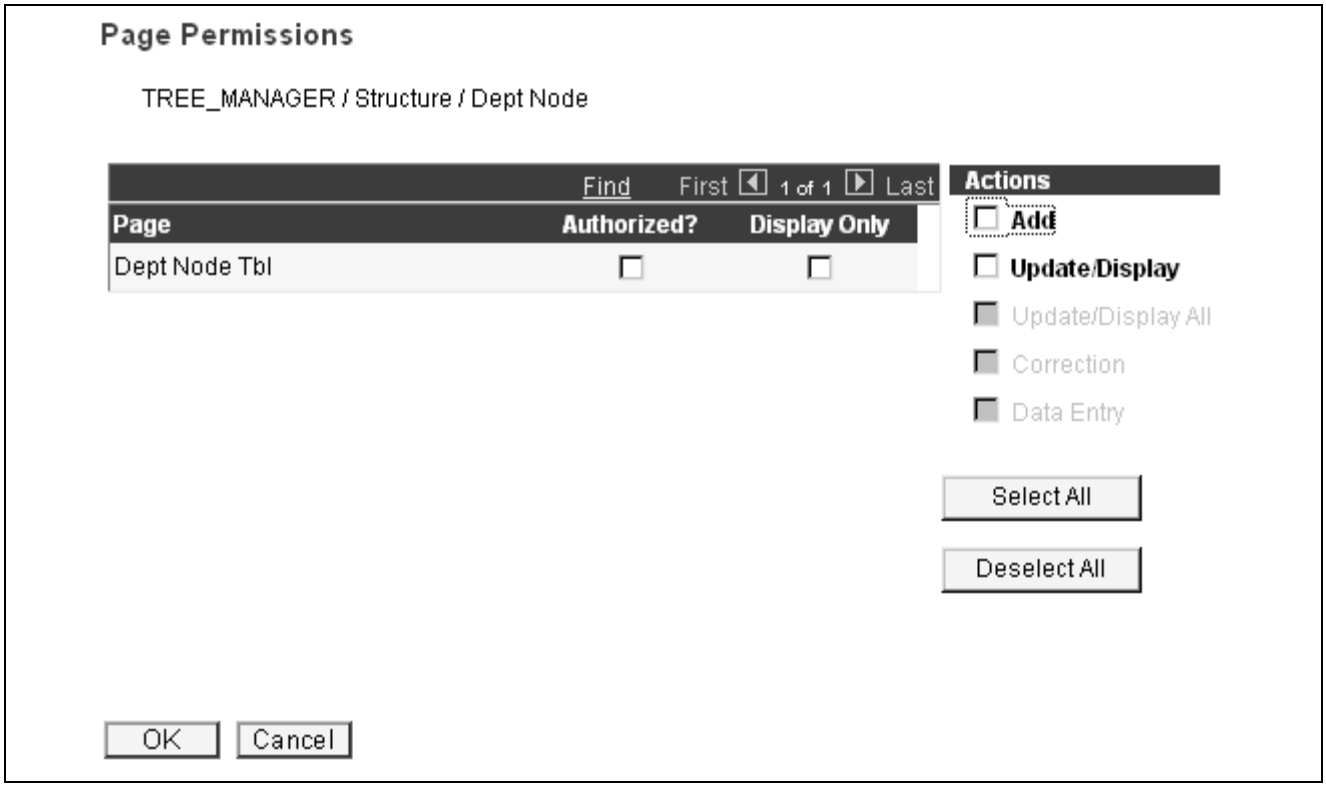
Also in Application Designer, create a new component DEPT_NODE to include page DEPT_NODE_TBL. Then make this new component part of Tree Manager page system. See following example.



Example Dept Node Tbl page

Granting Access to Tree Node Pages

Make the new node pages available to users when they maintain the tree, and add distribution information to the nodes.



Page Permissions page

To grant security permissions for the tree:

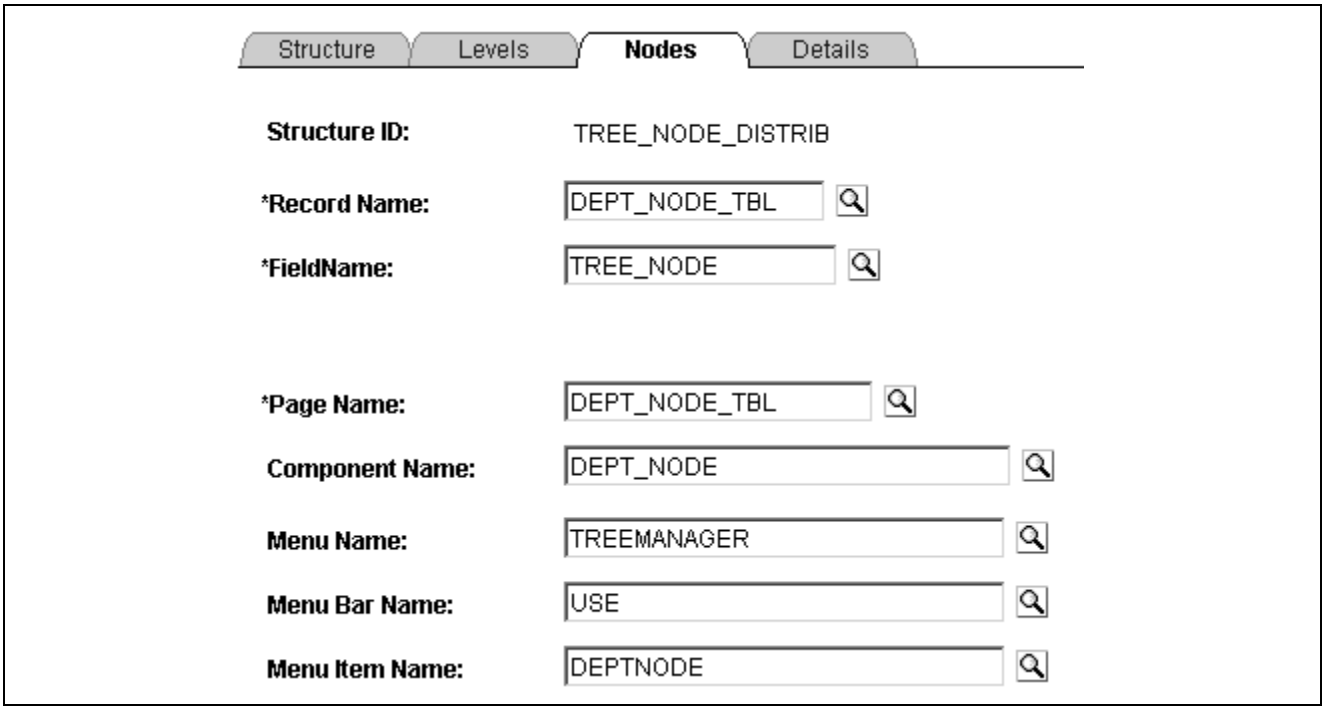
1. Select PeopleTools, Security, Permissions & Roles, Permission Lists.
2. Open a permission list.

   For example, to grant user VP1 to maintain the tree when VP1 belongs to ALLPNLS permission list, open the permission list for ALLPNLS.
3. Select the Pages tab.
4. Find the TREE_MANAGER item in the list and click the Edit Components link.

   The Component Permissions page appears and the Dept Node component should be in the list and not authorized.
5. Click Edit Pages in the row where the Dept Node component is listed.
6. Click Select All to grant access to the page, and then click OK.
7. Click OK on the Component Permissions page.
8. Click Save on the Permission List page.

Updating Tree Structures to Use the New Node Table and Node Page

Modify the tree structure to use the new node table and node page. Below is a sample version of tree structure TREE_NODE_DISTRIB tree structure that has been modified to use the new node table DEPT_NODE_TBL and node page DEPT_NODE_TBL.



Tree Structure - Nodes page

To set up Tree Manager to use the new page:

1. Select Tree Manager, Maintain Tree Structure.
2. Select a structure.
3. Select the Nodes tab to change where the node information is stored.
4. Modify the structure to utilize the new DEPT_NODE_TBL record and new DEPT_NODE_TBL page.

Populating Routing Information

Enter either email addresses or distribution IDs or a combination of both in the new node page DEPT_NODE_TBL. When populating distribution IDs, you are populating the users or roles that Report Manager uses.

To add distribution route information to a tree:

1. Select Tree Manager, Tree Manager, and choose the required tree.
2. Highlight the tree nodes and click the Edit Data icon to add the distribution routing information.

   The Dept Node Tbl page appears.
3. Add the distribution routing information.
4. Click OK to save.

Linking Routing Information Into PS/nVision

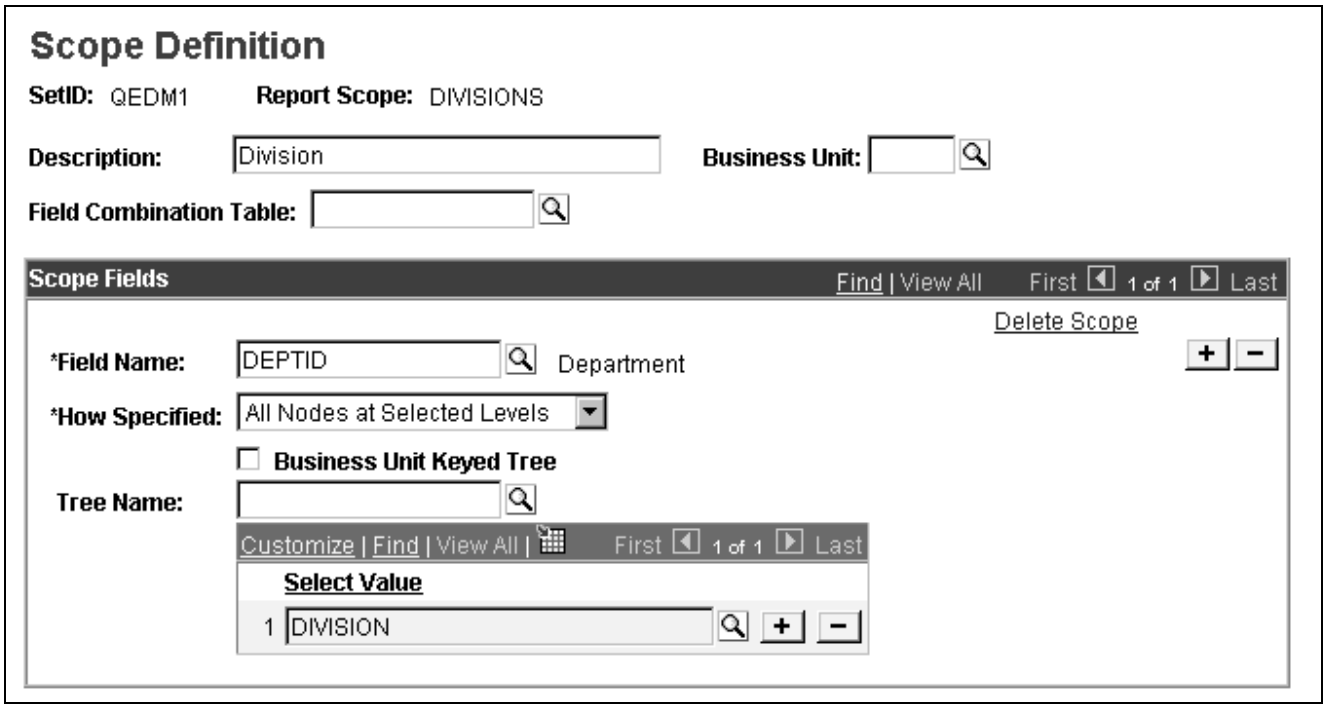
When Security and Tree Manager has the correct information, the final step is to connect it to PS/nVision. This section describes to the steps needed to complete this task:

- Check scope definition.
- Specify scope in report request.

• Specify email and security delivery template options.

Checking Scope Definition

The following is an example of the scope definition DIVISIONS. It is on the field DEPTID against all nodes at the level DIVISION using the DEPARTMENTS tree. Verify that DEPARTMENTS tree uses the modified tree structure from above.



PS/nVision − Scope Definition page

Specify Scope in Report Request

Specify the scope for which the report is being run. The scope drives the distribution process. So in this example, make sure scope DIVISIONS is used in your report request.

Select Reporting Tools, PS/nVision, Define Report Request. Click on the Scope and Delivery Templates link.

Specifying Email and Security Template Options

The Email and Security template fields, in the report request, tells PS/nVision who to distribute the report to, and by what route, for example, email or via the Web. To route each scope based report instance to the person associated with each scope value, that drives the generation of the report, use the %DES% variable to pick a field value from the tree node table.

Select Reporting Tools, PS/nVision, Define Report Request. Click the Scope and Delivery Templates.

If you want to distribute the report by email, enter the following value in the Email Template field:

%DES…EMAIL_TO%

When you run the report, PS/nVision bursts report instances based on the nodes in DIVISION level of the DEPARTMENT tree and delivers the results through email to the email addresses associated with each node. Those email addresses are the ones specified in the Email ID in NODE_DEPT_TBL page.

If you want to distribute the report by web, enter the following value in the Security Template field

%DES…DISTLIST%

When you run the report, PS/nVision bursts report instances based on the nodes in DIVISION level of the DEPARTMENT tree and delivers the results to the Report Managers of each node's associated users. Those users are the ones specified in the Distribution ID in NODE_DEPT_TBL page.

See Also

Chapter 15, "Running PS/nVision Reports on the Web," Creating Scope Definitions, page 156

Distributing Reports for Scopes Based on Value Tables

If your scope is defined on a value table such as Department table or Product table, you can create a database view based on the value table to include additional email and web distribution fields. For each scope field value in the value table you can direct each scope based-report instance to a different user. For example, NVS_DEPT_VW below is a SQL View with all the DEPT_TBL characteristics plus department managers' OPRIDs as distribution fields.

```
SELECT B.DEPTID
, B.DESCR
, B.DESCRSHORT
, 'U:' + A.OPRID AS OPRID
, A.EMAILID
, A.EMPLID
FROM PSOPRDEFN A
, PS_DEPT_TBL B
WHERE B.EFFDT = (
SELECT MAX(B_ED.EFFDT)
FROM PS_DEPT_TBL B_ED
WHERE B.DEPTID = B_ED.DEPTID
AND B_ED.EFFDT <= SUBSTRING(CONVERT(CHAR,GETDATE(),121), 1, 10))
AND A.EMPLID = B.MANAGER_ID
AND B.MANAGER_ID <> ''
```

Note. This is an example of SQL Viewer for Microsoft SQL database platform. You need to alter the syntax if you want to use it on other database platforms.

You can now create a scope with scope field DEPTID based on the value table and use this scope in your report request. To have each department report instance to send, either by email or web distribution, to each associated department manager, you would enter the following value in your Email or Security template:

%DES.DEPTID.OPRID.OPRID% or %DES…OPRID%

This tells PS/nVision to use the value in OPRID field to distribute each department report to its department manager. The report will be distributed as either email or web based on the output type specified in your report request.

APPENDIX A

ISO Country and Currency Codes

PeopleBooks use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

This appendix discusses:

- ISO country codes.
- ISO currency codes.

See Also

"About This PeopleBook." Typographical Conventions and Visual Cues

ISO Country Codes

This table lists the ISO country codes that may appear as country identifiers in PeopleBooks:

ISO Country Code	Country Name
ABW	Aruba
AFG	Afghanistan
AGO	Angola
AIA	Anguilla
ALB	Albania
AND	Andorra
ANT	Netherlands Antilles
ARE	United Arab Emirates
ARG	Argentina
ARM	Armenia
ASM	American Samoa
ATA	Antarctica

ISO Country Code	Country Name
ATF	French Southern Territories
ATG	Antigua and Barbuda
AUS	Australia
AUT	Austria
AZE	Azerbaijan
BDI	Burundi
BEL	Belgium
BEN	Benin
BFA	Burkina Faso
BGD	Bangladesh
BGR	Bulgaria
BHR	Bahrain
BHS	Bahamas
BIH	Bosnia and Herzegovina
BLR	Belarus
BLZ	Belize
BMU	Bermuda
BOL	Bolivia
BRA	Brazil
BRB	Barbados
BRN	Brunei Darussalam
BTN	Bhutan
BVT	Bouvet Island
BWA	Botswana
CAF	Central African Republic
CAN	Canada
CCK	Cocos (Keeling) Islands

ISO Country Code	Country Name
CHE	Switzerland
CHL	Chile
CHN	China
CIV	Cote D'Ivoire
CMR	Cameroon
COD	Congo, The Democratic Republic
COG	Congo
COK	Cook Islands
COL	Colombia
COM	Comoros
CPV	Cape Verde
CRI	Costa Rica
CUB	Cuba
CXR	Christmas Island
CYM	Cayman Islands
CYP	Cyprus
CZE	Czech Republic
DEU	Germany
DJI	Djibouti
DMA	Dominica
DNK	Denmark
DOM	Dominican Republic
DZA	Algeria
ECU	Ecuador
EGY	Egypt
ERI	Eritrea
ESH	Western Sahara

ISO Country Code	Country Name
ESP	Spain
EST	Estonia
ETH	Ethiopia
FIN	Finland
FJI	Fiji
FLK	Falkland Islands (Malvinas)
FRA	France
FRO	Faroe Islands
FSM	Micronesia, Federated States
GAB	Gabon
GBR	United Kingdom
GEO	Georgia
GHA	Ghana
GIB	Gibraltar
GIN	Guinea
GLP	Guadeloupe
GMB	Gambia
GNB	Guinea-Bissau
GNQ	Equatorial Guinea
GRC	Greece
GRD	Grenada
GRL	Greenland
GTM	Guatemala
GUF	French Guiana
GUM	Guam
GUY	Guyana
GXA	GXA - GP Core Country

ISO Country Code	Country Name
GXB	GXB - GP Core Country
GXC	GXC - GP Core Country
GXD	GXD - GP Core Country
HKG	Hong Kong
HMD	Heard and McDonald Islands
HND	Honduras
HRV	Croatia
HTI	Haiti
HUN	Hungary
IDN	Indonesia
IND	India
IOT	British Indian Ocean Territory
IRL	Ireland
IRN	Iran (Islamic Republic Of)
IRQ	Iraq
ISL	Iceland
ISR	Israel
ITA	Italy
JAM	Jamaica
JOR	Jordan
JPN	Japan
KAZ	Kazakstan
KEN	Kenya
KGZ	Kyrgyzstan
KHM	Cambodia
KIR	Kiribati
KNA	Saint Kitts and Nevis

ISO Country Code	Country Name
KOR	Korea, Republic of
KWT	Kuwait
LAO	Lao People’s Democratic Rep
LBN	Lebanon
LBR	Liberia
LBY	Libyan Arab Jamahiriya
LCA	Saint Lucia
LIE	Liechtenstein
LKA	Sri Lanka
LSO	Lesotho
LTU	Lithuania
LUX	Luxembourg
LVA	Latvia
MAC	Macao
MAR	Morocco
MCO	Monaco
MDA	Moldova, Republic of
MDG	Madagascar
MDV	Maldives
MEX	Mexico
MHL	Marshall Islands
MKD	Fmr Yugoslav Rep of Macedonia
MLI	Mali
MLT	Malta
MMR	Myanmar
MNG	Mongolia
MNP	Northern Mariana Islands

ISO Country Code	Country Name
MOZ	Mozambique
MRT	Mauritania
MSR	Montserrat
MTQ	Martinique
MUS	Mauritius
MWI	Malawi
MYS	Malaysia
MYT	Mayotte
NAM	Namibia
NCL	New Caledonia
NER	Niger
NFK	Norfolk Island
NGA	Nigeria
NIC	Nicaragua
NIU	Niue
NLD	Netherlands
NOR	Norway
NPL	Nepal
NRU	Nauru
NZL	New Zealand
OMN	Oman
PAK	Pakistan
PAN	Panama
PCN	Pitcairn
PER	Peru
PHL	Philippines
PLW	Palau

ISO Country Code	Country Name
PNG	Papua New Guinea
POL	Poland
PRI	Puerto Rico
PRK	Korea, Democratic People’s Rep
PRT	Portugal
PRY	Paraguay
PSE	Palestinian Territory, Occupie
PYF	French Polynesia
QAT	Qatar
REU	Reunion
ROU	Romania
RUS	Russian Federation
RWA	Rwanda
SAU	Saudi Arabia
SDN	Sudan
SEN	Senegal
SGP	Singapore
SGS	Sth Georgia & Sth Sandwich Is
SHN	Saint Helena
SJM	Svalbard and Jan Mayen
SLB	Solomon Islands
SLE	Sierra Leone
SLV	El Salvador
SMR	San Marino
SOM	Somalia
SPM	Saint Pierre and Miquelon
STP	Sao Tome and Principe

ISO Country Code	Country Name
SUR	Suriname
SVK	Slovakia
SVN	Slovenia
SWE	Sweden
SWZ	Swaziland
SYC	Seychelles
SYR	Syrian Arab Republic
TCA	Turks and Caicos Islands
TCD	Chad
TGO	Togo
THA	Thailand
TJK	Tajikistan
TKL	Tokelau
TKM	Turkmenistan
TLS	East Timor
TON	Tonga
TTO	Trinidad and Tobago
TUN	Tunisia
TUR	Turkey
TUV	Tuvalu
TWN	Taiwan, Province of China
TZA	Tanzania, United Republic of
UGA	Uganda
UKR	Ukraine
UMI	US Minor Outlying Islands
URY	Uruguay
USA	United States

ISO Country Code	Country Name
UZB	Uzbekistan
VAT	Holy See (Vatican City State)
VCT	St Vincent and the Grenadines
VEN	Venezuela
VGB	Virgin Islands (British)
VIR	Virgin Islands (U.S.)
VNM	Viet Nam
VUT	Vanuatu
WLF	Wallis and Futuna Islands
WSM	Samoa
YEM	Yemen
YUG	Yugoslavia
ZAF	South Africa
ZMB	Zambia
ZWE	Zimbabwe

ISO Currency Codes

This table lists the ISO country codes that may appear as currency identifiers in PeopleBooks:

ISO Currency Code	Description
ADP	Andorran Peseta
AED	United Arab Emirates Dirham
AFA	Afghani
AFN	Afghani
ALK	Old Lek
ALL	Lek
AMD	Armenian Dram

ISO Currency Code	Description
ANG	Netherlands Antilles Guilder
AOA	Kwanza
AOK	Kwanza
AON	New Kwanza
AOR	Kwanza Reajustado
ARA	Austral
ARP	Peso Argentino
ARS	Argentine Peso
ARY	Peso
ATS	Schilling
AUD	Australian Dollar
AWG	Aruban Guilder
AZM	Azerbaijanian Manat
BAD	Dinar
BAM	Convertible Marks
BBD	Barbados Dollar
BDT	Taka
BEC	Convertible Franc
BEF	Belgian Franc
BEL	Financial Belgian Franc
BGJ	Lev A/52
BGK	Lev A/62
BGL	Lev
BGN	Bulgarian LEV
BHD	Bahraini Dinar
BIF	Burundi Franc
BMD	Bermudian Dollar

ISO Currency Code	Description
BND	Brunei Dollar
BOB	Boliviano
BOP	Peso
BOV	Mvdol
BRB	Cruzeiro
BRC	Cruzado
BRE	Cruzeiro
BRL	Brazilian Real
BRN	New Cruzado
BRR	Brazilian Real Dollar
BSD	Bahamian Dollar
BTN	Ngultrum
BUK	N/A
BWP	Pula
BYB	Belarussian Ruble
BYR	Belarussian Ruble
BZD	Belize Dollar
CAD	Canadian Dollar
CDF	Franc Congolais
CHF	Swiss Franc
CLF	Unidades de fomento
CLP	Chilean Peso
CNX	Peoples Bank Dollar
CNY	Yuan Renminbi
COP	Colombian Peso
CRC	Costa Rican Colon
CSD	Serbia Dinar

ISO Currency Code	Description
CSJ	Krona A/53
CSK	Koruna
CUP	Cuban Peso
CVE	Cape Verde Escudo
CYP	Cyprus Pound
CZK	Czech Koruna
DEM	Deutsche Mark
DJF	Djibouti Franc
DKK	Danish Krone
DOP	Dominican Peso
DZD	Algerian Dinar
ECS	Sucre
ECV	Unidad de Valor
EEK	Kroon
EGP	Egyptian Pound
EQE	Ekwele
ERN	Nakfa
ESA	Spanish Peseta
ESB	Convertible Peseta
ESP	Spanish Peseta
ETB	Ethiopian Birr
EUR	euro
FIM	Markka
FJD	Fiji Dollar
FKP	Falklands Isl. Pound
FRF	French Franc
GBP	Pound Sterling

ISO Currency Code	Description
GEK	Georgian Coupon
GEL	Lari
GHC	Cedi
GIP	Gibraltar Pound
GMD	Dalasi
GNE	Syli
GNF	Guinea Franc
GNS	Syli
GQE	Ekwele
GRD	Drachma
GTQ	Quetzal
GWE	Guinea Escudo
GWP	Guinea-Bissau Peso
GYD	Guyana Dollar
HKD	Hong Kong Dollar
HNL	Lempira
HRD	Dinar
HRK	Kuna
HTG	Gourde
HUF	Forint
IDR	Rupiah
IEP	Irish Pound
ILP	Pound
ILR	Old Shekel
ILS	New Israeli Sheqel
INR	Indian Rupee
IQD	Iraqi Dinar

ISO Currency Code	Description
IRR	Iranian Rial
ISJ	Old Krona
ISK	Iceland Krona
ITL	Italian Lira
JMD	Jamaican Dollar
JOD	Jordanian Dinar
JPY	Yen
KES	Kenyan Shilling
KGS	Som
KHR	Riel
KMF	Comoro Franc
KPW	North Korean Won
KRW	Won
KWD	Kuwaiti Dinar
KYD	Cayman Islands dollar
KZT	Tenge
LAJ	Kip Pot Pol
LAK	Kip
LBP	Lebanese Pound
LKR	Sri Lanka Rupee
LRD	Liberian Dollar
LSL	Loti
LSM	Maloti
LTL	Lithuanian Litas
LTT	Talonas
LUC	Convertib Francl
LUF	Luxembourg Franc

ISO Currency Code	Description
LUL	Financial Franc
LVL	Latvian Lats
LVR	Latvian Ruble
LYD	Libyan Dinar
MAD	Moroccan Dirham
MAF	Mali Franc
MDL	Moldovan Leu
MGF	Malagasy Franc
MKD	Denar
MLF	Mali Franc
MMK	Kyat
MNT	Tugrik
MOP	Pataca
MRO	Ouguiya
MTL	Maltese Lira
MTP	Maltese Pound
MUR	Mauritius Rupee
MVQ	Maldive Rupee
MVR	Rufiyaa
MWK	Malawian Kwacha
MXN	Mexican Peso
MXP	Mexican Peso
MXV	Mexican UDI
MYR	Malaysian Ringgit
MZE	Mozambique Escudo
MZM	Metical
NAD	Namibia Dollar

ISO Currency Code	Description
NGN	Naira
NIC	Cordoba
NIO	Cordoba Oro
NLG	Netherlands Guilder
NOK	Norwegian Krone
NPR	Nepalese Rupee
NZD	New Zealand Dollar
OMR	Rial Omani
PAB	Balboa
PEI	Inti
PEN	Nuevo Sol
PES	Sol
PGK	Kina
PHP	Philippine Peso
PKR	Pakistan Rupee
PLN	Zloty
PLZ	Zloty
PTE	Portuguese Escudo
PYG	Guarani
QAR	Qatari Rial
ROK	Leu A/52
ROL	Leu
RUB	Russian Ruble
RUR	Russian Federation Rouble
RWF	Rwanda Franc
SAR	Saudi Riyal
SBD	Solomon Islands

ISO Currency Code	Description
SCR	Seychelles Rupee
SDD	Sudanese Dinar
SDP	Sudanese Pound
SEK	Swedish Krona
SGD	Singapore Dollar
SHP	St Helena Pound
SIT	Tolar
SKK	Slovak Koruna
SLL	Leone
SOS	Somali Shilling
SRG	Surinam Guilder
STD	Dobra
SUR	Rouble
SVC	El Salvador Colon
SYP	Syrian Pound
SZL	Lilangeni
THB	Baht
TJR	Tajik Ruble
TJS	Somoni
TMM	Manat
TND	Tunisian Dinar
TOP	Pa’anga
TPE	Timor Escudo
TRL	Turkish Lira
TTD	Trinidad Dollar
TWD	New Taiwan Dollar
TZS	Tanzanian Shilling

ISO Currency Code	Description
UAH	Hryvnia
UAK	Karbovanet
UGS	Uganda Shilling
UGW	Old Shilling
UGX	Uganda Shilling
USD	US Dollar
USN	US Dollar (Next day)
USS	US Dollar (Same day)
UYN	Old Uruguay Peso
UYP	Uruguayan Peso
UYU	Peso Uruguayo
UZS	Uzbekistan Sum
VEB	Bolivar
VNC	Old Dong
VND	Dong
VUV	Vatu
WST	Tala
XAF	CFA Franc BEAC
XAG	Silver
XAU	GOLD
XBA	European Composite Unit
XBB	European Monetary Unit
XBC	European Unit of Account 9
XBD	European Unit of Account 17
XCD	East Caribbean Dollar
XDR	SDR
XEU	EU Currency (E.C.U)

ISO Currency Code	Description
XFO	Gold-Franc
XFU	UIC-Franc
XOF	CFA Franc BCEAO
XPD	Palladium
XPF	CFP Franc
XPT	Platinum
XTS	For Testing Purposes
XXX	Non Currency Transaction
YDD	Yemeni Din
YER	Yemeni Rial
YUD	New Yugoslavian Dinar
YUM	New Dinar
YUN	Yugoslavian Dinar
ZAL	Financial Rand
ZAR	Rand
ZMK	Zambian Kwacha
ZRN	New Zaire
ZRZ	Zaire
ZWC	Rhodesian Dollar
ZWD	Zimbabwe Dollar

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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