ORACLE®

PEOPLESOFT

PeopleTools 8.54: Accessibility Guide

November 2016

ORACLE®

PeopleTools 8.54: Accessibility Guide
CDSKU
Copyright © 1988, 2016, Oracle and/or its affiliates. All rights reserved.

License Restrictions Warranty/Consequential Damages Disclaimer

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

Warranty Disclaimer

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

Restricted Rights Notice

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

Hazardous Applications Notice

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Trademark Notice

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

Third Party Content, Products, and Services Disclaimer

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Contents

Preface

Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft Applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

PeopleSoft Hosted Documentation

You access the PeopleSoft Online Help on Oracle's PeopleSoft Hosted Documentation website, which enables you to access the full help website and context-sensitive help directly from an Oracle hosted server. The hosted documentation is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support, because that documentation is now incorporated into the hosted website content. The Hosted Documentation website is available in English only.

Note: Only the most current release of hosted documentation is updated regularly. After a new release is posted, previous releases remain available but are no longer updated.

Locally Installed Help

If your organization has firewall restrictions that prevent you from using the Hosted Documentation website, you can install the PeopleSoft Online Help locally. If you install the help locally, you have more control over which documents users can access and you can include links to your organization's custom documentation on help pages.

In addition, if you locally install the PeopleSoft Online Help, you can use any search engine for full-text searching. Your installation documentation includes instructions about how to set up Oracle Secure Enterprise Search for full-text searching.

See *PeopleTools Installation* for your database platform, "Installing PeopleSoft Online Help." If you do not use Secure Enterprise Search, see the documentation for your chosen search engine.

Note: Before users can access the search engine on a locally installed help website, you must enable the Search portlet and link. Click the Help link on any page in the PeopleSoft Online Help for instructions.

Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals

- Using PeopleSoft Applications

Most product families provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product family. Whether you are implementing a single application, some combination of applications within the product family, or the entire product family, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft Applications.

Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

Typographical Convention	Description
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For Alt+W, hold down the Alt key while you press the W key.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (	).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.

Typographical Convention	Description
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
⇒	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY_CD_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

Region and Industry Identifiers

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

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

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

• Asia Pacific

• Europe

• Latin America

• North America

Industry Identifiers

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

- USF (U.S. Federal)

- E&G (Education and Government)

Using and Managing the PeopleSoft Online Help

Click the Help link in the universal navigation header of any page in the PeopleSoft Online Help to see information on the following topics:

- What's new in the PeopleSoft Online Help.

- PeopleSoft Online Help acessibility.

- Accessing, navigating, and searching the PeopleSoft Online Help.

- Managing a locally installed PeopleSoft Online Help website.

PeopleTools Related Links

Oracle's PeopleSoft PeopleTools 8.54 Documentation Home Page (Doc ID 1664613.1)

"PeopleTools Product/Feature PeopleBook Index" (PeopleTools 8.54: Getting Started with PeopleTools)

PeopleSoft Information Portal

My Oracle Support

PeopleSoft Training from Oracle University

PeopleSoft Video Feature Overviews on YouTube

Contact Us

Send us your suggestions Please include release numbers for the PeopleTools and applications that you are using.

Follow Us

Get the latest PeopleSoft updates on Facebook.

Follow PeopleSoft on <u>Twitter@PeopleSoft_Info</u>.

Chapter 1

Understanding Accessibility for PeopleSoft Applications

Accessibility Standards at Oracle

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/us/corporate/accessibility/index.html.

Accessibility in PeopleSoft Applications

PeopleTools provides the underlying technology for PeopleSoft applications. All PeopleSoft applications, such as Human Capital Management and Customer Relationship Management, are built, deployed, and maintained using PeopleTools. PeopleTools is designed to generate HTML content that is coded to standards to work with assistive technology. This HTML content includes several accessibility features to help people who use assistive technology, such as screen readers. PeopleSoft accessibility features include:

- Alternate text for images, buttons, collapsible section icons, and hide and expand grid tabs.

- Table summaries and row and column headings for tables.

- The ability to add links and anchors that enable keyboard-only users to bypass repeated navigation content, such as page tabs.

- The removal of icon links within a page and the removal of page links from the bottom of pages to reduce redundancy when using screen reader software.

- A feature that presents the elements on the body of a page in a linear format (recommended for blind users who use assistive technology, such as screen readers).

- Landmarks that identify page sections.

  These landmarks provide a method to programmatically identify web page sections in a consistent way, which enables assistive technologies to provide users with features they can use to identify and navigate to sections of page content.

To ensure that these accessibility features are available:

- If developers customize applications, they must build them according to the accessibility design standards.

  Starting with PeopleTools 8.50 and PeopleSoft 9.1, delivered pages have been audited to ensure that they include accessibility features, such as page control labels and grid summaries. However, if developers change or add pages, they must ensure that their changes are coded to standards to

work with assistive technology. PeopleTools provides many accessibility features, but they are not all automatic. For example, PeopleTools provides the ability to add page control labels, but it does not automatically create the labels. Developers must manually add labels and set other accessibility features so that they are available to users who enable the accessibility features.

Note: It's important to incorporate accessibility from the beginning, when you are designing your customizations. This documentation provides details that are specific to PeopleTools and PeopleSoft applications, but you should also consult the numerous accessibility resources that are available outside of Oracle to create a complete accessibility plan. In addition, it's important to involve users with various disabilities throughout your process, beginning in the design phase.

• System administrators must grant access to the Accessibility Features option in PeopleTools.

  Accessibility features are not enabled by default. System administrators must, at a minimum, enable the accessibility features for each permission list.

• Users who use assistive technology should enable the accessibility features under My Personalizations.

  For more information, see Enabling Accessibility Features to Support Assistive Technology

---

Note: Keyboard-only navigation features are available to all users and do not require users to enable accessibility features.

This accessibility guide provides details about how to develop, set up, and use the accessibility features in PeopleSoft applications.

Examples

The following example shows a typical transaction page that contains fields, buttons, scroll areas, and a grid:

Image: Example of a typical transaction page

Example of a typical transaction page.

The following example shows how the same page appears when users have enabled Accessible Layout mode:

Image: Sample page with accessibility features enabled

Example of a page with accessibility features enabled.
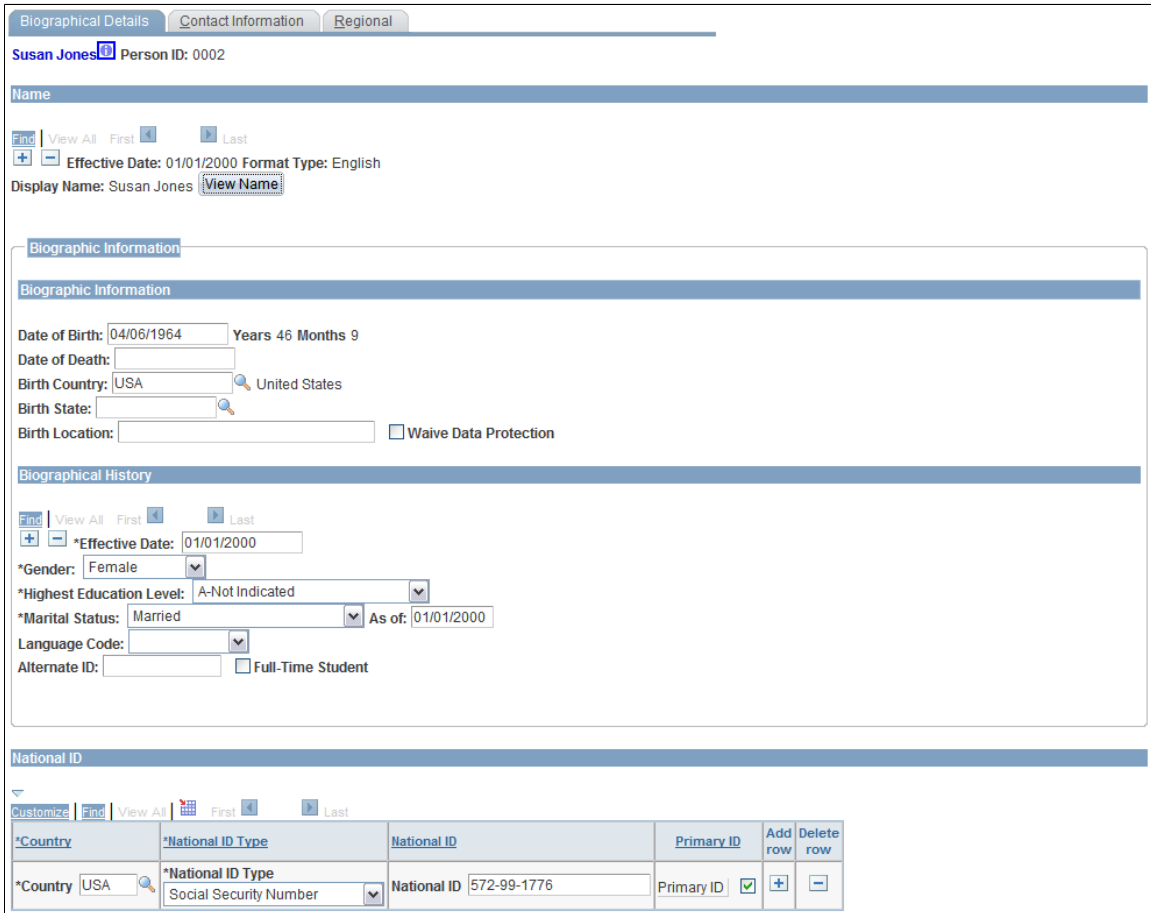
Notice that in the preceding example the controls in the scroll areas have been moved to appear inline with the other fields, and the Add row and Delete row columns in the grid have column headings (unlike the example of the standard page, which does not include headings for those columns). Because the purpose of this mode is to facilitate the use of assistive technologies, such as screen readers, the page layout may be quite different from how pages appear when Accessible Layout mode is not enabled.

Pagelet Behavior in Accessibility Mode

When you interact with a portal pagelet in accessibility mode, the pagelet expands to a full-sized page. Use the Home link to return to the homepage.

Chapter 2

Setting Up PeopleSoft Accessibility Features

Setting the Default Value for the Accessibility Features Personalization

When you install PeopleTools, accessibility features to support assistive technology are turned off, by default, and users who want to use the accessibility features must enable them in My Personalizations. You can change the default value of the Accessibility Features personalization if you want to make the accessibility features visible to all users by default. For example, if the majority of your users require accessibility features, you might make these features available to everyone by default so that individual users do not have to enable them.

Note: Keyboard-only navigation features are available to all users and do not require users to enable accessibility features.

To change the default value of the Accessibility Features personalization:

1. Select PeopleTools, Personalization, Personalization Options to access the Define Personalizations page.

2. Enter *PPTL* on the search page and click Search to open the PeopleTools personalization options.

   The Accessibility Features (ACCESS) personalization should appear at or near the top of the list.

3. Select the Format tab.

   The current default value appears in the Option Default Value column.

4. To change the default value, click the Set Option Default Value link.

5. Select one of the following values:

Accessibility features off	Select this option to disable accessibility features, by default. Users who want to use the accessibility features must manually enable them in My Personalizations.
Use accessible layout mode	Select this option to enable all of the accessibility features that are available, by default. Users who do not want to use the accessibility features must manually disable them in My Personalizations.
	See Accessibility in PeopleSoft Applications.

This option is designed for blind users who use assistive technology, such as screen readers.

Use standard layout mode   Select this option to enable accessibility features for users who need support for visibility impairment, such as those using screen magnifiers, but who do not rely solely on screen readers.

This mode provides bold highlighting of page elements to indicate where you are on a page, but it does not alter the page layout or provide full accessibility features for screen readers. For example, this mode does not provide table summaries and column headings for every table column.

6. Click OK to apply the change and return to the Define Personalizations page.

7. Click Save.

Related Links

"Working with Personalization Options" (PeopleTools 8.54: Security Administration)

Providing Access to the Accessibility Features Personalization in Permission Lists

Before users can enable PeopleSoft accessibility features in My Personalizations, you must give them permission to modify the Accessibility Features personalization. To set up personalization permissions:

1. Select PeopleTools, Security, Permissions & Roles, Permission Lists to access the Permission Lists component.

2. Add or select a permission list.

3. Select the Personalizations tab to access the personalization permissions.

4. Enter the following information:

    Option Category Level   Select *Tools*.

    Option Category Group   Select *PS Internet Architecture*.

5. Click the Edit Options link to open the Personalization Permissions page.

6. Select the Allow User Option check box next to the Accessibility Features (ACCESS) user option.

    If this check box is not selected, users cannot enable the accessibility features in My Personalizations.

7. Click OK to apply the change and return to the Personalizations page.

8. Click Save.

Related Links

"Managing Permission Lists" (PeopleTools 8.54: Security Administration)
"Adding Personalizations to Permission Lists" (PeopleTools 8.54: Security Administration)

Setting Inactivity Timeout Intervals

This section explains how to set up PeopleTools security to help satisfy the following WCAG 2.0 standard:

2.2.1 - Timing Adjustable: For each time limit that is set by the content, at least one of the following is true: Turn off, Adjust, Extend, Real-time Exception, Essential Exception, or 20 Hour Exception.

PeopleTools security enables you to specify the timeout intervals for users who are signed in to the PeopleSoft system. A timeout interval specifies how long the user's machine can remain idle—no keystrokes, no SQL—before the PeopleSoft system automatically signs the user out of the application. You assign the timeout intervals to permission lists using PeopleTools Security. The default value is to never time out.

If you do set a timeout interval, users who approach the timeout interval receive a message that enables them to extend the timeout interval or allow the timeout to occur.

To change the timeout interval:

1. Select PeopleTools, Security, Permissions & Roles, Permission Lists.

   Select the General tab.

2. Select one of the following timeout options:

Never Time-out	Select this option to eliminate a timeout interval. This value is the default.
Specific Time-out (minutes)	Select this option to assign a timeout interval and enter the appropriate value in minutes. The value:

   Under Specific Time-out (minutes):

   - Must be a positive integer.

   - Cannot contain edit characters, such as commas or a *$*.

   - Must be a SMALLINT in the valid range allowed for this field (0–32767).

   Entering a value of zero is equivalent to selecting Never Time-Out.

   Note: If you generally provide users with shorter timeout intervals, such as 20 minutes, you might want to create a special accessibility permission list with a longer timeout interval, such as 60 minutes.

Note: Because timeout intervals are also controlled at the web server level, you need to change the web server timeout values.

Important! Other timeout intervals that are unrelated to security are controlled by your web server and by PeopleSoft Pure Internet Architecture components.

Related Links
"Web Server Timeouts" (PeopleTools 8.54: System and Server Administration)

Chapter 3

Using PeopleSoft Accessibility Features

Enabling Accessibility Features to Support Assistive Technology

You can enable accessibility mode when you sign in to the PeopleSoft system, by selecting the Enable Accessibility Mode check box on the Sign In page.

Alternatively, you can complete the following steps to change your personalization options to automatically enable accessibility features to support assistive technology for your user ID:

1. Select My Personalizations in the main menu.

   The Personalizations page appears.

2. Click the Personalize General Options link.

   The Option Category: General Options page appears.

3. Select one of the following options from the Accessibility Features drop-down list:

Accessibility features off	Select this option to disable accessibility features.
Use accessible layout mode	Select this option to enable all of the accessibility features that are available, including the feature that presents the page in a linear format.
	See Accessibility in PeopleSoft Applications.
	This option is designed for blind users who use assistive technology, such as screen readers.
Use standard layout mode	Select this option to enable accessibility features if you want support for visibility impairment (for example, if you use a screen magnifier), but do not rely solely on a screen reader.
	This mode provides bold highlighting of page elements to indicate where you are on a page, but it does not alter the page layout or provide full accessibility features for screen readers. For example, this mode does not provide table summaries and column headings for every table column.

4. Click OK to save your changes.

5. Sign out of the system and sign in again to display the accessibility features on the page.

Note: Keyboard-only navigation features are available to all users and do not require users to enable accessibility features.

Navigating with the Keyboard

This section provides an overview of keyboard shortcuts and discusses how to:

- Use hot keys.

- Use access keys.

- Navigate drop-down menus using keyboard shortcuts.

- Use the keyboard with the NavBar.

- Navigate calendar controls using keyboard shortcuts.

- Set navigation personalizations.

Understanding Keyboard Shortcuts

Working in a browser-based environment can often be mouse intensive. However, PeopleSoft applications offer keyboard navigation alternatives to using a mouse. These shortcuts are classified into two categories: hot keys and access keys. Hot keys perform immediate actions. Access keys move your cursor to a particular location.

To view a printable list of all shortcuts while on a search or transaction page, press Ctrl+K.

Note: Certain browsers may treat access keys and hot keys differently.

See "Troubleshooting Browser Limitations" on My Oracle Support for specific information about browser differences.

Using Hot Keys

Hot keys perform immediate actions. When you press one, the designated action occurs. Note that several hot keys perform different functions, depending on the page that you are on, such as a transaction page or a search page.

Note: Certain PeopleSoft hot keys do not work as expected on alternate, non-U.S. keyboard layouts. For example, ALT+', ALT+\, and ALT+/ do not produce the expected results on the AZERTY keyboard. This occurs because some keys on non-U.S. keyboards produce different key codes than the same key on a U.S. keyboard (also known as a QWERTY keyboard).
You can find a solution to this problem in Global Technology.

See "Understanding Troubleshooting" (PeopleTools 8.54: Global Technology).

Key or Key Combination	*Result*
ALT+1	Saves a page in a transaction. Moves to the Search or Add button on a search or lookup page. Moves to the OK button on a secondary page.

Key or Key Combination	Result
ALT+2	Returns to the search page from a transaction page.
ALT+3	Views the next row in the list when the button is active.
ALT+4	Views the previous row in the list when the button is active.
ALT+5	Accesses the Look Up page that lists the valid values for a field. Opens the calendar prompt.
ALT+6	Opens the pop-up window on a page.
ALT+7	Inserts a row in a grid or scroll area.
ALT+8	Deletes a row in a grid or scroll area.
ALT+0	In Expert Entry mode, activates the Refresh button, which validates the data that you enter on a page.
ALT+ .	Views the next set of rows in a grid or scroll area.
ALT+ ,	Views a previous set of rows in a grid or scroll area.
ALT+ /	Finds data in a grid or scroll area.
ALT+ '	Views all rows of data in a grid, scroll area, or search page results list.
ALT+ \	Toggles between the Add a New Value and Find an Existing Value fields on a search page.
ALT+ ;	Displays the context menu.
CTRL+ J	Displays the system information page if it is configured by an administrator to appear.
CTRL+ K	On a search or transaction page, displays a list of keyboard navigation hot keys and access keys.
CTRL+ Y	Toggles the Main Menu drop-down menu between expand and collapse. Toggles the Menu pagelet between minimize and maximize.
CTRL+TAB	Moves the focus through the frame set.
ENTER	Activates the OK button, where appropriate. On a search page, activates the Search button. On a lookup page, activates the Lookup button.
ESC	Activates the Cancel button, where appropriate.

Using Access Keys

Access keys move your cursor to a particular place on a page (such as a button or link), to another page in a component, or to another tab in a grid.

Note: Some access keys have multiple actions assigned to them, and their usage depends on the currently active page.

To identify the access key that you use to move to another page tab in a component or to another tab in a grid, look for the underlined letter in the tab name. To access the page, press Alt plus the underlined letter, and then press Enter.

In addition, you can use the following general access keys:

Key or Key Combination	Result
Alt + 9	Accesses page bar elements, such as Help.
Alt + \	Toggles between Update/Display, Include History, and Correct History action modes on the toolbar on a transaction page.
Ctrl + Z	Accesses the menu search field if it is enabled.

Menu Pagelet Access Keys

Navigate between menus by pressing Ctrl+Z, which moves the focus of your cursor to the menu pagelet. From the menu, press Tab (or Shift+Tab for reverse direction) to navigate through the menu.

Navigating Drop-Down Menus Using Keyboard Shortcuts

This table lists the key or key combinations that you use to navigate the drop-down menu structure and the results of using those keys:

Key or Key Combination	Result
Ctrl + Y	Expands the Main Menu.
Ctrl + Z	If the search field is configured to appear in the Main Menu, expands the Main Menu and moves the cursor to a search field.
Tab	If the search field is configured to appear in the Main Menu, press Tab to move past the search field and sort icons to access the menu items.
Up Arrow	Varies based on context: • In an expanded menu, moves one item upward through a list of folders and content references. • When moving through the navigation path, collapses a drop-down menu item.

Key or Key Combination	*Result*
Down Arrow	Varies based on context: • In an expanded menu, moves one item downward through a list of folders and content references. • When moving through the navigation path, expands a drop-down menu item.
Right Arrow **Note:** This functionality applies only to languages read from left to right.	Varies based on context: • In an expanded menu, opens a folder to the right so that subfolders or content references appear. • When moving through the navigation path, accesses the next menu item to the right.
Right Arrow **Note:** This functionality applies only to languages read from right to left.	Varies based on context: • In an expanded menu, closes the current folder and sets the focus on its parent folder. • When moving through the navigation path, accesses the next menu item to the right.
Left Arrow **Note:** This functionality applies only to languages read from left to right.	Varies based on context: • In an expanded menu, closes the current folder and sets the focus on its parent folder. • When moving through the navigation path, accesses the next menu item to the left.
Left Arrow **Note:** This functionality applies only to languages read from right to left.	Varies based on context: • In an expanded menu, opens a folder to the right so that subfolders or content references appear. • When moving through the navigation path, accesses the next menu item to the left.
Esc	Closes all open menu items. Collapses all expanded menus.

Important! Beginning with PeopleTools 8.51, the drop-down menu is the default navigation type in both Standard and Accessible Layout modes.

Using the Keyboard with the NavBar

The navigation bar (NavBar) is a widget that provides quick access to pages and folders in your PeopleSoft system. The NavBar contains buttons on the left that, when activated, display a list of

associated items to the right. The list items can be links, folders, or other objects. Users can use the list items to access a page or folder, without having to navigate through the main menu.

Image: Navigation Bar (NavBar)

This example illustrates the appearance of the NavBar
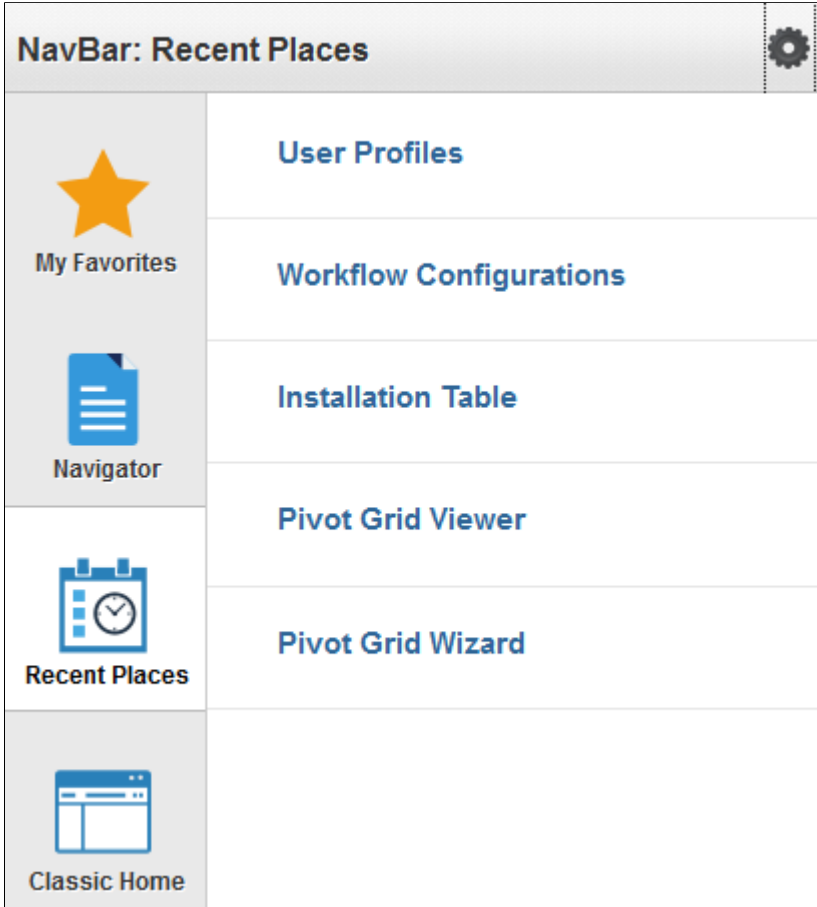
You can use the following keys within the NavBar:

Key or Key Combination	Result
Tab Shift + Tab	Moves the focus through the NavBar buttons and list items.
Enter	When focus is on a NavBar button: activates the selected button, displaying the associated list items. When focus is on a NavBar list item: activates the selected item, accessing the associated page or folder.

For accessible users, there is a known limitation when using the NavBar; navigation between the NavBar buttons and list items can be problematic. When you activate a button, look for the list.

For more information, see bug 19647258 on My Oracle Support.

Navigating Calendar Controls Using Keyboard Shortcuts

This table lists the key or key combinations that you use to navigate through calendar controls and the results of using those keys:

Key or Key Combination	*Result*
Ctrl + Page Up	Moves to the same date in the previous year.
Ctrl + Page Down	Moves to the same date in the next year.
Page Up	Moves to the same date in the previous month.
Page Down	Moves to the same date in the next month.
Ctrl + Home	Moves to the current date.
Enter	Submits the form.
Esc	Closes the calendar without any action.
Up Arrow	Moves to the same day of the week in the previous week.
Down Arrow	Moves to the same day of the week in the next week.
Left Arrow	Moves to the previous day.
Right Arrow	Moves to the next day.

Setting Navigation Personalizations

If you use the tab key frequently to navigate, you can skip page elements that you know you will not need to access. For example, if you always type the date into a date field and then press Tab to move quickly to the next field rather than opening the calendar prompt, selecting the date, and then closing the prompt, then you can set your navigation personalizations to always tab over the calendar prompt. To do this:

1. Select My Personalizations in the main menu.

    The Personalizations page appears.

2. Click the Personalize Navigation Personalizations link.

3. Select the options that you want to personalize, and click OK.

Related Links
"Setting User Personalizations" (PeopleTools 8.54: Applications User's Guide)
"Working With Fluid Pages and Controls" (PeopleTools 8.54: Applications User's Guide)
Applications User's Guide

Chapter 4

Using PeopleTools to Build Accessible Applications

Determining Whether Users Are in Accessible Layout Mode Using PeopleCode

Users activate Accessible Layout mode in their personalizations. PeopleTools provides a PeopleCode function to determine a user's layout mode personalization setting. For example:

```
&access = GetUserOption("PPTL","ACCESS");
If &access = "A" then
/*  Logic for accessible layout mode user */
Else
/*  Logic for non-accessible layout mode user */
End-if
```

Enabling Users to Complete Tasks Using the Keyboard

This section explains how to design applications according to the following WCAG 2.0 standards:

- 2.1.1 - Keyboard: All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints.

- 2.4.3 - Focus Order: If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.

This section discusses how to:

- Maintain a logical tab order.

- Assign keyboard shortcuts.

Maintaining a Logical Tab Order

Maintaining a logical tab order on your page is critical because blind and visually impaired users cannot see the groupings or field proximity. In Accessible Layout mode, PeopleTools automatically linearizes pages based on the tab order, so the tab order must be set up correctly in each page definition in PeopleSoft Application Designer.

Tab order is also important for sighted users who use the keyboard to navigate because it can be confusing if the cursor moves to fields in an order that is different from how they appear on the screen.

This section discusses how to:

- Order controls logically

- Test the tab order

- Change the tab order

Ordering Controls Logically

Tab ordering through a page at runtime is strictly defined by page field ordering. When you add a control to a page, PeopleSoft Application Designer automatically inserts it in the order list based on where you position it on the page. You can manipulate the ordering of fields on your page by moving them up or down on the Order tab in the page definition. In doing so, you also change the tab order that users follow as they move through fields on the page.

In general, field tab order should flow from top left to bottom right on a page. The flow should reflect the way that the eye naturally scans information. On a page with multiple scroll levels, the tab order should follow the scroll level order, from Level 0 to Level 1, and so on. In a noncolumnar page, the tab order should go from left to right on each line from top to bottom. For example:

Image: Example flow of a noncolumnar page

This example illustrates correct field tab order flow on a noncolumnar page.
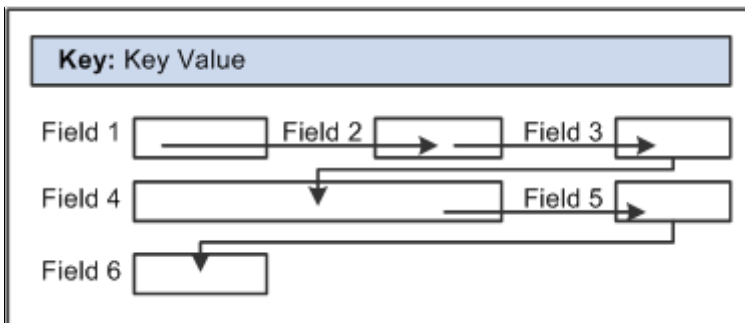
In a columnar page, the tab order should go from the top to the bottom of the first column, and then from the top to the bottom of the second column, and so on. For example:
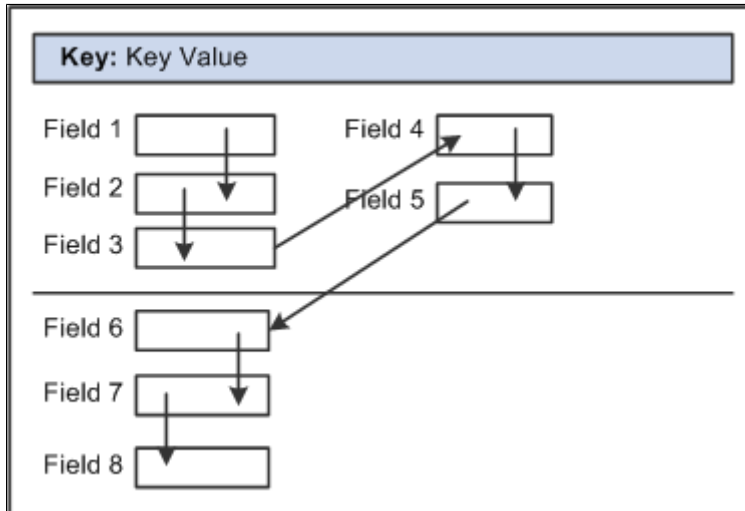
Image: Example flow of a columnar page with two columns

This example illustrates correct field tab order flow on a page with two columns.

Fields that share the same label should follow consecutively in the tab order from left to right.

Testing the Tab Order

After you have placed all of the controls on your page, you should test the tab order. You can do this by viewing the page in the browser and tabbing through the page controls.

Note: The tab order that you establish at design-time may not apply for all browsers. For more information, see the *PeopleTools Browser Compatibility Guide* on My Oracle Support.

Changing the Tab Order

The Order tab of the page definition displays attributes about each of the page fields and their field order. The ID column represents the order in which the field was added to the page. If you modify the order of page fields on the page, note that the numbers assigned to each field remain constant. Thus the IDs may not always appear in sequential order. The field ID appears in the Compare report when a database compare is performed to assist you in identifying specific page fields.

Reorder page fields on the Order tab by dragging them in the same view. Changing the order list does not change the physical location of controls on the page. It changes only the logical order or tab order in which controls are processed. When you have added and arranged all of your controls, you may want to print your page definition to see how you might need to reorder your controls.

The Order tab also governs processing rules for scrolls and record or field relationships. Consider which controls are associated with which scroll area or scroll bar and which secondary relationships are important to page processing.

To change the order list:

1. Open the page definition in PeopleSoft Application Designer.

2. Select the Order tab.

3. To move a control to another position in the control order list, select the control that you want to move.

    Press the Shift key to select multiple controls.

4. Drag the selected control to the new position on the Order tab.

    The system moves the control to the new location in the list. The ID value remains static. The visual display of the page still looks the same—changing the order list does not move the control on the page, only the logical processing order of the control.

Important! When viewing your page in Test Mode, page fields cannot be accessed, moved, or modified from the Order tab if the page definition contains a sub page. Exit Test Mode to rearrange page fields in the order list.

Related Links

"Ordering and Spacing Page Controls" (PeopleTools 8.54: Application Designer Developer's Guide)

Assigning Keyboard Shortcuts

Use keyboard shortcuts to improve usability for users who use a keyboard rather than a mouse. PeopleSoft applications use two kinds of keyboard shortcuts: hot keys and access keys.

See Understanding Keyboard Shortcuts.

This section discusses how to:

*   Assign access keys to page tabs.

*   Assign access keys to grid tabs.

Assigning Access Keys to Page Tabs

To assign access keys to page tabs:

1. Open the component definition in PeopleSoft Application Designer.

2. Enter an ampersand (&) in the text of the item label for the page preceding the letter that you want to assign as the access key.

The access key letter is underlined on the page tab at runtime. For example:

Image: Item labels with ampersands

This example illustrates using ampersands to assign access keys.

	Page Name	Item Name	Hidden	Item Label
	Definition	Structure		
1	JOB_DATA1	JOB_DATA_1	☐	Work Location
2	JOB_DATA2_US	JOB_DATA_2	☐	&Job Information
3	JOB_DATA3	JOB_DATA_3	☐	Job &Labor
4	JOB_DATA_ERNDI	JOB_EARNINGS_DIST	☐	&Payroll
5	JOB_DATA_BENP	BENEFIT_PROGRAM_	☐	&Salary Plan
6	EMPLOYMENT_DT	EMPLOYMENT_DATA_	☐	&Compensation

Note: Make sure that the access key that you assign does not conflict with any other access keys that are assigned in the component.

At runtime, a user can navigate between pages by pressing the Alt key plus the letter that is underlined, followed by the Enter key.

Image: Underlined access keys on tabs

This example shows underlined access keys that the user sees at runtime.

Work Location	Job Information	Job Labor	Payroll	Salary Plan	Compensation

Assigning Access Keys to Grid Tabs

To assign access keys to grid tabs:

1. Open the grid tab separator properties in PeopleSoft Application Designer.

2. On the Label tab, enter an ampersand (&) in the label text preceding the letter that you want to assign as the access key.

   The access key letter is underlined on the grid tab at runtime.

   Note: Make sure that the access key that you assign does not conflict with any other access keys that are assigned on the page.

At runtime, a user can navigate between grid tabs by pressing the Alt key plus the letter that is underlined, followed by the Enter key.

Related Links

"Defining Components" (PeopleTools 8.54: Application Designer Developer's Guide)
"Using Grids" (PeopleTools 8.54: Application Designer Developer's Guide)
"Creating HTML Definitions" (PeopleTools 8.54: Application Designer Developer's Guide)

Maintaining the Focus

This section explains how to design applications according to the following WCAG 2.0 standards:

- 2.4.7 - Focus Visible: Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.

- 3.2.1 - On Focus: When any component receives focus, it does not initiate a change of context.

PeopleTools is designed to provide clear feedback on the position of the cursor on-screen and to enable assistive technology to track the cursor focus. When accessibility features are on (in both Standard and Accessible Layout modes), the on-screen focus is indicated by a thick dark outline around the field that is in focus.

To help assistive technology maintain the focus, set up applications to use the Deferred processing mode, which batches field-level events and processes them the next time the user triggers a server trip. Interactive mode processes field level events as they occur, giving users immediate feedback. However, each server trip refreshes the page. This refresh may cause some screen readers to lose focus of the field that the user was on, resulting in the screen readers going back to the top of the page and reading the page from the beginning. Some screen reader users may waste time finding their place again after a screen refresh. Interactive mode might still be appropriate in some situations, such as when one field on a page is dependent on another, but use it judiciously and test it with screen readers.

You can select Deferred mode at the page control, grid, page (include subpage and secondary page), and component levels. For a page control in the component to run in Deferred mode, you must select Deferred mode at each of those levels. Deferred mode is the default processing mode at all levels.

This section discusses how to:

- Set Deferred mode at the page control or grid level.

- Set Deferred mode at the page level.

- Set Deferred mode at the component level.

Related Links
"Improving Online Performance" (PeopleTools 8.54: Application Designer Developer's Guide)

Setting Deferred Mode at the Page Control or Grid Level

To set Deferred mode at the page control or grid level:

1. Open the properties for the control or grid in PeopleSoft Application Designer.

2. On the Use tab, select the Allow Deferred Processing check box.

Related Links
"Understanding Page Controls" (PeopleTools 8.54: Application Designer Developer's Guide)
"Using Grids" (PeopleTools 8.54: Application Designer Developer's Guide)

Setting Deferred Mode at the Page Level

To set Deferred mode at the page level:

1. Open the page properties in PeopleSoft Application Designer.

2. On the Use tab, select Allow Deferred Processing.

Related Links

"Producing Pages" (PeopleTools 8.54: Application Designer Developer's Guide)

Setting Deferred Mode at the Component Level

To set Deferred mode at the component level:

1. Open the component definition in PeopleSoft Application Designer.

2. Select the Allow Deferred Processing check box for every page in the component.

3. Open the component properties.

4. On the Internet tab, select Deferred for the processing mode.

Related Links

"Setting Component Properties" (PeopleTools 8.54: Application Designer Developer's Guide)

Identifying Images and User Interface Elements

This section explains how to design applications according to the following WCAG 2.0 standards:

- 1.1.1 - Non-text Content: All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, except for the situations listed below: Controls, Input; Time-Based Media; Test; Sensory; CAPTCHA; and Decoration, Formatting, Invisible.

- 1.3.1 - Info and Relationships: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

- 2.4.6 - Headings and Labels: Headings and labels describe topic or purpose.

- 3.3.2 - Labels or Instructions: Labels or instructions are provided when content requires user input.

Ensure that all user interface elements have descriptive labels. PeopleTools provides the ability to add labels to user interface elements, but it does not automatically insert labels. You must add them manually.

User interface elements include functional images, page controls (such as push buttons and edit boxes), grids, group boxes, and scroll areas. Functional images include image buttons and links and images that convey meaningful information, such as status. Meaningful labels are vital for blind or visually impaired users so that they can understand the meaning of an image through screen readers. Image labels also clarify the meaning of images for sighted users, because the labels appear as mouse-over text in some browsers. Decorative images, such as invisible spacer files or images that do not serve a functional purpose other than to provide visual interest, should have blank labels.

35

Note: When you assign labels to images in PeopleSoft Application Designer, PeopleTools generates alternate text (`<ALT>` HTML tags) based on the labels at runtime. These labels are visible to all users as mouse-over text in some browsers, regardless of whether the system administrator makes the accessibility features available to users in PeopleTools Security.

Oracle recommends that you use the browser zoom utility, as opposed to the text zoom, to avoid distortion on the page. If the text zoom is used, the text becomes larger, but the corresponding buttons, grids, and so on, do not change, so the page becomes distorted.

This section discusses how to:

- Create meaningful label text.

- Assign labels to user interface elements.

- Remove labels from decorative images.

- Provide text equivalents for charts and graphs.

- Assign labels for grid columns and rows.

- Assign titles and summaries for grids and scroll areas.

- Hide labels.

- Use pop-up message windows for important information.

Creating Meaningful Label Text

This section provides general guidelines for creating label text, but this information is not meant to be a complete discussion about text. You should consult other resources, as well.

Follow these general guidelines when you create label text to assign to user interface elements:

- Use descriptive text that explains the specific function or purpose of the user interface element.

  For example, do not create a link labeled "Click here." Use a descriptive label, such as "Return to Previous Page."

- Use unique labels for all images and controls on a page.

  Many screen readers generate lists of the various controls (such as buttons and links) on a page to make it easier for users to navigate without having to tab through the entire page. If two buttons on a page have the same name, users may not be able to determine which one they need from the list that is generated by the screen reader.

  For example, if you create a page to send an email, do not include a "Find" link for the To field and another "Find" link for the CC field. In a screen reader, the list of links displays two "Find" links but no additional information to differentiate between them.

Note: Within grids, the same fields, buttons, and links appear in every row. However, these are not considered duplicates because screen readers typically read the row number with each label (for example, "row 1 Details link," "row 2 Details link," and so on).

- Avoid using abbreviations in labels.

Screen readers read abbreviations differently. For example, some read *Nbr* as a word and others read it as individual letters, either of which could confuse users.

- Avoid using punctuation and symbols in labels.

  Screen readers interpret symbols differently. For example, some read # as *number* and some read it as *pound.*

- Do not modify formatting styles to add color, bold, or italicized text to labels because screen readers do not recognize formatting changes.

- Do not use device-dependent language such as "Click" in link text.

  Not all users use a mouse, so the word *click* can be misleading.

Assigning Labels to User Interface Elements

To assign labels to user interface elements:

1. Open the properties for the image or page control in PeopleSoft Application Designer.

2. On the Label tab, select the type of label, and enter or select the label text.

   Label types include a message from the Message Catalog, custom label text, or the RFT long or RFT short label if the image or control is associated with a record field. (Not all label types are available for all types of controls.) The Message Catalog is the preferred source of label text because it can be translated. The Message Catalog contains labels for the following types of page elements: folder tabs, scroll left and right buttons, hide and show grid tabs, prompt buttons, expand and collapse grid buttons, group boxes, and scroll areas.

   Follow these principles when choosing the type of label:

   - For buttons and links that perform a function, choose a label that describes the function (for example, Search or Save).

   - For data entry fields, choose a label that describes what to enter in the field.

   - If an image displays text, choose a label that is exactly the same as the text in the image.

   - If an image is not active but conveys information, choose a label that conveys the same information (for example, a description of the status).

   - If an image is redundant or conveys no information, leave the label blank.

Guidelines for Data Entry Field Labels

To ensure that screen readers read data entry field labels properly, use the following general guidelines when creating field labels:

- Avoid repeating group box labels in the field labels within the group box.

  When you include fields within a group box, screen readers read the group box label before each field label within the group box.

- Avoid adding additional text after the field that explains information about what the user should enter.

  Screen readers do not typically read this type of text with the field labels. Instead, a user must specifically command the screen reader to read the entire page or a particular area of the page. As an alternative to including additional text after the field, make the field label more descriptive.

- Do not use static text or a second independent field as the label for a data entry field.

  Doing so may cause confusion for some blind or visually impaired users because not all screen readers interpret these situations correctly. Always assign the label to the field in the properties for that field.

- Do not insert a text field above a column of entry fields to simulate a table and column heading.

  Instead, assign a unique label to each field or use a grid, if appropriate.

- Size edit boxes, long edit boxes, and drop-down list boxes so that the full contents are visible without horizontal scrolling.

- Place labels close to the corresponding fields.

  For edited boxes, long edited boxes, and drop-down list boxes, place labels to the left (or above) the field. For check boxes and radio buttons, place labels to the right.

  Note: Do not place entry fields between radio buttons. This placement may interfere with how screen readers read the radio buttons.

Guidelines for Group Boxes

If group boxes are used only for *visual layout* purposes, select the Suppress Accessible Label check box in Application Designer on the Group Box Properties – Label tab. This prevents screen readers from reading the label in accessibility mode.

Avoid nesting group-boxes unnecessarily as this can lead to confusion for screen reader users. It is recommended to use only one level deep for group boxes. For additional levels, use a header.

Guidelines for Push Buttons and Links

If links are close together, include a vertical separator (|) between links to help users differentiate between the links on the screen.

Related Links
"Understanding Page Controls" (PeopleTools 8.54: Application Designer Developer's Guide)
"Setting Page Field Properties for Controls" (PeopleTools 8.54: Application Designer Developer's Guide)
"Using Multiple Labels" (PeopleTools 8.54: Application Designer Developer's Guide)
"Using Group Boxes" (PeopleTools 8.54: Application Designer Developer's Guide)

Removing Labels from Decorative Images

If images have no information to convey to users and do not serve as navigation, they should not have labels. Images used as spacers, such as invisible GIFs, also should not have labels.

To remove labels from images:

1. Open the properties for the image in PeopleSoft Application Designer.

2. On the Label tab, set the Label Text Type field to *Static Text.*

3. Delete any characters from the Text field if it is present.

    You do not need to enter a space. Leave the Text field blank.

Providing Text Equivalents for Charts and Graphs

Charts and graphs present data as images or client-side image maps with links to navigate to details about the data. Because charts and graphs typically display significant amounts of data, providing alternate text labels for the chart or graph images is usually not enough to make the data accessible to people using screen readers. To make charts and graphs more accessible:

*   Do not use ASCII images to display charts and graphics; use the objects that are provided in PeopleTools.

*   Do not use color alone to convey information in charts and graphs.

    See Providing Alternatives to Color Coding to Convey Meaning.

*   Provide textual information to describe the content of charts and graphs.

    You can insert a static text field to describe the charts and graphs, but also consider displaying the underlying table information of the chart or graph in a grid format in Accessible Layout mode. This method ensures that users in Accessible Layout mode get the same information that the chart or graphic image conveys.

Note: The label that you specify on the Label tab of the Chart Properties dialog box is for information-only and does not appear at runtime. This label appears on the control order list on the Order tab of the page definition and any page definition report that you print.

Related Links

"Using Charts" (PeopleTools 8.54: Application Designer Developer's Guide)

"Using Static Text" (PeopleTools 8.54: Application Designer Developer's Guide)

"Charting Classes Reference" (PeopleTools 8.54: PeopleCode API Reference)

Assigning Labels for Grid Columns and Rows

When you create grids, make sure that you include column headings for all visible columns, including columns that contain images and links. In addition, avoid adding grid controls (such as scroll actions). Grid controls that you add are not included automatically within the page area that is skipped by the PeopleTools-generated page anchor.

Column headings and their alignment are derived from the label text that you select on the Label tab in the properties for the page control or page field that you assign to the column. Therefore, you must make sure that the associated page controls or data entry fields have appropriate labels, according to the guidelines in the preceding sections. Also make sure that you select the Show Column Headings (runtime) check box on the Label tab in the Grid Properties dialog box.

If adding column headings will interfere with usability for sighted users, you can hide the grid column titles so that they appear only in Accessible Layout mode by adding PeopleCode that renames the column headings at runtime.

Row headings can be assigned in Application Designer, by providing a value for the Row Header option. If Row Header is not specified, then the row header generated by default is the row number plus the first display-only edit field.

Related Links

Hiding Labels

Providing Links to Skip Repetitive Navigation

"Understanding Scroll Areas, Scroll Bars, and Grids" (PeopleTools 8.54: Application Designer Developer's Guide)

PeopleCode Developer's Guide

PeopleCode Language Reference

Assigning Titles and Summaries for Grids and Scroll Areas

Include titles and descriptive summaries for all grids and scroll areas. To do this:

1. Open the properties for the grid or scroll area in PeopleSoft Application Designer.

2. On the Label tab, select the Display Title check box.

3. Click the Properties button for the display title to open the Title Properties dialog box.

4. Enter the Label text that you want to appear in the title:

Type	Select the type of label text to appear in the navigation bar.
	Message Catalog: Select this option to use a message in the Message Catalog as the title.
	Static: Select this option to manually enter text as the title.
Text	Enter the text to appear as the title of the scroll area. This field is enabled when you select *Static* as the Label Text type.
Message Set/Number	Enter the message set number and message number of the message in the Message Catalog to appear as the title of the scroll area. This field is enabled when you select *Message Catalog* as the Label Text type.

5. Click OK to return to the Label tab in the properties.

6. Click the Properties button in the Summary group box to open the Summary Properties dialog box.

Note: The default value of the summary matches the title. However, you should add a more detailed description of the contents of the grid or scroll area to make the summary more useful in Accessible Layout mode.

7.   Clear the Default to Title check box to activate the other Summary options.

8.   Enter static text or enter a message set and number to use text from the Message Catalog.

9.   Click OK twice.

Related Links

"Understanding Scroll Areas, Scroll Bars, and Grids" (PeopleTools 8.54: Application Designer Developer's Guide)

Hiding Labels

In some cases you might want to hide labels so that they do not appear on screen but are still read by screen readers in Accessible Layout mode. For example, a currency field that appears to the right of an amount field may not require a visible label for sighted users. However, blind users often navigate to fields from a list of fields that the screen reader generates, so each field requires a label.

To hide labels while still enabling screen readers to access them:

1.   Open the properties for the page control or page field in PeopleSoft Application Designer.

2.   On the Label tab, make sure that a label is selected and change the style to *PTTRANSPARENT.*

This style is set up to be invisible except for users in Accessible Layout mode.

Note: If you use PTTRANSPARENT for a check box label, make sure that no fields are close to the check box label, even though it is transparent, because it might overlap the field.

Using Pop-Up Message Windows for Important Information

If you use a field or an HTML area to display text that contains important information, such as error messages, use PeopleCode to display the message in a pop-up window in Accessible Layout mode. Screen readers do not typically read display-only field values unless a user specifically commands the screen reader to read the entire page or a particular area of the page.

The following example shows how to create this type of PeopleCode:

```
If All(&CAL_FINAL_TS) Then
  If GetUserOption("PPTL", "ACCESS") = "A" Then
   MessageBox(%MsgStyle_OK, "", 17000, 407, "");
  End-If;
  &rs0(1).DERIVED_GP.TEXT254.Value = MsgGetText(17000, 407, "");
  &rs0(1),DERIVED_GP.TEXT254.Visible = True;
Else
```

Related Links

PeopleCode Developer's Guide

PeopleCode Language Reference

Using Images Consistently

This section explains how to design applications according to the following WCAG 2.0 standard:

3.2.3 - Consistent Navigation: Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user.

Before creating your own images, check the Image Catalog in PeopleSoft Application Designer to see if an existing image is already available. The images are categorized by function and listed alphabetically by image name. Always use images only for the purpose that is specified in the Image Catalog. If you create new images, use them consistently. For example, you should always use the following image for the Search button:

Image: Search button

This example shows the Search button.
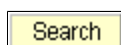
To see a complete list of available images and their purposes, access the Image Catalog by selecting File, Open, Image in PeopleSoft Application Designer.

In addition, if you use images to convey status, make sure that you are using the status indicator images correctly.

See Providing Alternatives to Color Coding to Convey Meaning.

Related Links
"Creating Image Definitions" (PeopleTools 8.54: Application Designer Developer's Guide)

Enabling Users to Override Contrast and Color Selections

This section explains how to design applications according to the following WCAG 2.0 standard:

1.4.3 - Contrast (Minimum): The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following: Large Text, Incidental, and Logotypes.

PeopleTools uses style sheets to apply text and background colors in the applications. System administrators can change colors and contrast settings for all users by modifying the delivered style sheets or by creating multiple style sheets.

In PeopleTools, style sheets are definitions, like record or page definitions, that you create and maintain in PeopleSoft Application Designer. To modify colors in style sheets:

1. Open the style sheet definition in PeopleSoft Application Designer.

2. Access the Classes dialog box.

3. Change font colors on the Font tab and change background colors on the Background tab.

Note: Do not use color to convey meaning. For more information, see <u>Providing Alternatives to Color Coding to Convey Meaning</u>.

Related Links
"Understanding Style Sheets and Style Classes" (PeopleTools 8.54: Application Designer Developer's Guide)

Providing Alternatives to Color Coding to Convey Meaning

This section explains how to design applications according to the following WCAG 2.0 standard:

1.4.1 - Use of Color: Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

Do not use color as your only way to convey information. Include a redundant clue so that users who are blind or color-blind are aware that a field or process is special or different. For example, do not change the background or text color to red to indicate an error. Another common mistake is to use an icon that changes color based on status but is otherwise the same. Color-blind users cannot distinguish between certain colors, nor can screen readers. In addition, if a user prints a page on a black and white printer, color-dependent items on the page become indistinguishable.
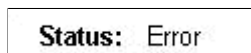
When showing status, you have two options:

*   Use a display-only text field with the label Status to indicate status.

    For example:

    Image: Example of a display-only status text field

   This example shows a display-only status text field.

*   Use icons that have different colors and different shapes to represent the different status values.

    The following incorrect example shows status icons that are differentiated only by color:

    Image: Incorrect example of status icons that use only color to convey meaning

    This example illustrates status icons that use only color to convey meaning; this should be avoided.
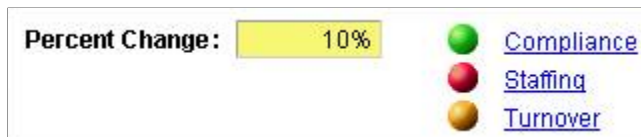
The following correct example shows status icons that have both different colors and different shapes:

Image: Correct example of status icons that use both color and shape to convey meaning

This example illustrates status icons that use both color and shape to convey meaning. This is desired.
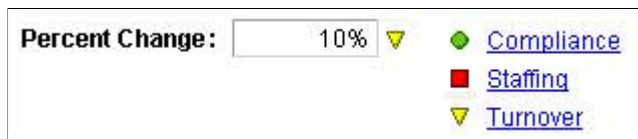
Note: When using icons, be sure to assign alternative text labels to the icons.

See Identifying Images and User Interface Elements.

For consistency, use the following icons to indicate status:

	PS_STATUS_OK_ICN: OK, normal, good
	PS_STATUS_CAUTION_ICN: Warning, caution, at risk
	PS_STATUS_ERROR_ICN: Error, critical
	PS_STATUS_CLOSED_ICN: Completed
	PS_STATUS_CANCELLED_ICN: Cancelled
	PS_STATUS_UNCHANGED_ICN: No status, status unchanged
	PS_STATUS_TREND_UP_ICN: Trend up
	PS_STATUS_TREND_STABLE_ICN: Trend unchanged

Note: In addition, do not use flickering, moving, blinking, scrolling, or auto-updating objects to indicate status.

Providing Links to Skip Repetitive Navigation

This section explains how to design applications according to the following WCAG 2.0 standard:

2.4.1 - Bypass Blocks: A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.

Use page anchors to enable users to jump to other areas of a page. For example, if a page contains a group of navigation links or a series of four or more text buttons in a row, users who navigate using the keyboard might not want to tab through those links or buttons every time they visit the page. You can enable them to skip repetitive page controls by adding a page anchor labeled "Skip Toolbar and Navigation Links" before the repetitive controls. You might also want to provide a way for users to return

to the repetitive controls, if they need them, by including another page anchor labeled "Return to Toolbar and Navigation Links" to take them back.

To add these page anchors:

1. Insert a push button/hyperlink object on the page using PeopleSoft Application Designer.

    Locate the new object immediately before the controls to be skipped.

2. Open the properties for the new object.

3. On the Type tab, change the type to Hyperlink, add a record and field name, and change the destination to *Page Anchor*.

    Leave the related control blank. You add this information after you create the return object.

4. On the Label tab, enter a label using the Message Catalog.

5. On the General tab, enter a page field name and select the Enable as Page Anchor check box.

    The page field name is used as a reference later in the PeopleCode.

6. Add another push button/hyperlink object to the page after the repetitive controls that you want to skip.

7. Open the properties for the new object.

8. On the Type tab, change the type to *Hyperlink,* add a record and field name, change the destination to *Page Anchor,* and enter the page field name for the first object (the name that you entered on the General tab of the properties for that object) in the Related Control field.

9. On the Label tab, enter a label using the Message Catalog.

10. On the General tab, enter a page field name and select the Enable as Page Anchor check box.

11. Open the properties for the first object again and enter the page field name of the second object in the Related Control field on the Type tab.

12. Click OK, and then save the page.

13. Add PeopleCode to hide the page anchors when users are not in Accessible Layout mode. For example:

```
/* Check if accessibility mode is on. If on then show anchors else hide the an⇒
chorst */
&access = GetUserOption("PPTL", "ACCESS");
If &access = "A" Then
   GetField(HRS_J03_NAV_WRK.HRS_J0360_SKIP).Visible = True;
   GetField(HRS_J03_NAV_WRK.HRS_J0360_RET).Visible = True;
Else
   GetField(HRS_J03_NAV_WRK.HRS_J0360_SKIP).Visible = False;
   GetField(HRS_J03_NAV_WRK.HRS_J0360_RET).Visible = False;
```

Creating HTML That Is Not Generated by PeopleTools

If a page contains HTML that is not generated by PeopleTools (such as code in HTML areas) or an applet, you must code to the WCAG 2.0 AA accessibility standards. The applicable WCAG 2.0 standards are all Level A and AA standards.

See www.w3.org/TR/WCAG20.

Related Links
"Creating HTML Definitions" (PeopleTools 8.54: Application Designer Developer's Guide)

Testing for Accessibility

When testing for accessibility, it's important to include a wide variety of users with various disabilities, test various assistive technologies, and include a combination of manual testing (for example, with the keyboard) and automated testing using scripts or browser add-ons to verify the HTML code. Various web resources and books are available outside of Oracle to help you develop your testing plan.

In addition, the HTML code that is generated for users who enable accessibility features is different from the HTML code that is generated for users who do not enable the accessibility features. Therefore, you must test for accessibility in all of the available accessibility modes:

• Test in Accessible Layout mode with various assistive technology, such as screen readers.

  If possible, test with users who are familiar with how the assistive technology works.

• Test in Standard Layout mode (with accessibility features on) to verify the accessibility features for users with low vision.

• Test keyboard navigation with accessibility features turned off.

  Many accessibility users do not have vision problems, but they still use the keyboard instead of a mouse due to physical discomfort or disabilities.

Note: Testing for accessibility with the accessibility features turned off does not work for screen readers because most accessibility features are available only in Accessible Layout mode. Although Accessible Layout mode may be more difficult to navigate for sighted users, you must use it to test with screen readers.

To determine the full list of features that you need to test, review the WCAG 2.0 Level A and AA standards.

The following list provides a high-level overview of the accessibility features that you should test after customizing applications in PeopleSoft Application Designer:

• Can users complete tasks using only the keyboard?

  • Is the tab order correct?

- Are keyboard shortcuts assigned to page tabs and grid tabs?

- Do screen readers track the on-screen focus?

  - Do pages use the Deferred processing mode?

  - If pages do not use Deferred processing, is field processing minimized?

- Do all functional images and user interface elements have meaningful, unique labels?

  - Do functional images (static, dynamic, and button) have labels?

  - Do data entry fields have labels?

  - Do push buttons and hyperlinks have labels?

  - Do grid columns have labels?

  - Do grids and scroll areas have titles?

  - Do grids have summaries?

  - Are labels deactivated for decorative images?

- Are images used consistently?

- Do foreground and background colors provide sufficient contrast?

- Do pages provide alternatives to color coding to convey meaning?

- Do pages contain links to skip repetitive navigation?

- Is HTML that is not generated by PeopleTools (such as code in an HTML area) or an applet coded to the WCAG 2.0 AA accessibility standards?

Appendix A

PeopleTools Accessibility Improvements by Release

PeopleTools 8.50 Accessibility Improvements

This table describes accessibility improvements for release 8.50 by product area:

Product Area	Improvements	PeopleBook Cross-References for More Information
Portal	• Redesigned the portal header to use list items for all links. • Rewrote the portal menu to use list items, which work better with screen readers than the older nested tables. List items make it easier for users to navigate the system. • Modified pagelet icons for minimize, maximize, help, and refresh functions to be usable through the keyboard. Previous releases required the use of a mouse.	*PeopleTools 8.50: PeopleTools Portal Technologies PeopleBook,* "Modifying the Portal Interface" *PeopleTools 8.50: PeopleTools Portal Technologies PeopleBook,* "Administering Portals" *PeopleTools 8.50: PeopleTools Portal Technologies PeopleBook,* "Building Pagelets"

Product Area	Improvements	PeopleBook Cross-References for More Information
PeopleSoft Internet Architecture (PIA)	• Added page headers to all PIA pages, as follows: • <H1> tag for the page title. • < H2> tag for group boxes, grids, and scroll areas at level 0, using their titles. • <H3> tag for group boxes, grids, and scroll ares at level 1, using their titles. • <H4> tag for group boxes, grids, and scroll ares at level 2, using their titles. • <H5> tag for group boxes, grids, and scroll ares at level 3, using their titles. **Note:** All scroll areas and grids must have titles in order for some page headers to be generated. See <u>Assigning Titles and Summaries for Grids and Scroll Areas</u>. • Removed fieldset-legend tags from grid and scroll areas and replaced them with headers. • Improved grid areas by providing row and column header tags for every cell in a grid. These tags make it easier for users to navigate grids in edit mode. • Provided a title for the Expand/ Collapse icon. • Provided better and more usable error reporting on the PIA pages and the sign-on page. • Added the ISO Language attribute to all pages (added the %LanguageISO Meta-HTML variable). • Provided a better indicator on the current focus control. This indicator helps visually impaired users see where the cursor is focused on the screen. • Made required fields readable by screen readers. Screen readers now read "* (Star) required field" before required fields.	*PeopleTools 8.50: PeopleSoft Application Designer Developer's Guide,* "Creating Page Definitions" *PeopleTools 8.50: PeopleSoft Application Designer Developer's Guide,* "Creating Record Definitions" *PeopleTools 8.50: PeopleSoft Application Designer Developer's Guide,* "Using Scroll Areas, Scroll Bars, and Grids"

Product Area	Improvements	PeopleBook Cross-References for More Information
	• Updated the search results table so that screen readers read it correctly, and added a row counter to the summary table.	
PeopleSoft Application Designer	Provided the ability to populate summary text for grids so that users can provide descriptive information about grids. See Assigning Titles and Summaries for Grids and Scroll Areas.	*PeopleTools 8.50: PeopleSoft Application Designer Developer's Guide,* "Using Scroll Areas, Scroll Bars, and Grids"
PeopleTools pages	Improved the HTML of delivered PeopleTools pages, including PeopleSoft Tree Manager, Query, Process Scheduler, Integration Broker, Security, Portal, and navigation pages. Improvements include: • Removed unnecessary grid navigation headers (Skip and Jump). • Simplified portal headers and added header tags. • Removed unneeded anchor tags on pages. • Replaced <FONT> tags with style classes. • Replaced <U> tags with style classes. • Simplified navigation pages. • Reorganized some pages so that they are easier to use in Accessible Layout mode. • Labeled input fields. • Added column headings for grids. • Reviewed and clarified alternate text for images and buttons. • Added grid summaries to grids. • Reviewed and updated the tab order. • Noted all grid and scroll area sort indicators to help users identify which columns they can sort.	*PeopleTools 8.50: PeopleSoft Tree Manager PeopleBook* *PeopleTools 8.50: PeopleSoft Query PeopleBook* *PeopleTools 8.50: PeopleSoft Process Scheduler PeopleBook* *PeopleTools 8.50: PeopleSoft Integration Broker PeopleBook* *PeopleTools 8.50: Security Administration PeopleBook* *PeopleTools 8.50: PeopleTools Portal Technologies PeopleBook*

PeopleTools 8.51 Accessibility Improvements

This table describes accessibility improvements for release 8.51 by product area:

Product Area	Improvement	PeopleBook Cross-References for More Information
PIA	Created a new grid customization page for Accessible Layout mode. This page makes it easier for users to customize grids.	*PeopleTools 8.51: PeopleSoft Application Designer Developer's Guide,* "Using Scroll Areas, Scroll Bars, and Grids"
PeopleTools pages	Added or clarified labels on pages, including duplicate references. In some situations, duplicate references to the same text were removed so as not to confuse users.	*PeopleTools 8.51: PeopleSoft Application Designer Developer's Guide,* "Using Page Controls"
Portal	Made the drop-down menu available in Accessible Layout mode. The drop-down menu is usable through the keyboard and uses ARIA tags to improve integration with screen readers. This functionality enables users to identify a specific record as a favorite.	*PeopleTools 8.51: PeopleTools Portal Technologies PeopleBook,* "Understanding Portal Technology"
Navigation or Functional Area Navigation (FAN) pages	Simplified the navigation or FAN pages to use list tags instead of HTML tables. This functionality makes these pages easier for screen readers to process.	*PeopleTools 8.51: PeopleTools Portal Technologies PeopleBook,* "Working with Navigation Pages"
PeopleSoft Integration Broker and other specific product pages	Improved the HTML in Accessible Layout mode, including: • Simplified and added links on Integration Broker pages. • Simplified the portal header and reduced the number of bullets that users can encounter. • Simplified the Add to Favorites page in Accessible Layout mode to improve usability.	*PeopleTools 8.51: PeopleSoft Integration Broker PeopleBook*

PeopleTools 8.52 Accessibility Improvements

This table describes accessibility improvements for release 8.52 by product area:

Product Area	Improvement	PeopleBook Cross-References for More Information
PIA Core Technology	In Accessible Layout mode, append 'Required' to the label of the field so screen reader reads it properly.	*PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide,* "Creating Page Definitions" *PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide,* "Creating Record Definitions"
Rich Text Editor	Added additional language tags for Rich Text Editor.	*PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide,* "Creating Page Definitions" *PeopleTools 8.52: PeopleSoft Application User's Guide,* "Using PeopleSoft Application Pages"
Portal	Removed duplicate text on link if the alternate text is the same. Icons or buttons require the alternate text.	*PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide,* "Using Page Controls"
Portal or PIA Search Functionality	Added or clarified alternate text on icons and buttons. In some situations, duplicate references to the same text were removed so as not to confuse users.	*PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide,* "Using Page Controls"
PIA Core Technology	Removed extra label tags from non-form fields.	*PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide,* "Creating Page Definitions"
Portal	In accessibility mode, the keyboard-only navigation is not available for the Related Content or Related Actions context menu. Alternatively, you can use the standard menu navigation.	*PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide,* "Using Page Controls"

PeopleTools 8.53 Accessibility Improvements

This table describes accessibility improvements for release 8.53 by product area:

Product Area	Improvement	PeopleBook Cross-References for More Information
PIA Core Technology	Page design: added the ability to include the controls in an HTML area within the page tabbing order.	"Using HTML Areas" (PeopleTools 8.54: Application Designer Developer's Guide)

Product Area	Improvement	PeopleBook Cross-References for More Information
PIA Core Technology	Page design: provided a new set level option for a horizontal rule, which enables you to specify a scroll level organization that differs from the tab order of page fields. Use this feature to manipulate the occurs level of your controls on the page while still preserving the physical tab order at runtime.	"Using Horizontal Rules" (PeopleTools 8.54: Application Designer Developer's Guide)
PIA Core Technology	Provided keyboard support for calendar controls.	<u>Navigating with the Keyboard</u>
Related Content Framework	Provided keyboard support for related content and related actions in accessibility mode.	"Understanding the PeopleSoft Related Content Framework" (PeopleTools 8.54: Portal Technology)
Pivot Grids	Provided support for pivot grids in accessibility mode. An option is provided to view chart data as a grid. Users can navigate and perform actions on the pivot grid using the keyboard.	Pivot Grid
PeopleSoft Online Help	The PeopleSoft Online Help was redesigned and coded to standards to work with assistive technology. The accessibility improvements include: • Added alt attributes for all images. • Added summary attributes for all tables. • Enhanced text descriptions of images. • Improved navigation options and functionality for keyboard users. • Improved the underlying HTML code to work better with assistive technology, such as screen readers.	<u>Using and Managing the PeopleSoft Online Help</u>

PeopleTools 8.54 Accessibility Improvements

This table describes accessibility improvements for release 8.54 by product area:

Product Area	Improvement	PeopleBook Cross-References for More Information
PIA Core Technology	Page elements coded to standards for WCAG 2.0.	*PeopleTools 8.54: PeopleSoft Application Designer Developer's Guide,* "Using Page Controls"

Product Area	Improvement	PeopleBook Cross-References for More Information
PeopleSoft Application Designer	Group boxes - For group boxes that are used only for visual layout purposes, a new option is available in Application Designer in the Group Box Properties – Label tab, to suppress the group box label in accessibility mode.	*PeopleTools 8.54: PeopleSoft Application Designer Developer's Guide,* "Using Page Controls".
PeopleSoft Application Designer	Grids – In Application Designer in the Grid Properties – Use tab, the following new grid layout types are available: • Original List Grid (Unordered) Identifies the grid as an unordered list containing rows of list items in accessibility mode. • Original List Grid (Ordered) Identifies the grid as an ordered list containing rows of list items in accessibility mode. • Original Presentation Grid Layout Identifies the grid as a layout table in accessibility mode.	*PeopleTools 8.54: PeopleSoft Application Designer Developer's Guide,* "Using Scroll Areas, Scroll Bars, and Grids."
PeopleSoft Application Designer	Grids – In Application Designer, a new Row Header option enables you to select a grid column to use as the row header in accessibility mode. The dialog box for setting the Row Header option differs depending on the grid type: • Grids with no tabs: available on the Grid Properties - General tab. • Tabbed Grids: available on the Tab Separator Properties - General tab. If a row header is not specified, then the row header generated is the row number plus the first display-only edit field.	*PeopleTools 8.54: PeopleSoft Application Designer Developer's Guide,* "Using Scroll Areas, Scroll Bars, and Grids."
PIA Core Technology	Added landmarks to identify page sections per WAI-ARIA specifications. These landmarks provide a method to programmatically identify commonly found sections of web page content in a consistent way, which enables assistive technologies to provide users with features they can use to identify and navigate to sections of page content.	*PeopleTools 8.54: PeopleSoft Application Designer Developer's Guide,* "Using Page Controls".

Product Area	Improvement	PeopleBook Cross-References for More Information
Global Search	Provided enhanced keyboard support and added landmarks to list selections for accessibility mode.	*PeopleTools 8.54: PeopleSoft Search Technology*
Charting	Provided the Chart Options page to specify system-wide accessibility settings by chart type.	*PeopleTools 8.54: PeopleCode API Reference,* "Charting Classes," Special Considerations for Charts.
Portal	Provided enhanced keyboard support for page tabs, search page tabs, and grids tabs, per WAI-ARIA specifications.	*PeopleTools 8.54: PeopleSoft Application User's Guide,* "Working with Grids and Scroll Areas".
MultiChannel Framework	Enhanced HTML elements that are hidden or uncovered visually, to behave similarly in accessibility mode.	*PeopleTools 8.54: PeopleSoft MultiChannel Framework*
PIA Trees	Provided keyboard support for trees. Added landmarks, properties, and states for accessibility mode.	*PeopleTools 8.54: PeopleSoft Application User's Guide,* "Using PeopleSoft Application Pages"
Activity Guides	Provided support for action item status changes and dependent link information pop-ups in accessibility mode.	*PeopleTools 8.54: Portal Technology,* "Developing and Deploying Activity Guides".
Portal Technology: WorkCenters	Provided enhanced keyboard support. Added landmarks, properties, and states for accessibility mode.	*PeopleTools 8.54: Portal Technology,* "Creating and Configuring WorkCenter Pages ".
Portal Technology: Related Content Framework	Provided enhanced keyboard support. Added landmarks, properties, and states for accessibility mode. Added header markup for pagelet labels.	*PeopleTools 8.54: Portal Technology,* "Developing and Configuring Related Content Services"
Portal Technology: Pagelet Wizard	Added landmarks to layout table nodes in default Navigation Collection-based pagelet XSLs Changed the step icon hover text on the Pagelet Wizard component to "step n - xxxx" format.	*PeopleTools 8.54: Portal Technology,* "Using Pagelet Wizard to Create and Manage Pagelets"