PeopleSoft®

PeopleTools 8.42
Reporting and Analysis Tools
PeopleSoft Tree Manager

November 2002

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PeopleSoft Tree Manager
SKU TOOLS842TRM-B 1102

PeopleBooks Contributors: Teams from PeopleSoft Product Documentation and Development.

Printed in the United States.

Open Source Disclosure

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 elements and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

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

PeopleSoft Application Prerequisites

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

See *Using PeopleSoft Applications.*

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

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

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

PeopleSoft Application Fundamentals

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

The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft applications across a product line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of this central PeopleBook. It is the starting point for fundamentals, such as setting up control tables and administering security.

Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on the PeopleSoft Customer Connection 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 Website, http://www.peoplesoft.com/corp/en/login.asp

Ordering Printed Documentation

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

- Web
- Telephone
- Email

Web

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

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See Also

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

Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.

Typographical Conventions

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

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Italics	Indicates field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. We also use italics when we refer to words as words or letters as letters, as in the following: Enter the number 0, not the letter *O*.
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press W.
`Monospace font`	Indicates a PeopleCode program or other code example.
(quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.

Typographical Convention or Visual Cue	Description
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
(ISO)	Information that applies to a specific country, to the U.S. federal government, or to the education and government market, is preceded by a three-letter code in parentheses. The code for the U.S. federal government is USF; the code for education and government is E&G, and the country codes from the International Standards Organization are used for specific countries. Here is an example: (GER) If you're administering German employees, German law requires you to indicate special nationality and citizenship information for German workers using nationality codes established by the German DEUEV Directive.
Cross-references	PeopleBooks provide cross-references either below the heading See Also or on a separate line preceded by the word *See.* Cross-references lead to other documentation that is pertinent to the immediately preceding documentation.

Visual Cues

PeopleBooks contain the following visual cues.

Notes

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

Note. Example of a note.

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

Important! Example of an important note.

Warnings

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

Warning! Example of a warning.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other PeopleSoft reference and training materials. Please send your suggestions to:

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

Or send email comments to doc@peoplesoft.com.

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

Common Elements in These PeopleBooks

As of Date	The last date for which a report or process includes data.
Business Unit	An ID that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.
Description	Enter up to 30 characters of text.
Effective Date	The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when you can view and change the information. Pages or panels and batch processes that use the information use the current row.
Once, Always, and **Don't Run**	Select Once to run the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to Don't Run. Select Always to run the request every time the batch process runs. Select Don't Run to ignore the request when the batch process runs.

Report Manager	Click to access the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).
Process Monitor	Click to access the Process List page, where you can view the status of submitted process requests.
Run	Click to access the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.
Request ID	An ID that represents a set of selection criteria for a report or process.
User ID	An ID that represents the person who generates a transaction.
SetID	An ID that represents a set of control table information, or TableSets. TableSets enable you to share control table information and processing options among business units. The goal is to minimize redundant data and system maintenance tasks. When you assign a setID to a record group in a business unit, you indicate that all of the tables in the record group are shared between that business unit and any other business unit that also assigns that setID to that record group. For example, you can define a group of common job codes that are shared between several business units. Each business unit that shares the job codes is assigned the same setID for that record group.
Short Description	Enter up to 15 characters of text.

See Also

Using PeopleSoft Applications

PeopleSoft Process Scheduler

PeopleSoft Tree Manager Preface

This book discusses PeopleSoft Tree Manager, the PeopleTools feature you use to create and maintain heirarchical relationships, such as trees.

PeopleSoft Tree Manager

This book is written for PeopleSoft users who want to create or maintain tree data structures. To take full advantage of the information covered in this book, you should have a basic understanding of how to use PeopleSoft applications.

The drag and drop functionality does not work on all the supported browsers listed in the platforms database, or when using a Macintosh. System requirements for the drag and drop functionality are: Internet Explorer version 5 and higher (IE5) or Netscape Navigator version 6 and higher (NN6)

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

CHAPTER 1

Introduction to Tree Manager

This chapter provides an overview of Tree Manager and describes:

- Tree concepts.
- Types of trees.
- Effective dates and trees.
- Association of trees with additional setIDs.

Understanding Tree Manager

With Tree Manager, you represent data graphically to show a hierarchy. Other parts of the system can use the trees that you've defined for hierarchical information—for reports, ChartField combination editing, OLAP, summary ledgers, or security. You can update trees with specifically designed tools, and your changes are then automatically applied throughout the system. You can also use PeopleCode to manipulate trees.

Warning! Be cautious about using your browser's Back button in Tree Manager, as you may receive unexpected results. Save changes to your trees before using the Back button.

Note. Query Access trees are not maintained or viewed by Tree Manager or Tree Viewer. Those trees can be viewed or maintained by using the Query Access Manager, located under the Security, Query Security menu option.

The Tree Viewer module provides read-only access for all trees. Administrators can provide users either Tree Manager or the Tree Viewer module.

Overview of PeopleSoft Trees

Trees depict hierarchical structures that represent a group of summarization rules for a particular database field. For example, a tree can specify how your manufacturing locations should be summarized, or *rolled up,* for reporting purposes. Or a tree can show the reporting relationships within an organization by specifying how the individual department should be summarized into territories, territories into regions, and regions into countries. Similarly, a tree can categorize items in a catalog.

The summarization rules depicted in a tree apply to the detail values of a particular field: vendors, departments, customers, or other values that you define. These detail values are summarized into *nodes* on the tree. The nodes may also be organized into *levels* to logically group nodes that represent the same type of information or level of summarization.

For example, the values of the DEPTID field identify individual departments in your organization. You use Tree Manager to define the organizational hierarchy that specifies how each department relates to the others—departments 10700 and 10800 report to the same manager, department 20200 is part of a different division, and so on. In other words, you build a tree that mirrors the existing organizational hierarchy.

Your chart of accounts is another prime candidate for trees. You can create trees that specify how you want to roll up accounts into summary ledgers or reports. You can create multiple trees, providing different roll-ups for different views of your account data.

Once you've defined an organizational tree, the system can use it in a variety of ways. For example:

- Reporting. When you want a report that summarizes results for a particular division or region, the system can check against the tree to determine which departments to include. Without the tree, you'd have to explicitly specify the departments you wanted every time you created a report.
- Summary ledgers. To create a summary ledger that summarizes account balances by department, the system refers to the tree to determine the DEPTID values to include in the summarized ledger entries. (Summary ledgers are only used in PeopleSoft Financials applications.)
- Security. You can restrict user access to their divisions. The application tables tell the system what department the user is in; the tree tells it what other departments are in the same division. (This use is appropriate for PeopleSoft Human Resources applications only.)

Additionally, you can create different organizational trees for different purposes. Suppose you want to group departments together differently for reporting and for security. Maybe you want to include data from regional offices in your summary reports, but you don't want to give corporate users access to regional employee records. In this case, you'd create two trees—a "departmental" tree that groups departments by function, regardless of region, and a "regional" tree that groups departments by location. Then you'd use one for reporting and the other for security.

Advantages of PeopleSoft Trees

By building trees, you give the system a single place to look for summarization rules. This centralization enables you to define rules once and then use them throughout the system. For example, different reports, ledgers, and security profiles might refer to parts of your company's organizational chart. All these objects can refer to the same predefined tree.

Trees make it easier to select and update values in reports, ledgers, or security profiles. Rather than specify departments 8202, 8203, 8513, 8515, and 8663 in a report, you can specify the Lafayette branch, which includes all these departments according to the tree. When the organizational structure changes, you update the tree once rather than updating an untold number of reports, ledgers, security profiles, and so on.

Another advantage of trees is that they present summarization rules visually. Looking at a tree through Tree Manager, you can easily see how the values relate to each other.

See Also

PeopleCode Developer's Guide, "Using Methods and Built-In Functions"

Introducing Tree Concepts

This section discusses tree concepts, and describes using:

- Nodes.
- Detail values (leaves).

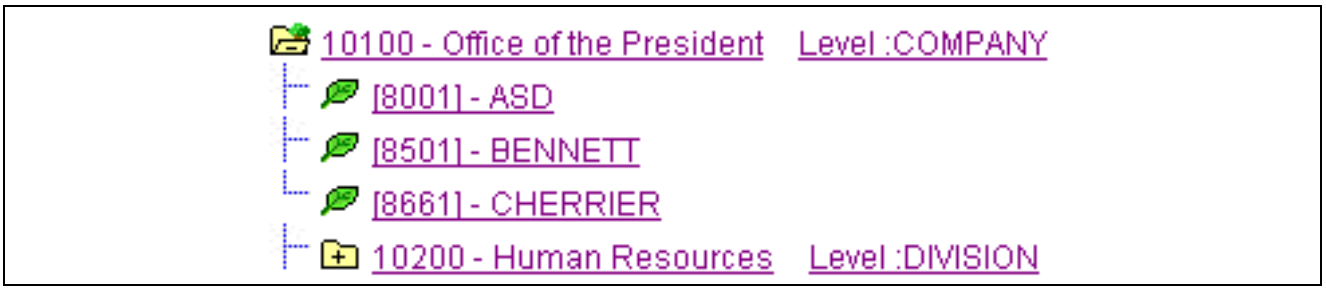
Understanding Tree Concepts

This section discusses general concepts used by Tree Manager, such as levels, effective dates, and setIDs.

Tree Levels

Levels provide a way to organize tree nodes. In most trees, all nodes at the same level represent the same kind of information. For example, in a tree that reflects the organizational hierarchy, all division nodes appear on one level and all department nodes on another. Similarly, in a tree that organizes your product catalog, the nodes representing individual products might appear on one level and the nodes representing product lines on the next higher level.

Sometimes you want to be able to identify all the nodes on the same level as a group, even when they don't share the same parent. For example, you might create a PS/nVision layout that summarizes the data for a division, then define a PS/nVision scope that creates one report instance for each division, regardless of what company it's in. To allow you to refer to all the nodes at a level, Tree Manager enables you to name each level. You'll use the level name when you define the scope for your PS/nVision report (rather than identifying all the nodes individually). Naming your levels gives you another way to "slice" the data in the tree. Level names can appear next to the node description.



Tree with levels

For each tree structure, you can determine how trees use levels:

- Strictly enforced levels mean that the named levels describe each node's position in the tree. This is natural for most hierarchies. Strict levels have the following advantages:

  You can skip a level if a portion of the hierarchy does not have a node at that level.

  The appearance of your tree more precisely matches the real-life hierarchy.

  If you use summary ledgers in PeopleSoft General Ledger, you can also create summary trees, which are based on levels in the corresponding detail tree.

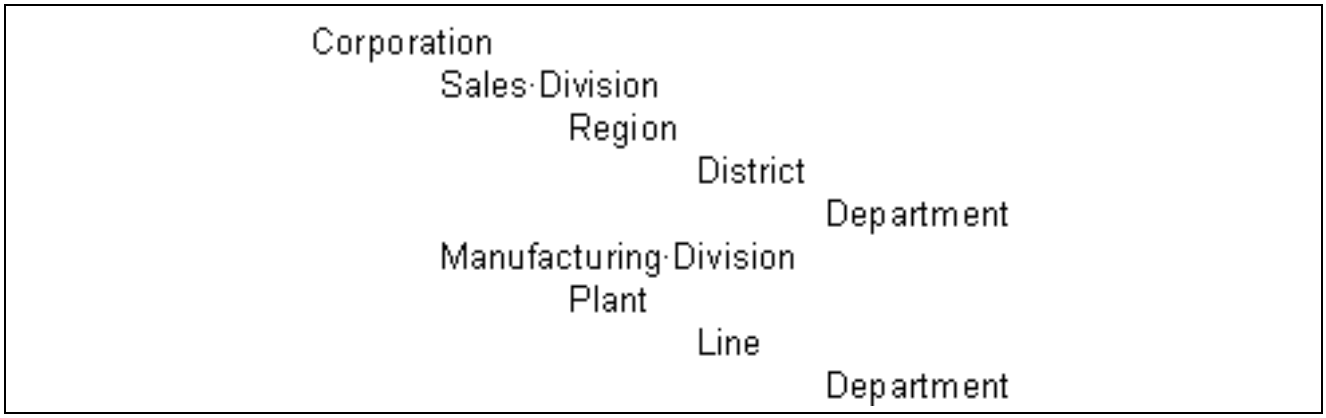
  If you decide later that you need to change a tree from strict levels to loose levels, you can do so. You cannot change a loose level tree to strict levels, because the level names are not connected to specific positions in the tree.

- Loosely enforced levels mean that the nodes at the same visual level of indentation do not all represent the same kind of information, or nodes representing the same kind of information appear at multiple levels. With loosely enforced levels, you assign a level to each node individually; the level is not tied to a particular visual position.

In the following example, the first two levels are clear: Corporation and Division. However, within the Sales and Manufacturing divisions, the structure is different. This tree could be created with strict levels, but would become distorted because the Plant and Line levels would need to appear either "above" or "below" the Region and District levels, when in fact they are parallel. You could define a strict level tree with a level name like "Plant/Region" or even "Level3," but this makes it harder to identify just the regions, districts, and so on. for reporting or other purposes. With loose levels, the plants within the Manufacturing division can be referred to as a level independent of the regions in the Sales division.

In a loose level tree, the level is an attribute of the node and is only loosely related to its position. The level becomes a way of identifying a group of nodes that serve a common function within the organization.

- When levels are not used, the nodes in the tree have no real hierarchy or reporting structure but do form a logical summarization structure.



Example of loosely enforced levels

For most trees, you will want to use levels. The following are reasons you should consider before choosing the "no levels" option:

- You cannot add levels to a tree later.
- If you use summary trees (generally used with PeopleSoft General Ledger), levels are required.
- A future release of PS/nVision will allow you to build a report by nPloding the tree from a specified node to a specified level. This will make levels very useful on account hierarchies, for example.

Effective Dates

Using effective dates with trees allows you to specify new objects, departments, reporting relationships or organizational structures in advance and have them take effect automatically. You can also use trees with past, present, or future effective dates when reporting on current or historic data.

SetIDs

Most data in control tables is stored by setID. Trees can be identified by four key values: setID, user key value, tree name, and effective date.

When using a setID as a key value for your tree, you should assign the same setID as the record that your tree is built on.

See Also

Chapter 3, “Creating Trees,” Understanding Tree Structure , page 41

Chapter 1, “Introduction to Tree Manager,” Introducing Effective Dates and Trees, page 10

Chapter 1, “Introduction to Tree Manager,” Associating Trees With Additional SetIDs , page 12

Using Nodes

Nodes define the hierarchical relationship within the tree. Nodes can be either categories (as in a group of assets) or items that need to be placed in a relationship with other items, such as an item in a catalog.

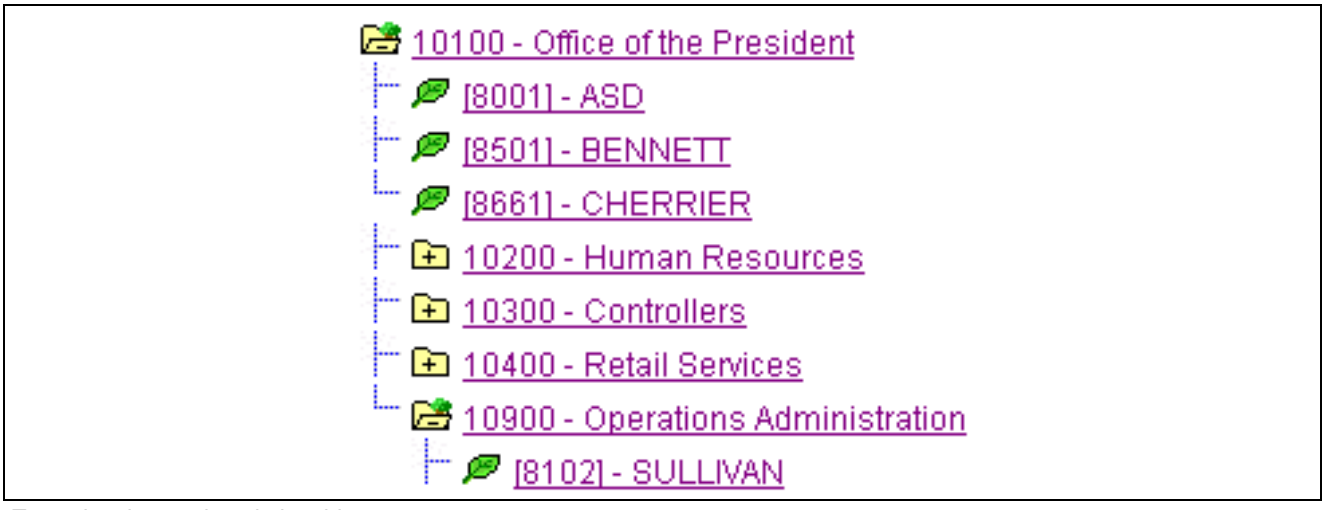
Each detail value reports to a tree node at the next higher level of the organization. Each tree node represents the group of detail values that “report” to it. Referring to the node is a shorthand way of referring to the group of detail values under it. For example, if a report refers to the Office of the President, it includes data from all the detail values under the Office of the President node—including the detail values under the Human Resources department, since Human Resources reports to the Office of the President.

In turn, each tree node reports to another tree node at a higher level of organization, until we reach the top level of the hierarchy, called the root node. .

Family Tree Terminology

When talking about trees, we use terminology derived from the idea of a family tree. The nodes that report to the root node are called its *children;* the root node is their *parent.* Nodes that have the same parent are called *siblings.*

These terms refer to the relationship between nodes and are not permanent attributes of the nodes themselves. A single node can be a parent, child, and sibling all at the same time. For example, in the example below, *Operations Administration* is a child of *Office of the President,* a parent of *SULLIVAN,* and a sibling of *Human Resources, Controllers* and *Retail Services.*

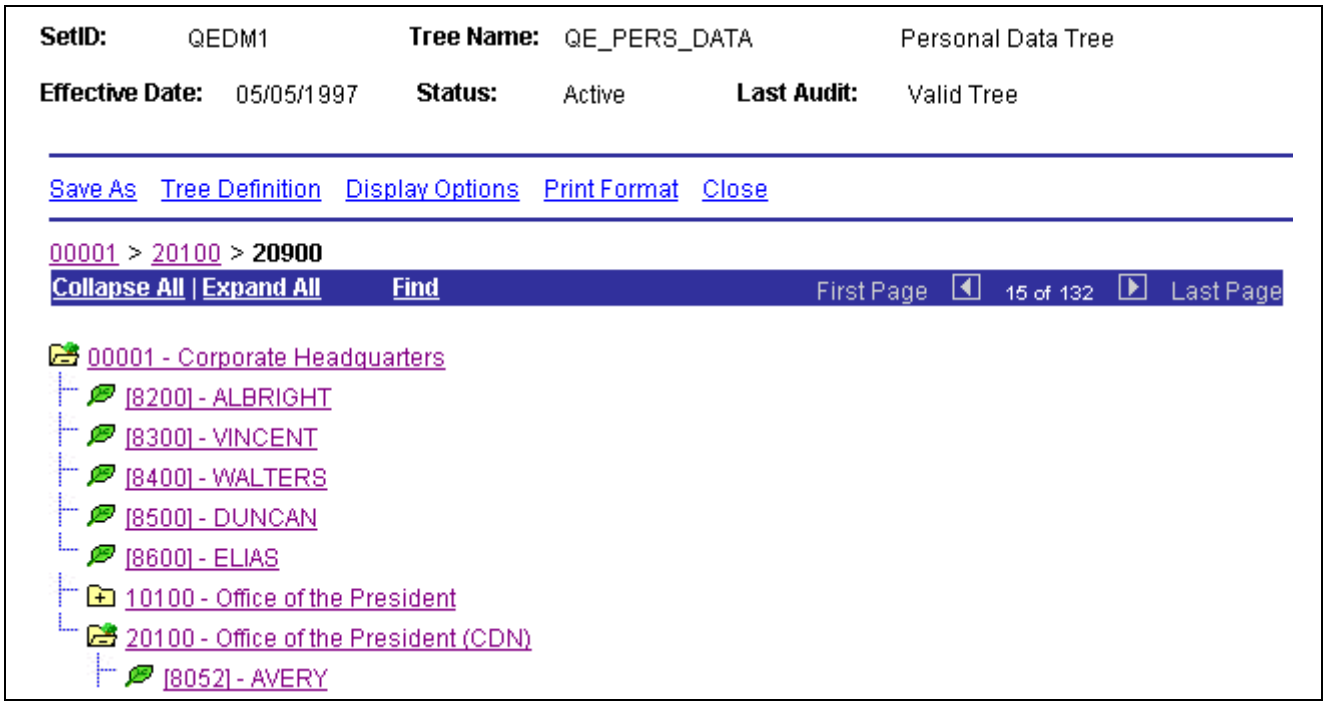


Tree showing node relationships

Using Detail Values (Leaves)

Detail values, or *leaves,* link a roll-up structure to the supporting detail. For example, the nodes in an account tree are not the actual accounts but categories of accounts. Using this example, the account tree has a node called “Assets,” with detail values specifying a range of accounts from 1000 to 1999 rolling up to it.

The tree illustrated below shows summarization rules for the PERSONAL_DATA field. In other words, it's an organizational chart for the offices in a company's headquarters. Individual offices, such as 8200, represent the lowest level of organization and appear at the far right of the tree. The leaves representing the offices are called *detail values*. Detail values have leaf icons and square brackets [ ] surrounding their names.



Tree Manager - Personal Data Tree

See Also

Chapter 2, " Using Tree Manager," Working With Tree Nodes , page 20

Chapter 2, " Using Tree Manager," Working With Detail Values, page 26

Chapter 3, "Creating Trees," Working With Tree Branches , page 53

Introducing Types of Trees

This section describes the tree types available in Tree Manager:

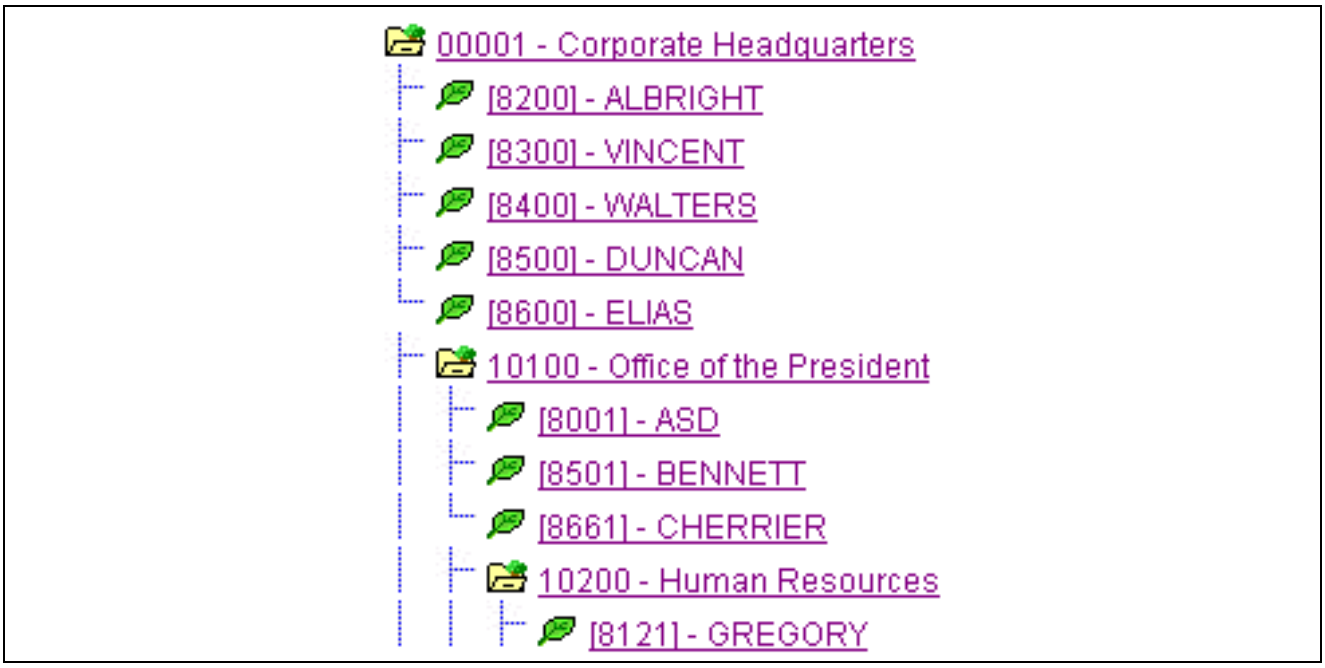
- Standard detail trees.
- Dynamic detail trees.
- Node-oriented trees.
- Summary trees.

Using Standard Detail Trees

In the most basic type of tree, the “lowest” level—that is, the level farthest to the right in the tree—holds detail values. The next level is made up of tree nodes that group together the detail values, and each subsequent level defines a higher-level grouping of the tree nodes. This kind of tree is called a *detail tree.*

In a detail tree, the lowest level in the hierarchy consists of the detail values, which are represented by leaves. (Because of this, such trees are sometimes called *summer trees.*) You can use a detail tree to represent account hierarchies, product hierarchies, business unit hierarchies, and so on.

Detail trees are used most often for nVision reporting from the General Ledger.



Sample detail tree

Using Dynamic Detail Trees

In a normal detail tree, the detail values that fall under each node are defined by a specific value or range of values. With a dynamic detail tree, detail values are determined by matching the node name with a field on the detail value table. The tell system dynamically determines appropriate values from the detail value table at the time it uses the tree. Instead of specific or range of values, the detail values appear as blank on the Tree Manager display.

For dynamic detail trees, the parent node value defines part of the primary key for the detail values.

Sample dynamic detail tree

In the preceding illustration, each node represents a value of the DEPARTMENT_ID field. The structure of the tree determines the relationships between departments and their groups, so that your reports can roll up department data. Departments are not the lowest level of detail, though. Each department consists of employees, and when you assign a department cost, you assign it to a particular department *and* an employee. These two fields, DEPARTMENT_ID and EMPLID, are both key fields for the department data. So to capture these costs, the department tree needs to group the employees for each department. That's where the detail values come in.

The detail values in this tree represent values for EMPLID. Rather than listing each EMPLID value separately, however, you tell Tree Manager to use all the employees associated with the parent DEPARTMENT_ID. For example, if you ask for a report on the RETAIL SEVICES department, the system will roll up the data whose DEPARTMENT_ID is RETAIL SERVICES and whose EMPLID is any value.

You can choose to display all detail values for a selected node or to display detail values based on the tree's current effective date.

Using Node-Oriented Trees

In standard detail trees, the detail values represent data values from a database field, and the tree nodes represent roll-up points for detail values. The nodes have no meaning outside the context of the tree. However, you can also create *node-oriented trees*.

Node-oriented trees are based on a detail structure, but the detail values are not used. For this type of tree, the tree nodes represent the data values from the database field. The system uses node-oriented trees for special purposes. For example, PeopleSoft HRMS applications use the Departmental Security tree to give users access to information only about employees in their departments.

Sample node-oriented tree

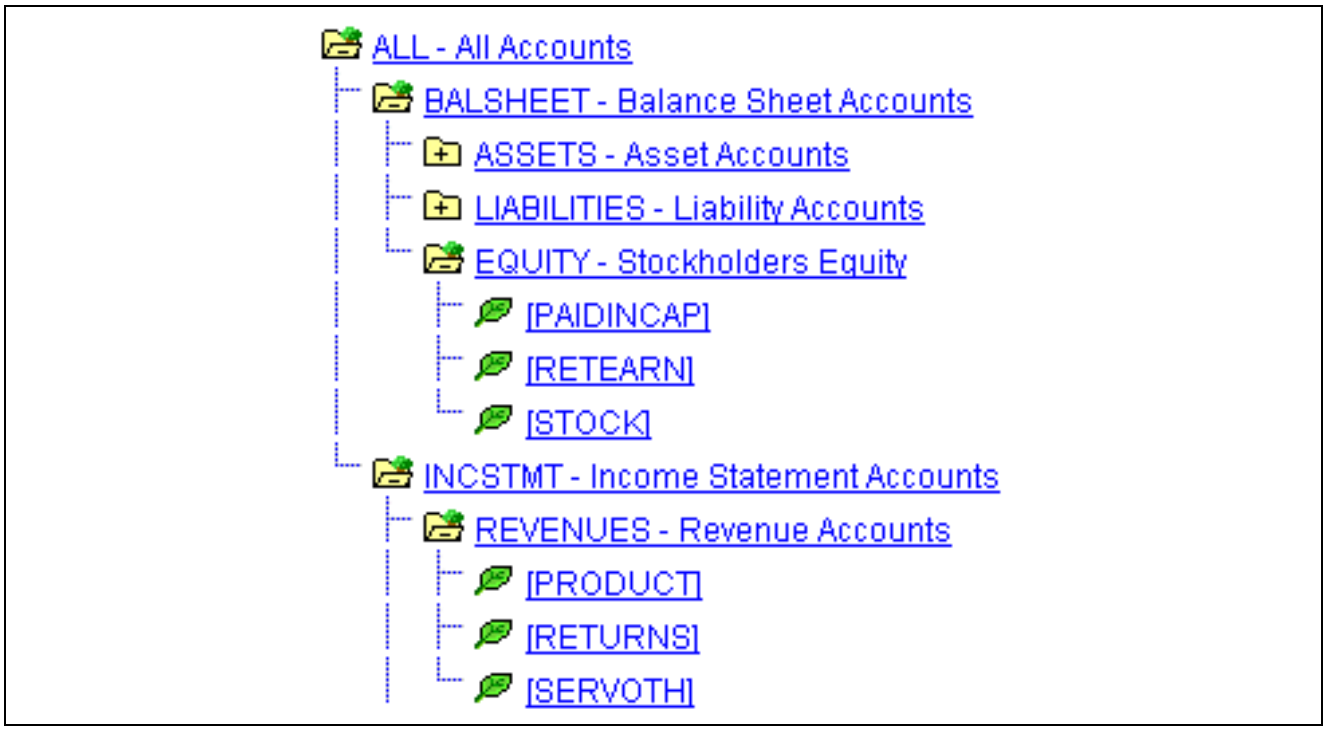
Node-oriented trees have no leaves. (Because of this, such trees are sometimes called *winter trees*.) Instead, each node is a possible value of the DEPTID field.

Using Summary Trees

Summary trees are only used for General Ledger reporting. A summary tree provides an alternative grouping of the nodes from a detail tree without duplicating its entire structure. In a summary tree, the detail values are tree nodes from an existing detail tree rather than values from a database field. The tree groups the nodes from a specific level in the detail tree differently from the way it groups the higher levels in the detail tree itself.

For example, suppose you want to roll up your departmental hierarchy differently for two reports. The first report shows the reporting structure, so you want to group your departments according to the division they report to. The second report is a financial report, showing profit centers, overhead centers, and production centers. From the group level down, the two hierarchies are the same.

You have two options. You could create two complete detail trees, identical from the group level down. Or you could create one complete detail tree, then create a summary tree whose detail values are the group-level nodes on the first tree.



Sample summary tree

When you use a node from a summary tree in a report or summary ledger, the system refers back to the detail tree to determine which detail values report to that node. For example, suppose you want to report on production centers. You've created a summary tree that shows which groups are production centers, and you pick the Production Center node. The summary tree shows that the Engineering group and the Manufacturing group (among others) are production centers, but it doesn't show which departments are in these groups. The system uses the detail tree to determine the departments in the group.

Summary trees make it easier to maintain trees. If you change the lower part of the tree, you need to update only one tree.

The most common use of summary trees is to create summary ledgers in PeopleSoft Financials applications. You create summary trees based on your basic ChartFields to create alternative roll-ups. You create reports based on the various summary trees to view your financial data from a variety of perspectives.

Introducing Effective Dates and Trees

This section describes using:

- Effective-dated user records.
- Effective-dated trees.
- Interactions between tree and user data effective dates.

Using Effective-Dated User Records

PeopleSoft trees are a hierarchical structure made up of the tree's definition along with the nodes and details (leaves) that form the parent-child relationships in the tree. The nodes and details are tied into a user record as defined in the tree structure.

When the user record has an effective date as a part of the record's key, then that effective date determines the criteria used for details and nodes available for use in the tree.

Using Effective-Dated Trees

Trees must have an effective date. Effective dates on trees show planned changes in the hierarchy the tree represents.

For example, in the HR Department tree, we want to add a new Hardware department effective 09/01/2001. We do this by copying the current HR Department tree to a new effective date of 09/01/2001, opening the new tree, and adding the Department node for Hardware.

When the current date reaches 09/01/2001, then the HR Department tree with the Hardware department will become effective for application and reporting purposes, and the previous effective date version of the HR Department tree will be a copy for historical purposes.

Interacting Between Tree and User Data Effective Dates

When user data also has an effective date on record's key, Tree Manager checks that date to determine which dated record item belongs in the current dated tree. When there is only one dated item in the user table, then the date determines whether that item is available for use in the tree at all.

Trees and user data differ in how effective dates are considered in respect to the current date and when the tree and the data come into scope. The rules are as follows:

- The tree's effective date is the *good through date* for the tree's representative organization.
- The user data item's effective date is the *good from date* for the user data.

Therefore, in a particular tree, the nodes and details valid for that tree must have an effective date on the user data record earlier or the same as the effective date on the tree.

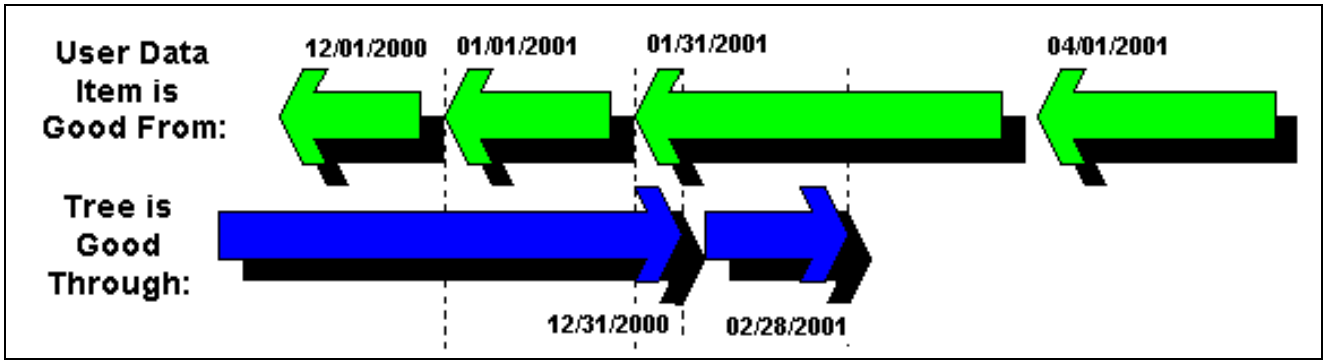
The following table presents an example of an effective-dated tree with a user table that has three effective-dated records for the same item.

Tree Effective Date	User Item Effective Date	User Data Available to Tree?
12-31-2000	12-01-2000	Yes
12-31-2000	01-01-2001	No
12-31-2000	01-31-2001	No
12-31-2000	04-01-2001	No

The next table shows what happens if the tree is copied to a new effective date, with the same user data records.

Tree Effective Date	User Item Effective Date	User Data Available to Tree?
02-28-2001	12-01-2000	Yes
02-28-2001	01-01-2001	Yes
02-28-2001	01-31-2001	Yes
02-28-2001	04-01-2001	No

A graphical representation of this example follows.



Graphical representation of user data and tree effective dates

Associating Trees With Additional SetIDs

This section describes how to share trees among several tableset groups.

PeopleSoft applications store information in two types of tables: transaction tables and control tables. Information in transaction tables is typically stored by business unit, while control table information is stored by a set identifier, commonly called the setID.

Transaction tables store data about day-to-day business activities. As such, these tables are updated frequently.

Control tables store information that defines the accounting and organizational structures and processing rules that are used when business transactions are entered into PeopleSoft applications. Control tables include master lists, such as customers, vendors, products, items, and charts of accounts. These tables are generally static, and many are effective-dated.

A tableset is a subset of data within the control tables that defines the accounting structure and processing rules for a particular business unit or group of business units.

Trees are typically hierarchies built on top of control tables, and so you usually will want to key your tree by setID if the underlying control table is keyed by setID.

Note. Since PeopleSoft Projects data is stored in tables keyed in by business unit rather than setID, PeopleSoft Project trees may be keyed by either setID or business unit, depending on the tree's function.

See Also

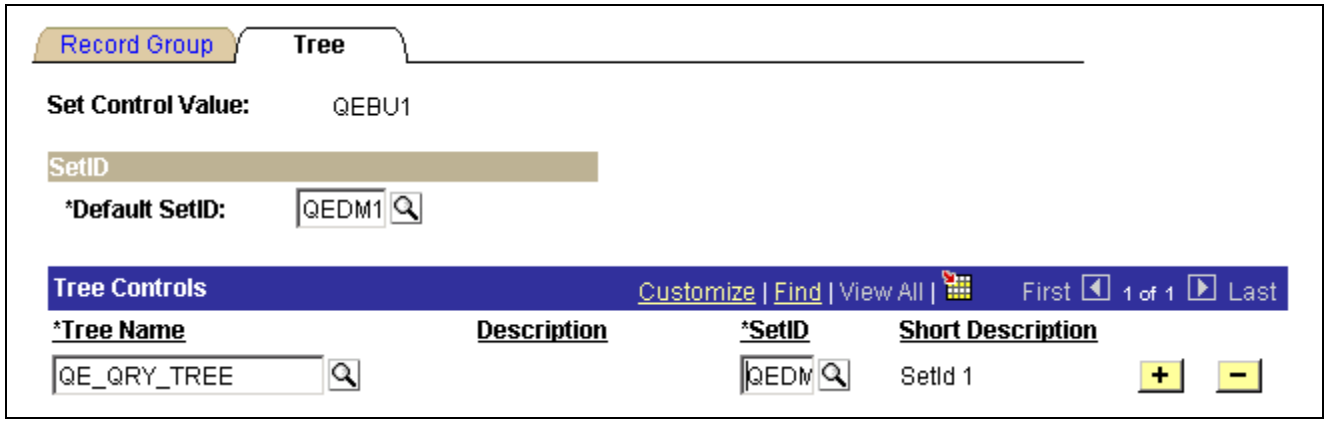
Your PeopleSoft Application Fundamentals book.

Pages Used to Associate Trees with Additional SetIDs

Page Name	Object Name	Navigation	Usage
Tree	SET_CNTRL_TABLE1	PeopleTools, Utilities, Administration, TableSet Control	Associate a specific tree with a given set control value.

Sharing Trees Across SetIDs

Access the Tree page.



TableSet Control - Tree page

PeopleSoft applications use the default setID on the tableset Record Group page to determine which trees a business unit can access. This default setID is established when the business unit is created. However, if you want a business unit to be able to access a particular tree created under a setID other than the default setID, you can specify the tree on this page.

The setID you define for a tree should typically match the setID defined for the underlying record.

The Record Group page of the TableSet Controls component defines which setID is used for a specific record group.

For example, if the PRODUCT_TBL record is part of REC_GROUPA, and on the Record Group page you have associated: BU = CCB, Rec. Group = REC_GROUPA and SetID = FS you should also set up any trees based on PRODCT_TBL so that BU = CCB and uses SetID = FS.

CHAPTER 2

Using Tree Manager

With Tree Manager you can view, create, and modify the trees that you use in PeopleSoft applications.

This chapter describes how to:

- Open trees.
- Navigate Tree Manager.
- Work with tree nodes.
- Work with detail values.
- Use drag and drop.
- Save and configure trees.
- Use Tree Viewer.

Opening Trees

This section describes how to:

- Search for trees.
- Organize trees with categories.

Page Used to Open Trees

Page Name	Object Name	Navigation	Usage
Tree Manager	PSTREEMGR	Tree Manager, Tree Manager	View or modify trees.

Searching for Trees

Once you have your browser open in PeopleSoft Internet Architecture, your next step is to navigate to Tree Manager so that you can open and view a tree.

To open a tree:

1. Access Tree Manager.
2. In the drop-down box, select a value to search by, then click Search.

   Click Advanced Search to search for a combination of values, such as Node Record Name, Detail Record Name, Structure Name and Tree Category.

The system displays a list of the trees that match the data you've entered.

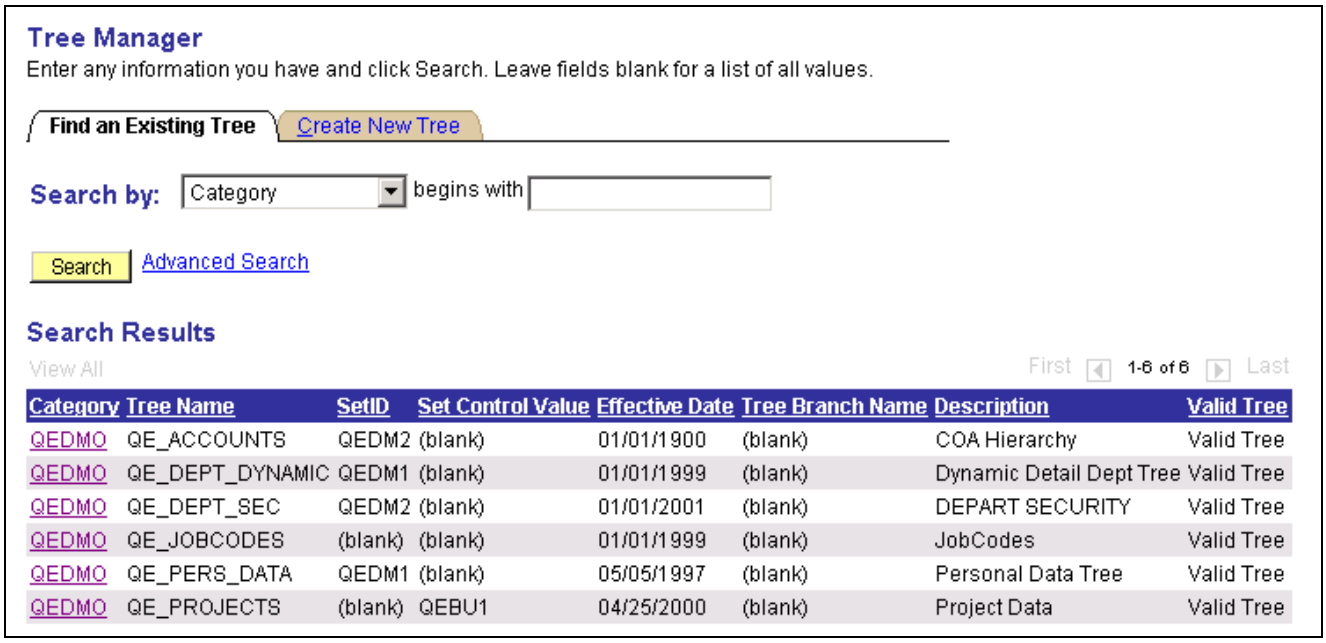
3. Click the link for the tree you want to open.

See Also

Using PeopleSoft Applications, "Using Keys and Search Pages," Using Search Pages

Organizing Trees With Categories

You can organize trees and narrow search criteria by assigning trees to categories that you define. See the example below.



Tree Manager - Tree Lookup page

Categories are defined on the Tree Definition page. Categories must conform to the same character limitations as the tree name. Category names cannot exceed 18 characters and should not contain special characters such as /, \, *, :, ", <, >, and |.

Note. There are no edit checks to verify a category's existence—if the category doesn't exist, Tree Manager adds a new one.

Navigating Tree Manager

This section describes how to:

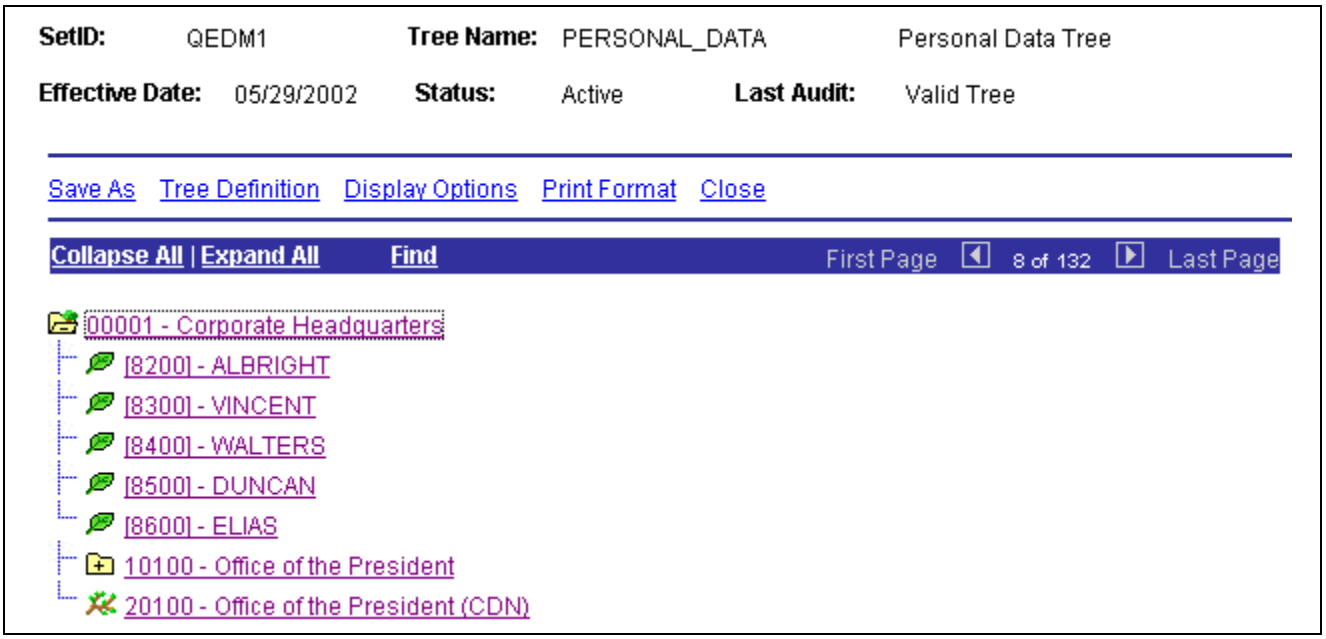
- Use the navigation bar.
- Use breadcrumbs.
- Expand and collapse nodes.
- Search for nodes or detail values.

Pages Used to Navigate Tree Manager

Page Name	Object Name	Navigation	Usage
Tree Manager	PSTREEMGR	Tree Manager, Tree Manager	View or modify trees.
Find Value	PSTREEMGRFIND	Select a tree in Tree Manager and click Find.	Find a specific node or value.

Using the Navigation Bar

Access the Tree Manager page.



Tree Manager page

The Tree Manager page displays the tree with the root node expanded one level.

Note. Tree Manager displays one page of the tree at a time. You can navigate through large trees using First Page, Last Page, and so on.

You can perform the following actions on the selected tree by using the links and images on the navigation bar, (the horizontal blue bar at the top of the tree).

Collapse All Click to close all of the visible nodes except for the root node. The root node is always expanded.

Expand All Click to expand all of the nodes on the tree, so that the entire tree or branch hierarchy is visible.

Expands all parent/child relationships, but the tree hierarchy is still presented one page at a time. Use the Next and Previous page arrows to page forward and backward through the tree.

Find Click to access the Find Value page and search for nodes and detail values.

See Also

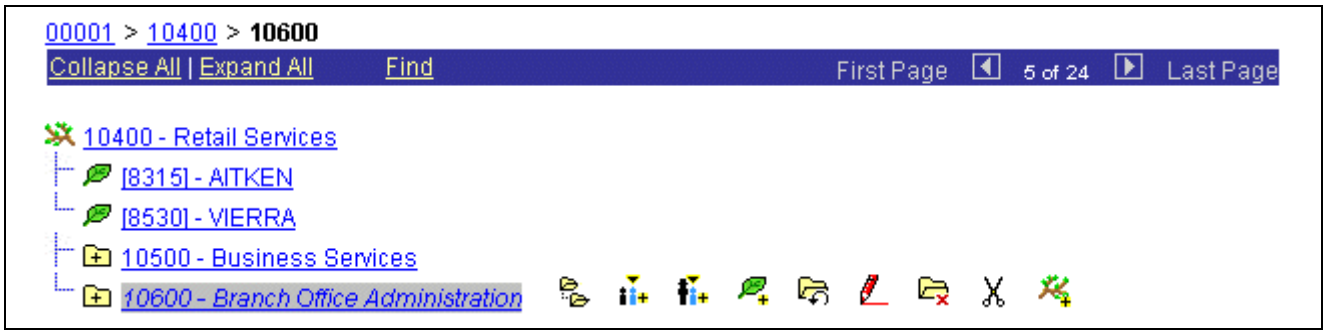
Using PeopleSoft Applications, "Working With Pages," Using Grid and Scroll Area Controls

Using Breadcrumbs

As you find your way through your tree, navigational breadcrumbs appear above the navigation bar. They show you a basic map of your route through the tree and can also be used to jump back to a previously visited node.

Breadcrumbs represent nodes in the current branch (A type nodes)and the parent branch of the opened branch(B type nodes).

For example, in the following illustration, node 00001 is the parent branch of 10400 and 10400 is the parent node of 10600.



Tree Manager - Navigation bar and breadcrumbs

The maximum number of breadcrumbs displayed is 7. When you start exceeding that number, the system automatically removes the earlier ancestor nodes. This ensures that breadcrumbs always begin with the parent node of the currently selected node.

Expanding and Collapsing Nodes

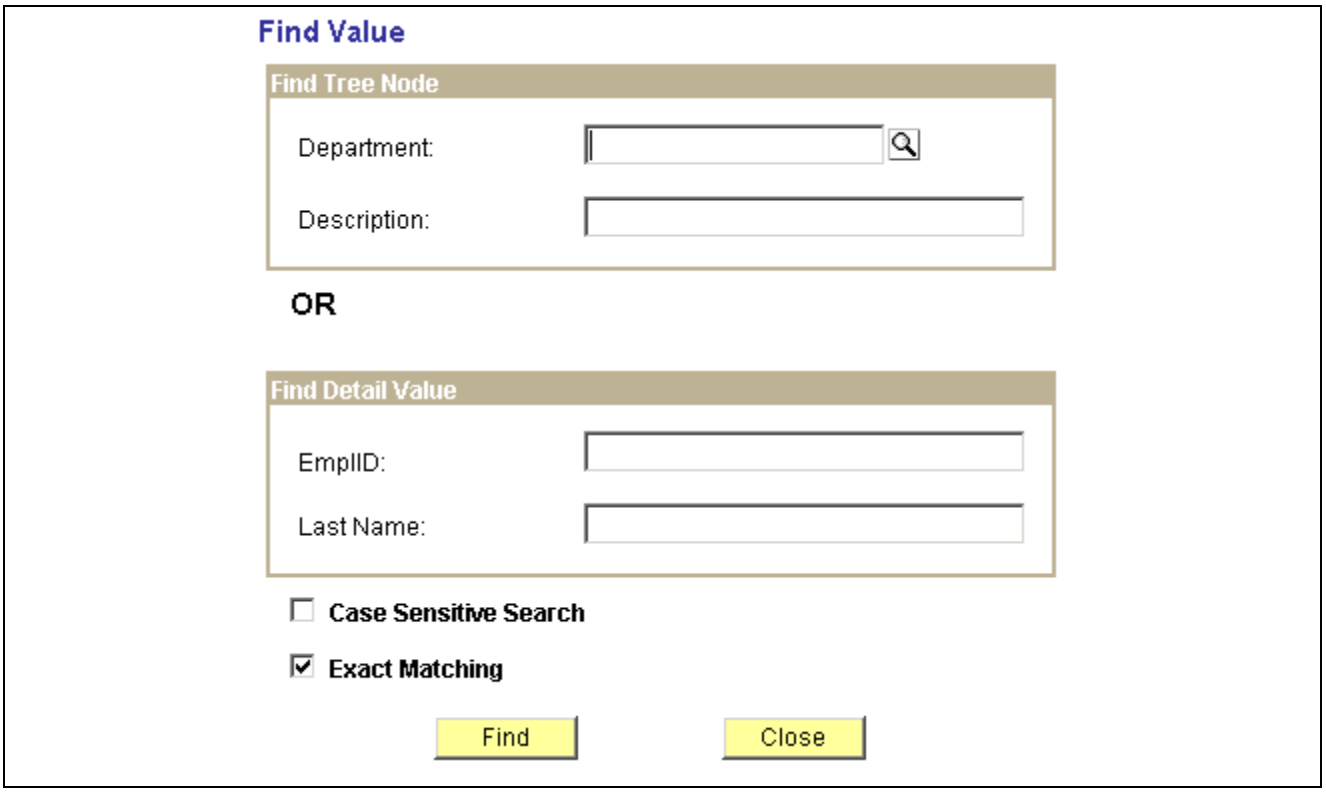
You can collapse any node at any level to give you a better overview of the entire tree. Closed yellow folders indicate that you can expand the node to show additional nodes and detail values. Closed gray folders indicate a node that has no children (either child nodes or detail values). Open yellow folders indicate a node that has been expanded and is showing child nodes or detail values.

To expand a node one level, click its folder image. Click the folder image again to collapse the node.

To expand all child objects for a node, first expand the node, then click the image with two folders.

Searching for Nodes or Detail Values

Access the Find Value page.



Find Value page

Note. The actual labels on these fields change depending on the default labels defined for the column used for the node or detail values. For example, in the Department Security tree, the label for the node values reads Department ID.

Tree Node (pictured as Department) Enter the tree node name and click Find. A newly created node will not be listed in the Node List until a Save is performed. However, if you type the exact name of the newly created node and click the Find button, the node will be found. Search results do not depend on checking/clearing the Exact Matching checkbox.

Description Enter the tree node description and click Find. When searching by description, the system does not locate newly created nodes until a Save is performed.

Detail Value (pictured as EmplID) and Description (pictured as Last Name) Enter a detail value or description and click Find.

When searching by value, if a detail value is defined as a range of values, then the system looks for the detail values that the entered value falls under.

If the detail value is defined as a specific value then the system looks for detail values that begin with or match the value entered.

If a user types in the exact name of the newly created detail value and clicks the Find button, the detail value will be found. Search results do not depend on checking/clearing the Exact Matching checkbox. If the tree features 'Duplicate Leaves' option only the first occurrence of the newly added detail value will be found.

Note. When searching for detail values that involve a range of values or duplicate values, the system may not find a detail value that has been recently added or changed until a Save is performed. The results of this operation depends on database sorting options and database type.

Case Sensitive Search Select to use the case-sensitive search option for descriptions.

This option is not used for node or detail names, as they are key fields, which Tree Manager automatically changes to upper case.

Exact Matching Select to search for an exact match. Clear the checkbox to perform partial searches.

If you clear this checkbox, the system automatically adds a wildcard character at the end of the user defined search condition. If you want to use a wildcard search by applying a wildcard character at the beginning of the word, you need to use the database specific wildcard character.

If you cleared this checkbox and your search criteria was too broad (more than 200 rows returned), you receive a warning message.

If Tree Manager finds a node or detail value that matches your search string, it displays the node or detail value and builds breadcrumbs to show the navigation path to the entry found.

Note. If the value you are searching for is contained inside a detail range, Tree Manager displays the appropriate range. Click the Edit Data image to display the list of values contained in that range. Keep in mind that detail values are stored as strings, so if your values are identified by numbers, the range may include more values than expected.

Tree Manager finds the first occurrence of the node or detail value that matches your search string and highlights it. If duplicate values exist, click *Next* to search for the next occurrence of the value.

When the next occurrence has been found, the Previous link become available.

If you type in values or descriptions in more then one field on the ‘Find Value’ page, system will use the higher located field as a search condition and ignore the lower fields.

See Also

Chapter 2, “ Using Tree Manager,” Working With Detail Values, page 26

Using PeopleSoft Applications, “Using Keys and Search Pages,” Using Wildcards

Working With Tree Nodes

This section describes how to:

- Understand tree nodes.
- Insert nodes.

- Move nodes.
- Switch node levels.
- Edit node descriptions.
- Delete nodes.
- Rename nodes.

Pages Used to Work With Tree Nodes

Page Name	Object Name	Navigation	Usage
Node Properties	PSTREENODELEVELS	Select a node in Tree Manager and click Update Node Properties.	• Change node levels and other properties. • Rename nodes.
Tree Node Maintenance	Application defined.	Select a node in Tree Manager and click Edit Data.	Page displayed is application defined. Edit node descriptions and other data.
Node Properties	PSTREENODEUPDATE	Select a node in Tree Manager and click Update Node Properties.	Displayed if the tree does not have levels. Rename nodes.

Understanding Tree Nodes

A node in Tree Manager has three parts: the node image, the node name, and a node description.

In the following example, the node is collapsed, so the folder image is closed. The node name is 10900, and the node description is Operations Administration.

Node with a description

Node that skips a level with level displayed

To display images for working with nodes, click the description or node name.

Node with editing images

The following is a complete list of node editing images. When you highlight a node, only the images representing the available actions appear.

Expand Node Hierarchy: Expands all child objects for the selected node.

Insert Child Node: Inserts a new node that will be a child of the currently selected node.

Insert Sibling Node: Inserts a new node that will share the same parent as the currently highlighted node.

Update Node Properties: Displays the Node Properties page, which enables you to change the level of a node or rename a node.

Delete Node: Deletes the selected node.

Edit Data: Displays a page for maintaining or editing the application data for the node. The table that stores the data is defined on the Tree Structure maintenance page.

Cut: Marks the highlighted tree component and cut and copies it to the clipboard. Then you can use either Paste as Sibling or Paste as Child commands.

Note. Not available for dynamic detail leaves.

Paste as Sibling: Pastes a cut node into the tree as a sibling.

Paste as Child: Pastes a cut node into the tree as a child.

Branch: Subdivides that part of the tree into a separate component that can be maintained and viewed separately from the main tree.

Open Branch: Opens the selected branch in Tree Manager.

UnBranch: Removes the selected branch and Tree Manager replaces the branch image with the node image. Any nodes that report to the selected node are now available in the tree.

Inserting Nodes

To insert a node:

1. Highlight a node.
2. Click either the Insert Child or Insert Sibling image.
3. Click the prompt button to find the node name to insert.
4. Enter the node name or select the node from the list.

   The Insert Child Node dialog box appears with the selected value.
5. Click Add.

   If you entered values that have already been defined, Tree Manager adds the values to the tree when you click the Add button.

   If you enter new values, Tree Manager informs you that you've entered an undefined value. Depending on your security access, Tree Manager may enable you to add the new value.

   If the node you specified already exists in the tree, the system will display an error pointing to the duplicate node.
6. If you're adding a new value to the database, click Yes.

Tree Manager displays the page for adding new values for the field.

Moving Nodes

To move a node using cut and paste:

1. Highlight the node and click the Cut image.
2. Select the destination and click the Paste as Sibling or Paste as Child image.

   The node is pasted into the position that you specified. Remember that you can't insert a child node into a branch node, insert a sibling node into a root node, or insert parent node into it's child.

   Tree Manager moves the entire branch starting at the selected node. If the moved node has nodes or detail values reporting to it, they also move to the new position.

Levels Behavior

The following are general rules used for levels when nodes are moved using cut and paste:

- Tree with strictly enforced levels: Parent node must always be at a higher level than its children.
- Tree with loosely enforced levels: No rules are enforced, therefore levels of the descendant nodes should be manually adjusted by using the switch level function on the pasted node.

The following table shows the basic behavior of levels when cutting and pasting nodes:

Action	Strictly Enforced Levels	Loosely Enforced Levels
Moving node to a higher level.	Levels of the pasted node and its children are not automatically adjusted. The pasted node appears as a skipped node. (Node image changes to a skipped node image).	Levels of the pasted node and its children are not automatically adjusted. The pasted node appears as a regular node.
Moving node to a lower level.	Tree Manager automatically adjusts the level of the node and its children, to ensure that the parent node is always at a higher level than its children.	The levels of the pasted node and its children are not adjusted.

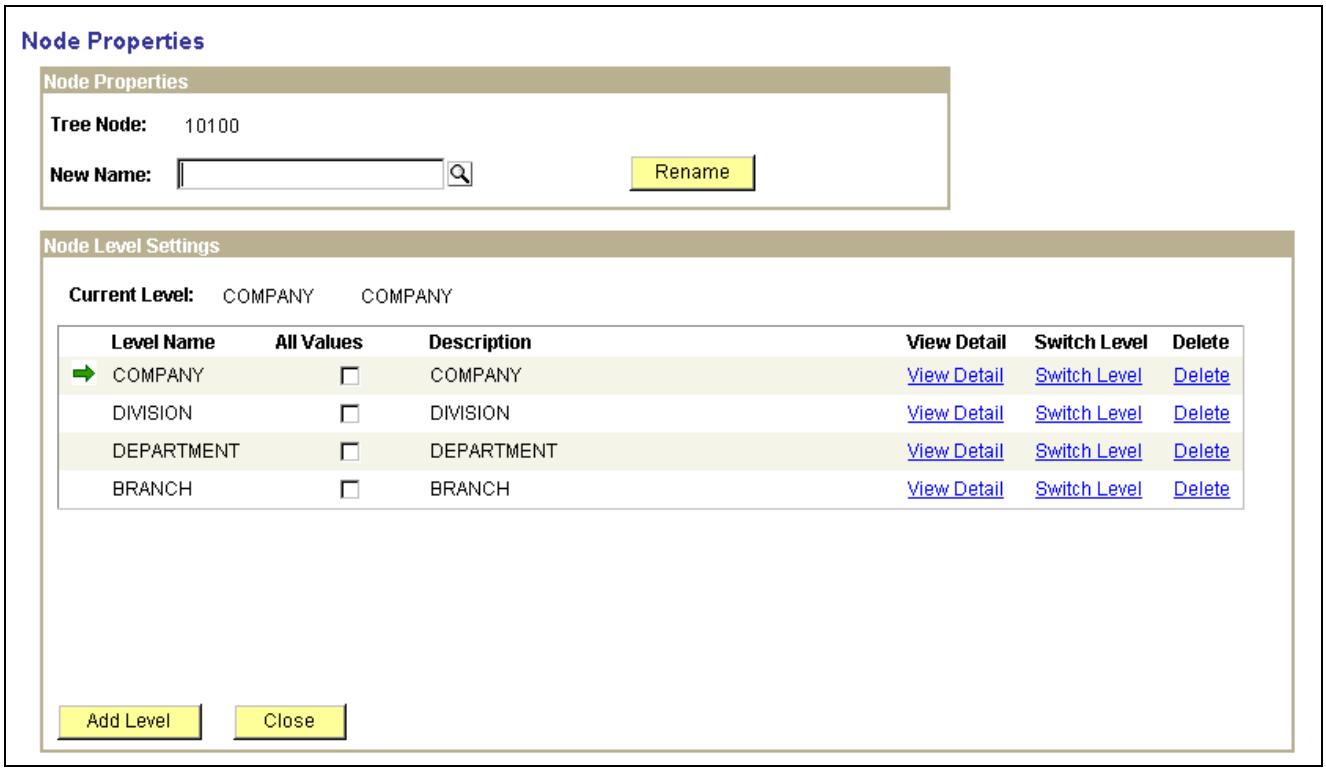
Note. New tree levels are not automatically created in non-root branches when a tree node is moved, or a new tree node is added.

See Also

Chapter 2, " Using Tree Manager," Using Drag and Drop , page 29

Switching Node Levels

Access the Node Properties page.



Tree Manager − Node Properties page

Click the *Switch Level* link associated with the level you want to change the node to.

The node level information is updated and changed. The node level is indicated by the green arrow.

Levels Behavior

The following are general rules used when the switch node level function is used:

- Tree with strictly enforced levels: Parent node must always be at a higher level than its children.
- Tree with loosely enforced levels: Parent node must be at the same or higher level than its children.

The following table shows the basic behavior of levels when the switch node level function is used:

Action	Tree with strictly enforced levels	Tree with loosely enforced levels
Switching node to a higher level.	Only available for skipped nodes. Can only ascend the number of levels that have been skipped. Tree Manager automatically adjusts the levels of the child nodes. For example, if the parent node is switched two levels, the children are automatically adjusted two levels.	Only available for skipped nodes. Can only ascend the number of levels that have been skipped. Levels of the child nodes are not automatically adjusted.
Switching node to a lower level.	Tree Manager automatically adjusts the level of the node and its children, to ensure that the parent node is always at a higher level than its children. Tree Manager will automatically create additional levels, if necessary.	The levels of the pasted node and its children are not adjusted **Note.** If the switch resulted in a child node level becoming higher than its parent, Tree Manager would automatically adjust the level to be equal to the parent's level. *Recommendation.* When switching levels you should switch to just one level at a time.

Edit Node Descriptions

To change the description of a node:

1. Access the Tree Node Maintenance page.
2. Update the value in the Description field.

   Enter today's date as well as a new description.
3. Click the OK button to accept changes and return to the Tree Manager

Deleting Nodes

To delete a node:

1. Highlight the node and click the Delete image.
2. In the message that appears, click Yes to delete or No to return to the tree without deleting.

Renaming Nodes

To rename a node:

1. Access the Node Properties page.
2. Enter new name for the node in the New Name box and click the Rename button.

Note. The edit data image is not available for the root node. You cannot rename the root node.

Working With Detail Values

This section describes how to:

- Understand detail values.
- Add detail values.
- Change detail value descriptions.
- Modify a range of detail values.
- Delete detail values.
- View detail values.

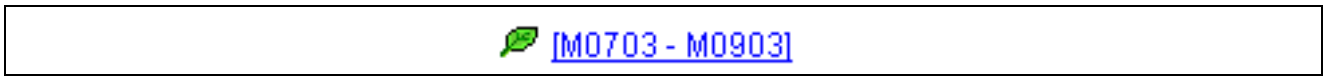
Pages Used to Work With Detail Values

Page Name	Object Name	Navigation	Usage
Detail Value Range	PSTREELEAF	Select a detail value in Tree Manager and click Edit Properties.	Modify the range of values in a detail.
Detail Value List	Application defined.	Select a detail value in Tree Manager and click Edit Data. Select the bracket under a dynamic detail in Tree Manager and click Edit Data.	Page is application defined. View the range of values in a detail or dynamic detail.

Understanding Detail Values

A single detail value in Tree Manager has three parts: the detail image, the detail name, and a detail description. Detail values can also appear as a range of values or as dynamic detail.

Detail value with a description



Range of detail values

Dynamic detail values, or ‘empty’ detail

The following is a complete list of detail value editing images. When you highlight a detail value, only the images representing the available actions appear.

Insert Detail: Inserts a new detail value. This is only available if the detail value information has been entered on the Tree Structure Detail page.

Edit Data: Displays a page for maintaining or editing the application data for the detail value. The table that stores the data is defined on the Tree Structure maintenance page.

Edit Properties: Allows you to change the detail value itself. For example, you can change the range to and range from values.

Delete Detail: Deletes the selected detail.

Cut: Marks the highlighted tree component and cut and copies it to the clipboard. Then you can use either Paste as Sibling or Paste as Child commands.

Note. Not available for dynamic detail leaves.

Paste as Sibling: Pastes a cut detail value into the tree as a sibling.

Adding Detail Values

To add detail values:

1. Highlight the node you want the detail values to report to. Or you can highlight one of the node's other detail values.

   To complete a detail-value tree, you need to define detail values for each *terminal* node in the tree, which means each node that has no child nodes.

2. Click the Insert Detail image. If you're creating a dynamic detail tree, select the Dynamic Flag check box.

   The Detail Value Range dialog box appears. It shows the tree node that the new values report to. If you click the 'Dynamic Flag' check box other fields on a page become locked. When you click the 'Add' button Tree Manager displays brackets [ ] in place of the detail value for the selected node. When you use the tree, the system automatically selects the appropriate detail values for the node.

   Note. Do not add dynamic details in a tree that already has details using ranges. Trees should be either all dynamic details or all ranges. Mixing detail types can cause unpredictable results in other applications, such as PeopleSoft Query and PS/nVision.

3. Use the search images to enter a range of detail values from the database field on which this tree is based.

   To enter a single value, enter the same value in the From and To fields.

   Note. When you specify a range of values, you can't specify another detail value that appears within the range. For example, if you specify a range from 0271 to 0278, you can't subsequently assign 0275 to another detail value (unless you selected Allow Duplicate Detail Values).

4. Click Add.

   If you entered values that have already been defined, Tree Manager adds the values to the tree when you click the Add button.

   If you enter new values, Tree Manager informs you that you've entered an undefined value. Depending on your security access, Tree Manager may enable you to add the new value.

5. If you're adding a new value to the database, click Yes.

   Tree Manager displays the page for adding new values for the field.

Changing Detail Value Descriptions

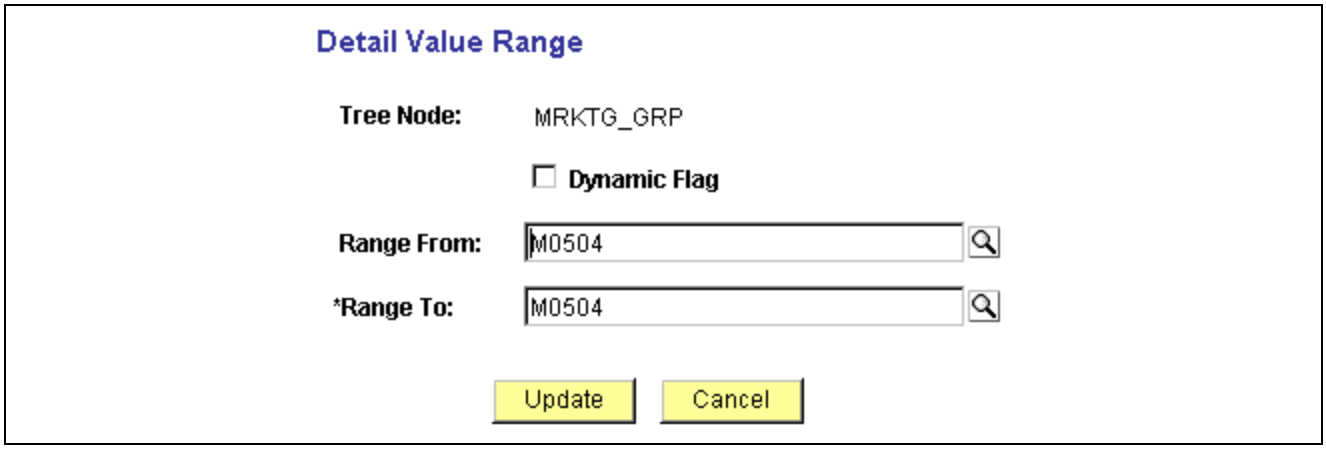
To change the description of a detail value:

1. Highlight the detail value and click the Edit Data image.

   The original page with the detail value information appears.
2. Update the value in the Description field.
3. Click the OK button to apply changes to the appropriate database table.

Modifying a Range of Detail Values

Access the Detail Value Range page.



Tree Manager - Detail Value Range page

Modify the range values in the From and To fields.

Click the Update button to save your changes.

Deleting Detail Values

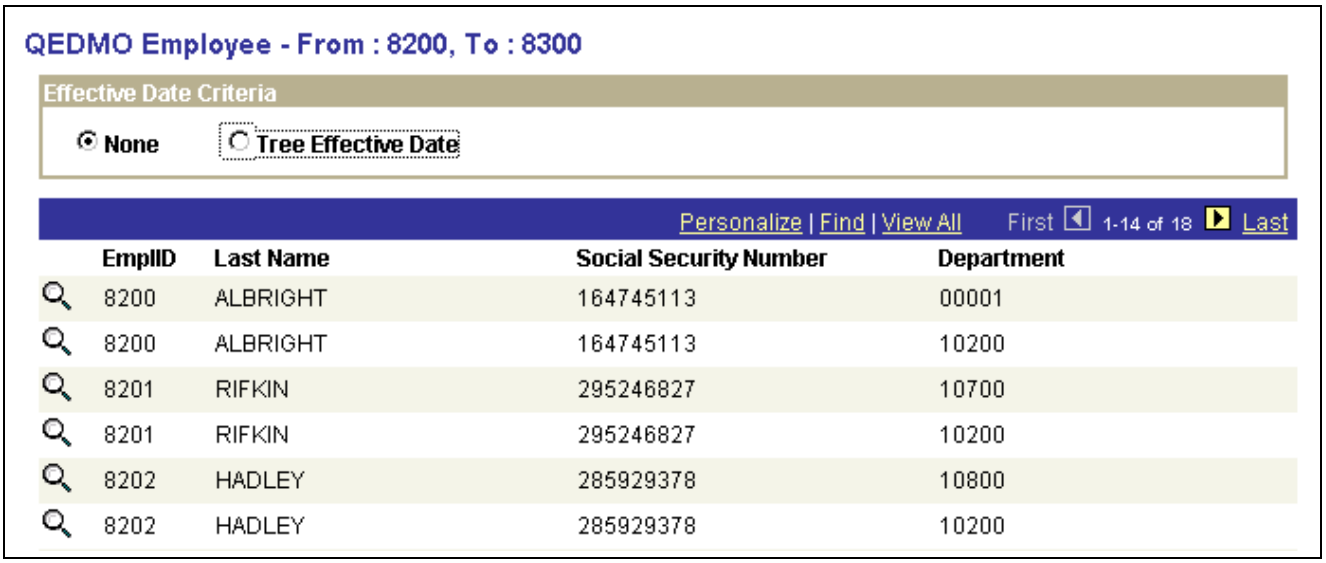
To delete detail values

1. Highlight the detail value and click the Delete image.

   A confirmation message appears.
2. Click Yes to delete or No to return to the tree without deleting.

Viewing Detail Values

Access the Detail Value List page.



Detail Value List page

Effective Date Criteria To display all detail values for the selected node, select *None.*

To display only the detail values that are current based on the tree's effective date, select *Tree Effective Date.*

Personalize Click to change the column or sort order.

Click to select the required detail value.

This page lists the values in a range, or the values in a dynamic detail, depending on the node you selected to access the page. In a normal detail tree, a specific value or range of values defines each node. A dynamic detail tree determines the value by matching the node name with a field on the value table.

Dynamic detail trees use the parent node name as a key to select the detail values.

Values are stored and compared as strings, not numbers. Therefore a range of values identified by numbers may include more values than anticipated. For example:

A company contains the following departments: 107, 1000, 1002, 1010, 1090, 11000, 1779999, and 10699999.

If you specify a range of departments from 1000 to 1090, the values included would be 107, 1000, 1002, 1010, 1090 and 10699999 because the first three characters of these departments fall in the range between 100 and 109.

Although the number 10699999 is greater than 1090, when you use a string, the length of the value doesn't matter. For example, a range of words between CAP and CAT includes the word CARTWHEEL.

Using Drag and Drop

To move nodes and detail values, drag and drop can be used as a substitute for cut and paste. The following rules apply when using drag and drop:

- You can drop values onto the root node, but you can't drag the root node onto another value.

- You can drag nodes and detail values to another location, but you can’t drop nodes onto detail values.
- You cannot drag and drop on:
  - Branched nodes.
  - View-only trees.
  - Dynamic detail leaves.
- Drag and drop functionality is only available for the current page.
- To use drag and drop on large trees, change the Number of Lines per Page field to a greater number.

Note. You can hold down either the right or left mouse buttons to perform drag and drop functions.

Saving and Configuring Trees

This section describes how to:

- Use save and configuration options.
- Copy trees.
- Modify tree definitions.
- Define tree levels.
- Set display options.
- Set navigation options.
- Print trees.

Pages Used to Save and Configure Trees

Page Name	Object Name	Navigation	Usage
Tree Definition and Properties	PSTREEDEFN	Open a tree in Tree Manager and click Save As. Open a tree in Tree Manager and click Tree Definition.	Save a tree with a different name, effective date, and other properties. Or edit properties for an existing tree.
Tree Node Information	PSTREEDEFNLEVELS	Click Define Tree levels on the Tree Definition and Properties page.	Add, delete, and modify tree level information.
Configure User Option	PSTREEMGROPTIONS	Open a tree in Tree Manager and click Display Options.	Specify what information appears on the Tree Manager page.
Detail Navigation	PSTREEMGRNAV	Open a tree in Tree Manager, select a node or detail, and click Navigation Options. Note. The Navigation Options link only appears if multi-navigation flags have been enabled in the tree structure for nodes, details, or both.	Select a detail page to open from the tree when editing data for the selected node or detail. For example, using the Personal Data tree, you could navigate to pages such as Personal Data, Benefits or Salary Information.

Using Save and Configuration Options

From the Tree Manager page, you can perform actions on the selected tree using the following links, displayed above the navigation bar.

Tree Manager save and configuration options

Not all of the options appear on the screen initially. For example, Save Draft doesn't appear until the tree is modified, and Navigation Options only appears if the multi-navigation option has been set for the tree structure.

Save Draft Saves the tree or branch, but does not perform detail audits. Trees are marked as Draft until the audits are performed by saving the tree using the Save command or by manually performing the detail value audits from either the Tree Definition page or the Tree Maintenance page.

Save Saves the tree or branch and performs audits on detail values.

Save As Saves the current tree or branch with a new name, new effective date, or modified properties.

Tree Definition Displays the Tree Definition and Properties page, where you can change audits and edit levels, the tree's category, and description.

Display Options Changes the way trees appear on the page.

Navigation Options	Changes the navigation path for a selected node or detail to any of the components on the menu bar that are specified on the tree structure.
Print Format	Formats all or part of the tree so that it can be printed by using your browser's print function. Also prints the open branch of branched trees.
Close	Closes the tree or branch and displays the Search page. When you are through editing a tree, it is important to save any changes you've made and use Close to let the system know that you are finished editing the tree.

Saving a Tree in Draft Mode

Draft mode prevents detail audits from being performed when a tree is saved. Thus, it's possible to save draft trees that are invalid. The system considers all draft trees invalid, and they can't be used in other PeopleSoft applications such as PeopleSoft Query or PS/nVision until they are saved or until a tree audit is performed from either a regular Save, the Tree Definition page or the Tree Maintenance page.

To view all invalid values in a tree, you can run the audits from the Tree Audit/Repair Utilities program and use the View Results option to see a list of audit problems.

Your can see if your tree is a valid tree or draft tree by viewing the Last Audit value at the top of the Tree Manager page. You can also check the status of a tree from the Tree Maintenance page.

See Also

Chapter 3, "Creating Trees," Performing Audits , page 56

Copying Trees

You can copy a tree using Save As from the navigation bar, or you can use the copy function from the Tree Maintenance page. The whole tree is copied, including its branches.

Note. You can copy a tree into another setID. However, you are only copying tree data, not the supporting application data.

To copy a tree using Save As:

1. Open the tree you want to copy.
2. Select Save As from the Tree Manager page.

   The Tree Definition and Properties page appears.
3. Update the information for the new tree.

   You must enter at least a new tree name and effective date. You can also change any of the other settings, although there are restrictions on your changes to the Use of Levels setting.

   Note. You can change the Use of Levels setting, but you can't change a tree from not using levels to using them. Changing a tree from loosely enforced levels to strictly enforced levels is not recommended .

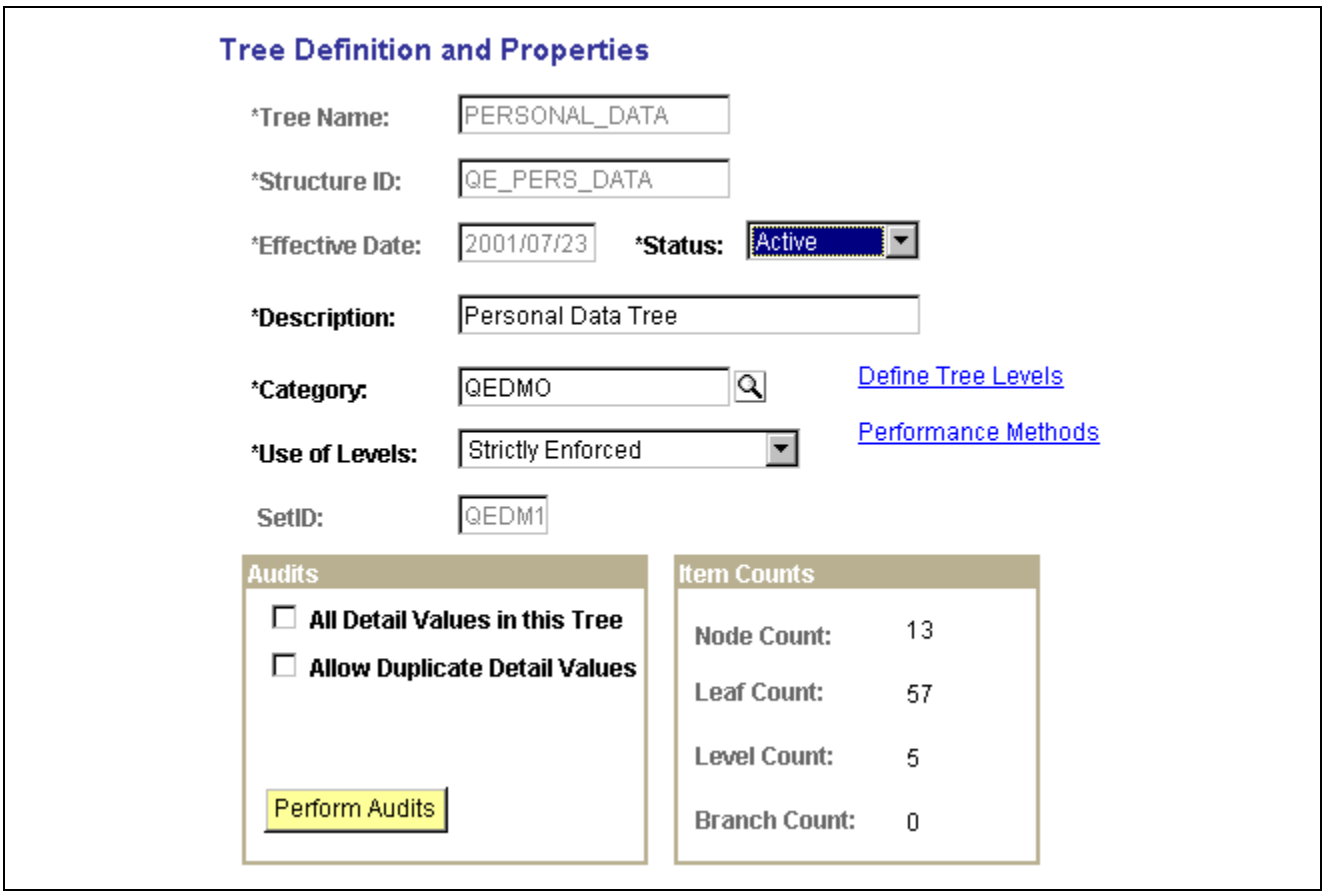
   Click the Save As or Save As Draft button.

See Also

Chapter 4, “Maintaining Trees,” Maintain Trees , page 61

Modifying Tree Definitions

Access the Tree Definition and Properties page by clicking Tree Definition.



Tree Manager − Tree Definition and Properties page

To edit tree definition options:

1. Enter a new description or choose a new category for the tree.
2. In the Status section, select the status of the tree to be Active or Inactive.

   An Active tree can be used by other applications. An Inactive tree cannot be used by the system.
3. In the Use of Levels menu, select how levels in the tree are enforced.

   The available options depend on the type of tree you are modifying.

   If levels are not defined in the selected tree structure, the field is unavailable and the value Level Not Used is displayed. The Define Tree Levels link is not displayed.
4. Click *Define Tree Levels* to access the Tree Node Definition page and add, update, or delete levels.
5. In the Audits group box, select how you want the tree to handle detail values.

   This option is not active for trees that:

- Are keyed by BU or UKV.
- Are simple winter trees, as they do not have detail values.

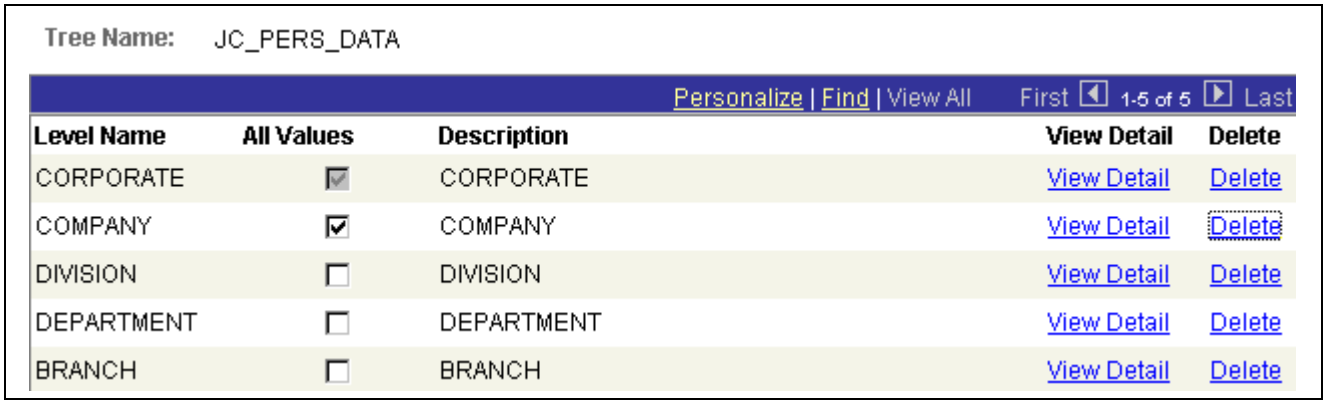
6. Click *Performance Methods* to change performance methods.

   The available options depend on the type of tree you are modifying.

7. Click OK to save your changes.

Defining Tree Levels

Access the Tree Node Information page.



Tree Node Level Information page

To modify, add, or delete tree levels:

1. To edit level details, click the View Detail link.
2. To permit nodes to skip over a level and report to a higher level, clear the All Values check box.

   For example, you might want to skip levels if you have one or more departments that aren't part of any division but report directly to the COMPANY level. Select All Values to make sure that all values from lower levels report to a node at this level.

   Note. The All Values check box for the top level (root node) is selected but not available. You can't skip over the top level.

3. To delete a level, click the Delete link next to it.

   You cannot delete a level that has nodes associated with it.

4. To add new levels, click the Add button.

   The Tree Levels page appears.

5. Enter a name for the level.

   Use a name that reflects what the nodes at this level represent. For example, the first level in the Department Security tree is CORPORATE, indicating that the root node is Corporate Headquarters.

6. Specify whether nodes can "skip over" the level.

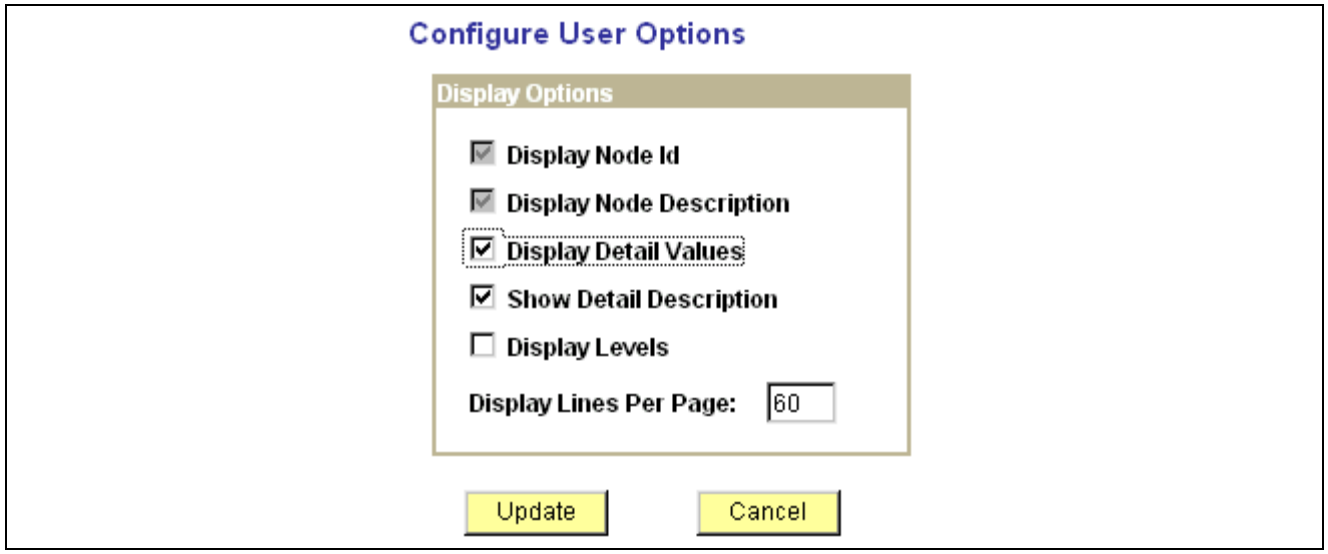
   Select this option if you want to make sure that all values from lower levels report to a node at this level. To allow nodes to skip a level, clear the All Values check box.

7. Click the OK button.

   The Tree Level page closes. If you entered the name of an existing level from another tree, the level name is added. If you entered a new name, Tree Manager displays the page for entering tree level information. The displayed page is the page specified for levels in the tree structure. For most trees, it is the Tree Level page.

Setting Display Options

Access the Configure User Options page.



Configure User Options page

To display or turn off tree node descriptions:

1. Click each box to select a display option.

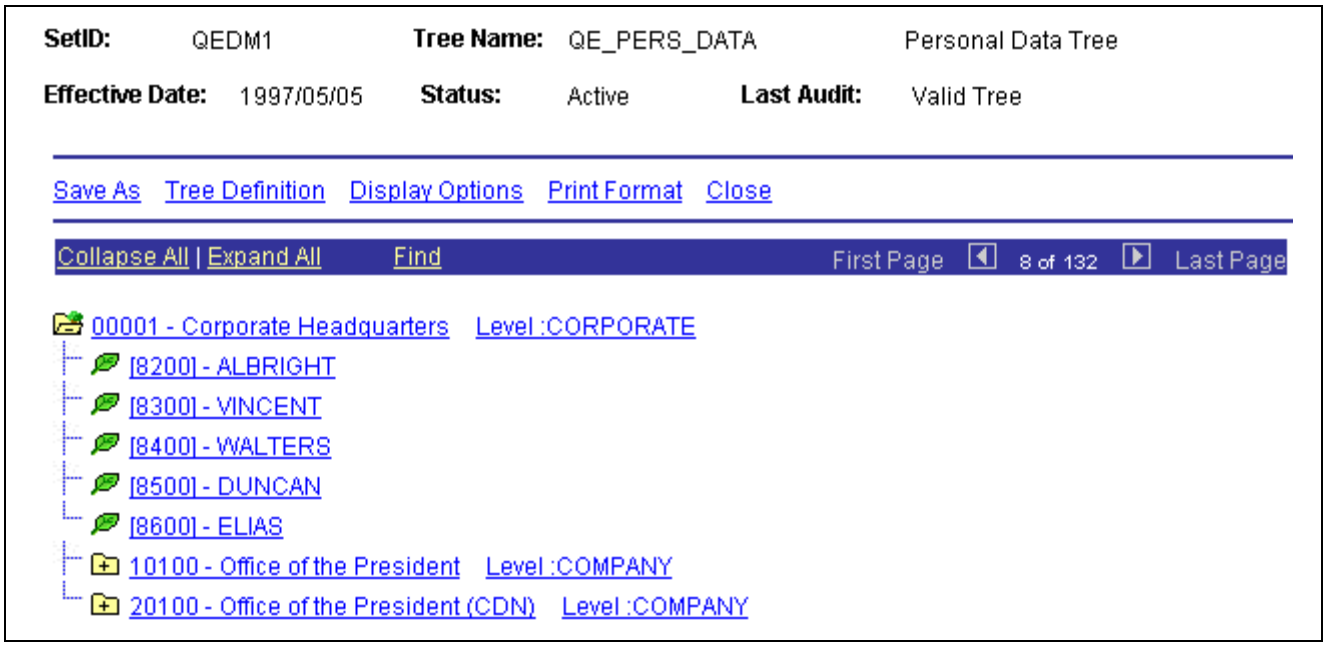
   The Display Levels checkbox is not available if levels are not used.

2. Type in the number of lines you want each page to show. The default is 60 lines.

   The new number of lines entered remains valid until you change it again. The value remains persistent even if the user ends and restarts an internet session.

Note. Displaying a large number of lines may impede performance. PeopleSoft recommends a maximum number of 300.

The following page shows all display options on the screen: node ID, node description, detail values, and levels.



Example of a tree with all display options turned on

You can click the level name next to the node to display the Levels page and edit the level information.

Note. Tree node descriptions may not be visible if the effective date of the tree is earlier than the effective date of the node.

Using Navigation Options

Access the Detail Navigation page.

Tree Manager – Detail Navigation page

You can select a detail page to open when editing data for nodes or details. For example, using the Personal Data tree, you could navigate to pages such as Personal Data, Benefits, or Salary Information.

The page reflects the node or detail selection when you clicked the Navigation Options link. If no selection was made, the page reflects the first entry, node or detail, on the Tree Manager page.

Note. This page is only available if the multiple navigation options have been configured on the Tree Structure record.

Component Lists components that you can navigate to when editing tree node or detail value data.

Page Shows pages you can navigate to within the component.

 Identifies the current navigation selection.

Set Click a page and then click the this button to change navigation to the selected page.

Reset Default Click to change the navigation back to the default page specified in the tree structure.

Cancel	Click to return to the Tree Manager page without saving any changes.

Note. The newly selected navigation path will remain current for the browser session. The path returns to the default for each new session.

Printing a Tree

You can print either part of the tree or the whole tree. When you print an opened branched tree, just the branch prints.

To print a tree:

1. Highlight the areas to print.

   To print a whole tree, highlight the root node, or do not highlight any part of the tree.

   To print part of a tree, highlight the top node for the hierarchy that you want to print. You can also select a detail value belonging to that hierarchy.

   Note. You cannot print a branch from the main tree. If you highlight a branch and click Print Format, a warning message appears asking you to first open the branch.

2. Click Print Format on the navigation bar to format the entire tree so that it can be printed from your browser's print function.

   The expanded tree appears in your browser. If your tree is large, it will probably be too long to fit in one page, and you will need to scroll to view all the parts of the tree.

3. Use your browser's Print button or choose File, Print from your browser to print the tree.

   Note. Tree print jobs are sent to your default printer.

Using Tree Viewer

Tree Viewer is a read-only version of Tree Manager. It allows security administrators an easy way to limit some users to read-only access for all trees.

The only actions available in Tree Viewer are Display Options, Print Format, and Close. Navigation options are the same.

The following table shows the images used when displaying trees in Tree Viewer.

	*Expanded Node:* Represents an open node, showing all lower levels of the hierarchy.
	*Collapsed Node:* Represents a node with its contents out of sight until expanded.
	*Terminal Node:* Represents a node that has no children.
	*Branch Node:* Represents a node that has been branched.

Detail Value or Leaf (detail/summary trees only): Represents an individual field value attached to a node at the end of a branch.

Expand Node Hierarchy: Expands all child objects.

Tree Viewer ignores branches. The root node of the main tree appears with a branch, indicating that a branched node, or nodes, exist. However, the branched node appears with a folder node.

Root node of a tree that contains a branched node

CHAPTER 3

Creating Trees

This chapter provides an overview of tree structure and describes how to:

- Understand tree structures.
- Create detail tree structures.
- Create summary tree structures.
- Define new trees.
- Work with tree branches.
- Grant security access to trees or branches.
- Perform audits.
- Set performance options.

Understanding Tree Structure

Trees are built from the highest level of the hierarchy (root node) to the lowest level of the hierarchy. The following are some basic steps to create trees:

1. Create the tree structure or find an existing tree structure to use.

   Every tree is based upon a structure. The structure defines the links between your tree and the underlying tables to which it refers. There are two main kinds of tree structures:

   - Detail tree structures. There are two types of detail trees—detail-value (summer) and node-oriented (winter) trees.
   - Summary tree structures. These are used for PS/nVision reporting using summary ledgers.

2. Create the tree definition.

   The tree definition specifies:

   - Tree structure.
   - The tree name and key values.
   - How the tree handles detail values.
   - Whether the tree uses levels.

3. Specify the levels in the tree, if necessary.
4. Insert the tree nodes that define the hierarchy of the tree.

5. Attach detail values as “leaves” on your nodes.

   Most types of trees—detail trees, summary trees, and dynamic detail trees—have detail values. However, you skip this step for node-oriented trees.

Creating Detail Tree Structures

This section describes how to:

- Define detail tree structure.
- Define levels.
- Define node properties.
- Define details.

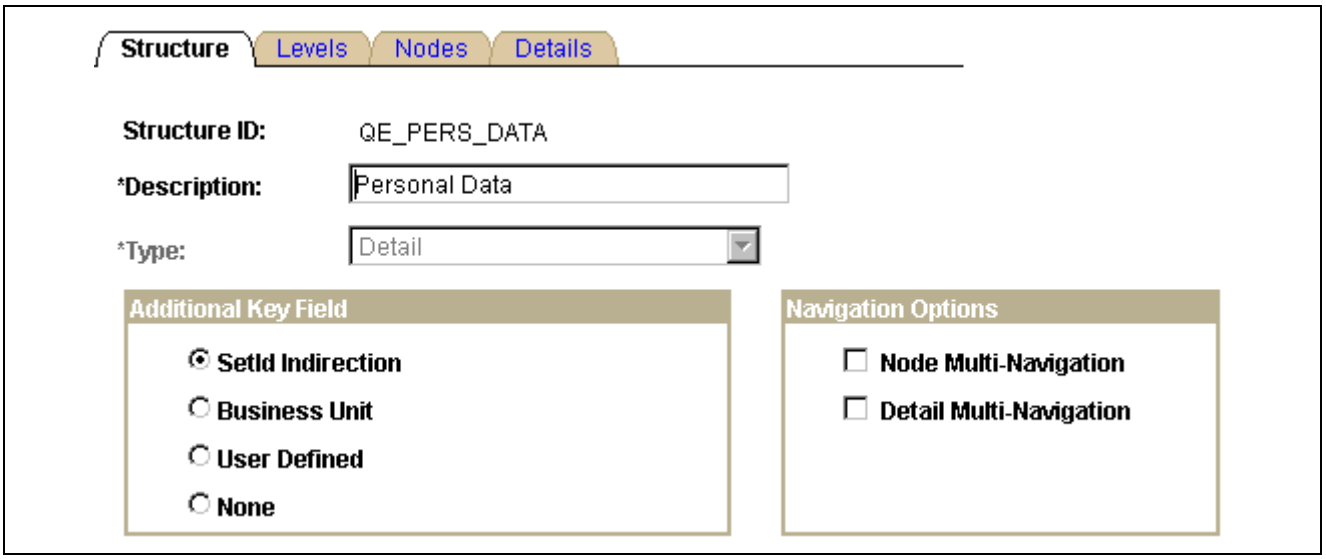
When you define a tree structure, you specify the pages and record definitions Tree Manager uses to store data about the parts of a tree. When you add a new node, level, or detail value to a tree, Tree Manager uses this information to determine the component (pages) to capture the relevant application data. When the specified component is displayed, all of the standard business logic that is part of that component is invoked.

Pages Used to Create Detail Tree Structures

Page Name	Object Name	Navigation	Usage
Structure	PSTREESTRCTDEFN	Tree Manager, Maintain Tree Structure, Create New Structure	Specify tree type, key fields, and navigation options.
Levels	PSTREESTRCTLEVL	Click the Levels tab on the Structure page.	Specify the page and record to enter and store information about tree levels.
Nodes	PSTREESTRCTNODE	Click the Nodes tab on the Structure page.	Specify the page and record used to enter and store information about tree nodes.
Details	PSTREESTRCTDETL	Click the Details tab on the Structure page.	For detail trees, specify the page and record used to enter and store detail information. (Not applicable to node-only trees.)

Defining Detail Tree Structure

Access the Structure page.



Tree Manager − Tree Structure − Structure page

Type Select *Detail.*

Additional Key Field Select from the following values:

SetID Indirection: When you create the tree, both the tree name and the setID identify it. Including the setID as part of the tree key means that you can use setID to share the tree definition among multiple business units.

Business Unit: Use the Nodes tab to select a specific business unit to act as the tree's key.

User Defined: You can designate any key field from the node record as the tree's key. The key field is set on the Nodes tab.

Note. The User Defined option is a deprecated feature. You should try to create all of your trees either using *SetID*. *Business Unit,* or *None.*

None: Your tree does not contain an additional key. It is keyed only by tree name and effective date.

Note. Business Unit and User Defined structures can only be used with node-oriented trees (trees with no detail values). Also, User Defined trees can't be used with other PeopleSoft tools such as Query and PS/nVision. There are no current plans to enhance these tools to work with User Defined keyed trees so you should avoid using this option.

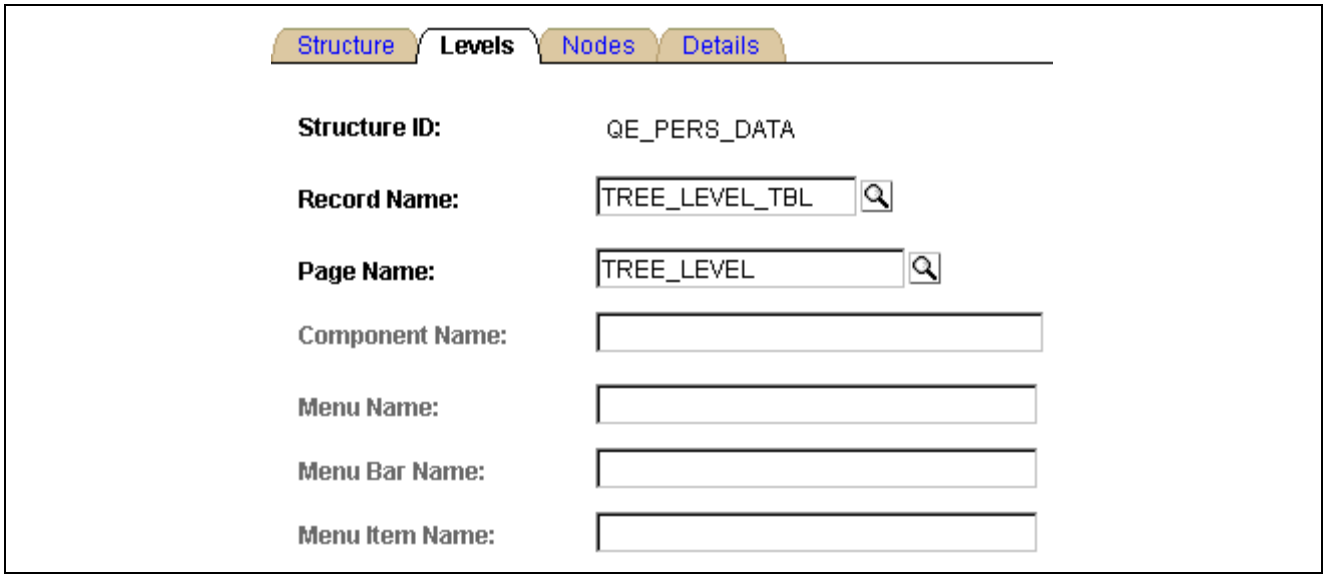
Navigation Options Select to enable multi-navigation for nodes and details.

Multi-navigation allows you to navigate to any pages that are relevant to the node or detail pages specified on the tree structure. Tree Manager enforces the set of rules to determine which pages should be included in the list.

Multi-navigation is not available for Summary structure types.

Defining Levels

Select the Levels tab.



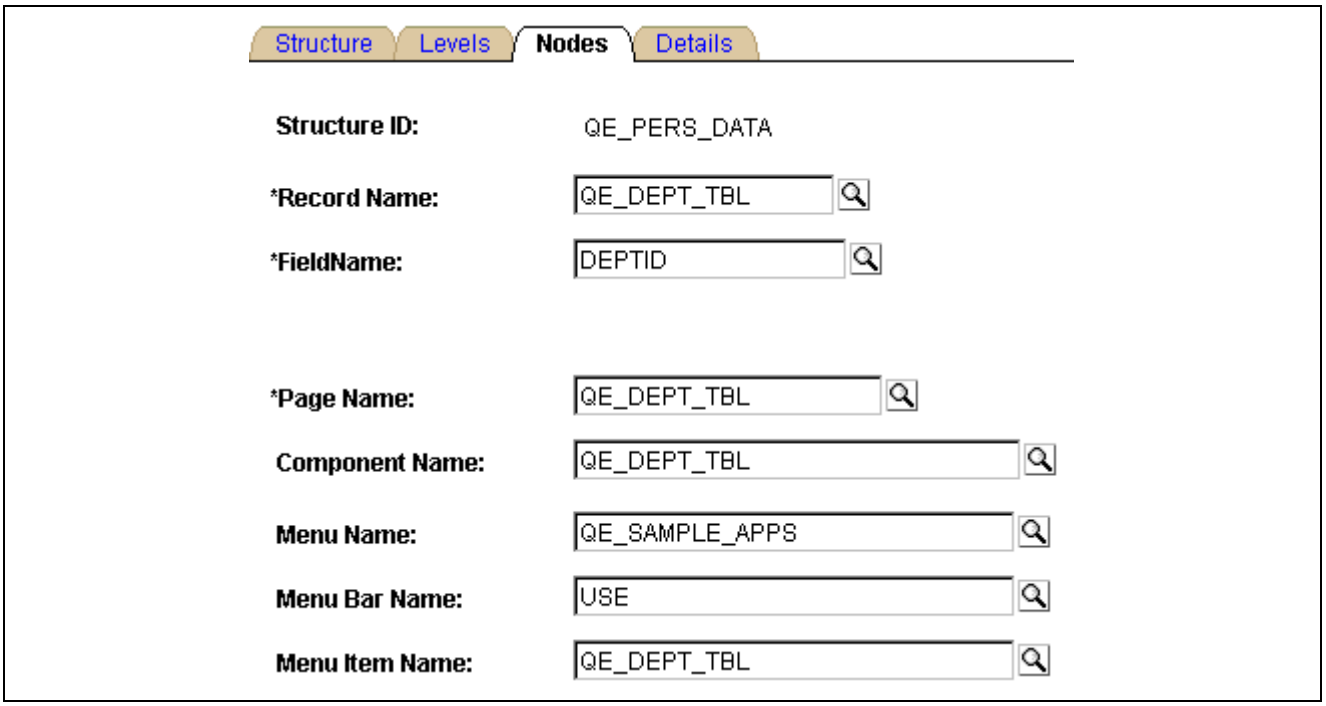
Tree Manager − Tree Structure − Levels page

When you create a new level in a tree, Tree Manager displays the page you specify in the Page field in the Levels page and stores the application data you enter using the record definition in the Record field. The default values for these fields come from the standard Tree Manager page.

When using standard pages, you don't need to enter anything in the Menu Name or Menu Bar Name fields. However, if you want to store level information using something other than TREE_LEVEL_TBL, then you have to create a page and component that uses that new record definition. You must also ensure that the component has been defined on a menu somewhere in your system and specify all of this information on this page.

Defining Node Properties

Select the Nodes tab.



Tree Manager − Tree Structure - Nodes page

Enter the record name, field name, and page name to use for entering and storing information about tree nodes.

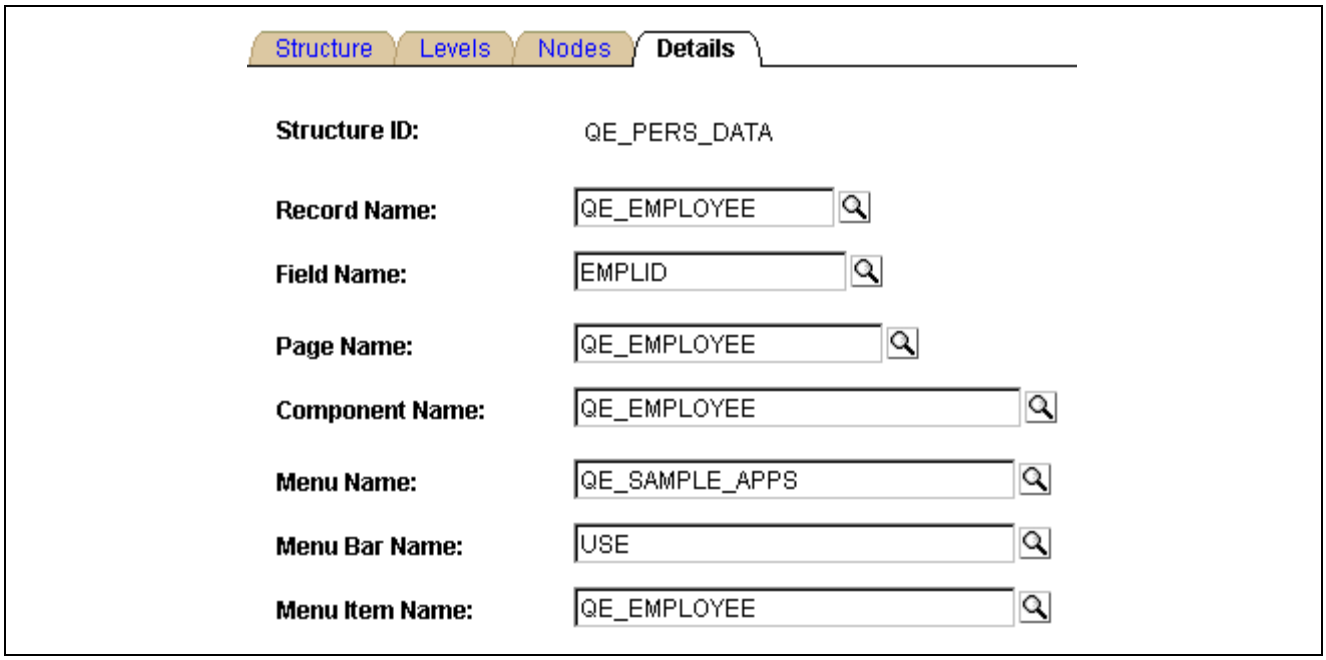
For most detail value trees, leave TREE_NODE in the Page Name field, TREE_NODE_TBL in the Record Name field, TREE_NODE in the FieldName field, and TREE_NODE in the Page Name field. If you use the standard TREE_NODE page and TREE_NODE_TBL, you don't need to enter anything in the other menu fields. However, if you want to use any other page or record, you'll have to create a page and component that uses that new record definition, and make sure that the component has been defined on a menu in your application.

For a node-only tree, where each node represents a detail value, use the page, record definition, and field that correspond to the kind of detail value you're entering. For example, if each node represents a department (as in the Department Security table), use the DEPARTMENT_TREE page, the DEPT_TBL record definition, and the DEPTID field. You would also identify the component that the DEPARTMENT_TREE page is a part of, as well as all of the menu information.

Note. If you are creating a business unit or user-defined key tree structure, the Nodes page displays a field for entering the business unit or user-defined key field.

Defining Tree Details

Access the Details page.



Tree Manager - Tree Structure – Details page

This page is used to define the application data and component used to maintain the detail values for your tree. This page should only be filled in for structures that you plan to use for detail-value trees (summer trees).

Enter the name of the page, component, record definition, and key field name that will be used when adding or updating the application data for a detail value. For example, if each detail value represents a department, use a page, component and menu path that allows you to create and update department information.

Note. When the Tree Manager searches for values for dynamic detail and detail ranges, the search is based first on the override search record specified on the detail menu. By doing this, the values displayed are only those that the user would normally have access to via the Application component. If an override search record is not specified on the menu, then the system uses the component's search record. If there is no component search record, the system uses the tree structure detail record.

Click the Save button to save your new detail tree structure.

Note. Unlike the level and node information, there is no standard page and record for detail values. These are always built on application-specific tables.

Creating Summary Tree Structures

You use summary trees to group nodes from an existing detail tree without duplicating the entire tree structure. Summary trees are used with PS/nVision reporting off of summary ledgers, where the data is rolled up using a detail tree and stored with nodes from that detail tree instead of detail values.

This section describes how to:

- Define summary tree structure.
- Define levels.
- Define nodes.

• Define details.

Pages Used to Define Summary Trees

Page Name	Object Name	Navigation	Usage
Structure	PSTREESTRCTDEFN	Tree Manager, Maintain Tree Structure, Create New Tree Structure	Define tree type and select a detail tree to summarize.
Levels	PSTREESTRCTLEVL	Click the Levels tab on the Structure page.	Specify the page and record to enter and store information about tree levels.
Nodes	PSTREESTRCTNODE	Click the Nodes tab on the Structure page.	Specify the page and record used to enter and store information about tree nodes.
Details	PSTREESTRCTDETL	Click the Details tab on the Structure page.	Specify the record and field information used to summarize the tree.

Defining Summary Tree Structure

To create a summary tree structure:

1. Access the Structure page.
2. Enter a description for the tree structure.
3. Select *Summary* as the type.
4. Enter a detail tree name using the search prompt.
5. Enter a detail setID.
6. Enter a level number using the search prompt:

   The level number defines the level in the detail tree that is used as the detail values for the summary tree. (The lowest level of detail in the summary tree is made up of all of the nodes from the detail tree at a specified level.)

   The search results lists only the detail levels related to the selected detail tree.

Defining Levels

To define levels for the summary tree structure:

1. Select the Levels tab.

   The Levels page appears.

2. Enter the record name and page names using the search prompts.

   When you create a new level in a tree, Tree Manager displays the page you specify in the Page field in the Levels page and stores the data you enter using the record definition in the Record field. The default values for these fields come from the standard Tree Manager page.

When using standard pages, you don't need to enter anything in the Menu Name or Menu Bar Name fields. However, if you want to store level information using something other than TREE_LEVEL_TBL, then you have to create a page and component that uses that new record definition. You must also ensure that the component has been defined on a menu somewhere in your system and specify all of this information on this page.

Defining Node Properties

To define nodes in the summary tree structure:

1. Select the Nodes tab.

   The Nodes Properties page appears.

2. Enter the record name, field name, and page name to use for entering and storing information about tree nodes.

Defining Details

To define tree details for the summary tree structure:

1. Through PeopleSoft Application Designer, create a view with a record type of SQL View.

   For example, if you create a summary tree based on a department detail tree that is keyed by setID, and the detail tree uses PS_TREE_NODE_TBL to store the node user data, then your SQL view might contain the following fields:

   - SETID.
   - DEPTID.
   - EFFDT.
   - DESCR.

2. Use the following SQL:

```
Select A.SETID
,A.TREE_NODE
,A.EFFDT
,B.DESCR
from PSTREENODE A
,PS_TREE_NODE_TBL B
where A.SETID = '<your setid>'
and A.TREE_NAME = '<your tree name>'
and A.SETID = B.SETID
and A.TREE_NODE = B.TREE_NODE
and A.TREE_LEVEL_NUM = <your detail tree level number to be
summarized>
and B.EFFDT =
(select MAX(EFFDT)
from PS_TREE_NODE_TBL
where SETID = B.SETID
and TREE_NODE = B.TREE_NODE
and EFFDT <= A.EFFDT)
```

3. Click the Details tab on the Structure page.

   The Details page appears.

4. In the Record Name field, enter the SQL view that you created.

   Make sure that the setID, tree name, and level number in the view is the same as what you entered on the Structure tab.

5. For the Field Name field, enter the field from the view that you are summarizing. For example, DEPT_ID.

6. Click the Save button to save your new summary tree structure.

Defining Trees

This section describes how to:

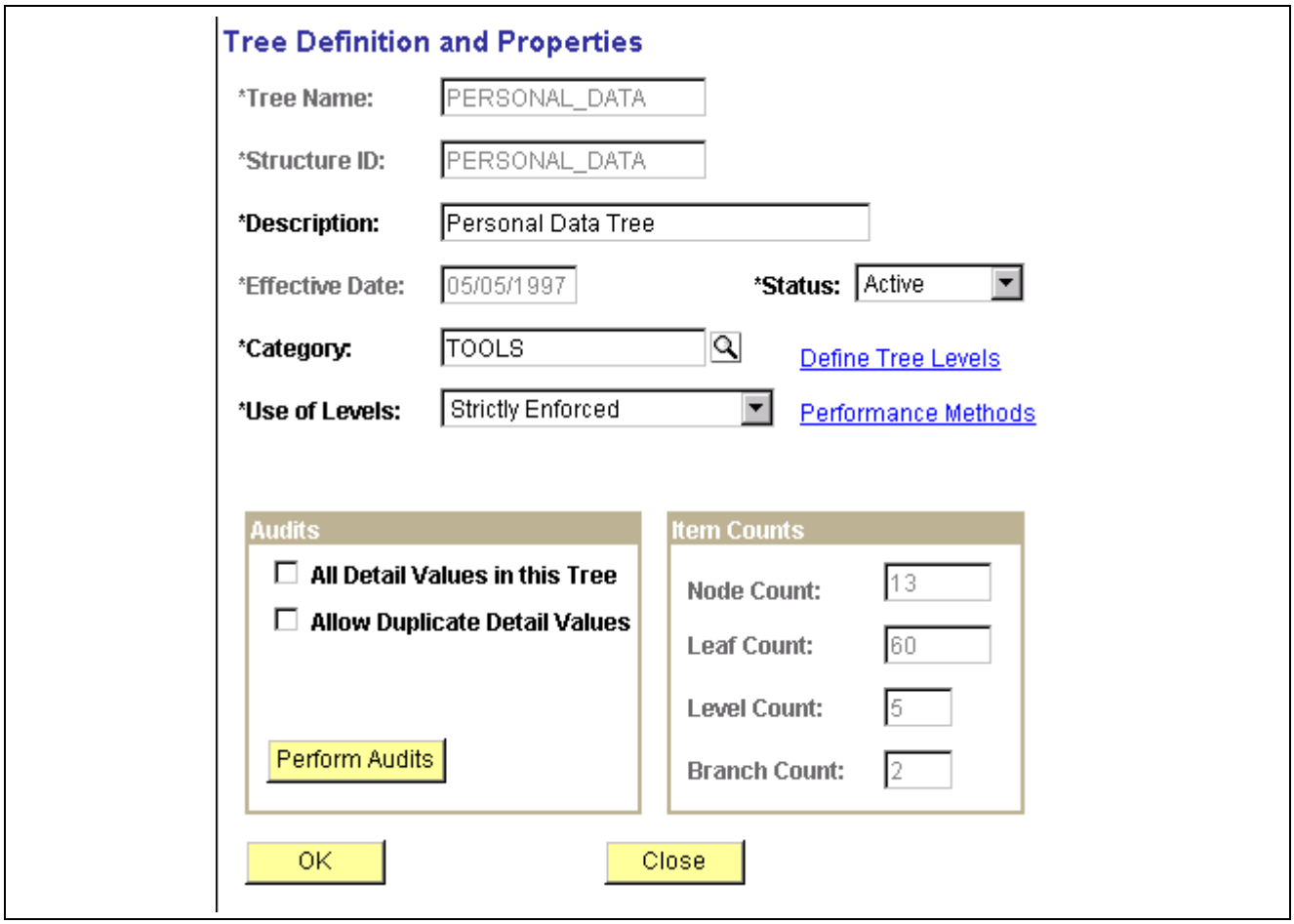
- Define basic attributes.
- Add a root node.
- Define additional nodes.
- Insert nodes into trees.
- Define detail values.

Pages Used to Define Trees

Page Name	Object Name	Navigation	Usage
Tree Definition and Properties	PSTREEDEFN	Tree Manager, Tree Manager, Create New Tree	Specify general attributes for a tree.
Root Node	PSTREEROOTLEVELS	Click OK on the Tree Definition and Properties page.	Define tree levels and the root node.

Defining Basic Attributes

Access the Tree Definition and Properties page.



Tree Definition and Properties page

Structure Select a tree structure. Define structures using the Structure page.

Status Select a status of *Active* or *Inactive.* If you mark a tree as inactive, no other users have access to your tree from other PeopleSoft applications or tools.

Category Select or add a category. Categorizing is a user-defined way of organizing trees so that they are easier to find when using the tree search pages.

Note. Previously, the category determined how trees were arranged at the highest level and was an important visual clue in organizing trees. Category is now only used as a search value.

Use of Levels Select a method for enforcing levels. You should use Strictly Enforced or Loosely Enforced levels unless you have a compelling reason not to. Some features, such as creating summary trees, require levels.

Note. For an existing tree, you can change the Use of Levels field.. For example, you can change Strictly Enforced levels to Loosely Enforced levels, but you can't change from not using levels to using them.

Strictly Enforced: All the nodes at a particular level represent the same kind of information. In an organization tree, for example, all nodes at one level represent companies, all nodes at the next level represent divisions, and so on. With Strictly Enforced levels, each node has a level assigned to it based on its position in the tree. Nodes can skip levels, and the Tree Manager will visually display any levels that are skipped.

Loosely Enforced: The nodes at the same visual level of indentation do not all represent the same kind of information, or nodes representing the same kind of information appear at multiple levels. With Loosely Enforced levels, you assign a level to each node individually; the level is not tied to a particular visual position, although the nodes still have hierarchical parent/child relationships.

Note. Changing a tree from Loosely Enforced levels to Strictly Enforced levels is not recommended.

Not Used: The nodes in the tree have no real hierarchy or reporting structure, but do form a logical summarization structure. With this option, nodes do not have levels associated with them.

All Detail Values in this Tree

Select to check if all values in the detail value table should be included in the tree. For example, if you want to make sure that all of the department IDs in the DEPT_TBL for a given setID are contained in the DEPT_SECURITY tree for that setID, select this box, and Tree Manager will check for any department IDs that are not found in the tree.

Allow Duplicate Detail Values

Select to skip the audit that checks for duplicate detail values in the tree.

When selected you can have the same detail value appear under different parent nodes.

Perform Audits

Click to run the selected audit option from this page.

Tree Manager also performs audits whenever you save a tree. However, no audits are performed if you save the tree using Save Draft.

Item Counts

Displays the number of nodes, leaves, levels, and branches in the selected tree. When you first create a tree, these numbers will be zero.

Define Tree Levels

Click to access the Tree Levels page and add, update, or delete tree levels.

See Chapter 2, " Using Tree Manager," Defining Tree Levels , page 34.

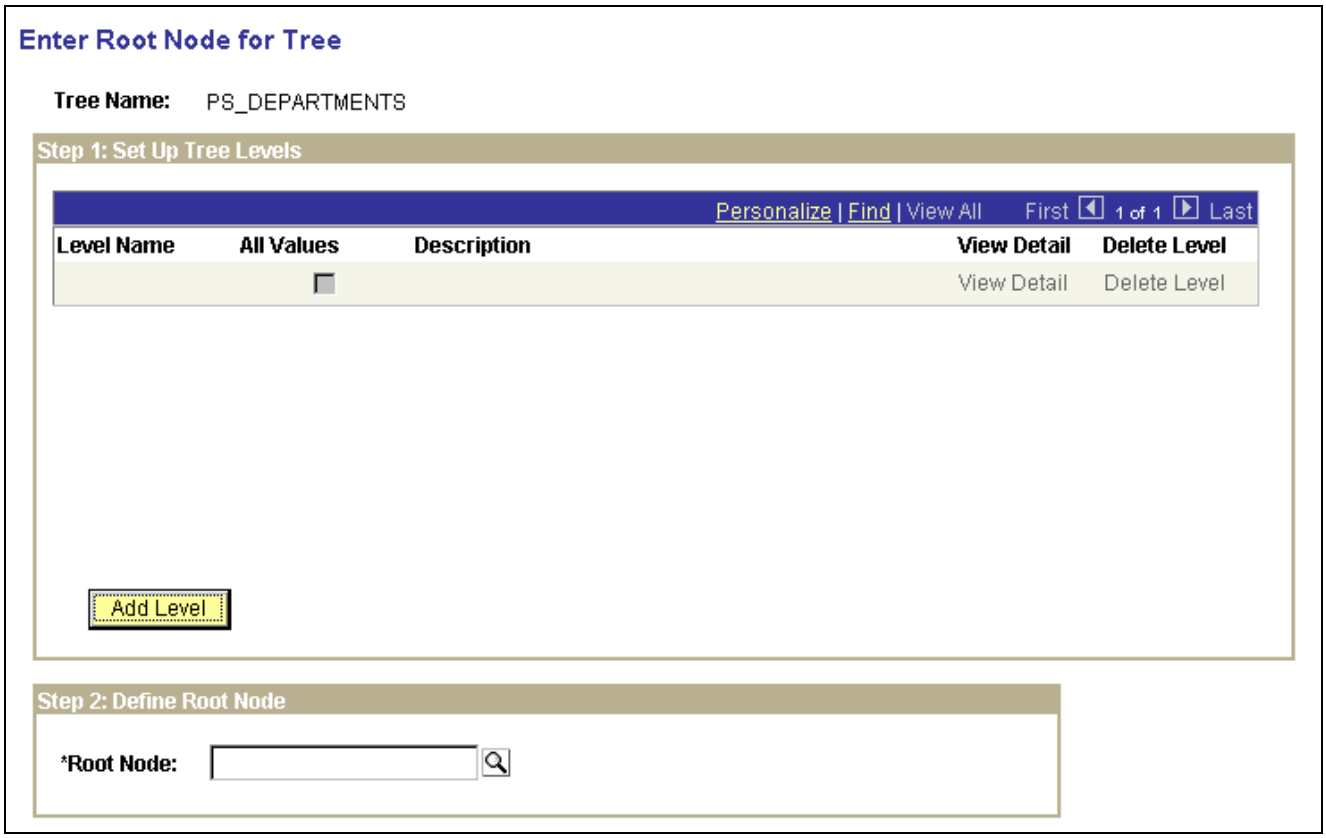
Performance Methods

Click to access the Performance Options page and set access method, tree selector or selector options.

Note. These settings are used mainly for optimizing tree usage with nVision and Query when using the In Tree criteria option.

Adding a Root Node

Access the Root Node page.



Tree Manager - Root Node page

You create a tree from the top down. You start by creating the root node, then add the children of the root node, and continue down to the detail values (if the tree has them). If the tree uses levels, then you must first define the level for the root node. You may want to set up additional levels at this time.

To add a root node:

1. Add tree levels by clicking Add Level.

   The Tree Levels dialog box appears.

2. Enter a name for the level.

   Use a name that reflects what the nodes at this level represent. For example, the first level in the Department Security tree is CORPORATE, indicating that the root node is Corporate Headquarters.

   You can also enter the name of a level from another tree.

3. Specify whether nodes can “skip over” the level.

   The All Values check box specifies whether Tree Manager permits nodes to skip over the level you’re defining to report to a higher level. Select this box to make sure that all values from lower levels report to a node at this level. To allow nodes to skip a level, clear the All Values check box. For example, you might want to do this if you have one or more departments that aren’t part of any division but report directly to the COMPANY level.

Note. When you are adding a top level (the root node), the All Values check box is selected but unavailable. You can’t skip over the top level.

---

4. Click OK.

   The Tree Level page closes. If you entered the name of an existing level from another tree, the level name is added. If you entered a new name, Tree Manager displays the page for entering tree level information. The displayed page is the page specified for levels in the tree structure. For most trees, it is the Tree Level page.

5. Enter a new root node name or select an existing root node.

   If you are entering new node information, you must enter the information in the Tree Node page.

6. Click OK.

   The tree appears with the root node on the page.

Inserting Nodes Into Trees

To insert nodes into trees:

See Chapter 2, " Using Tree Manager," Inserting Nodes , page 22.

See Chapter 2, " Using Tree Manager," Working With Tree Nodes , page 20.

Adding Detail Values

To add detail values:

See Chapter 2, " Using Tree Manager," Adding Detail Values , page 27.

See Chapter 2, " Using Tree Manager," Working With Detail Values, page 26.

Working With Tree Branches

This section provides an overview of branching and describes how to:

- Create tree branches.
- Open tree branches.
- View node properties on tree branches.
- Remove tree branches.

Understanding Tree Branches

Branching means taking a limb of the tree—a section of the tree that reports into a single node—and creating an actual tree object to hold that limb. Branching a tree can improve Tree Manager performance (by reducing the amount of data it needs to load when you open a large tree),. Once you branch a tree, you can specify different object security settings for the branches. When a tree is branched, multiple users can maintain separate sections of the tree while working simultaneously.

When you branch a tree, you're really splitting the original tree into two parts. Tree Manager creates one new object for your branch and another object to hold the remaining part of the tree. After branching, you have two objects:

- The new branch, or sub-tree, that you created.
- A “branch” that corresponds to the rest of the original tree (minus the new branch).

You can use PeopleSoft Object Security to give users different security access to these objects. For example, by restricting access to the new branch, you can give users access only to that branch.

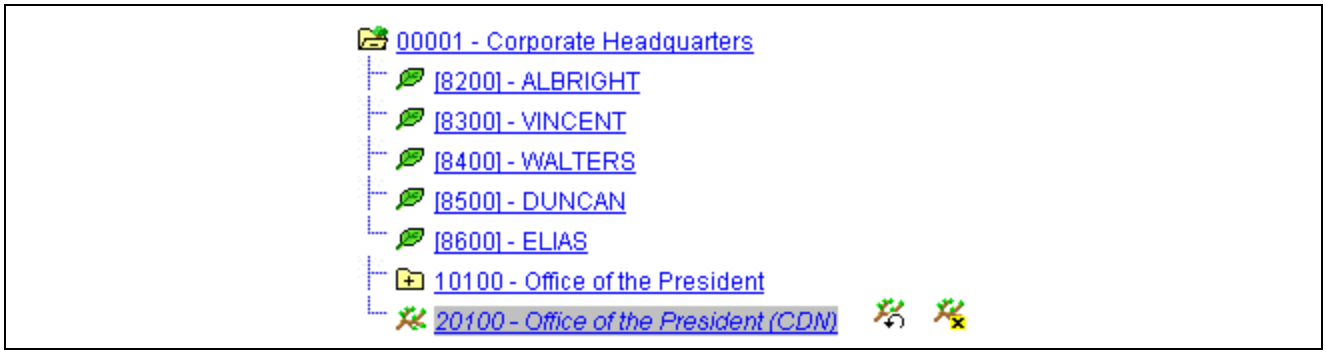
Assigning different security access to different parts of the tree prevents users from making unauthorized changes to the parts of the original tree (tree branches) which they do not have access granted.

Note. Users can make copies of the entire tree by using the Save As option.

Once you’ve created a branch, you can use it as you use any other tree. You can open it independently of the larger tree, modify it, or even create branches from it. When you’re using the original tree, you can’t edit the branch’s nodes or details until you open that branch.

Creating Tree Branches

Select the required tree in Tree Manager.



Office of the President (CDN) becomes a branch node

To create a tree branch:

1. Highlight the node that will be the root node of the branch.
2. Click the Create Branch icon.

   Tree Manager replaces the node icon with a branch node icon. None of the nodes or detail values reporting to the branched node appears in the tree display.

Opening Tree Branches

To open a tree branch, click the Open Branch icon. You can also use Tree Manager search dialog box.

Removing Tree Branches

To remove a tree branch:

1. Highlight the tree branch node.
2. Click the Unbranch icon.

   Tree Manager replaces the branch icon with the node icon. Any nodes that report to the selected node are now available in the tree.

When you remove a tree branch, don't forget to update PeopleSoft Object Security.

See Also

PeopleTools Security, "Understanding Definition Security"

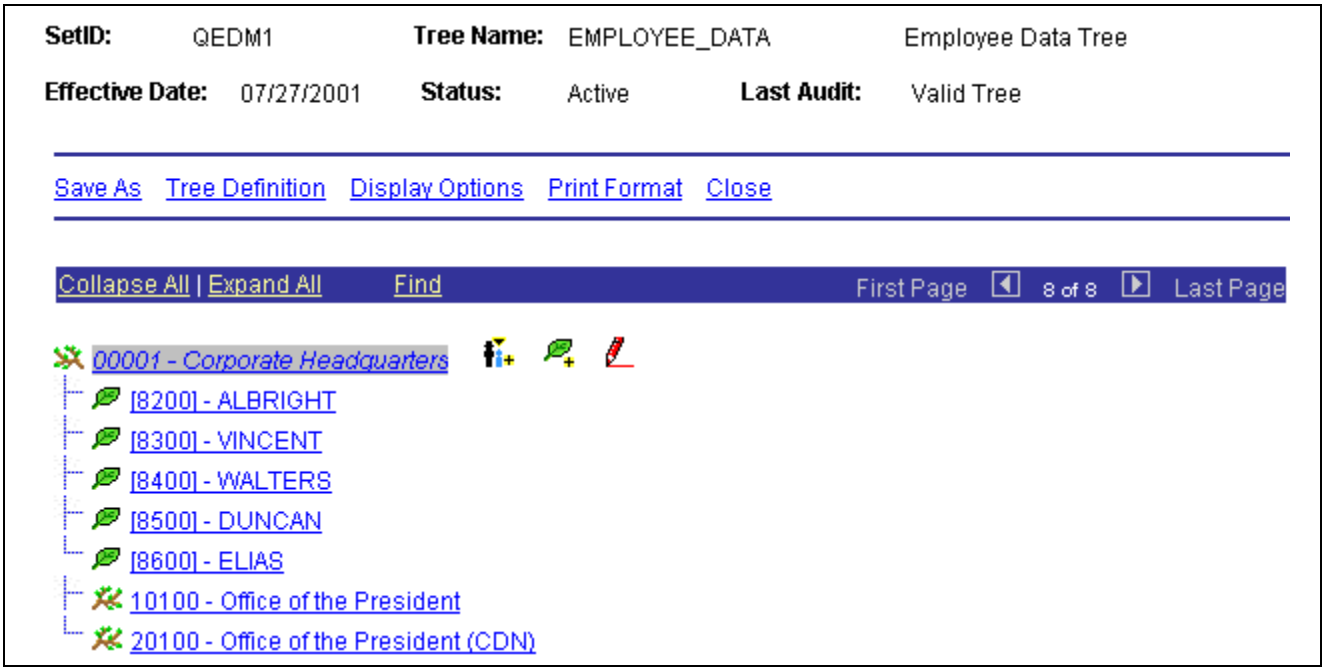
Granting Security Access to Trees or Branches

You can use PeopleSoft Object Security to impose restrictions on your trees and tree structures. Users may have:

- Full access.
- Read-only access.
- No access.

You can also use PeopleSoft Object Security to restrict access to branches. You can give users access to an entire tree *except* for a branch or give them access to the particular branch without granting access to the tree itself..

The following illustration shows an example of a tree containing two branches. The tree has full access, one branch has read-only access, and the second branch has no access.



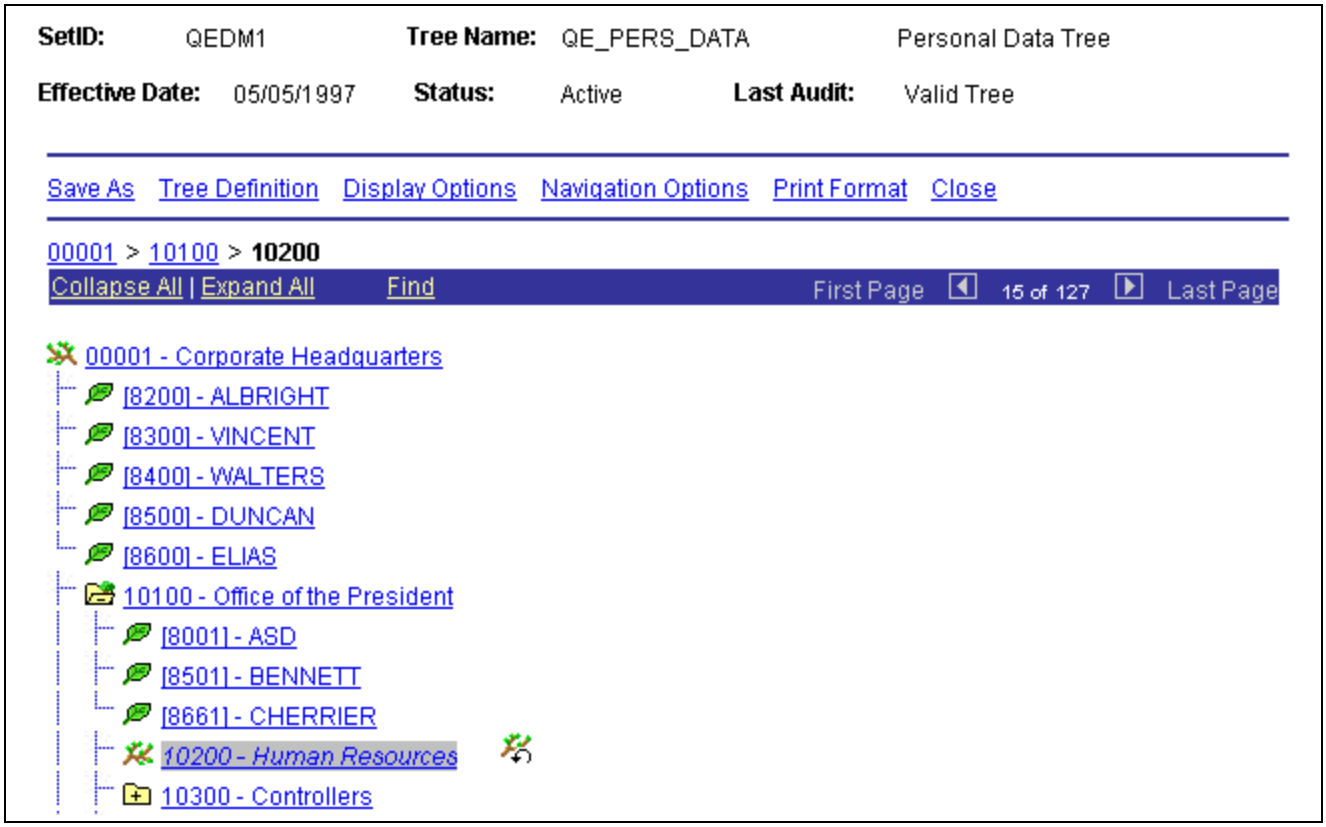
Tree Manager: full access

In the Corporate Headquarters tree, users see all possible editing icons. Users can:

- Insert child nodes.
- Insert details.
- Edit dates.

Read-Only Access

The following is an example of Tree Manager with read-only access:



Tree Manager: read-only access

In the Global Division branch, which has read-only access, only the Open Branch icon is available.

When users open the branch, a message warns that users cannot make changes to the branch.

When the read-only branch opens, no edit icons and no Save link appear.

No Access

If users try to access a tree or branch that does not allow access, they receive a warning message.

See Also

PeopleTools Security, "Understanding Definition Security," Understanding Definition Security

Performing Audits

Once you have completed your tree, you can have Tree Manager verify that it meets the restrictions you set for it. For example, if you selected the All Detail Values check box when you created the tree definition, Tree Manager audit verifies that you've included all detail values.

You can perform a tree audit from the Tree Definition and Properties page, by saving the tree, by running the Tree Audit/Repair batch program, or by using the Tree Maintenance page. If you want to audit a *closed* tree, use the Tree Maintenance page. To get a report of all of the problems that have been found with the tree, use the Tree Audit/Repair program.

When you perform an audit, Tree Manager displays a warning message in the following circumstances:

- One or more nodes have no detail values reporting to them.
- You selected All Detail Values, but one or more defined values for the database field don't appear in the tree.
- If you have not selected the Allow Duplicate Details option, then Tree Manager will check for duplicate detail values and detail values with overlapping ranges.

Note. Although Tree Manager attempts to detect overlapping detail values when the user inserts or modifies each detail value, the final audit process may detect overlapping or duplicate detail values that are not caught when the detail value is created/modified.

Tree Manager also tells you where the problem is.

The warning message tells you that the tree is invalid. You can save the tree as a Draft tree only, and you can't use it with other PeopleTools, such as PeopleSoft Query or PS/nVision, until the tree is valid.

At this point, you can either correct the problem that is causing the tree to be invalid, or use the Save As Draft feature to save the tree in an invalid (unfinished) state.

All audits report the first occurrence found of any of the following problems. The audits are performed first on the displayed nodes and details, and then on the nodes in the database.

Node audits are only performed on open trees. If you run an audit from the Tree Maintenance page (from a closed tree), you only run the Detail audit. When you audit a tree branch, the node audits are performed on the nodes in the current branch only, while the detail audits are performed on all branches.

Note. These audits report only problems, not values. Run the Tree Audit/Repair program to get a complete list of problems with the tree.

The following table shows a complete list of audit checks.

Check For	Purpose	When Check Occurs
Overlapping Node Numbers	Reports first occurrence of two nodes whose internal node numbering is overlapping.	Always.
Nodes Outside of Parent's range	Reports first occurrence of a node whose internal node number does not fall within the parent node's internal node number range.	Always.

Check For	Purpose	When Check Occurs
Nodes Without Parents	Reports first occurrence of a node whose internal node number for a parent does not have an actual node with that number.	Always.
Duplicate Node Names	Reports the first duplicate node name when it finds a node with the same name reporting to a different parent node.	Always.
Overlapping Detail Ranges	In a detail tree, reports when it finds any detail whose From and To range overlaps the To and From range of a different detail.	Always.
Nodes Without Leaves	In a detail tree, reports when any terminal node has no leaves.	Always.
All Detail Values	Reports if you haven't included all detail values.	When the All Detail Values In This Tree option is checked on the Tree Definition dialog box.
Duplicate Detail Values	Reports if there are any duplicate detail values.	When the Allow Duplicate Detail Values option is not checked on the Tree Definition dialog box.
Skipped Levels	Reports when a level is skipped.	When the All Levels option is checked on the Tree Level dialog box.

Setting Tree Performance Options

You can set performance-enhancing options to improve the database performance of queries that use trees as selection criteria. This includes queries to which tree criteria are added by PS/nVision layouts and scopes. Both PeopleSoft Query and PS/nVision use the tree performance options.. The performance options do not impact Tree Manager itself, only the performance of programs that use the tree data.

Because of the many variations of data distributions, indexes, queries, and optimizers, you can choose SQL techniques that will tune your queries for optimum performance. By specifying these options at the tree level, your trees can be used in queries whether or not they are run through PS/nVision. Those options, however, can be overridden by the performance options set at the PS/nVision level.

See Also

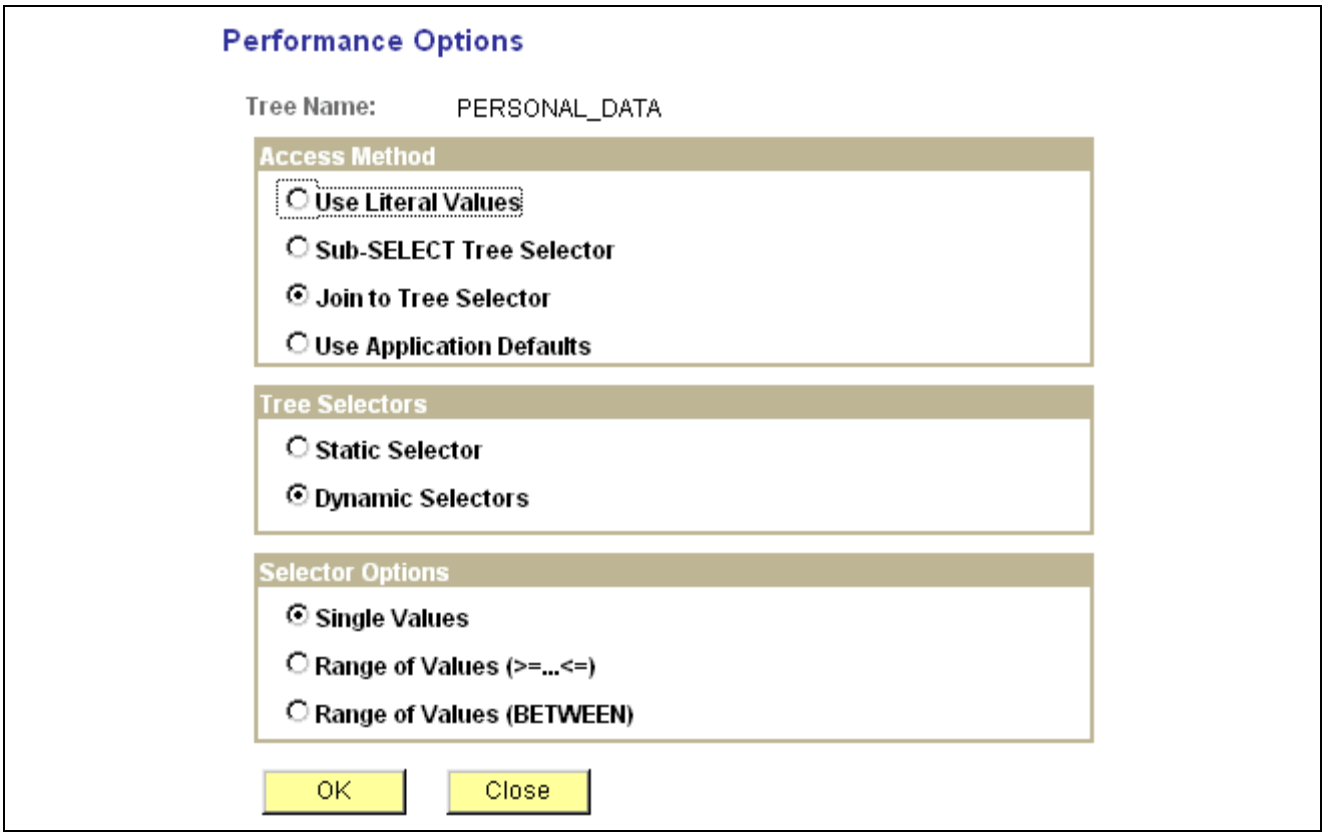
PS/nVision, "PS/nVision Performance Tuning," Enhancing Tree Performance With SQL Techniques

Page Used to Set Tree Performance Options

Page Name	Object Name	Navigation	Usage
Performance Options	PSTREEDEFNPRPTY	Tree Manager, Tree Manager, Tree Definition, Performance Methods	Select options to enhance performance for queries that involve trees. .

Selecting Performance Options

Access the Performance Options page.



Performance Options page

Access Methods Select an access method. Choose from:

Use Literal Values: Eliminates a SQL join by retrieving the detail ranges associated with the selected node and coding them in the Select statement.

Sub-SELECT Tree Selector: Instead of adding 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. This is called a "correlated sub-query."

Join to Tree Selector: Includes the tree selector table in the From clause and uses 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.

Use Application Defaults: Uses the tree performance options specified in the applications that use this tree. PS/nVision defaults to the tree performance options specified in a PS/nVision layout's options. If performance options are not specified in PS/nVision, the PS/nVision's default performance options are used. For PeopleSoft Query, this option defaults to the query's sub-SELECT method.

Tree Selectors

Select a tree selector type. Choose from:

Static Selector: A technique in which a selector represents the entire tree remains valid until the tree changes.

Dynamic Selectors: A technique in which PS/nVision creates a new tree selector for use in a section of a single report. The dynamic selector represents just the requested nodes.

Selector Options

Choose a selector option from the following values:

Single Values: Used only with dynamic selectors. This technique causes 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, this makes 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.

Range of Values (BETWEEN): Similar to the other Range of Values selector, but use the syntax "fieldname BETWEEN RANGE_FROM_nn AND RANGE_TO_nn". This is a better choice for ranged selectors on most database platforms.

See Also

PS/nVision, "PS/nVision Performance Tuning," Setting Tree Performance Options

CHAPTER 4

Maintaining Trees

This chapter explains how to:

- Maintain trees.
- Maintain tree structures.
- Subscribe to tree change messages.

Maintain Trees

This section describes how to:

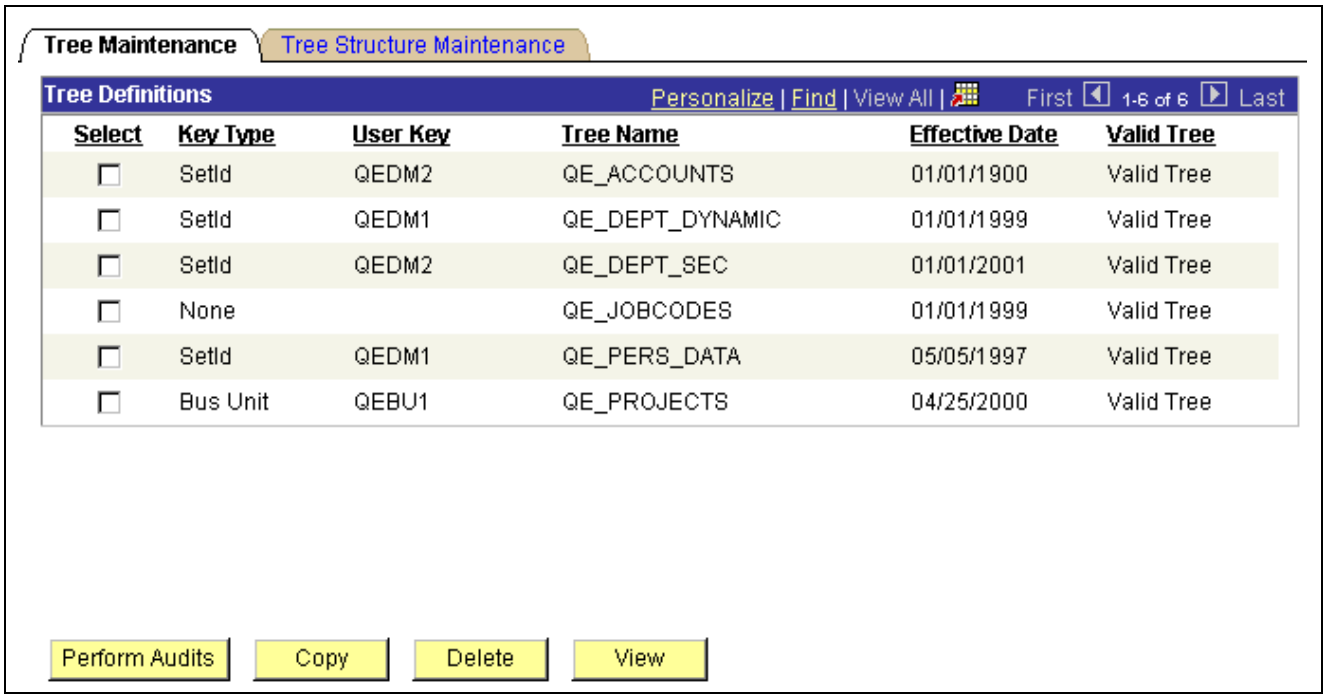
- Perform audits and delete trees.
- Copy trees.
- View trees.

Pages Used to Maintain Trees

Page Name	Object Name	Navigation	Usage
Tree Maintenance	PSTREEMAINT	Tree Manager, Tree Utilities, Copy/Delete Trees	Audit a closed tree, copy a tree, delete a tree, or view a tree.
Tree Definition and Properties	PSTREEDEFN	On the Tree Maintenance page, select a tree and click Copy.	Copy a tree.
Display and Select TreeNodes	PSTREEVIEWER	On the Tree Maintenance page, select a tree and click View.	View a tree.

Performing Audits and Deleting Trees

Access the Tree Maintenance page.



Tree Maintenance page

Key Type Displays the key type associated with this tree.

SetID Indirection: The tree is identified by tree name and setID.

Business Unit: The tree is identified by a business unit.

User Defined Node Key: The tree is identified by a user-defined key.

None: The tree does not contain an additional key. It is keyed only by tree name and effective date.

User Key Displays the user-defined node key. If the key type is None, the field is blank.

Valid Tree Displays the status of the tree.

Perform Audits To audit a tree, select its check box and click the button.

The Last Audit field for the tree changes to Valid Tree if the tree passes the audit. If the tree fails the audit, the Last Audit field changes to Draft Tree.

Note. You can get a detail listing of audit errors by running the Tree Audit/Repair batch program.

Copy To access the Tree Definition and Properties page and copy a tree, select a tree check box and click the button.

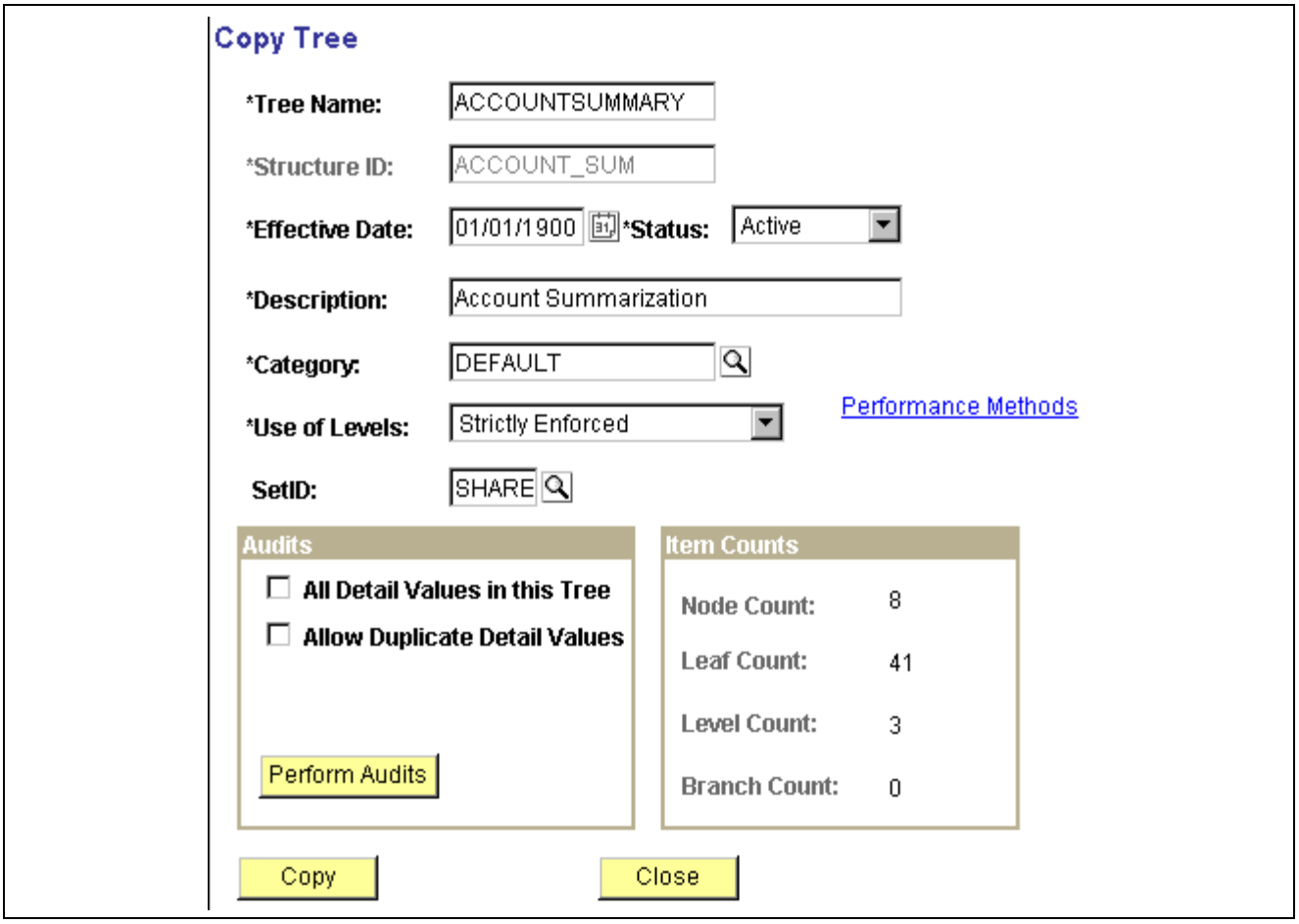
Delete To delete a tree, select its check box and click the button.

View To access the Display and Select TreeNodes page and view a tree, select a tree check box and click the button.

Note. Trees secured by PeopleSoft Object Security for anything but Full Access are not listed and cannot be updated or deleted from the Tree Maintenance page.

Copying Trees

Access the Tree Definition and Properties page.



Tree Definition and Properties page

Make any necessary changes and click Copy.

Viewing Trees

Access the Display and Select TreeNodes page.

Display and Select TreeNodes page

Note. Trees displayed in View mode do not differentiate between standard nodes and branches. All nodes expand and collapse so that you can view the whole tree. Use the Expand Node Hierarchy icon to expand all child nodes.

Click Close to return to the Tree Maintenance page.

Maintain Tree Structures

This section describes how to:

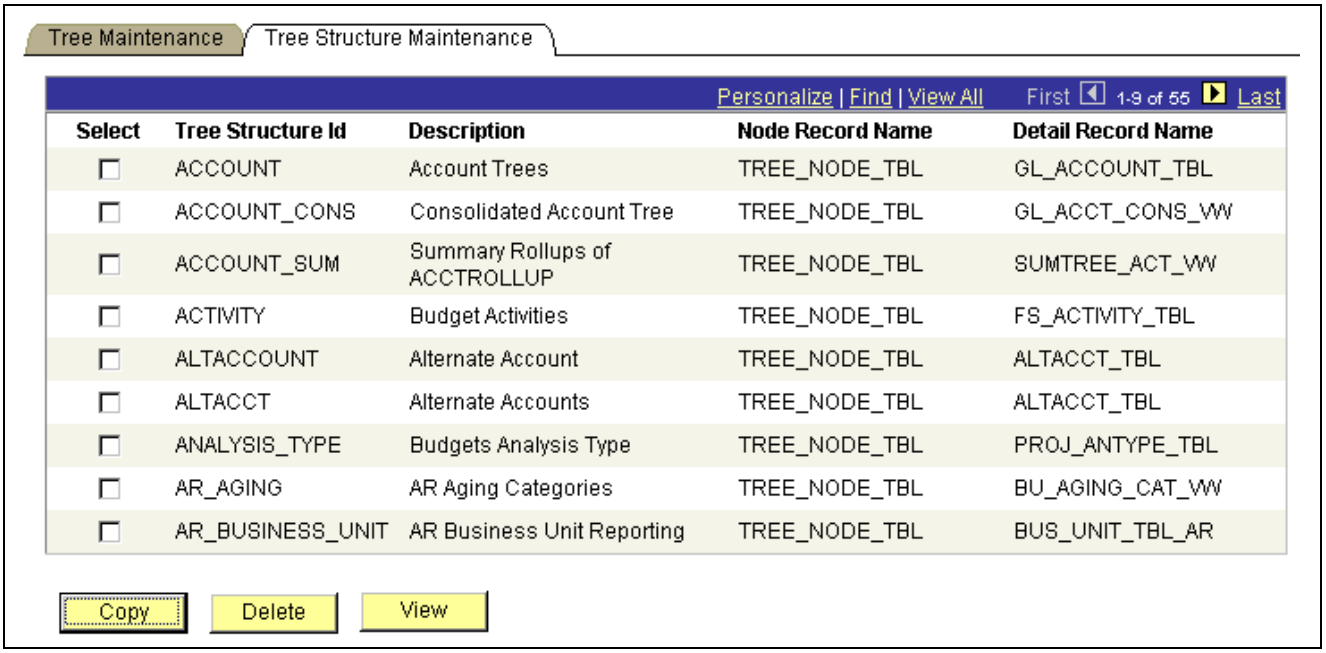
- Delete tree structures.
- Copy tree structures.
- View tree structures.

Pages Used to Maintain Tree Structures

Page Name	Object Name	Navigation	Usage
Tree Structure Maintenance	PSTREESTRCTMAINT	Tree Manager, Tree Utilities, Copy/Delete Trees, Tree Structure Maintenance	Copy a tree structure, delete a tree structure or view a tree structure.
Copy Tree Structure	PSTREESTRCTCOPY	On the Tree Structure Maintenance page, select a tree structure and click Copy.	Copy a tree structure.
Tree Structure	PSTREESTRCTDEFN	On the Tree Structure Maintenance page, select a tree structure and click View.	View a tree structure.

Deleting Tree Structures

Access the Tree Structure Maintenance page.



Tree Maintenance - Tree Structure Maintenance page

Node Record Name Displays the name of the record that stores information about the tree nodes.

Detail Record Name Displays the name of the record definition that corresponds to the kind of detail value in the structure.

Copy To access the Copy Tree Structure page and copy a structure, click a structure check box, then click the button.

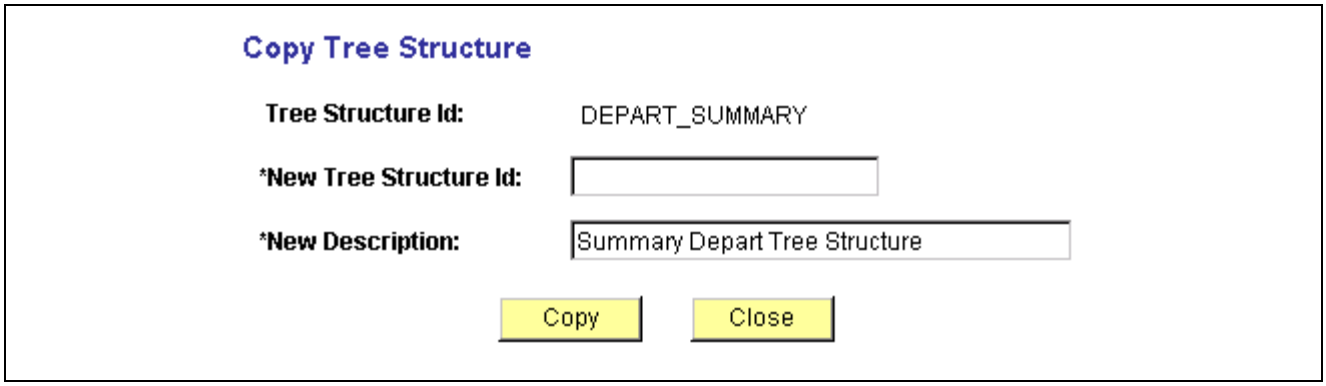
Delete To delete a tree structure, click its check box, then click the button. You cannot delete a structure that is currently being used by a tree.

View To access the Tree Structure page and view a structure, click a structure check box, then click the button.

Note. Tree structures secured by PeopleSoft Object Security for anything but Full Access are not listed and cannot be updated or deleted from the Tree Structure Maintenance page.

Copying Tree Structures

Access the Copy Tree Structure page.



Tree Structure Maintenance − Copy Tree Structure page

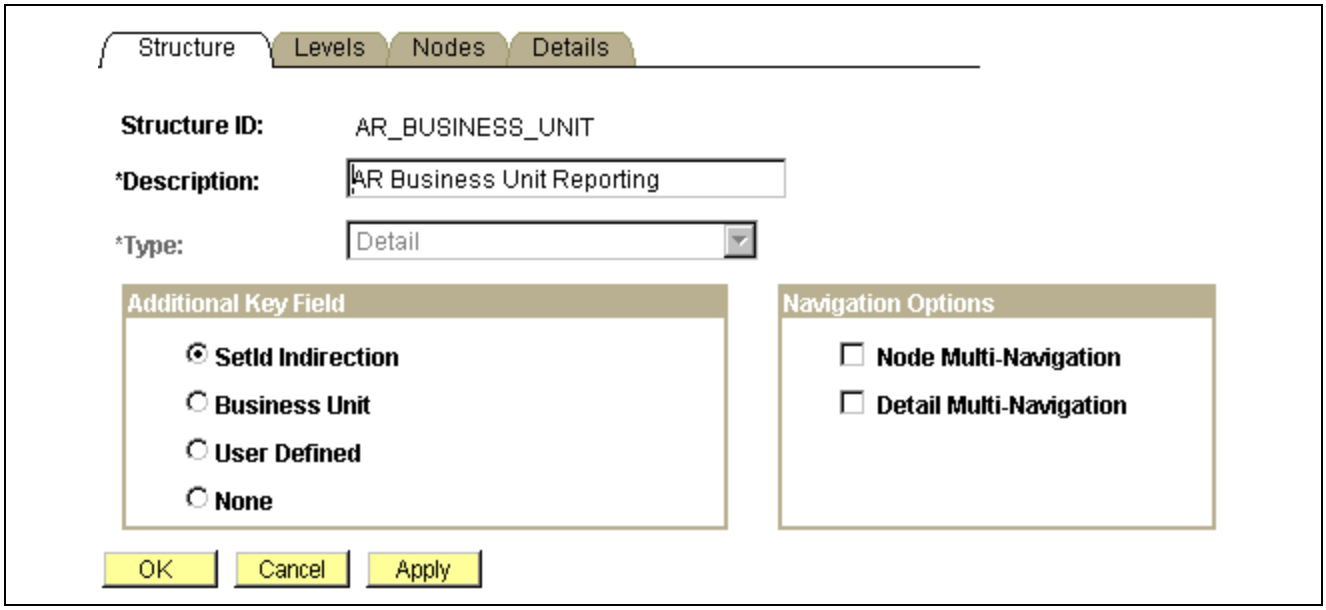
To copy a tree structure:

1. Enter a new tree structure ID.
2. Change the description in the New Description field.
3. Click the Copy button.

You return to the Tree Structure Maintenance page. The new tree structure is listed.

Viewing Tree Structures

Access the Tree Structure page.



Tree Structure Maintenance − Tree Structure page

Click the Levels, Nodes and Details tabs to view additional information.

Click OK or Cancel to jump to the Tree Structure Maintenance page.

See Also

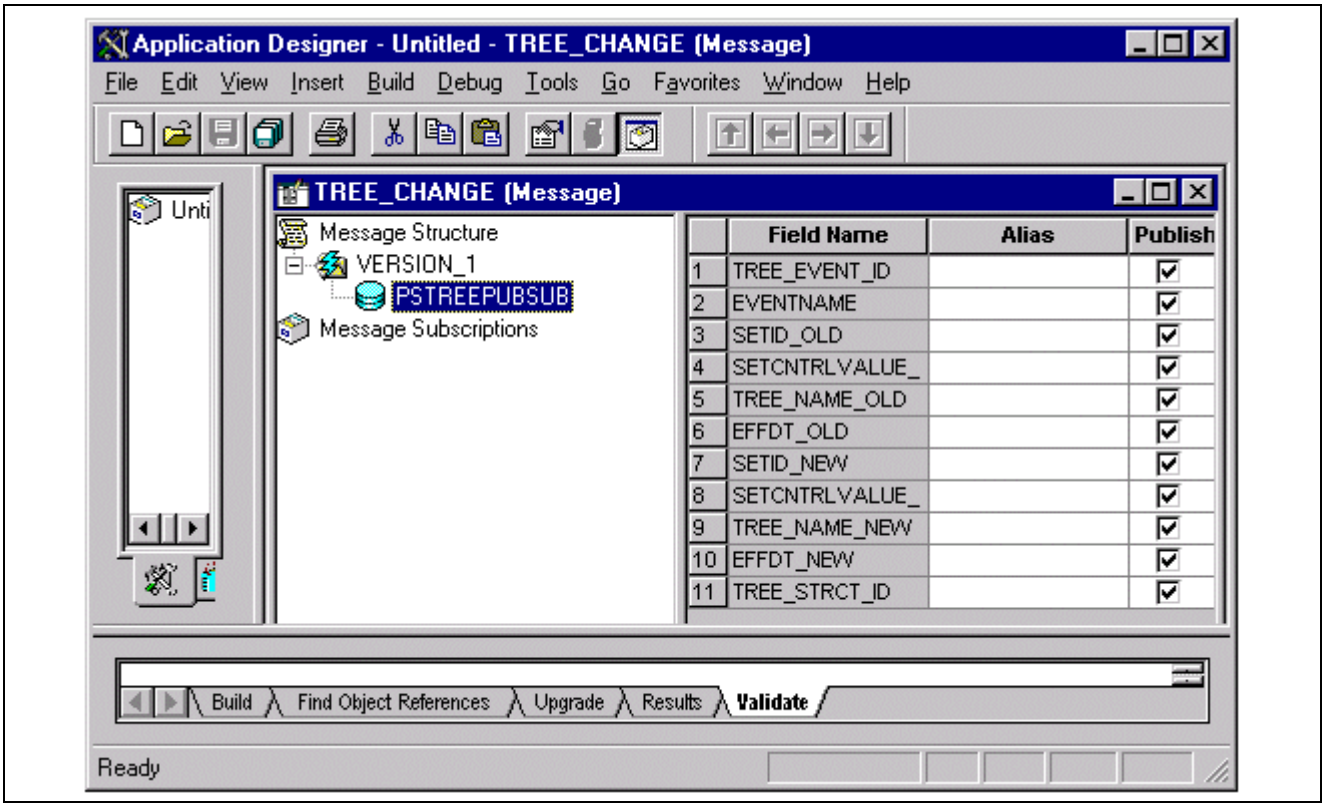
Chapter 3, “Creating Trees,” Understanding Tree Structure , page 41

Subscribing to Tree Change Messages

Every time you perform an action in Tree Manager to change a tree (such as rename, delete, any kind of save, copy, branch, or unbranch), a TREE_CHANGE message is published with the Tree Key information in the PSTREEPUBSUB record. Through Application Designer, you can enter a subscription process that runs every time this message is published.

This section describes how to:

- Enter a subscription process.
- Enter a subscription program.



Application Designer - Tree Change (Message)

Note. The field EVENT_ID is defined in the Financials database as a Char,20 field, and is used by a number of Applications. In PeopleTools PSTREEPUBSUB, the field was defined as a Number,6. To avoid conflicts, EVENT_ID has been removed from PSTREEPUBSUB, and replaced with TREE_EVENT_ID.

This change may affect Apps who subscribe to the TREE_CHANGE event, and check for EVENT_ID in PeopleCode using field name.

Entering a Subscription Process

To enter a subscription process:

1. Select Go, PeopleTools, Application Designer.
2. Select File, Open.
3. Open a message as the Object Type.
4. Enter the selection criteria for the message and click Open.

   The record that is published is shown to the right. Your program can check for the following EVENT_ID numeric values:

   - TreeCopyMsg
   - TreeCreateMsg
   - TreeDeleteMsg
   - TreeRenameMsg
   - TreeChangeMsg (this includes any type of save)

Entering a Subscription Program

To enter your subscription program:

1. Right-click on Message Subscription and select Insert Message Subscription.

   The Message Subscription Properties dialog box appears.
2. Enter the name of the PeopleCode program you want to run.

CHAPTER 5

Using the Tree Audit/Repair Program

This chapter describes how to:

- Audit trees.
- Run tree repair programs.

Auditing Trees

This section describes how to:

- Use the Tree Audit/Repair program.
- Review audit results.
- Review individual reports.

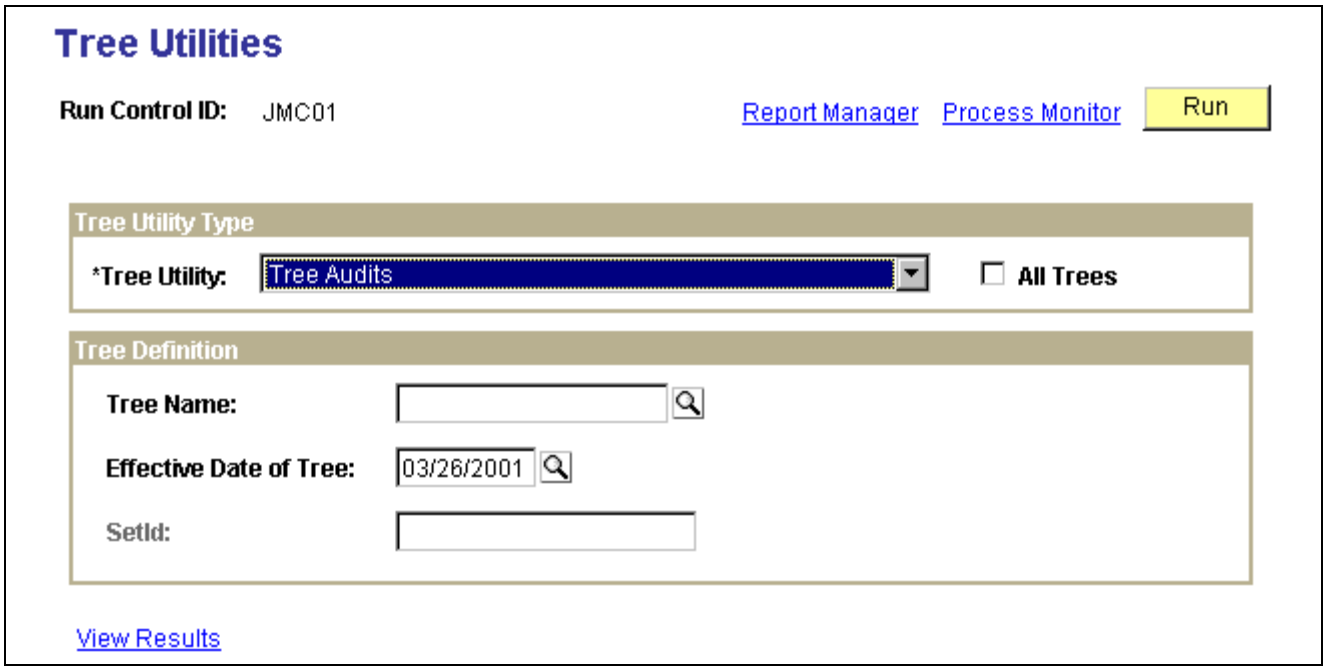
Tree audits should be performed on trees that are having problems or have had major changes made to them.

Pages Used to Audit and Repair Trees

Page Name	Object Name	Navigation	Usage
Tree Utilities	RUN_TREE_UTILITIES	Tree Manager, Tree Utilities, Audit/Repair Tree You can also access just the batch audit function by selecting Tree Manager, Run Audits.	Audit, troubleshoot or repair problem trees.
Tree Utility Reports	PSBATCHREPORT	Click View Results on the Tree Utilities page. Tree Manager, Tree Utilities, Review Tree Audit. Tree Manager, Run Audits, View Results	View results of an audit.
	PSBATCHREPORTLIST	Click the Select link for a report on the Tree Utility Reports page.	View individual reports.

Using the Tree Audit/Repair Program

Access the Tree Utilities page.



Tree Utilities page

Tree Utility

Select a utility from the following options. Typically, you would run the audits first, then choose a repair program as indicated by the audit results.

Tree Audits: Audits a selected tree or all trees.

Correct Level Numbers: Ensures level numbers are correct. Reset node numbers are equal to the parent node's level number plus one.

Correct Parent Node Numbers: Ensures parent node numbers are correct in the tree node table.

Delete Orphan Tree Objects: Ensures there are no orphan nodes or levels.

When running this repair program and specifying a tree, the program only deletes orphan nodes and leaves, not orphan levels.

When running the program for all trees, this program deletes orphan nodes and leaves, and then deletes orphan levels. This is because orphan levels are not tied to a specific tree.

Orphans can be the result of the following three situations:

- The parent node that the orphan leaf refers to no longer exists. These orphans are removed when running this program either for a specific tree or all trees.
- The tree name that the orphan leaf refers to no longer exists. These orphans are removed *only* when running this program for all trees.
- The Query Access Group record no longer exists in PSRECDEFN. These orphans are removed when running this program either for a specific tree or all trees.

Remove Tree Branches. Removes all branches from the selected tree.

Reset Tree Node Gaps: Re-gaps a tree, so that intervals between tree nodes and their node numbers are evenly distributed. Consider running this program if you start to get messages that nodes can no longer be inserted into a tree.

Note. The SQR program PTUGAPTR is also available for *re-gaps.* PTUGAPPTR.SQR is an interactive SQR program which prompts for user inputs and can only run interactively from a Windows-client.

Update Tree Table Statistics. Calls the databases Update Statistics utility on the Tree Manager tables. This program can be run whenever large changes have been made to trees or a large tree is imported or deleted from the database.

Report Only Select to run a report to view results prior to updating the tree.

Not available for all utilities.

All Trees Select to run the selected utility for all trees. Fields in the Tree Definition section become unavailable.

Not all utilities can be run for all trees.

Tree Name Select a tree to audit or repair.

Effective Date Displays the latest effective date for the selected tree. You can select a different effective date.

SetId Select the setID for the specified tree. The field is not available if the selected tree does not have a setID.

Report Manager Click the link to access the report manager inquiry page.

Process Monitor Click the link to access the process manager inquiry page.

View Results Click the link to open a new browser instance that displays the tree utility reports page.

Enter a run control ID to view the results from running audits or a utility program.

Audits Performed

The following table lists the types of audits performed from the Tree Audit/Repair program. These audits differ from those performed on the Tree Definition and Properties page.

Audit Type	Checks For	Purpose
Detail Values	Orphan tree leaves.	Lists detail values that refer to an invalid tree node number.

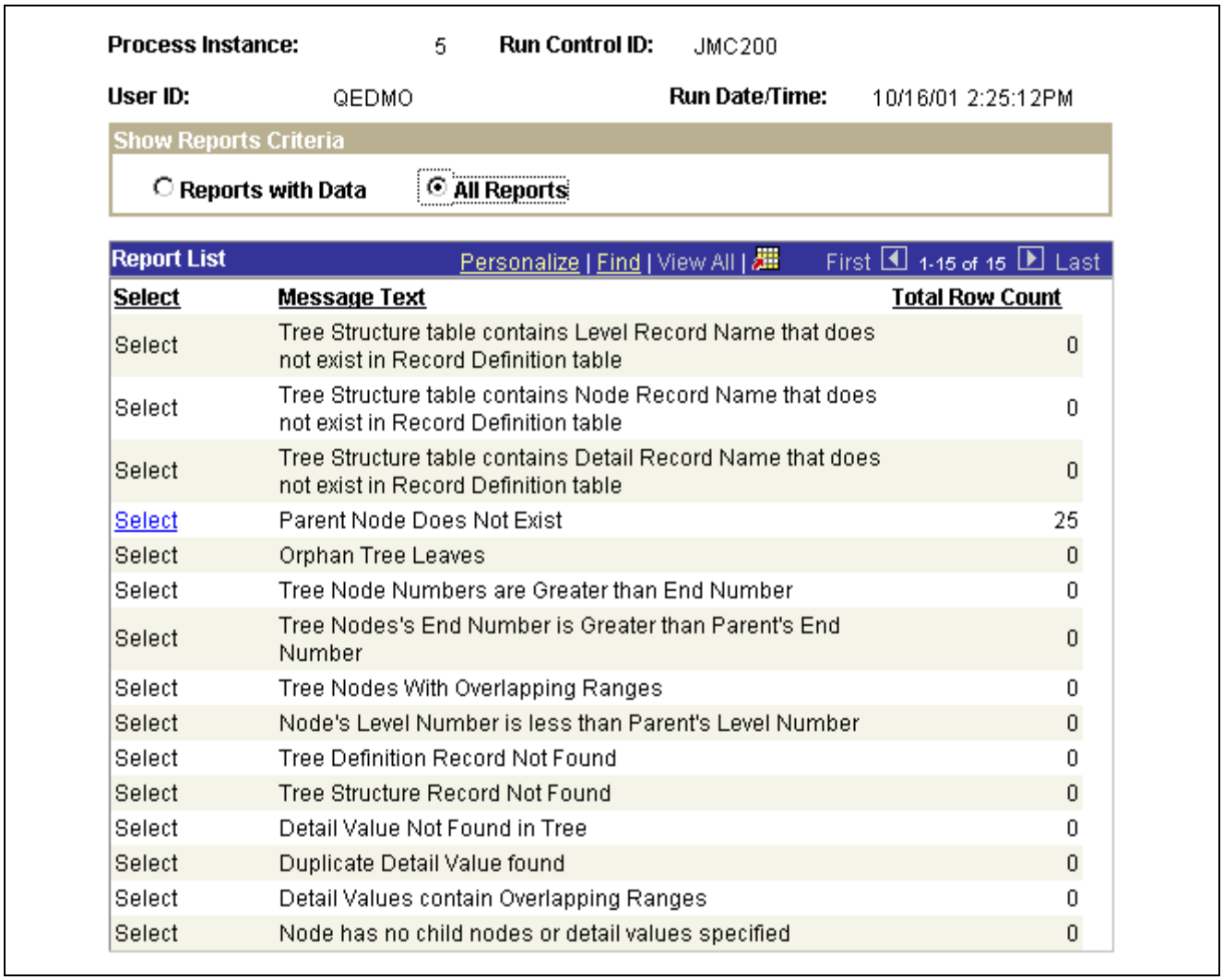
Audit Type	Checks For	Purpose
Detail Values	Detail values not found in the tree.	Lists any detail values that are found in application table but are not defined in the tree. This audit is only performed if the All Detail Values checkbox, on the tree's Definition and Properties page, is checked.
Detail Values	Duplicate detail values.	Lists any detail values that are defined more than once in the tree. This audit is only performed if the Allow Duplicate Detail Values checkbox, on the tree's Definition and Properties page, is unchecked.
Detail Values	Detail values with overlapping ranges.	Lists detail values that are defined as a range of values that overlap another detail value's range of values. This audit is only performed if the Allow Duplicate Detail Values checkbox, on the tree's Definition and Properties page, is unchecked.
Detail Values	Nodes with no child nodes or detail values specified.	Lists any nodes that do not have any detail values or child nodes defined. This audit is performed for detail value trees only.
Node Audit	Nodes without a parent.	Lists tree nodes that refer to an invalid tree node number.
Node Audit	Tree node numbers that are greater than end numbers.	Lists tree nodes with end numbers greater than the node number.
Node Audit	Tree node end numbers that are greater than the parent's end number.	Lists tree nodes with end numbers greater than the parent node's end number.
Node Audit	Tree nodes with overlapping ranges.	Lists tree nodes whose node number and ending node number overlaps with another range of node numbers. **Note.** When this occurs the tree is corrupted.
Node Audit	Node level numbers that are less than the parent node's level number.	Lists any tree node with level numbers less than the parent's level number.

Audit Type	Checks For	Purpose
Structure Audit	A level record name in the Tree Structure table that does not exist in Record Definition table.	Lists tree structures that reference an invalid record name for the tree level application data.
Structure Audit	A node record name in the Tree Structure table that does not exist in Record Definition table.	Lists tree structures that reference an invalid record name for the tree node application data.
Structure Audit	A detail record name in the Tree Structure table that does not exist in Record Definition table.	Lists tree structures that reference an invalid record name for the tree detail values application data.
Structure Audit	A missing tree structure record.	Lists any trees that refer to a tree structure that is not found in the Tree Structure table.

Note. If you have problems with the tree, you can also run the SYSAUDIT program and check the TREE sections for structure or tree problems to correct.

Reviewing Audit Results

Access the Tree Utility Reports page.



Process Instance: 5 **Run Control ID:** JMC200

User ID: QEDMO **Run Date/Time:** 10/16/01 2:25:12PM

Show Reports Criteria

Reports with Data All Reports

Report List Personalize | Find | View All | First 1-15 of 15 Last

Select	Message Text	Total Row Count
Select	Tree Structure table contains Level Record Name that does not exist in Record Definition table	0
Select	Tree Structure table contains Node Record Name that does not exist in Record Definition table	0
Select	Tree Structure table contains Detail Record Name that does not exist in Record Definition table	0
Select	Parent Node Does Not Exist	25
Select	Orphan Tree Leaves	0
Select	Tree Node Numbers are Greater than End Number	0
Select	Tree Nodes's End Number is Greater than Parent's End Number	0
Select	Tree Nodes With Overlapping Ranges	0
Select	Node's Level Number is less than Parent's Level Number	0
Select	Tree Definition Record Not Found	0
Select	Tree Structure Record Not Found	0
Select	Detail Value Not Found in Tree	0
Select	Duplicate Detail Value found	0
Select	Detail Values contain Overlapping Ranges	0
Select	Node has no child nodes or detail values specified	0

Tree Utility Reports page

Show Reports Criteria: Click the Reports with Data to list only those reports that contains data. This is the default. Click All Reports to list all reports.

Report List Lists each available report, with report title and total row count.

Click the Select link to access each report. The Select link is inactive for reports with zero row count.

Reviewing Individual Reports

Access a report page by clicking its Select link.

Reports contain the following information:

- Instructions and recommendations on how to correct the problem.
- Tree identifying information, if more than one tree is affected. This includes:
  - SetID.
  - Set control value.

- Tree name.
- Effective date.

• Node information for the affected nodes, which might include:

- Node name.
- Node number.
- Node end number.
- Parent node.
- Parent node number.
- Parent level number.
- Range from.
- Range to.

Details on fixing problems associated with reports are given below.

Parent Node Does Not Exist

If there are no other audit errors for this tree, then running the Correct Parent Node Utility program should correct this problem.

Do not run the Correct Parent Node Utility program if there are other audit problems with this tree. The other errors should be addressed first before trying to correct problems by running the utility program.

Orphan Tree Leaves

Run the Delete Orphan Tree Objects utility to delete these records.

Tree Node Numbers Are Greater Than End Number

Use Tree Manager to delete these nodes and then run the Reset Tree Node Gaps utility program. You will then need to use Tree Manager to re-insert the problem nodes.

Note. Deleting a node causes all of its children to be deleted. Therefore, if the problem node has child nodes or leaves under it, you will have to recapture those as well. If it is not possible to use Tree Manager to delete the problem nodes, call the PeopleSoft Support Center for help to analyze this problem.

Tree Node's End Number Is Greater than Parent's End Number

Use Tree Manager to delete these nodes and then run the Reset Tree Node Gaps utility program. You will then need to use Tree Manager to re-insert the problem nodes.

Tree Nodes With Overlapping Ranges

Use Tree Manager to delete these nodes and then run the Reset Tree Node Gaps utility program. You will then need to use Tree Manager to re-insert the problem nodes.

Node's Level Number Is Less Than Parent's Level Number

The level numbers can be corrected by either:

- Switching the levels in Tree Manager.
- Running the Correct Level Numbers utility to reset all invalid level numbers on the tree.

Running Tree Repair Programs

Before using the Tree Utilities page to repair programs, you should first run the audits to learn which trees, if any have problems and which utility will repair the damaged tree. Review the audit reports to determine the correct solution for repairing your tree. You may need to run more than one utility program.

Running the utility programs may result in a large number of updates to the tree. Because the system automatically puts a “lock” on a tree while the process is running, you should run these programs during off-work hours, to lower the risk of users trying to access the tree.

You should also perform a backup of your tree tables before running the repair programs.

CHAPTER 6

Using TreeMover

This chapter provides an overview of TreeMover and discusses how to:

- Import and export PeopleSoft 8 trees.
- Import and export with PeopleSoft 7.x trees.
- Customize TreeMover for additional node and level data records.

Note. The flat files for both the import and export processes are located in the working directory for PeopleSoft Application Engine as specified on the Process Type Definition page in PeopleSoft Process Scheduler. You can override this and create another location using the Process Definition Override page.

Understanding TreeMover

TreeMover allows you to move PeopleSoft trees between different PeopleSoft application databases. It enables you to export a tree to a flat file and to import a tree from a flat file. TreeMover moves all types of tree data, including the tree definition, tree structure, tree nodes, tree leaves, tree node data, and tree level data.

TreeMover does not support branched trees. If you import a branched tree, the branches become regular tree nodes.

Advantages of using TreeMover instead of methods of moving trees (such as Application Upgrader or custom SQR) include the following:

- TreeMover can move trees between different versions of PeopleSoft databases (for example, from a PeopleSoft Financials 7.5 database to a PeopleSoft EPM 8 database).
- Tree Mover can move tree node data (description, setID, effective date, and effective status) for trees that have node data stored in the PS_TREE_NODE_TBL (the table that stores the tree node data is specified as part of the tree structure).
- Tree Mover can move tree level data (long description, short description, setID, effective date, and effective status) for trees that have level data stored in the PS_TREE_LEVEL_TBL (the table that stores the tree level data is specified as part of the tree structure).
- TreeMover uses the tree APIs, which means the same logic used for the Tree Manager application is used to load and unload trees using TreeMover.

TreeMover can create unbranched trees of up to 2 billion nodes. You can create branches on the tree after it is loaded into Tree Manager. All the same edit checks are performed on a tree created with TreeMover as are performed on a tree created manually with Tree Manager, because both use the same functionality to create the tree. Since TreeMover processes are initiated from standard PeopleSoft pages, the ability to import and export tree data can be restricted by using PeopleSoft standard security mechanisms for limiting access to pages.

Here are some examples of things you can do with TreeMover:

- Load a 1,000,000-node winter tree from a legacy financial database quickly and easily into PeopleSoft 8 databases.
- Automatically replace an account tree every month with a new tree based on current information.
- Easily load a dynamic detail tree using information entered through a spreadsheet.

Note. TreeMover currently supports fixed-format files only.

TreeMover consists of three parts: a utility to export a tree from a PeopleSoft 8 database, a utility to import a tree into a PeopleSoft 8 database, and a utility to export a tree from a PeopleSoft 7.x database. The import and export functionality for a PeopleSoft 8 database is implemented as a PeopleSoft Application Engine application process. As with other Application Engine processes, they can be scheduled to run automatically from the Process Scheduler. The Application Engine process uses PeopleCode Tree APIs, PeopleCode File APIs, and file layout definitions. The utility that allows you to export trees from a PeopleSoft 7.x database is implemented as an SQR program (TMDOWNLD.SQR).

The following sections describe the record types, file formats, rules, and layout details for TreeMover.

Populated Record Types

TreeMover uses the following PeopleTools system tables for trees during both the tree import and tree export processes:

- PSTREEDEFN.
- PSTREENODE.
- PSTREELEAF.
- PSTREESTRCT.
- PSTREELEVEL.
- PS_TREE_LEVEL_TBL.
- PS_TREE_NODE_TBL.

TreeMover also reads the PSSTATUS table during the tree export process, to identify the version of the tree data exported.

TreeMover File Formats

As delivered, TreeMover uses seven different file layouts. All the data for an exported tree is contained in a single file. Prior to a change in the file layout used for the export file, TreeMover writes a header record to the file to indicate what the next file layout is. The following table lists the standard file formats, along with their actual file layout name and the text of the header record that precedes a given layout data:

File Layout	Description	Header Record Text
TREE_VERSION	Contains the PeopleTools release number used to create the export data file. If a tree version is not provided, then the TreeMover import program assumes that the tree data is from a database before 8.1.	999TREE_VERSION
TREE_STRUCTURE	Used for data from the PSTREESTRCT table.	999TREE_STRCT
TREE_DEFN	Used for data from the PSTREEDEFN table.	999TREE_DEFN
TREE_USERLEVEL	Used for data from PS_TREE_LEVEL_TBL.	999TREE_USERLVL
TREE_LEVEL	Used for data from the PSTREELEVEL table.	999TREE_LEVEL
TREE_USERNODE	Used for data from PS_TREE_NODE_TBL.	999TREE_USERND
TREE_NODE	Used for data from the PSTREENODE and PSTREELEAF tables.	999TREE_NODE

The TreeMover export program processes the data in the order listed in the preceding table.

If you write your own export file, then you must adhere to the following rules:

- The Tree Structure record, if present, must always come first in the file. If it is not present, the TreeMover import program defaults to the record layouts used prior to release 8.1.
- The Tree Definition record, if present, must come after the Tree Structure record.
- The Tree Level records (only for trees with levels) must come before the Tree Node and Leaf records.
- The Tree Node and Leaf records are required for any export file.
- Prior to the change in the record layout, you must precede the next data record with the appropriate header record for that file format.

The following table illustrates the TreeMover file formats.

TreeMover File Contents
999TREE_VERSION Tree Version Data
999TREE_STRCT Tree Structure Data
999TREE_DEFN Tree Definition Data
999TREE_USERLVL Tree Level Data 1 Tree Level Data 2
Tree Level Data N
999TREE_LEVEL Tree Level 1 Tree Level 2
Tree Level N
999TREE_USERND Tree Node Data 1 Tree Node Data 2
Tree Node Data N
999TREE_NODE Tree Node 1 Tree Node 2
Tree Detail 1
Tree Detail 2
Tree Node 3

TreeMover File Contents
Tree Node 4
Tree Node N
Tree Detail 5
Tree Detail N

```
999TREE_VERSION
08.10-M              0
999TREE_STRCT
1APERSONAL_DATA     Employee Personal Data        D NTREE_LEVEL_TBL TREE_LEVEL
999TREE_DEFN
2A                         PERSONAL_DATA     1997-05-05PERSONAL_DATA     Personal Data Tree
999TREE_USERLVL
3A      BRANCH    1990-01-01ABranch                          Branch
3A      COMPANY   1996-01-01ACompany                         Company
3A      CORPORATE 1996-01-01ACorporate                       Corporate
3A      DEPARTMENT1996-01-01ADepartment                      Department
3A      DIVISION  1996-01-01ADivision                        Division
999TREE_LEVEL
4ACORPORATE 1  Y
4ACOMPANY   2  N
4ADIVISION  3  N
4ADEPARTMENT4  N
4ABRANCH    5  N
999TREE_NODE
6A00001                            G1
6A                    00001                         8200                         8200
N
6A                    00001                         8300                         8300
```

TreeMover sample

TreeMover File Rules

TreeMover reads these records in the following strict order during an import:

1. PeopleTools Version (optional).

   This record is only needed if loading data from an 8.1 or later PeopleSoft database.

2. Tree Structure (optional).

   This record is only needed if the structures don't already exist. One or more structure records can be loaded.

3. Tree Definition (required).

   The information needed to create a tree. Only one tree definition record can exist in the input file.

4. Tree Level Data (optional).

   The detailed level data for a tree. One or more level data records can exist in the input file.

5. Tree Levels (required for leveled trees).

   The levels defined for the tree. Must include enough to define all the nodes. One or more level records can exist in the input file.

6. Tree Node Data (optional).

   The detailed tree node information (description, effective date, and so on).

7. Tree nodes and leaves (required).

   Tree node and detail information. Each node must contain either a parent node or a previous sibling node. The referenced node (parent or sibling) *must precede* the node that references it in the input file.

   Detail values for a tree must exist in the database before importing the tree.

   One or more node records listed in level plus sibling order (that is, the root node on the first level, nodes on the second level, and so on) can exist in the input file.

File Layout Details

Each record starts with a unique identifier for that record type, followed by the associated column data. All data is in a fixed format.

Tree Structure Layout (TREE_STRUCTURE)

For the Tree Structure layout, most column names map directly to the PSTREESTRCT record.

Note. Tree structure record is optional if the database already has the structure defined for the new tree.

Column Name	Column Type	Length	Start Position	End Position	Comments
File Record ID	Number	1	1	1	Always *1*.
UPDATE_ACTION	Character	1	2	2	Always *A* (only add mode is supported at this time)
TREE_STRCT_ID	Character	18	3	20	
DESCR	Character	30	21	50	
TREE_STRCT_ TYPE	Character	1	51	51	
DYNAMIC_ RANGE	Character	1	52	52	*Y* or *N*
SETCNTRL_IND	Character	1	53	53	*S, B, U,* or *N*
LEVEL_ RECNAME	Character	15	54	68	

Column Name	Column Type	Length	Start Position	End Position	Comments
LEVEL_ PNLNAME	Character	18	69	86	
LEVEL_ MENUNAME	Character	30	87	116	
LEVEL_ BARNAME	Character	30	117	146	
NODE_RECNAME	Character	15	147	161	
NODE_PNLNAME	Character	18	162	179	
NODE_ FIELDNAME	Character	18	180	197	
SETCNTRLFLD	Character	18	198	215	
NODE_ MENUNAME	Character	30	216	245	
NODE_BARNAME	Character	30	246	275	
DTL_RECNAME	Character	15	276	290	
DTL_FIELDNAME	Character	18	291	308	
DTL_PNLNAME	Character	18	309	326	
DTL_MENUNAME	Character	30	327	356	
DTL_BARNAME	Character	30	357	386	
DTL_SETID	Character	5	387	391	
SETCNTRLVALUE	Character	20	392	411	
DTL_TREE_ NAME	Character	18	412	429	

Column Name	Column Type	Length	Start Position	End Position	Comments
DTL_TREE_ LEVEL_NUM	Character	5	430	434	
LEVEL_ PNLGRPNAME	Character	50	436	486	Only for release 8.1 and greater.
NODE_ PNLGRPNAME	Character	50	487	537	Only for release 8.1 and greater.
DTL_ PNLGRPNAME	Character	50	538	588	Only for release 8.1 and greater.
LEVEL_ ITEMNAME	Character	30	589	619	Only for release 8.1 and greater.
NODE_ ITEMNAME	Character	30	620	650	Only for release 8.1 and greater.
DTL_ITEMNAME	Character	30	651	681	Only for release 8.1 and greater.

Tree Definition Layout (TREE_DEFN)

The tree definition record columns require either a tree structure defined in the database or a previous tree structure record in the file. For the Tree Definition layout, most column names map directly to the PSTREEDEFN record.

Column Name	Column Type	Length	Start Position	End Position	Comments
File Record ID	Number	1	1	1	Always *2*.
UPDATE_ACTION	Character	1	2	2	Always *A* (only add is mode supported at this time).

Column Name	Column Type	Length	Start Position	End Position	Comments
SETID	Character	5	3	7	
SETCNTRLVALUE	Character	20	8	27	
TREE_NAME	Character	18	28	45	
EFFDT	Date	10	46	55	YYYY-MM-DD format.
TREE_STRCT_ID	Character	18	56	73	
DESCR	Character	30	74	103	
NODE_COUNT	Character	10	104	113	
ALL_VALUES	Character	1	114	114	Y or N
USE_LEVELS	Character	1	115	115	S, L, or N
DUPLICATE_LEAF	Character	1	116	116	Y or N
TREE_CATEGORY	Character	18	117	134	
EFF_STATUS	Character	1	135	135	
TREE_ACC_ METHOD	Character	1	136	136	
TREE_ACC_ SELECTOR	Character	1	137	137	
TREE_ACC_SEL_ OPT	Character	1	138	138	
TREE_IMAGE		30	139	169	Only for Release 8.1 and greater.

Column Name	Column Type	Length	Start Position	End Position	Comments
BRANCH_IMAGE		30	170	200	Only for Release 8.1 and greater.
NODECOL_IMAGE		30	201	231	Only for Release 8.1 and greater.
NODEEXP_IMAGE		30	232	262	Only for Release 8.1 and greater.
LEAF_IMAGE		30	263	293	Only for Release 8.1 and greater.

Tree Level Data Layout

The columns in this layout correspond to the columns in the PS_TREE_LEVEL_TBL record.

Column Name	Column Type	Length	Start Position	End Position	Comments
File Record ID	Number	1	1	1	Always *3*.
UPDATE_ACTION	Character	1	2	2	Always *A* (only add mode is supported at this time).
SETID	Character	5	3	7	
TREE_LEVEL	Character	10	8	17	
EFFDT	Date	10	18	27	YYYY-MM-DD format.
EFF_STATUS	Character	1	28	28	

Column Name	Column Type	Length	Start Position	End Position	Comments
DESCR	Character	30	29	58	
DESCRSHORT	Character	10	59	68	

Tree Level Layout

The tree level layout requires a tree definition record in the file previous to this record type. The columns in this layout correspond to the columns in the PSTREELEVEL table.

Note. No-level records should be defined for no-level trees.

Column Name	Column Type	Length	Start Position	End Position	Comments
File Record ID	Number	1	1	1	Always *4*.
UPDATE_ACTION	Character	1	2	2	Always *A* (only add mode is supported at this time).
TREE_LEVEL	Character	10	3	12	
TREE_LEVEL_ NUM	Character	3	13	15	
ALL_VALUES	Character	1	16	16	*Y* or *N*

Tree Node Data Layout

The columns in this layout correspond to the columns in the PS_TREE_NODE_TBL record.

Column Name	Column Type	Length	Start Position	End Position	Comments
File Record ID	Number	1	1	1	Always *5*.

Column Name	Column Type	Length	Start Position	End Position	Comments
UPDATE_ACTION	Character	1	2	2	Always *A* (only add mode is supported at this time).
SETID	Character	5	3	7	
TREE_NODE	Character	20	8	27	
EFFDT	Date	10	28	37	YYYY-MM-DD format.
EFF_STATUS	Character	1	38	38	
DESCR	Character	30	39	68	

Tree Node Record Columns

Tree node record columns require a tree definition record in the file previous to this record type and level records if the tree has levels. Node records must have parents defined before their children. Detail records can be interspersed between node records.

Note. Node type is either *G* or *R*. *G* is for standard nodes, and *R* is for Query Access Group record nodes. Branch nodes are not supported at this time.

Column Name	Column Type	Length	Start Position	End Position	Comments
File Record ID	Number	1	1	1	Always 6.
UPDATE_ACTION	Character	1	2	2	Always A (only add mode is supported at this time).
TREE_NODE	Character	20	3	22	Only for node records.

Column Name	Column Type	Length	Start Position	End Position	Comments
PARENT_NODE_NAME	Character	20	23	42	Tree TREE_NODE for the parent node of the node or detail.
TREE_NODE_TYPE	Character	1	43	43	Only for node records; must be G or R.
TREE_LEVEL_NUM	Character	3	44	46	Only for node records.
TREE_NODE_PREV_SIB	Character	20	47	66	Only for node records.
RANGE_FROM	Character	30	67	96	Only for detail records.
RANGE_TO	Character	30	97	126	Only for detail records.
DYNAMIC_RANGE	Character	1	127	127	Only for detail records; must be Y or N.
LEAF_IMAGE	Character	30	129	159	Only for Release 8.1 and greater.
NODECOL_IMAGE	Character	8	160	168	Only for Release 8.1 and greater.
NODEEXP_IMAGE	Character	8	169	177	Only for Release 8.1 and greater.

Importing and Exporting PeopleSoft 8 Trees

This section provides an overview of using TreeMover with PeopleSoft 8 databases and describes how to:

- Export trees to an external file.
- Import trees from an external file.

Pages Used to Import and Export PeopleSoft 8 Trees

Page Name	Object Name	Navigation	Usage
Tree Export	RUN_TREEMOVER_EXP	Tree Manager, Tree Utilities, Export Tree	Export trees using TreeMover.
Tree Import	RUN_TREEMOVER_IMP	Tree Manager, Tree Utilities, Import Tree.	Import trees using TreeMover.

Understanding TreeMover and PeopleSoft 8 Trees

As with other PeopleSoft Application Engine processes, you initiate the TreeMover process from PeopleSoft pages. You need to submit a few required parameters at run time, including the file name for each tree load (or unload). You can run TreeMover each time you need to load or unload a tree, or you can set PeopleSoft Process Scheduler to run a tree load or unload process automatically.

When the TreeMover process runs, it creates a log file in your TEMP directory. The file naming convention for the log file is the following:

TreeMover-<current datetime value>.log

Here is a sample log file:

```
1999-11-30-16.37.54: Begin: PeopleSoft TreeMover
1999-11-30-16.37.54: Unloading tree ,,DEPT_SECURITY,1980-01-01.
1999-11-30-16.37.58: Completed processing tree definition.
1999-11-30-16.37.58: Completed processing tree user level information.
1999-11-30-16.37.58: Total number of tree user level definitions processed: 5.
1999-11-30-16.37.58: Completed processing tree levels.
1999-11-30-16.37.58: Total number of tree levels processed: 5.
1999-11-30-16.37.58: Warning - User tree node table is not one that is current.
(125,46)
1999-11-30-16.37.59: Completed processing tree nodes and tree details.
1999-11-30-16.37.59: Total number of nodes processed: 38.
1999-11-30-16.37.59: Total number of tree details processed: 0.
1999-11-30-16.37.59: PeopleSoft TreeMover Completed Successfully.
1999-11-30-16.37.59: End: PeopleSoft TreeMover
```

TreeMover log file

The delivered TreeMover application can move only tree node data that's associated with the PS_TREE_NODE_TBL and only tree level data that's associated with the PS_TREE_LEVEL_TBL. You can modify TreeMover to support other tables for node and level data.

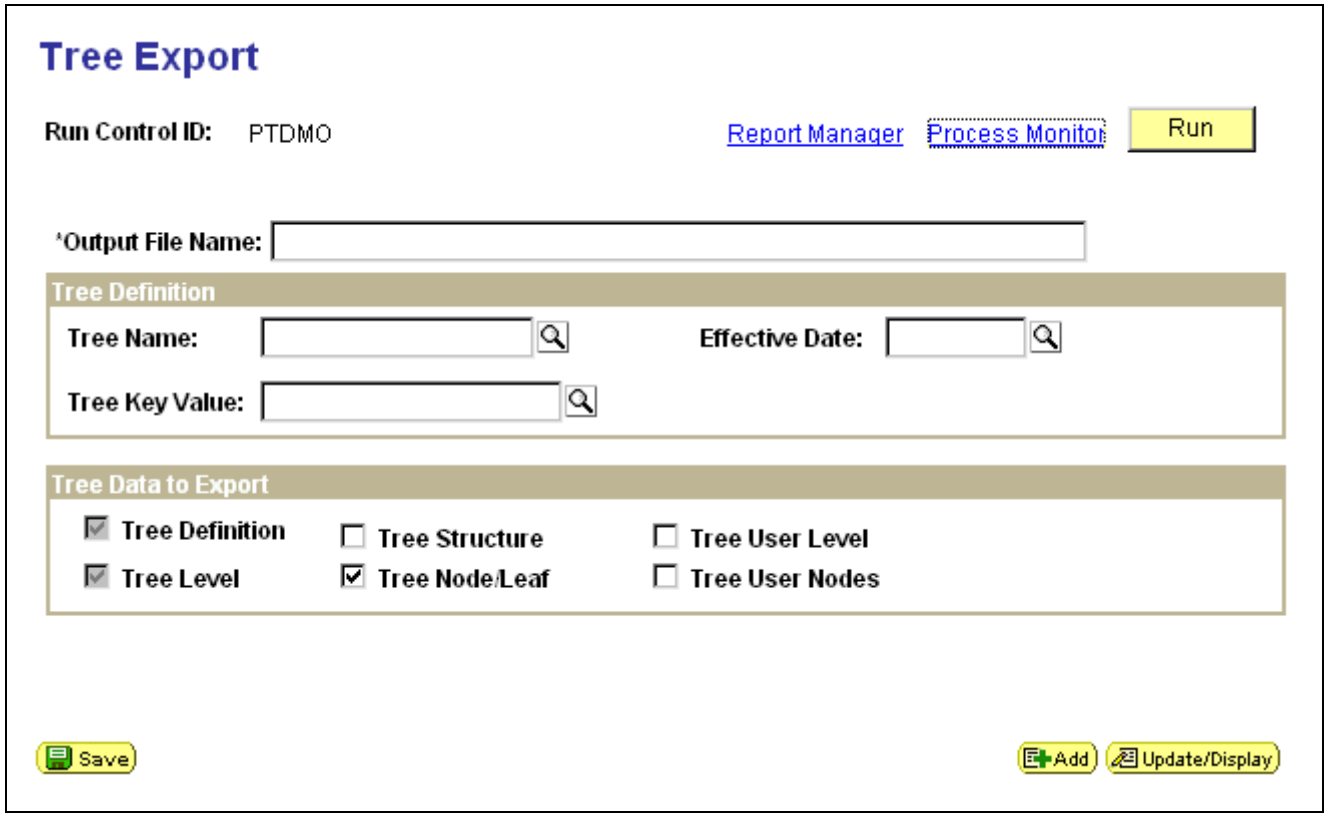
Note. When a tree replaces an existing tree using the Tree Import Utility, the system will delete the existing tree before importing the new tree. Also, if the existing tree was secured by Definition Security, it will be automatically removed from the Definition Security Group at the time of deletion. Because the removal of the tree from the Definition Security Group occurs prior to the import, the utility has no knowledge of the tree being secured, and therefore the new tree will have to be manually secured after the import is complete.

See Also

Chapter 6, "Using TreeMover," Modifying the TreeMover Application Engine Program, page 96

Exporting Trees to an External File

Access the Tree Export page.



Tree Export page

To export a tree to an external file:

1. Enter the correct output file name.

   The flat file is sent to the working directory for PeopleSoft Application Engine as specified on the Process Type Definition page in Process Scheduler. If this is not the location you want, enter the valid pathname for the directory on the application server that runs the process.

2. Enter the tree name, effective date, and tree key value.

   Note. The tree key value applies to only setID, business unit, or user-defined key trees (tree key type is set in the tree structure). For trees that have no additional key value, the field is not available.

3. Select the tree data to export.

   You can export the tree structure data, the tree definition, the tree levels, the tree level data, the tree nodes and leaves, and the tree node data. You will probably want to export the tree definition, tree level, and tree node/leaf data.

   Note. You will need to select Tree Structure if the tree structure does not already exist in the target database. You can also select Tree User Level to move related data from the PS_TREE_LEVEL_TBL table and select Tree User Nodes to move related data from the PS_TREE_NODE_TBL.

4. Click Run to move the tree.
5. Verify that the settings on the Process Scheduler Request page are correct and click OK to run the process.
6. Verify the successful completion of the process by selecting Go, PeopleTools, Process Monitor.
7. Check the log file that is created in the TEMP directory or other directory you specify (TreeMover-<datetime>.log). The second-to-last line in the log file should be "PeopleSoft TreeMover Completed Successfully."

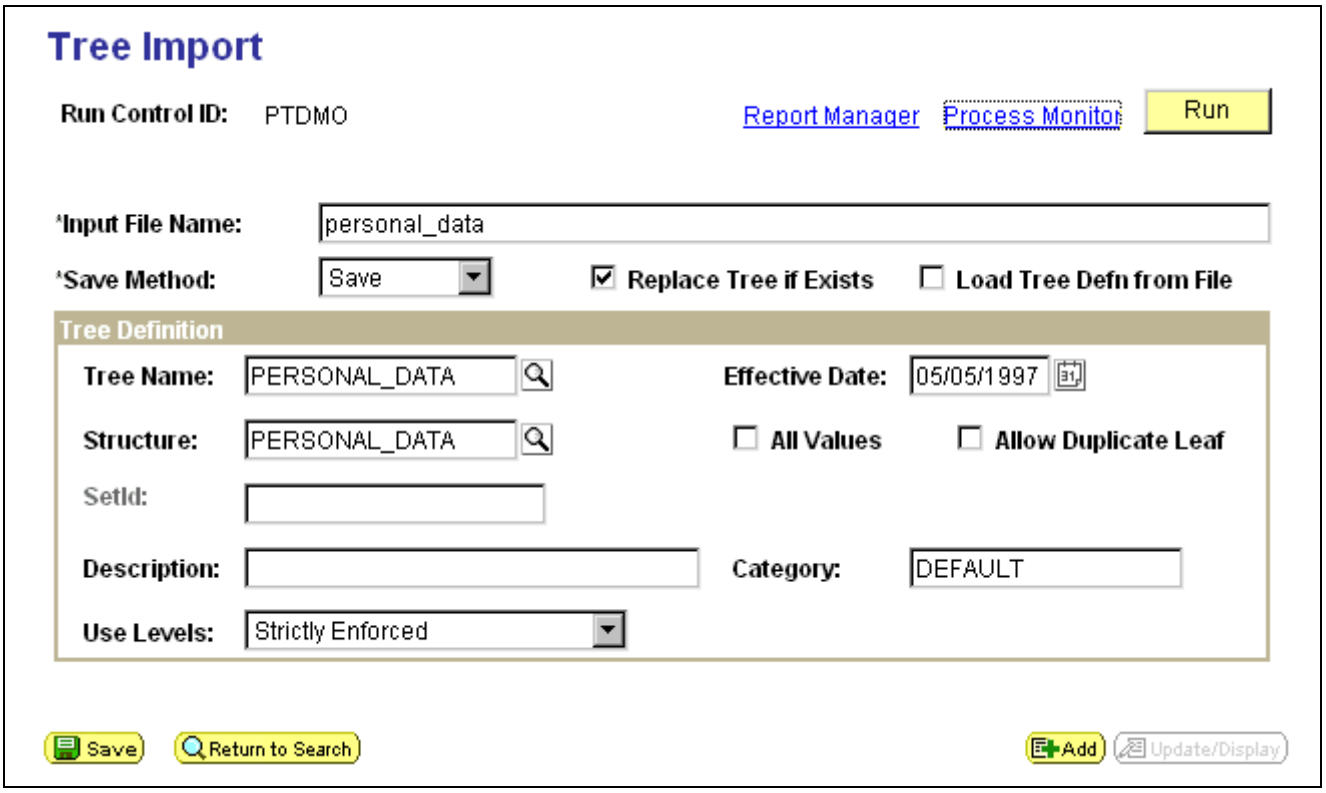
   If you receive a warning in the log file, there could be several possible causes:

   - You tried to export tree level data and the tree has no levels.
   - You tried to export tree user level data and the tree does not use the PS_TREE_LEVEL_TBL for level data.
   - You tried to export tree user node data and the tree does not use the PS_TREE_NODE_TBL.

Importing Existing PeopleSoft Trees

Access the Tree Import page.

Note. Windows Tree Manager will allow users to enter tree node names containing the two special wildcard characters, "?" and "*". However, the Web version of Tree Manager does not accept these characters. To prevent creating a corrupted tree, the Tree Import utility now checks for invalid tree node names.



Tree Import page

To import an existing PeopleSoft tree:

1. Enter the correct input file name.

   The flat file is sent to the working directory for PeopleSoft Application Engine as specified on the Process Type Definition page in PeopleSoft Process Scheduler. If this is not the location you want, enter the valid pathname for the directory on the application server that runs the process.

2. Select a save method.

   By default, you should use Save. However, if you think the tree might not pass all the PeopleSoft tree audits, then select Save Draft. Save Draft saves the tree in draft mode and functions just as Save Draft does in Tree Manager.

3. If the tree already exists in your database, select Replace Tree if Exists.

   Note. If the tree already exists in your database and you do not select the check box, the tree will not be imported.

4. Select Load Tree Defn from File (load tree definition from file) if the tree definition is contained in the input file and you want to load the tree with the same tree definition values.

   Note. In most cases, you will want to load the tree definition from the file. If you select this option and the tree definition *does not* exist in the input file, then the load process will fail.

5. Enter the basic tree information if you are not loading the tree definition from the input file.

If you are not loading the tree definition from the input file, then you'll be required to specify all the basic tree information on the run control page. These fields correspond to the same values that you'd have to enter if you were creating the tree using Tree Manager. TreeMover skips the input record that contains the tree definition information and instead use the values that you enter.

You must load the tree definition from the file if you're also loading the tree structure from the file. If you try to load the structure from the file, but have overridden the definition values on the page, then the process will not run completely.

TreeMover only loads a new tree structure if the structure doesn't already exist.

Note. If your TreeMover data file contains user level data or user node data and you are changing the setID of your tree on import, the user data will retain the original setID. TreeMover import does not support the changing of user data setIDs.

6. Click Run to move the tree.
7. Verify the successful completion of the process by checking the process status in Process Monitor.
8. Check the log file that is created in the TEMP directory or other directory you specify(TreeMover-<datetime>.log). The second-to to-last line in the log file should be "PeopleSoft TreeMover Completed Successfully."

Note. If you're loading a tree that contains detail values, then those detail values must exist in the target database before you load the tree. If they don't exist, then the tree import process will fail.

Importing and Exporting PeopleSoft 7.x Trees

TreeMover provides the TMDOWNLD SQR program for unloading a PeopleSoft tree from a PeopleSoft 7 or 7.5 database. (The SQR should also work against a PeopleSoft 6 database, but it has not been tested against that version and is not certified for it.) This program exports most of the same tree information as the Tree Export functionality provided with PeopleTools 8. Differences include:

- Tree categories are not exported; the category defaults to DEFAULT.
- Tree performance options are not exported.
- Tree structures are not exported.

This section describes how to:

- Install the SQR program.
- Run the SQR program.

Installing the SQR Program

To install the TMDOWNLD SQR program copy the TMDOWNLD.SQR file from your PeopleTools 8 PS_HOME/SQR directory to the SQR directory for your PeopleTools 7 or 7.5 install.

Note. If you do not have a copy of TMDOWNLD.SQR, contact PeopleSoft Customer Service.

When you run this SQR against a given version of a PeopleSoft database, you must run it with the common SQC files that are delivered for that PeopleTools version. For example, if you run it against a PeopleSoft 7 database, you should run it so that it uses the SQC files delivered with PeopleTools 7. Otherwise, the process will not run correctly.

Running the SQR Program

To run the TMDOWNLD SQR program:

1. Run the TMDOWNLD SQR program from the SQR command line.
2. Follow the system prompts.

Note. There is no associated run control page with this SQR for PeopleSoft 7 or 7.5 databases. In order to schedule this process to run without manual intervention, you'll need to create a run control for the process. See your PeopleTools manual for more information on creating run controls.

See Also

SQR documentation

SQR for PeopleSoft Developer's Guide, "Simple SQR Program"

Customizing TreeMover for Additional Node and Level Data Records

This section describes how to:

- Modify the TreeMover Application Engine program.
- Modify the TreeMover SQR program.

The TreeMover program only moves data in the standard PeopleSoft tree tables. PeopleSoft trees generally have application node data stored in the PS_TREE_NODE_TBL table and application level data stored in the PS_TREE_LEVEL_TBL table.

However, the tables used to hold the application data for the detail values, such as leaves, are always application-specific; there are no default tables for storing that application data. For example, you might have trees that reference employees as leaf values, and the employee information is stored in the PERSONAL_DATA_TBL. TreeMover does not handle moving data from application tables. Generally, when you move trees between different PeopleSoft databases, you should move the application data using other means, such as with DataMover. However, you can also customize the TreeMover program to copy other application data. As with any PeopleSoft application, you should avoid performing any customizations whenever possible.

Note. Before customizing TreeMover, you should consider the tables that you intend to add support for. Application tables that hold data used by other parts of the PeopleSoft system should be moved by other means, such as DataMover.

Modifying the TreeMover Application Engine Program

The TreeMover process is a PeopleSoft Application Engine process called TREEMOVER. To add support for additional node and level tables, you have to perform two basic steps: create the file layout to be used for the new data and modify the TREEMOVER_AET PeopleCode according to the following steps.

Note. You should *not* need to make any modifications to the actual Application Engine code.

To modify the TreeMover Application Engine program:

1. Create file layouts for your desired tree node data record or tree level data record using Application Designer file layout functionality.

   Use one of the existing TreeMover file layouts as an example (TREE_DEFN, TREE_NODE, and so on). Each file layout you add for TreeMover must have a unique file record ID (specified as part of the file layout record properties); the existing TreeMover file layouts use numbers 1−6.

   Each file layout you add must also have the UPDATE_ACTION field.

2. In the TREEMOVER_AET record, modify the PROCESS_INSTANCE FieldFormula PeopleCode as follows:

   - In the isValidUserNodeRec function, add your desired PeopleSoft records for node data to the condition check.
   - In the isValidUserLevelRec function, add your desired PeopleSoft records for level data to the condition check.
   - In the setUserNodeRecLayout function, add code to set the correct file layout based on the node data record.
   - In the setUserLevelRecLayout function, add code to set the correct file layout based on the level data record.
   - In the getUserNodeData function, add code to get data from your new node records.
   - In the getUserLevelData function, add code to get data from your new level records.

Note. In the steps above, do *not* modify the original code in the functions. You should add new code only within new “if” conditions. If you change any of the existing code, trees based on the PS_TREE_LEVEL_TBL and PS_TREE_NODE_TBL will no longer be handled with TreeMover.

Modifying the TreeMover SQR Program

If you’ve modified the TREEMOVER Application Engine program, then you’ll also need to make similar changes to the TMDOWNLD.SQR, assuming you’re using that SQR to download trees from a PeopleSoft 7.x database.

To modify the TMDOWNLD SQR program:

1. Change the Download-TreeUserLevel procedure to handle the new tree level data tables.

   Be sure to add conditional logic so that the existing logic is still executed when the tree structure uses PS_TREE_LEVEL_TBL. The tree level record name is stored in the variable &TS.LEVEL_RECNAME.

2. Change the Download-TreeUserNode procedure to handle the new tree node data tables.

Be sure to add conditional logic so that the existing logic is still executed when the tree structure uses PS_TREE_NODE_TBL. The tree node record name is stored in the variable &TS.NODE_RECNAME.

APPENDIX A

Setting Multi-Navigation Paths

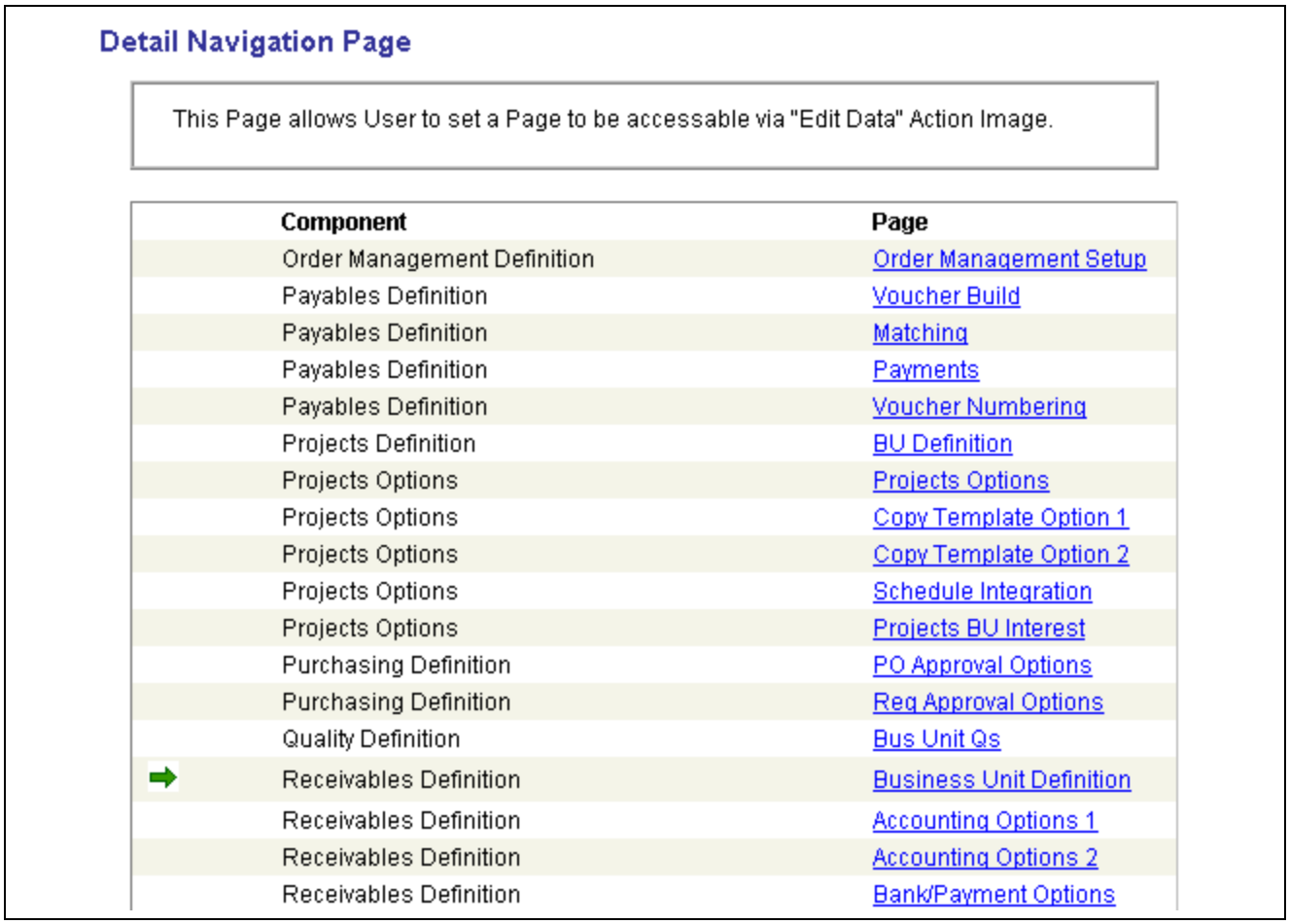
This appendix provides an overview of multi-navigation paths and describes how to:

- Use multi-navigation paths.
- Enable multi-navigation.
- Create multi-navigation menus.

Using Multi-Navigation Paths

When you define tree structure, you also define the menu, menu bar, and default navigation pages for nodes and details. With multi-navigation, you can navigate to any of the components and pages that belong to the menu bar specified on the tree structure. For example, using the Personal Data tree, you could navigate to pages such as Personal Data, Benefits, or Salary Information.

When multi-navigation is enabled on the tree's structure, you can click the Navigation Options link in Tree Manager and select the component to be invoked when editing data on a node or detail value.



Detail Navigation Page

This Page allows User to set a Page to be accessable via "Edit Data" Action Image.

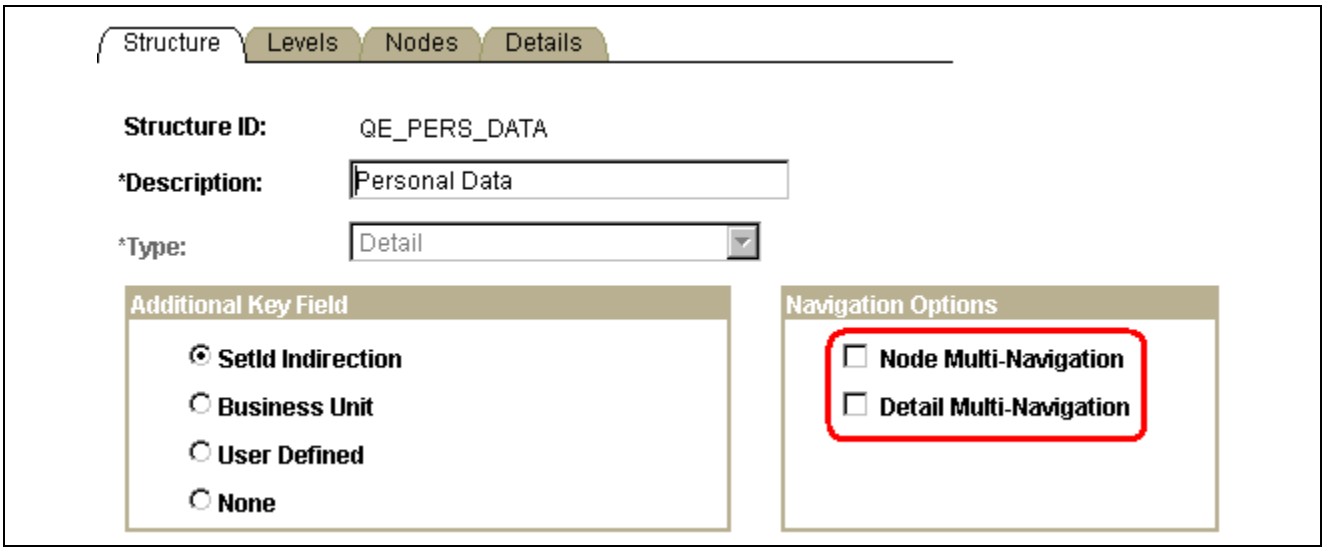
	Component	Page
	Order Management Definition	Order Management Setup
	Payables Definition	Voucher Build
	Payables Definition	Matching
	Payables Definition	Payments
	Payables Definition	Voucher Numbering
	Projects Definition	BU Definition
	Projects Options	Projects Options
	Projects Options	Copy Template Option 1
	Projects Options	Copy Template Option 2
	Projects Options	Schedule Integration
	Projects Options	Projects BU Interest
	Purchasing Definition	PO Approval Options
	Purchasing Definition	Req Approval Options
	Quality Definition	Bus Unit Qs
➡	Receivables Definition	Business Unit Definition
	Receivables Definition	Accounting Options 1
	Receivables Definition	Accounting Options 2
	Receivables Definition	Bank/Payment Options

Tree Manager − Detail Navigation page

Note. User navigation selections are valid only while the current tree is open. After the tree has been closed and re-opened again, the default navigation is restored.

Enabling Multi-Navigation

Two tree structure fields determine if multi-navigation is available for nodes and details. These fields let the tree developer choose whether multiple navigation targets should be supported when accessing node or detail data. By default, multi-navigation is not enabled.



Tree Structure page

Navigation options are hidden when the structure type is Summary.

Creating Multi-Navigation Menus

We recommend that you create special menus to be used for multi-navigation. These menus should be specific to the nodes or details and should not contain any extra visible components.

Pages you want to appear in the Navigation page should use the Menu and Bar items defined in the tree structure.

To prevent these special menus from being used for something other then tree navigation purposes, clear the Menu Installed checkbox on the Menu Properties dialog box in Application Designer.

If the tree structure has been defined with multi-navigation flags enabled, you can select the component and page to open when editing the node or leaf data.

Note. The only components that appear in the Navigation page have the same key fields (ignoring the effective date) as the search record used for the node or detail value. Also, the override search record on the menu, if provided, takes precedence over the search record specified for the component.

See Also

Chapter 2, “ Using Tree Manager,” Using Navigation Options , page 36

APPENDIX B

Configuring Tree Manager on the Web

Tree Manager was developed using standard PeopleSoft Internet Architecture. For example, it was developed using pages, components, and standard PeopleCode functionality. Because of this, additional steps are required for configuring new and existing trees that will be accessed via the web. This section describes how to:

- Use Tree Manager upgrade programs.
- Complete manual configuration steps.
- Enable security access for application pages.
- Update effective-dated application pages.
- Customize TREE_NODE/TREE_LEVEL pages.

Using Tree Manager Upgrade Programs

Application Engine upgrade programs, UPG8RPTG and UPG81RPTG automatically performs many of the steps that are required to configure your existing trees so that they can be viewed from a web browser.

Note. When upgrading from any 7.x release you will be instructed during the upgrade process to run the UPG8RPTG program. When upgrading from an 8.0x release, you will be instructed to run the UPG81RPTG program. You can rerun the UPG81RPTG program as often as required in order to complete the upgrade of Tree Manager structures. You should only run the UPG8RPTG program once, as directed by the upgrade process.

To run the UPG8RPTG and UPG81RPTG programs:

1. Select PeopleTools, Application Engine, Request AE.
2. Create a new Application Engine process request run control ID.
3. The Application Engine Request page appears.
4. Click Run to send the request to the Process Scheduler.
5. The Process Scheduler page appears. Select an application server to run the program from, and then select the UPG8RPTG or UPG81RPTG program from the list of processes displayed.
6. Click OK on the Process Scheduler Request page to start the Application Engine program.
7. Select PeopleTools, Process Scheduler, Process Monitor, to monitor the status of the UPG8RPTG or UPG81RPTG process. The process should only take a couple of minutes to run to completion.
8. From the Process Monitor, find the UPG8RPTG or UPG81RPTG process that you initiated, and select the Details link from the process list.

9. Select Message Log to view any messages associated with the program.

   You might encounter two messages with the UPG8RPTG andUPG81RPTG programs:

   Note. If you receive either of these messages, you need to use the manual configuration steps to upgrade these tree structures to be usable from the web.

   - A page on a tree structure was not found on a component.
   - A tree structure referenced a page that was part of a component, but the component was not found on a menu.

You can use the View All option to display all messages generated by the UPG8RPTG or UPG81RPTG programs and then use your browser's print functionality to print out the messages.

Completing Manual Configuration Steps

You may need to perform manual configuration steps for trees that used application-specific pages to add or update nodes, levels, or detail values in the tree. No additional configuration steps should be required for trees that use only the standard Tree Manager pages and tables.

The Windows based Tree Manager had the ability to invoke virtually any application-specific page by just knowing the name of the page to be invoked. It did not require that the component and complete menu path be specified on the Tree Structure record. Neither did it use standard security edits or permission lists for determining if the user should have access to a component. It was quite common, in prior releases, for the tree structure to only specify the page and possibly the component to be used. The menu information was usually left blank.

The web-based Tree Manager uses standard PeopleCode functions to display the application pages used for maintaining the node, level, and detail values. These functions require that:

- The complete menu path is provided.
- Users have security access to work with the pages.

For tree structures that did not fully specify menu paths and security access, the upgrade programs attempt to complete the information by searching existing menus and components to find a valid and complete menu path for node, level, and leaf user data pages. However, there might be cases where existing trees use application pages that are not part of a component, or the component was not part of a PeopleSoft menu definition.

In order to add or update the nodes, levels, and detail values for the web-based Tree Manager, you have to configure the tree structure records so that all of the page, component, and menu information is correctly specified. The UPG8RPTG and UPG81RPTG programs will complete the component information for all of the application pages that are part of a component. They will also complete the menu path information for all components that are defined on at least one PeopleSoft menu definition.

Note. The Process Scheduler messages that were generated by the UPG8RPTG and UPG81RPTG programs tell you the pages that are not part of any component, or components that are not part of a PeopleSoft menu definition. After you've created component definitions for all of these pages, you need to rerun only the UPG81RPTG program to update the tree structure records with the new information.

Enabling Security Access for Application Pages

The web-based Tree Manager uses standard PeopleSoft security and permission lists to control which users should have access to the application pages and what types of actions they should be able to perform.

You need to verify the following:

- All of the application pages used by Tree Manager for maintaining the nodes, levels, and detail values are part of a component.
- The component must be defined on a menu definition that the user has been granted access to.
- Users have specific access to any of the actions, such as Add, Update, and Correction.

Note. The Windows-based Tree Manager did not use standard PeopleSoft security checks, so existing pages that were accessed from the Windows-based Tree Manager may not be set up correctly.

Updating Effective-Dated Application Pages

If the application pages used to maintain node, level, or detail value tables are effective-dated, the Windows-based Tree Manager had special coding to ensure that when you added a new value, the default effective date was the effective date of the tree. When a tree was saved, the Windows-based Tree Manager checked the effective date of the newly added node, level, or detail value and issued a warning if it was greater than the tree's effective date.

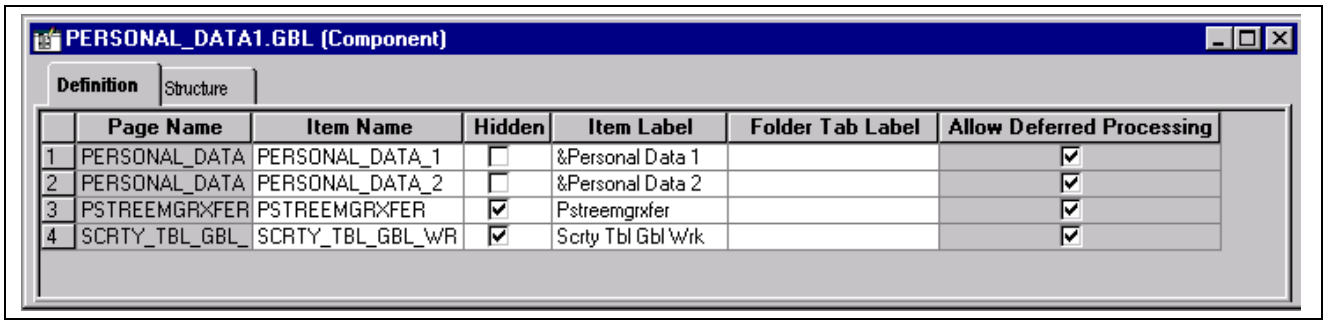
In order to implement tree-specific effective date processing from the web-based Tree Manager, a PeopleTools-provided work page, PSTREEMGRXFER, needs to be added to any component that updates effective-dated application tables. This work page contains logic that:

- Automatically sets the default effective-date as the effective date of the tree.
- Compares the effective date of the user data to the effective date of the tree during SaveEdit processing.

This new work page has already been added to the default components used to maintain the TREE_NODE_TBL and TREE_LEVEL_TBL, so only those trees that use effective-dated application pages for maintaining the node, level, or detail values need to be updated.

The following illustration shows the PERSONAL_DATA1 component updated to include the new PSTREEMGRXFER work page. Notice that the new work page is marked as a hidden page.

Note. The SCRTY_TBL_BGL_WRK page was already part of this component and is used for other "non-tree" related purposes.



Updated Personal Data component

Note. This configuration step is optional. However, remember that users of the Windows-based Tree Manager are used to having the effective date of the application data automatically set to the tree's effective date. Therefore, in order to provide consistent functionality, you should consider adding the new PSTREEMGRXFER page to your effective-dated components.

Customizing TREE_NODE/TREE_LEVEL Pages

The Windows-based Tree Manager provided standard pages and components for maintaining the TREE_NODE_TBL and TREE_LEVEL_TBL, such as the default tables used for the node and level data. If you have customized either of these pages or components, you should apply the same customizations to the versions used specifically by the web-based Tree Manager.

The web-based Tree Manager uses the following pages and components for maintaining data in the TREE_NODE_TBL and the TREE_LEVEL_TBL:

- Node Components(Page): TREE_NODE_PIA(TREE_NODE_PIA), TREE_NODE_PIA_2(TREE_NODE_PIA_2)
- Level Components(Page): TREE_LEVEL_PIA(TREE_LEVEL_PIA), TREE_LEVEL_PIA_2(TREE_LEVEL_PIA_2)

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.

account You use an account code to record and summarize financial transactions as expenditures, revenues, assets, or liabilities balances. The use of this delivered PeopleSoft ChartField is typically defined when you implement PeopleSoft General Ledger.

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 entry A set of related debits and credits. An accounting entry is made up of multiple accounting lines. In most PeopleSoft applications, accounting entries are always balanced (debits equal credits). Accounting entries are created to record accruals, payments, payment cancellations, manual closures, project activities in the general ledger, and so forth, depending on the application.

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 anotherand 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.

activity In PeopleSoft Enterprise Learning Management, an instance of a catalog item delivery methodit may also be called a class. The activity defines such things as meeting times and locations, instructors, reserved equipment and materials, and detailed costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.

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.
application agent	An application agent is an online agent that is loaded into memory with a PeopleSoft page. It detects when a business rule has been triggered and determines the appropriate action.
asset class	An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.
attachment	In PeopleSoft Enterprise Learning Management, nonsystem-defined electronic material that supplements a learning resource, such as an equipment items user handbook or the site map of a large facility.
background process	In PeopleSoft, background processes are executed through process-specific COBOL programs and run outside the Windows environment.
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.
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 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).
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.
category	In PeopleSoft Enterprise Learning Management, a way to classify catalog items so that users can easily browse and search relevant entries in the learning catalog. Categories can be hierarchical.
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.

child In PeopleSoft Tree Manager trees, a child is a node or detail on a tree linked to another, higher-level node (referred to as the parent). Child nodes can be rolled up into the parent. A node can be a child and a parent at the same time depending on its location within the tree.

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.

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.

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 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.

corporate account Equivalent to the Account ChartField. Distinguishes between the chart of accounts typically used to record and report financial information for management, stockholders, and the general public, as opposed to a chart of statutory (alternate) accounts required by a regulatory authority for recording and reporting financial information.

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.

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.

data row Contains the entries for each field in a table. To identify each data row uniquely, PeopleSoft applications use a key consisting of one or more fields in the table.

data validation In PeopleSoft Enterprise Incentive Management, a process of validating and cleansing the feed data to resolve conflicts and make the data processable.

DAT file This text file, used with the Verity search engine, contains all of the information from documents that are searchable but not returned in the results list.

delivery method In PeopleSoft Enterprise Learning Management, identifies a learning activitys delivery method type. An activity can have one or more delivery methods.

delivery method type In PeopleSoft Enterprise Learning Management, specifies a method that your organization uses to deliver learning activities, for example, scheduled or self-paced learning.

distribution The process of assigning values to ChartFields. A distribution is a string of ChartField values assigned to items, payments, and budget amounts.

double byte character If youre working with Japanese or other Asian employees, you can enter the employee's name using double-byte characters. The standard double byte character set name format in PeopleSoft applications is: [last name] space [first name].

dynamic tree A tree that takes its detail valuesdynamic detailsdirectly from a table in the database, rather than from a range of values 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 job Abbreviation for *Enterprise Incentive Management job.* In PeopleSoft Enterprise Incentive Management, a collection of job steps that corresponds to the steps in an organizations compensation-related business process. An EIM job can be stopped to allow manual changes or corrections to be applied between steps, and then resumed from where it left off, continuing with the next step. A run can also be restarted or rolled back.

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.

equipment In PeopleSoft Enterprise Learning Management, resource items that can be assigned to a training facility, to a specific training room, or directly to an activity session. Equipment items are generally items that are used (sometimes for a fee) and returned after the activity is complete.

event Events are predefined points either in the application processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program associated with that component and that event. Examples of events are FieldChange, SavePreChange, and OnRouteSubscription. In PeopleSoft Human Resources, *event* also refers to incidents that affect 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.

external system In PeopleSoft, any system that is not directly compiled with PeopleTools servers.

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.

filter In PeopleSoft applications, a filter creates a subset of information. Filters are used in templates to limit your information from a pick list of attribute values.

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 Any set of records associated under a single name or variable in order to run calculations in PeopleSoft business processes. In PeopleSoft Time and Labor, for example, employees are placed in groups for time reporting purposes.

homepage Users can personalize the homepage, or the page that first appears when they access the portal.

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.

key 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.

learner group In PeopleSoft Enterprise Learning Management, a group of learners within the same learning environment that share the same attributes, such as department or job code.

learning activity See *activity.*

learning history In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities.

learning plan In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned and in-progress learning activities.

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.

level A section of a tree that organizes groups of nodes.

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 The feature that initiates a process to automatically load information into a PeopleSoft applicationfor example, populating the PeopleSoft Benefits database with plan-level election information.

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 addressesfor 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 locationindicated by a *1*is the address you use most often and may be different from the main address.

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.

material In PeopleSoft Enterprise Learning Management, a resource item that can be assigned to the sessions of an activity. Material items are generally consumed during the duration of an activity and not returned, and they may have an associated cost.

message definition An object definition specified in PeopleSoft Application Designer that contains message information for PeopleSoft Application Messaging.

meta-SQL Meta-SQL constructs expand into platform-specific SQL substrings. They are used in functions that pass SQL strings, such as in SQL objects, the SQLExec function, and PeopleSoft Application Engine programs.

metastring Metastrings are special expressions included in SQL string literals. The metastrings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.

multibook Processes in PeopleSoft applications that can create both application entries and general ledgers denominated in more than one currency.

multicurrency The ability to process transactions in a currency other than the business unit's base currency.

objective In PeopleSoft Enterprise Learning Management, an individual's learning goal. An example of a learning goal is a competency gap.

override In PeopleSoft Enterprise Incentive Management, the ability to make a change to a plan that applies to only one plan context.

pagelet Each block of content on the homepage 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.

parent node A tree node linked to lower-level nodes or details that roll up into it. A node can be a parent and a child at the same time, depending on its location within the tree.

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 *participant object.*

payout In PeopleSoft Enterprise Incentive Management, the resulting incentive plan computation that is provided to payroll.

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 an 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.

per seat cost In PeopleSoft Enterprise Learning Management, the cost per learner, based on the total activity costs divided by either minimum attendees or maximum attendees. Organizations use this cost to price PeopleSoft Enterprise Learning Management activities.

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 contextif 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 section In PeopleSoft Enterprise Incentive Management, a segment of a plan that handles a specific type of event processing.

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.

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.
private view	A user-defined view that is available only to the user who created it.
process	See *Batch Processes.*
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 an SQR, a COBOL 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.
publishing	In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.
record definition	A logical grouping of data elements.
record field	A field within a record definition.
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.
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.
results management process	In PeopleSoft Sales Incentive Management, the process during which compensation administrators may review processing results, manually change transactions, process draws, update and review payouts, process approvals, and accumulate and push payments to the EIM ledger.
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.
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.
roll up	In a tree, to roll up is to total sums based on the information hierarchy.
routing	Connects activities in PeopleSoft Workflow. Routings specify where the information goes and what form it takesemail message, electronic form, or worklist entry.
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.
self-service application	Self-service refers to PeopleSoft applications that are accessed by end users with a browser.
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 activitycharacteristics 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.
sibling	A tree node at the same level as another node, where both roll up into the same parent. A node can be a sibling, parent, and child all at the same time, depending on its location in the tree.
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.
SQR	See *Structured Query Report (SQR)*.
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.
Structured Query Report (SQR)	A type of printed or displayed report generated from data extracted from a PeopleSoft SQL-based relational database. PeopleSoft applications provide a variety of standard SQRs that summarize table information and data. You can use these reports as is, customize them, or create your own.
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 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.

table The underlying PeopleSoft data format, in which data is stored by columns (fields) and rows (records, or instances).

TableSet sharing Specifies control table data for each business unit so that redundancy is eliminated.

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.

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 loading process In PeopleSoft Enterprise Incentive Management, the process during which transactions are loaded into Sales Incentive Management. During loading, the source currency is converted to the business unit currency while retaining the source currency code. At the completion of this stage, the transaction is in the first state.

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.

transaction type In PeopleSoft Enterprise Incentive Management, a way to categorize transactions to identify specific transaction types (for example, shipment, order, opportunity, and so on). Plan sections process only one type of transaction type. Transaction types can be defined based on a company's specific processes model.

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.

uniform resource locator (URL) In PeopleSoft, the term URL refers to the entire query string. The following is an example of a URL: http://serverx/InternetClient /InternetClientServlet?ICType=Script&ICScriptProgramName=WEBLIB_BEN_ 401k.PAGES.FieldFormula.iScript_Home401k

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.
URL	See *uniform resource locator (URL).*
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.
warehouse	A PeopleSoft data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.
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.
workflow	The background process that creates a list of administrative actions based on selection criteria and specifies the procedure associated with each action.
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.
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.

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