
Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Tree Manager

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Contents

Preface

PeopleSoft Tree Manager Preface	ix
PeopleSoft Tree Manager	ix
Using This Documentation	ix

Chapter 1

Getting Started with PeopleSoft Tree Manager	1
PeopleSoft Tree Manager Overview	1
PeopleSoft Tree Manager Business Processes	3
PeopleSoft Tree Manager Implementation	3

Chapter 2

Introduction to PeopleSoft Tree Manager	5
Working with Tree Concepts	5
Understanding Tree Concepts	5
Using Nodes	8
Using Detail Values (Leaves)	8
Understanding Types of Trees	9
Understanding Standard Detail Trees	10
Understanding Dynamic Detail Trees	10
Understanding Node-Oriented Trees	11
Understanding Summary Trees	12
Working with Effective Dates and Trees	13
Understanding Interactions Between Tree and User Data Effective Dates	13
Using Effective-Dated User Records	15
Using Effective-Dated Trees	15
Associating Trees with Additional SetIDs	15
Sharing Trees Across SetIDs	16
Working with the Multiuser Environment	17

Chapter 3

Using PeopleSoft Tree Manager	21
Opening Trees	21
Searching for Trees	21
Organizing Trees	22
Navigating PeopleSoft Tree Manager	23
Pages Used to Navigate PeopleSoft Tree Manager	23
Using the Navigation Bar	23
Using Navigation Paths	25
Expanding and Collapsing Nodes	26
Searching for Nodes or Detail Values	26
Using the Line Counter	29
Working with Tree Nodes	29
Pages Used to Work with Tree Nodes	30
Describing Tree Nodes	30
Inserting Nodes	32
Moving Nodes	32
Switching Node Levels	33
Editing Node Descriptions	35
Deleting Nodes	35
Renaming Nodes	36
Working with Detail Values	36
Pages Used to Work with Detail Values	36
Understanding Detail Values	37
Adding Detail Values	38
Changing Detail Value Descriptions	39
Modifying a Range of Detail Values	39
Deleting Detail Values	40
Viewing Detail Values	40
Using Drag and Drop	42
Saving and Configuring Trees	42
Pages Used to Save and Configure Trees	43
Using Save and Configuration Options	44
Copying Trees	45
Modifying Tree Definitions	46
Defining Tree Levels	48
Setting Display Options	50
Using Navigation Options	52
Printing Trees	54
Using Tree Viewer	55

Modifying the TreeMover Application Engine Program	141
Modifying the TreeMover SQR Program	142

Appendix A

Setting Multinavigation Paths	143
Using Multinavigation Paths	143
Enabling Multinavigation	145
Creating Multinavigation Menus	145

Appendix B

Configuring PeopleSoft Tree Manager on the Web	147
Using PeopleSoft Tree Manager Upgrade Programs	147
Completing Manual Configuration Steps	148
Enabling Security Access for Application Pages	149
Updating Effective-Dated Application Pages	149
Customizing TREE_NODE/TREE_LEVEL Pages	150

Index	151
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PeopleSoft Tree Manager Preface

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

PeopleSoft Tree Manager

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

Note. The drag and drop functionality does not work on all the supported browsers listed in the platforms database. System requirements for the drag and drop functionality for PC are: Internet Explorer version 7 and 8, Mozilla FireFox 3.0, and Safari 3.1.x, 3.2.x.

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.

Using This Documentation

The following list explains the PeopleSoft Pure Internet Architecture pages that are included in PeopleSoft Tree Manager and provides cross-references to the corresponding documentation in this PeopleBook:

Tree Manager page	See Chapter 3, "Using PeopleSoft Tree Manager," Opening Trees, page 21.
Find Value page	See Chapter 3, "Using PeopleSoft Tree Manager," Searching for Nodes or Detail Values, page 26.
Insert Sibling Node page	See Chapter 3, "Using PeopleSoft Tree Manager," Inserting Nodes, page 32.
Insert Child Node page	See Chapter 3, "Using PeopleSoft Tree Manager," Inserting Nodes, page 32.
Node Properties page	See Chapter 3, "Using PeopleSoft Tree Manager," Switching Node Levels, page 33.
Detail Value Range page	See Chapter 3, "Using PeopleSoft Tree Manager," Pages Used to Work with Detail Values, page 36.

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Chapter 2

Introduction to PeopleSoft Tree Manager

This chapter discusses how to:

- Work with tree concepts.
- Define types of trees.
- Work with effective dates and trees.
- Associate trees with additional setIDs.
- Work with the multiuser environment.

Working with Tree Concepts

This section provides an overview of tree concepts and discusses how to:

- Use nodes.
- Use detail values (leaves).

Understanding Tree Concepts

This section discusses general concepts used by PeopleSoft 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 of the nodes on the same level as a group, even when they do not share the same parent. For example, you might create a PeopleSoft nVision layout that summarizes the data for a division, then define a PeopleSoft nVision scope that creates one report instance for each division, regardless of what company it is in. To allow you to refer to all the nodes at a level, PeopleSoft Tree Manager enables you to name each level. You will use the level name when you define the scope for your PeopleSoft 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.

The following example shows a tree with levels:



Example of a tree with levels

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

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

The following diagram shows an example of loosely enforced levels:

See Also

[Chapter 4, "Creating Trees," Understanding Steps to Create Trees, page 57](#)

[Chapter 2, "Introduction to PeopleSoft Tree Manager," Working with Effective Dates and Trees, page 13](#)

[Chapter 2, "Introduction to PeopleSoft Tree Manager," Associating Trees with Additional SetIDs, page 15](#)

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, because 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 you reach the top level of the hierarchy, called the root node.

Family Tree Terminology

Terminology derived from the idea of a family tree is used when talking about trees. The nodes that report to the root node are called its *children*. They are also called *child nodes*. The root node is their *parent*. Nodes that have the same parent are called *siblings*.

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 is 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.

The following example shows a personal data tree with detail values:

Enabling the Multiuser Environment

Before enabling the multiuser environment, you must assign a unique user ID to each user. If you are not using the multiuser environment, you can use a shared user ID; however, this is not required.

To enable the multiuser environment:

1. Select PeopleTools, Utilities, Administration, PeopleTools Options.
2. In the Tree Manager Options group box, select the Use Tree Update Reservation option.
3. In the Max Tree Inactivity Period, min field, enter the number of minutes allowable for a user to remain inactive during edit mode.

In PeopleSoft Tree Manager, *inactivity* is defined as not performing *any* operation. Minimal actions including navigation and clicking on tree entries or action images are considered to be *active*. If the user is inactive for the set number of minutes, the tree or branch reverts to display mode.

Note. PeopleSoft recommends that you set the inactivity period at less than or equal to the browser time-out settings – 20 minutes for Internet Explorer.

4. Reboot the application server.

Note. You must reboot the application server after enabling or disabling the multiuser environment and after changing the inactivity period in order for these changes to take effect.

If a tree is opened in display mode, the user can still modify user data such as node or leaf descriptions.

If a tree is branched, users can check out different branches independently.

See *Enterprise PeopleTools 8.50 PeopleBook: Security Administration*, "Implementing Query Security," Building Query Access Group Trees.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query*, "PeopleSoft Query Security," Using Query Access Group Trees.

Chapter 3

Using PeopleSoft Tree Manager

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

This chapter discusses how to:

- Open trees.
- Navigate PeopleSoft 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 discusses how to:

- Search for trees.
- Organize trees with categories.

Searching for Trees

After you have your browser open in PeopleSoft Pure Internet Architecture, navigate to PeopleSoft Tree Manager (PSTREEMGR) so that you can view or modify trees.

To open a tree:

1. Select Tree Manager, Tree Manager.

The Tree Manager search page appears.

2. In the Search By drop-down list, select a value to search by.

Alternatively, click the Advanced Search link to search for a combination of values, such as Node Record Name, Detail Record Name, Structure Name, Tree Category, and so on.

Note. There are no edit checks to verify a category's existence – if the category does not exist, PeopleSoft Tree Manager adds a new one.

Navigating PeopleSoft Tree Manager

This section discusses how to:

- Use the navigation bar.
- Use the navigation paths.
- Expand and collapse nodes.
- Search for nodes or detail values.
- Use the line counter.

Pages Used to Navigate PeopleSoft Tree Manager

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Tree Manager	PSTREEMGR	Tree Manager, Tree Manager	View or modify trees.
Find Value	PSTREEMGRFIND	Tree Manager, Tree Manager Select a tree on the Tree Manager page, and click the Find link.	Find a specific node or value.

Using the Navigation Bar

Access the Tree Manager page by selecting Tree Manager, Tree Manager from PIA.

This is an example of the Tree Manager page:

Action	Tree with Strictly Enforced Levels	Tree with Loosely Enforced Levels
Switching node to a lower level.	<p>To ensure that the parent node is always at a higher level than its children, PeopleSoft Tree Manager automatically adjusts the level of the node and its children.</p> <p>PeopleSoft Tree Manager will automatically create additional levels, if necessary.</p>	<p>The levels of the pasted node and its children are not adjusted.</p> <p>Note. If the switch results in a child node level becoming higher than its parent, PeopleSoft Tree Manager automatically adjust the level to be equal to the level of parent.</p> <p>PeopleSoft recommends that when switching levels, you should switch to just one level at a time.</p>

Editing Node Descriptions

To change the description of a node:

1. Select Tree Manager, Tree Manager.
2. Search for an existing tree or create a new one.
3. Access the Tree Node Maintenance page by selecting a node in the Tree Manager page, and clicking the Edit Data icon.
4. Update the value in the Description field.
5. Enter the new date as well as a new description.
6. Click the OK button to accept changes and return to the Tree Manager page.

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

Deleting Nodes

To delete a node:

1. Select Tree Manager, Tree Manager.
2. Search for an existing tree or create a new one.
3. Highlight the node in the Tree Manager page, and click the Delete icon.
4. In the message that appears, click the Yes button to delete or the No button to return to the tree without deleting.

Renaming Nodes

To rename a node:

1. Select Tree Manager, Tree Manager.
2. Search for an existing tree or create a new one.
3. Access the Node Properties page by selecting a node in the Tree Manager page, and clicking the Update Node Properties icon.
4. Enter new name for the node in the New Name text box and click the Rename button.

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

You cannot rename the root node or branched nodes.

Working with Detail Values

This section discusses 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

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Detail Value Range	PSTREELEAF	Select Tree Manager, Tree Manager. Search for an existing tree or create a new one. Select a detail value on the Tree Manager page, and click the Edit Properties icon.	Modify the range of values in a detail.

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

Pages Used to Save and Configure Trees







<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Tree Definition and Properties	PSTREEDEFN	<p>Select Tree Manager, Tree Manager.</p> <p>Search for an existing tree or create a new one.</p> <p>Open a tree on the Tree Manager page, and click the Save As link.</p> <p>Alternatively, open a tree on the Tree Manager page and click the Tree Definition link.</p>	<p>Save a tree with a different name, effective date, and other properties.</p> <p>Edit properties for an existing tree.</p>
Tree Levels	PSTREEDEFNLEVELS	<p>Select Tree Manager, Tree Manager.</p> <p>Search for an existing tree or create a new one.</p> <p>Open a tree on the Tree Manager page, and click the Save As link or click the Tree Definition link.</p> <p>On the Tree Definition and Properties page, click the Define Tree Levels link.</p>	<p>Add, delete, and modify tree-level information.</p>
Configure User Options	PSTREEMGROPTIONS	<p>Select Tree Manager, Tree Manager.</p> <p>Search for an existing tree or create a new one.</p> <p>Open a tree on the Tree Manager page, and click the Display Options link.</p>	<p>Specify what information appears on the Tree Manager page.</p> <p>Turn off and on tree node descriptions and set the default action for dragging and dropping nodes.</p>

Using Tree Viewer

Tree Viewer is a read-only version of PeopleSoft Tree Manager. It provides security administrators with 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 as in Tree Manager.

The following images are available when displaying trees in Tree Viewer:

	Collapse Node: Click to close a node with its contents not showing.
	Expand Node: Click to expand a node with its contents showing all lower levels of the hierarchy.
	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.

Note. Tree Viewer ignores branches.

Chapter 4

Creating Trees

This chapter provides an overview of the steps to create trees and discusses how to:

- 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 Steps to Create Trees

Trees are built from the highest level of the hierarchy (root node) to the lowest level of the hierarchy. 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) tree and node-oriented (winter) tree.

- Summary tree structures.

These are used for PeopleSoft nVision reporting using summary ledgers.

These are some basic steps to create trees:

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

Page Name	Definition Name	Navigation	Usage
Tree Levels	PSTREESTRCTLVL	Tree Manager, Tree Structure Search for an existing tree structure, or create a new one. Select the Levels tab on the Tree Structure Properties page.	Specify the page and record to enter and store information about tree levels.
Tree Nodes	PSTREESTRCTNODE	Tree Manager, Tree Structure Search for an existing tree structure, or create a new one. Select the Nodes tab on the Tree Structure Properties page.	Specify the page and record used to enter and store information about tree nodes.
Tree Details	PSTREESTRCTDETL	Tree Manager, Tree Structure Search for an existing tree structure, or create a new one. Select the Details tab on the Tree Structure Properties 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 Structures

Use these steps to access the Tree Structure Properties page:

1. Select Tree Manager, Tree Structure.
2. Search for an existing tree structure or create a new one.

The Tree Structure Properties page appears.

This is an example of the Tree Structure Properties page:

Pages Used to Define Trees

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Tree Definition and Properties	PSTREEDEFN	Tree Manager, Tree Manager Search for an existing tree or create a new one. Click the Tree Definition link on the Tree Manager page.	Specify general attributes for a tree.
Root Node	PSTREEROTLEVELS	Tree Manager, Tree Manager Search for an existing tree or create a new one. Click the Tree Definition link on the Tree Manager page. On the Tree Definition and Properties page, enter the appropriate values and click the OK button.	Define tree levels and the root node.

Defining Basic Attributes

Use these steps to access the Tree Definition and Properties page:

1. Select Tree Manager, Tree Manager.
2. Search for an existing tree or create a new one.
3. Click the Tree Definition link on the Tree Manager page.

The Tree Definition and Properties page appears.

This is an example of the Tree Definition and Properties page:

Tree Definition and Properties

*Tree Name:

QE_ACCOUNTS

*Structure ID:

QE_ACCOUNTS

*Effective Date:

01/01/1900

*Status:

Active

*Description:

COA Hierarchy

*Category:

QEDMO

[Define Tree Levels](#)

*Use of Levels:

Strictly Enforced

[Performance Options](#)

*SetID:

QEDM2

Audits

☐ All Detail Values in this Tree

☐ Allow Duplicate Detail Values

Perform Audits

Item Counts

Node Count:

886

Leaf Count:

23547

Level Count:

15

Branch Count:

0

OK

Close

Tree Definition and Properties page

Structure ID	Select a tree structure ID. Define structures using the Tree Structure Properties page.
Status	Select a status of <i>Active</i> or <i>Inactive</i> . 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. <hr/> 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 used only as a search value. <hr/>

Perform Audits	<p>Click to run the selected audit option from this page.</p> <p>PeopleSoft Tree Manager also performs audits whenever you save a tree. However, no audits are performed if you save the tree using the Save Draft option.</p>
Item Counts	<p>Displays the number of nodes, leaves, levels, and branches in the currently opened tree or branch. It does not count nested branches (branches with a parent branch that is different than a currently opened branch)</p>
Define Tree Levels	<p>Click to access the Tree Levels page and add, update, or delete tree levels.</p> <p>See Chapter 3, "Using PeopleSoft Tree Manager," Defining Tree Levels, page 48.</p>
Performance Options	<p>Click to access the Performance Options page and set access method, tree selector, or selector options. You can also set the Auditing All Detail Values option as well as Tree Change Service Operation options.</p> <hr/> <p>Note. The Access Method, Tree Selectors, and Selector options are used mainly for optimizing tree usage with PeopleSoft nVision and Query when using the In Tree criteria option.</p> <hr/> <p>See Chapter 4, "Creating Trees," Setting Tree Performance Options, page 84.</p>

Adding a Root Node

Use these steps to access the Enter Root Node for Tree page:

1. Select Tree Manager, Tree Manager.
2. Create a new one.
3. Click the Tree Definition link on the Tree Manager page.
4. On the Tree Definition and Properties page, enter the appropriate values and click the OK button.

This is an example of the Enter Root Node for Tree page:

3. Highlight the tree branch node and click the Unbranch icon.

PeopleSoft 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, do not forget to update PeopleSoft Object Security.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Security Administration, "Implementing Definition Security"

Granting Security Access to Trees or Branches

You can use PeopleSoft Object Security to impose restrictions on your trees, tree branches, and tree structures with one of the following security levels:

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

You can also use PeopleSoft Definition 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. This task should be performed using Application Designer – Definition Security dialog box.

The following examples show the QE_PERS_DATA tree that has three branches and the definition security for user permission lists are set differently.

Example 1, branch *00001-Corporate Headquarters* is defined with a full access:


```

SELECT /*+ USE_HASH( B ), ORDERED */
A.RANGE_FROM
, A.RANGE_TO
,B.RANGE_FROM
, B.RANGE_TO
FROM PSTREELEAF A
, PSTREELEAF B
WHERE A.SETID = '#setid#'
AND A.SETCNTRLVALUE = '#setcntrlvalue#'
AND A.TREE_NAME = '#treename#'
AND A.EFFDT = %DateIn('#effdtdatein#')
AND A.DYNAMIC_RANGE = 'N'
AND B.SETID = A.SETID
AND B.SETCNTRLVALUE = A.SETCNTRLVALUE
AND B.TREE_NAME = A.TREE_NAME
AND B.EFFDT = A.EFFDT
AND B.DYNAMIC_RANGE = A.DYNAMIC_RANGE
AND (A.RANGE_FROM <> B.RANGE_FROM
OR A.RANGE_TO <> B.RANGE_TO)
AND B.RANGE_FROM <> B.RANGE_TO
AND (A.RANGE_FROM BETWEEN B.RANGE_FROM AND B.RANGE_TO
OR (A.RANGE_TO >= B.RANGE_FROM
AND A.RANGE_TO < B.RANGE_TO))

```

The code in this example includes #setid# at each point where the SETID value should be inserted. The same applies to the #treename#, #effdtdatein#, and #setcntrlvalue# metavariabes.

Using Metavariabes Multiple Times Within the SQL Object

The following example shows how to use metavariabes multiple times within the PS_TDM_SQLOVERLAP_SQL object. Specifically, the code from the previous example has been rewritten using metavariabes in both the top SELECT and bottom SELECT statements in the Union.

Access Methods

Select an access method 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.

Note. This option is not available for use with winter trees.

- *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 subquery*.
- *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 PeopleSoft 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. PeopleSoft nVision defaults to the tree performance options specified in a PeopleSoft nVision layout's options. If performance options are not specified in PeopleSoft nVision, the PeopleSoft 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 from the following options:

- *Static Selector:* A technique in which a selector represents the entire tree remains valid until the tree changes.
- *Dynamic Selectors:* A technique in which PeopleSoft 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

Select a selector option from the following values:

- *Single Values:* Used only with dynamic selectors. This technique causes PeopleSoft 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.

Auditing All Default Values

Note. The Auditing All Default Values group box is read-only when you work with winter trees.

If you've selected the All Detail Values in this Tree option on the Tree Definition and Properties page and clicked the Performance Options link, you can select from the following values:

- *Use All Tree Keys (Default):* This is the existing default auditing behavior. Use this option if the performance time is acceptable.
- *Use Not Empty Tree Keys:* If the performance time is unacceptable, attempt this option to expedite the process. If the performance time is still unsatisfactory, then attempt the next option below.
- *Use This Audit Only in Batch:* If you select this option, the All Detail Values in This Tree option audit is ignored during online tree auditing or saving. Consequently, the All Detail Values in This Tree option audit is run only through the Application Engine tree audit process. Although Tree Manager allows you to proceed to save a tree as a valid tree, you should use the *Save Draft* option. After you've saved the tree, proceed to start the Application Engine auditing process.

Note. Use this option only if the first two options fail to achieve the desired performance results.

Tree Change Message Options

Select a Tree Change Message option from the following:

- *Send Tree Change Message:* Select this option to send a TREE_CHANGE message when Tree changes are made.
- *Don't send Tree Change Message:* Select this option if there are no subscribers to TREE_CHANGE service operations.

Chapter 5

Maintaining Trees

This chapter discusses how to:

- Maintain trees.
- Maintain tree structures.
- Subscribe to TREE_CHANGE service operations.

Maintaining Trees

This section discusses how to:

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

Pages Used to Maintain Trees

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Tree Maintenance	PSTREEMAINT	Tree Manager, Tree Utilities, Copy/Delete Tree	Audit a closed tree, copy a tree, delete a tree, or view a tree.
Copy Tree	PSTREEDEFN	Tree Manager, Tree Utilities, Copy/Delete Tree On the Tree Maintenance page, select a tree and click the Copy button.	Copy a tree.
Tree Viewer	PSTREEVIEWER	Tree Manager, Tree Utilities, Copy/Delete Tree On the Tree Maintenance page, select a tree and click the View button.	View a tree.

Perform Audits	<p>To audit a tree, select its check box and click this button.</p> <p>The Last Audit field for the tree changes to <i>Valid Tree</i> if the tree passes the audit. If the tree fails the audit, the Last Audit field changes to <i>Draft Tree</i>.</p> <hr/> <p>Note. You can get a detail listing of audit errors by running the Repair Tree batch program.</p> <hr/>
Copy	To access the Tree Definition and Properties page and copy a tree, select a tree check box and click this button.
Delete	To delete a tree, select its check box and click this button.
View	To access the Tree Viewer page and view a tree, select a tree check box and click this 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.

See Also

Chapter 6, "Auditing and Repairing Trees," Using the Repair Tree Program, page 109

Copying Trees

Use these steps to access the Copy Tree page:

1. Select Tree Manager, Tree Utilities, Copy/Delete Tree.
2. On the Tree Maintenance page, select a tree and click the Copy button.

The Copy Tree page appears.

This is an example of the Copy Tree page:

Copy Tree

*Tree Name:	<input type="text" value="QE_DEPT_DYNAMIC"/>
*Structure ID:	<input type="text" value="QE_DEPT_DYNAMIC"/>
*Effective Date:	<input type="text" value="01/01/1999"/>
*Status:	<input type="button" value="Active"/>
*Description:	<input type="text" value="Dynamic Detail Dept Tree"/>
*Category:	<input type="text" value="QEDMO"/>
*Use of Levels:	<input type="button" value="Level Not Used"/> Performance Options
*SetID:	<input type="text" value="QEDM1"/>

Audits	Item Counts								
<input type="checkbox"/> All Detail Values in this Tree <input type="checkbox"/> Allow Duplicate Detail Values <input type="button" value="Perform Audits"/>	<table border="0"> <tr> <td>Node Count:</td> <td>21</td> </tr> <tr> <td>Leaf Count:</td> <td>21</td> </tr> <tr> <td>Level Count:</td> <td>0</td> </tr> <tr> <td>Branch Count:</td> <td>0</td> </tr> </table>	Node Count:	21	Leaf Count:	21	Level Count:	0	Branch Count:	0
Node Count:	21								
Leaf Count:	21								
Level Count:	0								
Branch Count:	0								

The Copy Tree page

Make any necessary changes and click the Copy button.

Viewing Trees

Use these steps to access the Tree Viewer page:

1. Select Tree Manager, Tree Utilities, Copy/Delete Tree.
2. On the Tree Maintenance page, select a tree and click the View button.

The Tree Viewer page appears.

This is an example of the Tree Viewer page:

Tree Viewer

SetID: QEDM1 **Effective Date:** 01/01/1999
Tree Name: QE_DEPT_DYNAMIC

[Collapse All](#) | [Expand All](#) [Find](#) First Page ◀ 11 of 42 ▶ Last Page



Tree Viewer page

After viewing the tree information, click the Close button to return to the Tree Maintenance 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.

If the multiuser environment is enabled, users will not be able to delete a tree if any branch of the tree – or the tree itself – is checked out by any user.

Maintaining Tree Structures

This section discusses how to:

- Delete tree structures.
- Copy tree structures.
- View and edit tree structures.

Pages Used to Maintain Tree Structures

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Tree Structure Maintenance	PSTREESTRCTMAINT	Tree Manager, Tree Utilities, Copy/Delete Tree Select the Tree Structure Maintenance tab.	Copy a tree structure, delete a tree structure, or view a tree structure.
Copy Tree Structure	PSTREESTRCTCOPY	Tree Manager, Tree Utilities, Copy/Delete Tree Select the Tree Structure Maintenance tab. On the Tree Structure Maintenance page, select a tree structure and click the Copy button.	Copy a tree structure.
Tree Structure Properties	PSTREESTRCTDEFN	Tree Manager, Tree Utilities, Copy/Delete Tree Select the Tree Structure Maintenance tab. On the Tree Structure Maintenance page, select a tree structure and click the View button.	View a tree structure.
Tree Levels	PSTREESTRCTLEVL	Tree Manager, Tree Utilities, Copy/Delete Tree Select the Tree Structure Maintenance tab. Select a tree structure and click the View button. On the Tree Structure Properties page, select the Levels tab.	View tree level properties.
Tree Nodes	PSTREESTRCTNODE	Tree Manager, Tree Utilities, Copy/Delete Tree Select the Tree Structure Maintenance tab. Select a tree structure and click the View button. On the Tree Structure Properties page, select the Nodes tab.	View tree node properties.

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Tree Details	PSTREESTRCTDETL	Tree Manager, Tree Utilities, Copy/Delete Tree Select the Tree Structure Maintenance tab. Select a tree structure and click the View button. On the Tree Structure Properties page, select the Details tab.	View tree detail properties.

Deleting Tree Structures

Use these steps to access the Tree Structure Maintenance page:

1. Select Tree Manager, Tree Utilities, Copy/Delete Tree.
2. Select the Tree Structure Maintenance tab.

The Tree Structure Maintenance page appears.

This is an example of the Tree Structure Maintenance page:

Tree Maintenance

Tree Structure Maintenance

Structure Maintenance

Tree Structures				
Customize Find View All				
First 1-20 of 21 Last				
Select	Tree Structure ID	Description	Node Record Name	Detail Record Name
<input type="checkbox"/>	CUBT_PRODUCTSTRUCT	Product structure.	TREE_NODE_TBL	PSCUBTPRODUCT
<input type="checkbox"/>	CUBT_REGIONSTRUCT	Regional Structures	TREE_NODE_TBL	PSCUBTREGION
<input type="checkbox"/>	QE_ACCOUNTS	Account Hierarchy	TREE_NODE_TBL	QE_ACCOUNT_TBL
<input type="checkbox"/>	QE_ACE_848_EMPL	ACE 848 Employee Tree	TREE_NODE_TBL	
<input type="checkbox"/>	QE_ACE_AFTREE	QE ACE All Function Tree	TREE_NODE_TBL	
<input type="checkbox"/>	QE_ACE_DGC_BU	Bus Unit Tree for DGC Model	TREE_NODE_TBL	
<input type="checkbox"/>	QE_ACE_DGC_DEPT	Department Tree for DGC Model	TREE_NODE_TBL	
<input type="checkbox"/>	QE_ACE_DGC_DTRG	Date Range	TREE_NODE_TBL	QE_ACE_DGC_DTRG
<input type="checkbox"/>	QE_ACE_DGC_EMPD	EMPLOYEE ID	TREE_NODE_TBL	QE_ACE_DGC_EMPD
<input type="checkbox"/>	QE_ACE_DGC_EMPLID	QE_ACE_DGC_EMPLID_Navigation	TREE_NODE_TBL	
<input type="checkbox"/>	QE_ACE_DGC_PRODID	ProductId Tree	TREE_NODE_TBL	QE_ACE_PRODID_VW
<input type="checkbox"/>	QE_ACE_PRODUCTS	Product Tree for ACE Smoke Tes	TREE_NODE_TBL	
<input type="checkbox"/>	QE_CUBT_PRODUCTS	For Cube Manager Testing	TREE_NODE_TBL	QE_CUBTPRODUCT
<input type="checkbox"/>	QE_CUBT_REGSTRUCT	For Cube Manager Testing	TREE_NODE_TBL	QE_CUBTREGION
<input type="checkbox"/>	QE_PERS_DATA	Personal Data	TREE_NODE_TBL	QE_EMPLOYEE
<input type="checkbox"/>	QE_PROJECT	Project Data	QE_PROJECT_TBL	

Copy

Delete

View

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, select a structure check box, and click this button.

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

View To access the Tree Structure Properties page and view a structure, select a structure check box and click this 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

Use these steps to access the Copy Tree Structure page:

1. Select Tree Manager, Tree Utilities, Copy/Delete Tree.
2. Select the Tree Structure Maintenance tab.
3. Select a tree structure and click the Copy button on the Tree Structure Maintenance page.

The Copy Tree Structure page appears.

This is an example of the Copy Tree Structure page.

Copy Tree Structure

Tree Structure ID:	QE_PROJECT
*New Tree Structure Id:	<input type="text"/>
*New Description:	<input type="text" value="Project Data"/>
	<input type="button" value="Copy"/> <input type="button" value="Close"/>

Copy Tree Structure page

To copy a tree structure:

1. In the Copy Tree Structure page, 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 and Editing Tree Structures

Use these steps to access the Tree Structure Properties page:

1. Select Tree Manager, Tree Utilities, Copy/Delete Tree.
2. Select the Tree Structure Maintenance tab.
3. Select a tree structure and click the View button on the Tree Structure Maintenance page.

The Tree Structure Properties page appears.

This is an example of the Tree Structure Properties page:

Structure	Levels	Nodes	Details
<h2>Tree Structure Properties</h2>			
Structure ID: QE_PERS_DATA			
*Description: <input type="text" value="Personal Data"/>			
*Type: <input type="text" value="Detail"/>			
Additional Key Field		Navigation Options	
<input checked="" type="radio"/> SetId Indirection <input type="radio"/> Business Unit <input type="radio"/> User Defined <input type="radio"/> None		<input type="checkbox"/> Node Multi-Navigation <input type="checkbox"/> Detail Multi-Navigation	

Tree Structure Properties page

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

Click the OK or Cancel button to return to the Tree Structure Maintenance page.

See Also

[Chapter 4, "Creating Trees," Understanding Steps to Create Trees, page 57](#)

Subscribing to TREE_CHANGE Service Operations

This section provides an overview of TREE_CHANGE service operations and discusses how to:

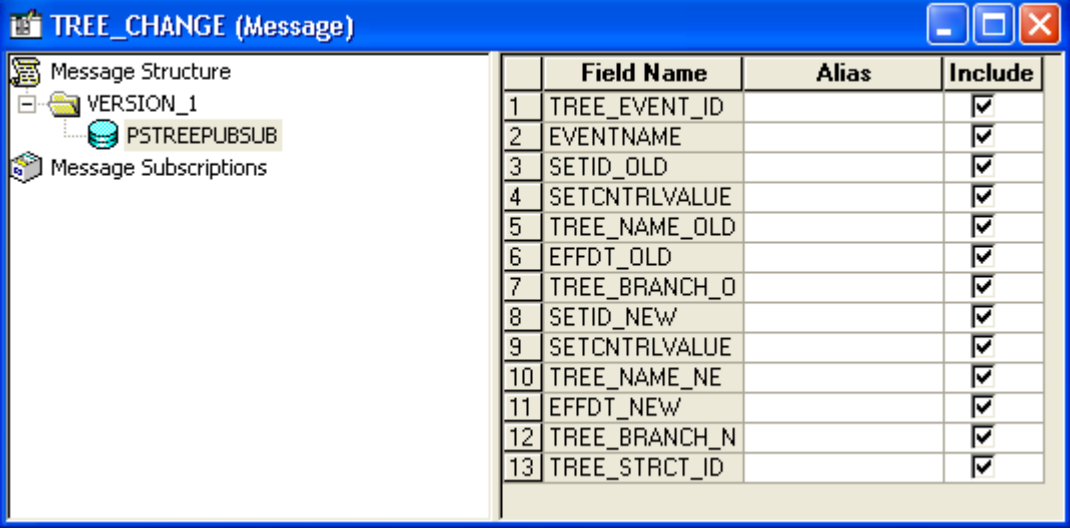
- Create a notification PeopleCode.
- Configure Integration Broker.
- Create a service operation handler.
- Set full access to the corresponding permissions list.
- Test a subscription process.

Understanding TREE_CHANGE Service Operations

Every time you perform an action in PeopleSoft Tree Manager to change a tree definition (such as delete, any kind of save, copy, branch, or unbranch), a TREE_CHANGE service operation is published based on the Tree Key information using the PSTREEPUBSUB record.

Note. From PeopleTools 8.48, sending a TREE_CHANGE service operation every time tree changes are made is optional. To improve performance, you can select not to send a TREE_CHANGE service operation whenever you change a tree definition. The default setting is sending a TREE_CHANGE service operation. This service operation is not saved to the database.

If applications want to use TREE_CHANGE service operation, they must create a service operation handler. The service operation handler runs every time this service operation is published.



	Field Name	Alias	Include
1	TREE_EVENT_ID		<input checked="" type="checkbox"/>
2	EVENTNAME		<input checked="" type="checkbox"/>
3	SETID_OLD		<input checked="" type="checkbox"/>
4	SETCNTRLVALUE		<input checked="" type="checkbox"/>
5	TREE_NAME_OLD		<input checked="" type="checkbox"/>
6	EFFDT_OLD		<input checked="" type="checkbox"/>
7	TREE_BRANCH_O		<input checked="" type="checkbox"/>
8	SETID_NEW		<input checked="" type="checkbox"/>
9	SETCNTRLVALUE		<input checked="" type="checkbox"/>
10	TREE_NAME_NE		<input checked="" type="checkbox"/>
11	EFFDT_NEW		<input checked="" type="checkbox"/>
12	TREE_BRANCH_N		<input checked="" type="checkbox"/>
13	TREE_STRCT_ID		<input checked="" type="checkbox"/>

Example of the Tree Change service operation

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 applications who subscribe to the TREE_CHANGE event, and check for EVENT_ID in PeopleCode using field name.

Creating a Notification PeopleCode

To create a notification PeopleCode:

1. Select Go, PeopleTools, Application Designer.
2. Create an application package and an application class that implements PS_PT: Integration: INotificationHandler interface.

For a subscription, you use the INotificationHandler application class and the OnNotify method, and optionally use the OnError method for error handling.

Note. This application package PeopleCode is tied to the TREE_CHANGE service operation through a service operation handler.

The following example shows an application class that is used to subscribe to TREE_CHANGE service operation:

TREE_CHANGE_SUB_TEST (application_class)	OnExecute
--	-----------

```

import PS_PT:Integration:INotificationHandler;

class TREE_CHANGE_SUB_TEST implements PS_PT:Integration:INotificationHandler
    method TREE_CHANGE_SUB_TEST();
    method OnNotify(&MSG As Message);
private
    method LogToFile(&fName As string, &txt As string);
end-class;

/* constructor */
method TREE_CHANGE_SUB_TEST
    rem do nothing;
end-method;

method OnNotify
    /* &MSG as Message */
    /* Extends/implements PS_PT:Integration:INotificationHandler.OnNotify */
    /* Variable Declaration */

    Local Message &request_MSG;
    Local Rowset &request_RS, &response_RS;
    Local Record &PSTREEPUBSUB;
    Local any &QryNode, &I;

    /* Subscription PeopleCode */
    /* Get the request message from queue */
    &request_MSG = &MSG;

    /* Get the request rowset object from the buffer */
    &request_RS = &request_MSG.GetRowset();

```

Example of creating notification PeopleCode (1 of 2)

```

TREE_CHANGE_SUB_TEST (application_class)
OnExecute

/* Extract the record from the message rowset*/
&PSTREEPUBSUB = &request_RS.GetRow(1).GetRecord(Record.PSTREEPUBSUB);
/* Get Changes */
If &PSTREEPUBSUB <> Null Then
    Local string &setIdOld = PSTREEPUBSUB.SETID_OLD.Value;
    Local string &setcntrlvalueOld = PSTREEPUBSUB.SETCNTRLVALUE_OLD.Value;
    Local string &treenameOld = PSTREEPUBSUB.TREE_NAME_OLD.Value;
    Local string &effdtOld = PSTREEPUBSUB.EFFDT_OLD.Value;
    Local string &treebranchOld = PSTREEPUBSUB.TREE_BRANCH_OLD.Value;
    Local string &setIdNew = PSTREEPUBSUB.SETID_NEW.Value;
    Local string &setcntrlvalueNew = PSTREEPUBSUB.SETCNTRLVALUE_NEW.Value;
    Local string &treenameNew = PSTREEPUBSUB.TREE_NAME_NEW.Value;
    Local string &effdtNew = PSTREEPUBSUB.EFFDT_NEW.Value;
    Local string &treebranchNew = PSTREEPUBSUB.TREE_BRANCH_NEW.Value;
End-If;

/* Do something with a received message;
for example, log message to a file */
Local string &logstr = "Tree has been changed from " | Char(10);
&logstr = &logstr | &setIdOld | " " | &setcntrlvalueOld | " ";
&logstr = &logstr | &treenameOld | " " | &effdtOld | " " | &treebranchOld;
&logstr = &logstr | Char(10) | "to" | Char(10);
&logstr = &logstr | &setIdNew | " " | &setcntrlvalueNew | " " | &setcntrlvalueNew | " ";
&logstr = &logstr | &treenameNew | " " | &effdtNew | " " | &treebranchNew;

%This.LogToFile("c:\temp\subscription.log", &logstr);
end-method;

method LogToFile
    /* &fName as String, */
    /* &txt as String */
    Local File &myFile;

    &myFile = GetFile(&fName, "W", "A", %FilePath_Absolute);
    If &myFile.IsOpen Then
        &myFile.WriteLine(&txt);
        &myFile.Close();
    End-If;
end-method;

```

Example of creating notification PeopleCode (2 of 2)

In the above example, TREE_CHANGE_SUB_TEST application class has three methods. The constructor, TREE_CHANGE_SUB_TEST and the event handler, OnNotify are required. TREE_CHANGE_SUB_TEST application class has an extra method LogToFile that is used for testing purposes only. This message records a data retrieved from a message being received.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Integration Broker, "Sending and Receiving Messages"

Configuring Integration Broker

To configure Integration Broker in PIA:

1. Select PeopleTools, Integration Broker, Integration Setup, Services Operations.

The search page appears.

2. Select *TREE_CHANGE* service operation name, and click the Search button.

3. Click the TREE_CHANGE link.

The General page appears.

4. On the General page, select the Generate Local-to-Local option.

Local-to-local routing is auto-generated.

This is an example of the General page:

General

Handlers

Routings

Service Operation:

TREE_CHANGE

Operation Type:

Asynchronous - One Way

*Operation Description:

TREE DEFINITION CHANGED MSG

Operation Comments:

Object Owner ID:

PeopleTools

Operation Alias:

User/Password Required

*Security Req Verification:

None

[Service Operation Security](#)

Default Service Operation Version

*Version:

VERSION_1

Version Description:

Version Comments:

Non-Repudiation

Runtime Schema Validation

Intropection

Default

Active

Routing Status

Any-to-Local:

Does not exist

Local-to-Local:

Does not exist

Local-to-Atom:

Does not exist.

Routing Actions Upon Save

Generate Any-to-Local

Generate Local-to-Local

Message Information

Type:

Request

Message.Version:

TREE_CHANGE.VERSION_1

View Message

*Queue Name:

TREE_MAINT

View Queue

Add New Queue

Save

Return to Search

Add Version

General page - Service Operation

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Integration Broker, "Managing Service Operations"

Creating a Service Operation Handler

Access the Handlers page (in the General page, select the Handlers tab).

Handler Details

Handler Name:	TREE_CHANGE
Handler Type:	On Notify
Description:	TREE CHANGE Messgae Handler
Comments:	Message fires when tree definition is changed.
Handler Owner:	

Application Class

*Package Name:	EMAIL_MSG
*Path:	:
Class ID:	EMAIL_GUARANTEED
Method:	OnNotify

Handlers page - Service Operation

To create a service operation handler:

1. Select PeopleTools, Integration Broker, Integration Setup, Services Operations.
2. Select *TREE_CHANGE* service operation name, and click the Search button.
3. Click the TREE_CHANGE link.

The General page appears.

4. On the Handlers page, enter a handler name.
5. Select the *On Notify* option from the Type drop-down list box.
6. Select the *Application Class* option from the Implementation drop-down list box.

- Click the Details link.

The Handler Details page appears.

- Populate the required fields with data from the application package that you created.

The following example shows the Handler Details page populated with data from the application package.

Handler Details

Handler Name:	TREE_CHANGE
Handler Type:	On Notify
Description:	TREE CHANGE Messgae Handler
Comments:	Message fires when tree definition is changed.
Handler Owner:	

Application Class

*Package Name:	EMAIL_MSG
*Path:	:
Class ID:	EMAIL_GUARANTEED
Method:	OnNotify

OK

Cancel

Handler Details page

Note. There is a semicolon in the Path edit box.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Integration Broker, "Managing Service Operations," Adding Handlers to Service Operations

Setting Full Access to the Permissions List

To set full access to the corresponding permission list:

- Select PeopleTools, Integration Broker, Integration Setup, Services Operations.
- Select *TREE_CHANGE* service operation name, and click the Search button.
- Click the TREE_CHANGE link.

4. In the General page, click the Service Operation Security link.

The Web Service Access page appears.

5. Set full access to corresponding permissions list, and click the Save button.

Note. For additional security setting, check whether the permission list used for your user includes TREE_MAINT queue. Also, check whether TREE_MAINT queue has full access rights.

This is an example of the Web Service Access page:

Web Service Access

Operation: TREE_CHANGE

Permission		Customize	Find	First	1 of 1	Last
Permission List		Access				
PTPT1200		Full Access				

Web Service Access page

Testing a Subscription Process

To test a TREE_CHANGE subscription process:

1. Select Tree Manager, Tree Manager.
2. Search for an existing tree and open it in the Tree Manager page.
3. Change any tree and save it.

Note. You can also use Save As functionality to create a new tree.

4. Select PeopleTools, Integration Broker, Service Operations Monitor, Monitoring, Asynchronous Services.
5. Select the Subscription Contracts tab.

The Subscription Contracts page appears.

6. Select a node in the Node Names field.
7. Select the *TREE_CHANGE* option from the Service Operation drop-down list box.
8. Select the *TREE_MAINT* option from the Queue Name drop-down list box.
9. Click the Refresh button.

A list of service operations are displayed under your test subscription.

The following examples show the list of service operations received under test subscription.

Monitor Overview

Operation Instances

Publication Contracts

Subscription Contracts

Node Name

QE_LOCAL

Service

TREE_CHANGE

Operation

Queue Name

TREE_MAINT

Transaction ID

Archived

User Level View

Status

Time Period

From Date

15

To Date

15

From Time

To Time

Refresh

Result

Customize

Find

View All

65

Select	Transaction ID	Queue Name	Publishing Node	Segment Number	Service Operation	Service Operation Version	Sub Queue	Status	Time Stamp	Orig Trans ID
<input type="checkbox"/>	b09e2de4-6ce8-11de-9bf2-bfc700c9a2c6	TREE_MAINT	QE_LOCAL	1	TREE_CHANGE	VERSION_1	Sub Queue Link	Done	07/09/2009 5:29:13PM	dab3511a-6ce6-11de-98bc3611c5623
<input type="checkbox"/>	af126788-6ce8-11de-9bf2-bfc700c9a2c6	TREE_MAINT	QE_LOCAL	1	TREE_CHANGE	VERSION_1	Sub Queue Link	Done	07/09/2009 5:29:11PM	7396ff74-6ce4-11de-978bc3611c5623
<input type="checkbox"/>	7125f3fe-6ce8-11de-9bf2-bfc700c9a2c6	TREE_MAINT	QE_LOCAL	1	TREE_CHANGE	VERSION_1	Sub Queue Link	Done	07/09/2009 5:28:57PM	dd745628-a3ab-11da-9f6c6e2a00c9e

☒ Select All

☐ Deselect All

Resubmit

Cancel

Subscription Contracts page

When you click the Details link in the Results section of the Subscription Contracts page, the Asynchronous Details page appears.

This is an example of the Asynchronous Details page:

Asynchronous Details

Transaction ID

dab3511a-6ce6-11de-9789-8bc3611c5623

External Service Name

TREE_CHANGE.VERSION_1

Publishing Node

QE_LOCAL

*Segment

1

Refresh

Queue Name

TREE_MAINT

[View XML](#)

Queue Sequence

3

SequenceID

ID

Sub Queue

Original Publishing Node

QE_LOCAL

Uncompressed Data Length

3254

Status

DONE

Data Length View Limit

100000

[View IB Info](#)

Publication Contracts							
Customize Find First 1 of 1 Last							
Actions Information							
Subscriber Node	*Segment	Status					
PSFT_EP	1	New	Edit XML	Resubmit	Cancel	Error Messages	View IB Info

Subscription Contracts							
Customize Find First 1 of 1 Last							
Actions Information							
Action Name	*Segment	Status					
TREE_CHANGE	1	Done	View XML	Resubmit	Cancel	Error Messages	View IB Info

[Return to Search](#)

Asynchronous Details page

Note. If a subscription PeopleCode test program shown above is used, you can view the file being generated (Windows OS) as a part of a test subscription class at `e:\temp\subscription.txt`.

Chapter 6

Auditing and Repairing Trees

This chapter provides an overview of auditing and repairing trees and discusses how to:

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

Understanding the Auditing and Repairing of Trees

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

Before using the repair programs, you should first run 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.

The Repair Tree program is designed for administrators who need a wide range of utilities with which to work. Besides containing various utilities for repairing trees, the Repair Tree program also includes the Tree Audits utility.

The Tree Auditor program *is only* the Tree Audits utility, and is designed for users who only need to audit trees.

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.

Note. If you expect that saving a tree will take an especially long time due to an audit running as a part of saving process or on account of large, memory-intensive trees, PeopleSoft recommends that you save the trees as drafts, then run the audits with Application Engine using the Repair Tree or Tree Auditor programs. After the audits have completed without finding any problems, the tree status will be automatically changed to *Valid Tree*.

Using the Repair Tree Program

Use the Repair Tree Application Engine program to audit and repair trees.

Note. You can also use the Tree Auditor Application Engine program to audit trees.

Pages Used to Audit and Repair Trees

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Repair Tree Tree Auditor	RUN_TREE_UTILITIES	Tree Manager, Tree Utilities, Repair Tree Alternatively, access the batch audit function by selecting Tree Manager, Tree Auditor.	Audit, troubleshoot, or repair problem trees.
Repair Tree Reports	PSBATCHREPORT	Tree Manager, Tree Utilities, Repair Tree Reports Or click the View Results link on the Tree Utilities page. Or click the View Results link on the Repair Tree page. Or click the View Results link on the Tree Auditor page.	View results of an audit.
N/A	PSBATCHREPORTLIST	Tree Manager, Tree Utilities, Repair Tree Reports Click the Select link for a report on the Repair Tree Report page.	View individual reports.

Working with the Repair Tree Program

Access the Repair Tree page by selecting Tree Manager, Tree Utilities, Repair Tree. Optionally, you can access the batch audit function by selecting Tree Manager, Tree Auditor.

This is an example of the Repair Tree page:

Repair Tree

Run Control ID: 111

[Report Manager](#) [Process Monitor](#)

Run

Tree Utility Type

*Tree Utility:

Tree Audits

Audit Scope

☒ Single Tree ☐ Multiple Trees

Tree Definition

Tree Name:

CUBT_PRODUCTS

 SetId:

EUR

Date Selection

☒ Effective Date of Tree

10/27/2008

☐ As of Current Date
☐ As of Specific Date

06/16/2009

☐ All Trees

[View Results](#)

Repair Tree page

Report Manager	Click the link to access the report manager inquiry page.
Process Monitor	Click the link to access the process manager inquiry page. <div><div>Note.</div><div>If any trees are skipped while running any repair or audit programs due to an existing checkout, you see a status of <i>Warning</i> after the repair or audit program has completed. When this occurs, you should check the log to determine which trees have been skipped, and then rerun the appropriate program after the checked-out trees have been released.</div></div>
Run	Click to run a Process Scheduler request.

Tree Utility Type

Note. Typically, you would run the audits first, and then select a repair program as indicated by the audit results.

Select a tree utility from the following options:

- *Tree Audits:* Audits a selected tree or subset of 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:

1. 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.

2. The tree name that the orphan leaf refers to no longer exists.

These orphans are removed *only* when running this program for all trees.

3. 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.
- *Remove Tree Reservations:* Cancels all current checkouts. This utility is helpful because if you try to audit or repair any trees that are currently reserved, the audit or repair utility will skip the reserved trees. For this reason, you can use this utility before running any audit or repair tree utility to ensure that the audits or repairs are performed on *every* tree. Also use this utility during emergency situations.

Note. PeopleSoft recommends you use this utility judiciously. When you run this utility, all unsaved changes of users currently editing trees will be lost.

- *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 PeopleSoft 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.

Audit Scope

Available options are:

- *Single Tree*: Select to run the selected utility for a single tree. Not all utilities can be run for single trees.
- *Multiple Trees*: Select to run the selected utility for multiple trees. Fields in the Tree Definition group box become unavailable. Not all utilities can be run for multiple trees.

Tree Definition

Available options are:

- *Tree Name*: Select a tree to audit or repair.
- *SetId, Business Unit, or Tree Key Value*: Select the setID, business unit, or tree key value for the specified tree. The field is not available if the selected tree does not have a setID, business unit, or tree key value.

Date Selection

Available options are:

- *Effective Date of Tree:* You can select an effective date to run the audit on a single instance of the tree.
- *As of Current Date:* Select to audit trees which have the most recent effective date. If you select Single Tree in the Audit Scope group box and select a specific tree, only the instance of the tree with the most recent effective date will be audited. If you select the Multiple Trees option in the Audit Scope group box, all trees whose effective dates are current will be audited. This option is only available for the Tree Audits utility.
- *As of Specific Date:* Select to enter a specific date. If you select the Single Tree option in the Audit Scope group box and select a specific tree, only the instance of the tree whose effective date matches the specified date will be audited. If you select the Multiple Trees option in the Audit Scope group box, all trees whose effective dates match the specified date will be audited. This option is only available for the Tree Audits utility.
- *All Trees:* Select to audit all trees. If you select the Single Tree option in the Audit Scope group box and select a specific tree, *all* instances of this tree will be audited, regardless of effective dates. If you select the Multiple Trees option in the Audit Scope group box, all instances of all trees will be audited. When you select Multiple Trees, fields in the Tree Definition group box become unavailable. This option is only available for the Tree Audits utility.

View Results

Click the link to open a new browser instance that displays the Batch Report 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 Repair Tree program. These audits differ from those performed on the Tree Definition and Properties page.

<i>Audit Type</i>	<i>Checks For</i>	<i>Purpose</i>
Detail Values	Orphan tree leaves.	Lists detail values that refer to an invalid tree node number.
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 option on the tree's Definition and Properties page is selected.

<i>Audit Type</i>	<i>Checks For</i>	<i>Purpose</i>
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 option on the Definition and Properties page of tree is cleared.
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 option on the tree's Definition and Properties page is cleared.
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 end number of parent.	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 level number of parent.

<i>Audit Type</i>	<i>Checks For</i>	<i>Purpose</i>
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.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler, "Using Report Manager"

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler, "Using Process Monitor"

Reviewing Audit Results

Use these steps to access the Batch Report page (select Tree Manager, Tree Utilities, Repair Tree Reports):

This is an example of the Batch Report page:

Batch Report

Process Instance: 82 Run Control ID: 111
 User ID: PTDOCKN Run Date/Time: 06/18/09 9:30:56AM

Show Reports Criteria		
<input type="radio"/> Reports with Data	<input checked="" type="radio"/> All Reports	

Report List		
Customize Find View All		
First	1-16 of 16	Last
Open Report	Report Content	Total Row Count
Open Report	Tree Structure table contains Level Record Name that does not exist in Record Definition table	0
Open Report	Tree Structure table contains Node Record Name that does not exist in Record Definition table	0
Open Report	Tree Structure table contains Detail Record Name that does not exist in Record Definition table	0
Open Report	Parent Node Does Not Exist	15
Open Report	Orphan Tree Leaves	0
Open Report	Tree Node Numbers are Greater than End Number	0
Open Report	Tree Nodes' End Number is Greater than Parent's End Number	0
Open Report	Tree Nodes With Overlapping Ranges	0
Open Report	Node's Level Number is less than Parent's Level Number	0

Batch Report page

- Show Reports Criteria** Available options are:
- Select the Reports with Data option to list only those reports that contains data. This is the default value.
 - Select the All Reports option 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 Numbers utility program should correct this problem.

Do not run the Correct Parent Node Numbers 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 PeopleSoft Tree Manager to delete these nodes, and then run the Reset Tree Node Gaps utility program. You will then need to use PeopleSoft Tree Manager to reinsert 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 PeopleSoft 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 PeopleSoft Tree Manager to delete these nodes and then run the Reset Tree Node Gaps utility program. You will then need to use PeopleSoft Tree Manager to reinsert the problem nodes.

Tree Nodes with Overlapping Ranges

Use PeopleSoft Tree Manager to delete these nodes and then run the Reset Tree Node Gaps utility program. You will then need to use PeopleSoft Tree Manager to reinsert 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 PeopleSoft Tree Manager.
- Running the Correct Level Numbers utility to reset all invalid level numbers on the tree.

Chapter 7

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.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler, "Defining PeopleSoft Process Scheduler Support Information," Defining Process Type Definitions

Understanding TreeMover

This section discusses:

- Purpose of TreeMover.
- Populated record types.
- TreeMover file formats.
- TreeMover file rules.
- File layout details.

Purpose of TreeMover

TreeMover enables 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 other methods of moving trees, such as Data Mover or custom SQL, include:

- 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 PeopleSoft Tree Manager application is used to load and unload trees using TreeMover.

All the same edit checks are performed on a tree created with TreeMover as are performed on a tree created manually with PeopleSoft Tree Manager because both use the same functionality to create the tree. Because 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. If a source tree uses branches, you need to recreate them after TreeMover finishes its import operation.

Here are some example tasks that you can use with TreeMover:

- Load a winter tree with nodes 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.

Note. TreeMover currently supports fixed-format files only.

TreeMover does not support related language tables.

When you export a tree containing text data, the data is saved in the codepage of the server—for example, CP1252 Western European on English Windows, or CP932 Shift-JIS on Japanese Windows. Any characters which are not valid in the server's codepage are converted into question mark characters.

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 enables you to export trees from a PeopleSoft 7.x database is implemented as an SQL program (TMDOWNLD.SQL).

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:

<i>File Layout</i>	<i>Description</i>	<i>Header Record Text</i>
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

<i>File Layout</i>	<i>Description</i>	<i>Header Record Text</i>
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 TreeMover file formats and contents are:

- 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
- Tree Node 4
- Tree Node N
- Tree Detail 5
- Tree Detail N

This is an example of TreeMover:

999TREE_VERSION					
08.50-810.3	1				
999TREE_DEFN					
2AQEDM1		QE_PERS_DATA	1997-05-05QE_PERS_DATA	Personal Data Tree	23
NSNQEDMO		ASSR109			
999TREE_USERLVL					
3AQEDM1BRANCH	1997-05-05	ABRANCH		BRANCH	
3AQEDM1COMPANY	1997-05-05	ACOMPANY		COMPANY	
3AQEDM1CORPORATE	1997-05-05	ACORPORATE		CORPORATE	
3AQEDM1DEPARTMENT	1997-05-05	ADEPARTMENT		DEPARTMENT	
3AQEDM1DIVISION	1997-05-05	ADIVISION		DIVISION	
999TREE_LEVEL					
4ACORPORATE	1	Y			
4ACOMPANY	2	N			
4ADIVISION	3	N			
4ADEPARTMENT	4	N			
4ABRANCH	5	N			
999TREE_NODE					
6A00001			G1		
6A		00001		8200	8200
	N				
6A		00001		8300	8300
	N				

Example of TreeMover

TreeMover File Rules

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

1. PeopleTools Version (optional).

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

2. Tree Structure (optional).

This record is needed only if the structures do not 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. The tree structure record is optional if the database already has the structure defined for the new tree.

The following table provides file layout details:

Column Name	Column Type	Length	Start Position	End Position	Comments
<i>File Record ID</i>	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	None
DESCR	Character	30	21	50	None
TREE_STRCT_TYPE	Character	1	51	51	None
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	None
LEVEL_PNLNAME	Character	18	69	86	None
LEVEL_MENU_NAME	Character	30	87	116	None
LEVEL_BARNAME	Character	30	117	146	None
NODE_RECNAME	Character	15	147	161	None
NODE_PNLNAME	Character	18	162	179	None
NODE_FIELDNAME	Character	18	180	197	None

Column Name	Column Type	Length	Start Position	End Position	Comments
SETCNTRLFLD	Character	18	198	215	None
NODE_MENUNAME	Character	30	216	245	None
NODE_BARNAME	Character	30	246	275	None
DTL_RECNAME	Character	15	276	290	None
DTL_FIELDNAME	Character	18	291	308	None
DTL_PNLNAME	Character	18	309	326	None
DTL_MENUNAME	Character	30	327	356	None
DTL_BARNAME	Character	30	357	386	None
DTL_SETID	Character	5	387	391	None
SETCNTRLVALUE	Character	20	392	411	None
DTL_TREE_NAME	Character	18	412	429	None
DTL_TREE_LEVEL_NUM	Character	5	430	434	None
LEVEL_PNLGRPNAME	Character	50	436	485	Only for release 8.1 and greater.
NODE_PNLGRPNAME	Character	50	487	536	Only for release 8.1 and greater.

Column Name	Column Type	Length	Start Position	End Position	Comments
DTL_PNLGRPNAME	Character	50	538	587	Only for release 8.1 and greater.
LEVEL_ITEMNAME	Character	30	589	618	Only for release 8.1 and greater.
NODE_ITEMNAME	Character	30	620	649	Only for release 8.1 and greater.
DTL_ITEMNAME	Character	30	651	680	Only for release 8.1 and greater.

TreeMover 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.

The following table provides tree definition layout details:

Column Name	Column Type	Length	Start Position	End Position	Comments
<i>File Record ID</i>	Number	1	1	1	Always 2.
UPDATE_ACTION	Character	1	2	2	Always A (only add is mode supported at this time).
SETID	Character	5	3	7	None
SETCNTRLVALUE	Character	20	8	27	None
TREE_NAME	Character	18	28	45	None

Column Name	Column Type	Length	Start Position	End Position	Comments
EFFDT	Date	10	46	55	YYYY-MM-DD format.
TREE_STRCT_ID	Character	18	56	73	None
DESCR	Character	30	74	103	None
NODE_COUNT	Character	10	104	113	None
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	None
EFF_STATUS	Character	1	135	135	None
TREE_ACC_METH OD	Character	1	136	136	None
TREE_ACC_SELE CTOR	Character	1	137	137	None
TREE_ACC_SEL_O PT	Character	1	138	138	None
LEAF_COUNT	Character	10	139	148	None
TREE_IMAGE	Character	30	139	168	Only for Release 8.1 and greater.
BRANCH_IMAGE	Character	30	170	199	Only for Release 8.1 and greater.

Column Name	Column Type	Length	Start Position	End Position	Comments
NODECOL_IMAGE	Character	30	201	230	Only for Release 8.1 and greater.
NODEEXP_IMAGE	Character	30	232	261	Only for Release 8.1 and greater.
LEAF_IMAGE	Character	30	263	292	Only for Release 8.1 and greater.

Tree User Level Data Layout (TREE_USERLEVEL)

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

The following table provides tree user level data layout details:

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	None
TREE_LEVEL	Character	10	8	17	None
EFFDT	Date	10	18	27	YYYY-MM-DD format.
EFF_STATUS	Character	1	28	28	None
DESCR	Character	30	29	58	None
DESCRSHORT	Character	10	59	68	None

Tree Level Record Layout (TREE_LEVEL)

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 record.

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

The following table provides tree level layout details:

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	None
TREE_LEVEL_NUM	Character	3	13	15	None
ALL_VALUES	Character	1	16	16	Y or N

Tree Node Data Layout (TREE_USERNODE)

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

The following table provides tree node data layout details:

Column Name	Column Type	Length	Start Position	End Position	Comments
File Record ID	Number	1	1	1	Always 5.
UPDATE_ACTION	Character	1	2	2	Always A (only add mode is supported at this time).

Column Name	Column Type	Length	Start Position	End Position	Comments
SETID	Character	5	3	7	None
TREE_NODE	Character	20	8	27	None
EFFDT	Date	10	28	37	YYYY-MM-DD format.
EFF_STATUS	Character	1	38	38	None
DESCR	Character	30	39	68	None

Tree Node Record Columns (TREE_NODE)

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.

The following table provides tree node record details:

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.
PARENT_NODE_NAME	Character	20	23	42	Tree TREE_NODE for the parent node of the node or detail.

Column Name	Column Type	Length	Start Position	End Position	Comments
TREE_NODE_TYPE	Character	1	43	43	Only for node records; must be <i>G</i> or <i>R</i> .
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 <i>Y</i> or <i>N</i> .
LEAF_IMAGE	Character	30	129	158	Only for Release 8.1 and greater.
NODECOL_IMAGE	Character	8	160	167	Only for Release 8.1 and greater.
NODEEXP_IMAGE	Character	8	169	176	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 discusses how to:

- Export PeopleSoft 8 trees to an external file.

- Import PeopleSoft 8 trees from an external file.

Understanding TreeMover and PeopleSoft 8.x 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 runtime, including the file name for each tree import (load) or tree export (unload). You can run TreeMover each time you need to load a tree, or you can set PeopleSoft Process Scheduler to run a tree load process automatically.

To view the results of TreeMover processes, perform the following steps from the Tree Import or Tree Export page:

1. Click the Process Monitor link.

The Process List page appears. The run status for your process will appear as *Success*, *No Success*, or *Warning*.

Note. If you receive a *No Success* or *Warning* status, you should also review the TreeMover log file. This file may include additional information that the Process Monitor does not include.

2. Click the Details link.

The Process Detail page appears.

3. Click the Message Log button.

4. Click the Explain button for further details on each message.

You can also view the log output file. To find this file, navigate to the log_output directory. The location of the log_output directory is specified in the Process Scheduler configuration file. After you are accessed the log_output directory, navigate to the following path: /AE_TREEMOVER_<PROCESS_ID>/TreeMover-<Date-Time>.log.

This example shows the full path to the log output file – the italicized portion of the path is specified in the Process Scheduler configuration file:

```
C:\Documents and Settings\admin\psft\pt\8.50-810-RI\appserv\prcs\QEDMO\log_output\
AE_TREEMOVER_59\TreeMover-2009-06-18-09.44.59.log
```

This is a sample of the log file:

```

TreeMover-2009-06-18-09.44.59.log - Notepad
File Edit Format View Help
2009-06-18-09.44.59: Begin: PeopleSoft TreeMover
2009-06-18-09.44.59: Unloading tree ,,QUERY_TREE_PT,1900-01-01.
2009-06-18-09.45.02: Completed processing tree structure.
2009-06-18-09.45.02: Completed processing tree definition.
2009-06-18-09.45.02: warning - User tree level table is not one that is currently
supported by Treemover. (125,45)
2009-06-18-09.45.02: Completed processing tree levels.
2009-06-18-09.45.02: Total number of tree levels processed: 0.
2009-06-18-09.45.02: warning - User tree node table is not one that is currently
supported by Treemover. (125,46)
2009-06-18-09.45.12: PeopleSoft TreeMover Completed successfully.
2009-06-18-09.45.12: End: PeopleSoft TreeMover

```

TreeMover log file

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

Note. Creating TreeMover customization for moving non-standard node and detail user data is a complicated process. Oracle recommends using PeopleSoft Data Mover or other database tool when you move user data from a source database to a target database.

When a tree replaces an existing tree using the Tree Import Utility, the system import a new tree using a unique name and check if the tree creation process is successful. If the tree creation process turns out to be successful, the system delete the existing tree and rename the newly created tree. If the import file from which you are importing is corrupted, you don't lose your existing tree.

Also, if the existing tree was secured by Definition Security, it is 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 7, "Using TreeMover," Modifying the TreeMover Application Engine Program, page 141](#)

Pages Used to Import and Export PeopleSoft 8 Trees

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
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.

Exporting PeopleSoft 8 Trees to an External File

Access the Tree Export page by selecting Tree Manager, Tree Utilities, Export Tree.

This is an example of the Tree Export page:

Tree Export

Run Control ID: TreeExport

[Report Manager](#) [Process Monitor](#)

Run

*Output File Name: TreeExport

Tree Definition

Tree Name: QUERY_TREE_WF

Effective Date: 01/01/1900

SetId: QEDM1

Tree Data to Export

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Tree Definition | <input checked="" type="checkbox"/> Tree Structure | <input checked="" type="checkbox"/> Tree User Level |
| <input checked="" type="checkbox"/> Tree Level | <input checked="" type="checkbox"/> Tree Node/Leaf | <input checked="" type="checkbox"/> Tree User Nodes |

Tree Export page

To export a tree to an external file:

1. In the Tree Export page, 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 path name 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 also can export the tree definition, tree level, and tree node/leaf data.

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

4. Click the Run button 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. Check the run status in the Process Monitor.

If an Error or Warning status exists for the process, check the TreeMover log file which may contain additional information that describes the problem. Potential problems are not limited to – but may include – the following:

- 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 PeopleSoft 8 Trees from an External File

Access the Tree Import page by selecting Tree Manager, Tree Utilities, Import Tree.

Note. PeopleSoft Tree Manager does not accept wildcard characters. To prevent creating a corrupted tree, the Tree Import utility checks for invalid tree node names.

This is an example of the Tree Import page:

Tree Import

Run Control ID: TreeExport

[Report Manager](#) [Process Monitor](#)

Run

*Input File Name:	TreeExport		
*Save Method:	Save	<input checked="" type="checkbox"/> Replace Tree if Exists	<input type="checkbox"/> Load Tree Defn from File
Tree Definition			
Tree Name:	QE_DEPT_SEC	Effective Date:	01/01/1900
Structure:	TREE_NODE_DISTRIB	<input type="checkbox"/> All Values	<input type="checkbox"/> Allow Duplicate Leaf
SetId:	QEDM1		
Description:		Category:	DEFAULT
Use Levels:	Strictly Enforced		

Tree Import page

To import an existing PeopleSoft tree:

1. In the Tree Import page, 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 path name for the directory on the application server that runs the process.

2. Select a save method.

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

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

Note. If the tree already exists in your database and you do not select the Replace Tree if Exists option, the tree will not be imported.

4. Select the Load Tree Defn from File (load tree definition from file) option 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 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 fails.

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 are 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 PeopleSoft 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 loads a new tree structure only 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 the Run button to move the tree.
7. Verify the successful completion of the process by checking the run status of the process in the Process Monitor page.

If you receive either a run status of *Warning* or *No Success*, view the message log explanations for details and recommendations. You should also view the TreeMover log for more information.

Note. You can also check the log file. If the process completed successfully, the log file states *PeopleSoft TreeMover Completed Successfully*.

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 do not exist, then the tree import process fails.

Importing and Exporting PeopleSoft 7.x Trees

This section provides an overview of the TMDOWNLD SQR program and discusses how to:

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

Understanding the TMDOWNLD SQR Program

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.

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 need to create a run control for the process. See your PeopleTools manual for more information on creating run controls.

See Also

SQR documentation.

Enterprise PeopleTools 8.50 PeopleBook: SQR for PeopleSoft Developers, "Introducing the Sample SQR Program"

Customizing TreeMover for Additional Node and Level Data Records

This section discusses how to:

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

Note. Creating TreeMover customization for moving non-standard node and detail user data is a complicated process. Oracle recommends using PeopleSoft Data Mover or other database tool when you move user data from a source database to a target database.

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 table. 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 for which you intend to add support. 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 must 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, which is specified as part of the file layout record properties; the existing TreeMover file layouts use numbers 1 through 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 have modified the TREEMOVER Application Engine program, then you 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 Multinavigation Paths

This appendix discusses how to:

- Use multinavigation paths.
- Enable multinavigation.
- Create multinavigation menus.

Using Multinavigation Paths

When you define tree structure, you also define the menu, menu bar, and default navigation pages for nodes and details. With multinavigation, 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 multinavigation is enabled on the structure of the tree, you can click the Navigation Options link in PeopleSoft Tree Manager and select the component to be invoked when editing data on a node or detail value.

This is an example of the Detail Navigation page (select Tree Manager, Tree Manager, Navigation Options):

Detail Navigation Page

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

Navigation Links		
Customize Find View All   First 1-25 of 39 Last		
Current	Component	Page
	Procurement Control	GL Templates
	Treasury Options	Treasury Options
	Purchasing Definition	Reg Approval Options
	Payables Definition	Matching
	Receivables Definition	Bank/Payment Options
	Order Management Definition	General Holds 2
	Project Costing Options	Microsoft Project
	Project Costing Definition	BU Definition
	Program Management Options	Program Management Options
	Receivables Definition	Accounting Options 2
	Order Management Definition	Accounting and Billing
	Order Management Definition	Taxes and Currency
	Order Management Definition	Order Entry Features
	Project Costing Options	Delete Utility Tables
	Project Costing Options	Project Costing Options
	Purchasing Definition	PO Approval Options
	Service Procurement Definition	Services Procurement Bus Unit
	Order Management Definition	General Holds 1
	Promotions Mgmt. Definition	Promotions Definition
	Project Costing Options	Budget Row Versioning
	Project Costing Options	Copy Template Option 1
	Payables Definition	Payments
	Order Management Definition	Credit Processing
	Contracts BU	Confidence Level Setup
	Project Costing Options	Budget Alerts

Detail Navigation page

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

Enabling Multinavigation

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

This is an example of the Tree Structure Properties (PSTREESTRUCTDEFN) (select Tree Manager, Tree Structure) page:

Structure Levels Nodes Details

Tree Structure Properties

Structure ID: QE_PERS_DATA

***Description:** Personal Data

***Type:** Detail

Additional Key Field	Navigation Options
<input checked="" type="radio"/> SetId Indirection <input type="radio"/> Business Unit <input type="radio"/> User Defined <input type="radio"/> None	<input type="checkbox"/> Node Multi-Navigation <input type="checkbox"/> Detail Multi-Navigation

Tree Structure Properties page

Navigation options are hidden when the structure type is *Summary*.

Creating Multinavigation Menus

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

Pages that you want to display on the Detail 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 than tree navigation purposes, clear the Menu Installed option on the Menu Properties dialog box in PeopleSoft Application Designer.

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

While populating the Detail Navigation page, PeopleSoft Tree Manager collects pages using this logic: pages appear in the Navigation Links section belong to the components that have the same key fields in their search records. There are two exceptions from this logic:

- EFFDT key field is ignored during the validation.
- The menu item, which points to the underlined component, can overwrite the component search record.

In this case, the logic above is applied to the overwriting search record.

See Also

Chapter 3, "Using PeopleSoft Tree Manager," Using Navigation Options, page 52

Appendix B

Configuring PeopleSoft Tree Manager on the Web

PeopleSoft Tree Manager was developed using standard PeopleSoft Pure 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 through the web.

This appendix discusses how to:

- Use PeopleSoft 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 PeopleSoft Tree Manager Upgrade Programs

Application Engine upgrade programs, UPG8RPTG and UPG81RPTG automatically perform 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 PeopleSoft Tree Manager structures. You should run the UPG8RPTG program only 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.

The Application Engine Request page appears.

3. Click the Run button to send the request to the Process Scheduler.

The Process Scheduler page appears.

4. Select an application server to run the program from, and then select the UPG8RPTG or UPG81RPTG program from the list of processes displayed.

5. Click the OK button on the Process Scheduler Request page to start the Application Engine program.
6. 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.

7. From the Process Monitor page, find the UPG8RPTG or UPG81RPTG process that you initiated, and select the Details link from the process list.
8. Click the Message Log button to view any messages associated with the program.

You might encounter two messages with the UPG8RPTG and UPG81RPTG programs:

- 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.

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.

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 PeopleSoft Tree Manager pages and tables.

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

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

Updating Effective-Dated Application Pages

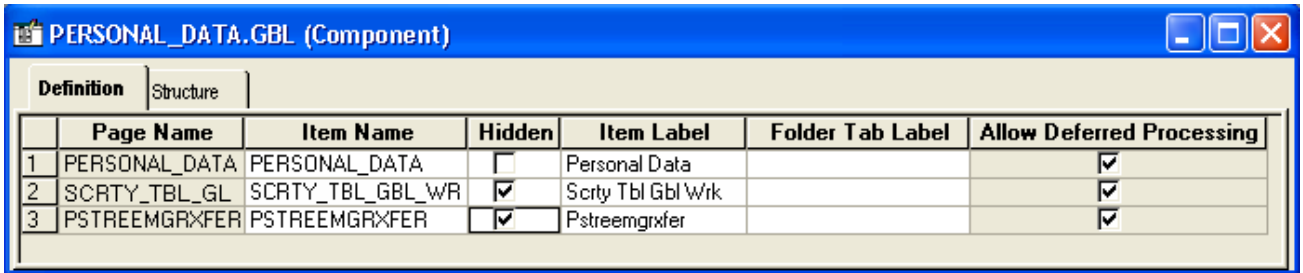
If the application pages used to maintain node, level, or detail value tables are effective-dated, the Windows-based PeopleSoft Tree Manager had special coding to ensure that when you added a new value, the default effective date was the effective date of the tree. When a tree was saved, the Windows-based PeopleSoft 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 PeopleSoft 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:



	Page Name	Item Name	Hidden	Item Label	Folder Tab Label	Allow Deferred Processing
1	PERSONAL_DATA	PERSONAL_DATA	<input type="checkbox"/>	Personal Data		<input checked="" type="checkbox"/>
2	SCRTY_TBL_GBL	SCRTY_TBL_GBL_WRK	<input checked="" type="checkbox"/>	ScrtY Tbl Gbl Wrk		<input checked="" type="checkbox"/>
3	PSTREEMGRXFER	PSTREEMGRXFER	<input checked="" type="checkbox"/>	Pstreemgrxfer		<input checked="" type="checkbox"/>

Example of the Definition tab of the Updated Personal Data component

Note. In the example above, the SCRTY_TBL_GBL_WRK page was already part of this component and is used for other non-tree related purposes.

This configuration step is optional. However, remember that users of the Windows-based PeopleSoft 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 PeopleSoft Tree Manager provided standard pages and components for maintaining the TREE_NODE_TBL and TREE_LEVEL_TBL tables, such as the default tables that are 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 that are used specifically by the web-based PeopleSoft Tree Manager.

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

- Node Components(Page):

```
TREE_NODE_PeopleSoft Internet Architecture(TREE_NODE_PIA)TREE_NODE_PIA_2(TREE_NODE_⇒
PIA_2)
```

- Level Components(Page):

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TREE_LEVEL_PIA(TREE_LEVEL_PIA)TREE_LEVEL_PIA_2(TREE_LEVEL_PIA_2)
```

Index

A

- access
 - not allowing 79
- access methods, types of 86
- Active status 47
- All Detail Values audit 81
- all detail values in this tree 70
- allow duplicate detail values 70
- All Values option 49
- application data
 - defining for standard trees 63
 - defining for summary trees 66
 - editing 37
- application databases, moving trees between 121
- application engine 137
- Application Engine programs
 - modifying TreeMover 141
 - Repair Tree 109
 - Tree Auditor 110
 - TreeMover 121
 - UPG81RPTG 147
 - UPG8RPTG 147
- application pages
 - enabling access for 149
 - updating 149
- audits
 - handling detail values for 48
 - optimizing 82
 - performing 79, 90
 - previewing results of 116
 - types of 80, 114
- audit scope 113

B

- basic attributes
 - defining 68
- Batch Report
 - page x
- Batch Report page 110, 116
- branches
 - creating 75
 - granting access to 76
 - opening 75
 - printing 54
 - removing 75
 - restrictions of 55, 74
 - understanding 74
- branch node 55
- business processes 3

C

- case-sensitive searching 28
- categories, restrictions for naming 22
- category 69

- child nodes 32
 - inserting 32
 - moving 32
 - understanding 8
- collapse all 24
- collapsed node 55
- component 53
- components, defining 63
- configuration options
 - using 44
- Configure User Options
 - page x
- Configure User Options page 43, 50
- Copy Tree
 - page x
- Copy Tree page 91
- Copy Tree Structure page 94, 97
- Correct Level Numbers utility
 - understanding 112
 - understanding errors to correct with 119
- Correct Parent Node Numbers utility
 - understanding 112
 - understanding errors to correct with 118
- create branch 75
- customize 41
- cutting and pasting nodes 32

D

- data layout
 - tree level 131
- defaults
 - of number of lines in pages 51
 - setting for dragging and dropping 52
 - setting for node navigation 54
- define tree levels 71
- delete detail 38
- Delete Orphan Tree Objects utility
 - understanding 112
 - understanding errors to correct with 118
- Detail Navigation page 44, 143
- detail ranges, understanding path of searching for 63
- detail record name 96
- details
 - file layout 126
- Details
 - page x
- Details page 59, 63
- detail trees, understanding 10
- detail value 55
- Detail Value List page 37
- Detail Value Range
 - page ix
- Detail Value Range page 36
- detail values
 - adding 38, 73
 - auditing 114
 - changing descriptions of 39
 - deleting 40

- displaying the range of 28
- dragging and dropping 42
- editing properties of 38
- inserting 37
- modifying a range of 39
- searching for 26
- searching for duplicates 28
- understanding 8, 37
- viewing 40
- detail values, using 36
- display mode 17
- display options 45
 - setting 50
- draft, saving as
 - draft mode 45
- drag and drop
 - setting default action for 52
 - understanding 42
- duplicate detail values, searching for 28
- Duplicate Detail Values audit 81
- Duplicate Node Names audit 81
- dynamic detail ranges, understanding path of
 - searching for 63
- dynamic detail trees, understanding 10
- dynamic detail values, limitations of 38
- Dynamic Selector (tree selector) 86

E

- edit data
 - image 39
- edit mode 17
- effective date criteria 41
- effective-dated
 - user records 15
- effective dates 7, 15
- effective dates and trees
 - using 13
- errors, correcting 118
- EVENT_ID field *See* TREE_EVENT_ID field
- Exact Matching option 28
- expand all 24
- expanded node 55
- expanding node hierarchies 31
- expand node hierarchy 55

F

- file formats of TreeMover 123
- Find Value
 - page ix
- Find Value page 23, 26
- first page 24
- formatting trees for printing 54

G

- good from date 14

I

- Inactive status 47
- individual reports
 - reviewing 117
- Informix, optimizing Overlapping Detail Ranges
 - audit for 82
- insert child node 31
- Insert Child Node
 - page ix
- insert detail 31
- insert sibling node 31
- Insert Sibling Node
 - page ix
- In Tree criteria option 71
- item counts 71

J

- Join to Tree Selector access method 86

K

- key fields, selecting additional 60
- key type 90

L

- last page 24
- leaf 55
- leaves *See* detail values
- Level Not Used option, considerations before
 - selecting 7
- levels
 - adding 49
 - defining 48, 61
 - defining for summary trees 65
 - deleting 49
 - editing details of 49
 - loosely enforced 6
 - modifying 49
 - strictly enforced 6
 - switching 33
 - understanding 5
 - understanding behavior when moving nodes
 - 33
 - understanding layout of 131, 132
 - understanding switching behavior of 34
- Levels
 - page x
- levels behavior, understanding 34
- Levels page 59, 61, 63
- log for TreeMover 135
- loosely enforced levels
 - understanding 6
 - understanding behavior when moving nodes
 - 33
 - understanding switching behavior of 34

M

- Macintosh, drag and drop on 52
- manual configuration steps
 - completing 148
- metavariables
 - multiple times 83
 - using 82
- modes, edit and display 17
- multi-navigation
 - creating menus for 145
 - enabling 145
 - using 143
- multi-user environment
 - adding new levels in 18
 - deleting trees in 93
 - enabling 19
 - modifying tree definitions in 18
 - understanding 17
 - understanding defaults for new trees in 73

N

- navigation bar, using 23
- navigation options 45, 60
- navigation options, setting 145
- navigation paths, using 25
- next page 24
- node's level number is less than level number of
 - parent (error message) 119
- node levels *See* levels
- Node Navigation
 - page x
- Node Navigation page 52
- node-oriented trees, understanding 11
- node properties
 - defining 61
- Node Properties
 - page ix
- Node Properties page 30, 33
- node record columns 133
- node record name 96
- nodes
 - auditing 115
 - collapsing 26
 - cutting 32
 - defining in summary tree structures 66
 - defining properties of 61
 - deleting 35
 - dragging and dropping 42
 - editing 31
 - editing descriptions of 35
 - expanding 26
 - expanding hierarchy of 31
 - finding 24
 - grouping 64
 - inserting 32
 - inserting into trees 73
 - moving 32
 - pasting 32
 - record columns of 133
 - renaming 36
 - searching for 26
 - setting navigation options of 52
 - setting to skip levels of 73

- switching levels of 33
- turning on descriptions of 50
- understanding 8, 30
- understanding behavior of levels when
 - moving 33
- understanding layout of data 132

- Nodes
 - page x
- Nodes Outside of Parent's Range audit 80
- Nodes page 59, 62
- Nodes Without Leaves audit 81
- Nodes Without Parents audit 80
- notification
 - creating PeopleCode 99
- nVision *See* PS/nVision, PS/nVision

O

- open branch 31
- organizing trees 22
- orphans, understanding reasons for 112
- orphan tree leaves (error message) 118
- Overlapping Detail Ranges audit 81
- Overlapping Node Numbers audit 80

P

- page 54
- parent/child relationships, viewing 25
- parent node does not exist (error message) 118
- parents, understanding 8
- paste as child 31
- paste as sibling 31
- pasting nodes 32
- PeopleSoft 7 trees, importing and exporting 140
- PeopleSoft 8 trees
 - exporting 134
 - exporting to an external file 137
 - importing 134
 - importing from an external file 138
 - relationship to TreeMover 135
- PeopleSoft Query
 - creating trees for 10
 - improving performance of trees for 84
 - using In Tree criteria option in 71
- PeopleSoft Tree Manager *See* Tree Manager
 - business process of 3
 - implementation of 3
- performance
 - improving for Overlapping Detail Ranges
 - audit 82
 - improving for reporting 84
- performance options
 - selecting 85
- Performance Options
 - page x
- Performance Options page 85
- perform audits 71
- process monitor 111
- process scheduler
 - messages 149
- process type definition 139
- PS_TDM_SQLOVERLAP 82
- PS/nVision

- creating trees for 10
- improving performance for 84
- layout 5
- using In Tree criteria option in 71
- PSTREEDEFN record 129
- PSTREELEVEL record 132
- PSTREEPUBSUB record 98
- PSTREESTRCT record 126
- PTUGAPTR program 113

Q

Query *See* PeopleSoft Query, PeopleSoft Query
 Query Access Manager 17
 Query Access Trees 1

R

Range of Values (selector options) 86
 record types

- populated 122

 Remove Tree Branches utility 112
 Remove Tree Reservations utility 112
 Repair Tree page 110
 repair tree program

- using 110

 Repair Tree program, using 109
 reporting, using trees for 2
 report list 117
 report manager 111
 reports

- viewing batches of 116
- viewing individual 117

 reset default 54
 Reset Tree Node Gaps utility

- understanding 113
- understanding errors to correct with 118, 119

 rolled up 1
 root branch 18
 Root Node

- page x

 Root Node page 68, 71
 root nodes

- adding 71
- renaming 36

S

save draft 44
 searching

- case-sensitive 28
- for an exact match 28
- for detail values 26
- for duplicate detail values 28
- for nodes 26
- for trees 21, 22

 security

- enabling access for application pages 149
- read-only access 78
- read-only trees 55
- understanding reasons for 74

 Security

trees 2
 selectors *See* tree selectors
 service operations 98
 setIDs

- associating trees with additional 15
- sharing trees across 16

 SetIDs 7
 show reports criteria 117
 sibling nodes

- inserting 32
- understanding 8

 Single Values (selector option) 86
 skip over 73
 Skipped Levels audit 81
 SQL object

- optimizing Overlapping Detail Ranges audit with 82
- using metavariables in 82, 83

 SQR

- modifying TreeMover program 142
- PTUGAPTR program 113
- using the TMDOWNLD SQR program 140

 SQR program

- installing 140
- running 140

 Static Selector (tree selector) 86
 strictly enforced levels

- understanding 6
- understanding behavior when moving nodes 33
- understanding switching behavior of 34

 structure 69
 structures

- auditing 116
- defining for standard trees 59
- defining for summary trees 65
- deleting 95
- relationship to user records 15
- understanding layout of 126

 Sub-SELECT Tree Selector access method 86
 summary ledgers, using trees for 2
 summary trees

- creating 64
- defining application data for 66
- defining levels of 65
- defining node properties of 66
- defining structures of 65
- understanding 12

 summary tree structures, creating 64
 summer trees 10
 switch level 34
 system prompts, updating or cancelling trees due to 18
 system tables 122

T

tableset 16
 tableset groups *See* setIDs
 terminal node 55
 TMDOWNLD.SQR program 140
 tree

- notifying 25

 TREE_CHANGE service operations 98
 TREE_DEFN columns 129
 TREE_EVENT_ID field 99

- TREE_LEVEL_TBL columns 131
- TREE_LEVEL_TBL record 131
- TREE_LEVEL page, customizing 150
- TREE_NAME field 46
- TREE_NODE_TBL record 132
- TREE_NODE page, customizing 150
- TREE_STRUCTURE columns 126
- Tree Audits utility 112
- tree branches *See* branches
 - security access 76
 - using 73
- tree concepts
 - understanding 5
 - working with 5
- tree definition 45
- Tree Definition and Properties
 - page x
- Tree Definition and Properties page 43, 46
- tree definitions
 - modifying 46
 - understanding layout of 129
- tree details
 - defining 63
- Tree Export page 136
- Tree Import page 136
- tree keys
 - specifying information 82
- tree levels *See* levels
- Tree Levels
 - page x
- Tree Levels page 43, 48, 61
- tree line counter, using 29
- Tree Lookup page 22
- Tree Maintenance page 89, 90
- tree manager
 - navigating 23
 - using 21
- Tree Manager
 - overview 1
 - page ix
 - Understanding ix
- Tree Manager page 21, 23, 24
- TreeMover
 - customizing 141
 - file contents of 124
 - file formats of 123
 - file rules of 126
 - modifying Application Engine version of 141
 - modifying SQR version of 142
 - relationship to PeopleSoft 8 135
 - understanding 121
 - using the log of 135
- tree mover
 - application engine program 141
- tree node 27
- tree node's end number is greater than end number
 - of parent (error message) 119
- tree node data, understanding layout of 132
- tree node maintenance
 - page 35
- Tree Node Maintenance page 30
- tree node numbers are greater than end number
 - (error message) 118
- Tree Node page 30
- tree nodes
 - using 29
- Tree Nodes page 61
- tree nodes with overlapping ranges (error
 - message) 119
- Tree Print Format
 - page x
- trees
 - associating with additional setIDs 15
 - auditing 79, 109
 - cancelling due to a system prompt 18
 - changing status 47
 - closing 44
 - configuring for the web 147
 - copying 45, 91
 - counting lines in 29
 - creating 57
 - creating multi-navigation menus for 145
 - defining 67
 - defining application data of 63
 - defining components of 63
 - defining structures of 59
 - deleting 90
 - editing descriptions of 47
 - effective dates of 14
 - enabling multi-navigation in 145
 - exporting (PeopleSoft 7) 140
 - exporting (PeopleSoft 8) 137
 - formatting for printing 54
 - granting access to 76
 - importing (PeopleSoft 7) 140
 - importing (PeopleSoft 8) 138
 - interactions with user data effective dates 13
 - modifying definitions in multi-user
 - environment 18
 - modifying definitions of 46
 - moving 121
 - naming categories of 22
 - opening 21
 - organizing 22
 - printing 54
 - Query Access 1
 - repairing 109
 - saving 44
 - searching for 21, 22
 - sharing across setIDs 16
 - steps to create 57
 - types of 9
 - types of selectors 86
 - understanding 1, 57
 - updating due to a system prompt 18
 - uses of 2
 - using effective-dated 15
 - using effective dates with 7
 - using multi-navigation in 143
 - using read-only 55
 - viewing 92
- Trees
 - advantages 2
- trees, saving
 - configuring 42
- tree selectors
 - options for 86
 - types of 86
- trees maintenance 89
- Tree Structure
 - page x
- Tree Structure Maintenance page 94, 95
- Tree Structure Properties page 58, 59
- tree structures *See* structures
 - copying 97
 - editing 97

- viewing 97
- tree structures detail
 - creating 58
- Tree Viewer 1, 18
 - page x
- Tree Viewer, using 55

U

- unbranch 32
- update node properties 31
- Update Tree Table Statistics utility 113
- UPG81RPTG program 147
- UPG8RPTG program 147
- Use All Tree Keys 87
- Use Application Defaults access method 86
- Use Literal Values access method 86
- Use Not Empty Tree Keys 87
- Use of Levels field 47
- user data, effective dates of 14
- user records, relationship to structures 15
- Use This Audit Only in Batch 87
- utilities, types of 112

W

- winter trees 12