
Workbench Basics

In any Eclipse-based application development tool like WDSC or Rational Developer for System i, you will come across common terminology, such as *Workbench*, *Workspace*, *perspective*, *view*, and *active editor*. You need to be familiar with the common concepts, user interface, and terminology of Eclipse, so that you can navigate with ease in the Remote System Explorer, Integrated i5/OS Debugger, and other Eclipse-based tools you might use in the future.

This chapter covers the building blocks necessary to understand any Eclipse-based tool. When you are finished with this chapter, you will have a strong base from which to explore further.

If you are a PDM/SEU user, this chapter will introduce you to a richer, powerful, more robust, and integrated application development environment. If you're an experienced RSE user, this chapter will help raise your awareness of some common behaviors across views and tools, and show you ways to customize your Workbench.

The Workbench

Let's begin with the term *Workbench*. This refers to the overall graphical user interface and tools that make up the development environment. Each Workbench window contains one or more *perspectives*. Perspectives contain views and *editors*, and control what appears in menus and toolbars.

The Workbench toolbar is displayed at the top of the Workbench window, directly underneath the menu bar, as shown in Figure 4–1. The toolbar’s contents change based on the editor currently being used, also known as the *active* editor. Actions in the toolbar may apply to a particular editor, so these actions may be enabled or disabled based on the state of the currently active view or editor.

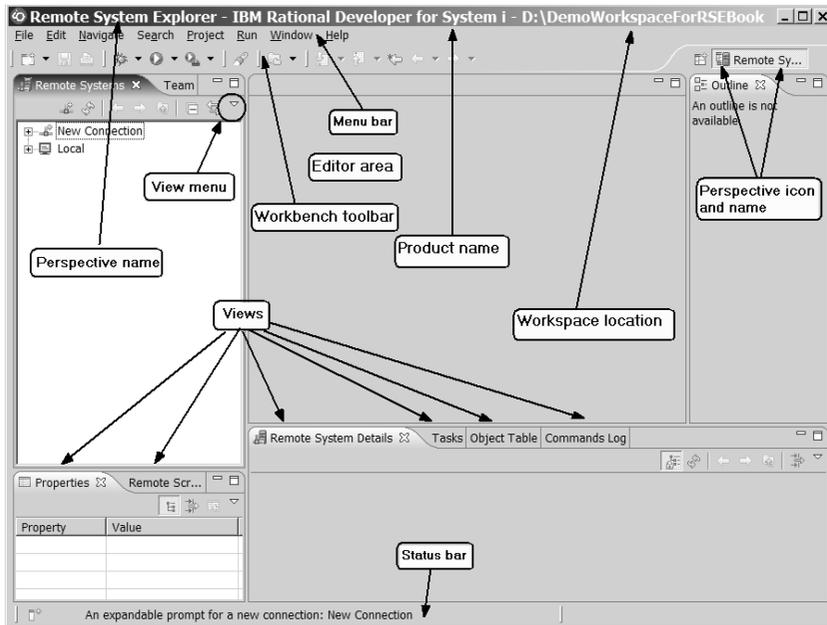


Figure 4–1: The Workbench.



More than one Workbench window can be open on the desktop at any given time.

Perspectives

A perspective defines the initial set and layout of views shown in the Workbench window, along with the menu actions that are available. Each perspective is designed to perform a particular set of tasks, and is identified by a name and an icon. For example, when you open the Remote System Explorer perspective, you will find tools to connect to i5/OS servers and edit and compile source members on those servers. However, if you want

to debug a program, you switch to the Debug perspective.

The name of the current perspective is shown in the title bar for the Workbench window. You can have many perspectives open at the same time in a single Workbench window. Often, you will be switching between perspectives depending on the tasks you are performing. The perspective bar, shown in Figure 4–2, lists the current open perspectives, allowing quick access to open ones. Click on a perspective's name and icon to switch to that open perspective.

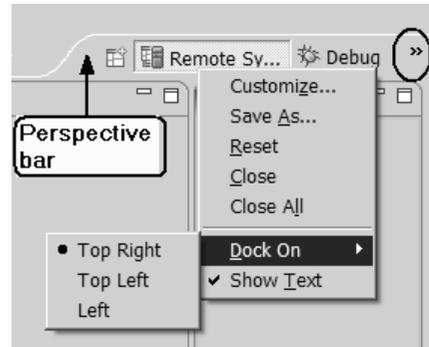


Figure 4–2: The perspective bar.

TIP

The Workbench provides a shortcut key for switching between open perspectives. Press Ctrl+F8 once to switch back to the last opened perspective. Alternatively, hold down the Ctrl key while pressing and releasing F8 to open a dialog that shows a list of open perspectives. Continue pressing F8 while holding down the Ctrl key until the open perspective you want is selected. Then, release the Ctrl key. This same behavior works for views using Ctrl+F7, and for editors using Ctrl+F6.

The perspective bar may be docked in three different positions: the upper right corner (the default position), the upper left corner (under the main toolbar), and to the far left. Right-clicking the perspective bar shows you the operations available for the perspective. Click the double arrow in the perspective bar to list additional open perspectives.

To change the size of the perspective bar, position the mouse on the edge of the perspective bar (the mouse pointer changes to a two-sided arrow), click the left mouse, hold, and then drag the perspective bar. Release the mouse when the desired size is achieved. Once you are familiar with the icons for each perspective, you will likely want to deselect the Show Text option so more open perspectives can be shown in the perspective bar.



As you switch between perspectives, you will see views pertaining only to that perspective, but all the editors open in all the perspectives are visible. This is because all perspectives within a Workbench window share the same editor pane.

Opening a Perspective

Each product defines a default perspective, which is opened the first time the product starts with a new Workspace. For WDSC and Rational Developer for System i, the default perspective is the Remote System Explorer perspective. This perspective is opened the first time you start the Workbench.

To open a new perspective, click the “open perspective” icon () in the perspective toolbar, or select **Window > Open Perspective** from the menu bar. This shows a list of perspectives that are closely related to the current one. Click **Other** if you do not see the perspective you want in this list. This opens a dialog with a list of all perspectives from all enabled capabilities. If you still do not see the one you want, select the **Show all** checkbox to include perspectives from disabled capabilities. (You’ll learn more about capabilities later in this chapter.)

Once you select a perspective to open, the title bar of the Workbench window changes to display the perspective name. An icon and the name are also added to the perspective bar, allowing you to quickly switch back to the perspective from other perspectives in the same window.

By default, new perspectives open in the same Workbench window. There is a preference to change this behavior so perspectives open in a new Workbench window. Workbench preferences are discussed later in this chapter.

Customizing the Perspective Layout

Perspectives can be customized to suit the needs of you, your project, and your screen size. Depending on the size of your screen, you might not want to see all the views at once. Views can be added, deleted, and moved within a perspective. (This is covered in the next section.)

When you get to the point where the layout of your perspective is a work of art, be sure to save it for future use. You can either save the changes to the current perspective or create a new perspective. (We recommend the second option.) To save the perspective, select **Window > Save Perspective As** from the Workbench menu. This opens a dialog box where you can enter a new name for the perspective or select an existing perspective that you want to overwrite. If you create a new perspective, it will be included in the list of Workbench perspectives.

If your perspective doesn't turn out to be such a work of art after all, reset it back to the original layout by selecting **Window > Reset perspective**. To reset modified perspectives that were installed as part of the Workbench, use the **General > Perspectives** preference page. Select the perspective from the list, and click **Reset**. Perspectives can also be deleted from this preference page.

The idea behind customizing a perspective is that you can choose the views that pertain to your development environment. It is a good idea to customize the perspective so your Workbench is not cluttered up with views you don't use. Try it; you have nothing to lose. If you delete or add something you don't want, you can always go back to the original layout and start again.

TIP

Some users create their own custom *editing* perspectives that have no views open, or all views set up as fast views (more on this later). Since there are no views, any open editors automatically expand to take up the whole Workbench window. Then, the Remote System Explorer perspective can be used to open members, and the custom editing perspective can be used for editing source members.

Views

Views and editors are the main visual components that make up the Workbench. In any given perspective, there is a single editor area, which can contain multiple editors, and a number of surrounding views. Views are usually used to navigate a hierarchy of resources and to display information about the resources. Views can provide actions to work with the resources, such as opening an editor or searching. Some views are read-only, while others allow modifications to the resources.

A view might appear by itself or with other views in a group. A view group shows multiple views in a section of the Workbench using a tabbed notebook, with each view represented as a tab. To activate a view that is part of a tabbed notebook, simply click its tab.

Some features are common to both views and editors, sometimes referred to as *parts*. Only a single part can be active at any time. The active part is the one whose title bar is highlighted. It is the target for common operations like cut, copy, and paste. Pressing Ctrl+C to copy and Ctrl+V to paste have very different results, depending on whether, say, an editor or the Remote Systems view is active.

The active part also determines what information is displayed in the Workbench status bar (Figure 4–1), which is located at the bottom left corner of the perspective. If an editor tab is not highlighted, the editor is not active; however, views related to editing (the outline view, for example) may still show information based on the last active editor.

Each view has its own title bar that contains the view's name, its icon, and optionally a toolbar. Views do not use the Workbench toolbar; this is reserved exclusively for editors. Each view can have its own toolbar containing actions that apply only to that particular view.

Right-click a view's tab to display a menu that contains actions to control the size and location of the view, as shown in Figure 4–3. This is referred to as the view's System menu. Some of the items on the System menu are familiar Windows actions, like move, size, minimize, and maximize. Others, like Fast View and Detached, are specific to the Workbench and will be covered shortly. You can also access this menu using the key combination Alt+- (the minus key).

Many views also contain a pull-down menu, which is accessed by clicking the upside-down arrow () in the view's toolbar. This pull-down menu, also referred to as the view's menu, typically contains operations that apply to the entire contents of the view, as opposed to individual items shown in the view. Operations for sorting and filtering are normally found in the view's menu. This menu can also be accessed through the key combination Ctrl+F10.

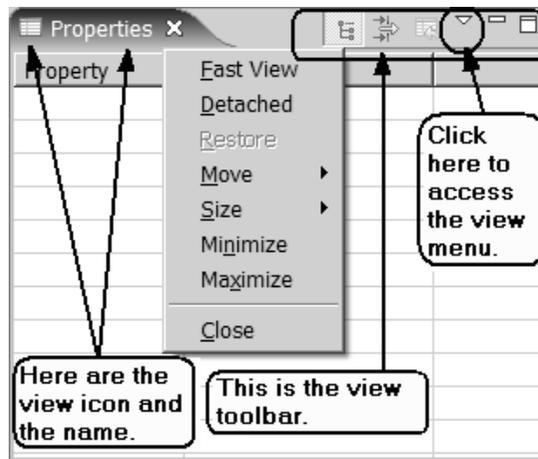


Figure 4-3: The Properties view with its System menu open.

You can maximize a view or editor so that it fills the entire Workbench window. Right-click the title bar and select **Maximize** from the view's System menu. To restore the view or editor to its previous position and size, open the menu again and select **Restore**.

TIP

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You can maximize or restore a view or editor by double-clicking its title bar or using the Ctrl+M keyboard shortcut.

This keyboard shortcut does not work for the Remote Systems LPEX Editor, however, because the editor assigns a different action to this key combination. Later in this chapter, you will learn how to assign different key combinations to the maximize and restore actions for the Remote Systems LPEX Editor.

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Adding and Removing Views

Perspectives predefine the combination and location of views they initially show. To open additional views, select **Window > Show View** from the main menu bar. The current perspective determines which views may be of interest and displays these on the Show View submenu. For additional views, select **Other** from the Show View submenu. Selecting one of the views will add it to a default location in the current perspective. You can then move the view to any location you want.

Click the **X** in the view's tab, next to the view's name, to close the view from the current perspective, as shown in Figure 4-4.



Figure 4-4: Closing the view.

Normally, only one instance of a view exists within a Workbench window. That view instance may be open in multiple perspectives at the same time. So, changing the contents of the view in one perspective will be reflected in all perspectives that have the view open.

Resizing and Moving Views

You can resize editors and views by dragging the sashes that separate them. When you position the cursor on a sash, a double-headed arrow appears, as shown in Figure 4-5. Drag this arrow by holding the left mouse button and release the mouse button once the part reaches the desired size.

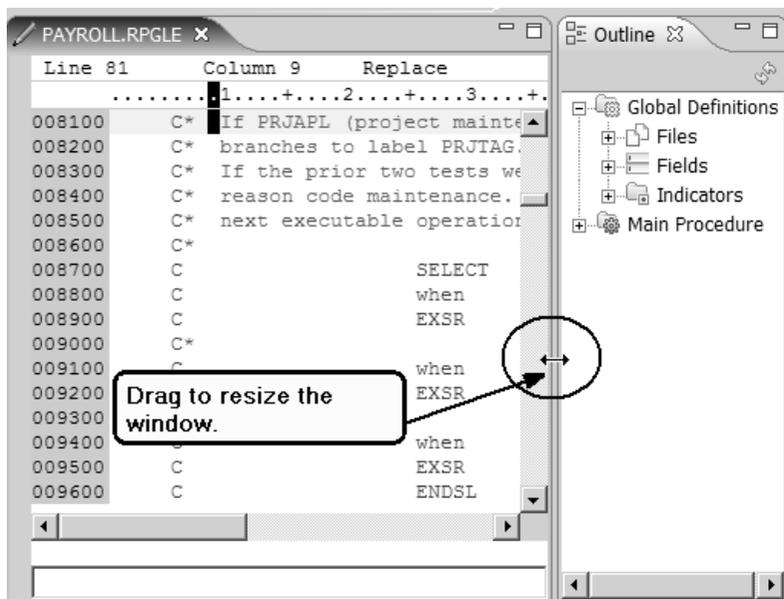


Figure 4-5: Resizing editors and views.

The layout of the Workbench can be rearranged by dragging views to different positions within the Workbench window. To change the location

of a view in the current perspective, drag the view by its title bar by holding down the left mouse button. As you move the view around the Workbench, the mouse pointer will change to one of the *drop cursors* shown in Table 4–1. Drop cursors indicate where a view will dock when you release your mouse button. This indication is relative to the part currently underneath the mouse pointer. Release the left button once the view is in the location you want.

TIP
 A group of stacked views can be dragged using the empty space to the right of the view tabs.

You can also drag a view outside of the Workbench to turn into a *detached* view. Alternatively, detach a view by right-clicking the view tab and selecting **Detached**. To re-attach the view to the Workbench, right-click the view and select **Detached** again.

Detached views can be handy if you are lucky enough to have two monitors connected to your workstation. You can display the main Workbench window on one monitor and some key detached views on the other.

Another advantage to detached views is they stay on top of editors that are maximized. So, you can maximize the editor and have the Outline view or Source Prompter floating on top. (Actually, for source prompting, it is likely easier to create a custom perspective that only shows the Source Prompter view at the bottom of the perspective and leaves the rest of the area for the editors.)

Table 4 1: Drop Cursors		
Cursor	Name	Description
↑	Dock above	The part will appear above the part underneath the cursor.
↓	Dock below	The part will appear below the part underneath the cursor.
➔	Dock to the right	The part will appear to the right of the part underneath the cursor.
➔	Dock to the left	The part will appear to the left of the part underneath the cursor.
📄	Stack	The part will appear as a tab in the same pane as the part underneath the cursor.
⊘	Restricted	You cannot dock the view in this area.

Fast Views

Fast views are views that are hidden, but can quickly be made visible to work with the view and then hidden again. They work like other views, except they do not take up space in the Workbench window.

A fast view is handy when you want to use the view occasionally, but do not want it to take up space or clutter up the Workbench. Fast views are also handy because they can be shown when an editor is maximized, without having to restore the editor. This makes the Outline view an ideal candidate for use as a fast view.

Fast views are docked on the fast view bar, which is the horizontal toolbar initially at the bottom left of the Workbench window. Views in fast view mode are shown as icons on the fast view toolbar. You can make a view a fast view in one of three ways:

- Drag the open view to the fast view toolbar.
- Right-click the view's tab, and select the **Fast View** option.
- Click the “Fast view” icon () located on the left side of the fast view bar. This pops up a list of views, as shown in Figure 4–6. Select a view from the list to add it to the fast view bar.

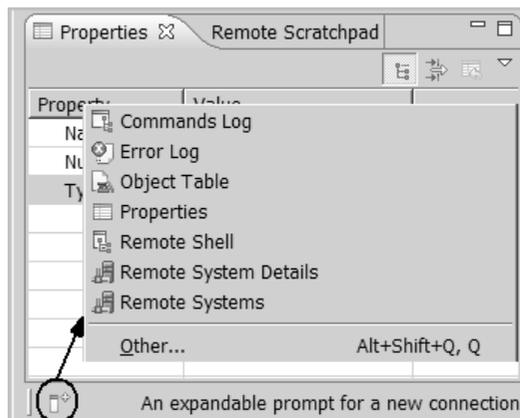


Figure 4–6: Creating fast views.

In Figure 4–6, at the bottom of the list of views, you see **Other** assigned to the key combination `Alt+Shift+Q, Q`. Let us explain this here, and then we

will come back to fast views. Eclipse supports key bindings that contain more than one keystroke, and this is an example of it. Therefore, to see the list of other views, you need to press Alt+Shift+Q together, let go, and then press Q.

It's difficult to memorize these shortcuts, especially if you do not use them often. To help, when you press Alt+Shift+Q, a pop-up appears showing the possible completions for this key combination, as shown in Figure 4-7. Choose the one you want from the list using the mouse, or type the next letter (in this case Q), to complete the action.

Breakpoints	Alt+Shift+Q, B
Cheat Sheets	Alt+Shift+Q, H
Console	Alt+Shift+Q, C
Java Declaration	Alt+Shift+Q, D
Java Package Explorer	Alt+Shift+Q, P
Java Type Hierarchy	Alt+Shift+Q, T
Javadoc	Alt+Shift+Q, J
Search	Alt+Shift+Q, S
Show View	Alt+Shift+Q, Q
Show View (View: Outline)	Alt+Shift+Q, O
Show View (View: Problems)	Alt+Shift+Q, X
Synchronize	Alt+Shift+Q, Y
Variables	Alt+Shift+Q, V

Figure 4-7: Key bindings with more than one keystroke.

Back to fast views. Figure 4-8 shows an example of the fast view bar with four views docked as fast views. Clicking the icon for a view in the fast view bar temporarily opens the view in the current perspective. Clicking outside the view causes the view to be hidden again.



Figure 4-8: The fast view bar with icons.

By default, the fast view bar is docked on the bottom left corner of the Workbench. However, you can choose to dock it on the top, left, or right of the Workbench. Position the mouse on the small vertical line immediately before the fast view icon. (This line may be solid or dotted.) The mouse cursor will change to a four-sided arrow, as shown in Figure 4-9. Hold

down the left mouse button, drag the four-sided arrow to where you want to dock the fast view bar, and then release the mouse button. Alternatively, you can right-click the small vertical line and select one of docking positions from the pop-up menu shown in Figure 4–10.



Figure 4–9: Dragging the four-sided pointer to reposition the fast view bar.

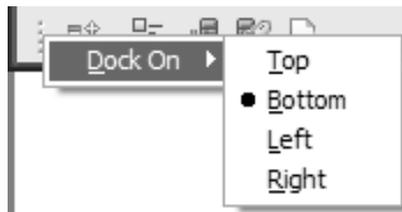


Figure 4–10: The fast view bar's docking options.

Depending on where the fast view bar is docked, the views will be opened in different locations in the Workbench. You might want to experiment with this, so you have the views opening where they suit you best. The orientation of each fast view can be set to either horizontal or vertical by right-clicking the view's icon and selecting one of the options from the Orientation submenu. Some views, like the Remote Systems view, are more usable with a vertical orientation, while others, like the Object Table and Source Prompter, are better with a horizontal orientation.

Editors

The Workbench contains many different types of editors; each specialized for a specific resource type. Rational Developer for System i has over 50 editors registered. WDCS has more than that. For the most part, you will only be using the Remote Systems LPEX Editor for editing RPG, COBOL, CL, and DDS source. If you are using WDCS AE or Rational Developer for System i, you might also be using the Screen Designer for editing DDS display file source, as well as the Application Diagram editor.

Each perspective typically reserves an area where editors appear. This area appears with a grey background when no editors are open. Open editors are

shared by all perspectives inside the Workbench. If you open an editor in one perspective, then switch to a different perspective, the editor will still be visible.

Multiple instances of an editor type can be open within a Workbench window. This could be from either editing multiple files (members), editing the same file multiple times, or a combination of both. Multiple editors show up as tabs in the editor area, as shown in Figure 4–11.

If all the open editor tabs are not visible, you can get the full list by clicking the **>>** symbol or using Ctrl+E key combination. Select the file you want to make active using

the Up and Down arrow keys, and press Enter.

TIP

To close a file, you can right-click it in the list of open files and select **Close**.

You will come across the terms “dirty editor”

and “clean editor” when working with editors. There is nothing dirty about it! A dirty editor is just an editor that contains unsaved changes. This is visually represented in the editor tab by an asterisk (*) before the name of the file, as shown in Figure 4–11. A clean editor has no unsaved changes.

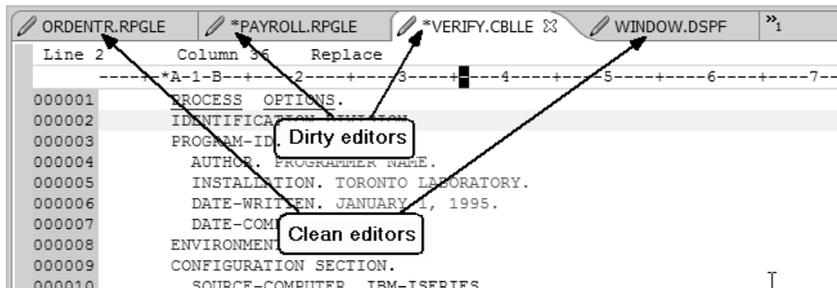


Figure 4–11: Clean and dirty editors.

You will also come across the terms “editor in focus” or “active editor.” (We used these terms earlier, as well.) They both mean the same thing. As described earlier during the discussion of views, the active part (editor or view) is the one currently being used. The title bar of the active part is highlighted.

Some Workbench views, such as the Navigator and Remote Systems views, can be linked to the active editor. This means that closing or switching editors changes the selection in the view to match the file open in the active editor. You can use the “Link With Editor” icon () found in the view’s toolbar to toggle the view to automatically select the current file being edited.

Tiling Editors

Open files can be grouped into sets of editors. Each editor set can contain one or more open files. The Workbench allows more than one editor set in the editor area at a time by tiling the sets, as shown in Figure 4–12. This allows you to see the contents of two or more editors at the same time. It is often referred to as “split-screen editing.” (Split-screen editing of a single member is covered in chapter 6.)

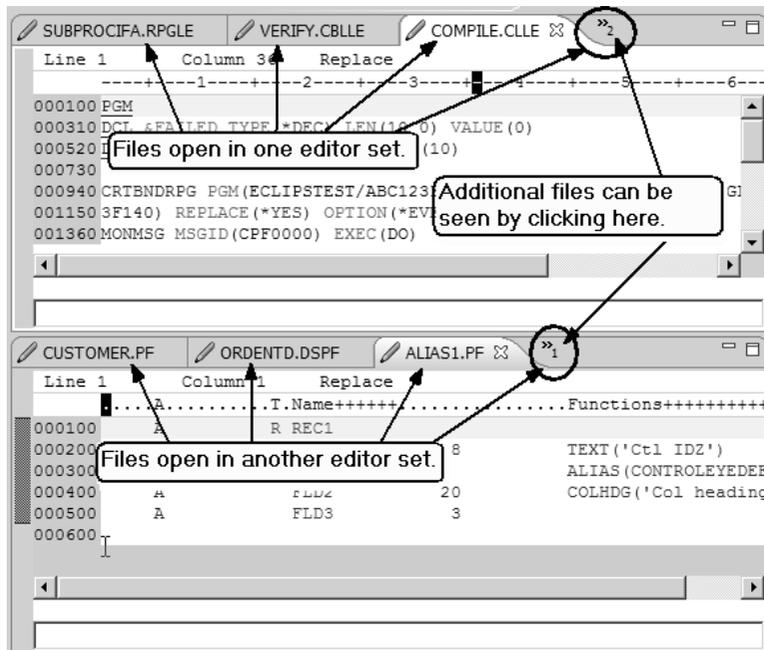


Figure 4–12: Editors open with two editor sets tiled horizontally.

Tiling editors is accomplished the same way as moving views. Drag an editor by clicking its editor tab and holding down the left mouse button. Move the mouse to the left, right, top, or bottom of the editor area, and release the left button when the mouse changes to a black arrow. The editor will be dropped into a new editor set in the designated area.

To tile editors vertically, drag and drop to the left or right of the editor area. To tile horizontally, drag and drop to the top or bottom. You are not limited to tiling only vertically or horizontally. You can mix and match until you run out of screen space!

The list of open editors only shows the list in that particular editor set. For example, pressing the double arrow (or using Ctrl+E) in the first editor set in Figure 4-12 will show only the open editors in that editor set. Pressing Ctrl+E in the second editor set will show only the open editors in that editor set, as shown in Figure 4-13.

Can you get the list of all open editors in all editor sets? Yes, you can, by using the Switch to Editor dialog. This can be invoked using the key combination Ctrl+ Shift+E. Figure 4-14 shows the Switch to Editor dialog for the example in Figure 4-13.

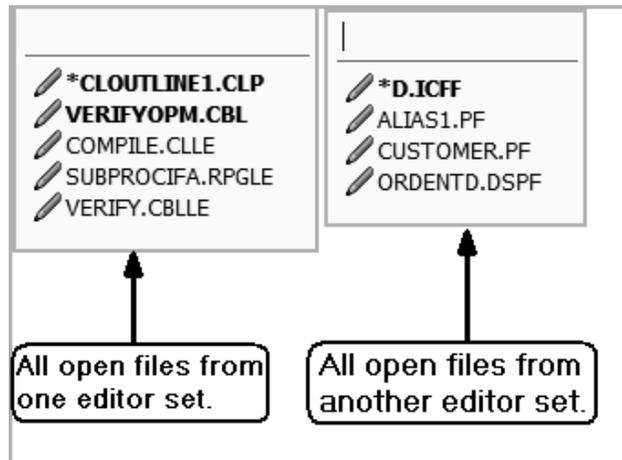


Figure 4-13: The open files in one editor set.

The Switch to Editor dialog displays all open editors, allowing you to choose the ones you want to close, save, or activate. Notice that we said *all* open editors, meaning that you can actually list not only editors from all editor sets within one Workbench window, but editors open from all open windows (from the same Workspace). To obtain this list, check the box **Show editors from all windows**.

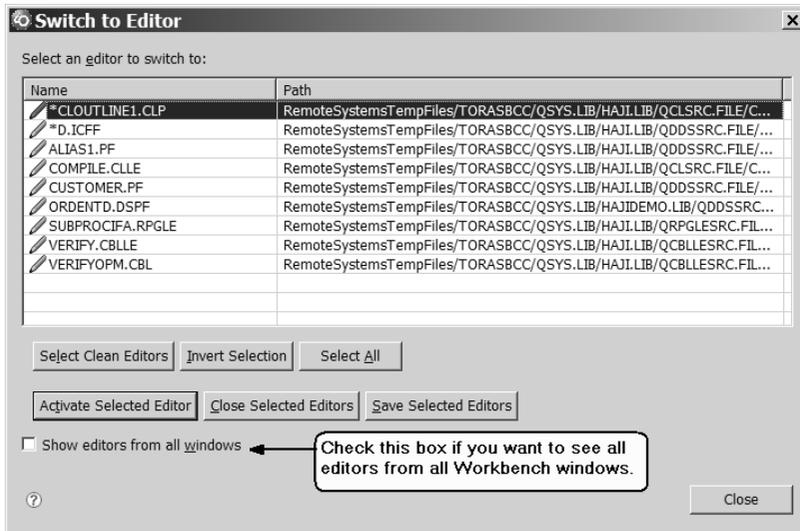


Figure 4-14: All open editors.

TIP

Suppose you have ten members open, and you want to close all of them except for two. Open the **Switch to Editor** dialog, select the two you want to keep open, click **Invert Selection**, and then click **Close Selected Editors**.

One key difference between views and editors is that editors cannot be detached from the Workbench window or made into fast views.

Toolbars

In this chapter so far, you have seen many different toolbars in the Workbench. Let's summarize them here and put them together to see the big picture. There are four main toolbars in the Workbench:

- *Workbench toolbar*: This displays at the top of the Workbench window, directly beneath the menu bar. The contents of this toolbar change based on the current perspective and active editor. Items in this toolbar may be enabled or disabled based on the state of either the active view or editor. You can rearrange the sections of the main toolbar.

- *Perspective toolbar*: This allows quick access to open perspectives and has a button to open new perspectives.
- *View toolbars*: These are individual toolbars that appear in the title bar of a view. Actions in a view's toolbar apply only to the view in which they appear. Some view toolbars include a view menu that contains additional actions for the view. The view menu can be accessed by clicking the upside-down triangle.
- *Fast view bar*: This contains icons representing the current set of fast views.

You can rearrange the items in the perspective and fast view bars by dragging and dropping them. The Workbench toolbar is broken down into sections that can be rearranged using the mouse, but the individual items within a section cannot be rearranged. A vertical line divides the toolbar sections. (Depending on the operating system settings, this line may be dotted or solid.)

You can lock the main toolbar to prevent accidental changes to it. When the vertical line dividing the sections is visible, as in Figure 4–15, the toolbar is unlocked. Otherwise, the toolbar is locked, as shown in Figure 4–16. To lock and unlock a toolbar, right-click anywhere in it and select the **Lock the Toolbars** menu item.



Figure 4–15: An unlocked toolbar.



Figure 4–16: A locked toolbar.

EEK, It's a Mouse

We have come to learn that SEU and PDM users don't like mice. At first glance, you might think the only way to navigate through this seemingly overwhelming Workbench is by using the mouse. However, you can maneuver just as easily around the Workbench using the keyboard. It just takes a bit longer to memorize all the keyboard shortcuts.

Table 4–2 contains some helpful keyboard shortcuts for navigating around the Workbench, from views, to editors, to menus, and to other perspectives.

<i>Table 4–2: General Workbench Keyboard Shortcuts</i>	
Keystroke(s)	Action
F10	Access the menus on the Workbench menu bar. (In Microsoft Windows, Alt does the same thing.) You can traverse actions along the menu bar using the Left and Right arrow keys. Use the Up and Down arrow keys to traverse through the menu actions.
Alt+mnemonic	Instead of using F10 and then traversing, you can use this to easily activate the Workbench menu for a particular entry. For example, Alt+W opens the Window menu.
Shift+F10	Pop up the context menu for the current view, editor, or selected item. This is the same as right-clicking.
Ctrl+F10	Open the pull-down menu for the current view, if there is one. For editors, it will open the menu for vertical ruler (also known as the marker bar) on the left of the editor area.
Ctrl+F6	Cycle between open editors.
Ctrl+F7	Cycle between open views.
Ctrl+F8	Cycle between open perspectives.
Ctrl+E	Activate the editor drop-down.
Ctrl+Shift+E	Open the Switch to Editor dialog.
Esc	Use this key to close a menu. This is the same as clicking the Cancel button on a dialog.
Keyboard arrow keys	Use the arrow keys to navigate through list and tree views in the Workbench. For example, you can navigate through the entire Remote Systems view using just the arrow keys. Use the Up and Down arrow keys to navigate through items that are already showing. Using the Left and Right arrow keys to collapse and expand entries, respectively.
Position by typing	If you are in a table or tree view, and you start typing, the view attempts to position to an entry in the view that matches what you are typing. For example, if you are in the Remote Systems view and you just expanded your library, you can quickly jump to the QRPGLSRC source file by just entering QRPGLSRC. (Chances are, you will only have to enter part of the name.)



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Many of the shortcuts listed in Table 4–2 are standard Windows behavior and will also work in your favorite word processor, spreadsheet, Web browser, or email program.

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A mnemonic is a single letter assigned to most control labels (such as buttons, checkboxes, and menus) to assist in choosing an action or a selection. A mnemonic is shown as the underlined character in the action name or label associated with the control. To select the control using its mnemonic, press the Alt key along with the mnemonic letter.

TIP

While working in your favorite editor or view, press **Ctrl+Shift+L** to see a full list of the currently available keyboard shortcuts. The list of keyboard shortcuts is context-sensitive, so it only displays the shortcuts that apply in the current perspective, editor, or view. This is a great way to learn what is available in the user interface and to speed up your productivity by learning keyboard shortcuts. Unfortunately, the Remote Systems LPEX Editor's keyboard shortcuts do not show up in this list. Chapters 6 and 7 describe the various keyboard shortcuts that can be used with the Remote Systems LPEX Editor.

Exiting the Workbench

Each time you exit the Workbench, its state is automatically saved. This state includes all open perspectives, windows, and views, as well as the content and current expansion of some views (like the Remote Systems view). This state is restored the next time the Workbench is reopened, so it appears exactly as it was when it was closed.

To exit the Workbench, select **File > Exit** from the menu bar, click the **X** in the Workbench window's title bar, or press **Alt+F4**. The latter two options prompt if you really wish to exit the Workbench. This dialog includes an option to turn off the prompting. This is the default behavior and can be customized on the General > Startup and Shutdown preference page.

There is a subtle difference between the methods of exiting the Workbench. The File > Exit action closes all Workbench windows, and exits. If you just want to exit the current window (if you are using multiple Workbench windows), use the close button (the X) or Alt+F4. The last Workbench window to close also terminates the application.

The Workspace

The Workspace is the local Windows directory that is used to store local development projects, preferences, and information about the Workbench state. It is an important part of using the Workbench and is accessed and updated frequently.

When you first start the Workbench, the Workspace launcher dialog will come up, asking for a Workspace location. A default location is pre-filled, and is usually somewhere under your My Documents folder. You can change the location by entering a new location or clicking the Browse button.



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For performance reasons, it is important that you use a local drive for your Workspace instead of the network drive.
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Some users like to create multiple Workspaces to separate their work. This might be useful if you are working on some projects that require Java development and others that require RPG or COBOL development. You could keep a separate Workspace for each, or you could use one Workspace for both. We prefer to keep everything in one Workspace, to avoid losing things! However, we usually create separate Workspaces for playing around and experimenting.

You can also work with multiple Workspaces at the same time. To do this, you need to start the product multiple times, specifying different Workspace locations each time. You will then have a Workbench window for each Workspace.

Normally, you would not have to worry about where your Workspace is located unless you want to switch between Workspaces or back up your Workspace (generally a good idea). To switch between Workspaces, select **Switch Workspace** from the **File** menu.

To show the Workspace location in the Workbench title, add the *-showlocation* command-line parameter to the end of the target field in the Windows shortcut properties for WDSC or Rational Developer for System i, as shown in Figure 4–17. If you use multiple Workspaces, you may find the *-data workspaceLocation* command-line parameter useful.

This parameter tells WDSC or Rational Developer for System i to use the specified Workspace and not prompt for the Workspace location.



Figure 4-17: Showing the location of the Workspace in the Workbench window.

TIP

Suppose you selected the “Use this as the default and do not ask again” option on the Workspace launcher dialog, but now you really wish it would ask you again. Use the preference on the **General > Startup and Shutdown** preference page to turn this back on.

Workspace Migration

When upgrading to a newer version of the product, pay close attention to the migration guide. Sometimes, the layout of the Workspace or the way information is stored in the Workspace changes between versions of the product.

Your Workspace contains all of your RSE connections, filters, preferences, and other customizations. You will likely want to migrate your old Workspace to work with the new version of the product. Guidance on Workspace migration is provided in the migration guide.

After your Workspace has been migrated to the newer version, it might not work with the previous version anymore. Be sure to back up your Workspace before migrating.

Common Workbench Icons

Table 4–3 lists some of the common icons used in the Workbench and the actions they represent.

<i>Table 4–3 Common Icons Used in the Workbench</i>	
Icon	Meaning
	Remove the selected item from the list.
	Remove all the items from the list.
	Clear the contents of the view.
	Link with the editor.
	Refresh the information for the view or for the selected resources.
	Minimize the view.
	Maximize the view.
	Filter.
	Search.
	Move back to the previous contents of the view or preference page. This works like the Back button on a Web browser.
	Move forward to the next contents of the view or preference page. This works like the Forward button on a Web browser.

Customizations

Many aspects of the appearance and behavior of the Workbench can be customized to suit your individual style. You've already seen how to customize the layout of a perspective, the toolbars, the size, and the position of the views. In addition, you can control several other key aspects of a perspective through the Preferences and the Customize Perspective dialogs.

Preferences

Each tool that plugs into the Workbench defines preferences that can be customized by users, and there are lots of them! The good news is that the preferences are centralized in one place. The Preferences dialog is used to set user preferences for all aspects of the Workbench. Open it from the Workbench window menu under **Window > Preferences**.

You can search the Preferences dialog pages using the filter function, as shown in Figure 4–18. To filter by matching the page title, simply type the name of the page you are seeking. The pages that match will be listed below. The history controls ( ) allow you to navigate forward and backward through previously viewed pages. To step back or forward several pages at a time, click the drop-down arrow. A list of the most recently viewed preference pages will appear. You can select from this list the preference page you want to view.

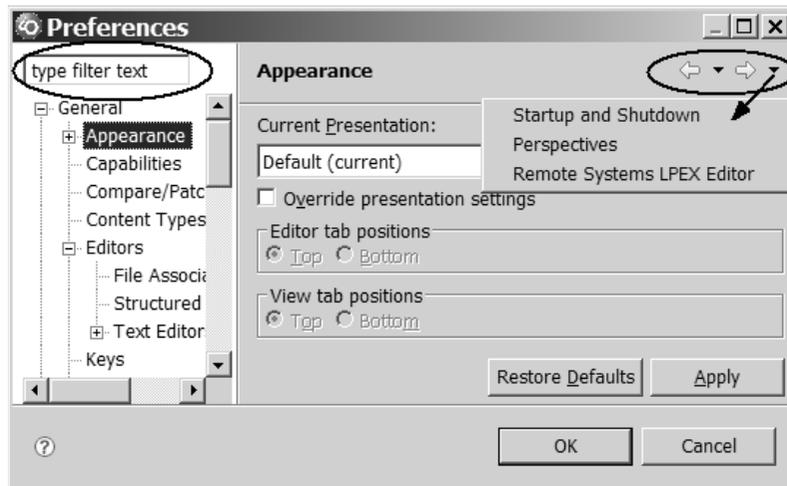


Figure 4–18: Searching and traversing preference pages.

The intent here is not to explain each and every preference pertaining to the Workbench. Relevant preferences are covered in each chapter of this book. Below, we highlight some general Workbench preferences to appreciate the extent to which the Workbench can be customized. Let's start by looking at the General > Perspectives preference page (Figure 4–19). Here you can do the following:

- Choose to open a new Workbench window for each new perspective that is opened. The default is to open in the same window.
- Choose to open new views as fast views. The default is that the view will be opened within the perspective.
- Choose to switch to the appropriate perspective when creating new projects.
- Change the default perspective that is opened when the Workbench starts, by selecting the perspective from the list of available perspectives and clicking the **Make Default** button. You can see here that the default perspective for Rational Developer for System i is the Remote System Explorer. You can also delete user-defined perspectives and reset the perspectives installed with the Workbench to their default settings if they have been modified.

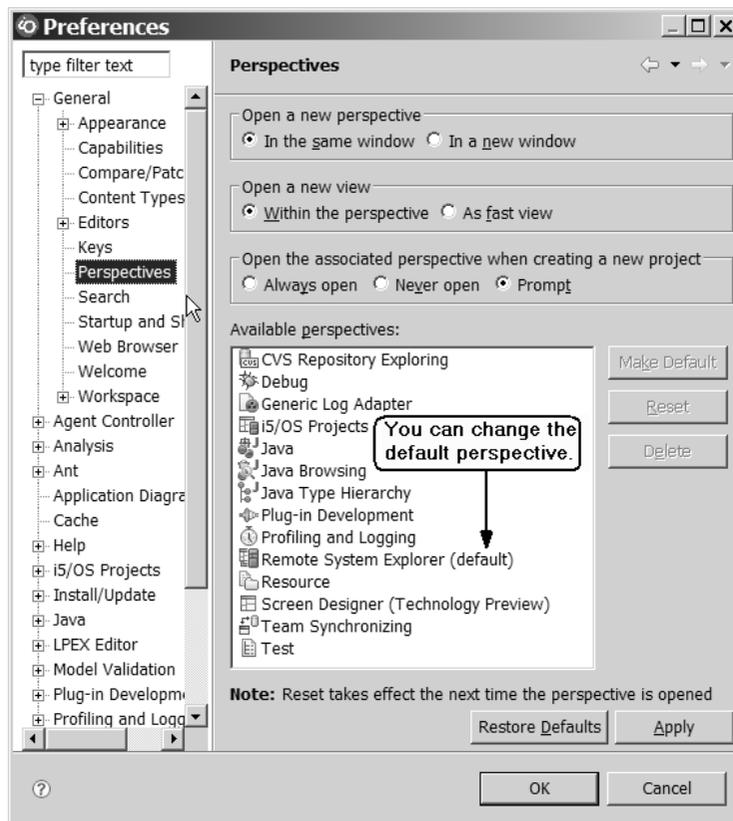


Figure 4-19: Perspective preferences.

To make the preferences take effect, click **Apply** or **OK**. Each preference page has a Restore Defaults button that sets the preferences on the page to the defaults shipped with the Workbench.

If you choose the option to open perspectives in different windows, you can see the list of all open windows from the Window menu, as shown in Figure 4–20. The name of the window is the name of the current active perspective in that window.

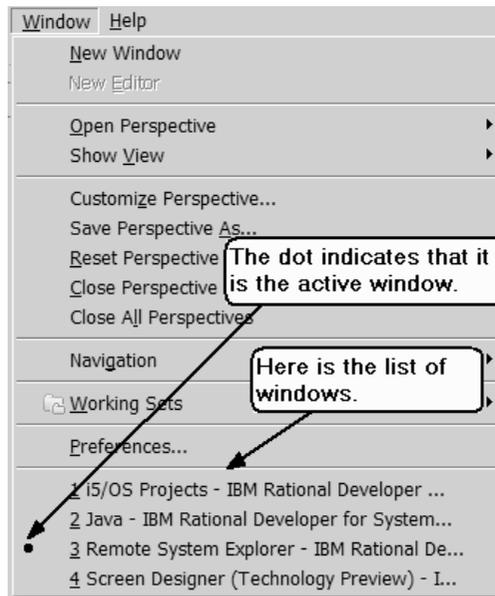


Figure 4–20: A list of open Workbench windows.

TIP

You can have the same perspective open in two different windows. The fastest way to do this is from the perspective itself, going to **Window > New Window**. This opens a new Workbench window with the same perspective as the current perspective.

You can customize many other aspects of the Workbench. Go through each of the preference pages on the left-hand pane of the Preferences dialog (Appearance, Editors, and Startup and Shutdown, for example), and use the right-hand pane to customize that preference.

Capabilities

One other preference page worth mentioning is Capabilities. The Workbench is designed to have multiple tools plugged into it, such as tools for i5/OS application development, Java, and XML. Many of these tools provide a capability that can be enabled or disabled. Disabling the capability hides the user interface for the related tools.

By default, a limited set of capabilities are enabled when you start the product, to reduce the clutter that appears in the Workbench. The available views and menu actions depend on the capabilities enabled in the Workbench.

Once you start using the Workbench as your primary development environment, you might want to enable more of the capabilities that are not enabled by default. (All of the i5/OS application development tools are enabled by default.) You can find the list of capabilities on the General > Capabilities preference page. Try to add and remove capabilities and see how the items available in certain menus, like Window > Show view, changes.

Keyboard Shortcuts

Command is a term used by the Workbench to refer to actions such as cut, copy, prompt, or find date. Keyboard shortcuts are predefined for many of the Workbench commands. The General > Keys preference page allows you to view and modify the keyboard shortcuts.

Two pieces of information are required when associating a keyboard shortcut with a command: the key sequence, and when the shortcut is valid. The View tab of the Keys preference page lists all currently defined keyboard shortcuts. Using the Modify tab, shown in Figure 4–21, you can add and remove keyboard shortcuts.

Using the Command section of the preference page, you can select a category and command to see what keyboard shortcuts are currently assigned to the command. Using the Key Sequence area, you can enter a key sequence (by pressing the actual keyboard shortcut) to see what commands the key sequence is currently assigned to.

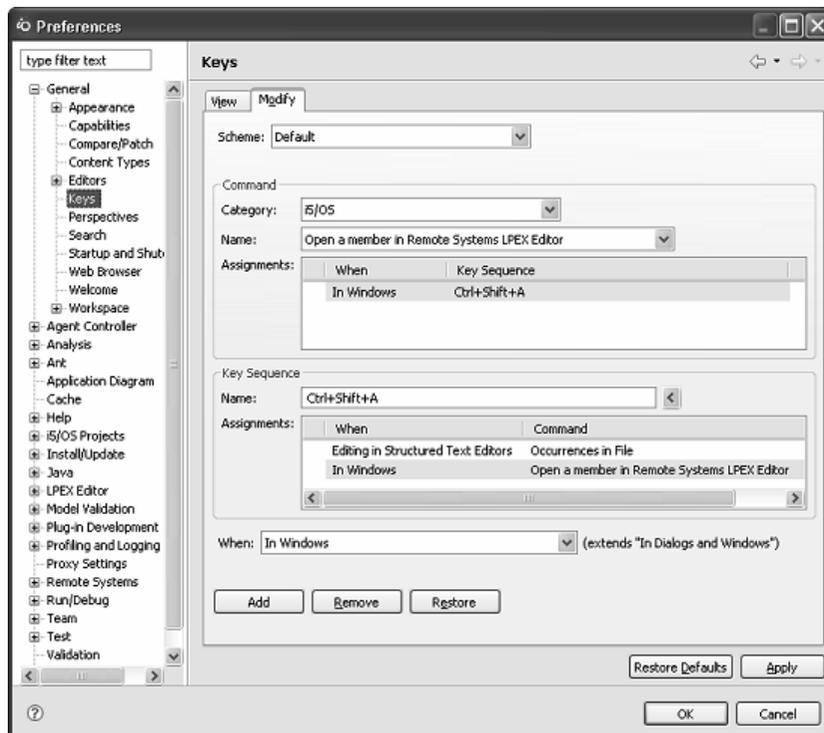


Figure 4–21: The Keys preference page.

To delete a keyboard shortcut, select one of the assignments and click the **Remove** button. To add a new keyboard shortcut, follow these steps:

1. Select the command in the Command area.
2. Enter the key sequence in the Key Sequence area.
3. Select when the keyboard shortcut should be available.
4. Click the **Add** button.

You will quickly learn that most key sequences are already associated to one or more commands. Figure 4–21 shows that the Ctrl+Shift+A key sequence is assigned to the command to open an editor in the Remote Systems LPEX Editor. You can also see that this key sequence is assigned to the Occurrences in File command. This is fine, since the keyboard shortcuts are valid in different contexts (when editing in structured test editors for the “Occurrence in File” command, and when in windows for the “Open a member in Remote Systems LPEX Editor” command).

Customizing the Menus

In addition to configuring the layout, you can control several other key aspects of a perspective, including the following:

- The File > New menu
- The Window > Open Perspective menu
- The Window > Show View menu
- Action sets that show up on the Workbench menu bar and toolbar

Select **Window > Customize Perspective** to customize any one of these items. This opens the Customize Perspective dialog, which contains two tabs: Shortcuts and Commands. The Shortcuts tab, shown in Figure 4–22, can be used to customize what appears in the File > New, Window > Perspective, and Window > Show View menus.

Figure 4–22 shows an example of customizing the Open perspective menu. Using the drop-down menu, choose **Open Perspective**. Then, select as many perspectives as you want from the list on the right. For example, select the **Debug**, **Remote System Explorer**, and **Test** perspectives, as shown in Figure 4–22. Open the **Window > Open Perspective** submenu to see the three perspectives selected, as shown in Figure 4–23.

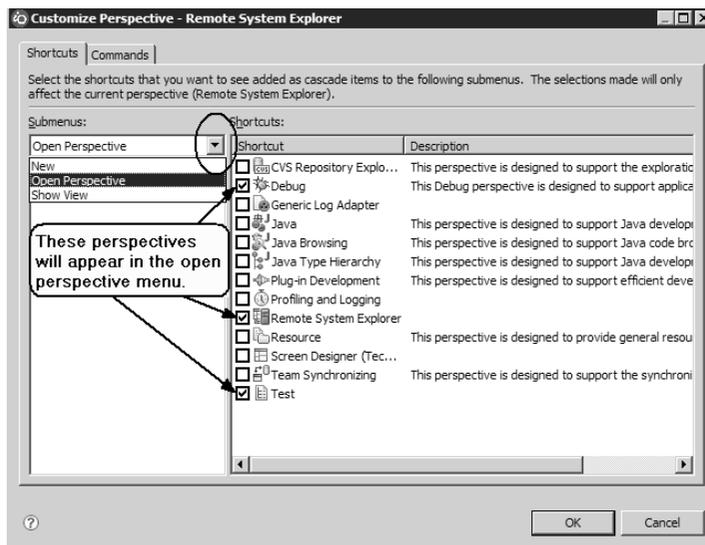


Figure 4–22: Customizing the Open Perspective menu.

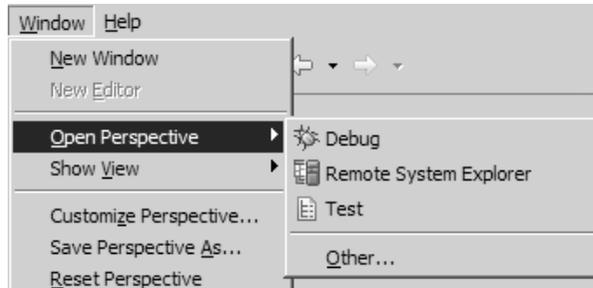


Figure 4-23: The Open Perspective menu.

The Commands tab can be used to customize what actions appear in the menu bar and the toolbar. The leftmost column lists all the available command groups. Selecting a command group shows which actions are added to the menu bar and toolbar if that particular command group is selected. Figure 4-24 shows the menu bar and toolbar details for CVS command group.

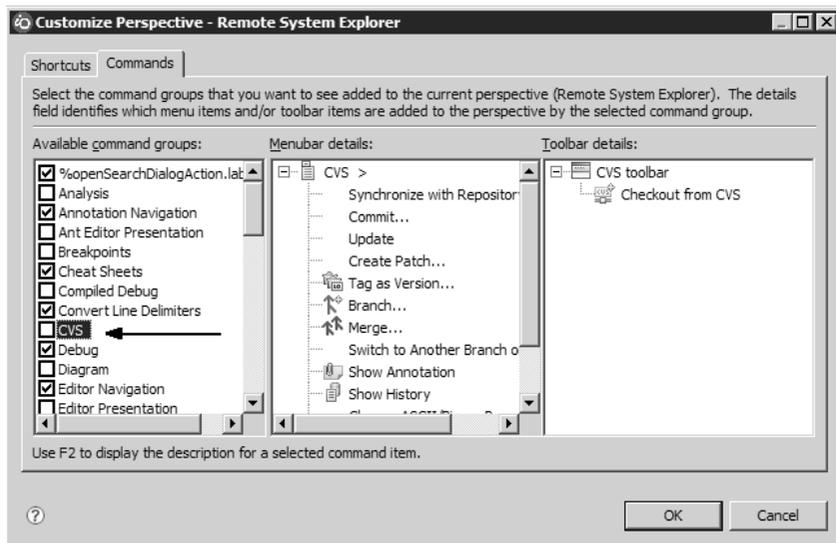


Figure 4-24: Customizing the menu bar and toolbar.

Getting Help

The Workbench help system lets you browse, search, bookmark, and print the documentation shipped with the product. The documentation is grouped into sets of information that are analogous to books. Help can

be displayed in the Workbench using the Help view or the separate Help window.

Help View

The Help view, shown in Figure 4–25, displays help inside the main Workbench window. Open the view from the Workbench menu by selecting **Help > Dynamic Help** or by pressing F1 from any Workbench view.



Figure 4–25: The Help view.

The Help view consists of several pages. Each one provides different help functions. Hyperlinks at the bottom of the Help view enable you to switch among the following pages:

- *Related Topics* shows help topics related to the current Workbench context (view or action). The About section shows help specific to your current context, and the Dynamic Help section shows some search results that may (or may not) be related.
- *All Topics* shows the table of contents for the help.

- *Search* allows searching local help, tutorials gallery, IBM developerWorks, Google, Eclipse.org, and the samples gallery. Links to search hits are displayed, along with a summary of topic contents. To add other Internet resources to the search, expand the **Search Scope** section of the search page and click the **Advanced Settings** link.
- *Index* provides an index of keywords that link to specific help pages, similar to an index found at the back of a book. As you type in the text field, the best match will automatically be highlighted in the list of keywords. This page will only appear when index content is available in the Workbench.
- *Bookmarks* displays your list of personal bookmarks in the help.

When on the Related Topics page, the contents of the Help view change automatically as you switch views to show the context-sensitive help for the active view. Figure 4–25 shows the help for the Commands Log view in the Remote System Explorer perspective. This context-sensitive help page includes three hyperlinks into the main help documentation.

Help Window

The Help window, shown in Figure 4–26, also provides access to the documentation, but in a separate window instead of in a view. To open the window from the main menu, select **Help > Help Contents**. The first view shown in the window is the Contents view. It displays the table of contents for the product documentation.

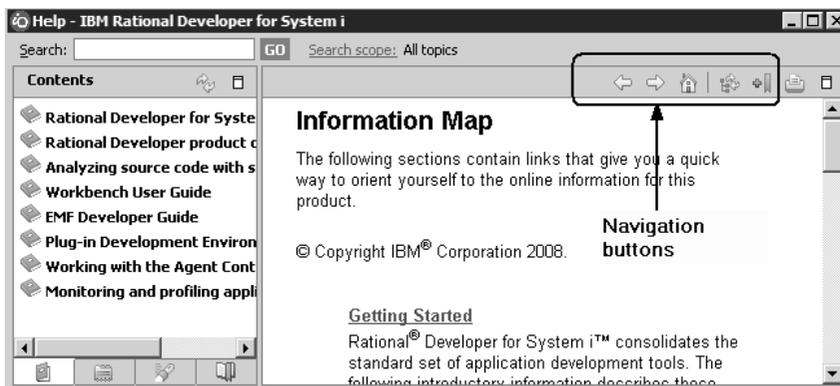


Figure 4–26: The external Help window.

To navigate the Help window, find the topic you want to read in the table of contents by clicking to expand the subtopics. Most help pages provide a list of links to related topics at the bottom. Follow these links to learn more about related features. Use the navigation buttons to go back and forth, get back to the home page, synchronize the topic to the help contents, and bookmark the topic.

TIP

Some users find it difficult to locate the help they are looking for using the Contents view in the main Help window. Instead, try showing the context-sensitive help for the related view (by pressing F1 in the view), and then using the hyperlinks to link into the related documentation page. The Help view includes an icon in its toolbar to open the current page in the external Help window when displaying pages from the product documentation. Once in the external Help window, you can use the icon in the navigation buttons to show the current page in the contents.

Help Preferences

The way help is displayed can be customized on the Help preference page, shown in Figure 4–27. For example, you display help in an external Web browser instead of the Help window.

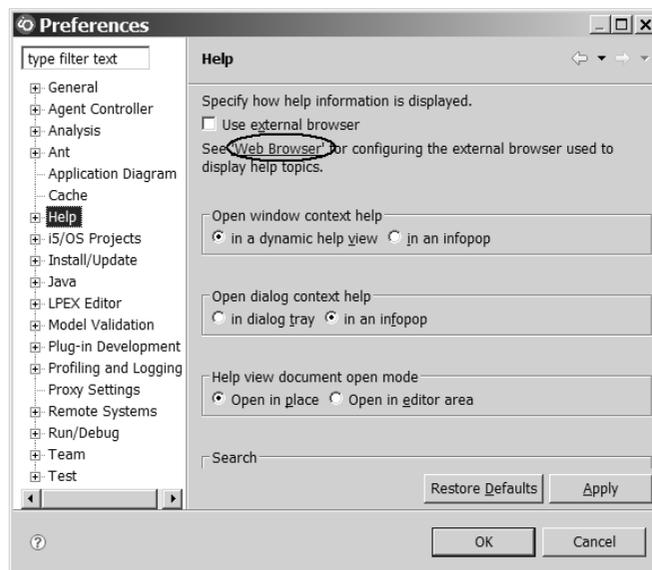


Figure 4–27: Preferences for getting help.

Context Help

If you're working through a task and encounter something you don't understand, you can ask for context help. This opens the Help view, showing information about the view, editor, dialog, or action you are currently using, and possibly some links to topics for further help. Context help can be accessed by pressing the F1 key. Alternatively, in dialogs, you can achieve the same result by pressing the "help" button () in the dialog's button bar.

You can configure context help to display using *infopops* instead of the Help view on the Help preference page. An infopop is an alternate way of presenting context-sensitive help, where a small window displays the help and links to related online help topics. Figure 4–28 shows the same help as in Figure 4–25, using an infopop instead of the Help view.

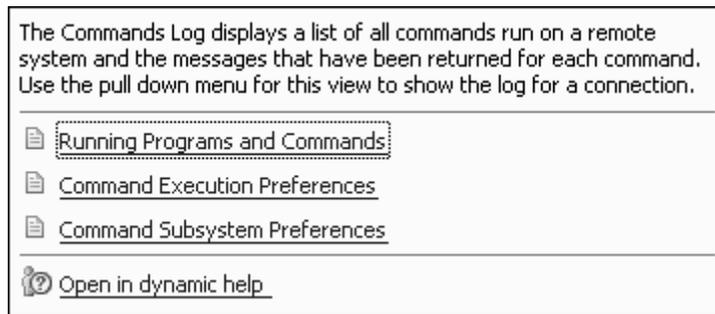


Figure 4–28: Help in an infopop.



Context-sensitive help is unavailable for toolbar buttons. Instead, let your mouse pointer hover over a toolbar button to view tooltip help for the button.

Searching

The help system includes a search engine that can run simple or complex queries on the documentation to help you find the information you are looking for. To search the help, select **Help > Search** from the Workbench menu, type the word or phrase you want to search for, and press **Enter** or click **Go**. The search results display as hyperlinks below the search entry

field. Alternatively, you can search from the Help window using the Search field at the top of the window.

The first time you search the online help, the help system might start an index-generation process. This process of building the indexes for the search engine to use might take several minutes, depending on the amount of documentation and whether pre-built indexes are installed. The results of the search will be available once the indexing process completes. You can continue to use help while the index is being built.

The search expression is case insensitive, meaning it ignores the case of the words. The search expression uses regular expression rules. For example, you can surround your search words with double quotes to search for the exact match. You can also use the asterisk or question mark wildcards, or the Boolean operators (AND, OR, NOT).

The search engine uses fuzzy searches and word stemming. If you enter *create*, for example, it returns topics that contain *creates*, *creating*, *creator*, and so on. To prevent the search engine from stemming terms, enclose them in double quotes.

You can limit the search to a subset of the documentation by clicking on the Search Scope hyperlink beside the search entry field in the main Help window. Here, you specify a name for a search list and select the topics you want to include in the search. The search scope is remembered across Workbench invocations, so always remember to check it before searching.

Bookmarks

Bookmarks are a simple and quick way to navigate to help pages that you frequently use. To bookmark a help page, click the “bookmark document” icon () when the topic you want to bookmark is displayed. This adds the topic to the list of bookmarks. You can access your bookmarks by clicking the bookmark page in the Help view or clicking the “bookmarks” icon () at the bottom left corner of the Help window, as shown in Figure 4–29.

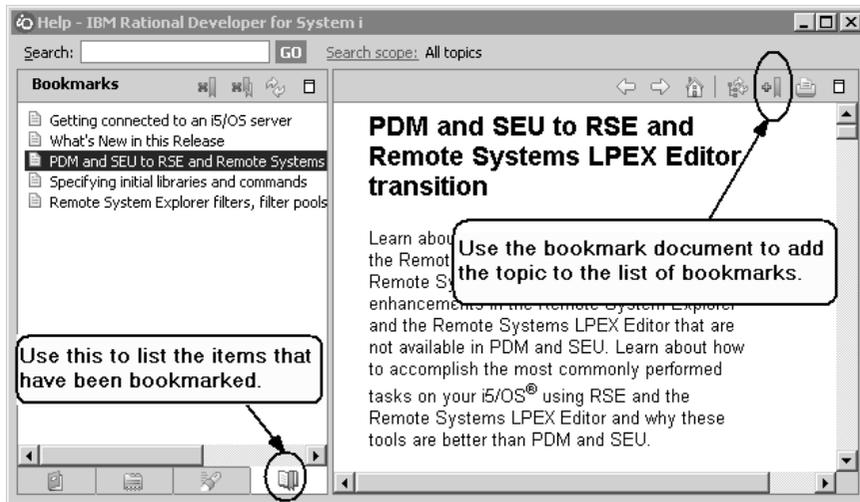


Figure 4-29: A Help window with bookmarks.

You can delete a particular bookmark using the “delete selected topic” icon () in the toolbar for the Bookmarks pane of the Help window. Alternatively, delete all bookmarks using the “delete all topics” icon ().