

PowerJ Learning Edition Read Me First Information

Welcome to PowerJ, the Sybase development tool for Java!

These topics provide late-breaking information on PowerJ and tips to help you use PowerJ effectively.

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Installing and uninstalling

These topics provide more information on installing and uninstalling PowerJ.

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■ Installing and uninstalling

Close other programs before installing

Make sure that you close other programs before installing PowerJ.

PowerJ may need to install newer versions of files that are used by other applications, so it is important for you to close other programs before installing PowerJ.

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Using an existing JDK

If you have already installed Sun's JDK 1.1.5, then you do not need to install it again when you install PowerJ Learning Edition. You just need to install the PowerJ support for the corresponding JDK, and then you may need to specify the JDK location in the PowerJ JDK Configuration property sheet page. (You do not need to set the JDK location for Java 1.1; PowerJ will automatically detect the location of JDK 1.1.x.) For more information, see [JDK configuration options](#).

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Uninstalling PowerJ

Follow these steps to remove PowerJ Learning Edition from your system:

1. In the Powersoft PowerJ 2.1 Learning Edition program group, double-click the Uninstall icon.
2. During the uninstall process, you may be asked if you want to remove some shared system DLL files. Unless you know that another program needs those files, you should let the uninstall program delete them.

IMPORTANT: Do not let the PowerJ uninstall remove any DLL files in the Windows System folder that start with `msvc`, `mfc` or `ole`. Other applications or the operating system may stop working if those files are removed.

3. If you have saved projects under the PowerJ folder, the uninstall program will not delete them. However, it will copy over the sample projects if you reinstall the samples. If you have made changes to the sample projects, save the files in the projects to different locations to avoid losing your changes.
4. You may need to remove some files under your PowerJ folder to completely remove PowerJ from your system. The uninstall program can miss some files that are generated by PowerJ when it is running.

Other resources

To get the most out of your use of PowerJ, you may want to download other files or read other information on the Web. Here are some suggested resources:

- The latest information on using PowerJ can be found at the PowerJ web site:

<http://www.sybase.com/products/powerj>

- If you want to use the latest UI controls from Sun (referred to as the "Swing" components), visit the Java Foundation Class (JFC) site at:

<http://www.javasoft.com/products/jfc>

From the above page, you may need to register for the Java Developer Connection to download JFC. Once you have downloaded JFC, you can import the components into PowerJ so that they will be added to the PowerJ component palette. For more information on using these components, see [Using JFC/Swing components](#).

- Browsers that include the Sun JDK 1.1 VM also support debugging of applets. One such browser is the HotJava 1.0 browser from Sun. You can download it from:

<http://java.sun.com/products/hotjava/>

- A browser that includes partial support for JDK 1.1 is the Netscape Navigator 4.0 browser (standalone or included with Netscape Communicator). For more information on using Navigator 4, see [Using Netscape Navigator 4](#). You can download it from:

<http://home.netscape.com/download/index.html>

- The Java language specification, and a Java tutorial, are available at the Sun Java site:

<http://java.sun.com/nav/download/index.html>

- The JavaBeans specification is available at the JavaSoft site:

<http://java.sun.com/beans/>

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Tips and known problems

This section includes tips to help you get the most out of PowerJ Learning Edition, and it lists some problems that you may encounter when using this release of PowerJ Learning Edition. Where possible, solutions or workarounds are given. Note that many issues are not PowerJ bugs. In particular, issues with a **Solution** are not considered to be PowerJ bugs.

If an issue has an issue number, it simply means that it is in the Powersoft issue database. It does not necessarily indicate that the issue is considered to be a bug in PowerJ.

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- [VM and browser issues](#)
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Classes not being found and other deployment issues

The PowerJ ClassPath is separate from a ClassPath environment variable. If you set a ClassPath environment variable, it will not be used when you run your program from PowerJ. If you run your program outside of PowerJ, your program will use the ClassPath environment variable (or registry setting, depending on the Java VM). You may need to modify the environment variable so that your Java VM can locate all the needed class files when you run your program outside of PowerJ. For more information on the PowerJ ClassPath, see [How PowerJ uses the CLASSPATH environment variable](#) in Chapter 2 of the *Programmer's Guide*.

In Netscape browsers, you can change the Java console to show class-loading information by typing "9" (without quotes) in the Java console. The console should then show the classes it is loading and where it is loading them from.

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JavaBeans components

Adding and programming components

[Issue 503355] When you import a Bean into PowerJ, PowerJ does not scan superclasses of the Bean. Thus, properties, methods, and events from the superclasses will not be in the Object Inspector or Reference Card. In addition, PowerJ doesn't detect that a Bean is serializable unless it directly implements `java.io.Serializable`, so the code that PowerJ generates for the Bean may not correctly handle serialization and may generate exceptions.

If you remove a component from the component palette and later want to restore it, you can do the following:

1. On the **Components** menu, click **Component Libraries**. PowerJ displays the list of installed libraries.
2. Click **Add**.
3. Locate the DLL, which is probably in the Components folder under PowerJ. The DLL will be named `dtComponentName.dll`.
4. Click **OK**.

[Issue 463619] When you add a new JavaBeans component to the palette, the Wizard prompts you for an image even if the Bean has a design-time image file. The palette will use the built-in image file, rather than the one that you specify.

Solution: You only need to specify an image file if the Bean does not include its own design-time image.

[Issue 442519] For JavaBeans components that you have added, the Parameter Wizard and Object Inspector do not indicate which values can be used for properties which have enumerated values.

Solution: To determine what values to use for a property, consult the documentation provided with the component, or use the Bean's property editor from the Object Inspector (if the Bean provides one).

[Issue 480100] Bean toolbar icons are not created correctly on some machines, due to the particular video resolution.

Workaround: Try a different resolution.

Using JFC/Swing components

If you have a copy of JFC, you can add JFC components to PowerJ via the Add Java Component menu item in the Components menu. Specify the **AWT Java Component Palette**, type a name such as JFC or Swing for the page, and use the **Browse** button to select the JAR with the JFC components. Click **Finish** and, after awhile, the Swing components will show up on the component palette. Restart PowerJ before using the components.

Note that JFC (and its Swing components) require that you use JDK 1.1.5 or higher.

To get the full benefit of JFC controls, you should use one of the JFC container classes: JApplet, JDialog or JFrame. You need to follow two steps to use these:

1. Start with an AWT container in PowerJ, and use the **Class** property in the Object Inspector to enable advanced class definition and specify the corresponding JFC container class, using either a fully-qualified name or specifying the package to import. This tells PowerJ to implement the container using the JFC class instead of the AWT class.
2. In the Classes window, open the `getContentPane` function and change its code to:

```
return super.getContentPane();
```

The last step is necessary because JFC containers have multiple panes and PowerJ has to generate code that adds components to the content pane.

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VM and browser issues

[Issue 464430] Some functionality of Java requires 256 colors or greater for color depth. If you are using something other than the Windows default color scheme, you should use at least 32k colors to avoid palette problems with Java virtual machines. A processor exception indicating an invalid page fault in WINAWT.DLL may indicate that you do not have sufficient color depth.

Solution: Set your display to use 256 or more colors.

Before you run a target in Netscape Navigator via PowerJ, you need to close all instances of Netscape Navigator.

If you run a program, then change the VM and run it again, debugging output will not appear in the debug log. When this happens, the debug output is sent to the Java console instead of the debug log.

Solution: Use the Java console or save your work and restart PowerJ.

Using the Sun JDK 1.1

Sun maintains a searchable database of known issues with the Sun JDK 1.1 as part of the Java Developer Connection at: <http://java.sun.com/jdc>

Breakpoints in constructors are sometimes ignored by the JDK 1.1 VM.

[Issue 465659] While debugging with the Sun 1.1 VM, if you continue execution after hitting a breakpoint, the focus is not returned to the running program window.

Workaround: Click on the window or use the taskbar to give the focus to the program you are debugging.

[Issue 453698] In the Sun JDK 1.1 VM, an empty choice box gives an exception at run time, and an empty list box gives an exception if it is clicked on.

Solution: Prevent empty choice boxes and list boxes.

[Issue 466847] If you trace through a part of a 1.1 applet or application for which you have no source, the lack of assembly language from the Sun VM can cause errors in PowerJ.

Solution: Avoid tracing through that code.

[Issue 468140] The 'Run Statement at Breakpoint/Continue' functionality of the debugger does not work with the Java 1.1 VM.

Solution: Avoid this feature.

[Issue 501863] When examining a StringBuffer in a Locals window while debugging with the Sun 1.1 VM, the character array within the StringBuffer appears as "".

Workaround: If you open it, each character element has the correct value.

Using Microsoft Internet Explorer 3

[Issue 464392] Attempting to install PowerJ when Internet Explorer 3.0 is running will prevent a successful install. This will be indicated by a dialog saying "Another Program is using the Class Files. Failed to start write operation."

Solution: Exit all other programs before installing PowerJ.

[Issue 464436] If you install Internet Explorer 3 after PowerJ, debugging in PowerJ will not work. Internet Explorer 3 includes an older version of the Microsoft Java VM than that included with Internet Explorer 4.01 and this build of PowerJ.

Solution: Install Internet Explorer 4.01 or higher, or uninstall and re-install PowerJ.

[Issue 464442] Some versions of Internet Explorer which have been customized for Internet Service Providers are incompatible with PowerJ. For example, Internet Explorer version 3.01b from AT&T WorldNet (which has the msjava.dll file size of 340,480 bytes) is not compatible with PowerJ.

Solution: If you are using such a version, replace it with the version obtained directly from Microsoft (3.01 or higher).

[Issue 443518] When you set up run options to use a file URL with Internet Explorer, and Netscape is your default browser, IE will use the file association for the file, and thus run Netscape instead of IE. This is by design for IE, since it can be a replacement for Windows Explorer.

Solution: Use the Dynamo Personal Web Server and an HTTP URL instead of a file URL.

Using Microsoft Internet Explorer 4

If you want to use PowerJ with Microsoft Internet Explorer 4, you must change IE4 properties to start a new browser each time. To do this, check on **Browse in a new process** on the **Advanced** page of the IE4 Options property sheet (which you open by clicking **Options** on IE4's **View** menu).

Note: By default, Internet Explorer 4 has much tighter security than Internet Explorer 3. When loading an applet from the local client, a number of security rules are now enforced that were not enforced before. Thus, you may wish to use the Applet Viewer during development and only test your release version deployed to a Web server with IE4, or you can change IE4 security zones and settings. For information on IE4 security settings for Java, see:

<http://www.microsoft.com/java/security/jsecwp.htm>

Using Netscape Navigator 3

Netscape Navigator 3 may crash running Java Class files created with the Sybase Java compiler for Debug-mode applet targets.

Solution: Only run Release-mode applets in the Navigator 3 browser, or use the Sun compiler (which you can choose on the Compiler tab of the target property sheet).

Using Netscape Navigator 4

[Issue 464418] Netscape Navigator 4 (included with Netscape Communicator) cannot run applets that use JDK 1.1 AWT features, since its JDK 1.1 support excludes the Abstract Windowing Toolkit (AWT).

As of Navigator 4.04, the AWT support is at the JDK 1.02 level rather than the JDK 1.1 level, and JDBC support is not included in the versions for 16-bit Windows and the Macintosh. The JDK 1.1 support in Navigator 4.04 is detailed at:

<http://developer.netscape.com/library/documentation/communicator/javajdk.html>

However, you can upgrade versions of Navigator 4 by installing a patch to add JDK 1.1 support. At the time of writing, the patch is available at:

<http://developer.netscape.com/software/jdk/download.html>

Navigator 4 is not compatible with PowerJ debugging support. This is not affected by whether you have the JDK 1.1 patch installed or not.

Note: By default, Navigator 4 has much tighter security than Navigator 3. When loading an applet from the local client, a number of security rules are enforced now that were not enforced before. For example, the PowerJ debug log violates Navigator 4 security. Thus, you may wish to use the Applet Viewer during development and only test your release version deployed to a Web server with Navigator 4, or you can change Navigator security settings. For information on changing Navigator security settings, see:

<http://developer.netscape.com/library/technote/security/sectn3.html>

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Debugging Java

[Issue 447935] If the debugger is set to break before code, it will not break there if you restart.

[Issue 461399] Debugging watch points from one project are carried to new projects if you do not exit PowerJ before creating a new project.

Workaround: If your current project has watches that you do not want in a new project you are creating, close the design environment and restart PowerJ before creating the new project.

[Issue 501859] When tracing through a program, the local variables go out of scope before reaching the closing brace of a function, so you cannot see the effect of the last line of code.

Solution: This is by design for the Sun VM.

[Issue 501956] Breakpoints set in tab page user functions do not show up in the Breakpoints window, and so are not used by the debugger at run time.

[Issue 465657] The debugger does not recognize the skip to cursor command — the pointer will move to the desired line, but tracing will continue from the line that was last executed.

Workaround: Set a breakpoint and run to it instead of running to the cursor.

[Issue 465248] Under Windows NT, the design environment does not correctly restore the code editor windows from a minimized state when breakpoints are hit in that code editor.

Workaround: Restore the debug code window manually.

When debugging under Windows 95, the Sun VM attempts to use sockets. If your networking software is not enabled, the VM will fail and you will not be able to debug in PowerJ.

Solution: Enable your networking software.

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Forms at design time

PowerJ always uses the Sun JDK 1.1 VM to display forms at design time.

[Issue 447911] You cannot use rubber band selection for objects on a panel (the whole panel is treated as an object to be moved).

Solution: On a panel, you must select multiple controls by holding down the control key and clicking (selecting) components with the left mouse button.

[Issue 469761] When you are on a second tab page of a multi-tab control, and you select an item on the second tab page, then hit the up or down arrow key, it shows selection handles for an object on the first tab page.

[Issue 470870] If you lasso (marquee selection or rubber banding) a tab control, and right-click on the tab page, the selection handles are deleted.

Workaround: Do not use marquee selection.

[Issue 501628] The foreground color of the command button is black at design time and correct at run time.

[Issue 504269] If you hold down the control key and click to extend a selection of objects on a tab control, panel, or group box, PowerJ will not display selection handles for the additional objects.

Solution: The objects are selected. The selection handles will show up if you move the selection.

[Issue 464460] For menu items, you cannot access the action event at design time by using the menu.

Solution: Use the Object Inspector or menu editor to access the action event for a menu item.

[Issue 447132] Parts of resize handles remain around all non-visual and text entry components at design time.

Workaround: Minimize the design-time form and restore it to force the correct painting.

[Issue 464417] Selecting a control on a form at design time using the cursor keys or tab key and pressing Shift+F10 to invoke the context (pop-up) menu will not necessarily give you the context menu for the component currently showing the resize handles.

Solution: If you are intending to open the properties sheet for the component, use Alt+Enter to open the correct properties sheet. Otherwise, you must use the right mouse button to open the correct context menu.

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Importing Java files

As well as the information on the PowerJ **Import Java Files** facility in [Importing from other Java environments](#), you should note the following:

- The importing process does not currently support nested (or inner) classes (i.e. classes whose definitions are enclosed in the definition of another class).
- PowerJ will not allow a target to have the same name as a class in the target. Importing a class with the same name will cause the import procedure to fail. If this occurs, choose a different target name and import again.

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Keyboard shortcuts

The keyboard shortcuts are documented in the [PowerJ and Power++ Keyboard Shortcuts](#) topic of the PowerJ Master Help. Some of the listed shortcuts are not applicable to PowerJ.

The following do not apply to PowerJ:

SHIFT+F6	Open resources window (View Shortcuts)
CTRL+6	FPU Registers (Debugging Shortcuts)
F6	Open prototype (Text Manipulation Shortcuts)
F7	Run to cursor (Debugging Shortcuts)

Important: Do not use the following debugging shortcuts with JDK 1.1 programs. These features are not supported by the JDK 1.1 debugging VM:

CTRL+5	Registers
CTRL+UPARROW	Up call stack
CTRL+DOWNARR	Down call stack

[Issue 441415] [Updated] CTRL+SHIFT+F6 does not include the design forms when traversing backward through the PowerJ windows.

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Miscellaneous issues

For JDK 1.1 targets with menus, the menu editor offers both the `itemStateChanged` event and the `actionPerformed` event. You must use the `itemStateChanged` event for `CheckBoxMenuItem` objects and `actionPerformed` for `MenuItem` objects.

Solution: Choose the `itemStateChanged` event for `CheckBoxMenuItem` objects and `actionPerformed` for `MenuItem` objects.

[Issue 489380] The drop-down combo boxes in the Object Inspector properties do not work when the "always on top" option is enabled from the View menu.

Workaround: Do not enable the "always on top" option.

[Issue 499842] PowerJ allows you to delete your data members in the Classes window. Be very careful with this functionality, since deleting the Data Members section will delete all member variables defined in that section.

[Issue 499988] The Find in Project dialog sometimes has an entry in it like: `Class::Prototype for foo()`.

Workaround: Ignore entries like this.

[Issue 499942] The menu editor will allow you to create multiple menu items with the same variable-name suffix, which will cause compile errors.

Workaround: Do not create multiple menu items with the same variable name suffix.

[Issue 499936] If you have a user function called `Foo()` and a menu item called `Foo`, and you rename the menu item to `Bar`, the user function also gets renamed to `Bar()`.

[Issue 500789] Saving a project in a sub-folder of the folder that was originally created for the project will cause many recursive directories to be created.

Workaround: Do not create new projects in project sub-folders.

[Issue 501576] There is no obvious way to edit a menu on a form with a layout that fills the form.

Workaround:

- Select the menu bar component in either the Object Inspector or the Objects window.
- Click on the title bar of the form with your mouse.
- Press Shift+F10 to open the context menu.
- Select Edit Menu from the context menu.

[Issue 501597] When you edit the component and form templates, they copy to a new place instead of renaming. This may cause PowerJ to fail.

Workaround: Create a new template from the existing template and then delete the original if it is no longer needed.

[Issue 501598] The Form Wizard doesn't reinitialize the available forms if you backtrack and select a different target (of a different type) from the list of targets in your project.

[Issue 502085] There are sometimes some painting anomalies in the customize toolbar dialog.

[Issue 502924] PowerJ will not allow the creation of targets from file-based target templates (e.g. `Dynamo`; `Jaguar`; `Web Extension`; `Bean`; user-defined) after you abort loading a project.

[Issue 503089] In the Classes window, expanding a class that was added to a target from a Java file using the right-arrow key (as opposed to clicking the plus sign) causes two items to be displayed for each class in the file.

[Issue 503192] When using the keyboard arrow keys to go up and down the forms in the left pane of the Classes window, the window loses focus if a form which is not currently loaded is highlighted.

[Issue 504243] When defining a color for a control, if a custom color is added to the dialog box, it will be erased when the dialog is closed.

Workaround: Use the custom color right away, and save the RGB values for future reproduction.

[Issue 504984] Adding a menu to a Frame that is set to use the null layout manager causes the resize handles of components already on the Frame to be displayed a menu bar's height closer to the top of

the form than the component itself.

Workaround:

- Add the menu to your Frame before any other controls.
- Set the layout manager to some other layout manager, such as `ResizePercentLayout`, before adding the menu and then set it back to null afterward.

[Issue 464413] If you run McAfee VShield on your computer, building or running a PowerJ project causes the A: drive to be accessed.

Solution: Turn off checking of drive A in McAfee VShield.

[Issue 447889] A project with multiple targets forces its forms to have unique names.

Solution: Use unique names for each form in a project.

[Issue 463005] PowerJ can have General Protect Fault errors when you use the Matrox Millennium PowerDesk driver `mgapdx64.drv` dated 09-04-96.

Solution: Download a newer driver from the Matrox homepage <http://www.matrox.com> to prevent the problem.

[Issue 467387] When checking in the files using the "Files/Check In Project" menu item, the WXU file in the Files View does not get checked in.

Solution: This is by design. The WXU file should be unique to each user and should not be shared.

[Issue 466840] When using the `BorderLayout` layout manager, PowerJ will not warn you if you try to change the position of a component to that of an already existing component. It will (correctly) not change it in that case. For example, if you have a form with a "North" button and a "South" button, and you try to change the "North" button to "South", you will not receive a warning, and the position of the button will not change. The next time the property sheet is opened, the position of the previously changed button will still be "North".

Solution: Avoid using positions that are already used.

If you paste a component from the clipboard into a container with the `CardLayout` layout manager in the Objects window, it will not work correctly.

Workaround: Instead of pasting, use the New context menu to create a new component.

As you select objects in the Objects window, the corresponding object will be selected in the design-time form. However, existing selected objects on the design-time form are not deselected first.

[Issue 492811] If you close and restart PowerJ on a fast computer running Windows NT, when PowerJ restarts you may get a dialog box that says PowerJ is saving a project.

Solution: Use the Close button to close the dialog box.

The Objects window allows you to select objects which are not visible; for example, you can select a button which is on a hidden page of a tab control, and sizing handles will be displayed for this invisible object.

FDX forms have a `writeFDX()` function in their `destroy()` method. This implies that `writeFDX()` will be called in cases where this may not be the desired behavior.

Workaround: In the `ObjectCreated` event for the form, store the `__fdx` variable's value in another member variable of the appropriate type and set `__fdx` to null. This will prevent `writeFDX()` from having an effect. If you want `writeFDX()` to have an effect, then restore the `__fdx` variable from your temporary member variable.

If you have set your COMSPEC environment variable to an empty string or another invalid value, PowerJ will give an error message about being unable to initialize the build engine.

Solution: Either omit your definition of COMSPEC (so the Windows will use a default) or specify a correct value.

By default, PowerJ Learning Edition sets the layout manager to null. If you change the layout manager to `powersoft.powerj.ui.ResizePercentLayout`, you will require classes from the `powersoft.powerj.ui` package.

Solution: You must deploy classes from the `powersoft.powerj.ui` package.

Getting technical support

IMPORTANT: There is no telephone-based Technical Support available for PowerJ Learning Edition. However, you can use the electronic forums listed below.

Documentation can help you isolate a problem, solve it, or determine if you have encountered a known bug. Also, by checking online services like the Powersoft newsgroups, the FaxLine Service, the Bulletin Board Service and FTP site, or the Powersoft Web site, you may find that your issue has already been resolved.

Other support

Phone number or info you need

World Wide Web site

www.sybase.com

Internet Newsgroups

Our news server is forums.sybase.com.

Note: This forum is not a substitute for Sybase technical support; it is a free service providing a forum for you to get help from your peers, although it will be monitored by Sybase technical support.

The PowerJ newsgroups at forums.sybase.com are:

powersoft.public.powerj.general
powersoft.public.powerj.components
powersoft.public.powerj.database
powersoft.public.powerj.docs

Internet FTP site

[ftp.powersoft.com](ftp://powersoft.com)

Bug Reporting:

Please use our web-based tool, WebExpress, to submit bug reports. Information regarding this tool can be found at http://etsprod.sybase.com/docs/h_logon.htm.

Enhancement Requests

Follow the same links as Bug Reporting.

Technical Support Programs and Guidelines

Visit our web site at <http://support.sybase.com>

Training Schedule and Registration

(978) 287-1700

