Prerelease Notes

Oracle’s PeopleSoft PeopleTools 8.52

July 2011
Prerelease Notes for PeopleSoft PeopleTools 8.52

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Introduction

This section discusses:

- Purpose of this document.
- Release information publications.

Purpose of This Document

The Prerelease Notes document provides an overview of the new features and enhancements planned for Oracle’s PeopleSoft PeopleTools 8.52 release. It is a road map intended to help you assess the business benefits of PeopleSoft PeopleTools 8.52 and to plan your IT projects and investments.

Please note that in the final release it is possible features described in this document may become part of different applications or have different products name that those cited in the document. In addition, the Prerelease Notes do not contain a comprehensive description of all the features and changes that will become parts of the upcoming release. The Release Notes document, available when the release becomes generally available, contains the comprehensive set of descriptions for the features and changes available in the final product.

This document contains intended developments and functionalities and is not meant to be binding on Oracle to any particular course of business, product strategy, or development. Please note that this document is subject to change by Oracle at any time without notice.

Note. Only those products that have significant enhancements are mentioned in this release document.

Release Information Publications

This section discusses the following publications and tools that provide in-depth technical and functional information about a PeopleTools release:

- Release Value Proposition.
- Prerelease Notes.
- Release Notes.
- Cumulative Feature Overview Tool.
Release Value Proposition

The Release Value Proposition provides more functional details than the statement of direction, identifies major enhancements, and articulates the expected business benefit. This document is designed to help you to determine whether new product features might warrant upgrading from an old release or embarking on a new implementation. With this information, managers will be able to initiate preliminary budget planning and begin putting together a project team to further evaluate specific products.

The Release Value Proposition for PeopleTools 8.52 has been published and is available on the Oracle support web site.

See

https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&doctype=REFERENCE&id=1327656.1

Prerelease Notes

Prerelease Notes provide more functional and technical details than the release value proposition. This document describes how each enhancement functions within the context of the greater business process. This added level of detail should enable project teams to answer the following questions:

- What out-of-the-box functionality will change?
- What customizations may be affected?
- How will an upgrade or new implementation affect other systems?
- How will these changes affect the organization?

After the project team has reviewed and analyzed the prerelease notes, business decision makers should be in the position to determine whether to allocate budget and initiate implementation plans.

Release Notes

Release Notes are published at general availability (GA) and validate the final scope of the release. The release notes discuss the features and enhancements that are available with the GA release of each product, describing the finalized functional and technical details that will enable project teams to confirm budgets and complete implementation plans.

Cumulative Feature Overview Tool

The Cumulative Feature Overview Tool helps you plan your upgrades by providing concise descriptions of new and enhanced solutions and functionality that have become available between your starting and target releases. You simply identify the products that you own, your existing release, and your target implementation release. With a single click, the tool quickly produces a customized set of high-level, concise descriptions of features that have been developed between your starting and target releases. The tool’s output is a Microsoft Excel spreadsheet, so you can easily manipulate and sort the results any way you wish or copy the content into other implementation planning documents.
Before You Begin

Before you upgrade to PeopleTools 8.52, always make sure that you have read any updates to the following:

- PeopleSoft upgrade documentation.
- PeopleSoft installation documentation.
- Hardware and Software Requirements documentation.
- Certification information on My Oracle Support.
- Operating System, RDBMS & Additional Component Patches Required for Installation on PeopleTools 8.52.
Platform Support Enhancements

This section discusses platform support enhancements and changes, including:

- Apple iPad browser certification
- Google Chrome certification
- Oracle Solaris x86-64 certification
- Summary of added and changed component support

Note. This Prerelease Notes document does not contain a comprehensive list of Oracle’s support policy for PeopleSoft applications, nor does it replace the information in the certification database on My Oracle Support. The information contained in the table is a snapshot of the current plans for platform support for the general availability of this release. Always refer to the certification database on the ‘Certifications’ tab on My Oracle Support for the current and most comprehensive support information.

Note. The discontinuation of components is generally due to the end of the vendor’s mainstream support for the product.

Apple iPad Browser Certification

The popularity of the Apple iPad and other similar tablet devices is growing, and they have found their way into the business community. PeopleTools 8.52 will be certified on the Safari browser on an iPad running version 4.1 or later.

This is an exciting new user interface platform with unlimited potential for users looking to gain access to PeopleSoft application content from their mobile devices. Certifying the Apple iPad browser allows users to view virtually all PeopleSoft application pages, however, keep in mind that due to the nature of the iPad device itself, some on-screen features will function somewhat differently on an iPad than on a standard computer.

Google Chrome Certification

In our continuous evaluation of market leading technologies, Google Chrome has recently emerged as a strong browser option that should enhance the user experience with PeopleSoft. With its speed and reliability, Oracle is pleased to add Chrome 10 as a newly-supported browser option with PeopleTools 8.52.
Oracle Solaris x86-64 Certification

The strategic partnership between Intel and Oracle Sun combines market-leading chip technology with a world-class enterprise operating system, and results in powerful innovations for customers in the areas of scalable performance, power management and reliability. Customers looking for a cost-effective enterprise platform now have another choice for their PeopleSoft applications with Solaris x86-64.

Summary of Added and Changed Component Support

PeopleTools 8.52 continues to support a wide array of infrastructure components, such as operating systems, databases, web servers, browsers, and so on. The following table lists some of the changes to key infrastructure components planned for PeopleTools 8.52.

<table>
<thead>
<tr>
<th>Component</th>
<th>Added</th>
<th>Discontinued</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Server Operating System</strong></td>
<td>AIX 7.1</td>
<td>AIX 5.3</td>
</tr>
<tr>
<td></td>
<td>Solaris 10, 11 for x86-64</td>
<td>HP UX PA-RISC, HP UX 11.23 Itanium</td>
</tr>
<tr>
<td></td>
<td>zOS 1.12</td>
<td>zLinux - RHEL 4, SLES 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>zOS 1.10</td>
</tr>
<tr>
<td><strong>Development Workstation</strong></td>
<td>No change</td>
<td>Windows XP</td>
</tr>
<tr>
<td><strong>Operating System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RDBMS</strong></td>
<td>DB2 zOS 10.1</td>
<td>DB2 UDB 9.1</td>
</tr>
<tr>
<td></td>
<td>Sybase 15.5</td>
<td>Oracle 10.2.0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SQL Server 2005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sybase 15.0.2</td>
</tr>
<tr>
<td><strong>Web Server</strong></td>
<td>WebSphere 7.0.0.15 64-bit</td>
<td>WebSphere 7.0.0.7</td>
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<tr>
<td></td>
<td>WebLogic 10.3.4 64-bit</td>
<td>WebLogic 10.3.2</td>
</tr>
<tr>
<td><strong>Application Server</strong></td>
<td>Tuxedo 10gR3 RP043</td>
<td>Tuxedo 10gR3 RP019</td>
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<td></td>
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<tr>
<td><strong>Search</strong></td>
<td>Secure Enterprise Search 11.1.2.2</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Verity 6.5.1.1 (No Change)</td>
<td></td>
</tr>
<tr>
<td><strong>Enterprise Manager</strong></td>
<td>No change – 11gR1</td>
<td>No change</td>
</tr>
<tr>
<td><strong>Crystal</strong></td>
<td>2008 SP3</td>
<td>2008 SP2</td>
</tr>
<tr>
<td><strong>BOE</strong></td>
<td>BOE XI 3.1 SP3</td>
<td>BOE XI 3.1 SP2</td>
</tr>
<tr>
<td><strong>Browser</strong></td>
<td>Chrome 10</td>
<td>Firefox 3.5</td>
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<tr>
<td></td>
<td>Internet Explorer 9</td>
<td></td>
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<tr>
<td></td>
<td>Firefox 3.6</td>
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<tr>
<td></td>
<td>Safari 4</td>
<td></td>
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<tr>
<td><strong>COBOL</strong></td>
<td>MicroFocus Net Express 5.1</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>MicroFocus Server Express 5.1 WP4</td>
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<td>IBM COBOL for AIX 4.1</td>
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<td>IBM COBOL for Windows 7.6</td>
<td></td>
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<tr>
<td><strong>JRE</strong></td>
<td>No change - Java 6</td>
<td>No change</td>
</tr>
<tr>
<td>Component</td>
<td>Added</td>
<td>Discontinued</td>
</tr>
<tr>
<td>-----------</td>
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<td>---------------</td>
</tr>
</tbody>
</table>
| Office    | Excel 2010  
           | Word 2010   | No change    |
System Administration Tools Enhancements

This section discusses enhancements made in the area of server administration, including:

- Managing PeopleSoft web server installations using PSADMIN.
- Installing PeopleSoft application files outside of PS_HOME.
- Managing domain environment variables using PSADMIN.
- Support for Oracle Tuxedo TM_CPAU environment variable on Microsoft Windows.
- Increased Oracle technology adoption.
- DB2 z/OS accounting string enhancements.
- Security administration enhancements.

Managing PeopleSoft Web Server Installations Using PSADMIN

With PeopleTools 8.52, system administrators can use PSADMIN to perform all major PeopleSoft web server tasks, including:

- Install PeopleSoft Internet Architecture.
- Boot, shutdown, check status of, and configure PeopleSoft Internet Architecture domains.
- Edit configuration files.
- View log files.
- Manage PeopleSoft sites.

This provides a consolidated PeopleSoft web server administration option. In previous releases, you installed and managed PeopleSoft Internet Architecture (PIA) using numerous, separate items, including setup programs, delivered .BAT and .SH files, and delivered scripts. While these options are still delivered, the PSADMIN provides a centralized access point from which you can perform all of these tasks.

For example, from the new PeopleSoft PIA Domain Administration menu in PSADMIN, you can install a domain, boot that domain, confirm the status of that domain, and view the log files for that domain all form the familiar PSADMIN interface.
Installing PeopleSoft Application Files Outside of PS_HOME

PeopleTools infrastructure has been modified to acknowledge PeopleSoft application files that are installed outside of the traditional PS_HOME structure. Beginning with PeopleTools 8.52, PeopleSoft application implementers can elect to install their PeopleSoft application files into a custom location, which will be identified by the PS_APP_HOME environment variable.

This option is not the default installation approach; however, for those applications and customer sites that are seeking further modularity and more streamlined implementations, it may be an attractive alternative. The major advantage of this option is that PeopleTools binaries in the PS_HOME location, can be shared more easily by leveraging common files in the PS_HOME while keeping any required, application-specific files in that application’s PS_APP_HOME location.

Note. If you elect to use PS_APP_HOME, PeopleSoft application fixes may need to be applied. Specific guidelines may also apply per PeopleSoft application. Such fixes and application guidelines will become available once PeopleTools 8.52 is generally available.

Managing Domain Environment Variables Using PSADMIN

In previous releases, environment variables set on a server machine applied to all PeopleSoft application server and process scheduler server domains running on that machine. And, if system administrators needed to modify or override any delivered Oracle Tuxedo settings, they had to edit .UBX and .CFX files for that installation, which is not a recommended practice.

With PeopleTools 8.52, the PSADMIN Quick Configure menu now contains an “Edit environment settings” menu option, enabling administrators to perform a variety of tasks related to a domain’s environment settings, including:

- View a select set of the most likely environment variables to modify.
- Edit environment variable values.
- Add and remove environment variables.

This enables system administrators to tailor domains on the same server machine to behave individually or refer to different environment resources. For example, for a particular domain you can now use PSADMIN to set variables, such as:

- Tuxedo boot and restart timeout settings.
- PATH and COBPATH environment variables.
Support for Oracle Tuxedo TM_CPAU Environment Variable on Microsoft Windows

PeopleTools 8.52 supports the use of the Oracle Tuxedo TM_CPAU environment variable for the Microsoft Windows operating system. This variable enables Tuxedo application server processes to be initiated with user accounts with minimal privileges.

Use of the TM_CPAU setting helps to mitigate the abuse of non-essential users accessing the operating system. By setting environment variable TM_CPAU=YES before the Oracle ProcMGR service is started, the system will create Oracle Tuxedo processes that belong to the user who initiated tmboot.

In effect, this enables the domains running on Windows to emulate domains running on UNIX. On UNIX systems, domain processes always start as the user that runs 'tmadmin' to boot the domain (by way of PSADMIN for PeopleSoft installations). UNIX systems, by default, support multiple domains each running under different user IDs, with only the desired local privileges, and with no undesirable restrictions to network resources.

For example, using the TM_CPAU environment setting on Windows enables these configuration benefits:

- The Tuxedo ORACLE ProcMGR service can be run as the Local System user, but domain processes can be run using a minimally privileged user. This reduces the chance of a compromised PeopleTools process being used to gain unauthorized access to the system.

- The Tuxedo ORACLE ProcMGR service can be configured to log on to Windows using a minimally privileged user ID and PeopleTools processes can run as a user with more privileges than the Tuxedo user ID.

- A single Windows system can be used to host multiple PeopleTools installations that are each administered by a different user. A non-administrative user ID used to boot one domain will have no privileges to processes started with a different user ID.

- Domain processes can be identified and managed in Windows Task Manager by a non-administrative user.

Increased Oracle Technology Adoption

PeopleTools continues to incorporate and integrate industry-leading Oracle technologies into its infrastructure to extend the capabilities of your system. With PeopleTools 8.52, PeopleTools adds support for these Oracle products:

- Oracle Golden Gate.
- Oracle Coherence.
- Oracle SecureFiles.
- Oracle Fine Grained Auditing.
PeopleTools 8.52 supports the use of Oracle Golden Gate to provide the ability to offload mostly read-only reporting from an Oracle production database to a standby Oracle database, very similar to how Oracle Active Data Guard (ADG) can be used, beginning with PeopleTools 8.51.

In PeopleTools 8.51, PeopleTools provided support for the use of ADG, and in PeopleTools 8.52, PeopleSoft leverages that support and extends it to Oracle Golden Gate. The use of and configuration of both ADG and Golden Gate in your PeopleSoft environment is similar.

The main benefits provided by Golden Gate used in the PeopleSoft system include:

- Running the standby database on a different operating system than the primary, production database.
- Running the standby database on a different version of Oracle than the primary, production database.

Oracle Coherence

PeopleSoft customers have historically sought high session availability. The frustrations and inefficiency associated with lost sessions and the associated lost data typically lead customers to implement a variety of clustering configurations.

With PeopleSoft’s certification of Oracle Coherence 3.6, you have the option to use a built-in, robust, and easy to configure clustering solution. Oracle Coherence is installed with Oracle WebLogic 10.3.4, which is available for download with your PeopleTools 8.52 upgrade or installation.

Oracle Coherence provides a reliable distributed in-memory data grid infrastructure. A module of Oracle Coherence, named Coherence*Web, provides HTTP Session Management features used by PeopleSoft systems. Coherence*Web does not depend on any web server product-specific clustering solution.

Oracle SecureFiles

Oracle SecureFiles is a new feature introduced with Oracle Database 11g and is designed to deliver high performance storage and retrieval for unstructured data files in your system. Traditionally, relational data is stored in a database while unstructured data is stored as files in the file system. Oracle SecureFiles enables you to store unstructured files in your database while maintaining performance comparable to the performance of traditional file systems, all while retaining the advantages of the Oracle database.

PeopleSoft applications generate and store a variety of unstructured data files, such as Microsoft Word, Microsoft Excel, text files, Crystal reports, SQR reports, and so on. Using Oracle SecureFiles you can apply advanced capabilities, including encryption, compression, and versioning.

**Note.** If you take advantage of Oracle SecureFiles, PeopleTools ensures that during upgrades, files stored using the SecureFiles technology will be migrated to your newer release safely.
Oracle Fine Grained Auditing

Oracle Fine Grained Auditing (FGA) enables you to create policies that define specific conditions that must be met in order for an audit to occur. It provides granular auditing of queries, and INSERT, UPDATE, and DELETE operations. Using FGA creates more meaningful and focused audit trails. Rather than recording each and every access or update of a table, FGA allows you to set parameters for audits to make them more efficient. For example, you might decide to audit only under these circumstances:

- Tables accessed between 6 p.m. and 6 a.m. or only on Saturday and Sunday.
- An IP address from outside the corporate network is used.
- A specific column has been selected or updated, perhaps with a specific value.

Currently, PeopleTools provides database-level auditing which uses platform-dependent triggers to audit INSERT/UPDATE/DELETE operations. Using FGA enhances the auditing options available for customers running their PeopleSoft systems on Oracle databases.

Note. Any policies created using FGA will be preserved after upgrading or altering your PeopleSoft tables. During an upgrade or alter of your tables, PeopleTools will store your FGA policies and then reapply them to the newly upgraded or altered table.

DB2 z/OS Accounting String Enhancements

Mainframe customers routinely perform departmental chargeback for system resources. Historically, obtaining detailed information on PeopleSoft resource usage has been difficult. With PeopleTools 8.52, DB2 z/OS customers can identify where their online resources are being used. Page, component and PeopleSoft user ID information is available for tracking and can be captured within IBM’s System Management Facility (SMF) for improved reporting and accounting options.

Security Administration Enhancements

This section describes enhancements to security administration for PeopleTools 8.52, including:

- AES encryption support.
- Extended SSL certificate key size.
- Oracle Identity Manager (OIM) integration.

AES Encryption Support

The PeopleSoft Encryption Technology (PET) framework has been expanded to include support for Advanced Encryption Security (AES), a symmetric-key encryption standard.

The AES standard supports 128, 192, and 256-bit keys and enables you to encrypt and decrypt data in the following symmetric encryption modes:

- Electronic Code Book (ECB).
- Cipher Block Chaining (CBC).
- Cipher Feed Back (CFB).
- Output Feed Back (OFB).

PeopleSoft has added 24 encryption algorithms to its PET framework in support of the AES standard.

**Extended SSL Certificate Key Size**

The acceptable SSL certificate key size will be expanded to 2048 characters. The support of an extended key size will provide a more robust protection of data while in flight.

**Oracle Identity Manager (OIM) Integration**

To ensure more seamless integration and interoperability between PeopleSoft and Oracle systems and products, PeopleTools will deliver a web services-based connector to take advantage of cross-version integration of web service security features.
Development Tools Enhancements

This section covers changes and updates related to the development of PeopleSoft applications, including:

- Application Designer.
- PeopleTools Portal Technologies.
- PeopleCode.
- Global Technology.
- PeopleSoft Search.
- Application Engine.

Application Designer

This section discusses enhancements to Application Designer. Enhancements include changes to definitions, properties, and processes, such as:

- Search utilities.
- Record field properties.
- Page designer.

Search Utilities

This section covers changes to the search utilities, including:

- Find definition references.
- Find In utility.

Find Definition References

Application packages are now included among the definition types examined when you run the Find Definition References utility.

Find In Utility

Select All and Deselect All buttons have been added to the user interface of the Find In utility that you use to search for specific text strings in PeopleCode and SQL.
Record Field Properties

All record fields include a translation context property. This property provides contextual information that is pertinent to the translation of field labels that are otherwise difficult to translate out of context.

Page Designer

This section covers changes to the page designer, including:

- Label improvements.
- Hidden frames, scroll areas, and group boxes.
- Page control groups.
- Page Order tab.

Label Improvements

New functionality has been added to labels. You can now make a group of labels the same size by using the Autosize Label button.

Hidden Frames, Scroll Areas, and Group Boxes

Hidden frames, scroll areas, and group boxes now appear within dashed lines to provide a visual clue as to their location and make these controls easier to use.

Page Control Groups

You can now move groups of page controls by selecting the page controls and scrolling your mouse wheel. Scrolling the mouse wheel brings the area outside of the visible range of the page into the view aiding in moving groups of page controls on long pages.

Page Order Tab

The grid on the page order tab has a new Tab Order column. This column helps to clarify the difference between the tab order and the field ID. The column also makes the tab order more explicit by numbering the controls sequentially.
PeopleTools Portal Technologies

This section discusses the changes and enhancements to PeopleTools portal technologies, including:

- Partial pagelet refresh.
- Interwindow communication.
- Related Content.
- Authorization as a service.
- WorkCenter pages.
- SmartNavigation.
- Dashboards.

Partial Pagelet Refresh

PeopleTools 8.52 introduces partial pagelet refresh in component-based pagelets that you create in PeopleSoft Application Designer. Partial pagelet refresh enables the application—in response to a user action such as a search, a field value change, or a mouse click—to update pagelets in a different state without refreshing the entire page.

Partial pagelet refresh creates greater opportunities for interaction between users and feature rich pagelets that you find frequently on homepages, Dashboards, and WorkCenter pages.

Interwindow Communication

Interwindow communication (IWC) is a frame-to-frame messaging mechanism that enables browser window objects—such as pages or pagelets—to be aware of and react to field-level data changes that occur in other window objects that share the same browser window. Interwindow communication enables you to publish field-level changes as they occur so that any subscribing page or pagelet becomes instantly aware of the change and then, can act on it in real-time.

Administrators, subject matter experts or application developers configure page fields to respond to either changes in value or a mouse click. When the triggering event occurs, the application posts a string-formatted message. Because of partial pagelet refresh functionality, subscribing pagelets can then respond within the context of the data contained in the message.

Interwindow communication supports component-based pagelets and noncomponent-based pagelets (iScript-based or other Pagelet Wizard pagelets).

Note. Interwindow communication works at level-0 only and in pages or pagelets that are completely loaded in the browser.
Related Content

This section discusses the changes to related content including:

- Enhancements.
- Configuration improvements.
- Remote node support.
- Delivered services.

Enhancements

Related content includes the following new features.

- Related content service definitions and service configurations are now managed objects that you can include in projects and upgrade using PeopleSoft Application Designer.
- Remote content references are available for assignment as related content. The remote content references can come from nodes that are configured using the Unified Navigation Framework only.
- Content reference can now include the new content reference attribute, RCF_SERVICE_PARAMETER. This attribute enables the developer to add parameters in the NAME,LABEL:NAME,LABEL format. With this addition, parameters can be passed to content references that point to iScripts, queries, and other portal objects.
- Pagelets join content references as anonymous services definitions. Any registered homepage pagelet can be configured as a service without explicitly creating a service definition.

Note. The developer must code the homepage pagelet to support related content.

- Available service target options now include a modal window. This option is available for PeopleSoft components—both anonymous and explicitly defined—only.
- Related content and related actions are more clearly distinguished categories of related information. Any service that appears in the Related Content frames is categorized as related content and any service that appears outside of the Related Content frames, such as in a modal window, a new window, or the current transaction window, is categorized as a related action.
- A change in the portal template provides you with more layout options for related content. Configuration options now include a second Related Content frame, which appears to the right of the transaction page.
- Services that appear in the right Related Content frame appear in the form of self-contained pagelets instead of the tabbed format that you see in the bottom frame. The change in format enables multiple services pagelets to be open and active simultaneously.
- Each service in the right Related Content frame appears as a self-contained pagelet rather than a tab. The change in format enables multiple services pagelets to be open and active simultaneously because each pagelet contains independent Zoom, Refresh, Minimize, and Maximize controls.
• Each pagelet contains independent Zoom, Refresh, Minimize, and Maximize controls. All open services share the available space within the right frame equally at all times because each pagelet automatically resizes appropriately as you open and close other pagelets.

• The Related Content menu contains links to related content only. Related action links cannot appear in the Related Content menu.

• The Related Actions menu contains links to related actions only. Related content links cannot appear in the Related Actions menu.

• The Related Actions menu appears in the menu structure of standard portal navigation, SmartNavigation, and on the Component Search page.

Configuration Improvements

The configuration interface has a completely new design. Three new pages make up the Manage Related Content Services component: the Assign Related Content page; the Assign Related Actions page; and the Configure Layout page.

The Assign Related Content and Assign Related Actions provide similar features. Each page enables you to assign component-level services and page-level services separately by providing a separate grid for each of the two levels of service. You use the grids to add, enable, disable and configure the necessary parameters for individual services.

A new Configure Layout page simplifies the configuration of the three menu options and the Related Content frames. The Related Actions, Related Content, and page field contextual menus each have separate group boxes that contain a button that calls a secondary page that enables you to organize access to services. Related Actions and page field contextual menus now enable you to organize the assigned related actions into three levels of folders. A tree structure, which appears on the Configure Layout secondary page, enables you to add folders and move links up and down through the hierarchy of the tree structure.

The Related Content menu offers a similar secondary page interface to that of the Related Actions menu; however, the organization is flat, not hierarchical.

Remote Node Support

Related content supports content that exists in remote nodes. No local node restriction exists for related content.

Delivered Services

New related content services are included in PeopleTools 8.52 that can integrate with Oracle’s WebCenter. PeopleTools 8.52 includes these services:

• The WebCenter Blogs service.
• The WebCenter Discussion service.
• The WebCenter Document service.
• The WebCenter Wikis service.
• The WebCenter Links service.
In addition to the delivered services, a WebCenter Integration Options page enables administrators to specify the default template for a group space and the privilege roles for the group space. A new batch process enables you to synchronize group space permissions with the corresponding transaction page for which it is created.

PeopleSoft transactions that use role based security only (also called as basic PeopleTools security) and do not use the row level security defined can make use of this integration. Oracle recommends that you create a WebCenter instance that is solely dedicated to serving the PeopleSoft system.

**Authorization as a Service**

A significant advancement in PeopleTools 8.52 is the new Authorization as a Service framework. The framework allows application developers to externalize the row-level or data-level security of PeopleSoft applications, and make it available as a service. Row-level security is determined at runtime and is widely used in PeopleSoft applications to ensure that users who really need to access data get the access they need. This then allows the related actions, related content services, and third-party applications that provide information relevant to a transaction to be secured using the web services provided by this new framework. The new framework is modeled such that the authorization logic developed for use with PeopleSoft Application Search indices can be reused and exposed as a service.

**WorkCenter Pages**

This section discusses the changes and enhancements to WorkCenter pages including:

- Homepage pagelet support.
- User interface improvements.
- Performance improvements.
- Remote node support.

**Homepage Pagelet Support**

WorkCenter pages now include support for homepage pagelets. A new field, Pagelet Type, enables you to select Homepage Pagelet as an option. You then can use a modal lookup page to select from any existing homepage pagelet in the portal registry.

**User Interface Improvements**

Several user interface improvements debut in PeopleTools 8.52. The improvements include:

- Pagelet area options.
  
  A drop-down list enables you to select from three options that apply to the WorkCenter page: Reload, Personalize, and Configure. A Home button enable you to refresh the WorkCenter page and return to the

- Automatic pagelet sizing.
  
  All open pagelets are sized automatically based on the available area in the pagelet frame. The open pages share the area and are sized equally.
• Dynamic pagelet sizing.
  All pagelets include a resize bar at the base of the pagelet that you can use to increase and
  decrease the height of the pagelet.

• More menu.
  To increase the available space in the pagelet area, minimized or closed pagelets disappear from
  view and are accessible from the More menu at the bottom of the pagelet area. The maximum
  number of minimized pagelets is configured on the Configure WorkCenter Page. Minimized
  pagelets that do not appear in the More menu appear as minimized pagelet headers in the pagelet
  area.

Performance Improvements

WorkCenter pages now support parallel pagelet loading. The WorkCenter page does not have to wait
until all pagelets load before appearing. Parallel loading is the default and can be disabled for content
references in scenarios that require the pagelet area to be completely loaded before the target area
loads.

Pagelets in the pagelet area now support automatic refresh by including a refresh timer (in seconds)
that you can set for each pagelet.

Remote Node Support

The Pagelet area of WorkCenter pages supports content that exists in remote nodes. The remote
content appears in the transaction area as though the content were part of the local application. No
local node restriction exists for WorkCenter pages.

Dashboards

Dashboards are similar to homepages; however, unlike homepages, you configure dashboards
separately from the Structure and Content page in the portal registry.

You can perform these tasks using the Manage Dashboards Pages page:

• Create and manage new and existing dashboard pages.
• Add pagelets to dashboards pages.
• Manage dashboard page properties, such as content, layout, and security.

SmartNavigation

This section discusses changes and enhancements to SmartNavigation including:

• Dynamic hierarchy folders.
• Remote node support.
**Dynamic Hierarchy Folders**

Prior to this release SmartNavigation folders existed as entries defined explicitly within the portal registry. The addition of dynamic hierarchy as a data source option eliminates the necessity to define SmartNavigation folders in the portal registry. Instead, developers can define SmartNavigation folders by using application package PeopleCode. An administrator associates this PeopleCode program with the dynamic hierarchy folder in the portal registry. At runtime, when a user clicks a dynamic hierarchy folder in the drop down menu navigation, the PeopleCode runs and dynamically generates the SmartNavigation folders according to the specified parameters. The user navigates the folders and the navigation path updates accordingly.

**Remote Node Support**

Dynamic hierarchy folders support content that exists in remote nodes that you configure through the Unified Navigation Framework. No local node restriction exists for SmartNavigation folders.

**PeopleCode**

This section covers changes and updates to PeopleCode in the following PeopleBooks:

- PeopleCode API Reference.
- PeopleCode Developer’s Guide.
- PeopleCode Language Reference.

**PeopleCode API Reference**

This section covers changes to the PeopleCode API, including:

- New classes.
- New methods.
- New properties.
- Charting enhancements.
- Information missing from previous PeopleBooks.

**New Classes**

In PeopleTools 8.52, the following new classes have been added to the PeopleCode API:

- SchemaLevel class
- Search Framework classes, which include:
  - FacetFilter class
  - FacetNode class
  - SearchCategory class
• SearchClusteringSpec class
• SearchFactory class
• SearchField class
• SearchFieldCollection class
• SearchFilter class
• SearchGroupingSpec class
• SearchQuery class
• SearchQueryService class
• SearchResult class
• SearchResultCollection class
• SearchSortingSpec class
• SearchAuthnQueryFilter class

The 8.52 PeopleBooks contain complete documentation on each new class including constructors, methods, and properties as is appropriate for each class. To save space, the new methods and properties for these classes have not been listed in these release notes.

**New Methods**

In PeopleTools 8.52, the following new methods have been added to the PeopleCode API:

• Favorite collection, InsertFolderItem method
• Chart class, SetExplodedSectorsArray method
• File class, GetBase64StringFromBinary method
• File class, WriteBase64StringToBinary method
• IBInfo class, LoadRESTHeaders method
• IntBroker class, GetURL method
• Leaf class, GenABNMenuElementWithImage method
• Message class, FirstCorrelation method
• Message class, GetURIDocument method
• Message class, GetURIResource method
• Message class, SetContentString method
• Message class, OverrideURIResource method
• Node class, GenABNMenuElementWithImage method
• OrgChart class, SetIMData method
• OrgChart class, SetIMRecord method
• OrgChart class, SetNodeDisplayData method
• OrgChart class, SetNodeDisplayDataRecord method
• OrgChart class, SetSchemaLevels method

**Note.** The preceding list does not include the methods that are new due to the addition of a new class in the PeopleCode API. The new classes themselves are listed in these release notes.

**New Properties**

In PeopleTools 8.52, the following new properties have been added to the PeopleCode API:
• Favorite class, IsFolder property
• Message class, HTTPMethod property
• Message class, HTTPResponseCode property
• Message class, InitializeConversationId property
• Message class, SegmentContentTransfer property
• Message class, SegmentContentType property
• Message class, URIResourceIndex property
• OrgChart class, ChartCurrentSchemaLevel property
• OrgChart class, IMPresence property
• OrgChart class, IMRefreshInterval property
• OrgChart class, NodeProportion property

**Note.** The preceding list does not include the properties that are new due to the addition of a new class in the PeopleCode API. The new classes themselves are listed in these release notes.
Charting Enhancements

This section covers changes to developing charts using the PeopleCode Charting classes, including:

- Organization chart enhancements.
- Exploded pie charts.

Organization Chart Enhancements

Several enhancements to organizational charts in PeopleTools 8.52 make them more flexible, more accessible, and more useful. These enhancements include:

- Zoom levels, or schemas, enable the user to select among views that display more nodes with less data or fewer nodes with less data. The zoom schemas incorporate the new node display templates to present different levels of detail. The new SchemaLevel class supports configuring schema levels.

- Nodes can now contain up to 99 descriptors, and node display templates enable greater flexibility in how the descriptors are displayed in each node. Node display templates use the new PTORGNODE_SBR and PTNODE_DISP_SBR subrecords, the SetNodeDisplayDataRecord and SetNodeDisplayData OrgChart methods.

- A user can click an IM presence indicator on a chart node to initiate a chat session with the person. This feature requires that IM presence is configured in PeopleSoft Multi Channel Framework. The new PTORGIM_SBR subrecord definition, the SetIMRecord and SetIMData OrgChart class methods, and the IMPresence and IMRefreshInterval OrgChart class properties support organization chart IM presence.

- Organization chart dropdowns now support foldering and include a related-action link option. The PTORGBOXLIST_SBR and PTORGBOXFLD_SBR subrecords have been expanded to support the dropdown enhancements.

- The chart legend and chart breadcrumbs are now frozen in place at the top of the chart so they do not scroll out of sight when the chart is scrolled.

Exploded Pie Charts

Two-dimensional and three-dimensional pie charts can be configured with exploded sectors. The new Chart class method SetExplodedSectorsArray defines which sectors are exploded and the degree of separation.

Information Missing from Previous PeopleBooks

Previous versions of the PeopleCode API Reference included incomplete information regarding some features. In the PeopleTools 8.52 version of the PeopleCode API Reference, the following significant additions have been incorporated:
• Added nine properties to the Folder class that were introduced in PeopleTools 8.51 but that were not included in the PeopleBooks. The properties are: AbnContentProvider, AbnDataSource, AbnPeopleCode, DefaultChartNavigation, TreeEffectiveDate, TreeName, TreeSetId, TreeStructureName, and TreeUserKeyValue.

• Clarified that six methods of the IBInfo class are intended for content-based routing only. The methods are: AddAttribute, ClearAttributes, DeleteAttribute, GetAttributeName, GetAttributeValue, and GetNumberOfAttributes. A new section titled “Content-Based Routing” has been added to PeopleBooks and contains examples of how to set and retrieve routing attributes.

• For the Node class, GenABNMenuElement method, added the required initial_node parameter, which was left out of the PeopleTools 8.51 documentation.

**PeopleCode Developer’s Guide**

This section covers changes to developing PeopleCode programs, including:

• File streaming.

• Restricting the file types that can be uploaded or downloaded.

• Virus scanning.

**File Streaming**

In PeopleTools 8.52, file attachment functions will no longer use temporary storage on the file systems of the web server or application server. During the process of uploading files from or downloading files to an end user machine, files will be streamed to and from the PeopleSoft system.

**Restricting the File Types That Can Be Uploaded or Downloaded**

In PeopleTools 8.52, you can now restrict the file types that can be uploaded to or downloaded from your PeopleSoft system. The file type restrictions apply to the AddAttachment, DetachAttachment, MAddAttachment, and ViewAttachment functions.

**Virus Scanning**

Virus scanning is *not* performed on files uploaded with the PutAttachment function.

**PeopleCode Language Reference**

This section covers changes to the PeopleCode language, including:

• New built-in functions.

• Modified built-in functions.

• Corrected information.

• Information missing from previous PeopleBooks.

• Functions no longer supported.
New Built-In Functions

In PeopleTools 8.52, the following new built-in functions have been added to the PeopleCode language:

- DoModalX
- DoModalXComponent
- GenDynABNElement
- MAddAttachment
- ISOToDate
- TransferModeless

Modified Built-In Functions

In PeopleTools 8.52, the following built-in functions have been modified:

- CleanAttachments – Now accepts an optional PreserveCaseHint parameter.
- DateTimeValue – Now accepts date/time values in ISO 8601 format.
- GenHTMLMenu – Now accepts two optional parameters: fldr_img_class_ID and element_label.
- LoadABN – Now accepts three optional parameters: disp_relations, fldr_img_class_ID, and CREF_img_class_ID.

Corrected Information

Previous versions of the PeopleCode Language Reference included incorrect information regarding some features. In the PeopleTools 8.52 version of the PeopleCode Language Reference, the following items have been corrected:

- ConvertDateTimeToBase built-in function: The descriptions of the textdatetime parameter and the example have been corrected.
- GetNextProcessInstance built-in function: The function returns an integer representing the next available process instance if successful; otherwise 0 in case of a failure.
- PutAttachment built-in function. Virus scanning is not performed on files uploaded with the PutAttachment function.
**Information Missing from Previous PeopleBooks**

Previous versions of the PeopleCode Language Reference included incomplete information regarding some features. In the PeopleTools 8.52 version of the PeopleCode Language Reference, the following significant additions have been incorporated:

- DateTimeToISO built-in function (introduced with PeopleTools 8.48).
- ISOToDateTime built-in function (introduced with PeopleTools 8.48).

**Functions No Longer Supported**

The following functions have been removed from PeopleCode. You will receive an error if you try to use them in your PeopleCode program:

- IsDisconnectedClient
- MSFGetNextNumber

**Global Technology**

This section covers changes and updates to PeopleTools global technology.

**ISO 8601 Support**

In the PeopleTools 8.52 PeopleBooks, complete information has been included on PeopleCode functions that provide ISO 8601 support. In some cases, new functions were introduced in PeopleTools 8.52 and existing functions were enhanced. In other cases, missing information was added to document existing functions; in other cases, existing information was corrected. The following PeopleCode functions were affected by these changes:

- ConvertDatetimeToBase (corrected).
- DateTimeToISO (missing: introduced with PeopleTools 8.48).
- DateTimeValue (enhanced).
- ISOToDate (new).
- ISOToDateTime (missing: introduced with PeopleTools 8.48).

**PeopleSoft Search**

With PeopleTools 8.52, we are introducing a new option for enabling free-text search for your end users. This new option involves:

- PeopleSoft Search Framework.
- PeopleSoft Application Search.
PeopleSoft Search Framework

The PeopleSoft Search Framework provides a standard, declarative method for creating, deploying, and maintaining search indexes for all of your PeopleSoft applications. Oracle Secure Enterprise Search (SES) is the search engine on which the PeopleSoft Search Framework relies.

Note. The PeopleSoft Search Framework does not support the Verity search engine. It can only be configured to run with SES.

The PeopleSoft Search Framework is comprised of numerous PeopleTools technologies working together to provide design, administrative, and integration capabilities, including:

- **PeopleSoft Query.** You use PeopleSoft Query and Connected Query to define the data that will eventually populate the search index. You can use existing queries or create new queries for the PeopleSoft Search Framework, using this familiar interface.

- **Search Framework Designer.** You use the Search Framework Designer to create search definitions, which are based on a single PeopleSoft Query or Connected Query definition. The search definition enables you to apply various PeopleSoft metadata to the query, such as security attributes, mapping search result display fields to query fields, and creating search categories for related search definitions.

- **PeopleSoft Integration Broker.** You use Integration Broker to facilitate the integration between your PeopleSoft system and SES. Integration Broker must be configured correctly for the PeopleSoft system to connect to SES and for SES to access the PeopleSoft system for crawling.

- **Search Framework Administration.** You use the Search Framework Administration interface to define the connection to a particular SES instance, deploy search definitions and search categories, and manage search index build schedules. When deployed to SES, PeopleSoft search definitions and search categories become "sources" and "source categories", respectively, on the SES system.

- **PeopleSoft Application Engine.** An Application Engine program set to run on a recurring basis extracts the results of the query defined in PeopleSoft Query. The results of that query populate the search index on SES.

- **Feeds Framework.** After the initial search index is built, Search Framework uses Feeds Framework to transmit incremental updates for the existing search index, rather than rebuilding an entire index to capture recent changes.

PeopleSoft Application Search

PeopleSoft Application Search is a group of features that offer an improved means of searching for application content, business objects and business process steps within a PeopleSoft application. These capabilities provide users with access to more powerful, keyword-based search components that present a familiar, more intuitive search experience.
Note. PeopleSoft Application Search features depend on the Search Framework being enabled and implemented for your system. Implementing this feature for your PeopleSoft application may require the uptake of PeopleSoft Feature Packs.

Similar to how users might initiate navigation across the internet by first searching for a set of keywords, PeopleSoft Application Search allows application users to initiate steps of a business task with a simple, intuitive keyword search. This capability may reduce or even eliminate the need for users to navigate PeopleSoft applications via the existing application menu system.

- The new search experience functions similarly to the internet, providing a look and feel that users will find both familiar and intuitive.

- Application Search is available at any point in an application and can be configured to span multiple PeopleSoft applications, enabling users to initiate transactions or navigate to key information without using the PeopleSoft application menu or returning to the home page.

- This search framework includes the ability to use filters and facets to narrow result sets, further enabling users to identify and navigate to specific application content.

- Search results are displayed in prioritized order by relevance to the provided search terms.

- Related Action menus are embedded directly in the search results, allowing users to navigate straight to specific related transactions – pre-populated with the selected search results data.

- Component Search is also enhanced with keyword capabilities, extending the versatility of virtually all existing search pages.

This new means of searching provides a global search mechanism that is available to users across PeopleSoft applications. It enables more efficient searching for users and fundamentally improves navigation in PeopleSoft applications. Instead of browsing through menu hierarchies to find an application data or transaction, users will be able to use PeopleSoft Application Search to directly navigate to desired application data or transactions from search results.

The new search results page also enables continued refinement of results using facets, which enable users to locate and navigate to desired content easily. Users can drill into search result entries and even navigate to related information from search results. Persistent search result sets enable users to easily return to important locations that they frequently visit.

The component search mechanism used in previous releases (now called classic search) is still available, but is enhanced with the availability of PeopleSoft Application Search’s keyword capabilities.
Application Engine

This section covers changes and updates to PeopleSoft Application Engine.

Sharing Temporary Tables in Online Mode

With PeopleTools 8.52, you have the option to enable application engine programs running in online mode to share temporary tables. This can provide improved performance and increased efficiency for online programs. In previous releases, sharing temporary tables was available only to application engine programs running in batch mode. You can choose to select the Share Tables in Online Mode option on the Temp Tables tab in the Program Properties dialog box. When selected, if an application engine program instance does not allocate itself a dedicated temporary table, the instance will share a temporary table already used by other running instances.
Reporting and Analytic Tools Enhancements

This section covers changes made to the PeopleSoft analytic tools, including:

- XML Publisher.
- Connected Query.
- Cube Builder.
- PS/nVision.
- Query.
- Crystal Reports for PeopleSoft.

XML Publisher

This section discusses new features and changes for XML Publisher, including:

- XML Publisher renamed to BI Publisher.
- Common Template.
- Rich Text Support

XML Publisher Renamed to BI Publisher

XML Publisher uses select features from Oracle Business Intelligence Publisher (BI Publisher) that have been integrated into PeopleTools. To properly reflect the product, XML Publisher has been renamed to BI Publisher.

Common Template

This feature allows you to create a common template that can be used with different data sources. The template contains the pre-defined XML element tags for mapping between the layout and the XML data file. In order to use the same template with a different data source, it is necessary to apply an XSLT transform to the incoming XML data source ahead of the standard XMLP template processing.

A new field has been added to the template definition page, to indicate that data transformation is used. When this checkbox is selected, you will be able to upload the source schema and invoke Oracle XSL Mapper directly from the page.

Rich Text Support

Support for incorporating rich text edit fields in BI Publisher reports. The rich text must be created from a PeopleSoft page that has a long edit box that is rich text enabled. A new sub-template has been added called HTML_SUB which contains the XSL transformations from XHTML to XSL-FO.
Cube Builder

This section discusses enhancements made to PeopleSoft Cube Builder, including:

- Support for wide query.
- Support for member name and alias.

Support for Wide Query

PeopleTools has added the ability to create a multi-level dimension structure using a single dimension query. As a result, you will no longer need to create multiple queries to populate members on each level.

Support for Member Name and Alias From Query

Instead of manually adding an alias for each member from the UI, you have the option to populate member aliases by selecting a second column from the same query.

Cube Manager

Beginning in PeopleTools release 8.52, the PeopleTools Cube Manager functionality, along with the associated PeopleSoft Cognos and Essbase Cubes used with PeopleTools Cube Manager, is obsolete and will no longer be supported. However, PeopleTools Cube Builder continues to be the long-term strategic solution for creating and maintaining analytic data stores with PeopleSoft products. Please note that only the EssBase technology platform is supported with PeopleTools Cube Builder.

If you are currently using the PeopleTools Cube Manager functionality you may continue to use it with your current applications as an unsupported feature.

PS/nVision

This section discusses changes made to the PeopleTools PS/nVision technology, including:

- Open XML mode.
- Support for nVision reports that include up to 16384 columns.
- Setting field names in a dynamic detail tree structure.
- Effective date logic for row descriptions and drilldown reports.
- Converting existing layouts and reports to OpenXML format.
Open XML Mode

In addition to the Excel automation mode which enables Excel API to generate Excel-compatible documents in PeopleTools PIA architecture, PS/nVision uses the new Open XML mode on the batch server that uses Microsoft's Open XML SDK to generate Excel-compatible documents.

Support for nVision Reports That Include up to 16384 Columns

Beginning with PeopleTools 8.52, you can run nVision reports that include up to 16384 columns of data if the nVision layouts are in the Microsoft Excel 2007 file format.

When you design the nVision layout, the location of column criteria can also be set at up to column 16384.

Setting Field Names in a Dynamic Detail Tree Structure

If you use the PeopleSoft nVision Filter Criteria dialog box, notice that in a dynamic detail tree structure, the field name of the detail values should match the field name of the tree nodes. If these two field names do not match, then an error message appears indicating that the tree is invalid.

Effective Date Logic for Row Descriptions and Drilldown Reports

Two new configuring options for PS/nVision are available in the Configuration Manager Edit Profile dialog box - nVision tab:

- AsofDateforLabels. Use this option to specify whether the as-of date or the maximum-effective date will be used to retrieve label descriptions of nVision reports and drilldowns.
- RetrieveActiveTreeLabels. Use this option to specify whether only active tree node label descriptions are retrieved for nVision reports and drilldowns.

Converting Existing Layouts to OpenXML Format

To convert layouts from XLS format to XLSX format, perform one of these methods on the PS/nVision client desktop:

- Manual and individual conversion.
- Mass conversion using Microsoft conversion utility.

Microsoft provides a free software toolset for converting from XLS format to XLSX format. You need to download the following tools from the Microsoft website:

- Microsoft Office Migration Planning Manager (MigrationPlanningManager.exe)
- Microsoft Office Compatibility Pack for Word, Excel, and PowerPoint File Formats (FileFormatConverters.exe)
Query

This section discusses changes made to PeopleSoft Query, including:

- Ability to build free-form type for drilling URL.
- Ability to build query drilling URLs for different content types.
- Variant formats of query drilling URL results.
- Limitation for downloading query results using iPad.

**Ability to Build Free-form Type for Drilling URL**

Beginning with the PeopleTools 8.52 release you can access the Free Form URL definition widget to manually enter URLs that will be used to build drilling URLs in report results.

**Ability to Build Query Drilling URLs for Different Content Types**

While building drilling URLs, you can:

- Use the Portal Name field to enter or select a portal that is used to build drilling URLs at the report runtime.
- Use the Node Name field to enter or select a node that is used to build drilling URLs at the report runtime.
- Use the Use psc field to define the content type that is used to build drilling URLs.

**Variant Formats of Query Drilling URL Results**

You can select the format of report results that will be generated from the drilling URLs. Available options are HTML, XLS, CVS, and XML.

**Limitation for Downloading Query Results Using iPad**

Because PeopleSoft Query 8.52 partly supports iOS, Apple’s mobile operating system, if you are an iPad user you can edit or schedule queries from the Query Manager page or Query Viewer page, but you cannot download query results using the HTML, Excel, or XML links.

Crystal Reports for PeopleSoft

This section discusses changes made to Crystal Reports for PeopleSoft, including:

- New location of the psprcs.cfg file.
- Crystal Reports 2008 Designer.
New Location of the psprcs.cfg File

The psprcs.cfg configuration file used to configure Crystal Reports 2008 is now located in `<PS_CFG_HOME >\appserv\prcs\<dbname>` for Microsoft Windows.

Crystal Reports 2008 Designer

In PeopleTools 8.52, Crystal Reports 2008 SP2 Designer is called Crystal Reports 2008 Designer.

PeopleSoft Tree Manager

This section discusses changes to PeopleSoft Tree Manager, including a list of characters that should be avoided while setting up trees.

Characters in Tree-specific Values

SmartNavigation passes the values of several tree-specific fields to the application via URL. Certain characters are inappropriate for use in an URL and should be avoided. When you set up trees, some characters in the tree name, setID, set control value, and tree branch fields should not be used.
Integration Tools Enhancements

This section discusses the enhancements in our integration technology, including:

- PeopleSoft Integration Broker.
- Feed Publishing Framework.
- Component Interfaces.

Integration Broker

This section covers the new features and changes for Integration Broker, including enhancements in the following areas:

- Integration Network.
- REST-based services.
- Component interface-based services.
- Integration Broker Service Operations Monitor.
- Sending and receiving messages.
- Support for SOAP 1.2.
- Providing and consuming web services.
- Inbound request load balancing using virtual application server domains.

Integration Network

The integration network centralizes the administrative tasks of configuring, administering, and monitoring integrations in PeopleSoft Integration Broker. The integration network is delivered in a WorkCenter.

The integration network provides configuration and node status pages that allow you to quickly assess if the integration network is properly configured, as well as to identify the local and remote nodes that are defined in the network and assess their configuration status.

The integration network enables you to activate and deploy groups of integrations, assess the security permission status of service operations on the local node, and more. It also provides several monitoring tools that enable you to monitor network activity by node or by transaction.

Only nodes defined as PeopleSoft nodes (PIA node type) can participate in the integration network. You can define and include PeopleSoft nodes in PeopleTools 8.48 and higher releases in the network.
REST-Based Services

Representational State Transfer (REST) is an architectural style where developers use the following standards to build, provide, and consume web services:

- The HTTP file transfer protocol.
- URLs and URIs that represent resources.
- The XML file format.
- MIME types such as text/xml, application/json and others.

Integration Broker now provides the framework for building, administering and testing REST-based services. The Services, Service Operations, and Routings components have been enhanced for building and managing REST-based services. The Provide Web Service Wizard has been enhanced to provide REST-based services and can generate Web Application Description Language (WADL) documents. The Send Master Utility has been enhanced to allow developers to test REST-based services.

Component Interface-Based Services

This section describes enhancements for generating component interface-based services using PeopleSoft Integration Broker.

Inheriting Component Interface Security Permission Lists

You can specify that all or select component interface-based service operations inherit the security permission list(s) of the component interface from which they are based. This feature allows you to bypass the process of manually assigning permission lists to the service operations after you generate them.

Integration Broker Service Operations Monitor

This section discusses enhancements to the Integration Broker Service Operations Monitor.

Viewing Logical Transformation XML

Beginning this release you can view logical transformation XML for an asynchronous message, if such a transformation exists, using the Asynchronous Details page of the monitor.

When viewing publication or subscription contract XML on the IB XML Page, a View Logical Transform link appears if there is a logical transformation. When you click the link you can view the XML output of the logical transformation.

Sending and Receiving Messages

This section discusses enhancements to facilitate sending and receiving messages.
Sending and Receiving Binary Data

PeopleSoft supports the MTOM protocol for sending and receiving binary data using service operations. While you can send and receive binary data using SOAP, doing so requires that you Base64-encode the data, which can increase message size by 33 percent or more. The MTOM protocol enables you to send and receive binary data in its original binary form, without any increase in size due to encoding.

Whether sending or receiving MTOM-encoded binary data, you use message segments to store the data. The SegmentContentType property of the Message object is used to set or read the content type of each message segment.

Sending, Receiving, and Correlating Multiple Segmented Messages

Previous releases of Integration Broker have provided the means to send a message that contains multiple message segments. For very large messages this can have performance impact due to the greater number of segments.

PeopleSoft provides PeopleCode that allows you to send multiple smaller messages with multiple segments and then correlate them into one transaction on the receiving system. So instead of sending one message with 50 message segments, you can send 10 messages with 5 message segments using parallel processing, and then correlate the 10 messages on the receiving system.

Support for SOAP 1.2

The HTTP target connector features a new SOAP 1.2 property that works in conjunction with the existing SOAPUpContent property.

When using the SOAPUpContent parameter to wrap outbound transactions in SOAP format, by default the system wraps the content in SOAP 1.1 format. To wrap the content in SOAP 1.2 format, use the new SOAP 1.2 parameter.

Providing and Consuming Web Services

This section discusses enhancements for providing and consuming web services using Integration Broker.

WSDL 2.0 Support

Beginning in this release PeopleSoft supports the WSDL 2.0 specification, in addition to the WSDL 1.1 specification supported in previous releases.

The Provide Web Services wizard continues to generate WSDL in the WSDL 1.1 format by default. However, there is an option to generate WSDL in WSDL 2.0 format.

The Consume Web Services wizard is able to consume WSDL in WSDL 1.1 or WSDL 2.0 format with no action required.

Providing REST-Based Services

The Provide Web Services wizard has been enhanced to provide WADL documents for REST-based services.

REST-based services are discussed elsewhere in the Integration Tools section of this document.
Inbound Request Load Balancing Using Virtual Application Server Domains

This section discusses enhancements to inbound request loading using virtual application server domains.

Auto-Registration of Application Server URLs

Beginning in this release the system automatically registers the application server URL on the slave template domain. As a result, you no longer need to manually enter this information. By default the system registers the application server by `<machine name>:<jolt port>`, however you can specify that the system use the IP address.

Auto-Synchronization of Virtual Application Servers with Gateways

When you boot a virtual server it automatically registers itself with the gateways defined on the Inbound Gateways (IB_GATEWAY_SEC) page. Subsequently, when you shut down a virtual server it automatically de-register itself. There may be situations where the automatic registration process fails, a gateway gets restarted, and so on. In previous releases PeopleSoft provided an option to manual synchronize virtual application servers with gateways defined for load balancing. Beginning this release Integration Broker features a synchronization feature that you can set up to automatically perform this synchronization at an interval you define.

Feed Publishing Framework

This section covers changes and updates to the Feed Publishing Framework, including:

- Feed Publishing Wizard.
- Feed templates.
- Feed personalization.
- Feeds as managed objects.

Feed Publishing Wizard

The Feed Publishing Wizard provides an easy to follow, four-step guide to publish feeds from any data source for the feed data types defined in the system. The Feed Publishing Wizard simplifies the creation and editing of feed definitions. In addition, the Feed Publishing Wizard:

- Provides the ability to create and edit feed templates.
- Allows you to specify data source parameters as personalizable—that is, as user specified or administrator specified.
Feed Templates

The Feed Publishing Framework provides the ability to create feed templates, which aid in predefining and reusing feed settings and parameters. Feed templates can be created from scratch or an existing feed definition can be saved as a feed template. Feed templates can then be used when creating new feed definitions or when editing existing feed definitions.

Feed Personalization

Feed personalization allows end users to specify values to personalize the display of a feed for their own use. In addition, personalization allows administrative users to specify values to configure the feed definition for their user community or communities.

Feeds as Managed Objects

Feed definitions, feed categories, feed templates, and feed data types can be managed as PeopleTools managed objects.

Component Interfaces

This section discusses changes and enhancements for Component Interfaces.

Validating Prompt Table and Translate Table Field Values

PeopleSoft delivers a service, PTLOOKUP, which enables integration partners to retrieve lists of valid/allowable values for prompt and translate (XLAT) fields from PeopleSoft components on which component interfaces are based, allowing them to validate their client application data against PeopleSoft data.

PeopleSoft integration partners provide WSDL for this service to their integration partners using the Provide Web Service wizard. The third-party integration partner uses the provided request message shape to specify the field values to validate. They then return the request message to the PeopleSoft system to invoke the service. The PeopleSoft system returns a response message to the integration partner with the field values requested.
Lifecycle Management Tools Enhancements

This section discusses the changes to PeopleSoft lifecycle management technology, including:

- PeopleSoft Test Framework.
- Change Assistant.

### PeopleSoft Test Framework

This section describes the new features and changes for PeopleSoft Test Framework (PTF), including:

- Recording toolbar.
- Data import and export.
- Test documentation.
- Looping.
- Shell tests.
- Variables.
- Functions.
- Command line execution.
- Maintenance reports.

### Recording Toolbar

The new PTF recording toolbar has number of features that enable a test developer to accomplish tasks during recording that formerly were done manually after recording.

The new recording toolbar enables a developer to:

- Pause and restart recording.
- Add a log step.
- Add a Get_Property step.
- Add a Conditional If_Then construct.
- Add a Variable.Set_Value step.
- Add Scroll.Key_Set and Scroll.Action steps.
- Move to the previous or next step.
- Modify step values.
• Insert a #PREFIX# reserved word.
• Add test step comments.
• Automatically create PagePrompt constructs.
• Automatically create message recognition entries.

Data Import and Export
Test case data can be exported to text files, edited, and imported into the test, enabling test developers more easily run tests with large volumes of test data.

Test Documentation
A test developer can add comments in rich text format to tests, test cases, and test steps.

Looping
Looping constructs, such as Do-Loop, For-Next, While, and so on, have been incorporated.

Shell Tests
The Test step type now supports calling multiple tests and test cases from a single Exec step. Also, a test developer can select a test and test case from a list.

A new step type, Execution, enables a developer to modify the behavior of tests during execution. The Execution step type includes these actions:
• Skip_PageSave
• Skip_RunRequest
• Skip_Login
• StopOnError

Variables
Test variables that are populated at runtime give the test developer access to values such as the current test or test case name, the current execution option, the current platform, and so on.

Functions
String manipulation functions, such as Len, Mid, Trim, and so on, were added.
Math functions, such as Add, Subtract, Multiply, Divide, Round, Date, and so on, were added.
**Command Line Execution**

PTF can now be executed from a command line. This feature was added primarily to enable PTF tests to be called from Change Assistant steps.

**Maintenance Reports**

New analysis rules have been added and new attribute checks have been incorporated so that test maintenance reports and test coverage reports are more complete and detailed.

**Change Assistant**

This section describes the new features for Change Assistant, including:

- Managed Object Compare.
- Three-Way Merge.

**Managed Object Compare**

Managed Object Compare combines the Project and Upgrade tabs of Application Designer into a single view within a new Change Assistant user interface. Users are able to initiate a compare, validate a project, copy a project, and filter the results to show a subset of the data.

**Three-Way Merge**

Three-way merge enables users to streamline the process of reviewing, analyzing and developing PeopleCode objects during an upgrade. Three-way merge compares PeopleCode from different databases to create one merged version. Users can apply rules individually or in batch as they review, analyze, and modify the code before they move their code to the new database.
# Document Change History

This section describes the changes made to this document after the initial posting. Please make a note of these changes if you have downloaded previous versions.

<table>
<thead>
<tr>
<th>Date</th>
<th>Change to Document</th>
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<td>July 6, 2011</td>
<td>Revision 1 posted.</td>
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