Project Builder Guide

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CHAPTER 1

Creating and Managing Projects

This chapter describe how to create, open, save, and customize a project. For information on how to manage source files, see “Managing Files” (page 25).

“Creating a Project” (page 1)

“Opening and Closing a Project” (page 4)

“Grouping Related Projects” (page 7)

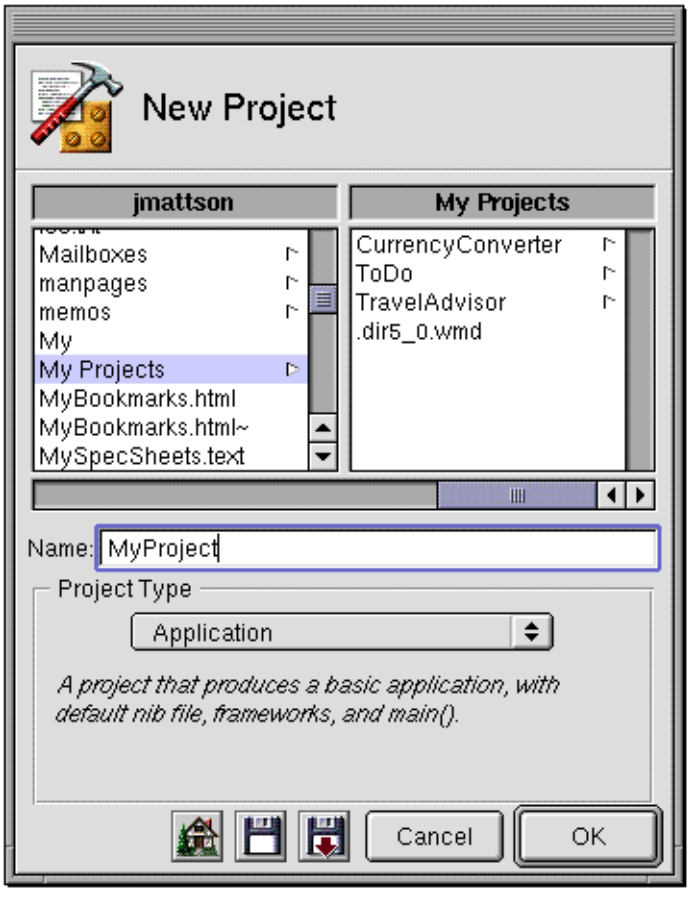
“Setting Application Options” (page 12)

Creating a Project

This section describes how to create a new project.

Creating a Project

1. **Choose Project>New.**
2. **In the panel that appears, choose the project’s type.**
3. **Enter the name of the project in the Name field.**



With one command, you can create a project that includes template source files, resource files, and makefiles.

1. **Choose Project>New.**
   Project Builder displays the New Project panel.

2. **In the panel that appears, choose the project's type.**

Choose one of the following types from the Project Type pop-up menu.

Project Type	Description
Application	A stand-alone application with a graphic user interface. The project contains many files, including a sample source file, nib files for Rhapsody and Windows applications, and a makefile.
Tool	A server or command-line program without a graphic user interface. The project contains many files, including a sample source file and a makefile.
Loadable Bundle	A directory of resources, such as images, sounds, character strings, nib files, and dynamically loadable executable code, to be used by one or more applications. The project contains many files, including a sample source file, a nib file, and a makefile.
Library	A static or dynamic shared library. The project contains many files, including a sample source file and a makefile.
Framework	A bundle that contains a dynamic shared library plus resources. The project contains many files, including a sample source file, a nib file, and a makefile.
Palette	A static Interface Builder palette—a palette with code that you must compile before it can be used. The project contains many files, including a sample source file, a nib file, and a makefile
Legacy	A project for which Project Builder doesn't maintain the makefile. Use this when you have created your own makefile. The project contains many sample source files. Note that you don't have to use this project type whenever you want to have some control over the makefile. Instead, you can edit the Makefile.preamble or Makefile.postamble files.
Aggregate	A collection of loosely related projects. See "Grouping Related Projects" (page 7).

Generally, the only difference between project types is the kind of executable they produce. However, there are some important differences between applications and libraries (including frameworks).

3. **Enter the name of the project in the Name field.**
After you press OK, Project Builder creates a directory that will hold all of the project's code files and resource files. Project Builder adds several supporting files, such as project makefiles and templates that you can use to create source files, to that directory

Opening and Closing a Project

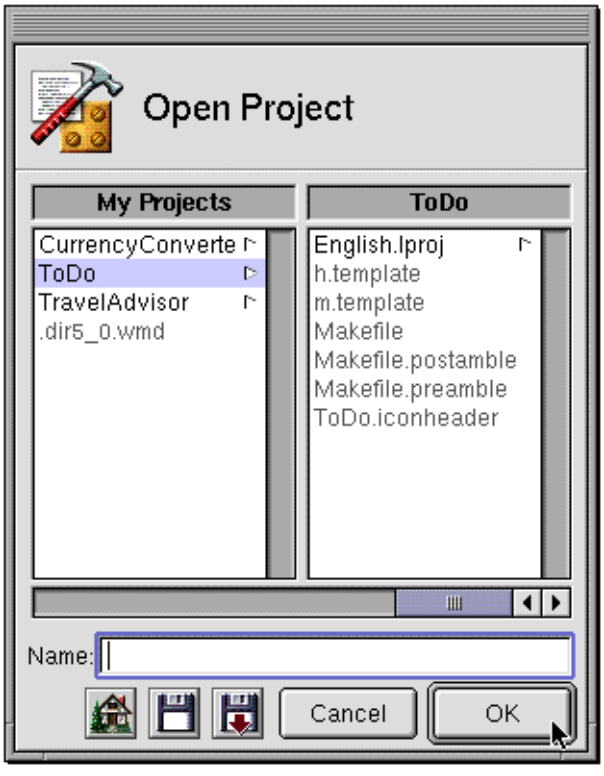
You open and close a project file in much the same was you'd open and close any file.

"Opening a Project" (page 4)

There are two ways to close a project. Either choose Close from the Project menu, or click the close box in the project's window. Project Builder closes the project file and all opened source files that belong to the project.

Opening a Project

1. **Choose Project>Open.**
2. **Select the project..**



You can open a project in much the same way you can open any other file.

You can also open a project within the Workspace by double-clicking on the PB.project file.

1. **Choose Project>Open.**

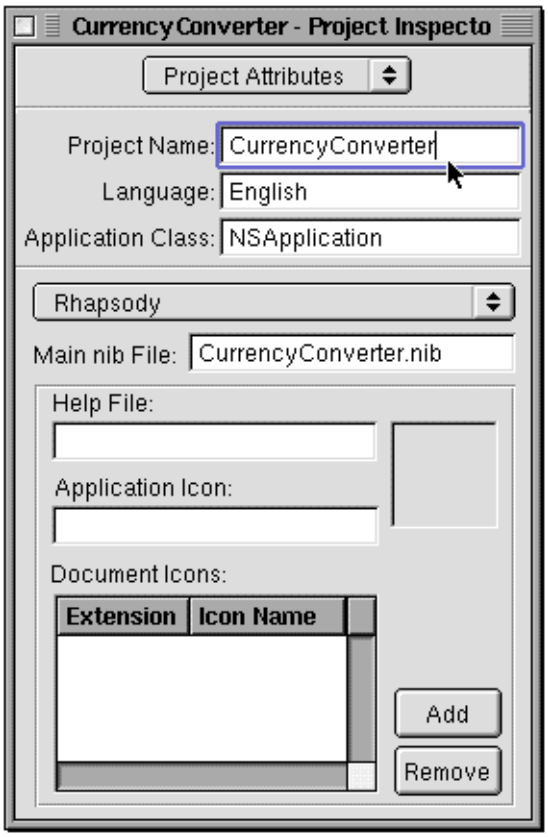
2. **Select the project.**

   - If you're using Yellow Box under Windows, select the PB.project file in the project directory.
   - If you're using Rhapsody, select the project folder itself. Selecting the PB.project file will open it as a text file, not a project file.

     After you press OK, Project Builder opens the project and displays a project browser window for it.

Changing a Project's Name

1. Bring up Project Attributes display Project Inspector.
2. In the Project Name field, enter the new name.



By default, the project's name is the name of the directory you chose when you created the project. Project Builder uses the same name for the executable or bundle that the project creates. If this isn't the name you want to use, you can change it.

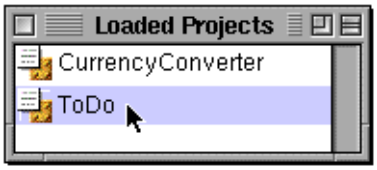
1. **Bring up Project Attributes display Project Inspector.**

In the project window, click the Inspector button . The Project Inspector panel appears. Choose Project Attributes from the pop-up menu at the top of the panel. The Project Attributes display appears.

2. **In the Project Name field, enter the new name.**
   After you press Return, Project Builder now uses that name for the project and whatever end product the project creates.

Switching Between Open Projects

1. **In the Load Projects window, click the project you want to work on.**



In the Loaded Projects window, you can view all the projects that are open within Project Builder and select which one to work on.

1. **In the Load Projects window, click the project you want to work on.**
   To see the Loaded Projects window, choose Loaded Projects from the Tools menu. After you click a project, its window comes to the front.

Grouping Related Projects

If you have many projects that relate to each other, you can organize them as a single project in Project Builder. You can group related projects into a single project in two ways: by creating subprojects within a regular project or within an aggregate project:

If the subproject's build result is part of the main project's build result, create a subproject within a regular project.

If the main project does not use the build results from the subprojects, but you want to group several projects together as a convenience, create subprojects within an aggregate project

To have all subprojects be listed in the top level of the browser (rather than under Subprojects), set the preference on the Miscellaneous display of the Preferences panel.

For information on the different ways to include a subproject within a project, see these sections:

"Using Subprojects in Regular Projects" (page 8)

"Using Aggregate Projects" (page 9)

For information on how to add new or existing subprojects to a project, see these sections:

"Creating a New Subproject" (page 9)

"Adding an Existing Project as a Subproject" (page 11)

Using Subprojects in Regular Projects

When you create a subproject within a regular project, the subproject's build result (executable or bundle) is included in the build result of the main project. If the main project produces a bundle as its build result, the subproject's executable or bundle is placed inside the main project's bundle. Component subprojects produce an object file that is linked with the main project's executable. A component's resources are merged into the resource directory of the main project.

For example, if you're creating an application named MyApp and the application uses a command-line tool named aTool, you can include aTool project as a subproject of the MyApp project. When you build MyApp, aTool is built as well. After all of the code in both projects has been compiled and linked, Project Builder creates a directory (bundle) named MyApp.app. That directory contains aTool as well as the MyApp's executable and resources.

Using Aggregate Projects

If you have several projects whose executables don't need to be tied to each other but you want to group them together as a convenience, create an aggregate project and include those projects as subprojects in the aggregate.

The aggregate project itself produces no executable or bundle. Its only purpose to group other projects together. Any project, even applications and frameworks, can be a subproject of an aggregate.

For example, suppose you've created several tools to test a framework that you're working on. If you want to manage all of these projects as a single unit, you can create an aggregate project and include the tools and the framework as subprojects of the aggregate.

Creating a New Subproject

1. **Choose Project>New Subproject.**
2. **Choose the subproject's type.**
3. **In the Name field, enter the subproject's name.**

You can easily create a new subproject, which can contain all the files a project would but is completely contained within another project.

1. **Choose Project>New Subproject.**

A New Subproject panel appears.

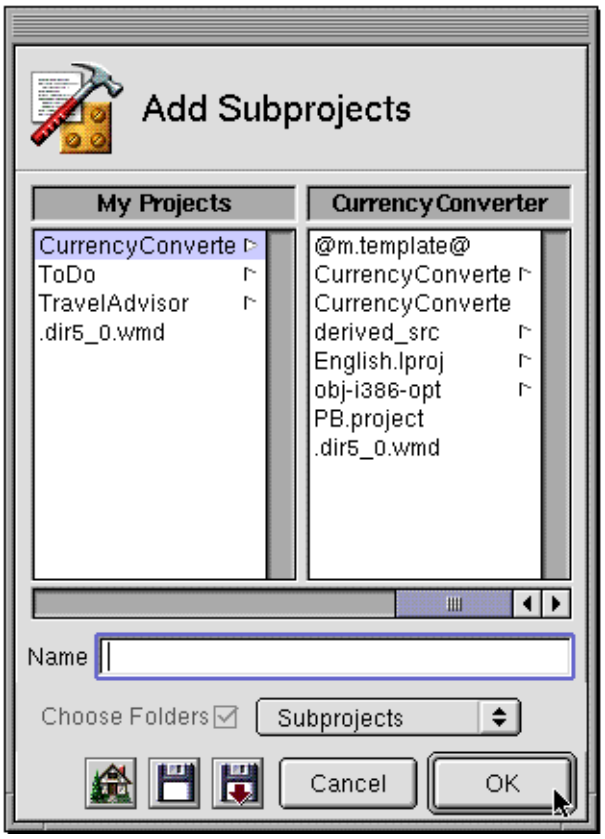
2. **Choose the subproject's type.**
   From the Type pop-up menu, choose one of the following types:

Subproject Type	Description
Component	A convenient grouping of related files within a project. It's not meant to stand alone as a tool, framework, palette, or library, nor is it meant to dynamically loaded like a bundle.
Loadable Bundle	A directory of resources, such as images, sounds, character strings, nib files, and dynamically loadable executable code, to be used by one or more applications. The project contains many files, including a sample source file, a nib file, and a makefile.
Tool	A server or command-line program without a graphic user interface. The project contains many files, including a sample source file and a makefile.
Framework	A bundle that contains a dynamic shared library plus resources. The project contains many files, including a sample source file, a nib file, and a makefile.
Library	A static or dynamic shared library. The project contains many files, including a sample source file and a makefile.
Palette	A static Interface Builder palette—a palette with code that you must compile before it can be used. The project contains many files, including a sample source file, a nib file, and a makefile

3. **In the Name field, enter the subproject's name.**
   After you press OK, Project Builder creates a subdirectory within the main project's directory that will hold all of the subproject's code files and resource files. Project Builder adds several supporting files, such as project makefiles and templates that you can use to create source files, to that subdirectory

Adding an Existing Project as a Subproject

1. Choose Project>Add Subproject.
2. Select the project.



You can add an existing project to another project as a subproject. This is helpful if you want to manage several related applications as one project.

This procedure creates a copy of the selected project and places the copy in the main project's directory. If you want to create a project which several different projects share, see "Grouping Related Projects" (page 7).

1. **Choose Project>Add Subproject.**
   An Add Subprojects panel appears.

2. **Select the project.**
   - If you're using Yellow Box under Windows, select the PB.project file in the project directory.
   - If you're using Rhapsody, select the project folder itself. Selecting the PB.project file will open it as a text file, not a project file. Note that the Name field remains empty.

     After you press OK, Project Builder creates a copy of the selected project and places the copy in the main project's directory

Setting Application Options

Project Builder gives you several ways to customize your Application project and how it's built.

"Setting the Language" (page 12)

"Setting the Application Class" (page 14)

"Choosing Options for Different Platforms" (page 15)

"Choosing the Main Nib File" (page 16)

"Setting the Application Icon" (page 18)

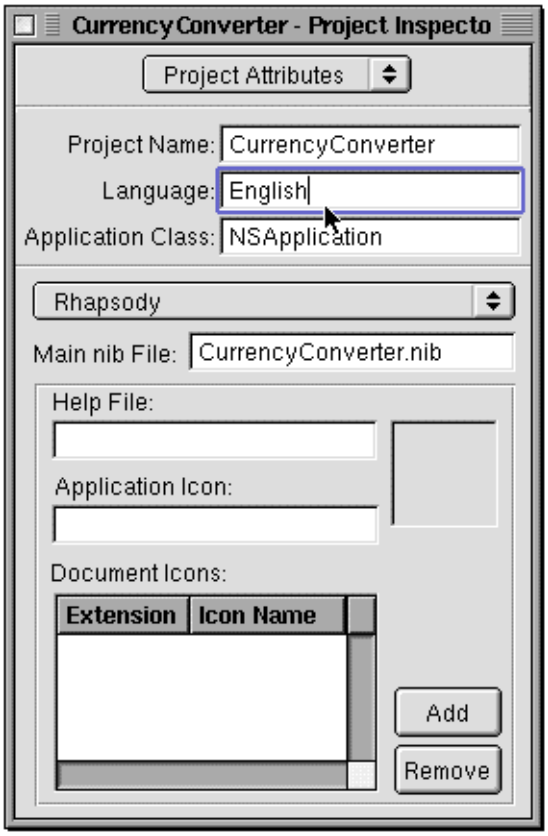
"Setting Document Icons" (page 19)

"Setting System-Defined Icons" (page 22)

"Setting the Help File" (page 23)

Setting the Language

1. **In the Project Attributes display of the Project Inspector, enter the name of the language in the Language field.**



1. **In the Project Attributes display of the Project Inspector, enter the name of the language in the Language field.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

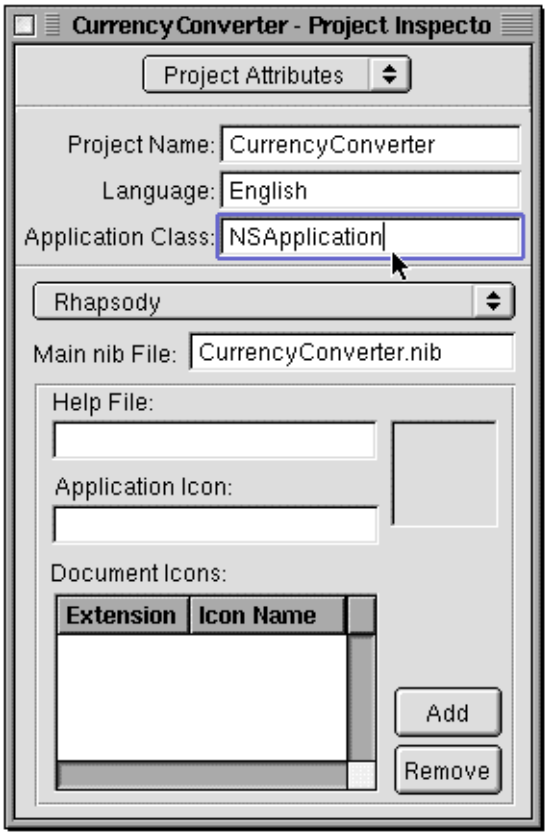
   In the Language field, enter the English name for the language. The default language is English.

   Project Builder creates an .lproj subdirectory for the language specified if one doesn't already exist. When you view the interface files for your project, only the files for this language appear. And when you turn on the Localizable Resource option for a file in the File Attributes display, Project Builder places the file in the .lproj subdirectory of the language that's specified here.

For more information on how to localize an application, see "Localizing an Application—Summary of Steps" (page 87).

Setting the Application Class

1. **In the Project Attributes display of the Project Inspector, enter the name of the class in the Application Class field.**

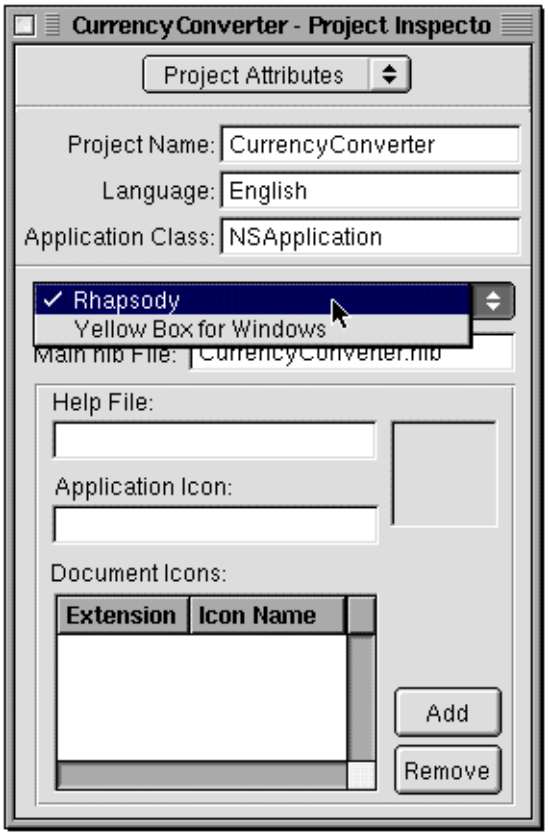


If you use a custom subclass of NSApplication, enter its name in the Application Class field. When your application is launched, it creates an instance of this class. The default value is NSApplication.

1. **In the Project Attributes display of the Project Inspector, enter the name of the class in the Application Class field.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

Choosing Options for Different Platforms

1. **In the Project Attributes display of the Project Inspector, choose the platform from the pop-up menu.**



Project Builder lets you select different settings for several different options depending on which platform you're developing for. For example, your application can have a different icon file for Windows and Rhapsody.

1. **In the Project Attributes display of the Project Inspector, choose the platform from the pop-up menu.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

   Choose the platform from the pop-up menu in the middle of the panel.

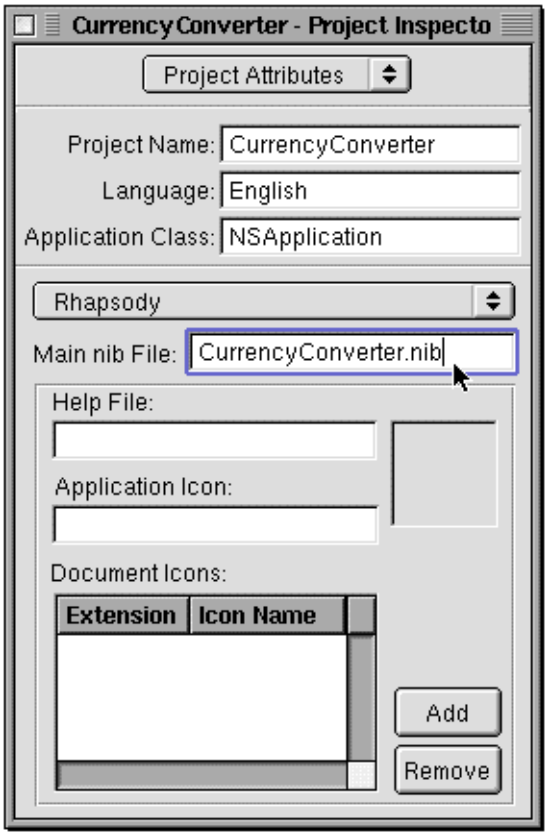
   Project Builder saves the settings for the previous platform and restores the settings for the selected platform.

   These are the settings affected:

   - Main nib File, described in "Choosing the Main Nib File" (page 16)
   - Help File, described in "Setting the Help File" (page 23)
   - Application Icon, described in "Setting the Application Icon" (page 18)
   - Document Icons, described in "Setting Document Icons" (page 19)

Choosing the Main Nib File

1. **In the Project Attributes display of the Project Inspector, enter the name of the nib file in the Main nib File field.**



1. **In the Project Attributes display of the Project Inspector, enter the name of the nib file in the Main nib File field.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

   Enter the name of the project's main nib file in the Main nib File field. This is generally the nib file with your application's menus and main windows.

   You can choose different main nib files for different platforms. See "Choosing Options for Different Platforms" (page 15).

Setting the Application Icon

1. In the Project Attributes display of the Project Inspector, click the Application Icon field.
2. Enter the name of the icon file.

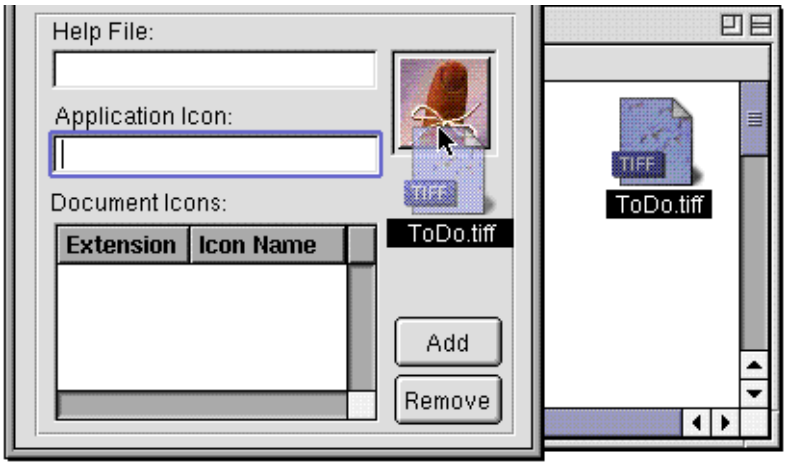
This method explains how to assign an icon to an application. This is the icon that the user sees in the Workspace Manager.

You can choose different application icons for different platforms. See "Choosing Options for Different Platforms" (page 15).

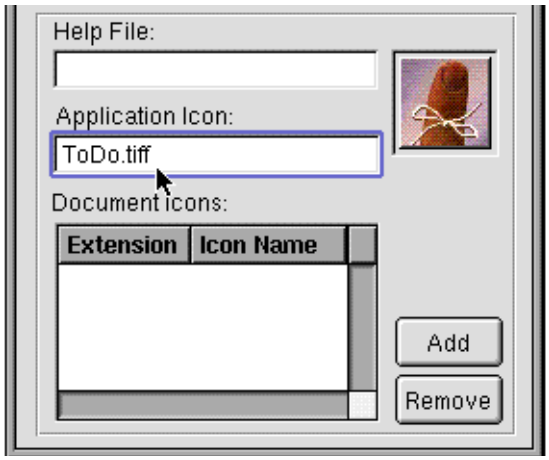
1. **In the Project Attributes display of the Project Inspector, click the Application Icon field.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

2. **Enter the name of the icon file.**
   There are two ways to enter the file name:

   - Drag the icon file from the Workspace Manager to the icon well. Project Builder adds the file to the project, if necessary, and enters the name of the file in the Application Icon field



- Type the icon file's name in the field. Project Builder displays the icon in the icon well. Use this method only if you've already added the icon file to the project.



Setting Document Icons

1. **In the Project Attributes display of the Project Inspector, click Add.**
2. **Enter the icon file's name.**
3. **In the Extension field of the Document Icons table, type the file extension that this icon represents.**

If your application creates documents of a unique type or if it will be the default application for an existing type, you should assign an icon for that document type.

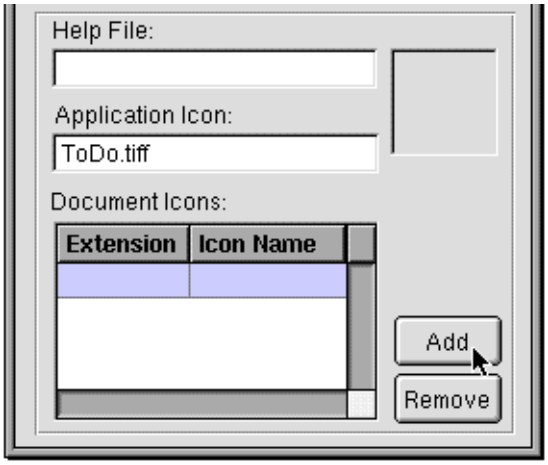
If your application reads documents of a certain type, but cannot write them, you should add the extension for the document type to the Document Icons table as well. See "Setting System-Defined Icons" (page 22).

You can choose different document icons for different platforms. See "Choosing Options for Different Platforms" (page 15).

This method lets you easily add an icon file to the project and assign it to a document type.

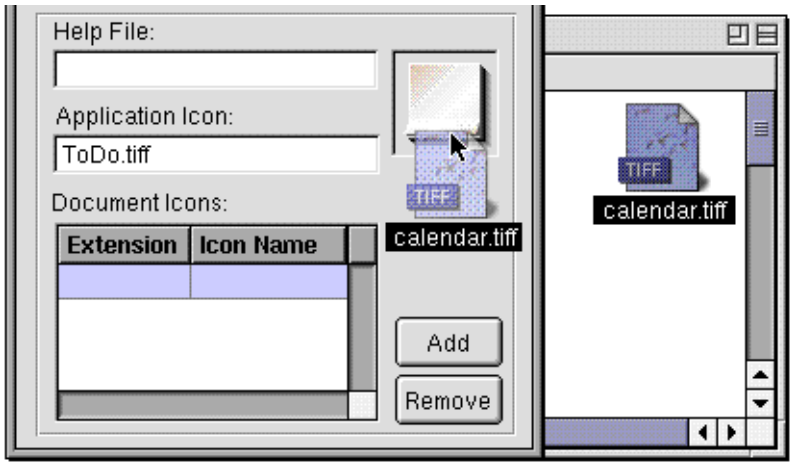
1. **In the Project Attributes display of the Project Inspector, click Add.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

   After you click Add, a new row appears in the Document Icons table. The insertion point is in the Icon Name field.

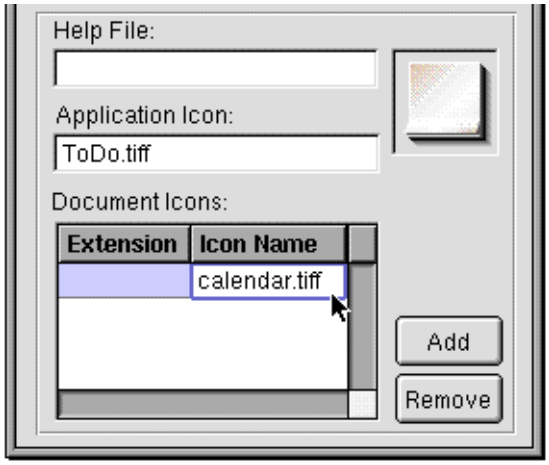


2. **Enter the icon file's name.**
   There are two ways to do this:

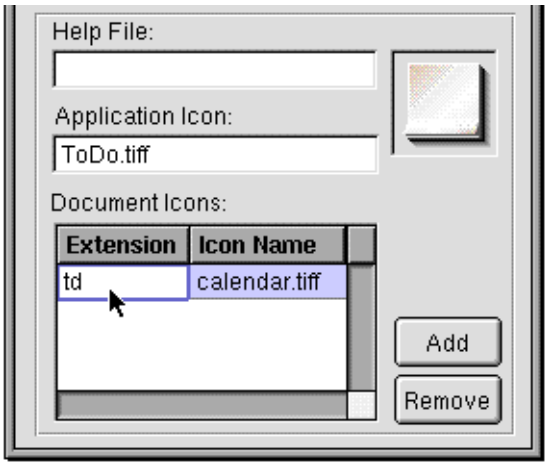
   - Drag the icon file from the Workspace Manager into the icon well. Project Builder adds the file to the project and enters the name of the file in the Icon Name field of the Document Icons table



- In the Icon name field of the Documents Icon table, type the icon file's name, and press Return. Project Builder displays the icon in the icon well. Use this method only if you've already added the icon file to the project.



3. **In the Extension field of the Document Icons table, type the file extension that this icon represents.**



The icon now appears for any file with that extension.

Setting System-Defined Icons

1. In the Project Attributes display of the Project Inspector, click Add.
2. In the Extension field of the Document Icons Table, type the file extension.

In addition to listing the document types that your application can create, the Document Icons table should list the document types that your application can read but cannot create. For example, if your application can open RTF files and translate them into its own unique document type, you should list the RTF extension in this table

1. **In the Project Attributes display of the Project Inspector, click Add.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

   After you click Add, a new row appears in the Document Icons table.

2. **In the Extension field of the Document Icons Table, type the file extension.**
   Your application can now open documents of this type.

Setting the Help File

1. In the Project Attributes display of the Project Inspector, place the insertion point in the Help File field.
2. Drag the help file from the Workspace Manager to the icon well.

Your application can have a comprehensive help file, which it opens when a user selects Help from the Apple menu. Just enter the help file's name in the Help File field, or follow the procedure below.

Note that if the Help File field is blank, Project Builder assumes the file has the same name as the project (minus any extension).

You can choose different help files for different platforms. See "Choosing Options for Different Platforms" (page 15).

1. **In the Project Attributes display of the Project Inspector, place the insertion point in the Help File field.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

2. **Drag the help file from the Workspace Manager to the icon well.**
   Project Builder adds the file to the project and enters the name of the file in this field.

CHAPTER 1

CHAPTER 2

Managing Files

These sections show you how to create, open, add, and delete files in a project.

"Creating a File" (page 25)

"Opening and Closing a File" (page 28)

"Adding and Removing a File" (page 35)

"Saving a File" (page 40)

Creating a File

You can create a file that's automatically added to a project, or create a scratch file that isn't.

"Creating a File in the Project" (page 25)

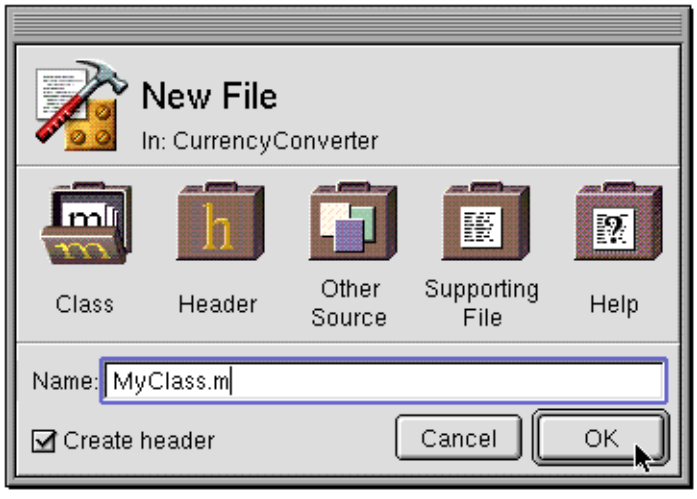
"Creating a File Outside the Project" (page 27)

Creating a File in the Project

This procedure creates a new file and adds it to your project.

1. **Choose File>New in Project.**
2. **Select what type of file to create.**

3. Enter the filename.



1. **Choose File>New in Project.**
   Project Builder displays the New File panel.

2. **Select what type of file to create.**

Type of File	What to Select
Class and header file	Select the Class suitcase and the "Create header" option. Project Builder will create two source file templates and add the class to your project's Class category and the header file to the project's header category.
Class file only	Select the Class suitcase and deselect the "Create header" option. Project Builder will create a class file template and add it to the Class category of the project.
Header file only	Select the Header suitcase. Project Builder will create a header file template and add it to the Header category of the project.

Type of File	What to Select
Another source file (such as a file of functions)	Select the Other Source suitcase. Project Builder will create an empty text file and add it to the Other Sources category of the project.
Text file (such as documentation)	Select the Supporting File suitcase. Project Builder will create an empty text file and add it to the Supporting Files category of the project.
Context-sensitive help file	Select the Help suitcase. Project Builder will create an empty RTF file and add it to the Context Help category of the project.

Use the suitcases and the "Create header" option to choose the type of file (or files) you want to create.

3. **Enter the filename.**
   Enter the filename in the Name field. If you're creating both a class and header file, enter the name of the class file. Project Builder will create a header file with the same name, substituting .h for .m.

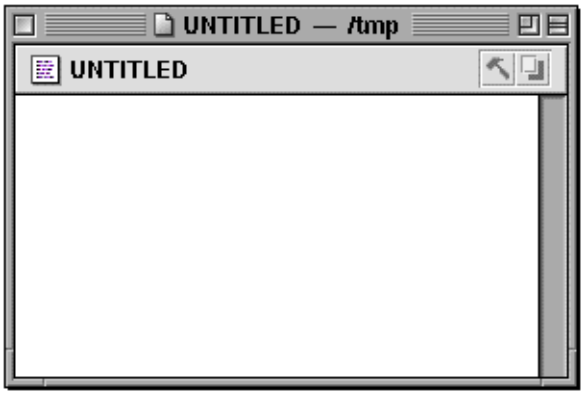
   When you click OK, Project Builder creates the specified file (or files) and adds them to the project.

Creating a File Outside the Project

1. **Choose File>New Untitled.**

This procedure creates a new text file that is not part of your project.

1. **Choose File>New Untitled.**
   Project Builder creates a new text file in the temporary directory.



Opening and Closing a File

These sections describe all the ways you can open, view, or close a source file in Project Builder.

"Switching Between Header and Class Files" (page 28)

"Opening a Text or RTF File from the Project Browser" (page 29)

"Opening a File from the Open Panel" (page 31)

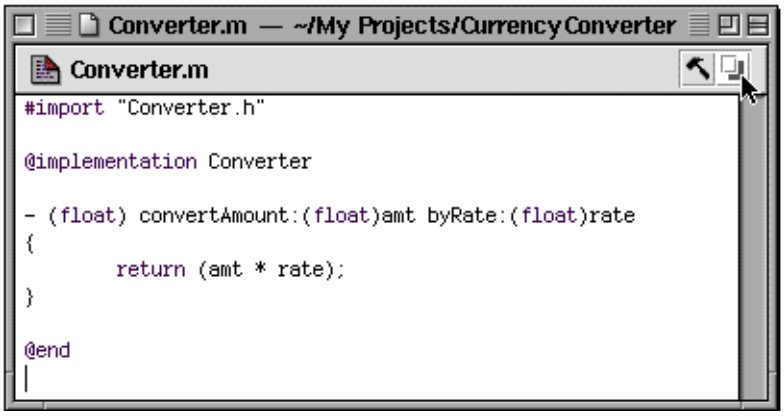
"Opening a File by Typing Its Name" (page 32)

"Viewing Recently Opened Files" (page 33)

"Closing a File" (page 34)

Switching Between Header and Class Files

1. **Press the Switch Header/Module .**



This procedure lets you open a file's corresponding class or header file by simply clicking a button.

1. **Press the Switch Header/Module .**
   The Switch Header/Module button is at the top of the code editor

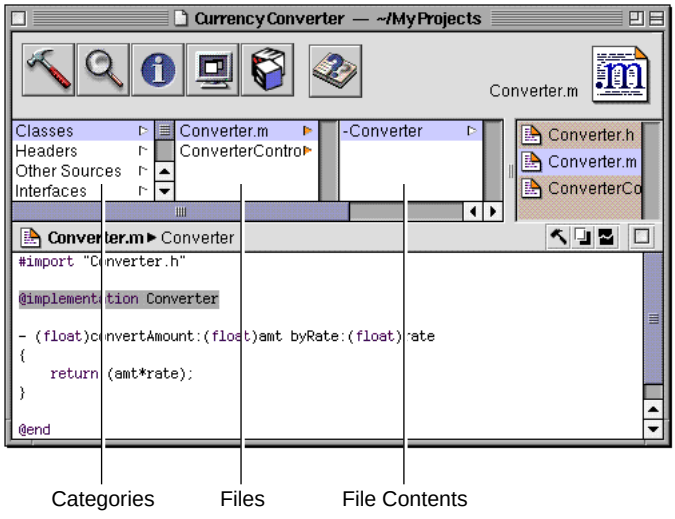
   Project Builder displays the corresponding header or module file. For example, it would display Converter.m instead of Converter.h.

Opening a Text or RTF File from the Project Browser

1. **Click the file's name in the project browser.**

You can edit text and RTF files in a code editor in Project Builder.

1. **Click the file's name in the project browser.**
   Project Builder displays the file.



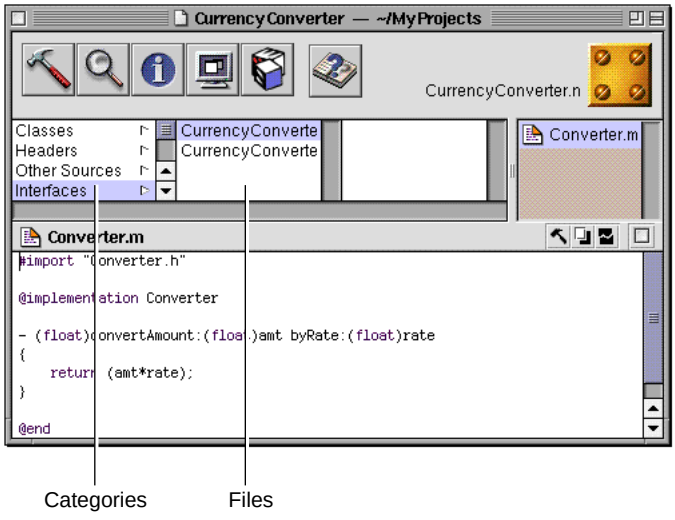
You can choose where Project Builder opens files: in an editing window or the code editor in the Project Builder window.

Opening Other Files from the Project Browser

1. **Double-click the file's name in the project browser.**

If you open a file that's not a text or RTF file, Project Builder opens it with the appropriate application.

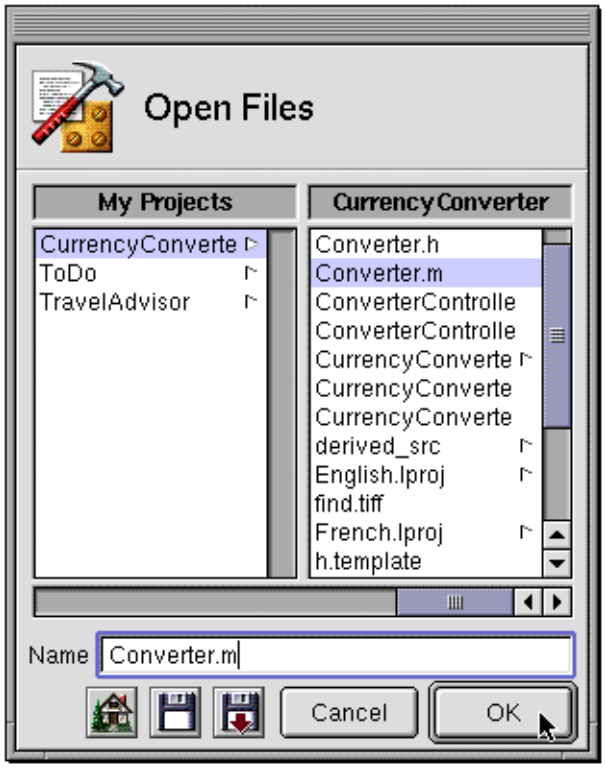
1. **Double-click the file's name in the project browser.**
   Project Builder launches the application, if it isn't already running, and opens the file.



To find the file's name, click the file's category in the first browser list and look for the name in the second browser list.

Opening a File from the Open Panel

1. **Choose File>Open.**
2. **Select the file from the Open panel**



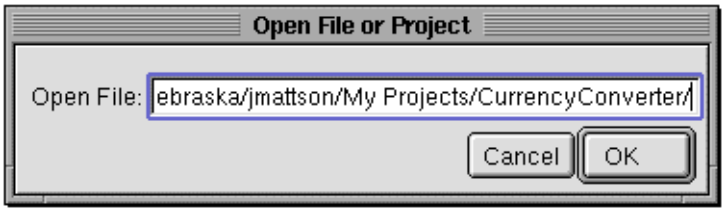
1. **Choose File>Open.**
   Project Builder displays the Open panel.

2. **Select the file from the Open panel**
   After you click OK, Project Builder displays the file.

   You can choose where Project Builder displays files: in a separate editing window or the code editor in the Project Builder window.

Opening a File by Typing Its Name

1. **Choose File>Open Quickly.**
2. **Enter the filename.**



This procedure is useful when you know the file's exact name and location and you can type it quickly.

1. **Choose File>Open Quickly.**
   Project Builder displays the Open File or Project panel.

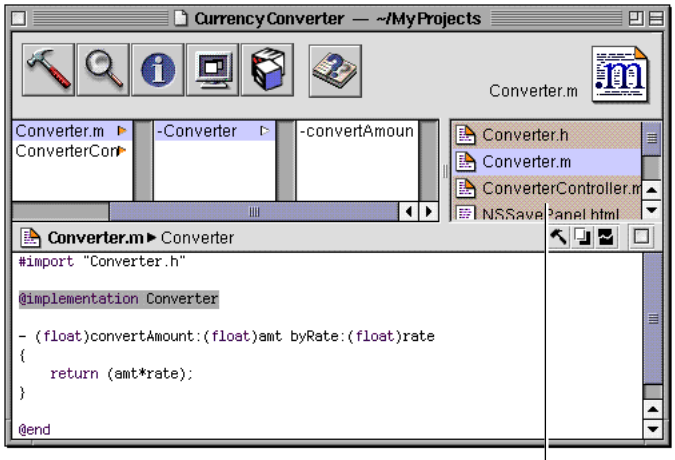
   The text field contains the pathname for the currently selected project directory.

2. **Enter the filename.**
   You can enter the filename at the end of that pathname, or edit the pathname.

   After you click OK or press Return, Project Builder opens the file.

Viewing Recently Opened Files

1. **To display an open file, click its name, or choose Tools>Loaded Files>Next File and Tools>Loaded Files>Previous File.**



Loaded Files

The loaded files view lets you quickly return to files you've already. Sometimes, it can be difficult to find a file, especially one that's buried in a subproject or framework. With the loaded files view, you need to find it only once.

1. **To display an open file, click its name, or choose Tools>Loaded Files>Next File and Tools>Loaded Files>Previous File.**
   Project Builder displays the file, or it displays the next or previous file in the loaded files view

   The Next File and Previous File commands work best if you turn off the "Always open files in new windows" option in the General display of the Preferences panel, so that the files are displayed in the code editor in the Project Builder window, one after the other. Otherwise, Project Builder opens a new window for each file displayed.

Closing a File

To close a file, choose File>Close. If you've edited the file since you've last saved it, Project Builder asks you if you want to save it now.

Note that if you click the close box, Project Builder hides the file's window, but doesn't actually close the file. The changes you've made stay in memory. Project Builder will close the file when you close the project or quit Project Builder.

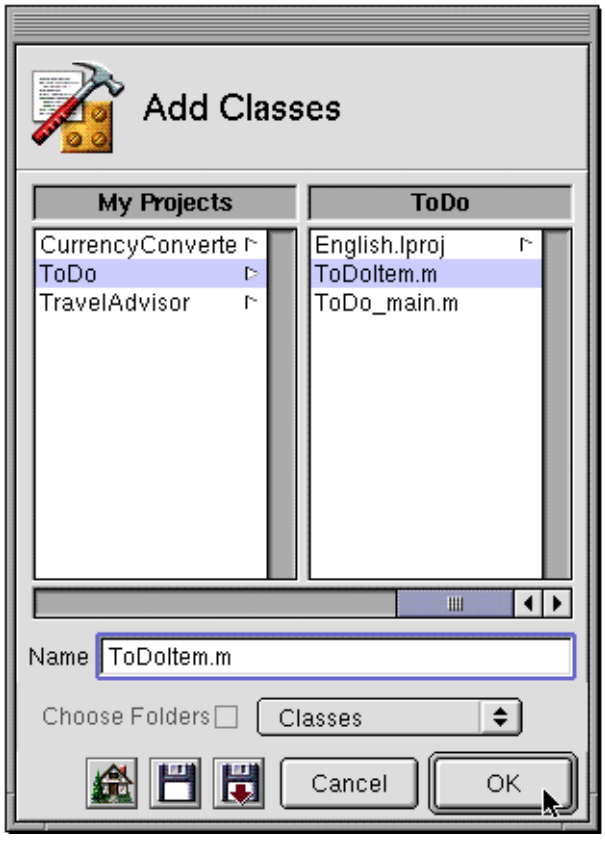
Adding and Removing a File

These procedures describe how to add or remove files from a project.

"Adding a File with the Add Files Command" (page 35)
"Adding Files by Dragging and Dropping" (page 37)
"Removing a File" (page 38)

Adding a File with the Add Files Command

1. **Choose Project>Add Files.**
2. **Choose the type of file to add from the pop-up menu.**
3. **Specify whether to add a whole folder of files.**
4. **Select the file from the browser.**



1. **Choose Project>Add Files.**
   A panel appears in which you can locate the file.

2. **Choose the type of file to add from the pop-up menu.**
   The file list displays only those files that match that type.

   If you choose Classes, Project Builder adds both the header file and the source file for the selected class.

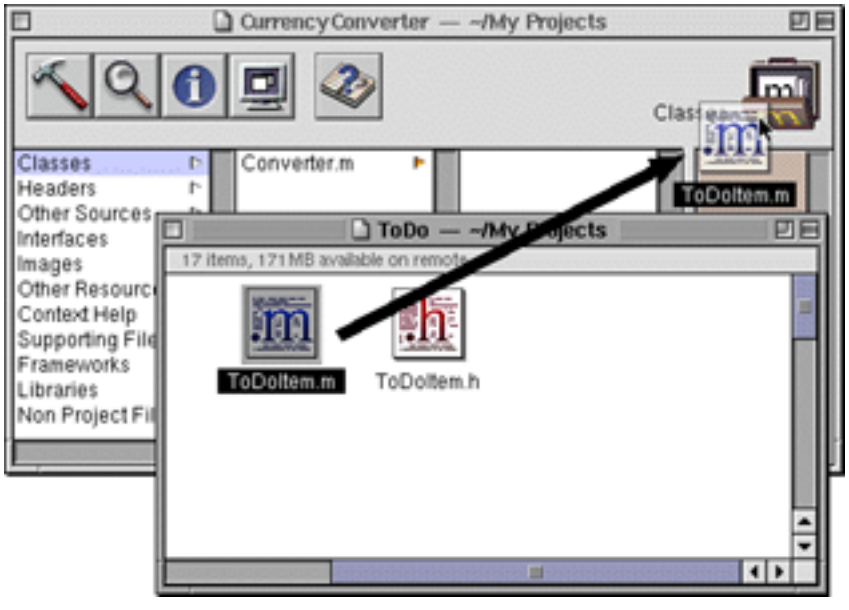
3. **Specify whether to add a whole folder of files.**
   If you chose the category Other Resources or Supporting Files, the Choose Folders option is available. To add a file, turn this option off. To add a folder, turn this option on. Project Builder treats the folder as if it were a file: within Project Builder, you cannot view what it contains.

Turning this option on does not add every file in the folder to your project. Instead, it adds the folder itself, and you cannot see the files it contains in the project browser.

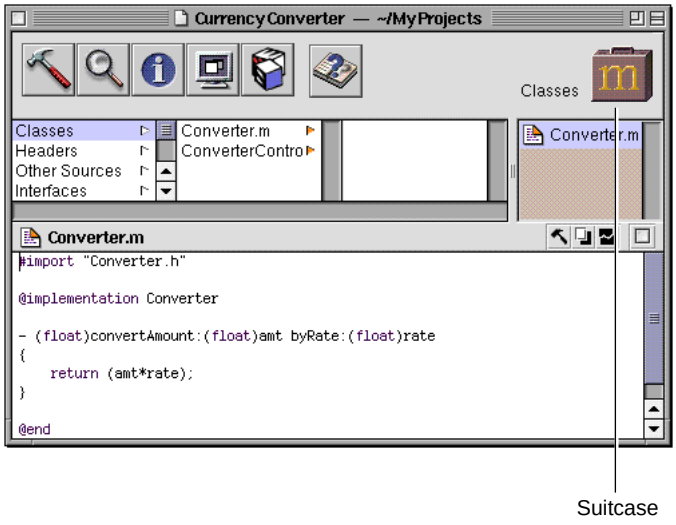
4. **Select the file from the browser.**
   After you click OK, Project Builder adds the file to the selected category of your project.

Adding Files by Dragging and Dropping

1. Select the category to which you're adding files.
2. Drag the files from the workspace to the suitcase.



1. **Select the category to which you're adding files.**
   The corresponding suitcase must appear in the upper-right corner of the project browser window.



2. **Drag the files from the workspace to the suitcase.**
   If you drag and drop a class file, Project Builder also copies its corresponding header file to the header category.

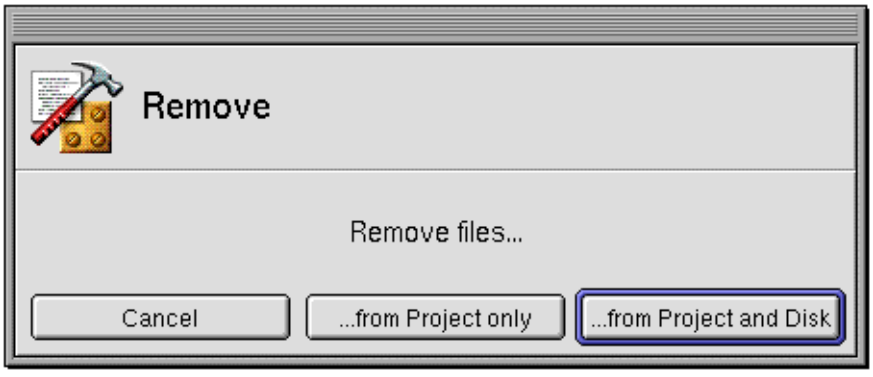
Removing a File

1. In the project browser, select the file or files to delete.
2. Choose Project>Remove Files.
3. Specify whether to delete the file from the disk as well.
4. If you're removing class files, specify whether to remove header files as well.

1. **In the project browser, select the file or files to delete.**

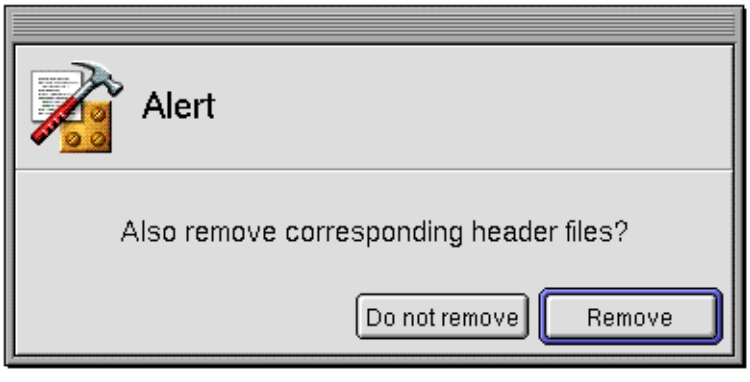
2. **Choose Project>Remove Files.**

3. **Specify whether to delete the file from the disk as well.**
   This panel appears, asking whether to permanently delete the files from your system as well as remove them from the project:



- To leave the files in both the project and the disk, click “Cancel”.
- To remove the files from the project and leave them on the disk, click “...from Project only”.
- To remove the files from both the project and the disk—permanently deleting them from your system—click “...from Project and Disk”.

4. **If you’re removing class files, specify whether to remove header files as well.**
If any of the files you’re removing are class files, this panel appears, asking whether to remove the corresponding header files as well:



- To leave the header files in the project, click “Do not remove”.
- To remove the header files, click “Remove”. If you clicked “...from Project and Disk” in the previous panel, Project Builder also permanently deletes the

header file from your system.

Saving a File

There are several ways to save files in Project Builder. You can save files by command, save copies of files, or have Project Builder automatically save files as you work.

"Saving the Current File" (page 40)

"Saving Several Files at Once" (page 40)

"Saving a File Under a New Name" (page 41)

"Saving a Backup of a File" (page 42)

"Automatically Saving Backups of All Modified Files" (page 43)

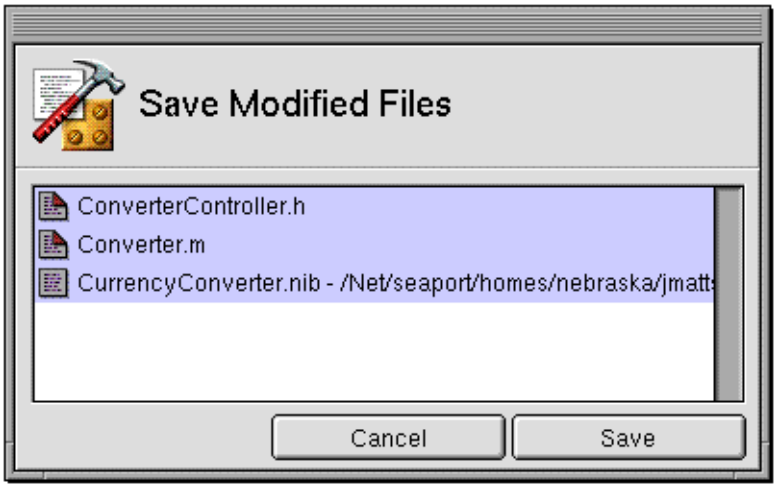
"Automatically Saving Files When Building" (page 45)

Saving the Current File

1. **Choose File>Save, or press Command-S.**
   Project Builder saves your changes the currently selected file.

Saving Several Files at Once

1. **Choose Project>Save Files.**
2. **Select the files to save, and click Save**



This procedure is useful when you want to save all the modifications you've made to a project at once, before you build a project or leave your computer for a while.

1. **Choose Project>Save Files.**
   This panel appears, listing all the modified files: The list includes Interface Builder, as well as Project Builder files.

2. **Select the files to save, and click Save**
   When the panel appears, all the files are selected. To deselect a file, Command-click it.

   If you don't remember what's in a file, click its name in the panel. Project Builder brings its window to the front of all other windows, although the Save Modified Files panel may still cover it. If necessary, move the panel so you can see it.

   To save all the selected files, click Save. To save none of the files, click Cancel.

Saving a File Under a New Name

1. **Choose File>Save As.**
2. **Specify the name and location of the file.**

This procedure saves a file to a new name. You continue editing the file under its new name.

This procedure doesn't replace the renamed file in the project. The file with the original name remains. To rename a file, see "Renaming a File" (page 46).

1. **Choose File>Save As.**
   The Save panel appears.:

2. **Specify the name and location of the file.**
   After you click OK, Project Builder saves the file under the new name.

Saving a Backup of a File

1. **Choose File>Save To.**
2. **Specify the name and location of the file, and click Save.**

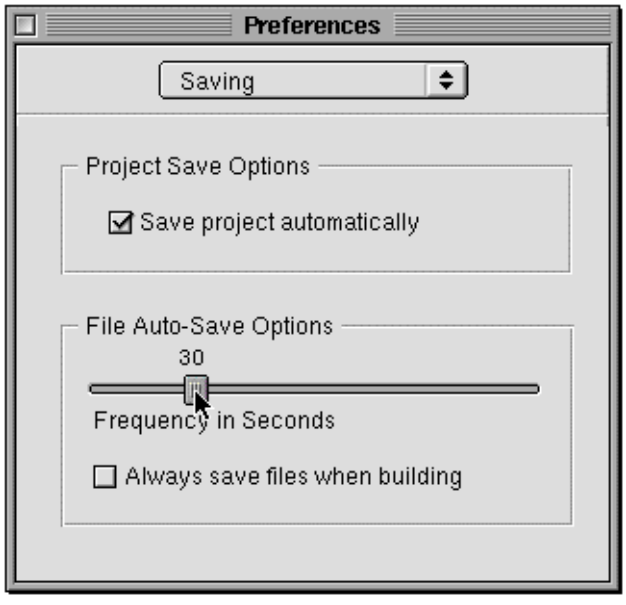
This procedure saves a copy of a file with a new name. You continue editing the file under its original name.

1. **Choose File>Save To.**
   The Save panel appears.

2. **Specify the name and location of the file, and click Save.**
   After you click OK, Project Builder saves the file under the new name.

Automatically Saving Backups of All Modified Files

1. **In the Savings display of the Preferences panel, choose how often to save your files.**



Project Builder can automatically save backups of your files at regular intervals, so you don't lose all your changes if Project Builder crashes.

If you open a file that has already an auto-save version and you edit the file, the new auto-save version overwrites the old one.

1. **In the Savings display of the Preferences panel, choose how often to save your files.**
   To display the Savings display of the Preferences panel, choose Edit>Preferences, and choose Saving from the pop-up menu at the top of the panel.

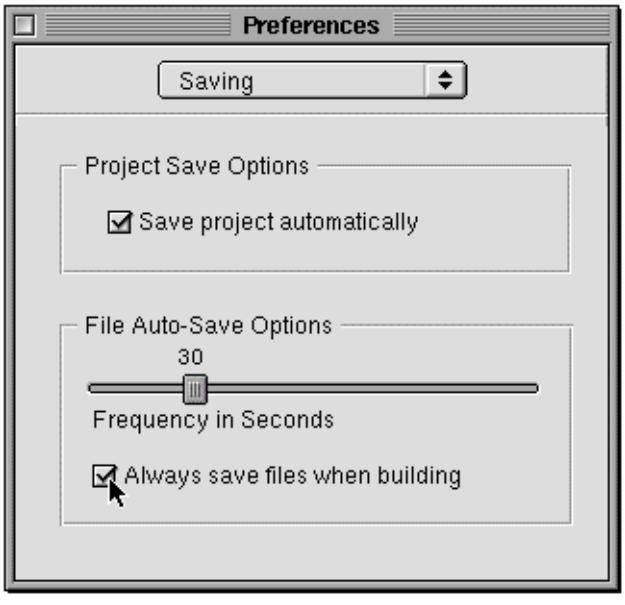
   Under File Auto-Save Options, use the slider to choose how often (in seconds) to save your files. The number of seconds appears above the slider. You can choose from 5 to 120 (2 minutes).

   If you don't want to save your files automatically, move the slider all the way to the right until the world "Disabled" appears above the slider.

   At the specified interval, Project Builder saves each modified file under a new name, which is the file's name enclosed in at-signs (@). For example, the auto-save version of MyClass.m is @MyClass.m@.

Automatically Saving Files When Building

1. **In the Saving display of the preferences panel, turn on the "Always save files when building" option.**



Project Builder can automatically save files before you build a project, so you can be sure that your project is built with the latest versions.

1. **In the Saving display of the preferences panel, turn on the "Always save files when building" option.**
   To display the Savings display of the Preferences panel, choose Edit>Preferences, and choose Saving from the pop-up menu at the top of the panel.

   When you build the project, Project Builder automatically saves every modified file, overwriting the old version.

   If this option is off, Project Builder displays the Save Modified Files panel when you build the project, letting you choose which files to save.

Renaming a File

1. Choose File>Rename.
2. Enter the file's new name.

1. **Choose File>Rename.**
   Project Builder displays the Files Attributes display of the Project Inspector, with the file's name selected.

2. **Enter the file's new name.**
   You can either type over the name or edit it. After you press Return, Project Builder renames the file and updates the name in the project browser.

CHAPTER 3

Finding Information

Project Builder can search your code quickly because it keeps your code indexed.

You can control how and when Project Builder indexes your files.

"Indexing a Project" (page 48)

"Indexing Automatically" (page 48)

"Indexing on Another Machine" (page 49)

"Indexing a Project" (page 50)

"Indexing an Individual File" (page 51)

"Purging All Indices" (page 52)

Project Builder lets you search for code, text, and regular expressions in your project. You can also replace text and search for documentation.

"Searching for the Definitions of a Symbol" (page 53)

"Searching for References to a Symbol" (page 57)

"Searching for Text" (page 61)

"Searching for Documentation" (page 70)

"Replacing Text" (page 73)

"Using a Previous Search" (page 77)

"Setting Search Preferences" (page 77)

CHAPTER 3

Indexing a Project

To take full advantage of Project Builder, you must index the source code regularly. Indexing keeps track of each symbol in the project, what that symbol defines (such as a class or function), where it's declared, and where it's used.

"Indexing Automatically" (page 48)

"Indexing on Another Machine" (page 49)

"Indexing a Project" (page 50)

"Indexing an Individual File" (page 51)

"Purging All Indices" (page 52)

Indexing is performed by a background process called the project server. When you request information stored in the index, Project Builder asks the project server for that information, then relays it to you. By default, Project Builder starts the project server when you first start Project Builder, and indexes a project when it's opened. The project server is kept running and the indices are kept in memory until you log out of the system. This means Project Builder will start up more quickly the next time you use it.

Indexing Automatically

1. **Bring up the Indexing display of the Preferences panel.**
2. **Turn on the options in the Indexing group.**

• ??? INSERT SCREEN SHOT ??? •

If you turn on automatic indexing, your project's index will be kept up-to-date without your needing to do anything. However, letting Project Builder update your project automatically can slow down other applications running on the computer. Follow these steps to adjust your indexing options for the best performance.

1. **Bring up the Indexing display of the Preferences panel.**

Choose Edit > Preferences. The Preferences panel appears. Choose Indexing from the pop-up menu at the top of the panel.

2. **Turn on the options in the Indexing group.**
   The three checkboxes in the Indexing group control when Project Builder indexes a project. Turning on all three options makes sure that your project's index is always up-to-date. Here's what they do:
   - To index your project when it's opened, turn on "Index when project is opened."
   - To delete a project's index when you quit Project Builder, turn on "Invalidate when quitting." If this option is off, the project's index stays in memory until you reboot your computer, and the project is not re-indexed when it's opened, regardless of the setting of the option "Index when project is opened."
   - To update the indexing information for a file when you save that file, turn on "Re-index when file is saved."

Indexing on Another Machine

1. Bring up the Indexing display of the Preferences panel.
2. Enter the computer's name in the Host field.

• ??? INSERT SCREEN SHOT ??? •

Indexing requires overhead and can slow down other applications running on your computer if you're managing a large project. To have all the benefits of indexing without slowing down applications on your computer, you can build and index a project on another computer on your network.

1. **Bring up the Indexing display of the Preferences panel.**
   Choose Edit > Preferences. The Preferences panel appears. Choose Indexing from the pop-up menu at the top of the panel.

2. **Enter the computer's name in the Host field.**
   For the project to index correctly, you must also use the same host to build it. If you haven't already done so, go to the Build Options panel and enter the same host in that panel as you did in this panel.

Indexing a Project

1. **Choose Tools > Indexer > Index Project.**

or

1. **In the Project Indexer panel, click the Index Project button.**

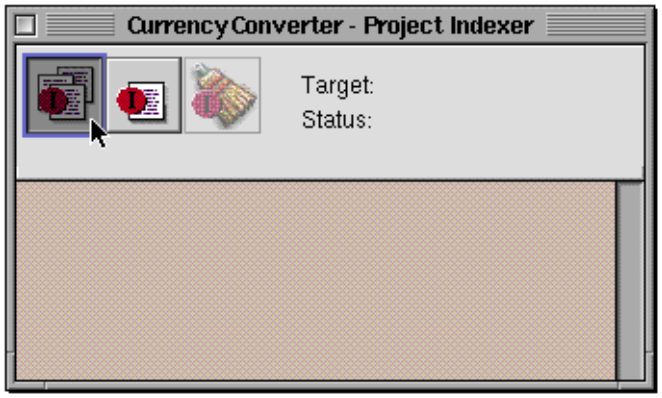
If you've turned off automatic project indexing, you can index your project manually. See "Indexing Automatically" (page 48), to index your project automatically when you open it.

You can index a project manually by choosing one menu command:

1. **Choose Tools > Indexer > Index Project.**
   Project Builder starts up the project server if it isn't already running and indexes all the files in the project.

Or you can do it from the Project Indexer panel:

1. **In the Project Indexer panel, click the Index Project button.**
   To display the Project Indexer panel, choose Tools > Indexer > ShowPanel.



When you click the Index Project button, Project Builder starts up the project server if it isn't already running and indexes all the files in the project.

Indexing an Individual File

1. **Choose Tools > Indexer > Index File.**

or

1. **In the Project Indexer panel, click the Index File button.**

You can index an individual file manually. Doing so is useful after you've made a lot of changes to a file since you last indexed the project.

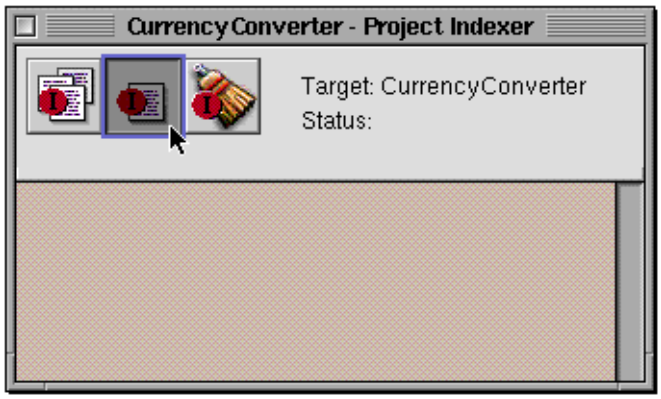
See "Indexing Automatically" (page 48) to index a file whenever you save it.

You can index the current file by choosing one menu command:

1. **Choose Tools > Indexer > Index File.**
   Project Builder starts up the project server if it isn't already running and indexes the currently selected file in the project browser.

Or you can do it from the Project Indexer panel.

1. **In the Project Indexer panel, click the Index File button.**
   To display the Project Indexer panel, choose Tools > Indexer > Show Panel.



When you click the Index File button, Project Builder starts up the project server if it isn't already running and indexes the currently selected file in the project browser.

Purging All Indices

1. **Choose Tools > Indexer > Purge Indices.**

or

1. **In the Project Indexer panel, click the Purge Indices button.**
2. **Click Purge.**

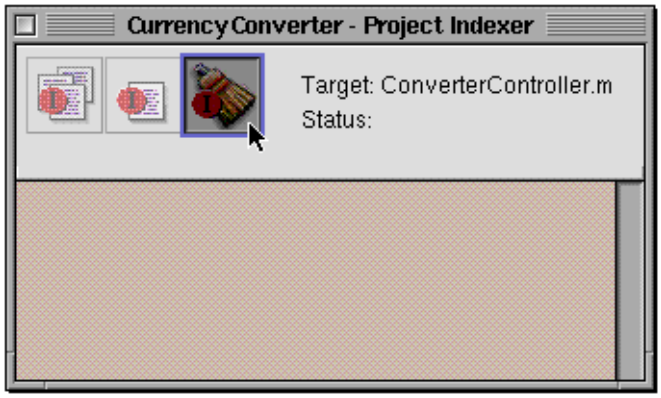
If you want to purge the indices for all your projects and stop the project server, follow these steps. This command might be useful if you're running low on memory or if the project server is slowing down other applications on your computer.

You can do it with a menu command:

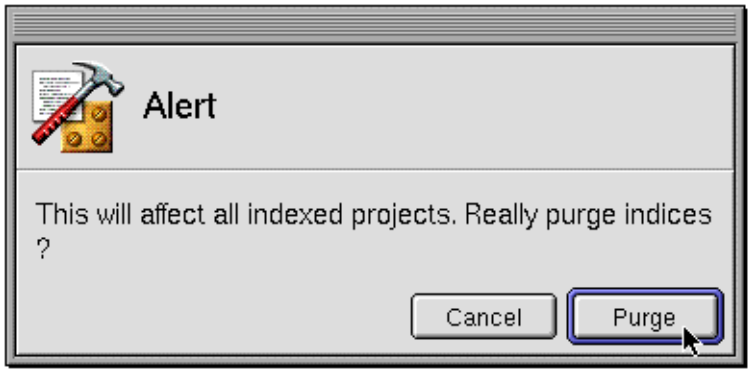
1. **Choose Tools > Indexer > Purge Indices.**
   Project Builder purges all the indices currently stored in memory and stops the project server.

Or you can do it from the Project Indexer panel:

1. **In the Project Indexer panel, click the Purge Indices button.**
   To display the Project Indexer panel, choose Tools > Indexer > Show Panel.



When you click the Purge Indices button, Project Builder asks you to confirm your action.



2. **Click Purge.**
   Project Builder purges all the indices currently stored in memory and stops the project server.

Searching for the Definitions of a Symbol

When you search within a project, Project Builder lets you limit your searches so you can find just the symbol's declarations, implementations, and documentation. You won't see any occurrences of the words in comments or strings, or where it's referenced.

"Searching for Definitions by Control–Double-Clicking" (page 53)

"Searching for Definitions With the Project Find Panel" (page 54)

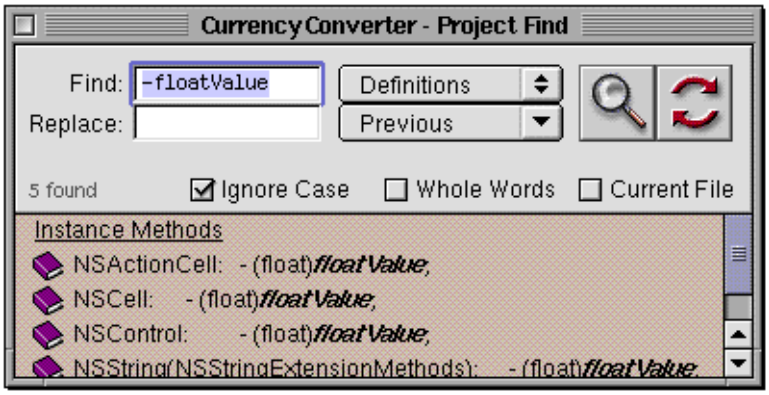
Searching for Definitions by Control–Double-Clicking

1. **In a code editor, Control–double-click the symbol's name.**

• ??? Is Command key the same on all platforms ??? •

Use this method to find the definition of a symbol that appears in a code editor.

1. **In a code editor, Control–double-click the symbol's name.**
   The Project Find panel appears, listing every location where the symbol is defined, implemented, or documented. Also, the symbol you clicked is entered in the Find field and Definitions is chosen from the pop-up menu.

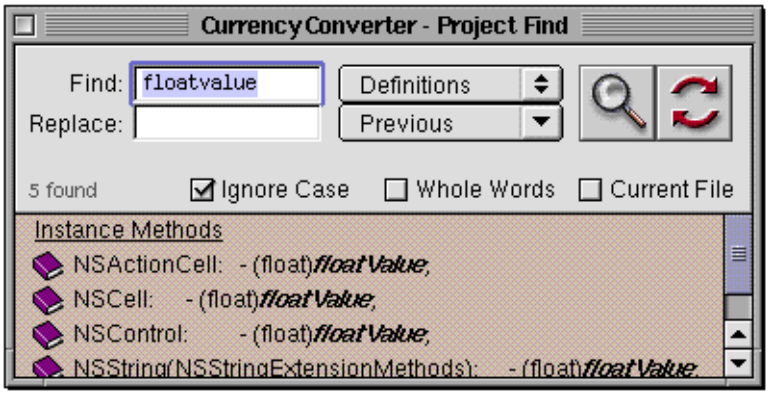


   To view the source code for the symbol, click its name. To view documentation on a symbol, click the book beside its name. If there's no book beside a symbol's name, there is no documentation on it.

When you perform a search by Control–double-clicking, Project Builder honors the option settings in the Project Find panel as they were set before the search. See "Setting Options in the Project Find Panel" (page 78), for more information on these options.

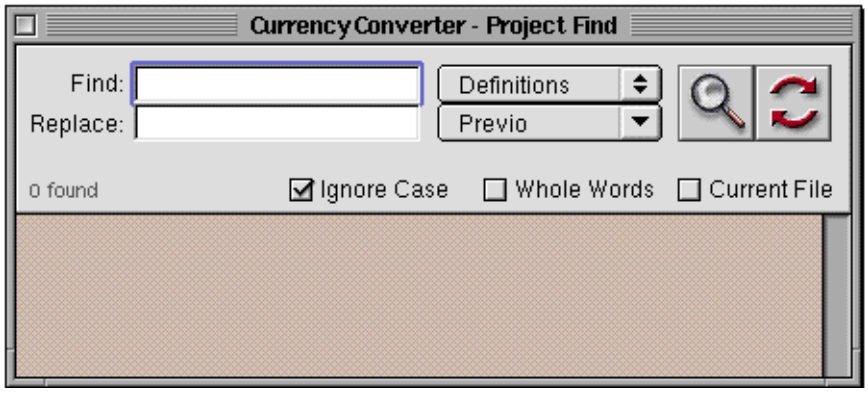
Searching for Definitions With the Project Find Panel

1. **Bring up the Project Find panel.**
2. **Choose Definitions from the pop-up menu, and set your other options.**
3. **In the Find field, enter the symbol to search for, and click the Find button.**



Use this method to find the definition of a symbol whose name you know but which doesn't appear in a code editor.

1. **Bring up the Project Find panel.**
   You can either choose Tools>Project Find>Show Panel or click the Project Find button in Project Builder's main window. The Project Find panel appears.



2. **Choose Definitions from the pop-up menu, and set your other options.**
   The pop-up menu is the top one, to the right of the Find field.

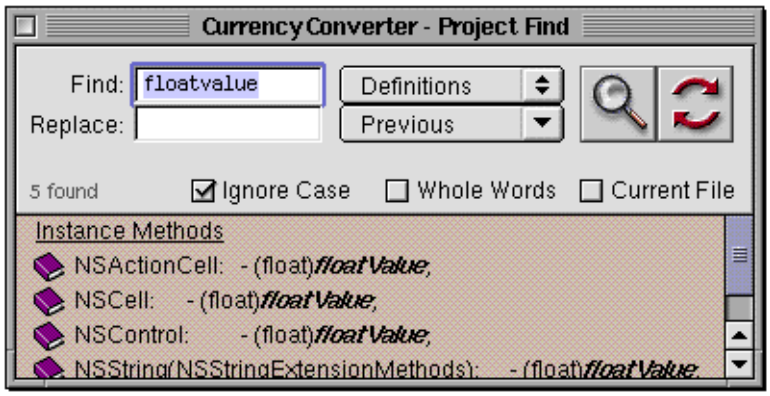
   See "Setting Options in the Project Find Panel" (page 78) and "Choosing How to Order Search Results" (page 84) for more information on the options you can set.

3. **In the Find field, enter the symbol to search for, and click the Find button.**
   If you want to limit your search to symbols of a particular type, use the appropriate syntax from this table:

Symbol Type	Syntax
Class	`@class`
Protocol	`<protocol>`
Instance method	`-method`
Class method	`+method`
Method in particular class	`[class method]`
Function	`function()`
Macro	`#macro`

• **??? Add Java descriptions to table and fix the width. ???** •

To perform a wildcard search, use the * (asterisk) character. Project Builder matches any number of characters for the asterisk. For example, "NS*Array" finds definitions for NSArray and NSMutableArray.



After you click the Find button, Project Builder lists every location where the symbol is defined, implemented, or documented.

To view the source code for a symbol, click its name. To view documentation on a symbol, click the book besides its name. If there's no book beside a symbol's name, there is no documentation on it.

Searching for References to a Symbol

When you search within a project, Project Builder lets you limit your searches so you can find those places where a symbol is referenced; such as all the places where a function is called or a variable is referenced. You won't see any occurrences of the words in comments or strings, or where it's defined and implemented.

"Searching for References with the Find References Command" (page 57)

"Searching for References with the Project Find Panel" (page 58)

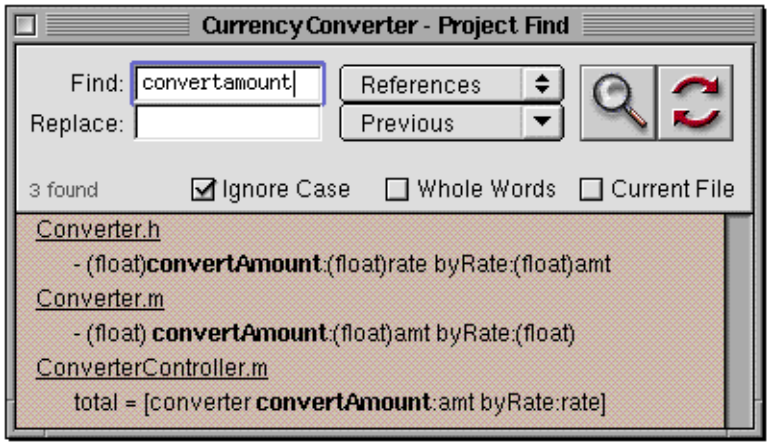
Searching for References with the Find References Command

Use this method to find the references to a symbol that appears in a code editor.

1. **In a code editor, place the insertion point in the symbol, and press Command-0 (Command-Zero).**

• ??? Is Command key the same for all platforms ??? •

You can also choose Tools > Project Find > Find References.



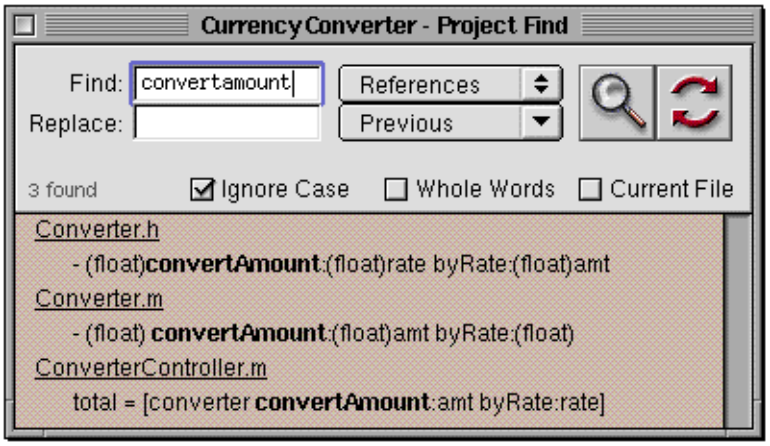
The Project Find panel appears, listing every location where the symbol is referenced. Also, the symbol is entered in the Find field and References is chosen in the pop-up menu.

To go to a location, click it.

When you perform a search this way, Project Builder honors the option settings in the Project Find panel as they were set before the search. See "Setting Options in the Project Find Panel" (page 78) for more information on these options.

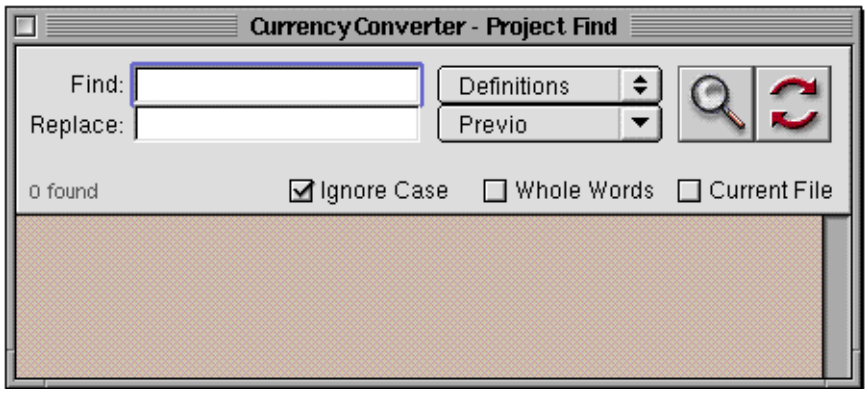
Searching for References with the Project Find Panel

1. **Bring up the Project Find panel.**
2. **Choose References from the pop-up menu, and set your other search options.**
3. **In the Find field, enter the symbol to search for, and click the Find button.**



Use this method to find the references to a symbol whose name you know but which doesn't appear in a code editor.

1. **Bring up the Project Find panel.**
   You can either choose Tools>Project Find>Show Panel or click the Project Find button in Project Builder's main window. The Project Find panel appears.



2. **Choose References from the pop-up menu, and set your other search options.**
   The pop-up menu is the top one, to the right of the Find field.

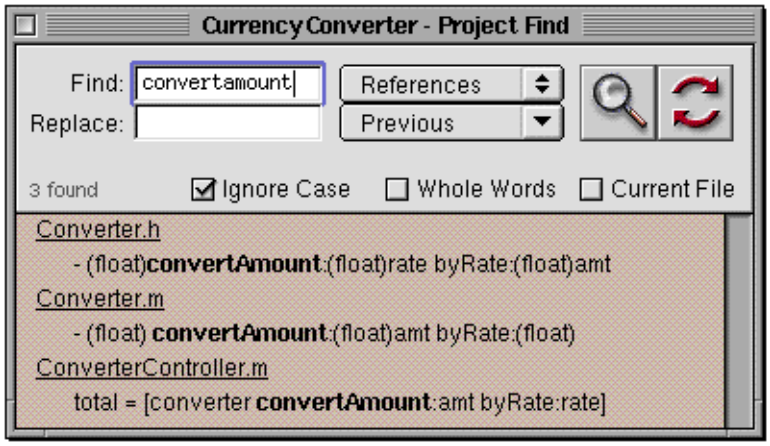
See "Setting Options in the Project Find Panel" (page 78) and "Choosing How to Order Search Results" (page 84) for more information on the other options you can set.

3. **In the Find field, enter the symbol to search for, and click the Find button.**
   If you want to limit your search to symbols of a particular type, use the appropriate syntax from this table:

Symbol Type	Syntax
Class	`@class`
Protocol	`<protocol>`
Instance method	`-method`
Class method	`+method`
Method in particular class	`[class method]`
Function	`function()`
Macro	`#macro`

• ??? Add Java descriptions to table and fix the width. ??? •

To perform a wildcard search, use the * (asterisk) character. Project Builder matches any number of characters for the asterisk. For example, "NS*Array" finds references to NSArray and NSMutableArray.



When you click the Find button, Project Builder lists every location where the symbol is referenced. To go to a location, click it.

Searching for Text

Project Builder lets you search for text wherever it occurs in a file, whether in a comment, string, or in code.

"Searching for Text with the Find Text Command" (page 61)

"Searching Throughout a Project for Text, Batch Mode" (page 62)

"Searching in the Current File for Text, Sequentially" (page 64)

"Searching in the Current File for Text, Incrementally" (page 65)

"Searching for Regular Expressions" (page 68)

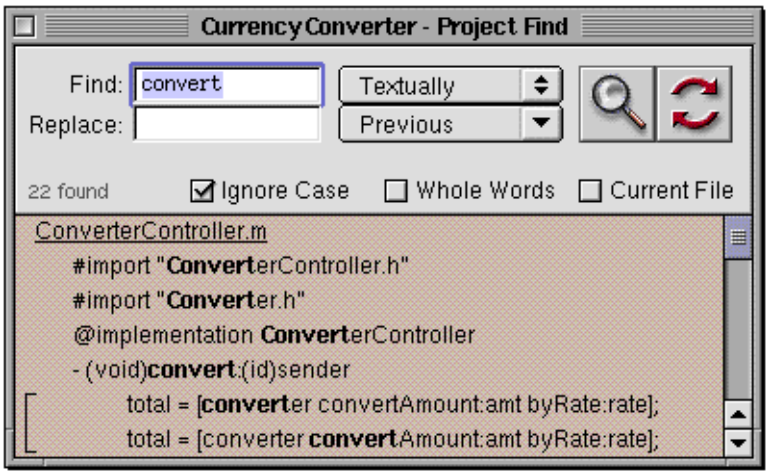
Searching for Text with the Find Text Command

• ??? Is Command key the same for all platforms ??? •

Use this method to find text that appears in a code editor.

1. **In a code editor, select the text, and press Command-8.**
   Instead of pressing Command-8, you can also choose Tools > Project Find > Find Text.

   The Project Find panel appears, listing every location where the text appears. The text is entered in the Find field and Textually is chosen in the pop-up menu.



   To go to a location, click it.

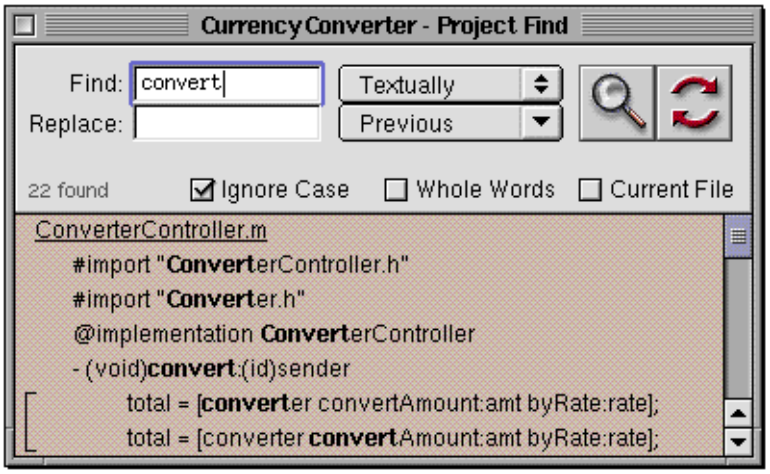
   If one line of code contains two or more occurrences of the Find string, Project Builder lists the line multiple times, highlighting different occurrences in each and bracketing the lines together. For example, in the above illustration, the last two entries are bracketed together since Project Builder found two occurrences of "convert" in that line.

   When you perform a search this way, Project Builder honors the option settings in the Project Find panel as they were set before the search. See "Setting Options in the Project Find Panel" (page 78) for more information on these options.

Searching Throughout a Project for Text, Batch Mode

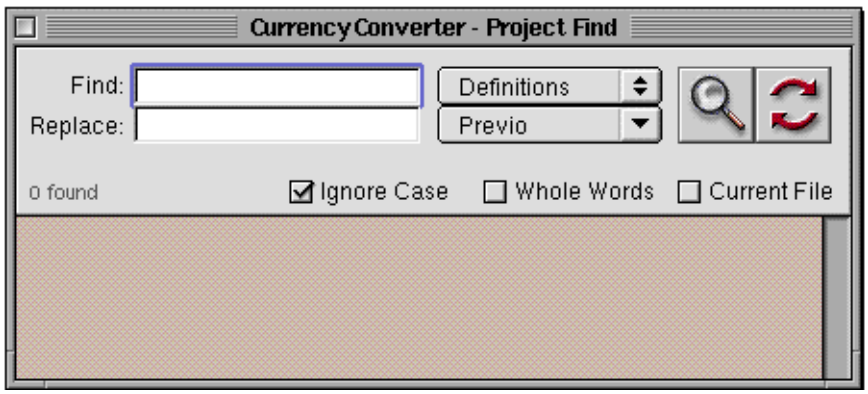
1. **Bring up the Project Find panel.**

2. Choose Textually from the pop-up menu, and set your other options.
3. In the Find field, enter the text to search for, and click the Find button.



Use this method to search throughout your project for occurrences of some text.

1. **Bring up the Project Find panel.**
   You can either choose Tools > Project Find > Show Panel or click the Project Find button in Project Builder's main window. The Project Find panel appears.

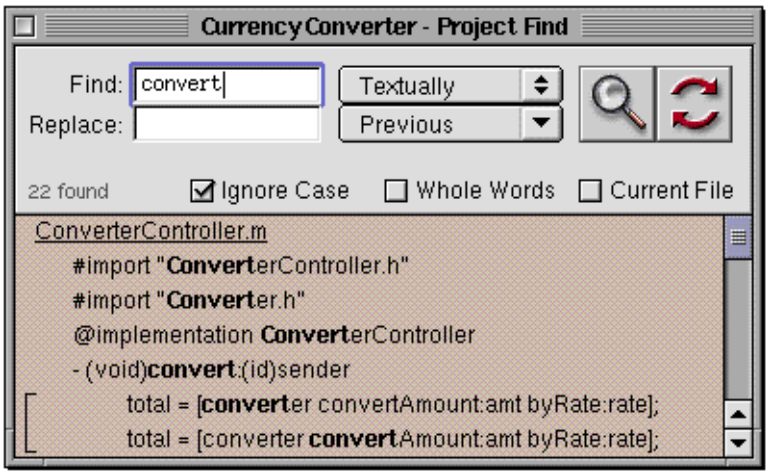


2. **Choose Textually from the pop-up menu, and set your other options.**
   The pop-up menu is the top one, to the right of the Find field.

   See "Setting Options in the Project Find Panel" (page 78) for more information on the options you can set.

3. **In the Find field, enter the text to search for, and click the Find button.**
   Note that you can't use an * (asterisk) as a wildcard character during a textual search. Instead, perform a regular expression search, described in "Searching for Regular Expressions" (page 68).

   After you click the Find button, Project Builder lists every location where the text appears. To go to a location, click it.

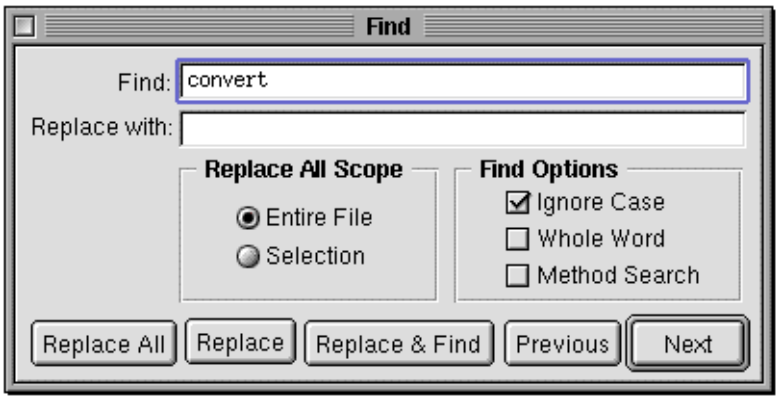


If one line of code contains two or more occurrences of the Find string, Project Builder lists the line multiple times, highlighting different occurrences in each and bracketing the lines together. For example, in the above illustration, the last two entries are bracketed together since Project Builder found two occurrences of "convert" in that line.

Searching in the Current File for Text, Sequentially

1. **Choose Find from the Edit menu.**
2. **Set your search options.**

3. In the Find field, enter the text to search for, and click the Next or Previous button.



Use this method if you want to find some text within the file currently selected in the project browser. This method does not search within any other file.

1. **Choose Find from the Edit menu.**
   The Find panel appears.

2. **Set your search options.**
   See "Setting Options in the Find Panel" (page 79) and "Choosing When to Wrap Searches" (page 82) for more information on the options you can set.

3. **In the Find field, enter the text to search for, and click the Next or Previous button.**
   Note that you can't use an * (asterisk) as a wildcard character during a textual search. Instead, perform a regular expression search, described in "Searching for Regular Expressions" (page 68).

   To find the occurrence that follows the insertion point, click Next. To find the occurrence that precedes the insertion point, click Previous.

Searching in the Current File for Text, Incrementally

1. In a code editor, press Control-S or Control-R.
2. Type the text to search for.

3. Use the buttons as necessary to control the search.

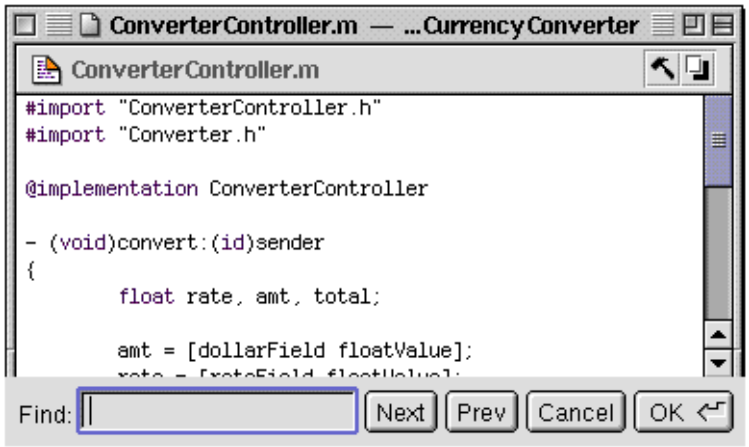
Use this method if you want the quickest way to find some text within the file currently selected in the project browser. This method is known as incremental searching. It does not search within any other file.

See "Setting Incremental Search Options" (page 81) and "Choosing When to Wrap Searches" (page 82) for more information on setting options for an incremental search.

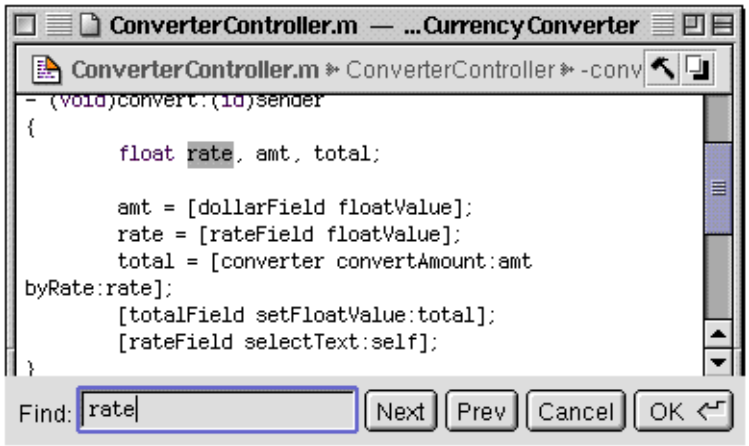
1. **In a code editor, press Control-S or Control-R.**

• ??? Is Command key the same for all platforms ??? •

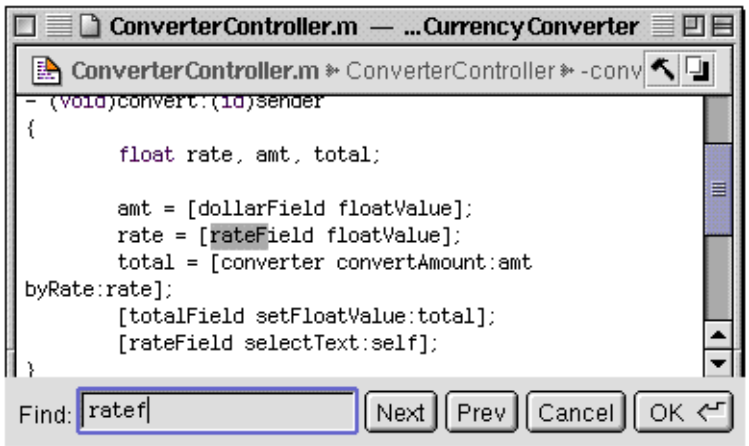
To search forward, press Control-S. To search in reverse, press Control-R. A Find field and some buttons appear in a bar at the bottom of the code editor.



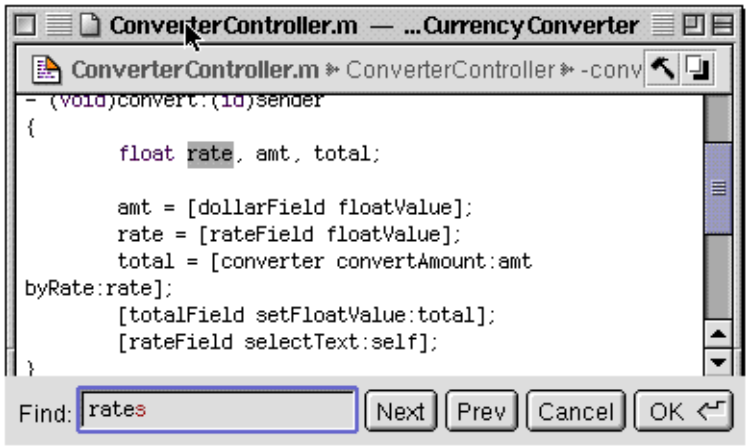
2. **Type the text to search for.**
   You don't need to click in the Find field. Just start typing.



As you type, Project Builder searches for and selects the next occurrence of what you've typed so far.



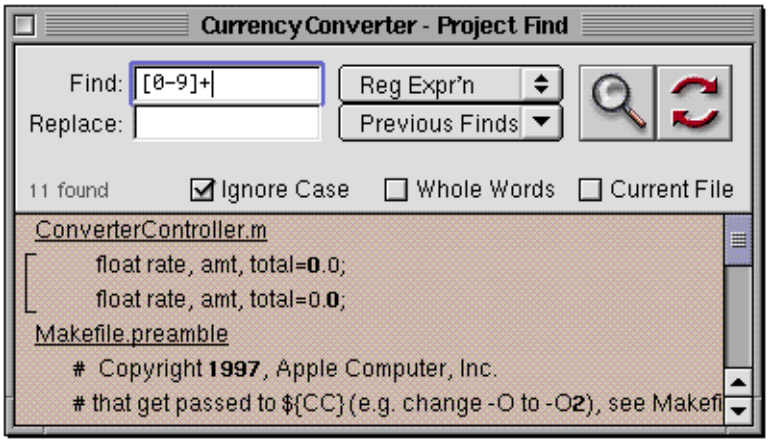
If it can't find what you've typed, the letters it can't match appear in red and it beeps.



3. **Use the buttons as necessary to control the search.**
   You can control how Project Builder searches for the text with the buttons beside the Find field:
   - To stop searching and return to where you started, click Cancel.
   - To stop searching and stay at the word you located, click OK or press Return.
   - To search for the next or previous occurrence, click Next or Prev.

Searching for Regular Expressions

1. **Bring up the Project Find panel.**
2. **Choose Reg Expr'n from the pop-up menu, and set your other options.**
3. **In the Find field, enter the regular expression to search for, and click the Find button.**



Project Builder lets you search for regular expressions, patterns that match particular kinds of characters. For example, "[0-9]+" matches any combination of digits.

1. **Bring up the Project Find panel.**
   You can either choose Tools > Project Find > Show Panel or click the Project Find button in Project Builder's main window. The Project Find panel appears.

2. **Choose Reg Expr'n from the pop-up menu, and set your other options.**
   The pop-up menu is the top one, to the right of the Find field.

   See "Setting Options in the Project Find Panel" (page 78) for more information on the options you can set.

3. **In the Find field, enter the regular expression to search for, and click the Find button.**
   After you click the Find button, Project Builder lists every location that matches the expression. To go to a location, click it.

   If one line of code contains two or more matches of the regular expression, Project Builder lists the line multiple times, highlighting different matches in each and bracketing the lines together.

Searching for Documentation

Project Builder lets you search for two types of documentation: documentation on frameworks, including the classes in the Yellow Box framework, and documentation on command-line tools and standard C functions.

"Searching for Framework Documentation" (page 70)

"Searching for Command-Line Program and C Routine Documentation" (page 72)

Searching for Framework Documentation

1. **Perform a definition search on the symbol.**
2. **Click the book icon of any documentation entry.**

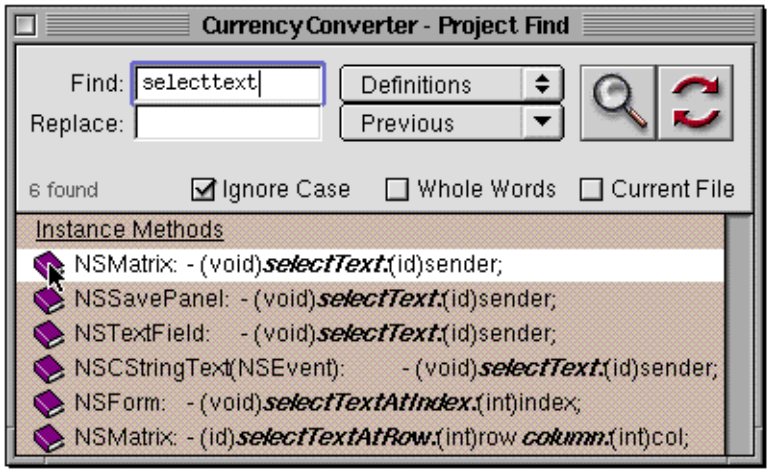
Project Builder lets you read documentation on any class in the Apple frameworks your project uses, including the Yellow Box framework. The documentation appears inside Project Builder, so you can easily browse though the file and follow the links until you find the information you need.

1. **Perform a definition search on the symbol.**
   When you search for a symbol's definition, Project Builder also displays any locations in the documentation that describe that symbol.

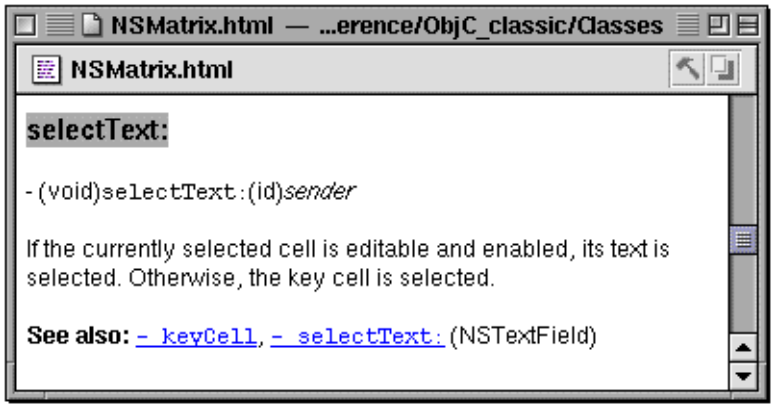
   There are two ways you can perform a definition search, depending on whether or not the symbol appears in the code editor. See the appropriate section for more information:

   - "Searching for Definitions by Control–Double-Clicking" (page 53)
   - "Searching for Definitions With the Project Find Panel" (page 54)

2. **Click the book icon of any documentation entry.**



Clicking the book displays the documentation in an HTML viewer inside Project Builder.



If you're viewing documentation on an Apple class (or protocol), scroll to the beginning of the file to read an overall description of the class (or protocol) and its methods.

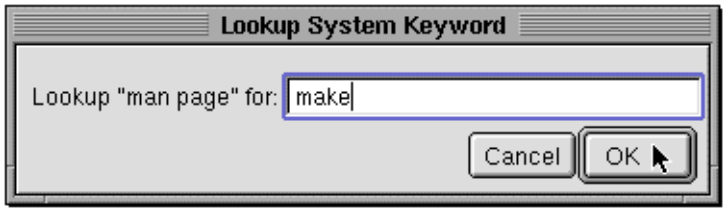
Searching for Command-Line Program and C Routine Documentation

1. Choose Help > System Keyword Lookup.
2. Type the name of the command-line program or standard C library function, and click OK.

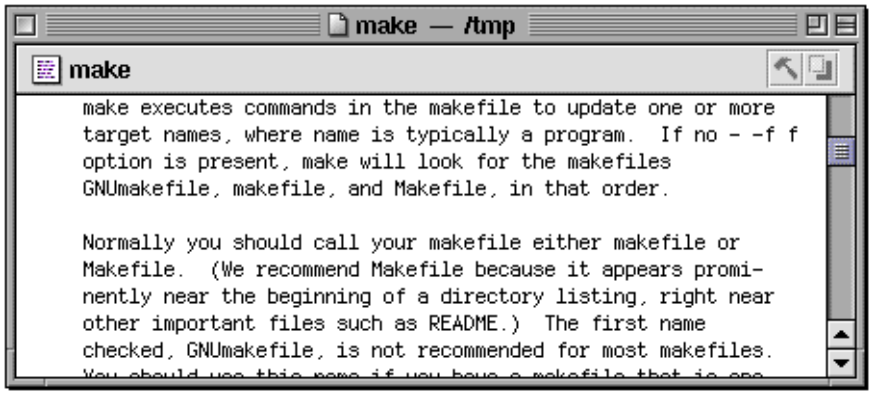
Rhapsody includes man pages on its command-line programs and standard C library routines. You can read these pages within Project Builder, without going to the Terminal application and using the man command.

1. **Choose Help > System Keyword Lookup.**
   The Lookup System Keyword panel appears.

2. **Type the name of the command-line program or standard C library function, and click OK.**
   Enter the name in the panel's text field.



When you click OK, Project Builder displays the man page in an editing window.



If you change your mind, click Cancel. The Lookup System Keyword panel disappears without displaying a man page.

Replacing Text

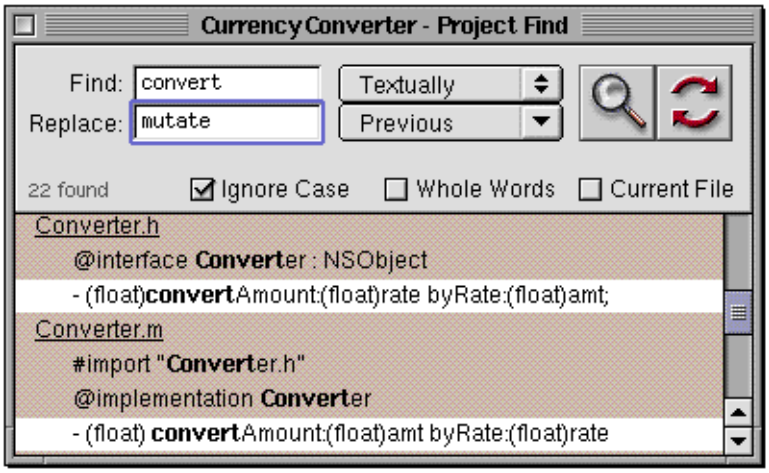
You search for and replace text in your files using the Project Find panel and the Find panel.

"Replacing Text Throughout Your Project" (page 73)

"Replacing Text in the Current File" (page 75)

Replacing Text Throughout Your Project

1. **Perform a definition, reference, or textual search.**
2. **In the Replace field, enter the text to substitute for the Find text, and choose the entries to replace.**
3. **Click the Replace button, and click Replace in the alert that appears.**



This method lets you replace text in all the files in your project.

You can reverse the replacements by choosing Edit > Undo.

1. **Perform a definition, reference, or textual search.**
   For more information, see one of these sections:

   - "Searching for the Definitions of a Symbol" (page 53)
   - "Searching for References to a Symbol" (page 57)
   - "Searching Throughout a Project for Text, Batch Mode" (page 62)

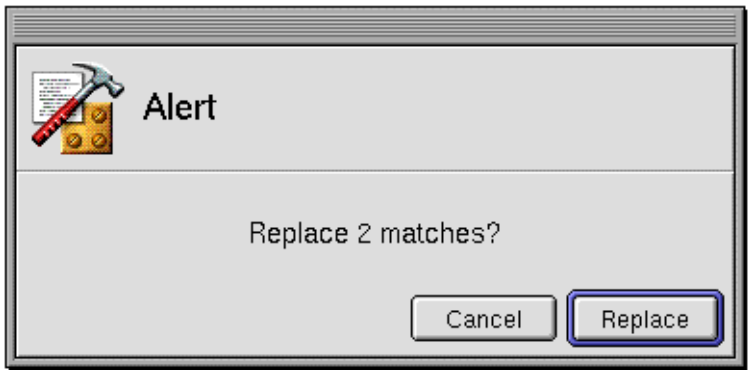
   If you perform a definition or reference search, the search results are limited to those occurrences in which the symbol is defined or referenced. Occurrences of the symbol in comments or strings do not appear.

2. **In the Replace field, enter the text to substitute for the Find text, and choose the entries to replace.**
   To examine an entry in the list, click it. Project Builder displays the file and selects the Find text.

   If you want to replace the text in some but not all of the entries, select the ones you want to replace. To select contiguous items, drag across them. To select discontiguous items, Shift-click them. To deselect an item, Shift-click it again.

   If you want to replace the text in all the entries, don't select any of them. Project Builder will automatically perform the replacement in all of them.

3. **Click the Replace button, and click Replace in the alert that appears.**
   After you click the Replace button, Project Builder displays a panel asking you to confirm the replacements.

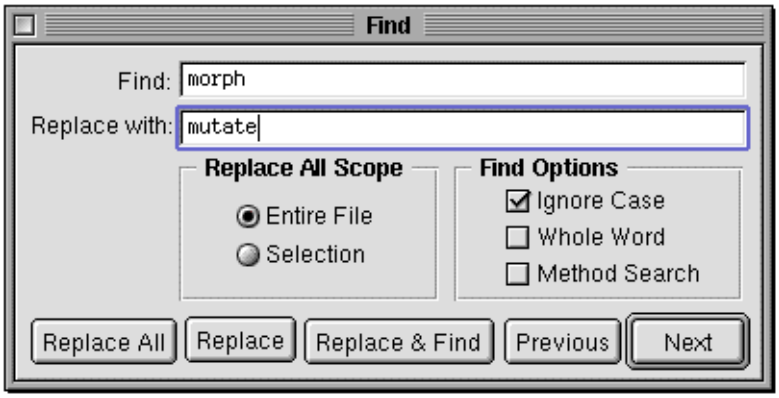


   After you click Replace, Project Builder replaces the text in the selected entries.

   Note that Project Builder modifies the files, but doesn't save them. See "Saving Several Files at Once" (page 40) to save all the files at once.

Replacing Text in the Current File

1. **Choose Edit > Find.**
2. **In the Find field, enter the text to search for.**
3. **In the Replace field, enter the text to substitute for what's in the Find field.**
4. **Search for an occurrence of the Find text with the Next or Previous button.**
5. **Choose whether to replace the text and whether to continue.**



This method lets you replace text in the file currently selected in the project browser.

You can reverse the replacements by choosing Edit > Undo.

1. **Choose Edit > Find.**
   The Find panel appears.

2. **In the Find field, enter the text to search for.**

3. **In the Replace field, enter the text to substitute for what's in the Find field.**

4. **Search for an occurrence of the Find text with the Next or Previous button.**
   Project Builder selects the text.

5. **Choose whether to replace the text and whether to continue.**
   Use the buttons in the Find panel to choose how to continue:

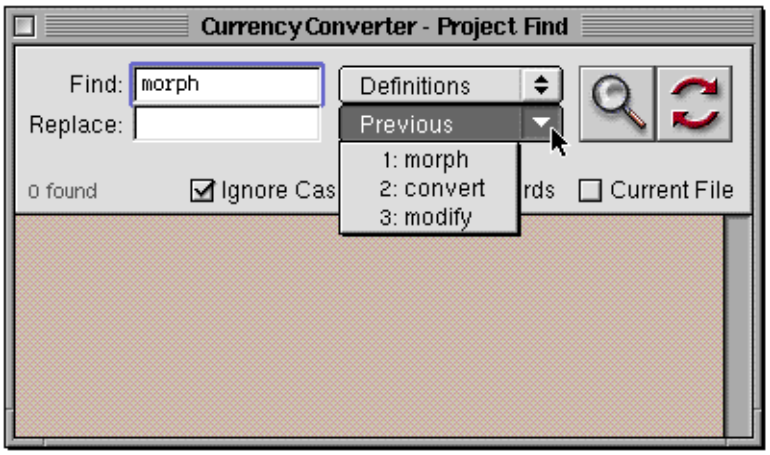
   - To replace the text and continue searching, click Replace & Find.
   - To leave the text unchanged and continue searching, click Next or Previous.
   - To replace the text and stop searching, click Replace.
   - To replace all occurrences of the Find text, click Replace All.

     You can choose the range of the Replace All command with the options in the Replace All Scope box. To replace each occurrence in the entire file, choose Entire File. To replace each occurrence only in the selected text, choose Selection. If you want to perform the replacement only within a particular

method, for example, select the body of the method, choose Selection, and click Replace All.

Using a Previous Search

To see the results of a previous search without performing that search again, choose an item from the Previous pop-up menu in the Project Find panel.



The list of found items is not updated, so any new occurrences that appeared since you last performed the search do not appear in the list, and any old occurrences that disappeared are still in the list.

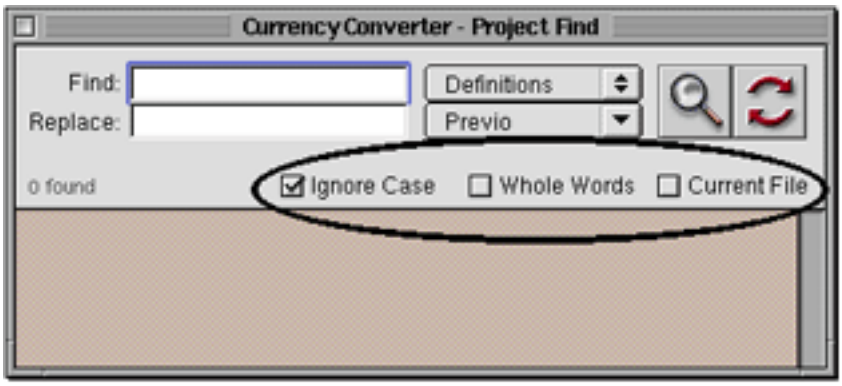
Setting Search Preferences

You can customize how Project Builder performs a search by setting various search-related options.

"Setting Options in the Project Find Panel" (page 78)
"Setting Options in the Find Panel" (page 79)
"Setting Incremental Search Options" (page 81)
"Choosing When to Wrap Searches" (page 82)
"Choosing How to Order Search Results" (page 84)

Setting Options in the Project Find Panel

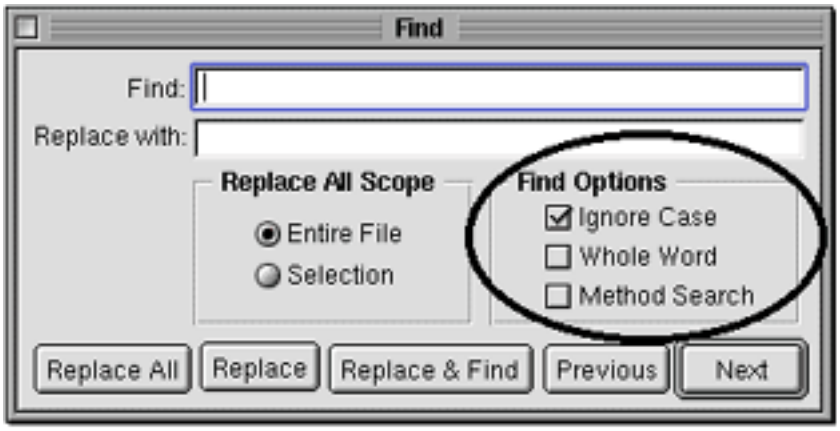
You can control how Project Builder searches your project with these three options in the Project Find panel: Ignore Case, Whole Words, and Current File.



Option	Description
Ignore Case	If this option is on, Project Builder overlooks differences between uppercase and lowercase characters. If this option is off, Project Builder matches the Find text only if the case matches exactly. For example, say the Find text is "MyApp," If this option is on, it matches "myapp," "MyApp," and MYAPP." If this option is off, it matches only "MyApp."
Whole Words	If this option is on, Project Builder matches the Find text only if it is a separate word in the document. If this option is off, Project Builder matches the Find text wherever it occurs in the document. For example, say the Find text is "pin." If this option is on, it matches only "pin." If this option is off, it matches "pins," "pinning," "opine," and "pin."
Current File	If this option is on, Project Builder searches just the file selected in the project browser. If this option is off, Project Builder searches all files in the project.

Setting Options in the Find Panel

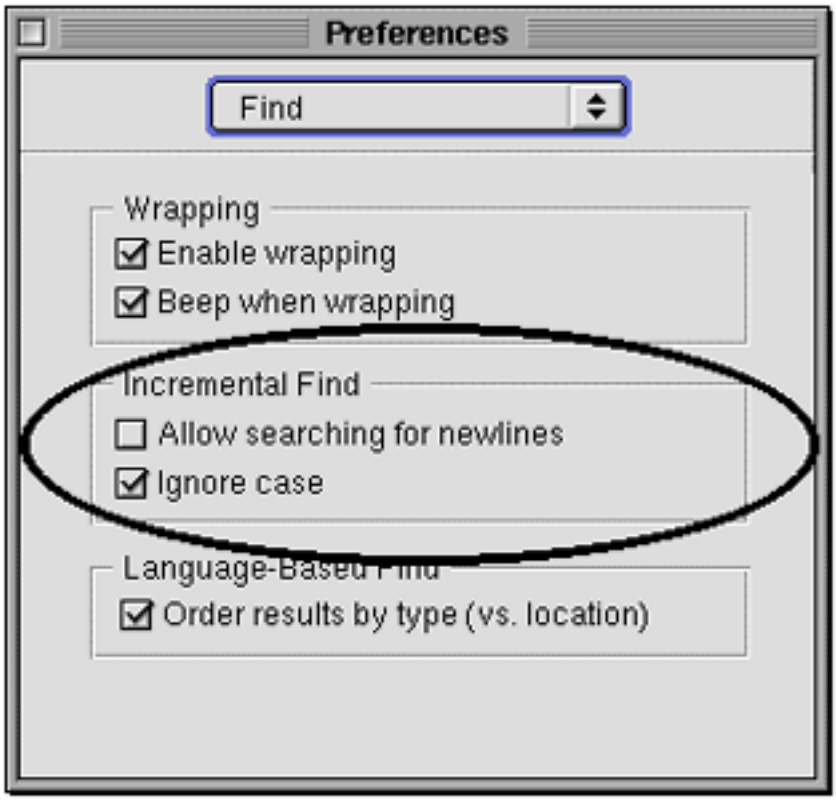
When you perform a search with the Find panel, you can control how it works with these options: Ignore Case and Whole Words.



Option	Description
Ignore Case	If this option is on, Project Builder overlooks differences between uppercase and lowercase, characters. If this option is off, Project Builder matches the Find text only if the case matches exactly. For example, say the Find text is "MyApp," If this option is on, it matches "myapp," "MyApp," and MYAPP." If this option is off, it matches only "MyApp."
Whole Word	If this option is on, Project Builder matches the Find text only if it is a separate word in the document. If this option is off, Project Builder matches the Find text wherever it occurs in the document. For example, say the Find text is "pin." If this option is on, it matches only "pin." If this option is off, it matches "pins," "pinning," "opine," and "pin."
Method Search	This is an obsolete option and will be removed in a future version.

Setting Incremental Search Options

When you perform an incremental search with Control-S or Control-R, you can control how it works with these options in the Find display of the Preferences panel: "Allow searching for newlines" and "Ignore case."

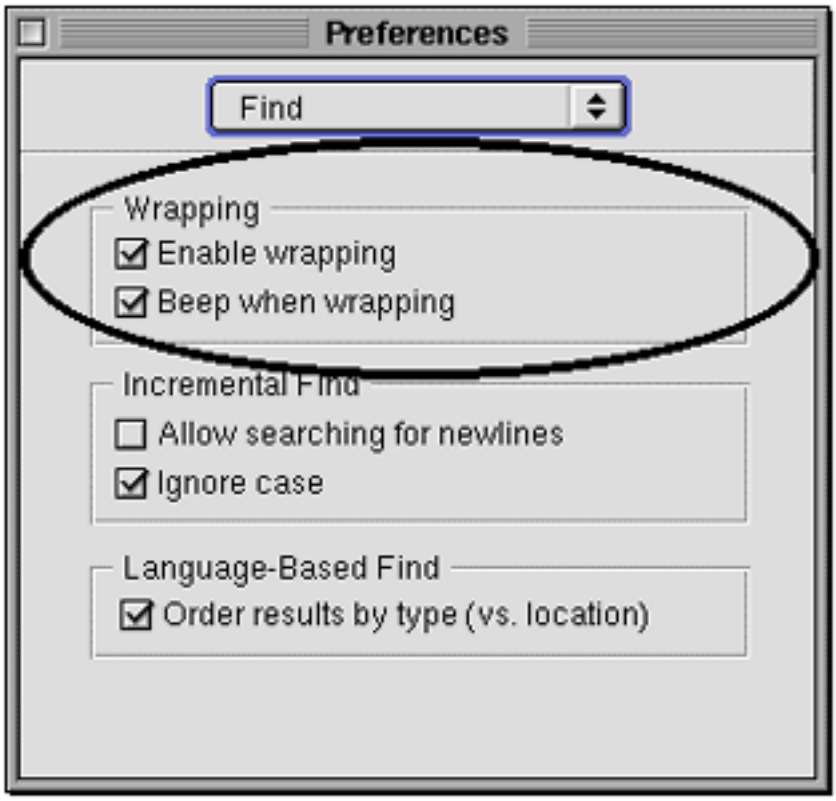


To display the Find display of the Preferences panel, chose Edit > Preferences and then choose Find from the pop-up menu at the top of the panel that appears.

Option	Description
Allow searching for newlines	If this option is on, pressing Return searches for a newline character. If this option is off, pressing Return is the same as clicking the OK button.
Ignore Case	If this option is on, Project Builder overlooks differences between uppercase and lowercase, characters. If this option is off, Project Builder matches the Find text only if the case matches exactly. For example, say the Find text is "MyApp," If this option is on, it matches "myapp," "MyApp," and MYAPP." If this option is off, it matches only "MyApp."

Choosing When to Wrap Searches

When you perform a search in the current file, with either the Find panel, Control-S, or Control-R, you can control whether the search wraps with these options in the Find display of the Preferences panel: "Enable wrapping" and "Beep when wrapping."

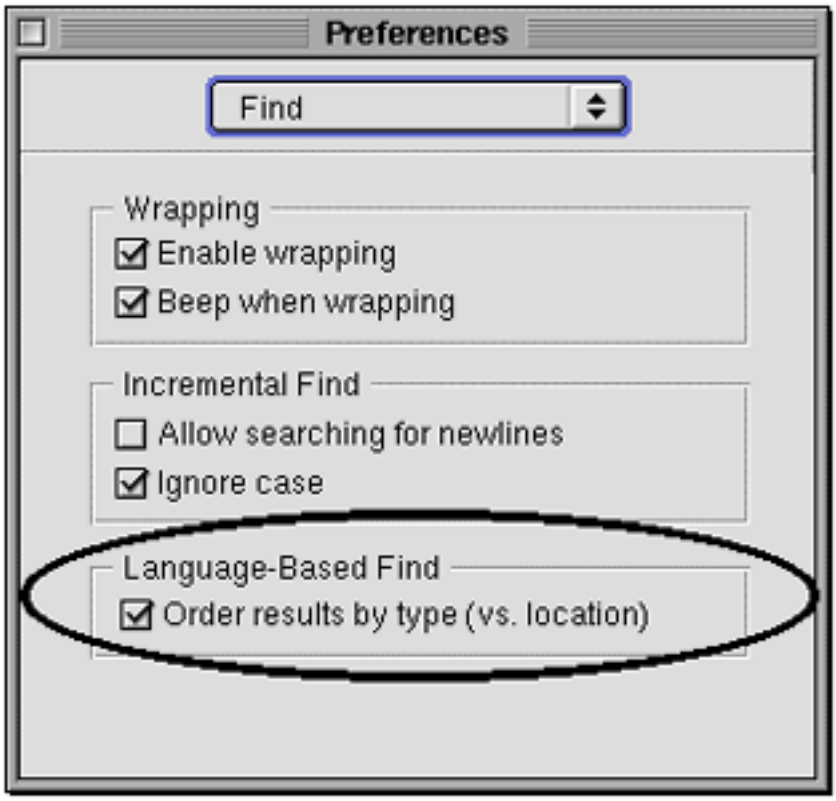

Preferences
Find
Wrapping
Enable wrapping
Beep when wrapping
Incremental Find
Allow searching for newlines
Ignore case
Language-Based Find
Order results by type (vs. location)

To display the Find display of the Preferences panel, chose Edit > Preferences and then choose Find from the pop-up menu at the top of the panel that appears.

Option	Description
Enable wrapping	If this option is on, Project Builder starts searching from the beginning of the file when the search reaches the end of the file. If this option is off, Project Builder stops searching when it reaches the end of the file.
Beep when wrapping	If this option is on, Project Builder beeps when it reaches the end of the file and starts searching from the beginning. This option has no effect if the "Enable wrapping" option is off.

Choosing How to Order Search Results

When you perform a search with the Project Find panel, you can control how it orders the search results with a setting in the Find display of the Preferences panel.



To display the Find display of the Preferences panel, chose Edit>Preferences and then choose Find from the pop-up menu at the top of the panel that appears.

If the "Order results by type (vs. location)" option is on, the results are sorted by symbol type; for example, all the functions are together, all the methods are together, and so on. If that option is off, the results are sorted by which file they're in.

CHAPTER

Localizing

Localizing—Summary of Steps

This section ives an overview of how to localize an application for multiple languages and locations.

Localizing an Application—Summary of Steps

1. Write and debug your program for one language.
2. In Project Builder, add a new language to the project.
3. In Interface BuilderProject Builder, localize the nib files for that language.
4. Repeat steps 2 and 3 for each additional lanuage.
5. Build the project.

Here are the steps for localizing an application:

1. **Write and debug your program for one language.**
   Localizing an application into more languages should be the last step, after it's completely written and debugged for one language.

   As you write the application, keep these pointers in mind:

   - If you want to localize a file later, you must mark it localizable. For more information, see "Making a File Localizable" (page 91).
   - Use localized resources whenever possible.

- Instead of using hard-coded strings in your code, use a .strings file, which can be localized.
- Leave enough room in your interface for languages which need longer strings.

2. **In Project Builder, add a new language to the project.**
   See "Adding A New Language to a Project" (page 88).

3. **In Interface BuilderProject Builder, localize the nib files for that language.**
   See the Interface Builder documentation.

4. **Repeat steps 2 and 3 for each additional lanuage.**
   As you edit, you may need to switch between languages. See "Changing the Project's Current Language" (page 90).

5. **Build the project.**
   Project Builder automatically copies the localized files into the application wrapper.

Localizing—The Steps

The following sections give the details for localizing an application.

Adding A New Language to a Project

1. **Create and fill directories named language.lproj for the project and its subprojects.**
2. **In the Project Attributes display of the Project Inspector, enter the name of the language in the Language field.**

After you've completely written and debugged an application in one language, you can localize it for other languages.

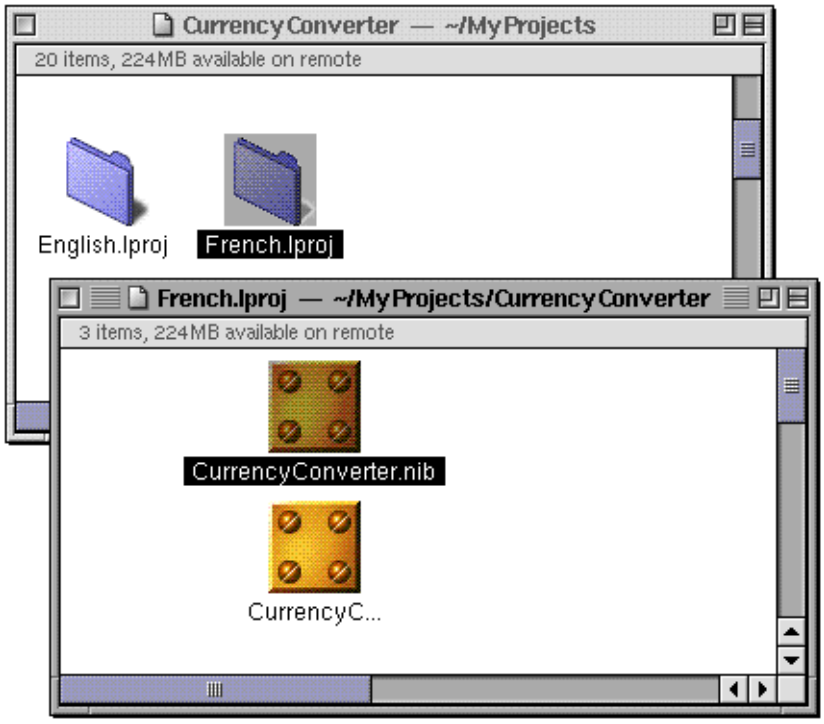
1. **Create and fill directories named language.lproj for the project and its subprojects.**

Create the new directory in the directory that contains the PB.project file for the project. Name it language.lproj, where language is the language's English name. Place all the files for the new language inside it.

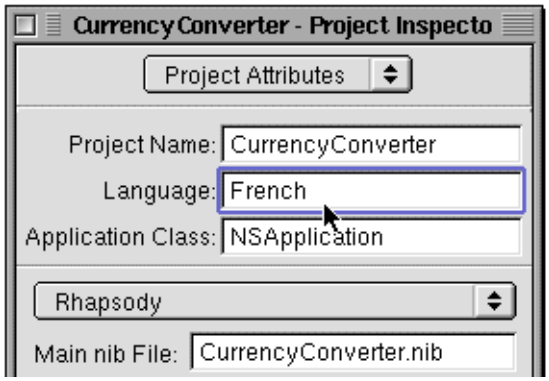
You can also create the new directory by duplicating an exisiting .lproj directory and renaming it.

If your project contains subprojects, you must repeat this step for each of the subprojects.

If you add a file to an .lproj directory later on, you must add localized versions of that file to the other .lproj directories in the project.



2. **In the Project Attributes display of the Project Inspector, enter the name of the language in the Language field.**



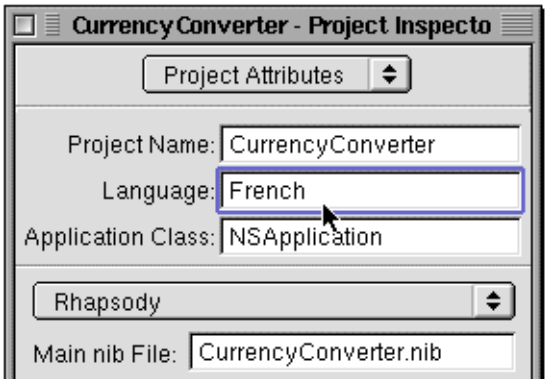
To display the Project Attributes display of the Project Inspector, choose Tools>Inspector , and choose Project Attributes from the pop-up menu at the top of the panel that appears.

In the Language field, enter the English name for the language. It must be the same as the name of the new directory without the .lproj extension.

Now when you open the nib files for this project, you'll open the files in the new .lproj directory.

Changing the Project's Current Language

1. **In the Project Attributes display of the Project Inspector, enter the name of the language in the Language field.**



While you're localizing an application for different languages. you may need to switch between languages.

1. **In the Project Attributes display of the Project Inspector, enter the name of the language in the Language field.**
   To display the Project Attributes display of the Project Inspector, choose Tools>Inspector, and choose Project Attributes from the pop-up menu at the top of the panel that appears.

   In the Language field, enter the English name for the language.

   Now when you view the interface files for your project, only those files for this language appear. And when you turn on the Localizable Resource option for a file in the File Attributes display, Project Builder places the file in that .lproj subdirectory

Making a File Localizable

1. **Select the file.**
2. **In the File Attributes display of the Project Inspector, turn on the Localizable Resource option.**

If you add a file to a project and later decide that you want to localize it for different languages, use this procedure.

1. **Select the file.**

2. **In the File Attributes display of the Project Inspector, turn on the Localizable Resource option.**
   To display the File Attributes display of the Project Inspector, choose Tools>Inspector, and choose File Attributes from the pop-up menu at the top of the panel that appears.

   Project Builder automatically places the file in the .lproj directory for the project's current language.