

Cadence Library Manager User Guide

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Preface

The *Cadence Library Manager User Guide* describes the process and interface involved in creating, adding, copying, deleting, and organizing libraries and cellviews in a design project. The *Cadence Library Manager User Guide* also describes the process of customizing menus in the Cadence® library manager user interface to make it more convenient for you to work with your libraries.

To use the library manager, you should have a knowledge of the Cadence design framework II (DFII) user interface and of the Cadence SKILL programming language.

The preface discusses the following:

- [Related Documents](#) on page 9
- [Typographic and Syntax Conventions](#) on page 10

Related Documents

For more information about the library manager and related products, consult the sources listed below.

- If you want to view your current `cds.lib` file or change the information in it, see the [Cadence Library Path Editor Help](#). Use the `cds.lib` file to show the Cadence software the location of the reference and design libraries you want to use in your design.
- If you want to know how to manage your designs with the Team Design Manager (TDM) design management system, see the [Team Design Manager User Guide](#). If you choose another design management system, such as a system based on RCS (Revision Control System), see the [Cadence Application Infrastructure \(CAI\) User Guide](#) for information on GDM (generic design management), Cadence's interface with your design management system.
- If you want to develop tools or adapt your existing tools with a standard communication protocol, see the [Communications Manager Reference](#).
- If you need Design Framework II configuration information and installation information, see the [Cadence Design Framework II Configuration Guide](#) or the [Cadence Installation Guide](#).

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- If you want to add a Design Framework II user interface to your tool, see the [User Interface SKILL Function Reference](#).
- If you want to develop forms or menus or if you need additional information on SKILL interprocess communication, see the [SKILL Language User Guide](#) and the [SKILL Language Reference](#).
- For details about the Library Manager architecture, see the [Cadence Application Infrastructure \(CAI\) User Guide](#).
- If you want to know how to convert your design libraries, reference libraries, technology data, and custom SKILL code from a format compatible with version 4.3.x of DFII software to a format compatible with version 4.4.6, see the [Compatibility Guide](#).
- For more information about technology files, refer to the [Technology File and Display Resource File User Guide](#).

Typographic and Syntax Conventions

This list describes the syntax conventions used for the *Library Manager User Guide*.

literal	Nonitalic words indicate keywords that you must enter literally. These keywords represent command (function, routine) or option names.
<i>argument</i> (<i>z_argument</i>)	Words in italics indicate user-defined arguments for which you must substitute a name or a value. Names are case sensitive.
	Vertical bars (OR-bars) separate possible choices for a single argument. They take precedence over any other character.
[]	Brackets denote optional arguments. When used with OR-bars, they enclose a list of choices. You can choose one argument from the list.
{ }	Braces are used with OR-bars and enclose a list of choices. You must choose one argument from the list.
...	Three dots (...) indicate that you can repeat the previous argument. If you use them with brackets, you can specify zero or more arguments. If they are used without brackets, you must specify at least one argument, but you can specify more.

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Preface

, ...

A comma and three dots together indicate that if you specify more than one argument, you must separate those arguments by commas.

=>

A right arrow precedes the return values of the function.

Library Manager Overview

This chapter covers the following topics:

[What You Can Do with the Library Manager on page 12](#)

[Opening the Library Manager on page 13](#)

[Library Manager Menus on page 14](#)

[File Menu on page 15](#)

[Edit Menu on page 16](#)

[View Menu on page 17](#)

[Design Manager Menu on page 17](#)

[Pop-Up Menus on page 18](#)

[Changing File Permissions on page 19](#)

[Opening a UNIX Window on page 21](#)

[Exiting the Library Manager on page 21](#)

What You Can Do with the Library Manager

You can use the Cadence® library manager to create, add, copy, delete, and organize libraries and cellviews in a design project. More specifically, you can

- Import and access design data in libraries under design management control (check out, check in, and version control)
- Define, in the `cds.lib` file, the path to the libraries you want your Cadence design tools to access (For more information on how to do this, see the [Cadence Library Path Editor Help](#))

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Library Manager Overview

- Create new libraries in your directories
- Copy data into libraries
- Delete libraries
- Rename libraries, cells, views, files, or reference libraries
- Edit library, cell, and view properties
- Organize cells into categories to help you quickly locate them
- Change permissions for files and views
- Open a UNIX window to locate files and hierarchies
- Customize the colors of the Library Manager user interface using Library Manager commands in the `.Xdefaults` file
- Navigate libraries, cells, views, and files in the directory structure by opening a cellview

A record of the commands used during your library manager session is stored in the `libManager.log` file in your current working directory.

Opening the Library Manager

Note: Before you open the Library Manager form, you might need to convert your design data to the current release. For more information on converting your design, see the [Compatibility Guide](#).

You can open the library manager form in standalone mode from an xterm or command tool window or in integrated mode from the Command Interpreter Window (CIW).

- To open the library manager from an xterm or command tool window, type the following command:

```
libManager &
```

The library manager opens in standalone mode (not integrated with a design environment application).

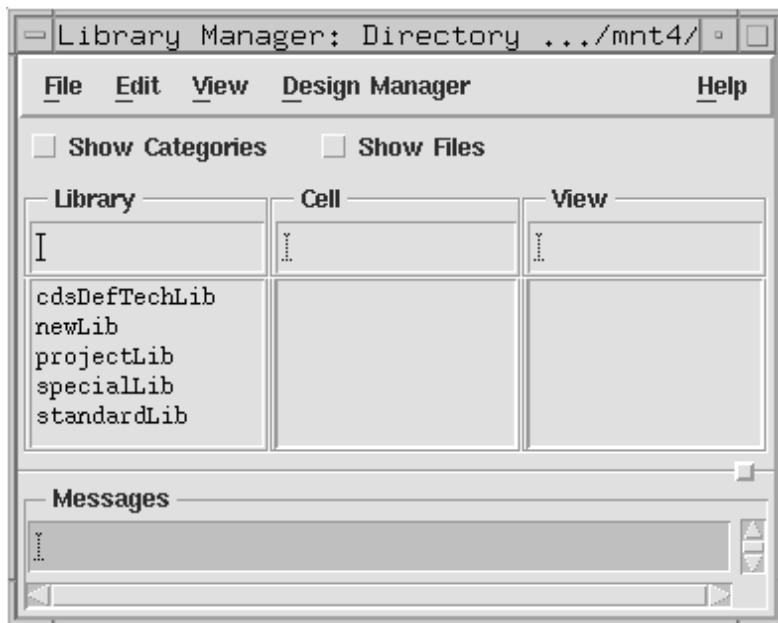
Note: In standalone mode, you cannot open cellviews.

- To open the library manager form from the CIW, choose *Tools – Library Manager*.

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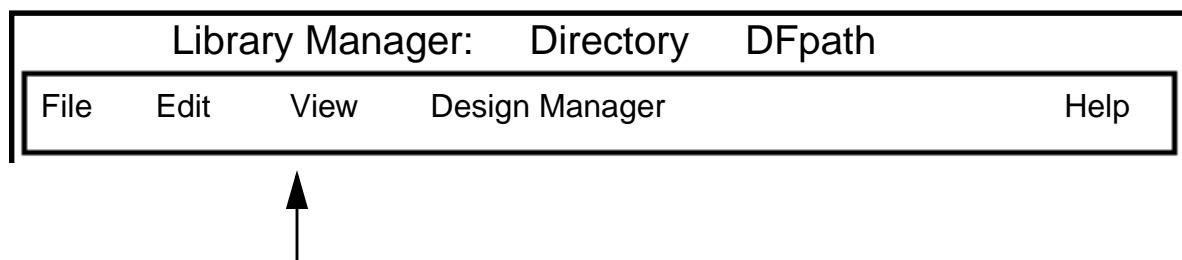
Library Manager Overview

The library manager form appears. For details about the library manager form see [Library Manager Form](#) on page 261.



Library Manager Menus

You can access the library manager menu commands from the *Library Manager* menu banner.



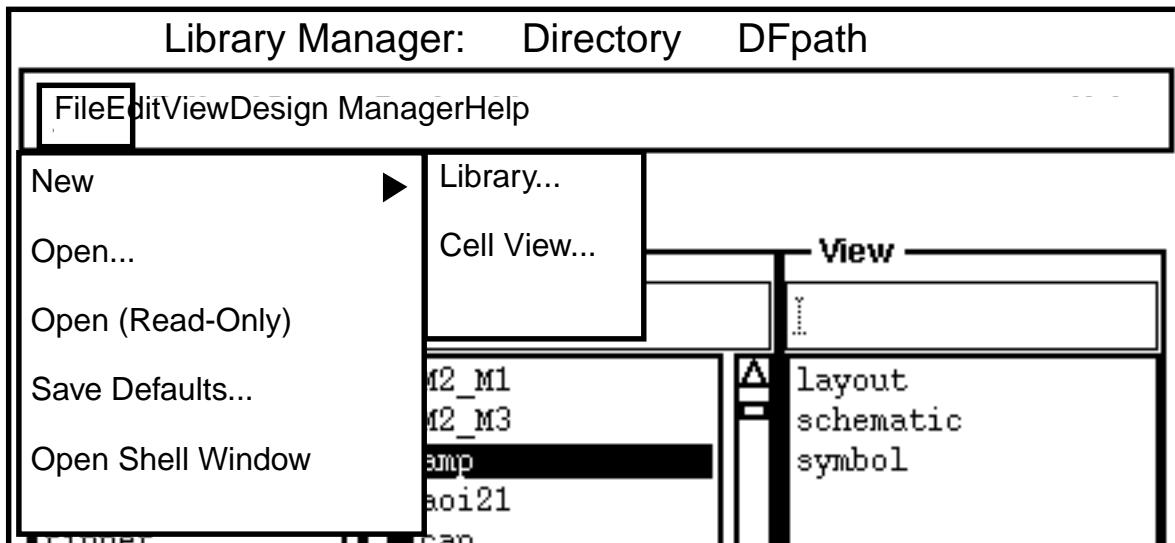
For more information about a menu command group, click the menu name.

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Library Manager Overview

File Menu

These are the *File* menu commands.



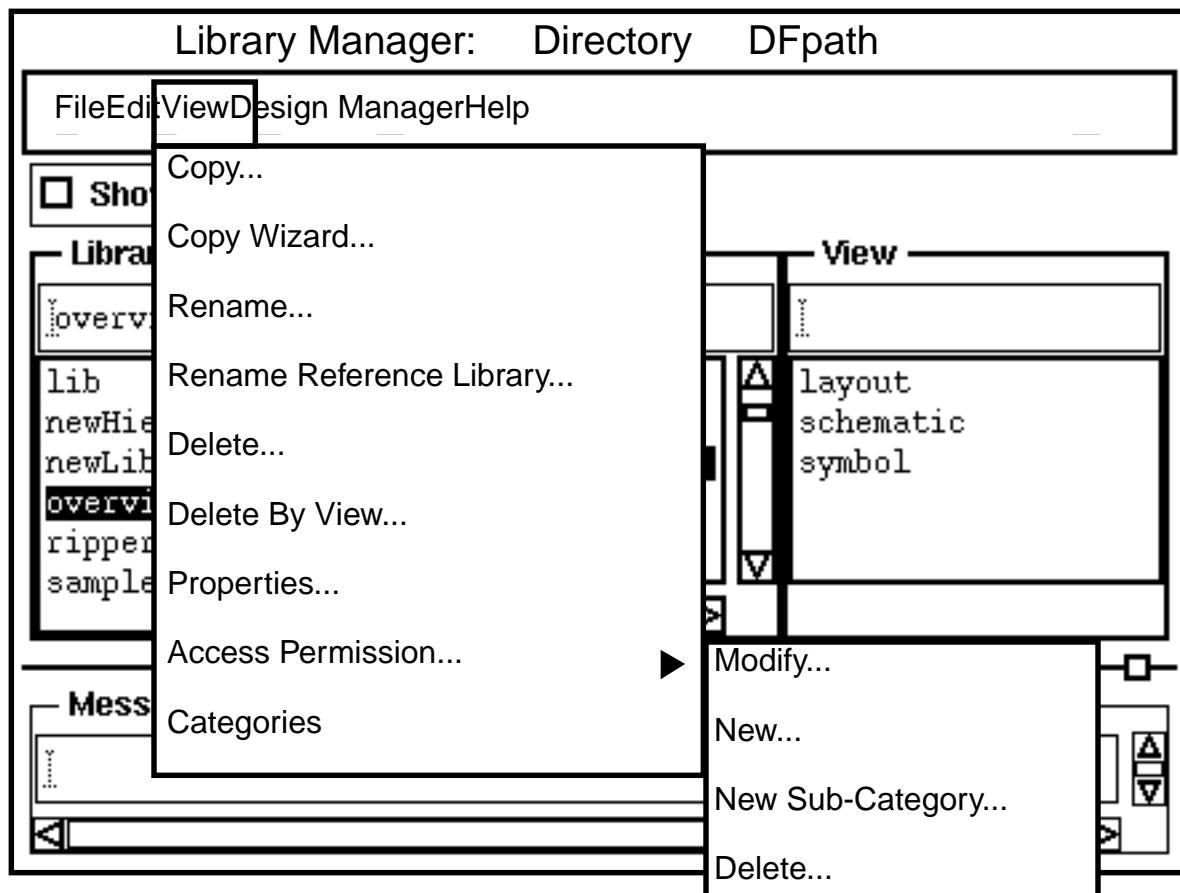
Note: When you open Library Manager in standalone mode, you cannot open cellviews, so the *Open* and *Open (Read-Only)* commands are not selectable.

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Library Manager Overview

Edit Menu

These are the *Edit* menu commands.

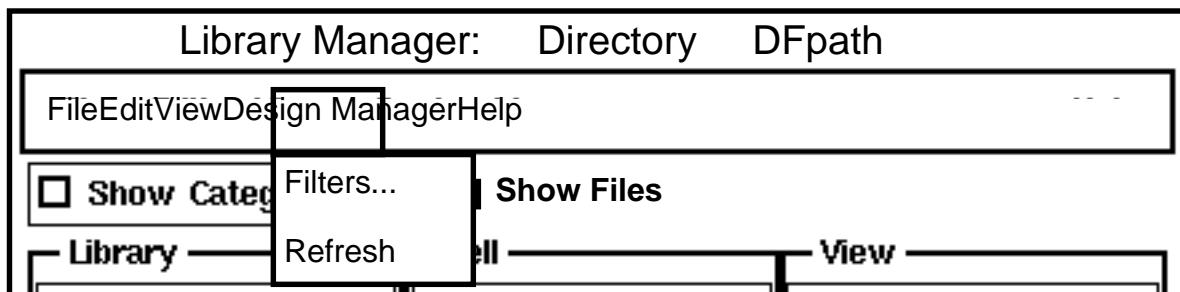


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Library Manager Overview

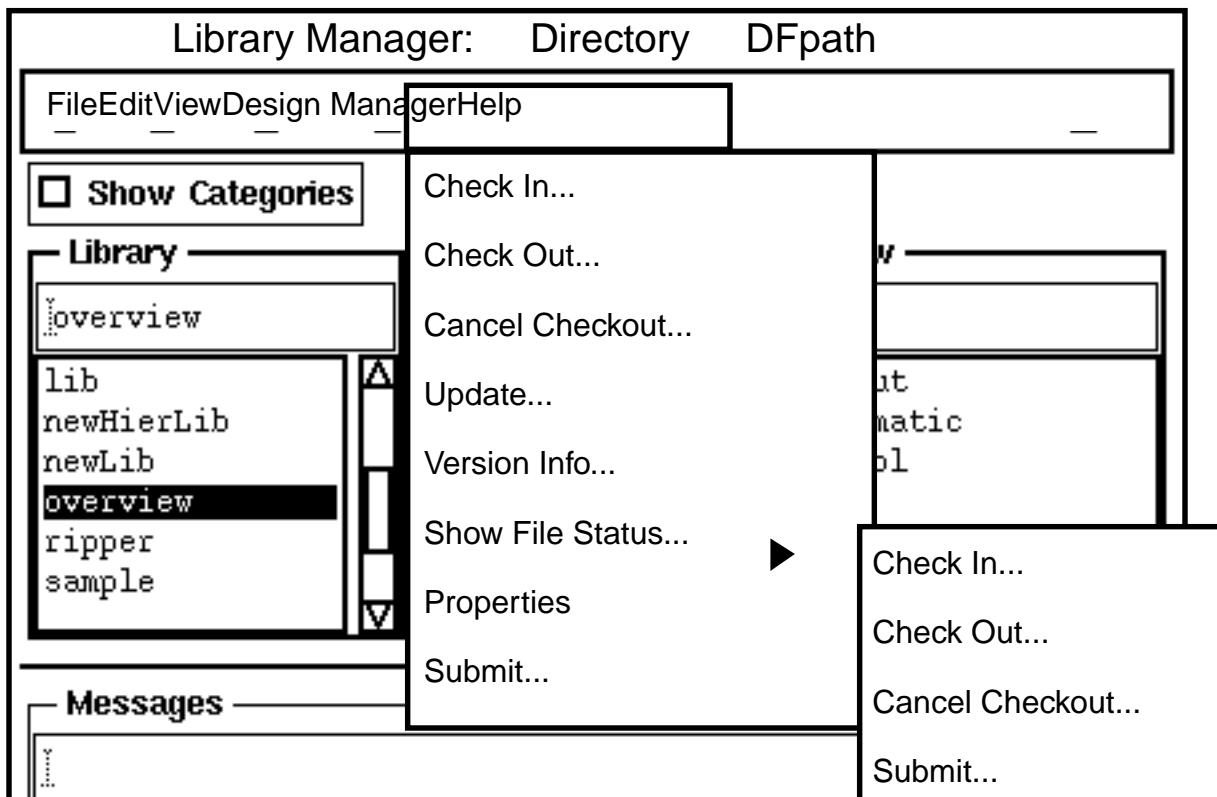
View Menu

These are the *View* menu commands.



Design Manager Menu

These are the *Design Manager* menu commands.



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Library Manager Overview

Pop-Up Menus

To display pop-up menus for libraries, cells, views, files, or categories, do the following:

- In any of the library manager list boxes, press and hold the right mouse button.
- The appropriate pop-up menu for that list box opens.

Library Pop-up Menu

- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update...
- Show File Status...
- Submit....

Cell Pop-up Menu

- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update...
- Show File Status...
- Submit....

View Pop-up Menu

- Open...
- Open (Read-Only)
- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update...
- Version Info...
- Show File Status...
- Submit....

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Library Manager Overview

Note: When you open Library Manager in standalone mode, you cannot open cellviews, so the *Open* and *Open (Read-Only)* commands are not selectable.

Files in Library and Files in Cell Pop-up Menus

- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update...
- Version Info...
- Show File Status...
- Submit....

Category Pop-up Menu

- Modify...
- New...
- New Sub-Category...
- Delete...
- Checkin Category...

Changing File Permissions

If you or your group own a library, cell, view, or file, you can change the permissions to control access. These are the same read, write, execute (rwx) permissions you can change from a UNIX command line.

To change the permissions on an item, follow these steps:

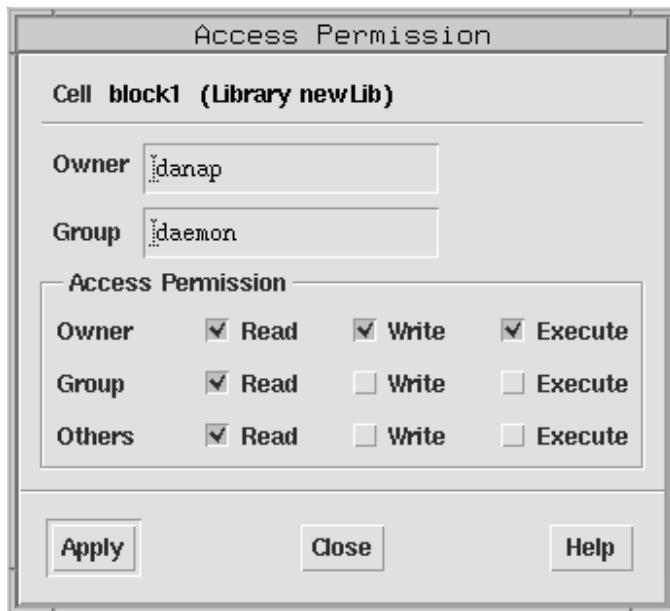
1. From the xxx (name of form or interface), in the appropriate list box, choose the item.
2. Choose *Edit – Access Permission*.

The Access Permission form appears. The item you chose appears at the top part of the form. The specified owner and group for the selected item appear in the corresponding

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Library Manager Overview

fields. For details about the Access Permission form see [Access Permission Form](#) on page 246.



If the item you selected is under design management and is either checked in or checked out to someone other than you, the *Access Permission* command is not available.

3. Set the permission values you want. To turn on a value, click the checkbox to display a checkmark. To turn off a value, click the checkbox to remove the checkmark.
 - ❑ By default, the owner has read, write, and execute permission.
 - ❑ By default, the owner must have write permission before group or others can have write permission.
 - ❑ If group or others have write or execute permission, by default, they must also have read permission.
4. Click *Apply*.
5. Click *Close*.

The library manager changes the permissions on the selected item. To display any default permissions that might have been automatically set, open the Access Permission form again.

If the software cannot find the item, it generates an error message telling you that the permissions could not be changed.

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Library Manager Overview

Note: As the owner of the item, you can change the permissions, but you cannot change the ownership.

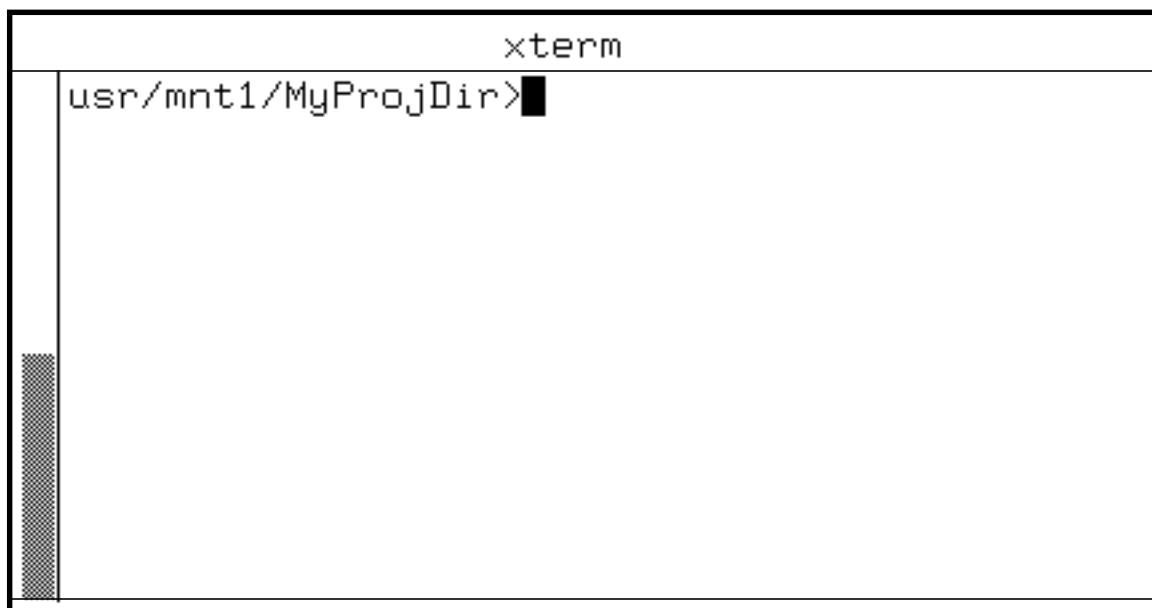
Opening a UNIX Window

If you want to create or edit a `cds.lib` file, display a directory structure, display information in man pages, or use other UNIX functions, open an xterm (UNIX shell) window from the library manager.

To open an xterm window, do the following:

- Choose *File – Open Shell Window*.

An xterm window opens in the directory from which you started either the library manager or your design environment application.



Exiting the Library Manager

To exit the library manager, do the following:

- Choose *File – Exit*.

The library manager closes. Your design environment application does not close.

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Library Manager Overview

Managing Libraries

This chapter covers the following topics:

[Editing the Library Path](#) on page 24

[Opening a Cellview](#) on page 24

[Creating a New Cellview](#) on page 29

[Using the Filter](#) on page 30

[Renaming Libraries](#) on page 31

[Renaming Cells](#) on page 33

[Renaming Views](#) on page 35

[Renaming Files](#) on page 36

[Renaming Reference Libraries](#) on page 38

[Deleting a Library](#) on page 40

[Deleting a Cell](#) on page 42

[Deleting Views for a Cell](#) on page 44

[Editing Properties](#) on page 50

[Adding Properties](#) on page 53

[Modifying Properties](#) on page 55

[Updating Managed Files](#) on page 56

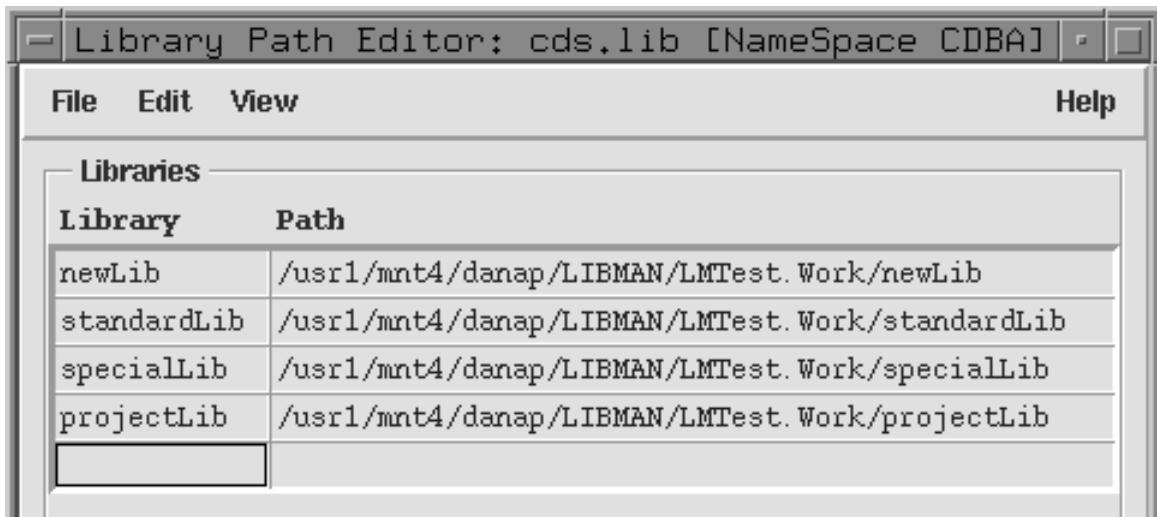
Editing the Library Path

Use the `cds.lib` file to specify the location of the reference and design libraries you want to use in your design. The Cadence Library Path Editor Help lets you view and edit the information in your current `cds.lib` file.

To view your `cds.lib` file in the Library Path Editor, do the following:

1. Open the Cadence® library manager.
2. Choose *Edit – Library Path*.

The Library Path Editor form appears, showing each library and path.



Opening a Cellview

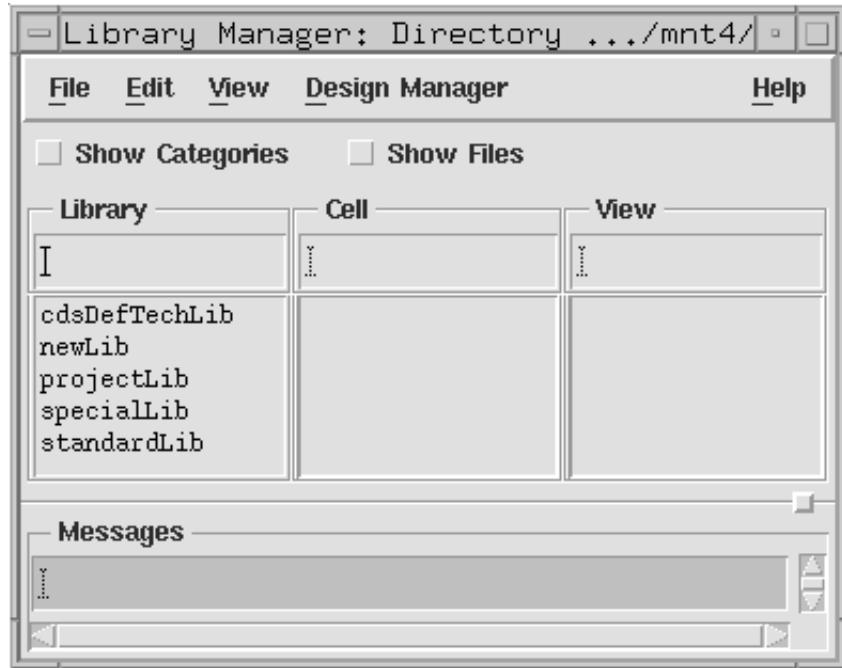
To open a cellview, follow these steps:

1. In the CIW, choose *Tools – Library Manager*.

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Managing Libraries

The library manager form appears, showing the libraries specified in your `cds.lib` file.



Note: The `cdsDefTechLib` library in the *Library* list box is defined by default.

Note: When you open the library manager in standalone mode, you cannot open cellviews, so the *Open* and *Open (Read-Only)* commands are not selectable.

2. Turn on Show Categories.

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Managing Libraries

The *Category* list box appears, between the *Library* and *Cell* list boxes.

<input checked="" type="checkbox"/> Show Categories <input type="checkbox"/> Show Files		
Library	Category	Cell
IspecialLib	Everything	...
cdsDefTechLib	<input type="checkbox"/> Everything	aoi
newLib	<input type="checkbox"/> Uncategorized	aoi1
projectLib	<input type="checkbox"/> Blocks	aoi2
specialLib		block1
standardLib		block2
		blockA
		oai
		oai1
		oai2

The *Category* list box displays the default categories (*Everything* and *Uncategorized*) plus any categories you have added to this library. By default, the *Everything* category is selected.

3. In the *Library* list box, choose a library name.

The cells in the selected library appear in the *Cell* list box.

<input type="checkbox"/> Show Categories <input type="checkbox"/> Show Files	
Library	Cell
IspecialLib	I
cdsDefTechLib	aoi
newLib	aoi1
projectLib	aoi2
specialLib	block1
standardLib	block2
	blockA
	oai
	oai1

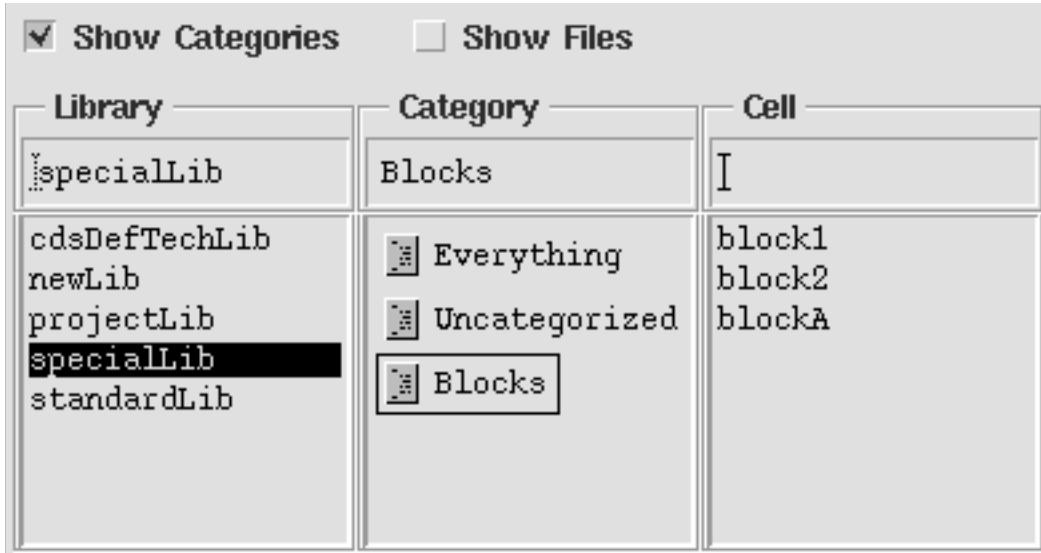
- To deselect a highlighted library, click it.

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Managing Libraries

4. Highlight the category name.
5. The cells included in a specific category appear.

The selected category name is outlined by a box.



Library	Category	Cell
specialLib	Blocks	I
cdsDefTechLib	Everything	block1
newLib	Uncategorized	block2
projectLib	Blocks	blockA
specialLib		
standardLib		

- To deselect a category, click the category name.
- 6. Choose a cell name.
- 7. The views associated with the cell appear.

The cell name is highlighted. The views for that cell are displayed in the *View* list box. (In the following example, the *Category* list box is not displayed.)

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Managing Libraries

Library	Cell	View
specialLib	aoi	
cdsDefTechLib	aoi	schematic
newLib	aoi1	symbol
projectLib	aoi2	
specialLib	block1	
standardLib	block2	
	blockA	
	oai	
	oai1	
	oai2	

To deselect a highlighted cell, click the cell name.

8. Choose the view name of the cellview you want to open.

Library	Cell	View
specialLib	aoi	schematic
cdsDefTechLib	aoi	schematic
newLib	aoi1	symbol
projectLib	aoi2	
specialLib	block1	
standardLib	block2	
	blockA	
	oai	
	oai1	
	oai2	

- To deselect a highlighted view, click the view name.

9. Choose *File – Open* or *File – Open (Read-Only)*.

The library manager opens the cellview you selected. In this example, it is the cellview specified by the path

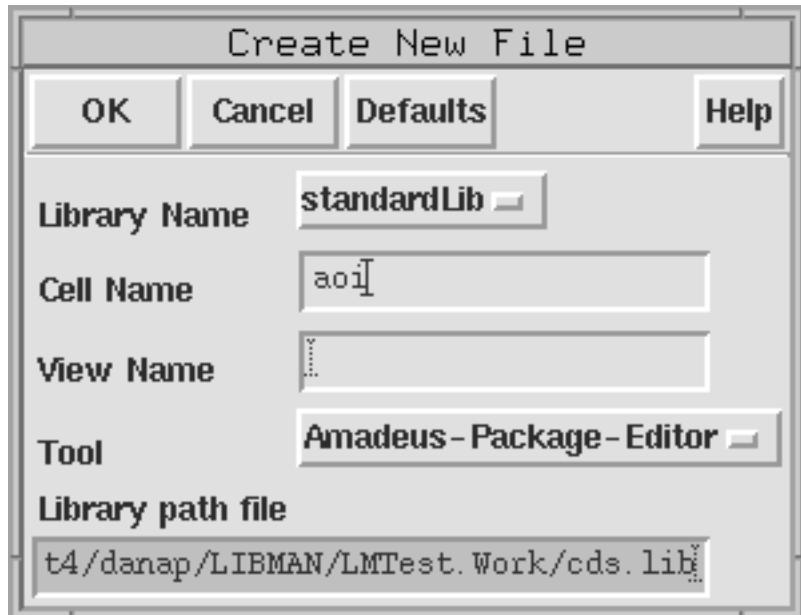
```
.../specialLib/aoi/schematic
```

Creating a New Cellview

To create a new cellview, follow these steps:

1. Open the library manager.
2. Choose *File – New – Cell View*.

The *Create New File* form appears. For details about the *Create New File* form see [Create New File Form](#) on page 258.



3. In the *Library Name* cyclic field, choose the name of the library in which you want to create a new cellview.
4. In the *Cell Name* field, type the name of the new cellview.
5. In the *View Name* field, type the view name of the new cellview.
6. In the *Tool* cyclic field, select the name of the tool with which you want to create this new cellview.
7. Click *OK*.

The system opens the new cellview in a window of the specified tool.

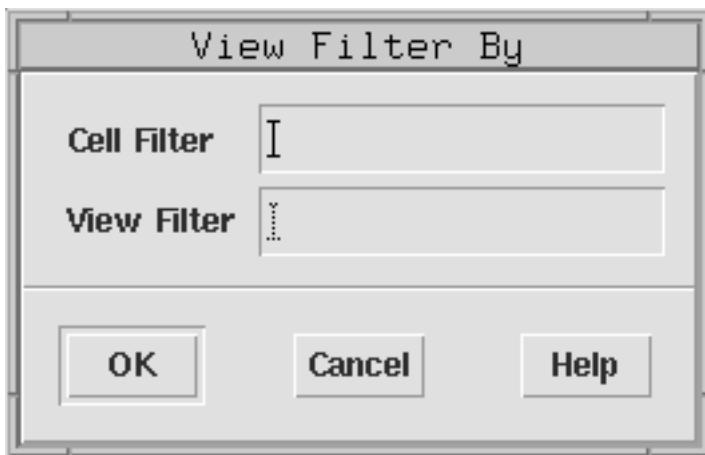
Using the Filter

To quickly find a cellview and its associated views, use the view filter to display only a subset of the cells or views in a library. You can specify whole words or character strings to filter patterns in the cell or view names. To use a character string, specify an asterisk (*) as a wildcard character.

To filter cell or view names, follow these steps:

1. Open the library manager.
2. Choose *View – Filters*.

The *View Filter By* form appears. For details about the *View Filter By* form see [View Filter By Form](#) on page 268.



The filter fields default to null, which in this case is the same as an asterisk (signifying all cells and all views).

3. In the *Cell Filter* field, type a text string to define the range of cell names you want to display in the *Cell* list box.

For example, use the string `buf *` to filter out all except buffer cells.

Note: You cannot filter by view alone. You can filter only by cell and view together.

4. In the *View Filter* field, type a text string to define the range of view names you want to display in the *View* list box.
5. Click *OK*.

Cadence Library Manager User Guide

Managing Libraries

For example, if you use the string `sch*` to filter out all except schematic views. the library manager displays only buffer cells with schematic views.

Library	Cell (buf*)	View (sch*)
standardLib	bufferA	schematicA
cdsDefTechLib	bufferA	schematic
newLib	bufferB	schematicA
projectLib	bufferC	schematicB
specialLib		
standardLib		

Note: You can use multiple strings separated by spaces. For example:

`buf* a*`

This command gives you all buffer cells and cells that start with the letter “a”.

Renaming Libraries

To rename a library, follow these steps:

1. Open the library manager.
2. In the *Library* list box, choose the library you want to rename.

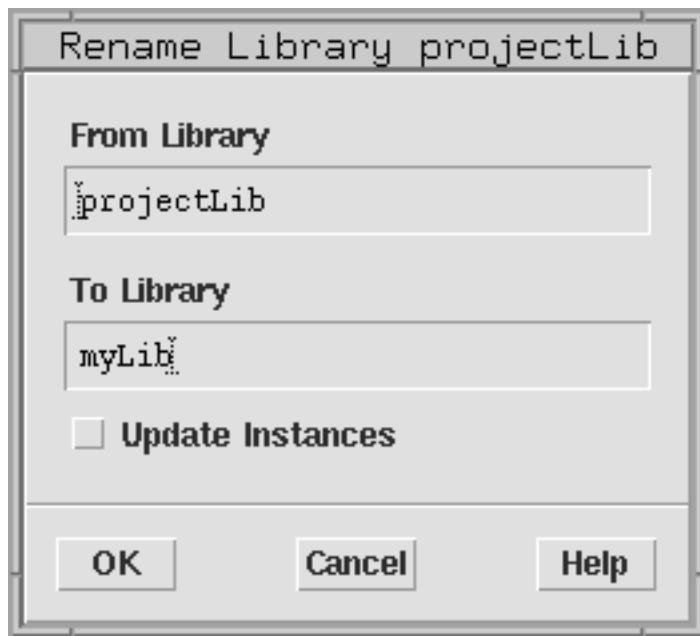
Note: Make sure no cell name or view name is selected. To deselect all cells and views, click the right mouse button in the *Library* list box.

3. Choose *Edit – Rename*.

Cadence Library Manager User Guide

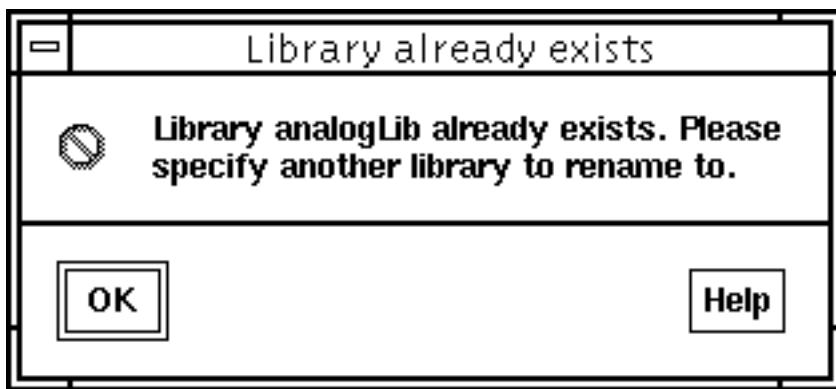
Managing Libraries

The *Rename Library* form appears with the name of the selected library displayed in the *From Library* field.



4. In the *To Library* field, type a new name for the library.

The library name cannot duplicate another library name. If the name you type in the *To Library* field (such as *analogLib*) already exists, the following error message appears:



5. Turn on the *Update Instances* option.

- ❑ When *Update Instances* is turned on, the software replaces all instances having the name in the *From Library* field with the name in the *To Library* field.

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Managing Libraries

For example, with *Update Instances* turned on, an instance of
.../projectLib/iopin/symbol is renamed to
.../myLib/iopin/symbol. (All instances of projectLib are changed to
myLib.)

- When *Update Instances* is turned off, the software leaves references to the *From Library* name unchanged.

For example, with *Update Instances* turned off, an instance of
.../projectLib/iopin/symbol remains the same.

If you renamed projectLib to myLib, instances of
.../projectLib/iopin/symbol are unbound instances unless you replace the
projectLib library.

6. Click *OK*.

The system changes the name of the selected library (*From Library*) to the new name (*To Library*).



If you are using a design management system such as Cadence® team design manager (TDM), the library manager renames a library or cell with only the latest versions of its cellviews, from the name in the *From Library* field to the name in the *To Library* field.

Renaming Cells

To rename a cell, follow these steps:

1. In the *Cell* list box, choose the cell you want to rename.

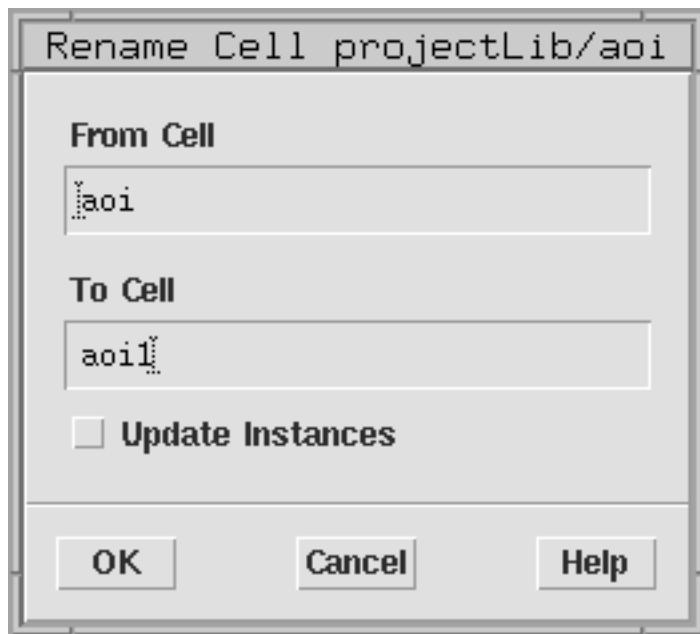
Make sure no view name is selected. To deselect all views, click the right mouse button in the *Cell* list box.

2. Choose *Edit – Rename*.

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Managing Libraries

The *Rename Cell* form opens with the name of the selected cell displayed in the *From Cell* field.



3. In the *To Cell* field, type the new name for the cell.

The cell name cannot duplicate an existing cell name in the library.

4. Turn on the *Update Instances* option.

- When *Update Instances* is turned on, the software replaces all instances having the name in the *From Cell* name with the *To Cell* name.

For example, all placed instances of *aoi* now reference *aoi1*.

- When *Update Instances* is turned off, the software keeps the references to the *From Cell* name.

For example, all placed instances of *aoi* continue to reference *aoi*. Instances of *aoi* are unbound instances unless you replace the *aoi* cell.

5. Click *OK*.

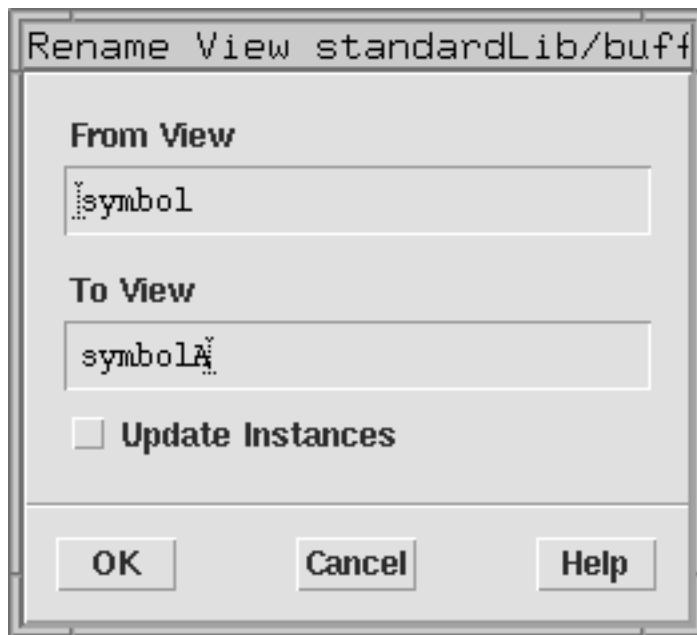
The system changes the name of the selected cell (*From Cell*) to the new name (*To Cell*).

Renaming Views

To rename a view, follow these steps:

1. In the *View* list box, select the view you want to rename.
2. Choose *Edit – Rename*.

The Rename View form appears with the name of the view you selected displayed in the *From View* field. The header of the form displays the entire cellview path.



3. In the *To View* field, type the new name for the view.

The new view name cannot duplicate an existing view name for the cell.

4. Turn on the *Update Instances* option.

- ❑ When *Update Instances* is turned on, the software overwrites any occurrences of the *From View* name with the *To View* name.

For example, all instances of `.../basic/buff/symbol` now reference `.../basic/buff/symbolA`.

- ❑ When *Update Instances* is turned off, the software keeps references to the *From View* name.

For example, all instances of `basic/buff/symbol` continue to reference `.../basic/buff/symbol`. If you renamed `symbol` to `symbolA`, instances of `.../projectLib/iopin/symbol` are unbound instances unless you replace the `symbol` cellview.

5. Click *OK*.

The system changes the name of the selected view (*From View*) to the new name (*To View*).

Renaming Files

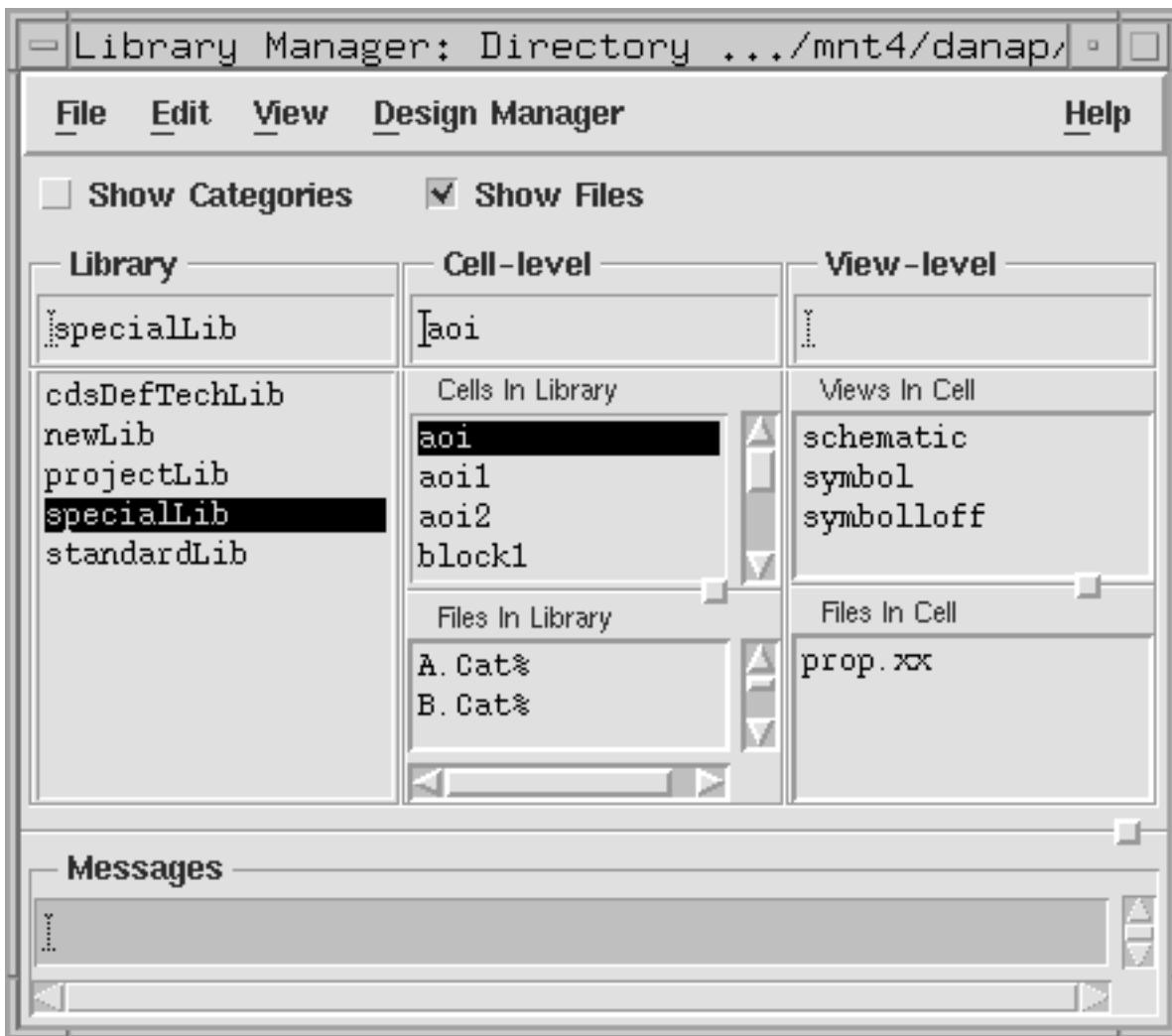
To rename a file, follow these steps:

1. Turn on the *Show Files* checkbox.

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Managing Libraries

The *Files In Library* and *Files In Cell* list boxes appear close to the bottom of the library manager form.



2. In the appropriate list box, choose the file you want to rename.

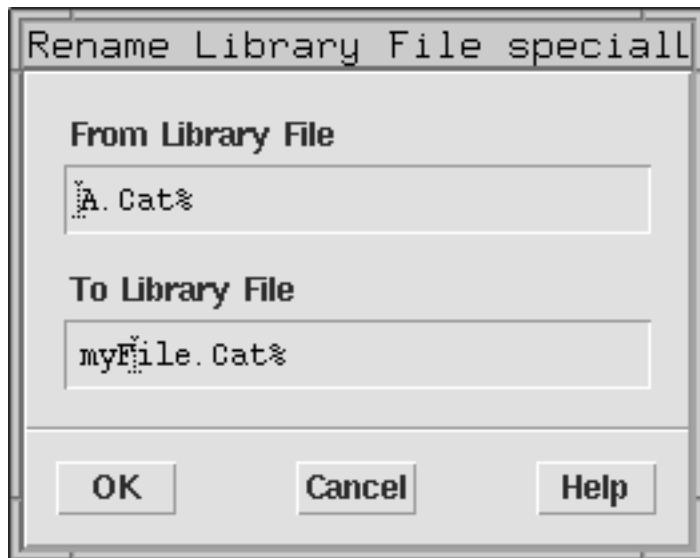
3. Choose *Edit – Rename*.

The *Rename* command works the same for library files and cell files.

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Managing Libraries

The *Rename Library File* form appears with the name of the file you selected displayed in the *From Library File* field.



4. In the *To Library File* field, type the new name for the file.

The new filename cannot duplicate an existing filename in the library.

5. Click *OK*.

The system changes the name of the selected file (*From Library File*) to the new name (*To Library File*).

Renaming Reference Libraries

You can change the reference library that the instances in your design library point to.

For example, if your design library, `newLib`, contains `via` cells from the reference library `basic`, you can change the reference library from the `basic` library to the `analogLib` library so that the `via` cells, and any other cells in your design library that referenced the `basic` library, now reference the `analogLib` library. This assumes that the `analogLib` library contains a `via` cell.

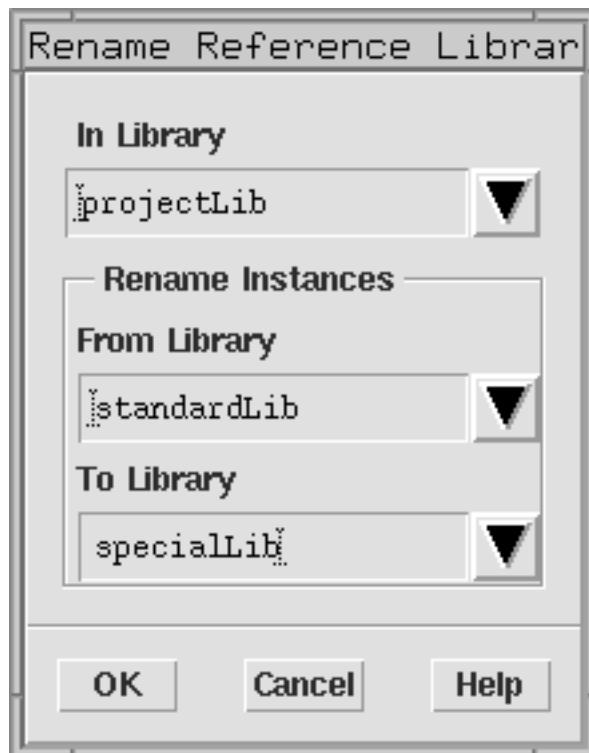
To change a reference library for a design library, follow these steps:

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Managing Libraries

1. In the *Library* list box, select the design library that contains references you want to rename.
2. Choose *Edit – Rename Reference Library*.

The Rename Reference Library form appears.



There are two ways to change the names in the fields:

- Type the library names in the fields.
- Choose the library names from the pop-up list boxes displayed when you click the down arrows. See [“Using Pop-Up List Boxes”](#) on page 62.

3. In the *In Library* field, type the name of the design library that uses a reference library whose name you want to change.
4. In the *From Library* field, type the name of the current reference library.
5. In the *To Library* field, type the name of the new reference library.
6. Click *OK*.

The system changes the name of the current reference library to the name of the new reference library for all instances in the specified design library.

A dialog box tells you that the process is working.

Note: If you cannot rename the reference library, it might be for one of the following reasons:

- An input parameter is invalid.
- The system cannot automatically open the design library for writing.
- You cannot get access permission to the design library. See [“Changing File Permissions”](#) on page 19.

Deleting a Library

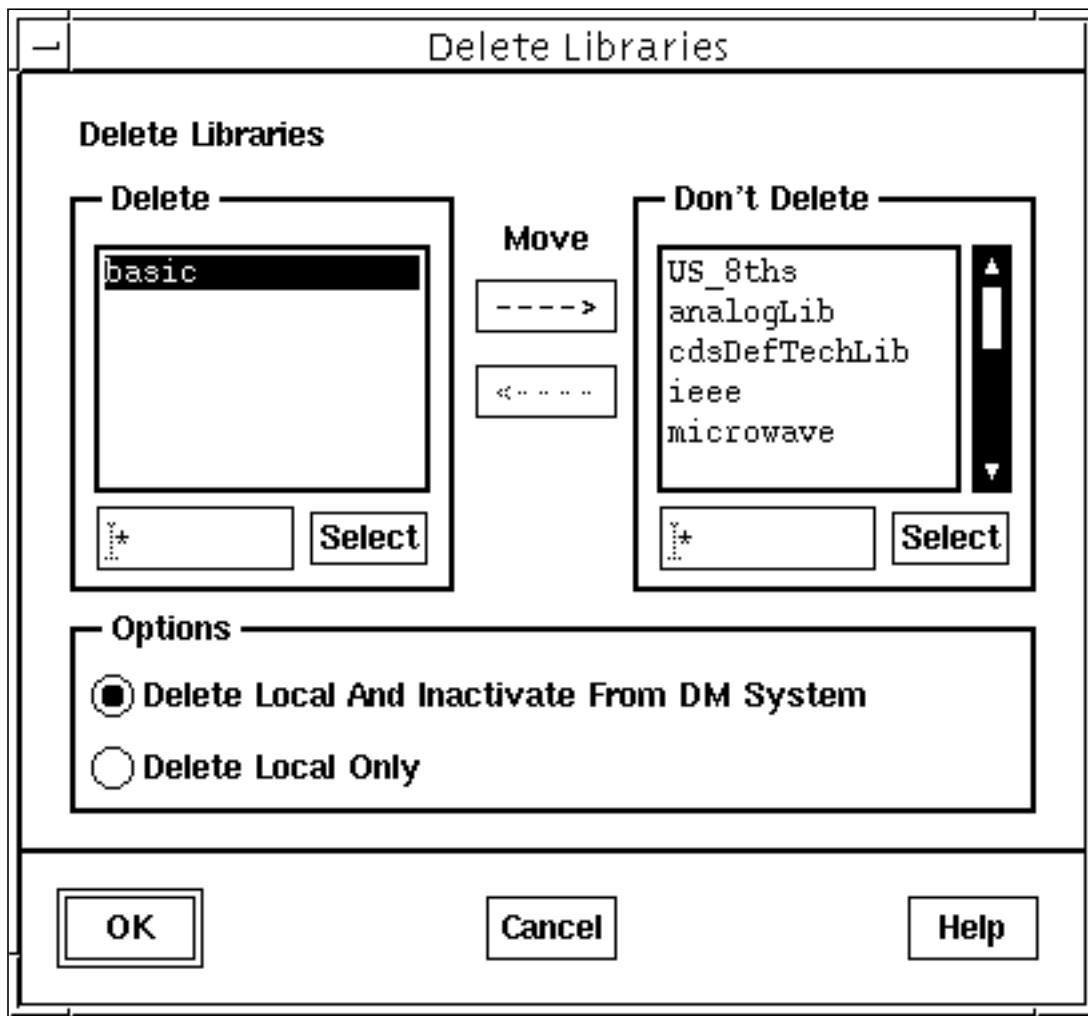
To delete a library from the library manager, follow these steps:

1. In the *Library* list box, choose the library you want to delete.
2. Choose *Edit – Delete*.

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Managing Libraries

The *Delete Libraries* form opens. The selected library is displayed in the *Delete* list box. For details about the *Delete Libraries* form see [Delete Libraries Form](#) on page 259.



To delete additional libraries, follow these steps:

1. Choose the library in the *Don't Delete* list box. You can select multiple items by using Shift-click, clicking and dragging, or using the filters.
2. Click the arrow that points in the direction you want to move the items.
3. Select a deletion option.
 - To delete a local copy of a library and the copy in the design management data repository, select *Delete Local And Inactivate From DM System*.

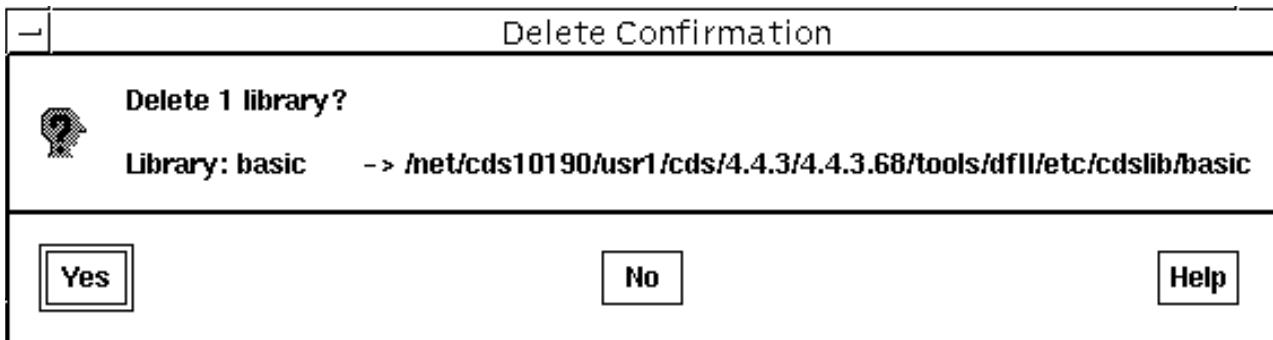
Cadence Library Manager User Guide

Managing Libraries

- To delete only your local copy of a library (not the check-in copy in the design management data repository), select *Delete Local Only*.

4. Click *OK*.

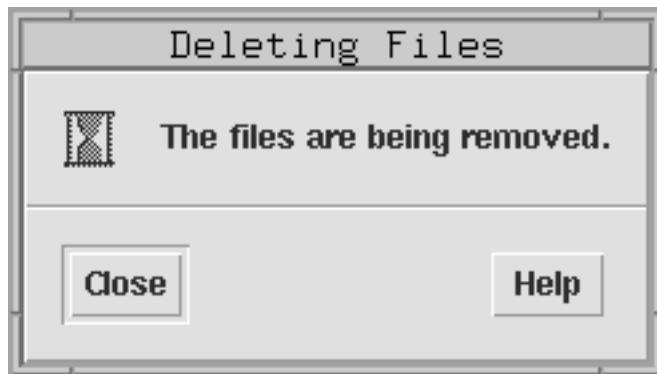
A confirmation dialog box appears.



5. To delete the specified library, click *Yes*.

The system removes the library from the library manager.

A box appears, indicating that the libraries are being removed.



Deleting a Cell

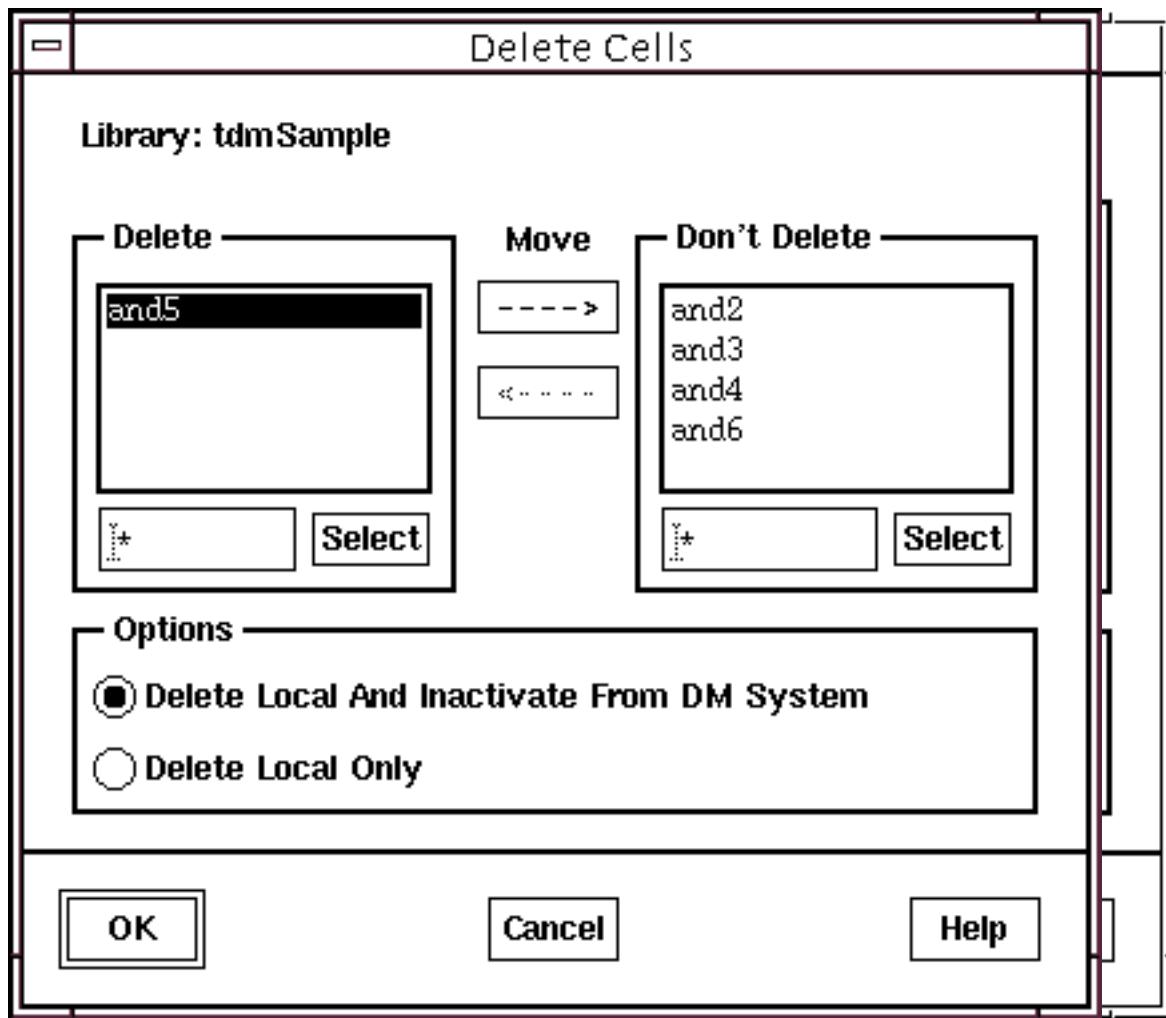
To delete a cell from the library manager, follow these steps:

1. In the *Cell* list box, choose the library you want to delete.
2. Choose *Edit – Delete*.

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Managing Libraries

The *Delete Cells* form opens. The selected cell is displayed in the *Delete* list box. For details about the *Delete Cells* form see [Delete Cells Form](#) on page 259.



To delete additional cells, follow these steps:

1. Choose the library in the *Don't Delete* list box. You can select multiple items by using Shift-click, clicking and dragging, or using the filters.
2. Click the arrow that points in the direction you want to move the items.
3. Select a deletion option.

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- ❑ To delete a local copy of a cell and the copy in the design management data repository, select *Delete Local And Inactivate From DM System*.
- ❑ To delete only your local copy of a cell (not the check-in copy in the design management data repository), select *Delete Local Only*.

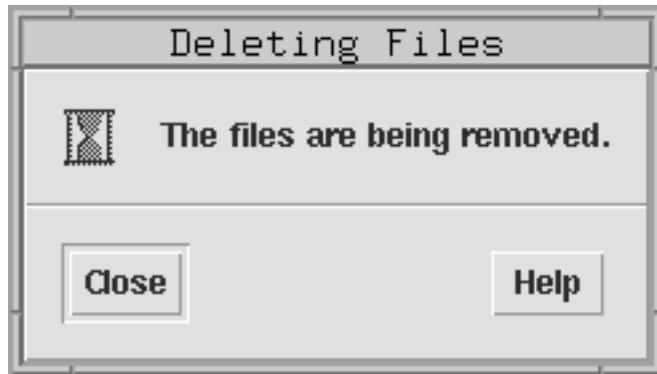
4. Click *OK*.

A confirmation dialog box appears, displaying the path of the cell you specified for deletion.

5. To delete the specified cell, click *Yes*.

The system removes the cell from the library manager.

A box appears, indicating that the cells are being removed.



Deleting Views for a Cell

You can delete specific views of a cell or group of cells from your local directory or from both the local directory and the current design management repository. You can delete all views for a cell or only those views for cellview versions you have copied.

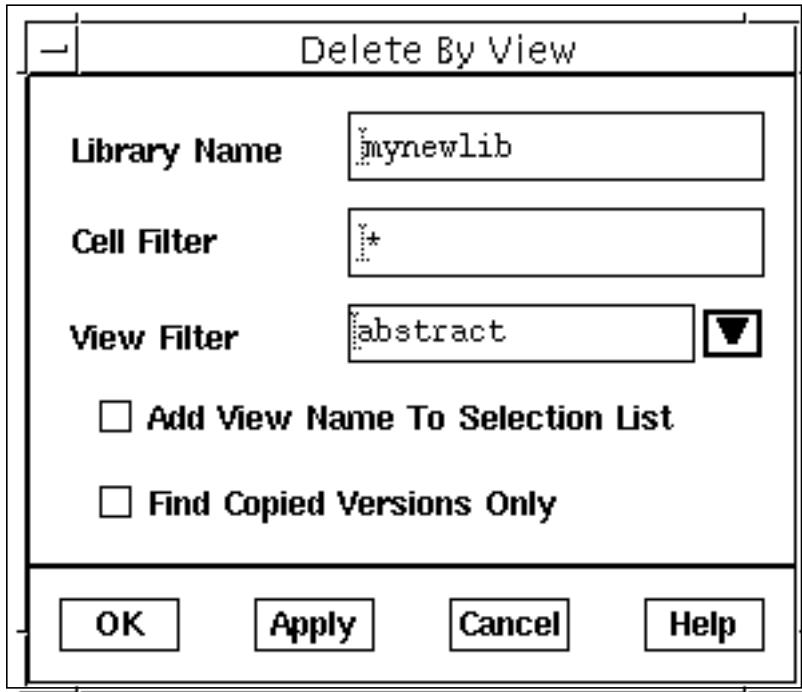
To delete views for a given cell, follow these steps:

1. In the *Library* list box, choose the library that contains the view you want to delete.
2. Choose *Edit – Delete By View*.

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Managing Libraries

The *Delete By View* form appears. The name of the library you chose from the *Library* list box appears in the *Library Name* field. For details about the *Delete By View* form see [Delete By View Form](#) on page 258.

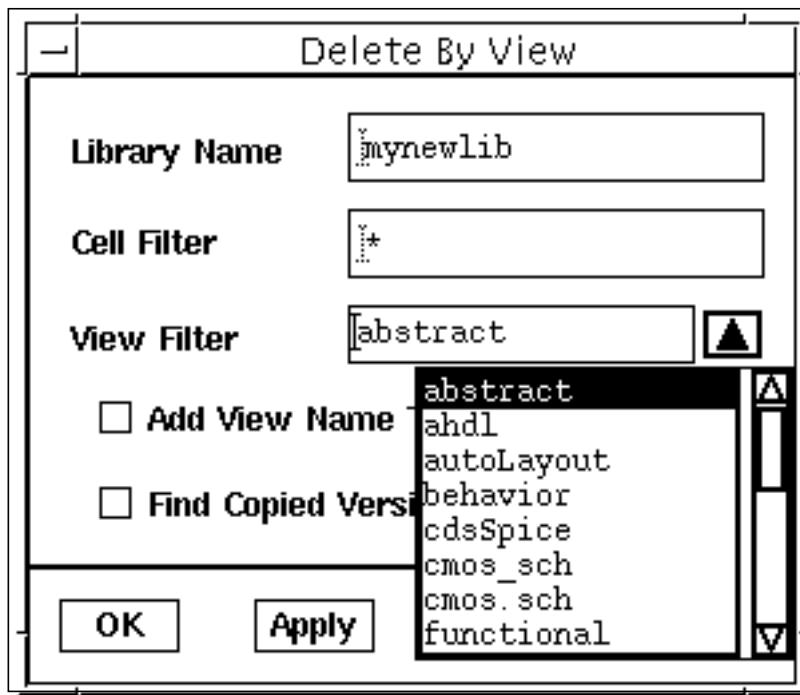


3. In the *Cell Filter* field, type the cell names that you want to delete.
4. This option filters out all cells except the ones you specified.
5. Specify a view name.

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- To specify a different view name, type the name in the *View Name* field or click the down arrow and select a view name from a list of standard views.

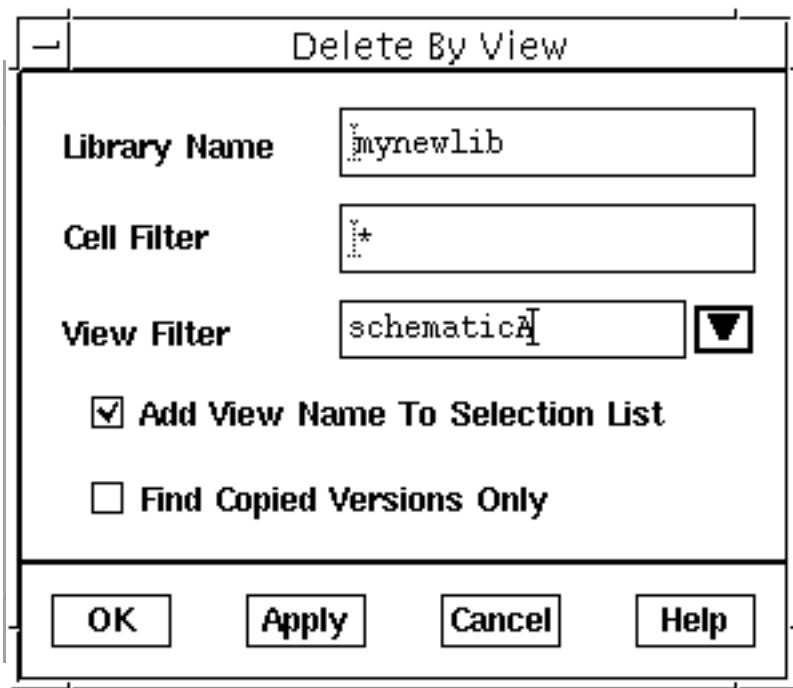


- To add a new name to the *View Filter* list box, type the view name in the *View Filter* field, choose *Add View Name To Selection List*, and click *Apply*.

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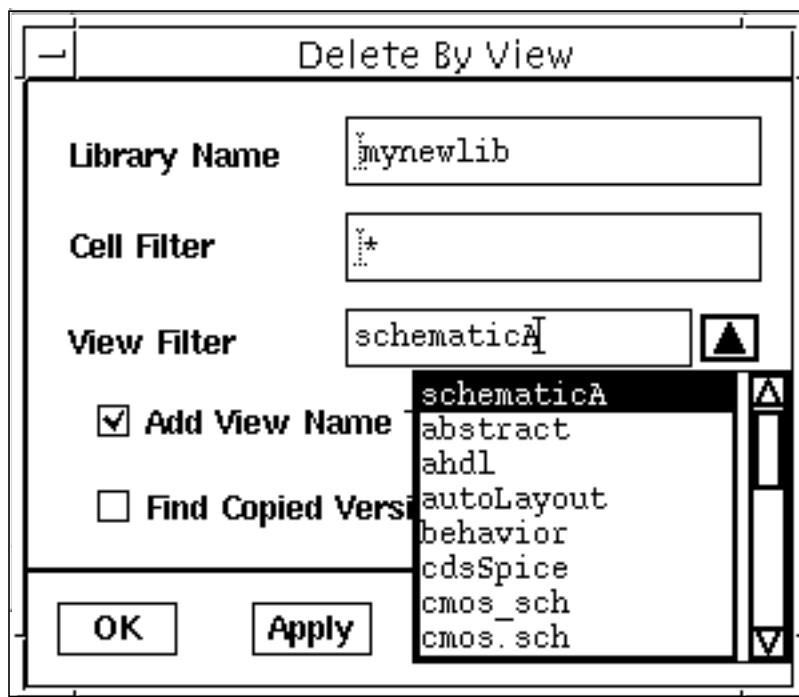
For example, you can type `schematicA` in the *View Filter* field, then add it to the selection list.



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The selection list adds your new view to the top of the standard view list. This new view name is permanently added to the view list.

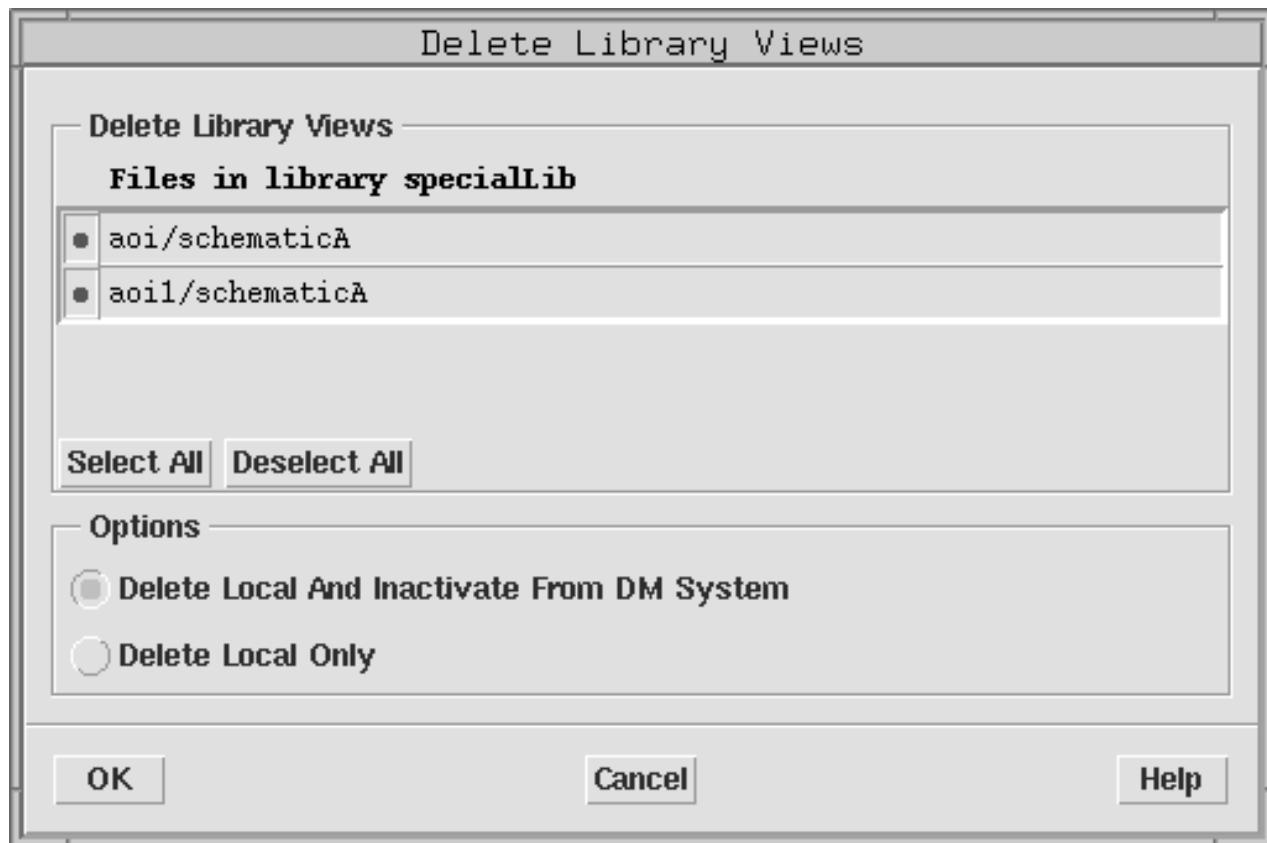


6. Choose to delete all cellviews or only previously copied versions.
 - To delete all cellviews, click *OK*.
 - To delete only cellview versions you have previously copied, click the *Find Copied Versions* checkbox and click *OK*.
7. This will display the cellviews to be deleted.

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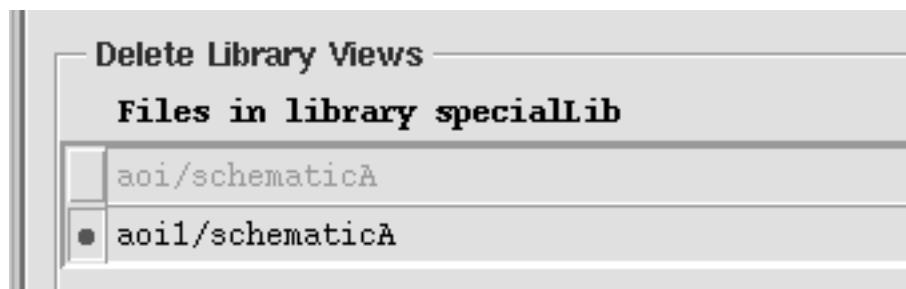
Managing Libraries

The *Delete Library Views* form displays a list of cellviews that meet the criteria you specified in the *Delete By View* form. For details about the *Delete Library View* form see [Delete Library Views Form](#) on page 260.



The cellview names are automatically selected. A dot appears in the toggle button, which looks “pressed in.” If you decide not to delete a cellview for , click the toggle button to the left of the cellview name. The dot disappears, and the button appears “pushed out.”

In the following example, the `aoi1 schematicA` cellview is selected for deletion. The `aoi schematicA` cellview is not selected for deletion.



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Managing Libraries

Note: If no cellviews were found, the *No Files Found To Delete* dialog box appears. Click *OK*, and specify new criteria in the *Delete By View* form.

8. Set the appropriate deletion options:

- To delete only your local copy of a cellview, select *Delete Local Only*.
- To delete a local copy of a cellview and the copy in the current design management repository, select *Delete Local And Inactivate From DM System*.

9. To delete the selected cellviews, click *OK*.

A message appears, indicating that cells are being deleted, and the cellviews you selected for deletion are removed.

Error Messages

The following are some possible circumstances that might generate error messages when you try to delete a cellview from a library:

- If you try to delete a read-only library, an error message appears, indicating that the process of deleting by view failed.
- In rare instances, the MPS (Message Passing Subsystem) server (used by Cadence design framework II) that stores the directory for the library you specified might be down. In this case, an error message appears, indicating that the library from which you want to delete a view is not found.
- If you do not specify a cell or view in the *Cell Filter* or *View Filter* fields, an error message appears, indicating that a cell or view name is missing.
- If you specify a name for a library, cell, or view that does not exist, an error message appears, indicating that no files were found.

Editing Properties

You can edit properties for libraries, cells, or views in the library manager form.

Editing Library Properties

To edit the properties associated with a library, follow these steps:

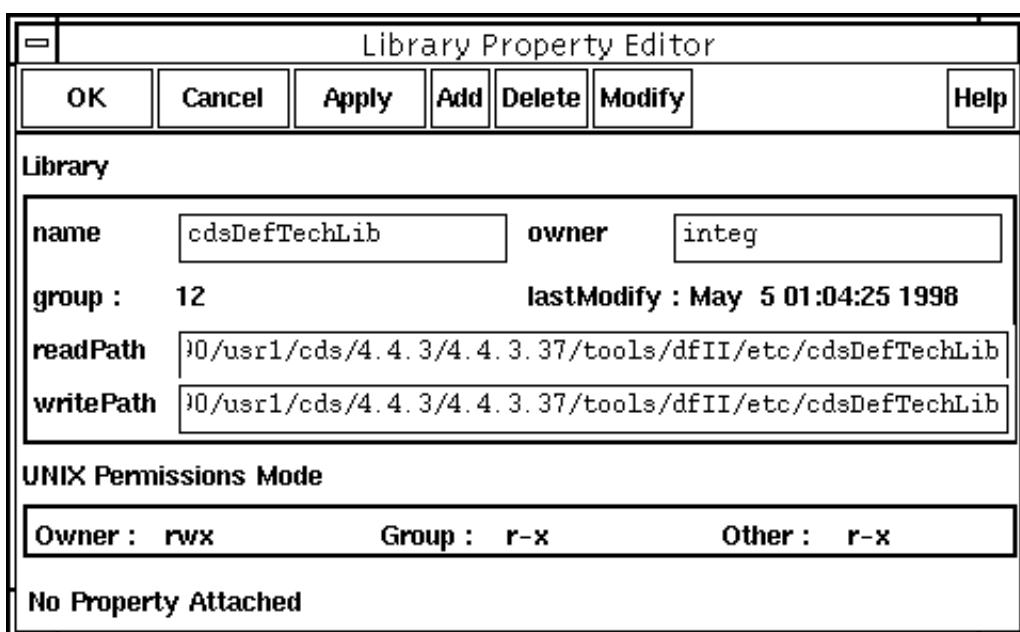
1. In the CIW, choose *Tools – Library Manager*.

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Managing Libraries

2. The library manager form appears.
3. In the *Library* list box in the library manager form, select the library whose properties you want to edit.
4. Press the middle mouse button and select the *Properties* option.
5. The *Library Property Editor* form opens.
6. Make the changes to the library property.

For details about the *Library Property Editor* form see [Library Property Editor Form](#) on page 261.



Edit Cell Properties

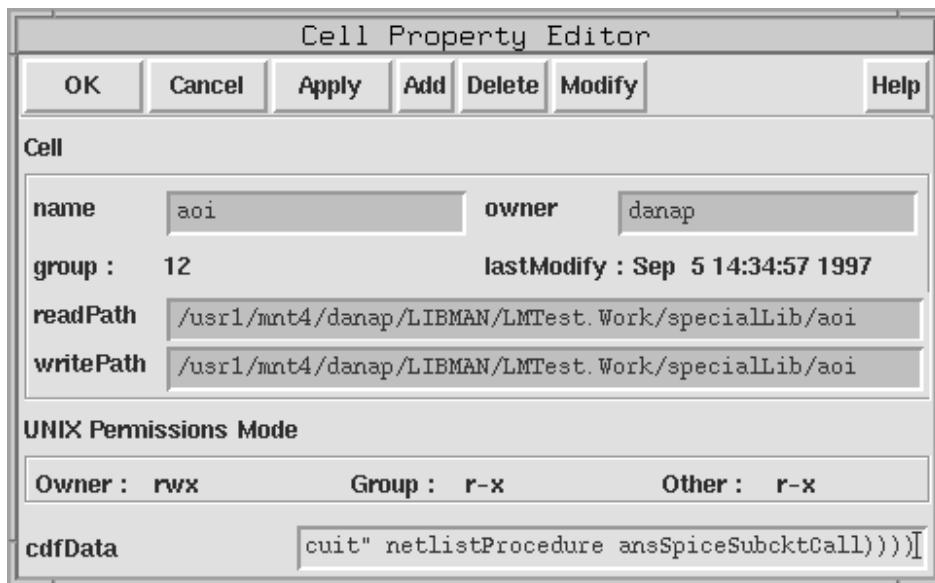
To edit the properties associated with a cell, follow all these steps:

1. From the library manager form, in the *Cell* list box, select the cell whose properties you want to edit.
2. Choose *Edit – Properties*.

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Managing Libraries

The *Cell Property Editor* form appears. For details about the *Cell Property Editor* form see [Cell Property Editor Form](#) on page 248.



3. Make the changes to the cell property and click OK.

Editing View Properties

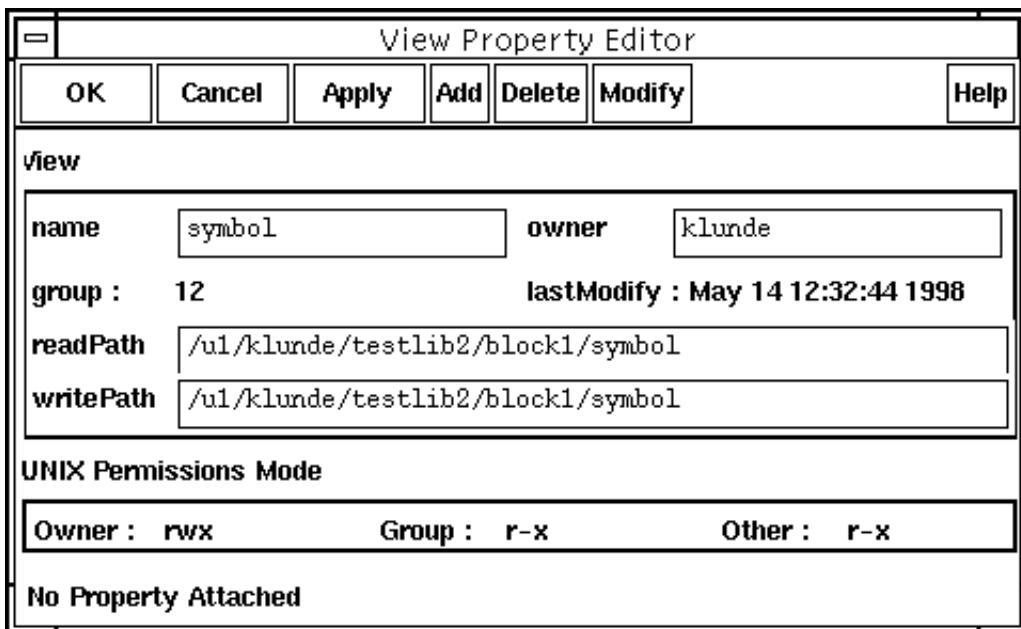
To edit the properties associated with a view, follow these steps:

1. In the library manager form, in the *Library* list box, select a library to display its cells.
2. In the library manager form, in the *Cell* list box, select a cell to display its views.
3. In the *View* list box, select the view whose properties you want to edit.
4. Choose *Edit – Properties*.

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The *View Property Editor* form appears. For details about the *View Property Editor* form see [View Property Editor Form](#) on page 269.



5. Make the changes to the view property and click OK.

Features of the Property Editor Forms

The Library, Cell, and View Property Editor forms all share the following characteristics:

- The names of the properties assigned to the cell are displayed at the bottom of the form.
- If you do not have write permission for the cell, you can display, but not edit, the properties.
- If the library or cell you select is under design management and is checked in or checked out to anyone except you, the command is not selectable.

Adding Properties

You can use the *Add* button in the Library Property Editor form to add properties to the library, cell, or view you selected and displayed in the *Name* field.

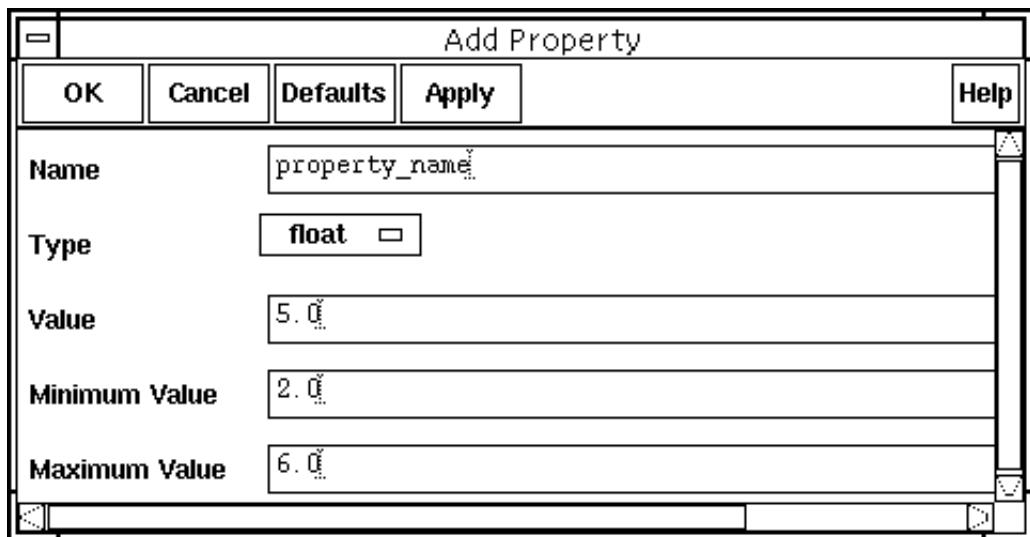
To add properties to the selected library, follow these steps:

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Managing Libraries

1. In the CIW, choose *Tools – Library Manager*.
the library manager form appears.
2. Click the library to select it.
3. Press the middle mouse button and select the *Properties* option.
4. The Library Property Editor form appears.
5. In the Library Property Editor form, click the *Add* button.
6. Choose *Edit – Properties*.

The *Add Property* form appears. For details about the *Add Property* form see [Add Property Form](#) on page 247.

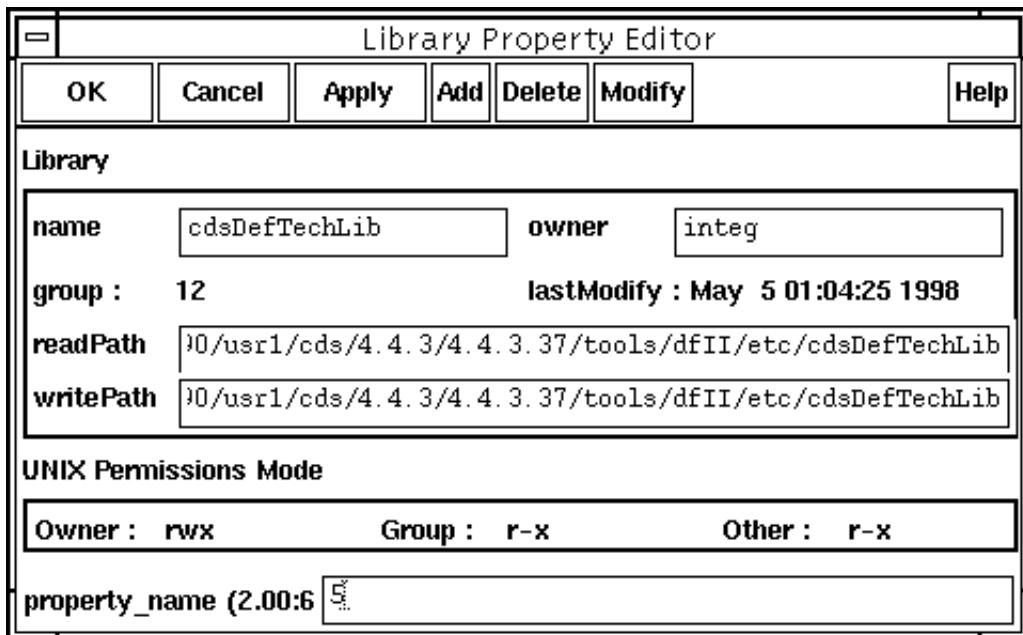


7. Choose the name, type, value, and minimum value of the property you want to add.
8. Click *OK*.

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Managing Libraries

The added property name appears at the bottom of the Library Property Editor form. To the right of the property name appear the minimum value (in parentheses, expressed as the data type you specified) and the value you specified, in the editable field.



Modifying Properties

You can use the *Modify* button in the Library Property Editor form to modify properties attached to the library, cell, or view you selected and displayed in the name field.

To modify properties attached to the selected library, follow these steps:

1. In the CIW, choose *Tools – Library Manager*.
the library manager form opens.
2. Click the library to select it.
3. Press the middle mouse button and select the *Properties* option.
The Library Property Editor form opens.
4. In the Library Property Editor form, click the property value field you want to modify.

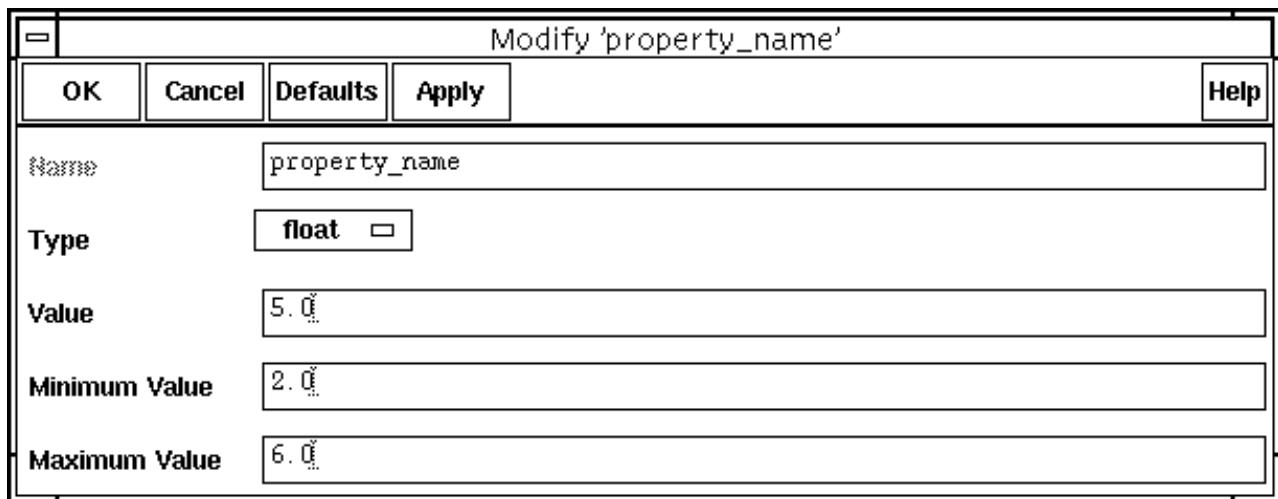
The entire area that displays the property name, minimum and maximum values, and the value field is outlined.

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Managing Libraries

5. Click the *Modify* button.

The *Modify 'property_name'* form opens with the name of the selected property in the title of the form. For details about the *Modify 'property_name'* form see [Modify 'property_name' Form](#) on page 263.



6. Make your desired changes to the form.

7. Click *OK*.

Updating Managed Files

Changes made to a design or component are not visible to members of the design team in a managed design until the design or component is checked in. If you need to use the latest version of a view or the base level CDF properties of a view checked out to another designer, do the following:

- In the library manager form, choose *Design Manager – Update*.

The software checks the `cds.lib` file to ensure it has the latest information and then reads into virtual memory the latest edits made to a view or the base level CDF properties of a view, even if it is checked out to another user. A dialog box tells you what properties or views are being updated or that no properties or views are updated.

This command also redraws opened designs affected by edits to a view or its properties.

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Managing Libraries

Selecting and Editing Data

The following sections cover the ways that you use the Cadence® library manager forms and list boxes to manipulate data:

- [Selecting Items from Library Manager List Boxes](#) on page 58
- [Deselecting Items in Library Manager List Boxes](#) on page 59
- [Using Pop-Up Menus](#) on page 59
- [Using Pop-Up List Boxes](#) on page 62
- [Moving Data in List Boxes](#) on page 63
- [Selecting Text in the Copy Wizard](#) on page 63
- [Editing Text in the Copy Wizard](#) on page 65

Selecting Items from Library Manager List Boxes

- To select a library, cell, category, view, or file in the corresponding list box in the library manager form, click the left mouse button on the item name.
You cannot select multiple items in the list boxes.
- To select a specific item not visible in a list, type the name in the active field at the top of the list box and press **Return**.

Library	Cell	View
specialLib	aoi	
cdsDefTechLib	aoi	schematic
newLib	aoi1	symbol
projectLib	aoi2	
specialLib	block1	

The library manager scrolls to the specified item and selects it.

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Selecting and Editing Data

- If you selected a cell, you can press `Return` again to open the Open File form.
- If you selected a view, you can press `Return` again to open the cellview in the appropriate editor.
- To select a library, cell, category, view, or file and display a pop-up menu, press and hold the right mouse button on the item name.

Deselecting Items in Library Manager List Boxes

- To choose not to include a selected item, click the item name.
- To choose not to include an item hierarchically, click the right mouse button in the appropriate list box.
 - To choose not to include a view, click the right mouse button in the *Cell* list box. Click on either the selected cell or an empty space.
 - To choose not to include both a cell and a view, click the right mouse button in the *Library* list box. Click on either the selected library or an empty space.

Using Pop-Up Menus

A pop-up menu displays menu options for the library manager commands. These commands act on the selected item in the list box from which you popped up the menu.

Displaying and Selecting from a Pop-Up Menu

To select from a pop-up menu in the library manager forms, do the following:

1. Press and hold the right mouse button anywhere in a list box.

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Selecting and Editing Data

The pop-up menu is displayed.

From Lib	From Cell	From View	To Cell	To View
■ special.lib	aoi1	prop.xx	aoi1	prop.xx
■ special.lib	Select			
■ special.lib	Select Column	schematic	aoi1	schematic
■ special.lib	Deselect	schematicA	aoi1	schematicA
■ special.lib	Deselect Column	symbol	aoi1	symbol
	Apply Changes			

- If an item in the list box is selected, you can choose any of the actions on the pop-up menu for the selected item.
- If no item in the list box is selected, only the appropriate menu option is available(usually the *New* option).

2. Drag the cursor to the appropriate command to choose it.

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Selecting and Editing Data

Pop-Up Menus Available in Library Manager List Boxes

The following pop-up menus are available in the *Library*, *Category*, *Cell*, *View*, and *File* list boxes:

Library Pop-up Menu

- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update...
- Show File Status...
- Submit....

Cell Pop-up Menu

- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update...
- Show File Status...
- Submit....

View Pop-up Menu

- Open...
- Open (Read-Only)
- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update...
- Version Info...
- Show File Status...
- Submit....

Files in Library and Files in Cell
Pop-up Menus

- Copy...
- Rename...
- Delete...
- Properties...
- Check In...
- Check Out...
- Cancel Checkout...
- Update....
- Version Info....
- Show File Status...
- Submit....

Category Pop-up Menu

- Modify...
- New...
- New Sub-Category...
- Delete...

Using Pop-Up List Boxes

A pop-up list box displays a list of values you can select to automatically fill in a text field.



A down arrow on the right side of a text field indicates that you can select from a pop-up list instead of typing the text.

To select from a pop-up list box, do the following:

1. Click the down arrow to the right of the text field.

The list box displays all current values for this text field. In some cases, these are the only valid choices.

The down arrow changes to an up arrow.

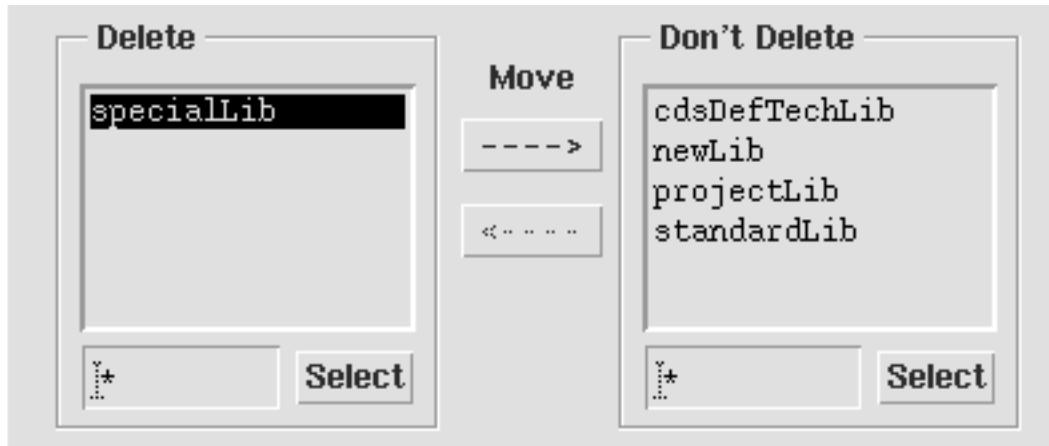
2. Select the name you want to enter in the text field.

The list box has scroll bars to help you navigate.

When you select an item from the list box, the list box closes. If you do not want to select an item from the list, click the up arrow to close the list box.

Moving Data in List Boxes

Several types of forms such as Delete forms and Category forms use “Do” and “Don’t Do” list boxes. You can move data from one list box to the other to specify a group of items affected by the action.



To move items from one list box to the other, do the following:

1. Select the items you want to move.

You can select multiple items by using Shift-click, clicking and dragging, or using the filters.

2. Click the arrow that points in the direction you want to move the items.

Selecting Text in the Copy Wizard

You can use the copy wizard feature to select or deselect items for editing and to select items for copying.

Selecting Items for Editing in the Copy Wizard

You can select for editing in the following ways:

- To select a single library, cell, or view name, click the item name.
- To select multiple items in a row, click and drag the cursor across all the items.
- To select multiple items in a column, do one of the following:

Cadence Library Manager User Guide

Selecting and Editing Data

- Click and drag the cursor across all the items.
- Click the right mouse button in the column, and choose the *Select Column* command from the pop-up menu.
- To select multiple items not in the same row or column, hold the Shift key and click each item.

Any single item selected before the first Shift-click is deselected.

Multiple items selected before the first Shift-click are added to the selected set.

To edit the selected items, refer to “[Editing Text in the Copy Wizard](#)” on page 65. For more information on the copy wizard form, see “[Using the Copy Wizard Form](#)” on page 94.

Deselecting Items for Editing in the Copy Wizard

You can deselect items for editing in the following ways:

- To deselect a selected library, cell, or view name, click the item.
- To deselect a single item in a group of selected items, click the right mouse button on the item, and choose the *Deselect* option from the pop-up menu

Clicking the left mouse button on one of multiple selected items deselects all except the item you clicked.

- To deselect an entire selected column, click the right mouse button in the column, and choose the *Deselect Column* command from the pop-up menu.

Cadence Library Manager User Guide

Selecting and Editing Data

Selecting Items for Copying in the Copy Wizard

Each row in the copy wizard represents a cellview or a cell file. To select or deselect a cellview for copying (not for editing), toggle the button to the left of the row.

	From Lib	From Cell	From View	To Cell
●	specialLib	aoi1	prop.xx	aoi1
●	specialLib	aoi1	schematic	aoi1
	specialLib	aoi1	schematicA	aoi1
	specialLib	aoi1	symbol	aoi1

A dot is displayed to the left of a selected row.

All and *Deselect All* select rows for copying. They do not select items for editing.

Editing Text in the Copy Wizard

You can edit text in the copy wizard in the following ways:

- To change a library, cell, or view name, do the following:
 - Click the item name.

The item is surrounded by a highlighted box, but the text is not highlighted.

	From Lib	From Cell	From View	To Cell
●	specialLib	aoi1	prop.xx	aoi1
●	specialLib	aoi1	schematic	aoi1
●	specialLib	aoi1	schematicA	aoi1

- Drag the cursor across the text to highlight it, or place the cursor where you want to add text.
- Type your changes.
- Press *Return*.

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Selecting and Editing Data

► To make a global change to library, cell, or view names, do the following:

- Select all the items you want to change.

Notice that one selected item is surrounded by a highlighted box, but the text is not highlighted. This is where you can enter edits.

From Lib	From Cell	From View	To Cell
● specialLib	aoil ¹	prop.xx	aoil
● specialLib	aoil	schematic	aoil
● specialLib	aoil	schematicA	aoil
● specialLib	aoil	symbol	aoil

- Type your changes.

The change affects only the edited item.

- Press *Return*.

OR

- Click the right mouse button to display the pop-up menu and choose the *Apply Changes* command.

The change affects all selected items.

► To copy text from one item to all items in the same column, do the following:

- Click the item you want to copy.

The item is selected and surrounded by a highlighted box, but the text is not highlighted.

- Click the right mouse button to display the pop-up menu.

- Choose the *Select Column* command.

Cadence Library Manager User Guide

Selecting and Editing Data

All items in the column are selected. The text of the first item you selected is still not highlighted.

From Lib	From Cell	From View	To Cell
● specialLib	aoi1	prop.xx	aoi1
● specialLib	aoi2	schematicA	aoi1
● specialLib	aoi1	schematicA	aoi1
● specialLib	aoi1	symbol	aoi1

- Click the right mouse button anywhere in the column to display the pop-up menu.
 - Choose the *Apply Changes* command.

The text from the first selected item is copied to all other items in the column.

From Lib	From Cell	From View	To Cell
● specialLib	aoi2	prop.xx	aoi1
● specialLib	aoi2	schematicA	aoi1
● specialLib	aoi2	schematicA	aoi1
● specialLib	aoi2	symbol	aoi1



Global changes work across rows or columns, but you are more likely to make global changes across columns.



There is no undo for changes in the copy wizard. If you make a serious mistake, click *Cancel* and open a new copy wizard.

Using the Library Select Form

The following topics are discussed in this section: [Overview](#) on page 68.

- [About the Library Select Form](#) on page 68
- [Opening the Library Select Form](#) on page 68
- [Locating a Cellview](#) on page 70
- [Filtering Cell or View Names](#) on page 72
- [Opening the Library Select Form Automatically](#) on page 74

Overview

You can use the Cadence® Library Select form to

- Display and select libraries, categories, cells, and views specified in your cds.lib file.
- Filter libraries, categories, cells, and views to narrow your selection by using the *Show Categories* or *Show Filters* option

About the Library Select Form

The Library Select (or Library Browser) form is similar to the library manager form, but it does not have menus and is used for displaying and selecting cellviews only. Some tools use the Library Select form; others use the library manager. These two forms are basically identical.

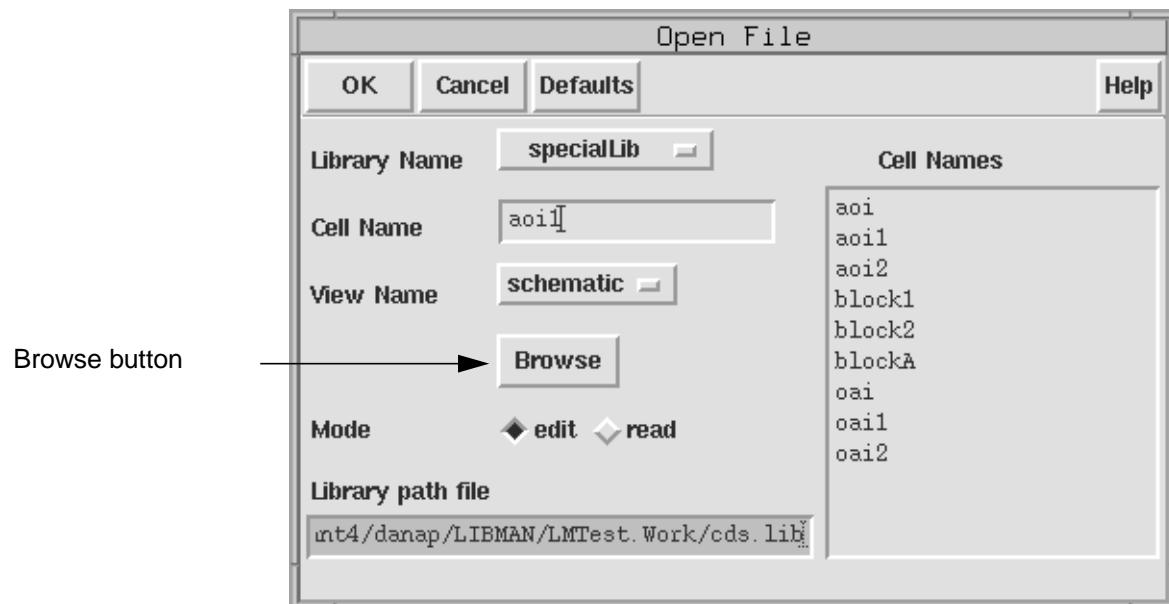
Opening the Library Select Form

- To open the Library Select form, click *Browse* in any form that has a *Browse* button.

Cadence Library Manager User Guide

Using the Library Select Form

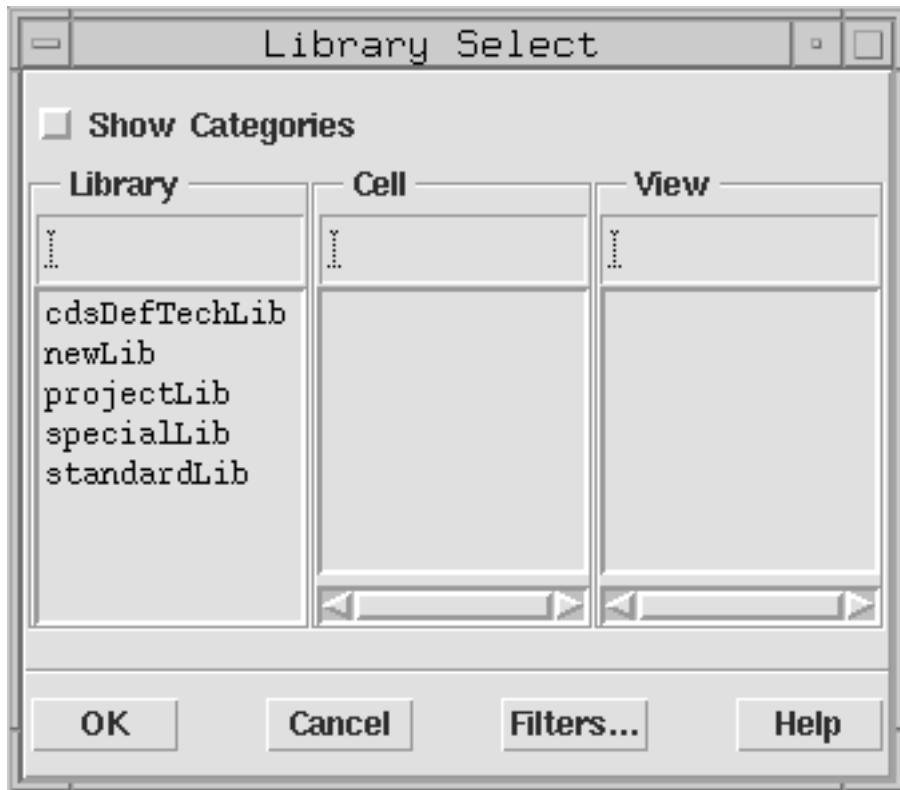
For example, click *Browse* in the Open File form:



Cadence Library Manager User Guide

Using the Library Select Form

The *Library Select* form appears. For details about the *Library Select* form see [Library Select Form](#) on page 262.



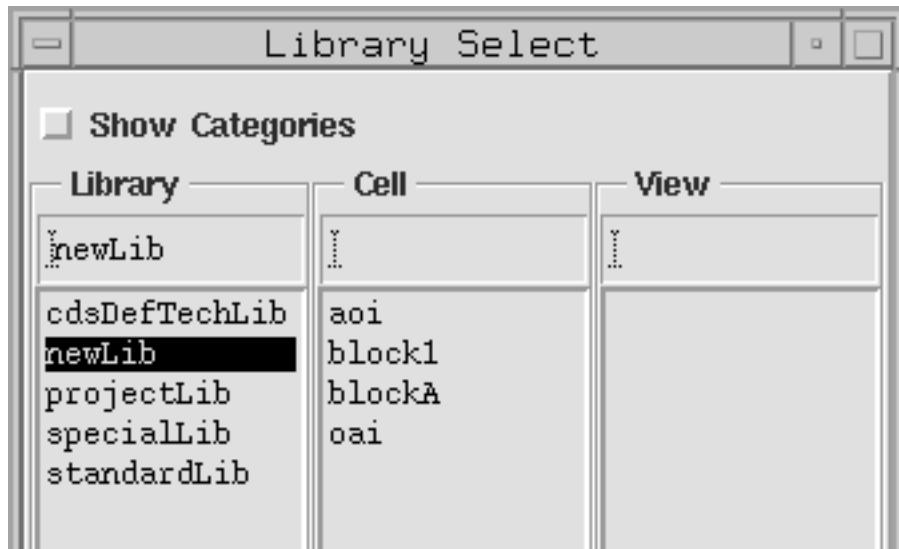
Locating a Cellview

To locate a cellview using the Library Select form, follow these steps:

Cadence Library Manager User Guide

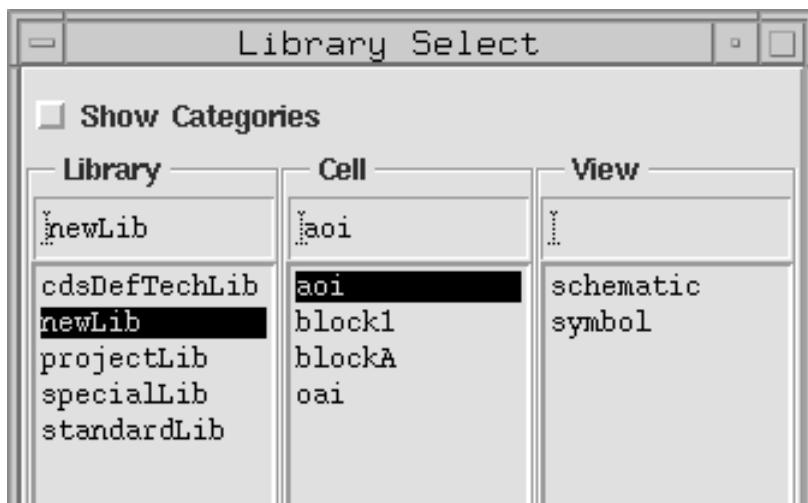
Using the Library Select Form

1. In the *Library* list box, select a library.



The cells contained in that library appear in the *Cell* list box.

2. To display the views associated with a cell, select the cell name.



The names of the views for that cell appear in the *View* list box.

- To open a cellview, double-click the view name in the Library Select form.

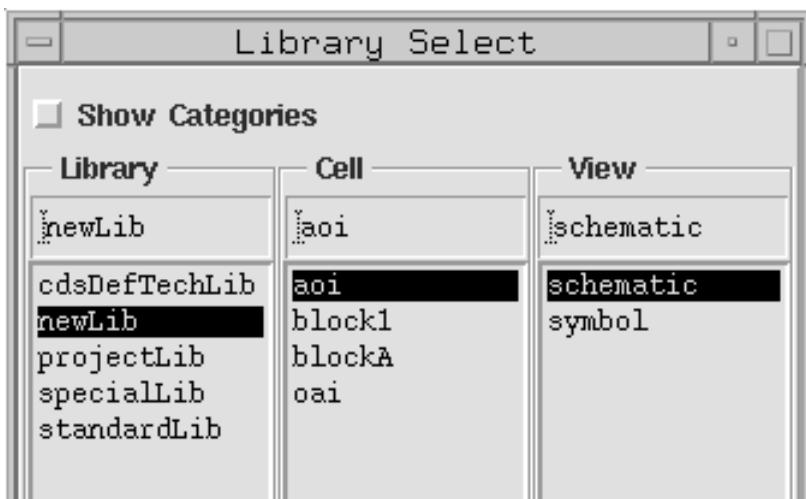
The Library Select form closes and the cellview opens in the appropriate editor. The Open File form remains open.

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Using the Library Select Form

OR, do the following:

1. Select a view name.



The library, cell, and view names appear in the form from which you opened the Library Select form, which in this example is the Open File form.

2. In the Open File form, click *OK*.

The Open File form and the Library Select form close and the specified cellview opens.

Filtering Cell or View Names

To quickly find the information you want, use the View Filter By form to display only a subset of the cells or views in a library. You can use whole words or character strings to specify filter patterns in the cell and view names. To specify a character string, use the asterisk (*) as a wildcard character.

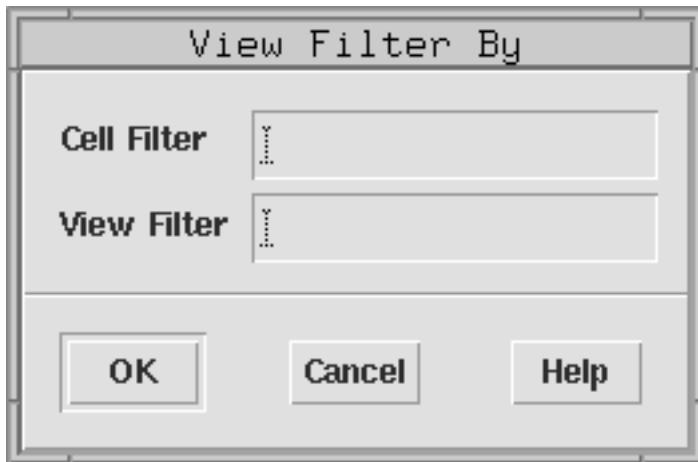
To filter cell or view names in the Library Select form, follow these steps:

1. In the Library Select form, click *Filters*.

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Using the Library Select Form

The *View Filter By* form opens. For details about the *View Filter By* form see [View Filter By Form](#) on page 268.



2. In the *Cell Filter* field, type a text string that defines the range of cell names you want to display in the Library Select form.

You can use whole words or character strings to specify filter patterns in the cell and view names. To specify a character string, use the asterisk (*) as a wildcard character.

For example, specify the string `buf*` to filter out all except buffer cells.

3. In the *View Filter* field, type a text string that defines the range of view names you want to display in the Library Select form, and click *OK*.

For example, specify the string `sch*` to filter out all except schematic views.

Only cell names that begin with the character string `buf` and view names that begin with the character string `sch` are displayed in the Library Select form.

Library	Cell (*)	View (*)
standardLib	bufferA	
cdsDefTechLib	bufferA	schematic
newLib	bufferB	schematicA
projectLib	bufferC	schematicB
specialLib		

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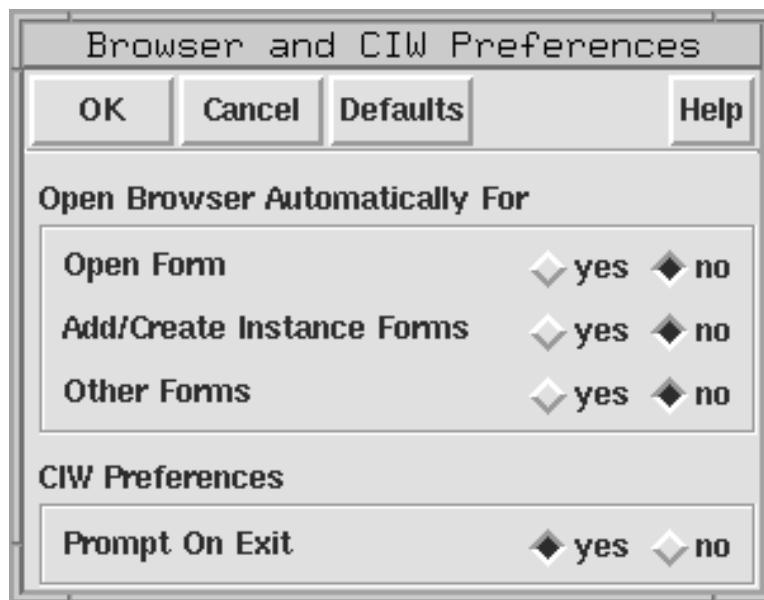
Using the Library Select Form

Opening the Library Select Form Automatically

To set the Library Select form to automatically open with specific forms, follow these steps:

1. From the CIW, choose *Options – Browser Preferences*.

The *Browser and CIW Preferences* form opens.



The *Open Browser Automatically For* section lets you select the type of form with which you want to automatically open a *Library Select* form.

2. Select the forms with which you want the Library Select form to automatically open.

You can select any or all form types.

3. Click *OK*.

You do not have to restart the software for your preferences to take effect.

When you open any of the selected types of forms, the Library Select form automatically opens.

Copying Data

The following topics are discussed in this section: [Overview](#) on page 75

- [Copy Function](#) on page 76
- [Copying a Library](#) on page 76
- [Copying a Cell](#) on page 81
- [Copying a View](#) on page 87
- [Copying Library Files](#) on page 91
- [Copying Cell Files](#) on page 93
- [Using the Copy Wizard Form](#) on page 94
- [Viewing Copy Problems](#) on page 98
- [Copying a Hierarchy](#) on page 99
- [Copying by View](#) on page 101
- [Copying by Configuration](#) on page 103
- [Customizing the Skip Libraries List](#) on page 105

Overview

You can use Cadence® library manager copy functions to assemble design and reference libraries by copying cells or views from libraries (specified in your `cds.lib` file) into other libraries.

Copy Function	Lets you copy a library, cell, view, or file Opens a Copy Library, Copy Cell, Copy View, or Copy Library File form
---------------	---

Cadence Library Manager User Guide

Copying Data

Copy Wizard Function	Lets you copy a library, cell, or view; copy hierarchically; copy by view; or copy by configuration
	Opens a dynamic form that lets you choose how you want to copy

Copy Function

The Copy function opens the Copy Library, Copy Cell, Copy View, Copy Library File, or Copy Cell File form depending on what you have selected in Library Manager list boxes.

- Copy Library lets you copy a single library to a new library name. See [“Copying a Library”](#) on page 76.
- Copy Cell lets you copy a cell to new cell name or into another library. See [“Copying a Cell”](#) on page 81. You also have the option to copy cells hierarchically. See [“Copying a Cell Hierarchy”](#) on page 85.
- Copy View lets you copy a view to a new view name or into another cell or library. You also have the option to copy views hierarchically. See [“Copying a View Hierarchy”](#) on page 89.
- Copy Library File lets you copy a single library file to a new name or a new library. See [“Copying Library Files”](#) on page 91.
- Copy Cell File lets you copy a single cell file to a new name, a new cell, or a new library. See [“Copying Cell Files”](#) on page 93.

Copying a Library

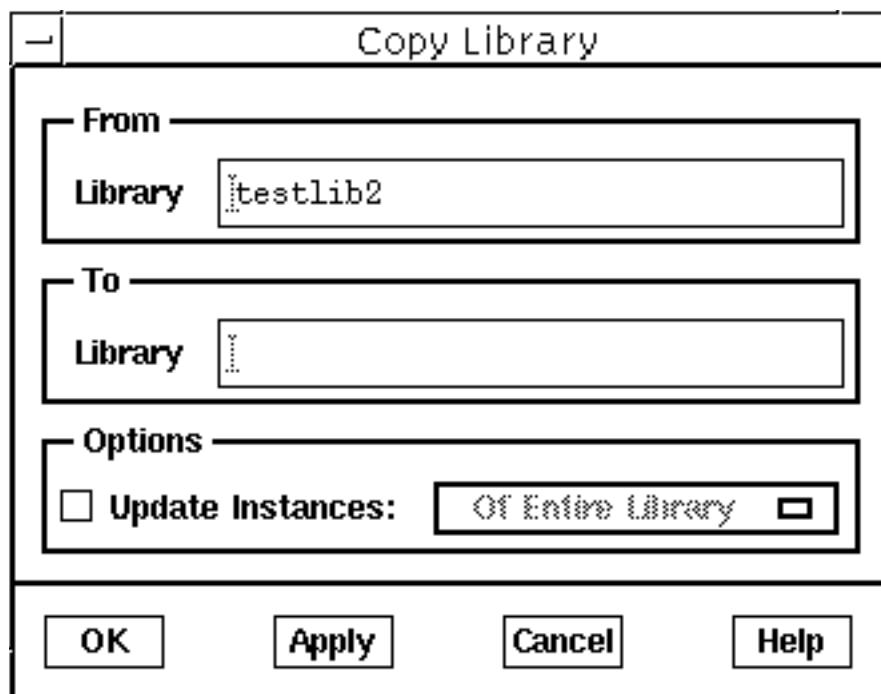
To copy a library to another name, follow these steps:

1. In the *Library* list box, select a library.
2. Choose *Edit – Copy*.

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Copying Data

The *Copy Library* form appears. For details about the *Copy Library* form see [Copy Library Form](#) on page 251.

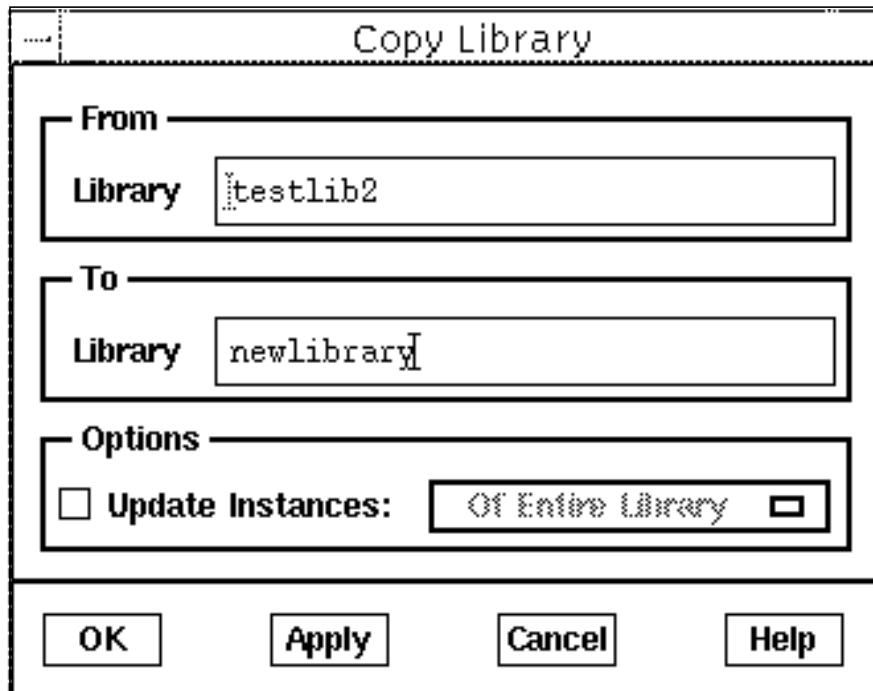


3. Type a destination library name in the *To Library* field.

Cadence Library Manager User Guide

Copying Data

You can use a new or existing library name.



4. To update the cells and views in the destination library with the new library name, turn on *Update Instances*.

The cyclic field to the right becomes active, giving you the choice of the options *Of Entire Library* (the default) or *Of New Copies Only*.

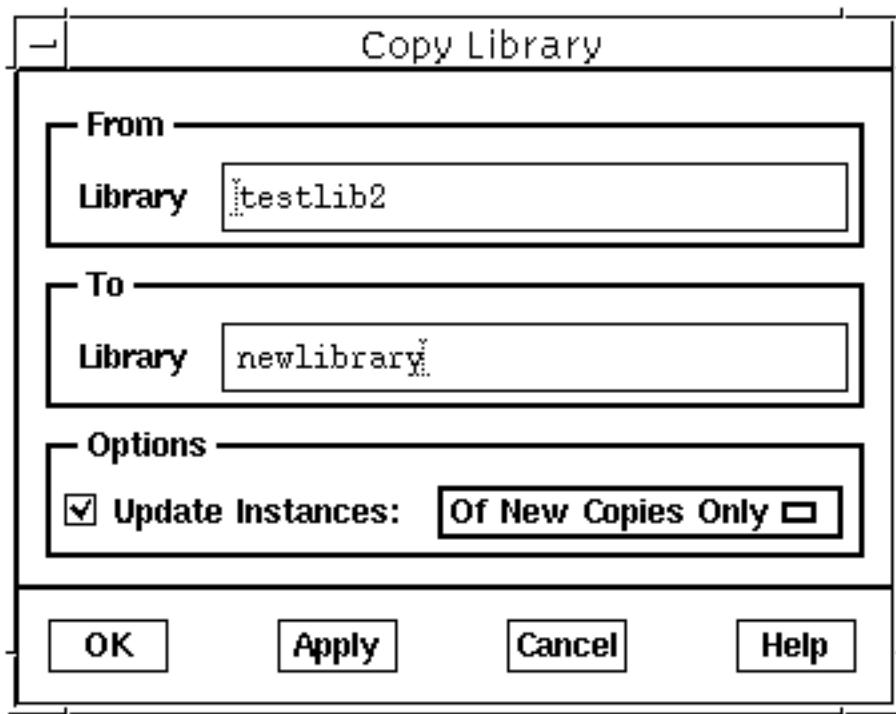
- When *Update Instances* is on and the *Of Entire Library* option is selected, the software overwrites occurrences of the *From Library* name with the *To Library* name.

For example, all instances of `.../oldLib/NAND/symbol` are renamed to `.../newLib/NAND/symbol`.

Cadence Library Manager User Guide

Copying Data

- When *Update Instances* is on and the *Of New Copies Only* option is selected, the software overwrites only the cellview references you copied from the original library.



For example, only cellview instances of `.../oldLib/NAND/symbol` are renamed to `.../newLib/NAND/symbol`.

- When *Update Instances* is off, the software leaves references to the *From Library* name unchanged.

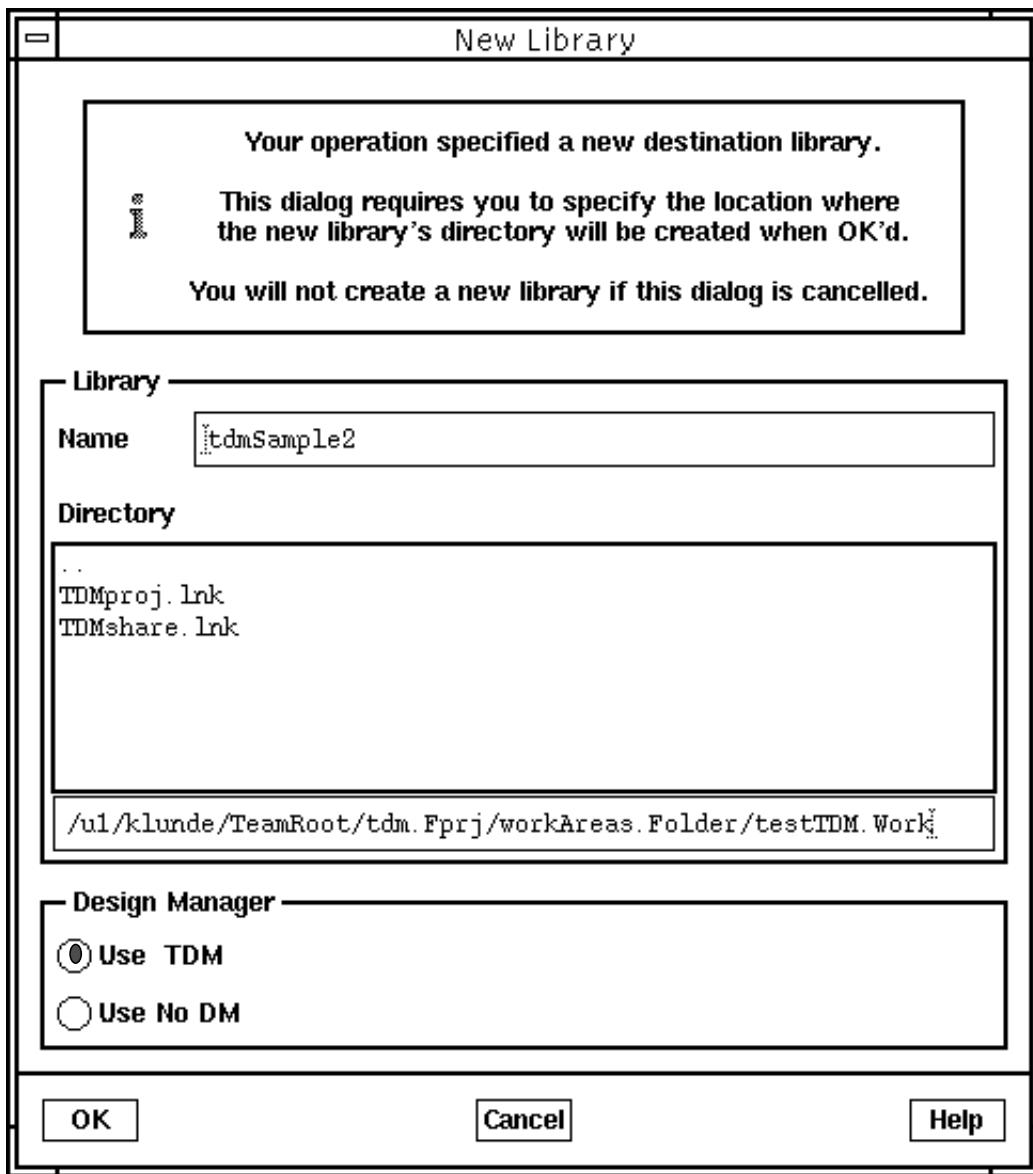
For example, all instances of `.../oldLib/NAND/symbol` continue to reference the original library and remain `.../oldLib/NAND/symbol`.

- Click *OK*.

Cadence Library Manager User Guide

Copying Data

The New Library form appears. For details about the *New Library* form see [New Library Form](#) on page 264.



6. Specify the destination directory in which you want your copied library to be placed using one of these methods.
 - ❑ Choose a directory from the *Directory* scroll-down list box.
 - ❑ The path to the directory you choose appears in the field below the list box.
 - ❑ Enter the destination directory in the field below the list box.

Cadence Library Manager User Guide

Copying Data

- To copy the directory to the current working directory, change nothing in the field below the list box.

7. Specify a design management option (if one is available to you).

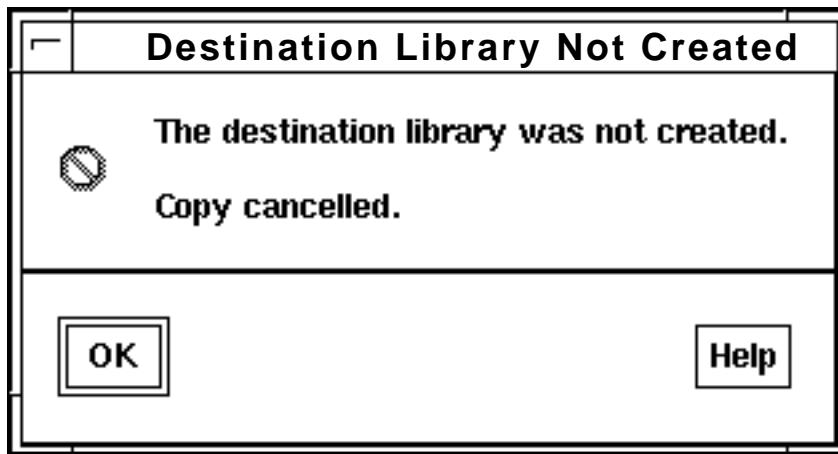
- Choose *Use NONE* when there is no design management system currently available to use.
- Choose *No DM* if you do not want the library to be placed under design management control, whether there is a design management system available there or not, now or later. (If there is one available, you can still decide to check it in later on).

Note: In practice, if there are no design management systems such as TDM or CRCS (Cadence Revision Control System) set up on your system, there is effectively no difference between the two choices. In that case, both options are grayed out (inactive).

8. Click *OK*.

- If you specified a directory, the library is copied to the destination library you specified.
- If you did not specify a directory, the library is copied into your working directory.
- If the destination library already exists, a Copy Problems dialog explains the consequences of overwriting the library. See ["Viewing Copy Problems" on page 98](#).

If you click *Cancel*, the following dialog box appears:



Copying a Cell

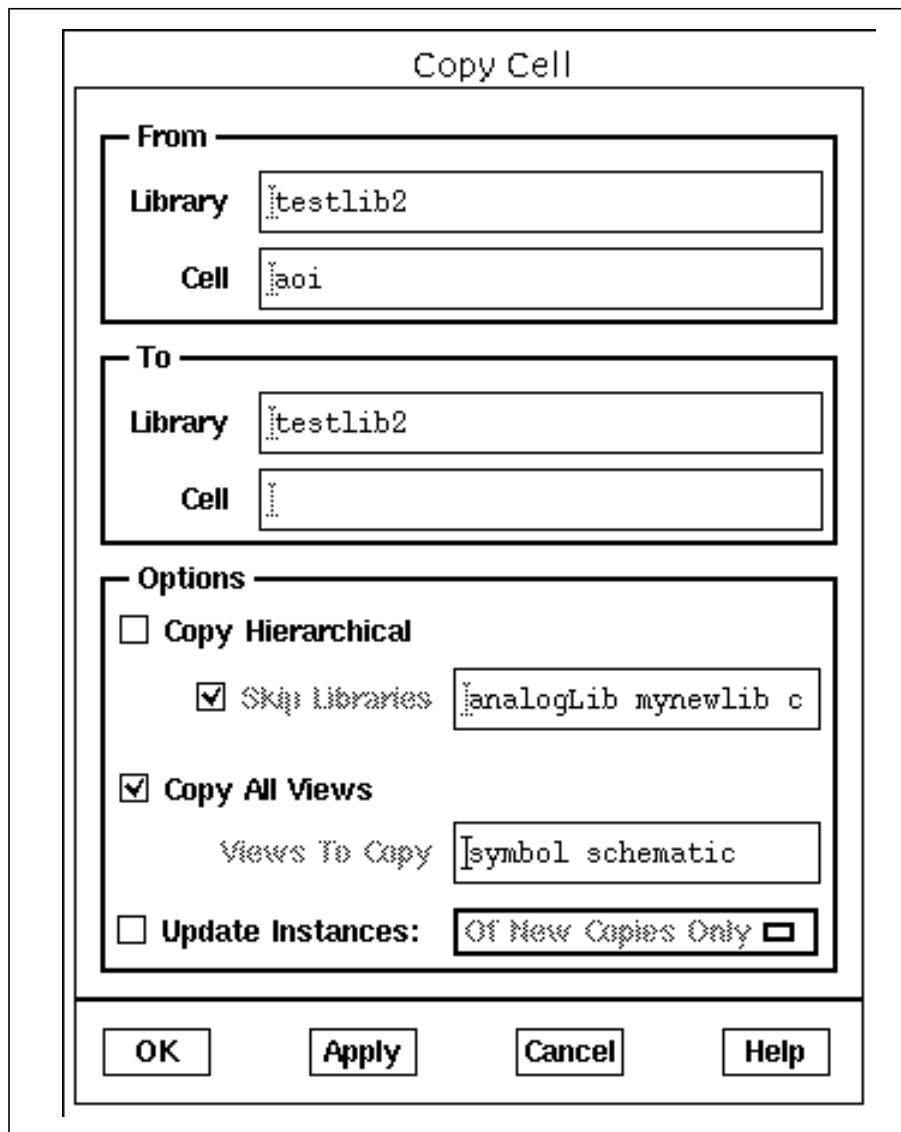
To copy a cell to another name or into another library, follow these steps:

Cadence Library Manager User Guide

Copying Data

1. In the *Cell* list box, select a cell.
2. Choose *Edit – Copy*.

The *Copy Cell* form appears. For details about the *Copy Cell* form see [Copy Cell Form](#) on page 249.



The selected library and cell are displayed in the *From Library* and *From Cell* fields.

The software assumes you want to copy the cell to a new cell name in the same library, so the *To Library* name defaults to the *From Library* name.

3. Type a destination cell name.

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Copying Data

For details about specifying a destination cell name, see [“Simple Copying” on page 83](#).

4. Set the options for your copy.

- For details about the *Copy Hierarchical* option, see [“Copying a Cell Hierarchy” on page 85](#).
- For details about the *Copy All Views* option, see [“Copying All Views” on page 86](#).
- For details about the *Update Instances* option, see [“Updating Instances” on page 87](#).

5. Click *OK*.

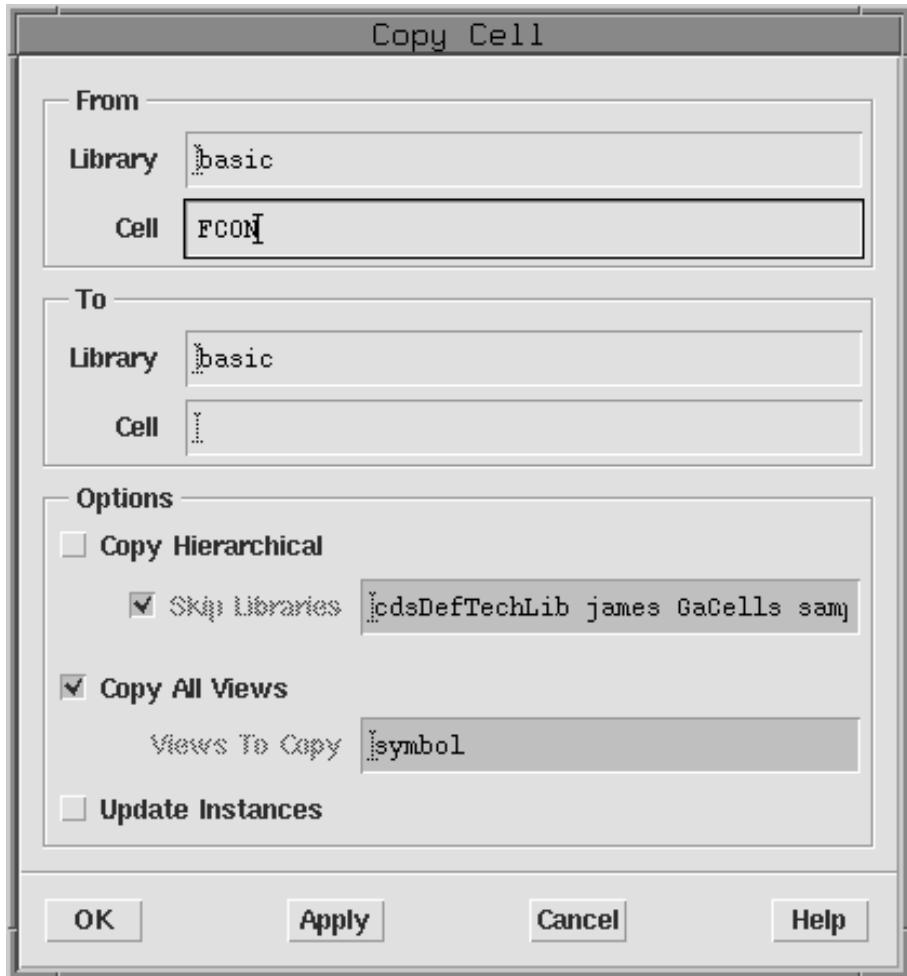
Simple Copying

- Type a destination (*To*) library and cell name.

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Copying Data

- The default destination library name is the same as the name in the *From Library* field.

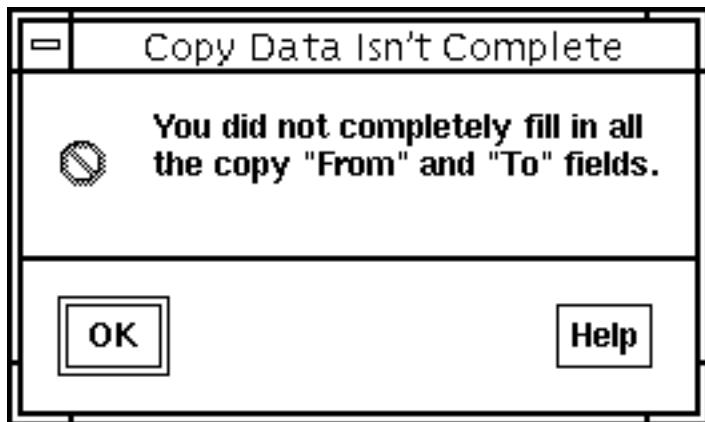


- If you type only a *To Cell* name, the *From Cell* name is copied to the new cell name in the same library.
- If you type a *To Library* name and a *To Cell* name, the *From Cell* name is copied to the new cell name in the specified library. If the destination library (indicated in the *To Library* field) does not already exist, it is created in your working directory.
- You do not have to copy the selected cell. You can change both the *From Library* and *From Cell* names in the Copy Cell form.

Cadence Library Manager User Guide

Copying Data

- If you keep the *To Library* default name the same and do not enter a cell name in the *To Cell* field, the following error message appears:



Copying a Cell Hierarchy

To copy a cell hierarchically, follow these steps:

1. In the *Options* section, turn on *Copy Hierarchical*.

Copy Hierarchical traverses the design hierarchy and copies all referenced cells in your design to the destination library.



2. To prevent cells in specific reference libraries from being copied, turn on *Skip Libraries* and edit the list of libraries to skip.

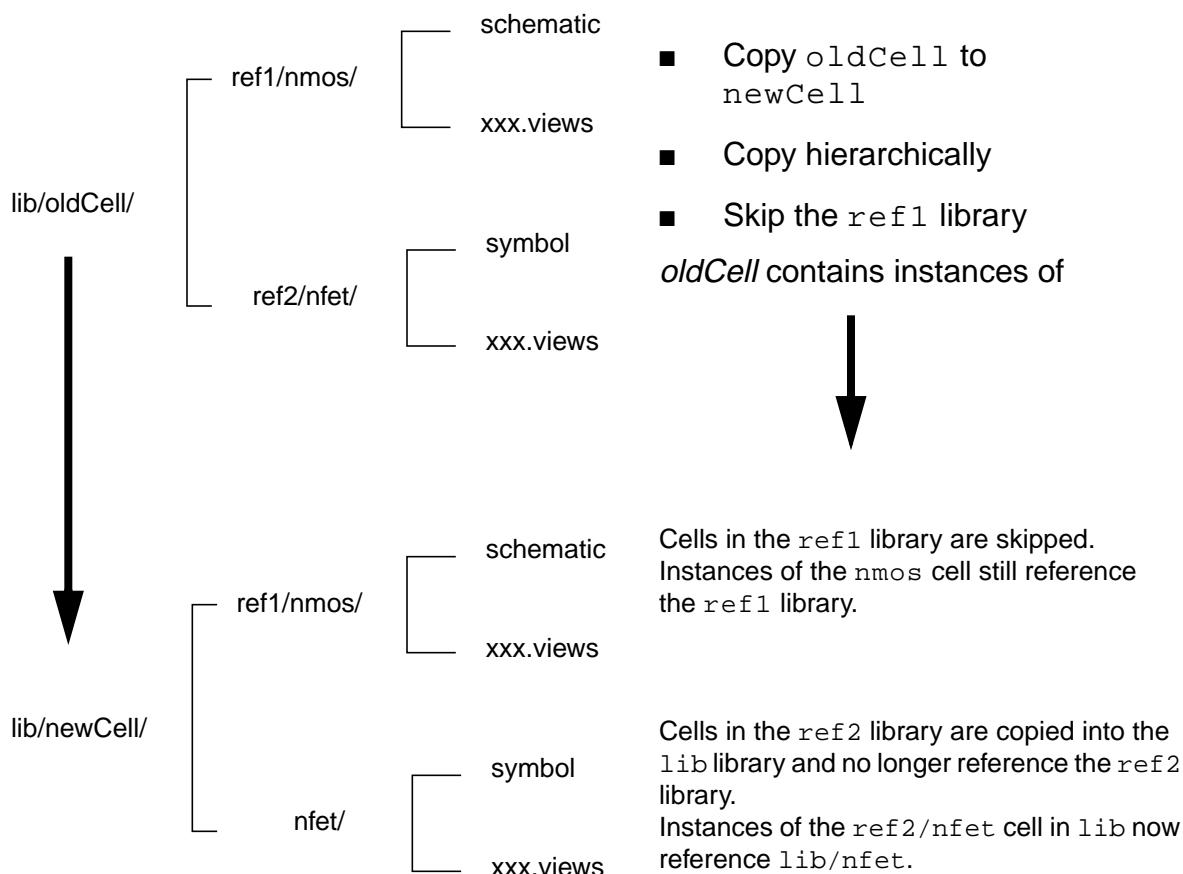


You probably want to skip libraries such as reference libraries of contacts, vias, and so forth. Cells in skipped libraries continue to reference their original library and are not copied. You can customize the list of libraries that appear in your *Skip Libraries* list. See ["Customizing the Skip Libraries List"](#) on page 105.

Cadence Library Manager User Guide

Copying Data

The following example shows what happens when you specify a reference library to be skipped in a hierarchical cell copy with the *Update Instances* option enabled.



Copying All Views

- To copy all views of a cell to a destination cell, in the Copy Cell form turn on *Copy All Views*.



The *Copy* command copies all views of the specified cell. If you copy the cell hierarchically, the *Copy* command also copies all views of cells instantiated in the specified cell.

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Copying Data

- To copy specific views of a cell to a destination cell, turn off *Copy All Views* and edit the *Views To Copy* list.



The *Copy* command copies all views specified in the *Views To Copy* list. If you copy the cell hierarchically, the *Copy* command also copies these specified views for all instantiated cells.

Updating Instances

- To update the instances in the destination cell to use only the copied cellviews (instead of referencing the entire original library and cell names), in the Copy Cell form turn on *Update Instances*.

The cyclic field to the right becomes active, giving you the choice of the options *Of Entire Library* (the default) or *Of New Copies Only*.

- When *Update Instances* is turned on and the *Of Entire Library* option is selected, the software overwrites instances of the *From Cell* name with the *To Cell* name.

For example, all instances of `.../lib/oldCell/symbol` are renamed to `.../lib/newCell/symbol`.

- When *Update Instances* is turned on and the *Of New Copies Only* option is selected, the software overwrites only the cellview references you copied from the original library.

For example, only cellview instances of `.../oldCell/symbol` are renamed to `.../newCell/symbol`.

- To leave references to the *From Cell* name unchanged, turn off *Update Instances*.

For example, all instances of `.../lib/oldCell/symbol` continue to reference the original library and remain `.../lib/oldCell/symbol`.

Copying a View

To copy a view to another name or location, follow these steps:

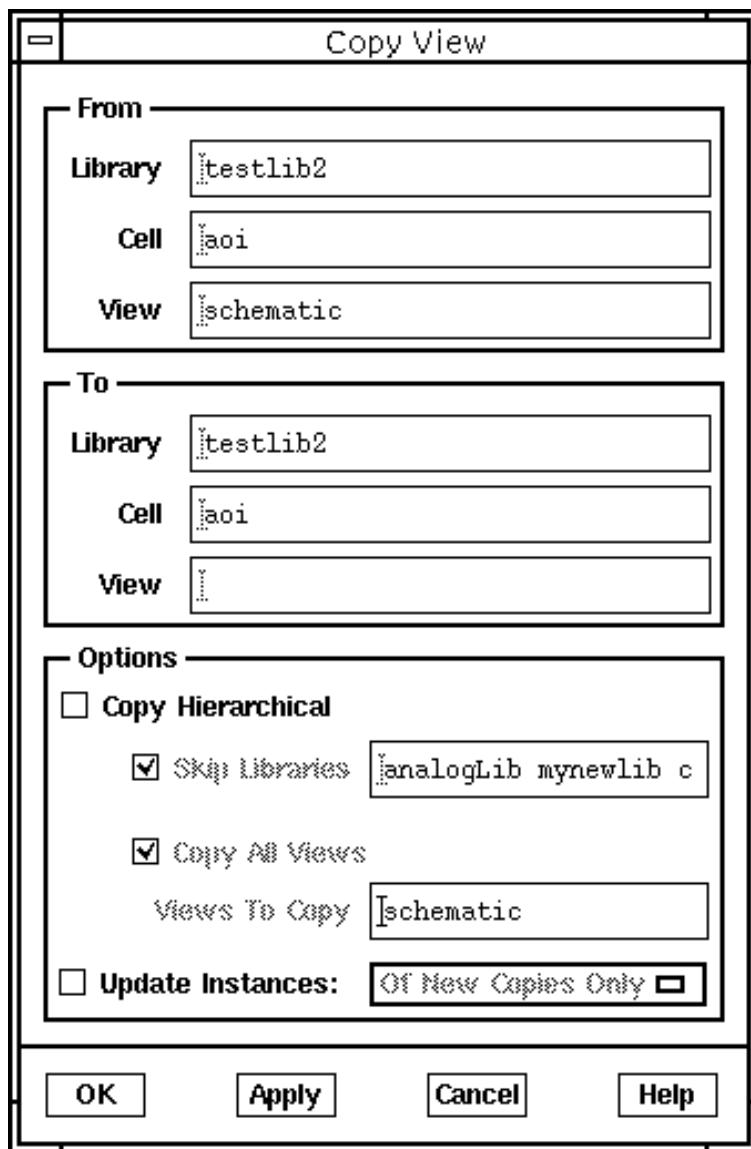
1. In the *View* list box in the Library Manager form, select a view.

Cadence Library Manager User Guide

Copying Data

2. Choose *Edit – Copy*.

The *Copy View* form appears. For details about the *Copy View* form see [Copy View Form](#) on page 251.

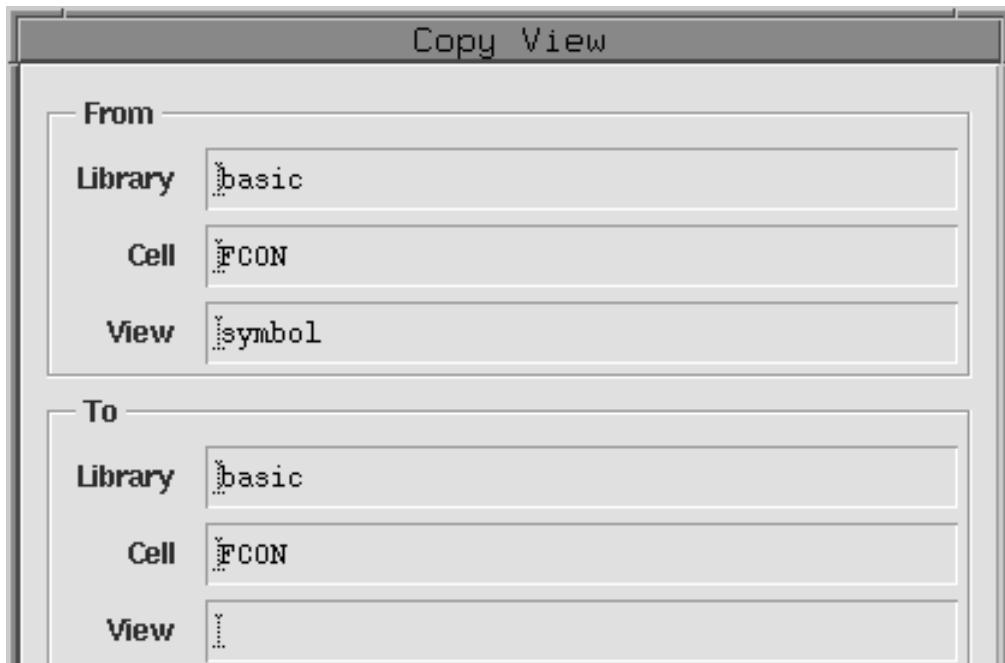


- ❑ The *From Library*, *From Cell*, and *From View* names default to the selected library, cell, and view.
- ❑ The software assumes you want to copy to a new view name in the same library and cell, so the *To Library* and *To Cell* names default to the *From Library* and *From Cell* names.

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Copying Data

3. Type the destination (*To*) library, cell, and view names.



- If you enter only a *To View* name, the *From View* is copied to the new view name for the same library and cell.
- You do not have to copy the selected view. You can change any of the current field values in the *Copy View* form.

4. Set the options for your copy.

5. Click *OK*.

Copying a View Hierarchy

You have the option of copying all views from the design hierarchy or selecting the views to copy.

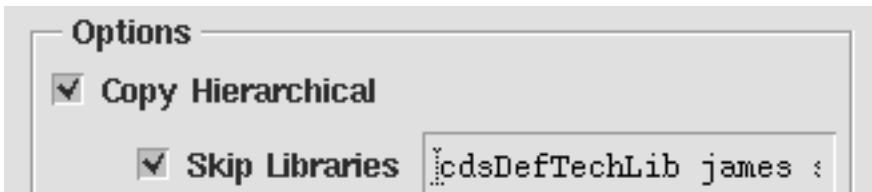
1. To traverse the design hierarchy and copy all views referenced in your design to the destination library, choose *Copy Hierarchical*.



Cadence Library Manager User Guide

Copying Data

- (Optional) To copy the entire hierarchy except cellviews from specific reference libraries, choose *Skip Libraries* and edit the list.

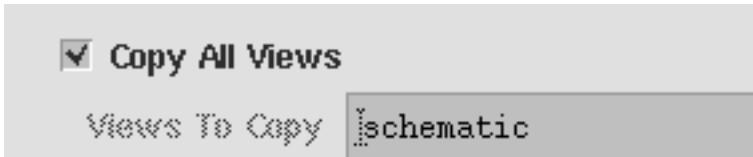


Any referenced cell that is part of a skipped library is not copied.

- (Optional) To copy only specific views, edit the *Views To Copy* list.



- (Optional) To copy all views referenced by the original cell, choose *Copy All Views*.



Note: *Views To Copy* turns off when *Copy All Views* is chosen.

All referenced views that match a view name in the *Views To Copy* list are copied to the destination cell.

Updating Instances

- To update the destination library to use only the copied cellviews (instead of referencing the entire original library, cell, and view names), choose *Update Instances*.
 - When *Update Instances* is turned on and the *Of New Copies Only* option is not chosen, the software overwrites any occurrences of the source `.../library/cell/view` name with the destination `.../library/cell/view` name.
For example, all instances of `.../oldLib/oldCell/oldView` are renamed to `.../newLib/newCell/newView`.
 - When *Update Instances* is turned on and the *Of New Copies Only* option is chosen, the software overwrites only the cellview references you copied from the original library.

Cadence Library Manager User Guide

Copying Data

For example, only cellview instances of `.../oldCell/oldView` are renamed to `.../newLib/newCell/newView`.

- When *Update Instances* is turned off, the software leaves references to the source *library/cell/view* name unchanged.

For example, all instances of `/oldLib/NAND/symbol` continue to reference the source *library/cell/view* and remain `/oldLib/NAND/symbol`.

Copying Library Files

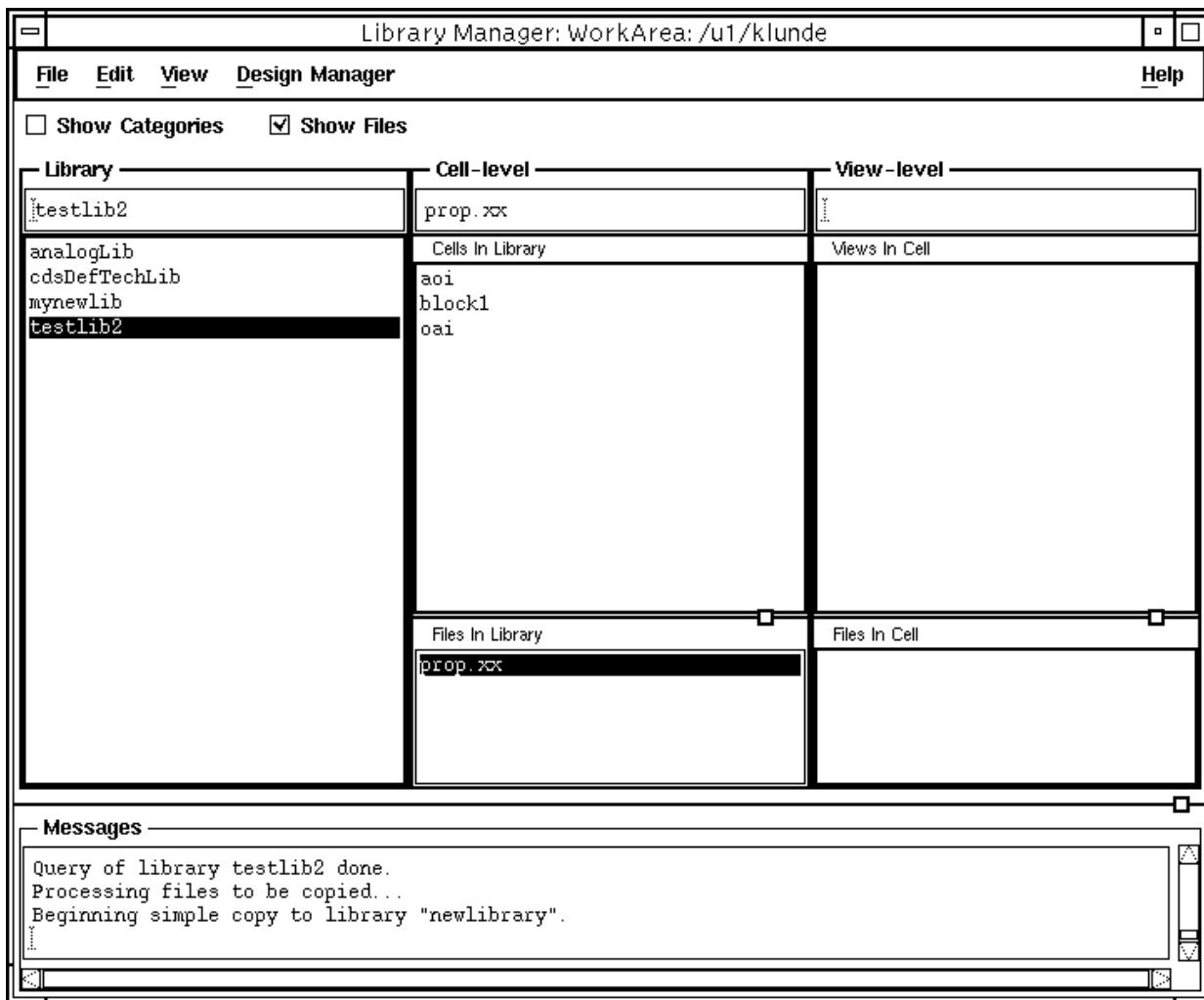
To copy library files, follow these steps:

- In the Library Manager form, make sure the *Show Files* checkbox is selected.
- In the *Files In Library* list box, select a file.

Cadence Library Manager User Guide

Copying Data

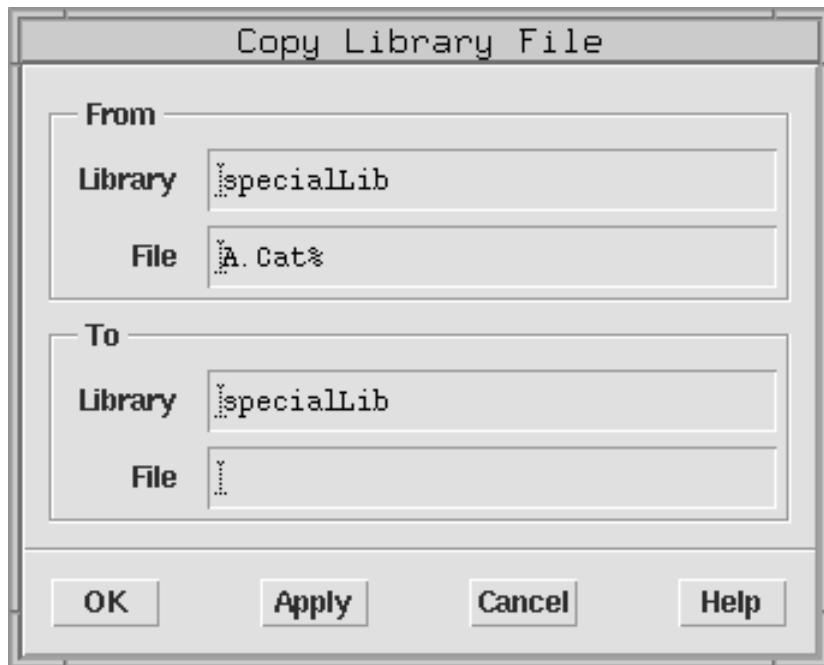
3. Choose *Edit – Copy*.



Cadence Library Manager User Guide

Copying Data

The *Copy Library File* form appears. For details about the *Copy Library File* form see [Copy Library File Form](#) on page 250.



The selected file is displayed in the *From Library* and *From File* fields.

The software assumes you want to copy the library files to a new filename in the same library, so the *To Library* field defaults to the *From Library* name.

4. Type a destination (*To*) filename in the *To File* field.
5. Click *OK*.

The file is copied to the destination library.

- If the destination filename is new, it is created in the library directory.
- If the destination filename already exists, it is overwritten without warning.

Copying Cell Files

To copy cell files, follow these steps:

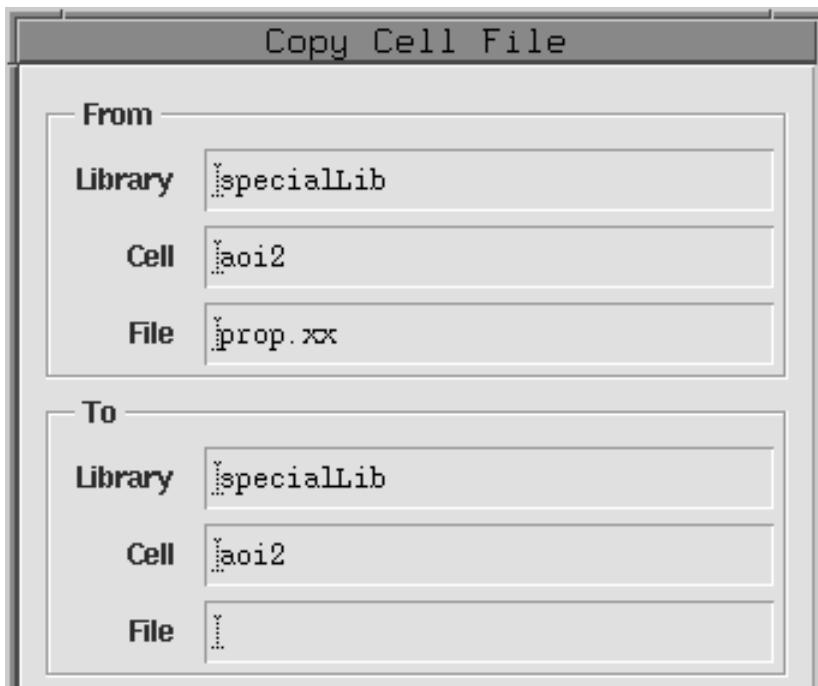
1. In the Library Manager form, make sure the *Show Files* checkbox is selected.
2. In the *Files In Cell* list box, select a file.

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Copying Data

3. Choose *Edit – Copy*.

The Copy Cell File form appears.



The selected file is displayed in the *From Library*, *From Cell*, and *From File* fields.

The software assumes you want to copy cell files to a new filename in the same library and cell, so the *To Library* and *To Cell* fields display the *From Library* and *From Cell* names by default.

4. Type a destination (*To*) filename in the *To File* field.

5. Click *OK*.

The file is copied to the destination cell and library.

- If the destination filename is new, it is created in the cell directory.
- If the destination filename already exists, it is overwritten without warning.

Using the Copy Wizard Form

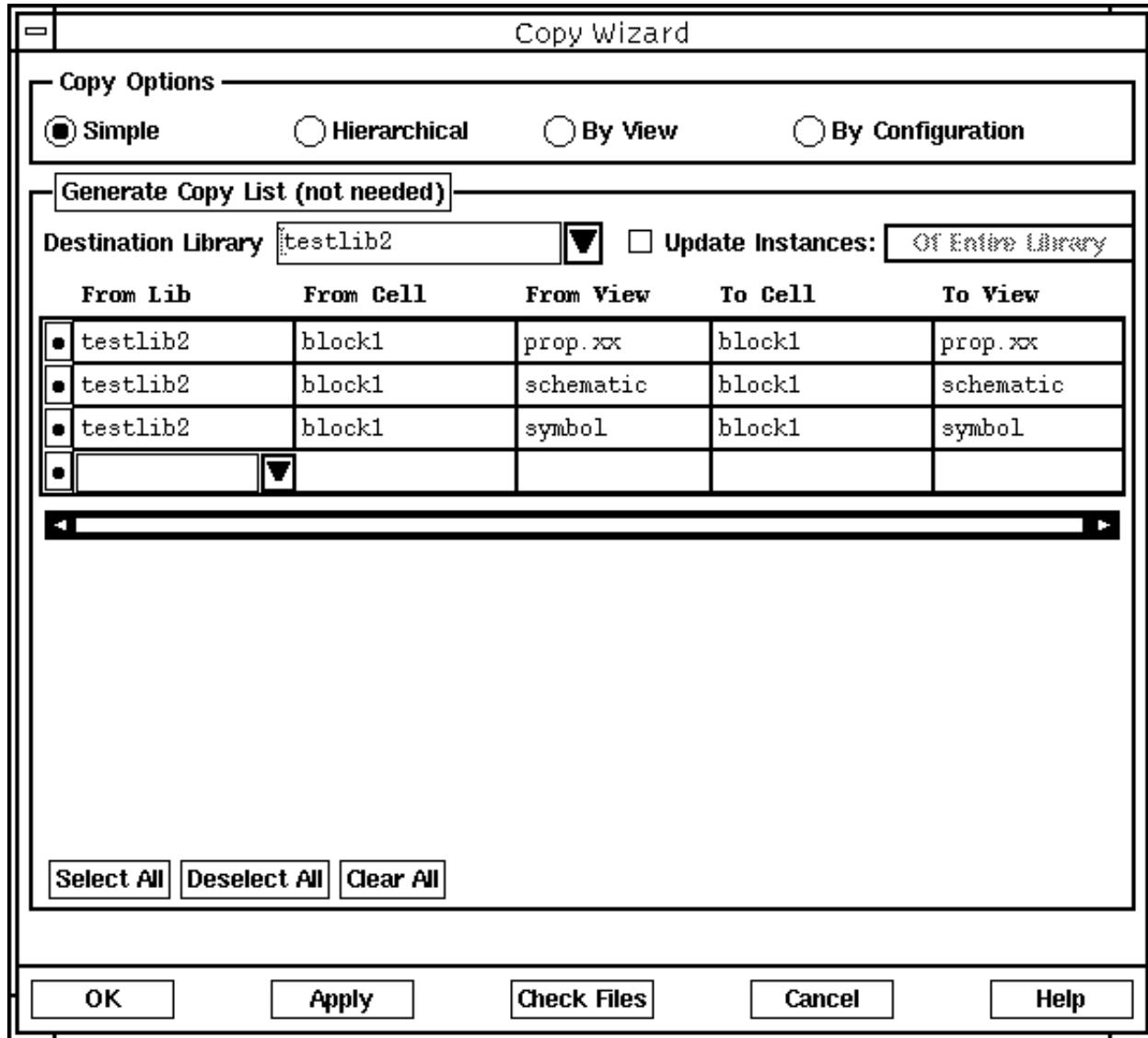
Unlike the other copy forms, the *Copy Wizard* form lets you use the hierarchies in the configuration file of the Cadence hierarchy editor tool to view, select, and edit individual

Cadence Library Manager User Guide

Copying Data

cellviews you want to copy, instead of being constrained by standardized database hierarchies.

Like the other copy forms, the *Copy Wizard* gives you the copy options of *Simple*, *Hierarchical*, *By View*, and *By Configuration*. For details about the *Copy Wizard* form see [Copy Wizard Form \(By Configuration\)](#) on page 252.



- *Simple* lets you specify the libraries, cells, and views to copy.
- *Hierarchical* lets you specify a hierarchical design (a hierarchy of libraries, cells, and views) or part of a hierarchical design to copy.
- *By View* lets you specify particular views to copy.

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Copying Data

- *By Configuration* lets you specify a previously defined configuration of cells to copy.

Simple Copying

To perform a simple copy operation, follow these steps:

1. In Library Manager, select a library, cell, or view.
2. Choose *Edit – Copy Wizard*.

The Copy Wizard form appears. The default copy option is *Simple*.

If you selected only a library, the Copy Wizard displays all cells and views associated with this library.

If you selected a library and a cell, the Copy Wizard displays all views associated with this library and cell.

If you selected a library, cell, and view, the Copy Wizard displays information for only the selected cellview.

3. To copy the selected cellviews to a different library, edit the destination library name or select a destination library from the pop-up list box.

If the destination library does not already exist, Library Manager creates it in your working directory during the copy procedure.

4. To copy the selected cellviews to another name, edit the *To Cell* and *To View* fields in the copy list.

For information about editing and copying in the Copy Wizard, see [Editing Text in the Copy Wizard](#) on page 65.

5. To update instances in the destination library, choose *Update Instances*. The cyclic field to the right of the checkbox becomes activated with the options *Of Entire Library* (the default selection) and *Of New Copies Only*.

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Copying Data

For example, to replace instances of a placed view with a wired view, specify the *From* and *To* fields in the Copy Wizard and choose *Update Instances*.

Generate Copy List (not needed)				
From Lib	From Cell	From View	To Cell	To View
estlib2	block1	placed	block1	wired
estlib2	block1	schematic	block1	schematic
estlib2	block1	symbol	block1	symbol

Library Manager replaces all instances of the `blockA` placed cellview with the `blockA` wired cellview.

6. To verify the filenames, click *Check Files*.

If there are problems, the Copy Problems form reports incorrect filenames or paths.

If there are no problems, a message confirms that there are no errors.

7. Click *OK*.

Library Manager checks the file and, if there are no problems, copies the cellviews to the destination library.

A dialog box informs you that the update instances process is taking place.

Viewing Copy Problems

If there are problems, the Copy Problems form reports incorrect filenames or paths.

Copy Problems					
Destination Library: specialLib					
One or more of the following problems have occurred:					
1.	The source file doesn't exist.				
2.	Not all fields have been filled in.				
3.	A destination file will be overwritten.				
4.	A destination file is checked out.				
5.	A destination file is opened for edit.				
6.	A destination file conflicts with another.				
7.	A destination has an illegal name.				
Fields may be (also) highlighted in the Copy form.					
From	Lib	From	Cell	From	View
To	Cell	To	Cell	To	View
Error					
specialLi	aoi	prop.xx	aoi	prop.xx	Are Identical
specialLi	aoi	schematic	aoi	schematic	Are Identical
specialLi	aoi	schematic	aoi	schematic	Are Identical

The libraries, cells, or views with problems are highlighted in the copy list on the Copy Wizard.

If you did not change the destination library or edit any of the *To Cell* or *To View* fields, the Copy Problems form reports that the *From* and *To* information is identical.

- To resolve problems, do one of the following:
 - Add to or change the information in the Copy Problems form.
 - Click *OK* to execute the actions you specified in the *Action* column.
 - Click *Fix Errors* to let the software fix the problems.
The most common error is that a file will overwrite another file.
 - Click *Overwrite All* to ignore the problems and let the software overwrite identical, checked out, or opened destination files.
 - Click *Cancel* to close the Copy Problems form and stop the copy procedure.

Copying a Hierarchy

To copy a hierarchy of libraries, cells, and views into another library, follow these steps:

1. In the appropriate list box, select a library or cell.

2. Choose *Edit – Copy Wizard*.

The Copy Wizard form appears.

3. In the *Copy Options* section, choose *Hierarchical*.

The Copy Wizard changes to display the *Copy Hierarchically* section.



A message explains that you need to fill in the *Copy Hierarchically* fields (*Top Library*, *Top Cell*, *Views To Copy*, and *Skip Libraries*) before you can generate a copy list. This message appears only the first time you use the *Hierarchical* copy option in each Cadence design framework II session.

4. In the *Copy Hierarchically* section, type the name of the top library, the top cell in the hierarchy, and the views to copy (if applicable).

To copy all views, type an asterisk (*) in the *Views To Copy* field.

5. In the *Skip Libraries* field, remove the names of any libraries whose cellviews you want to copy into the destination library.

6. To copy the top cell hierarchy to a different library, edit the destination library name or select a destination library from the pop-up list box

7. To display a list of cellviews to copy (based on your specifications), click *Generate Copy List*.

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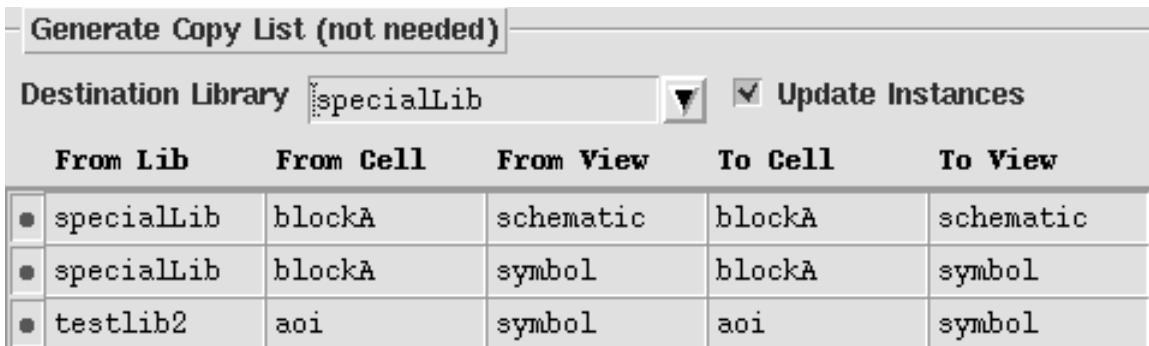
Copying Data

The copy list displays the cellviews to copy. By default, all cellviews are selected for copying.

If Library Manager cannot find all the cellviews you specified, the View File Summary window appears, explaining why the cellviews are not included in the copy list.

To display a list of the cellviews not included in the copy list, click *Yes* in the View File Summary window.

8. Edit or enter additional information in the copy list, if necessary.

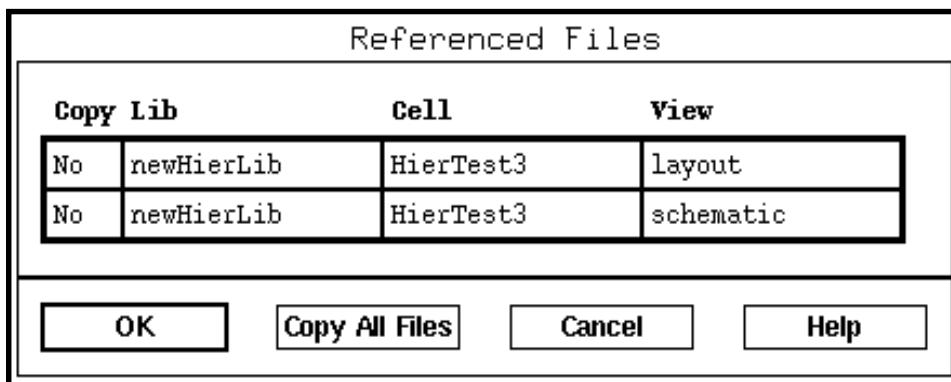


9. Click *OK*.

Library Manager copies the cells to the destination library. If the destination library is the same as the top library, Library Manager copies the cells or views to the new names you specified.

If the destination library does not exist, Library Manager creates it in your working directory.

The Referenced Files form appears, displaying the cellviews that were not included in the copy list because their libraries are listed in the *Skip Libraries* field.



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Copying Data

10. To copy a cellview in the Referenced Files form, do one of the following:

- ❑ Click *No* in the *Copy* column to change the entry to *Yes*, and click *OK*.
- ❑ Click *Copy All Files*, and click *OK*.

The specified cellviews are displayed in the copy list of the Copy Wizard.

11. Click *OK*.

Library Manager copies the cellviews to the destination library.

Copying by View

To copy only specific views to a different library, follow these steps:

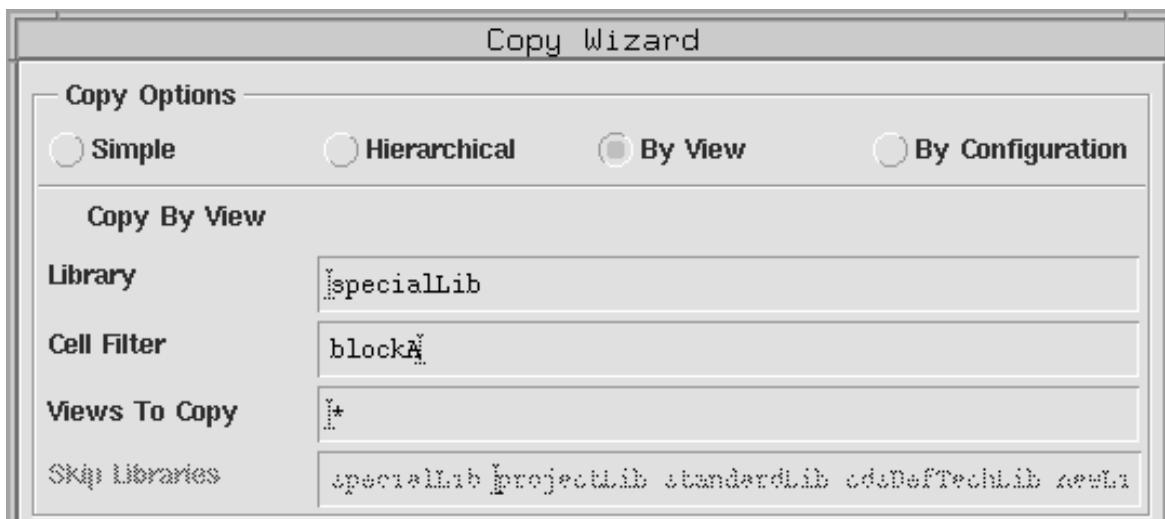
1. In the *Library* list box, select a library.

2. Choose *Edit – Copy Wizard*.

The Copy Wizard appears.

3. In the *Copy Options* section, choose *By View*.

The Copy Wizard changes to display the *Copy By View* section.



An information message explains that you need to fill in the *Copy By View* fields (*Library*, *Cell Filter*, and *Views To Copy*) before you can generate a copy list. This message appears only the first time you use the *By View* copy option in each design framework II session.

4. In the *Cell Filter* field, type the name of the cell you want to copy.

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Copying Data

You can use a specific cell name or a character string to filter patterns in cell names, such as `cc*` or `*a2d`.

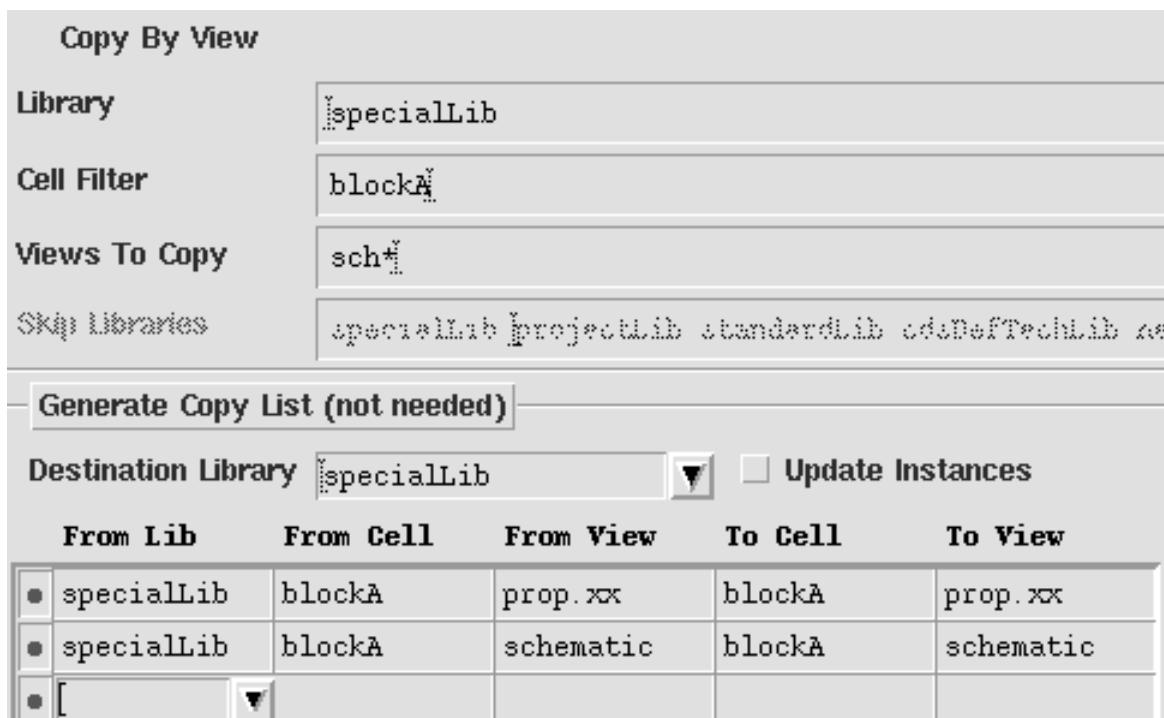
5. In the *Views To Copy* field, type the names of the views you want to copy.

You can use a specific view name or a character string to filter patterns in view names such as `symbol*`.

6. In the *Destination Library* field, type the name of the library to which you want the cells copied.
7. To display a list of cellviews to copy (based on your specifications), click *Generate Copy List*.

The *Copy List* displays the cellviews to copy. By default, all cellviews are selected for copying. Cell files are not affected by the *Views To Copy* filter, so all cell files are included in the copy list.

8. Edit or enter additional information in the copy list, if necessary.



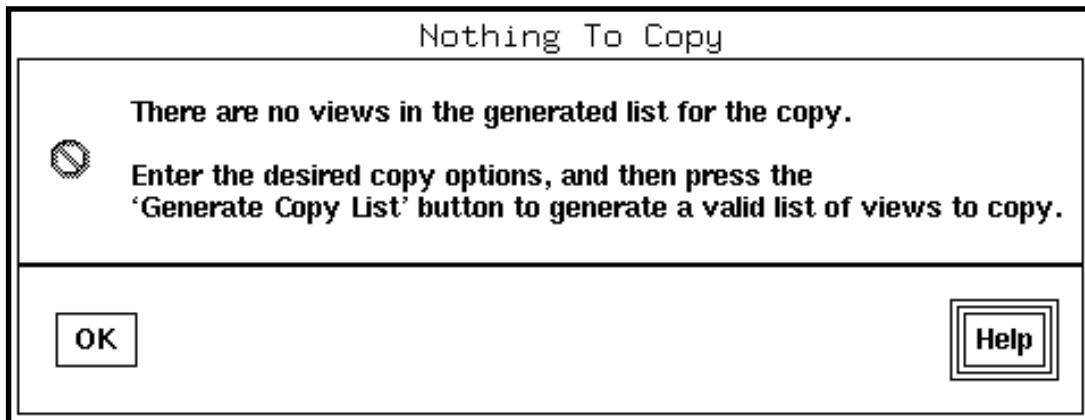
9. Click *OK*.

Library Manager copies the cells to the destination library. If the destination library does not exist, Library Manager creates it in your working directory.

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Copying Data

If the criteria in either the *Cell Filter* or the *Views To Copy* field prevent Library Manager from finding any cellviews to copy, the Nothing To Copy dialog box gives you the following warning:



To generate the copy list you want, specify more accurate cell-filter criteria or make sure the source library contains the cells you specified.

Copying by Configuration

To copy cells in a configuration file to another library, follow these steps:

For more information on configuration files refer to the *Hierarchy Editor User Guide*.

1. In the appropriate list box, select the library or cell you want to copy.
2. Choose *Edit – Copy Wizard*.

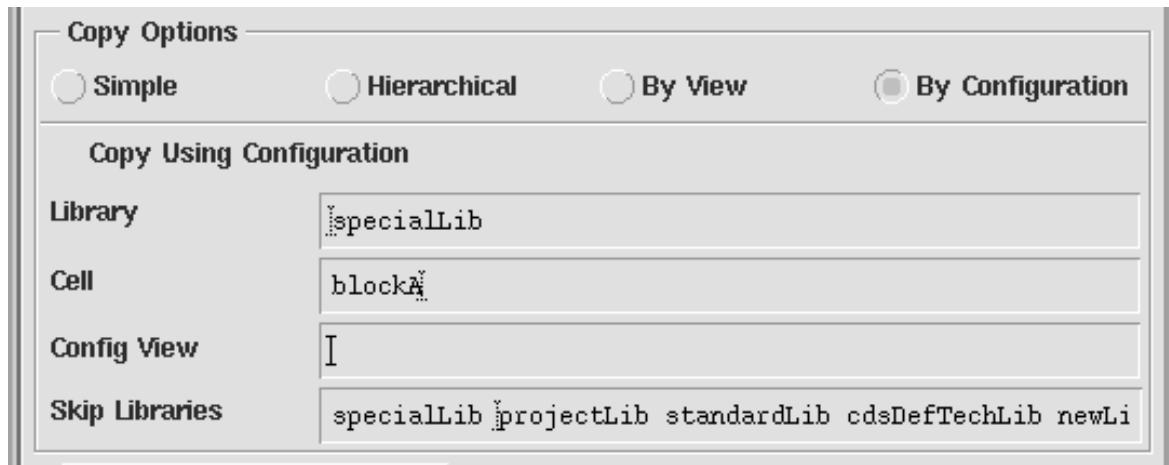
The Copy Wizard form appears.

3. In the *Copy Options* section, choose *By Configuration*.

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Copying Data

The Copy Wizard form changes to display the *Copy Using Configuration* section.



A message explains that you need to fill in the *Copy Using Configuration* fields (*Library*, *Cell*, *Config View*, and *Skip Libraries*) before you can generate a copy list. This message appears only the first time you use the *By Configuration* copy option in each design framework II session.

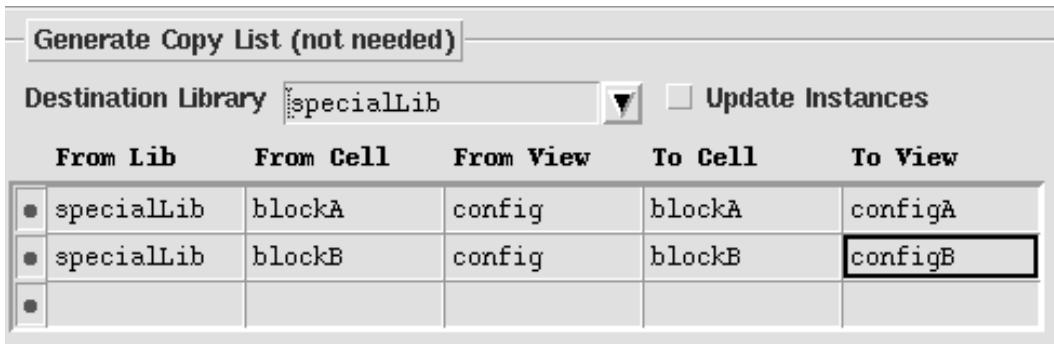
4. Type the library name and cell name of the configuration you want to copy.
5. Type the name of the configuration view you want to copy.
6. In the *Skip Libraries* field, remove the names of any libraries whose cellviews you want to copy into the destination library.
7. In the *Destination Library* field, type the name of the library to which you want the cells copied.
8. To display a list of cells to copy (based on your specifications), click *Generate Copy List*.

The copy list displays the cellviews to copy. By default, all cellviews are selected for copying.

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Copying Data

9. Edit or enter additional information in the copy list, if necessary. See [Editing Text in the Copy Wizard](#) on page 65.



10. Click *OK*.

Library Manager copies the cellviews to the destination library.

- ❑ If the destination library does not exist, Library Manager creates it in your working directory.
- ❑ If the configuration view name is not specified or does not exist, a dialog box appears, asking you to enter the correct information.
- ❑ If the software cannot open or read the configuration file, check the file permissions on the files making up the configuration or check the configuration using the Hierarchy Editor. For more information, see [Changing File Permissions](#) on page 19 or the [Cadence hierarchy editor User Guide](#).

Customizing the Skip Libraries List

The libraries that are listed in the *Skip Libraries* lists on the Copy and Copy Wizard forms are defined in the `.libmgr` and `.xdefaults` files in your home directory.

- The `.libmgr` file saves (for the current session only) edits you make to the list in the *Skip Libraries* field of a Copy or Copy Wizard form.
- The `.xdefaults` file saves a default list of libraries to include in the *Skip Libraries* field on the Copy and Copy Wizard forms.

You must specify a default list in the `.xdefaults` file before the `.libmgr` file can automatically save edits for a session.

To customize the default *Skip Libraries* list, follow these steps:

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Copying Data

1. To specify a default *Skip Libraries* list, enter the following command in the `.Xdefaults` file:

```
cdsLibManager.copySkipLibList: <lib1> <lib2>
```

2. Save and quit out of the `.Xdefaults` file.

Each time you start Library Manager, these libraries are loaded into the *Skip Libraries* field on the Copy and Copy Wizard forms.

To edit the default *Skip Libraries* list for the current session, do the following:

1. Edit the *Skip Libraries* field on any form.
2. Close the form.

The system saves the edited list to the `.libmgr` file and remembers it during your current session only. Even if you cancel out of the form, the system saves the edits to the `.libmgr` file.

Creating a Library in Library Manager

The following topics are discussed in this section:

- [Creating Libraries](#) on page 107
- [When You Do Not Need a Technology File](#) on page 111

Creating Libraries

To create a new library from within Cadence® library manager, follow these steps:

1. In the *Library Manager* form, choose *File – New – Library*.

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Creating a Library in Library Manager

The *New Library* form appears. For details about the *New Library* form see [New Library Form](#) on page 264.



2. In the *Name* field, type the name of the library you want to create.

The library name cannot duplicate the name of another library.

3. In the *Directory* list box, select a directory in which you want to create the new library.

You can also type the directory name and path in the field below the *Directory* list box.

By default, the software creates the library in your working directory.

Note: If you want the library to be under design management control, you must create it in a managed project area. For additional information about creating managed libraries, refer to the [Cadence Design Framework II Configuration Guide](#).

- To navigate in your directory structure, select a directory name in the *Directory* list box.

The path to the directory is displayed below the *Directory* list box. The directory you select is where the software creates your new library.

You must have [write permission](#) to a directory to create a library in it.

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Creating a Library in Library Manager

4. In the *Design Manager* section, specify whether you want to use a design management system.

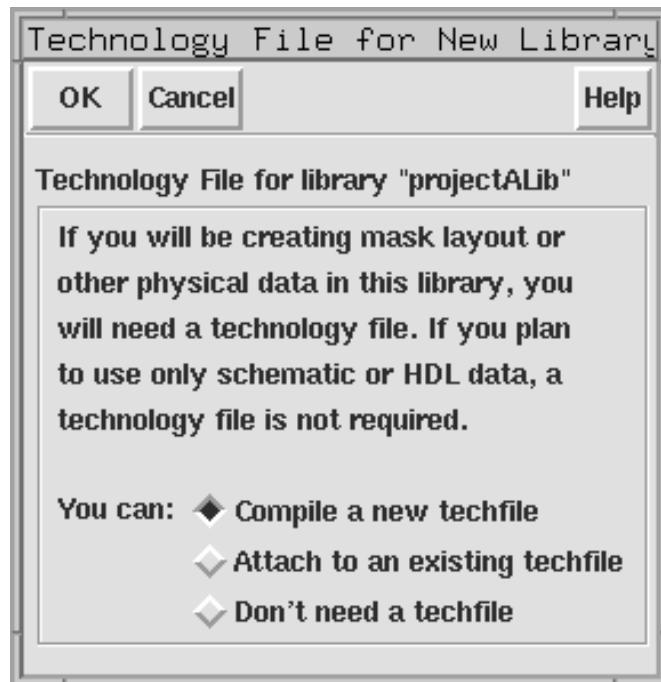
- ❑ If you want to use your design management system, select *Use <design management system>* (the default).

The software knows which design management system you are using and displays the name, such as *Use TDM*.

- ❑ If you do not want to use design management, select *Use No DM*.

5. Click *OK*.

The *Technology File for New Library* form appears. You need to choose a technology file. For details about the *Technology File for New Library* form see [Technology File for New Library Form](#) on page 267.



6. Choose one of the following technology file options:

- [Compile a new techfile](#)
- [Attach to an existing techfile](#)
- [Don't need a techfile](#)

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Creating a Library in Library Manager

Compiling a New Technology File

To compile a new technology file and attach it to your new library, follow these steps:

1. In the Technology File for New Library form, choose *Compile a new techfile* and click *OK*.
The Load Technology File form appears.



The *New Technology Library* field defaults to the name of your new library.

2. In the *ASCII Technology File* field, type the path to a technology file.

You can use your own technology file or one of the following templates from the sample technology files shipped with all DFII systems:

install_dir/tools/dfII/samples/default.tf
install_dir/tools/dfII/samples/mpu.tf

Where *install_dir* is the directory in which you installed the Cadence software.

If you want to create a design library with a special technology file but do not know the path to the technology file, use the default technology file *default.tf*. Later, you can use the *Load* command to modify the technology file information. The *default.tf* file acts as a placeholder for your technology file.

3. Click *OK*.

The new design library is created in the specified directory.

Attaching a library to an Existing Technology File

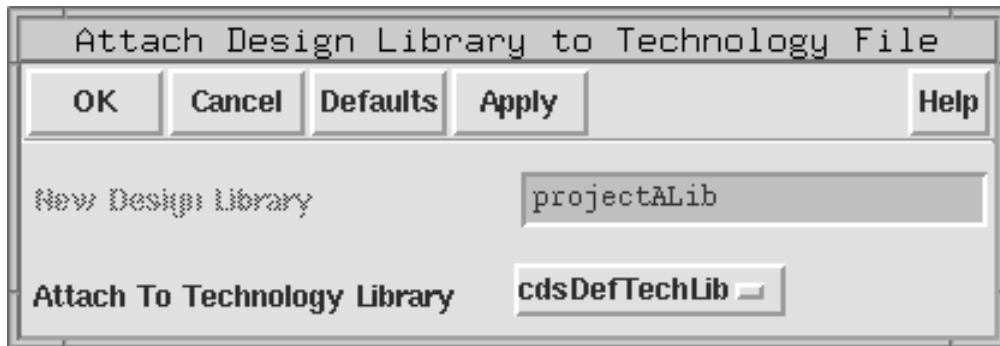
To attach your new library to a specific technology file, follow these steps:

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Creating a Library in Library Manager

1. In the Technology File for New Library form, choose *Attach to an existing techfile* and click *OK*.

The Attach Design Library to Technology File form appears.



The *Attach To Technology Library* cyclic field displays the technology libraries in your library path and a default technology library called *cdsDefTechLib*.

2. In the cyclic field, choose the technology library to which you want to attach your new library.
3. Click *OK*.

The new design library is created in the specified directory.

When You Do Not Need a Technology File

If you do not plan to design layouts, you do not need a technology file.

To create a new library without specifying a technology file, do the following:

- In the Technology File for New Library form, choose *Don't need a techfile* and click *OK*.
Library Manager creates the specified new library. (Although you will not use a technology file, the system automatically attaches the default technology file *default.tf* when you open the library with a DFII tool.)

For more information about technology files, refer to the *Technology File and Display Resource File User Guide*.

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Creating a Library in Library Manager

Managing Designs

The following topics are discussed in this chapter:

- [Assessing Your Need for Design Management](#) on page 114
- [Setting Up a Managed Environment](#) on page 114
- [Checking In Designs](#) on page 116
- [Checking Out Designs](#) on page 122
- [Canceling Check-Outs for Designs](#) on page 124
- [Checking In Properties](#) on page 125
- [Checking Out Properties](#) on page 128
- [Canceling Check-Outs for Properties](#) on page 129
- [Checking In Categories](#) on page 131
- [Checking Out Categories](#) on page 133
- [Canceling the Check-Out of a Category](#) on page 135
- [Using the Automatic Check-In Process](#) on page 136
- [Using the Automatic Check-Out Process](#) on page 143
- [Submitting Changes](#) on page 150
- [Updating Workareas](#) on page 152
- [Versioning](#) on page 153
- [Viewing File Status](#) on page 167

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Managing Designs

Assessing Your Need for Design Management

The level of design management you need depends on your design environment. The following table maps the possible levels of design management to typical design environments.

Use model	Design environment	Features
None	An individual designer who uses operating system commands to manage design data files. The design tools read and write directly to the file system.	Files/directories
Team Design Manager (TDM)		
Base Release Model	A simple, single-release process that supports individual designers and design teams.	Check-in/check-out Version control View file status
Formal Release Model	A formal, multiple-release process for design teams that need to share, integrate, and release design data.	Base model plus integration and multiple releases

For more information about how to determine the level of design management you need in TDM, refer to the [*Team Design Manager User Guide*](#).

Note: GDM, or Generic DM, is the Cadence® design management layer that interfaces with the particular design management system that you use. GDM is the interface that allows applications to interface with different design management systems such as TDM. See the [*Team Design Manager User Guide*](#) for information on how GDM operates.

Setting Up a Managed Environment

The following reference sections describe how to set up and work in a managed environment:

- [Important environment variables](#)
- [How to set up your project environment](#)
- [A sample work flow](#)

If you use TDM, each team member must set the following environment variable to reference the site directory:

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Managing Designs

- **TWROOT**

Optionally, team members can set the following variables to specify locations, paths, and display devices:

- **FMHOME**
- **HELPDIR**
- **PATH**
- **CDS_COLOR_MODE**
- **CDS_LOG_VERSION**
- **DISPLAY**

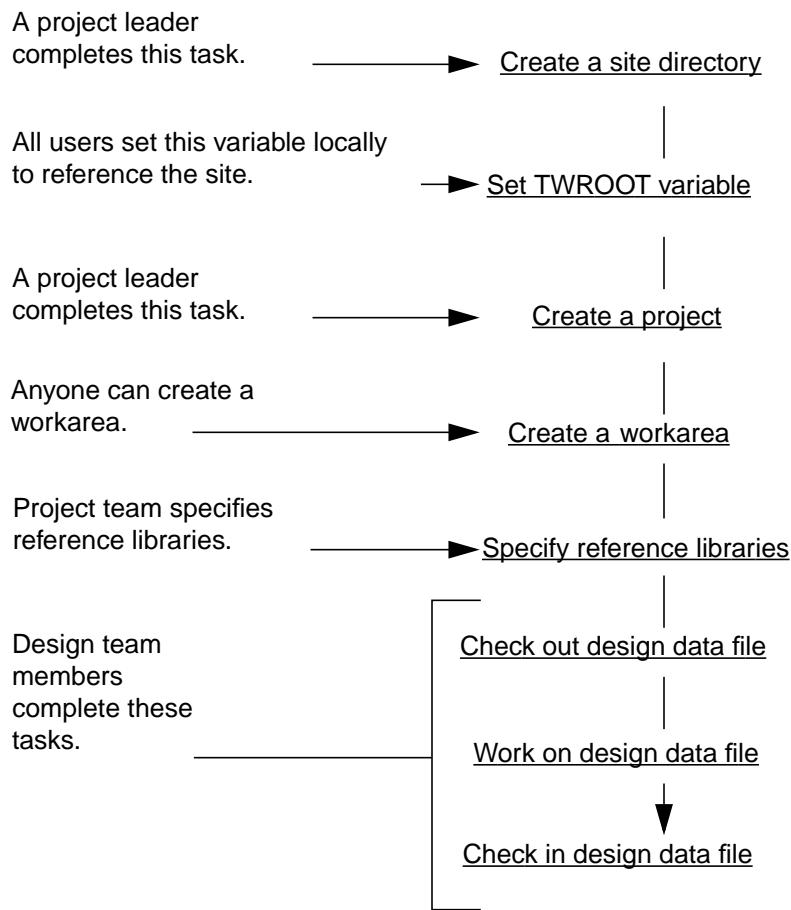
Optionally, team members can reset the defaults for the following variables to control automatic check-in and check-out of design data:

- **CDS_PROMPT_CKIN**
- **CDS_AUTO_CKIN**
- **CDS_PROMPT_CKOUT**
- **CDS_AUTO_CKOUT**

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Managing Designs

This chart shows a typical flow for setting up and working in a TDM environment.



Checking In Designs

The check-in and [check-out](#) process controls access to the design data files that design team members store in a project data repository.

When you check out a file, the software copies the file from the project data repository to your current workarea. When you check in a file, the software copies the file, as a completed version, from your workarea to the project data repository and assigns the next version number.

You can check in files associated with the following:

- [Cellview data](#)

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Managing Designs

- [Cell data](#)
- [Library data](#)
- [Properties](#)

You can control [automatic check-ins](#) by setting the environment variables.

Note: Cadence recommends that you do not check in a design data file that is locked, which means that it is currently being edited by someone else. If you do, an error message appears, reminding you that the file is locked. Close design windows or change the files to read-only mode before you check them in. For additional information on how to make files read-only, refer to the [File – Make Read Only](#) command.

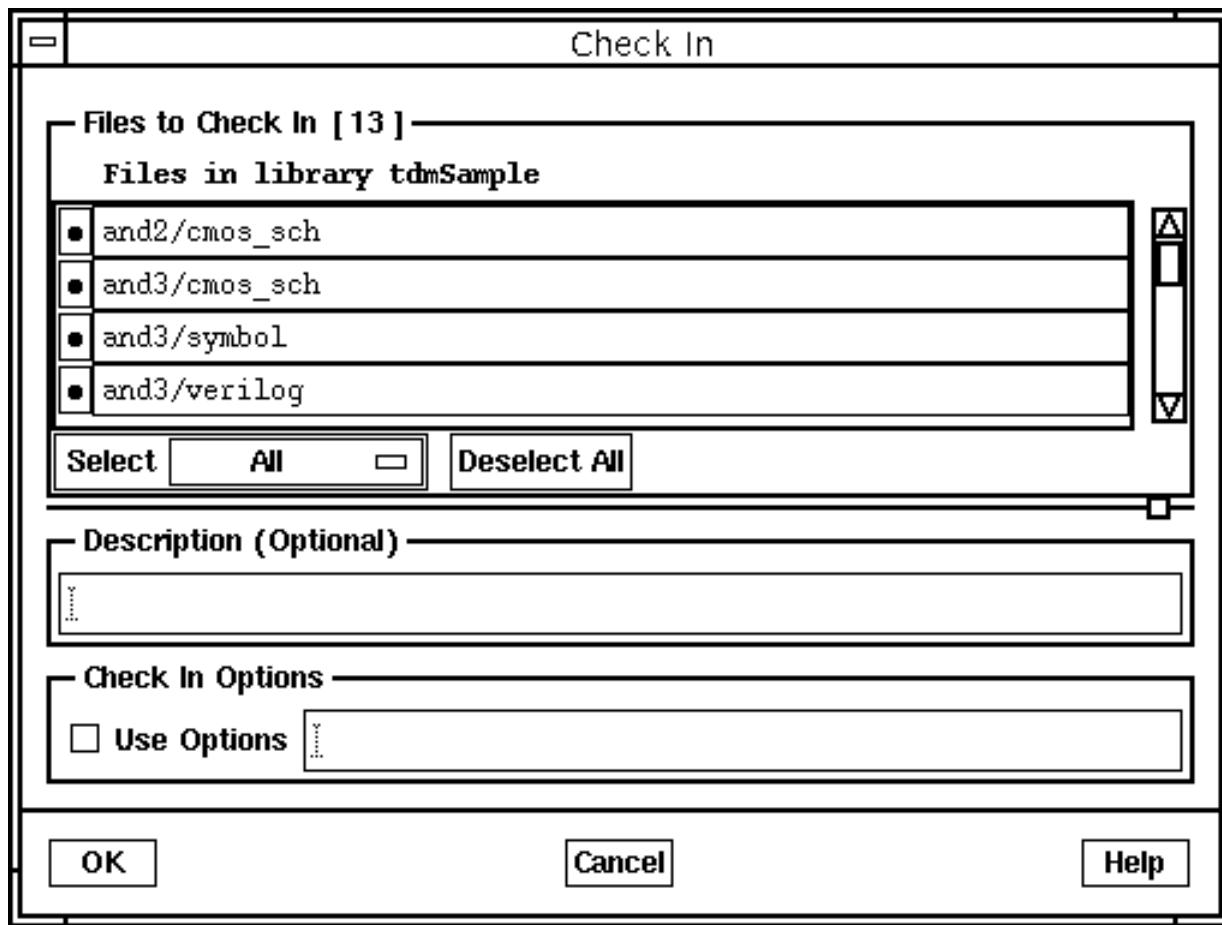
To check in the data files associated with a cellview, follow these steps:

1. In the *View* list box, select the view you want to check in.
2. Choose *Design Manager – Check In*.

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Managing Designs

The Check In form appears.



The form lists the selected view.

3. Choose the files in the view that you want to check in.

The cyclic field to the right of the *Select* option gives you three options of selecting files for the view you are checking in:

- To select all files in the view, use *Select All* (the default).
- To select only the files for the view that have been checked in, use *Checked In*.
- To select those files in the view that are not in the design management workarea, choose *Unmanaged*.

Click *Deselect All* to deselect all currently selected files in the view.

4. Use the *Description* field to attach a note (maximum 100 characters) to a cellview.

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Managing Designs

You cannot edit or delete notes after you close the Check In form.

5. You can click the *Use Options* checkbox if you want to pass in options specific to your particular design management system. For more information on the options you have, see the [Team Design Manager User Guide](#).
6. To check in the selected file, click *OK*.

The software sends a mail message notifying team members when a new file is checked in.

Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to read mode before you check them in. For additional information, refer to the [File – Make Read Only](#) command.

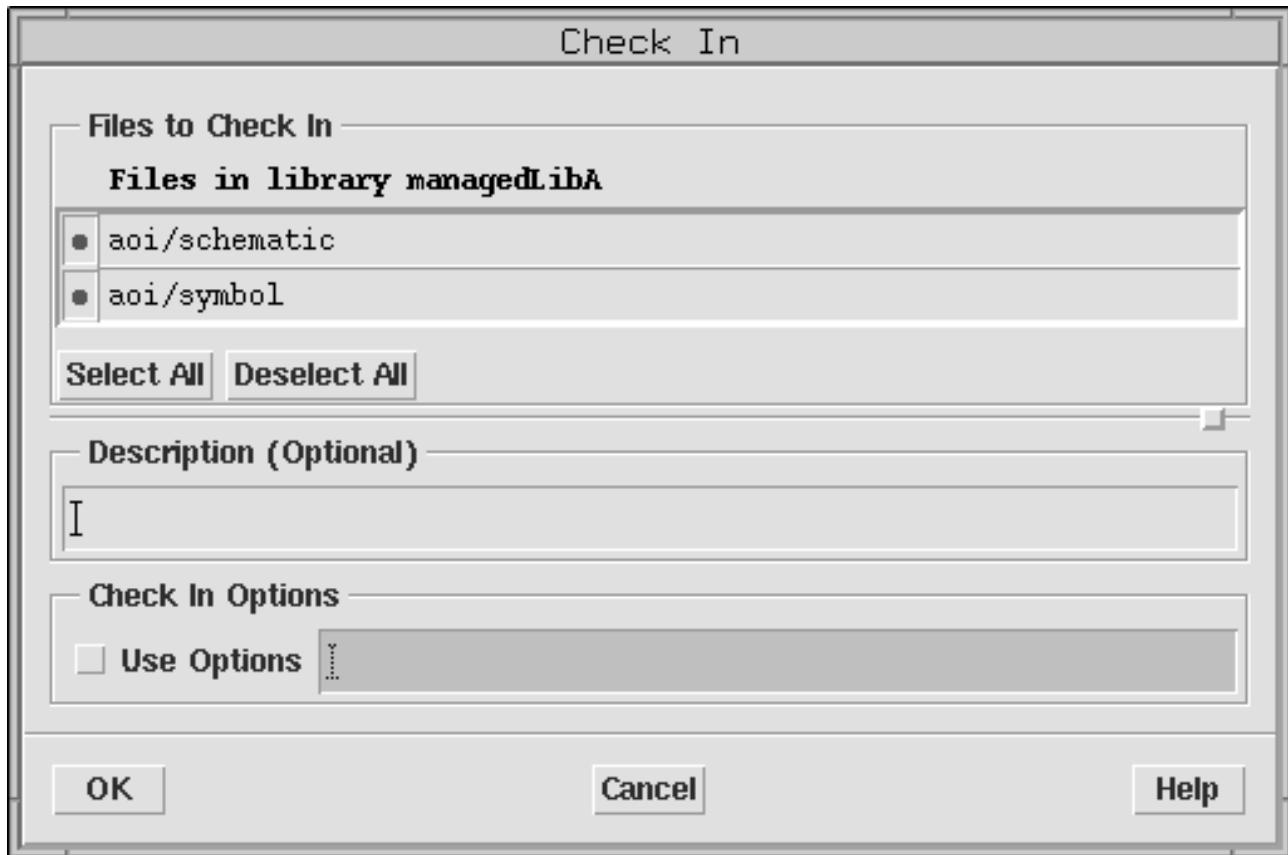
To check in all the data files associated with a cell, follow these steps:

1. In the *Cell* list box, select the cell you want to check in.
2. Choose *Design Manager – Check In*.

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The Check In form appears.



The form lists all the checked-out views and files associated with the selected cell.

3. To select or deselect a file, toggle the button to the left of the row. A dot is displayed to the left of a selected file.
4. Use the *Description* field to attach a note (maximum 100 characters) to a cell.

When you attach a note to a cell, the software attaches a copy of the note to every cellview in the cell.

Note: You cannot edit or delete notes after you close the Check In form.

1. To check in the selected files, click *OK*.

The software sends a mail message notifying team members when a new file is checked in.

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Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For more information, see ["Changing Files to Read-Only Mode"](#) on page 175.

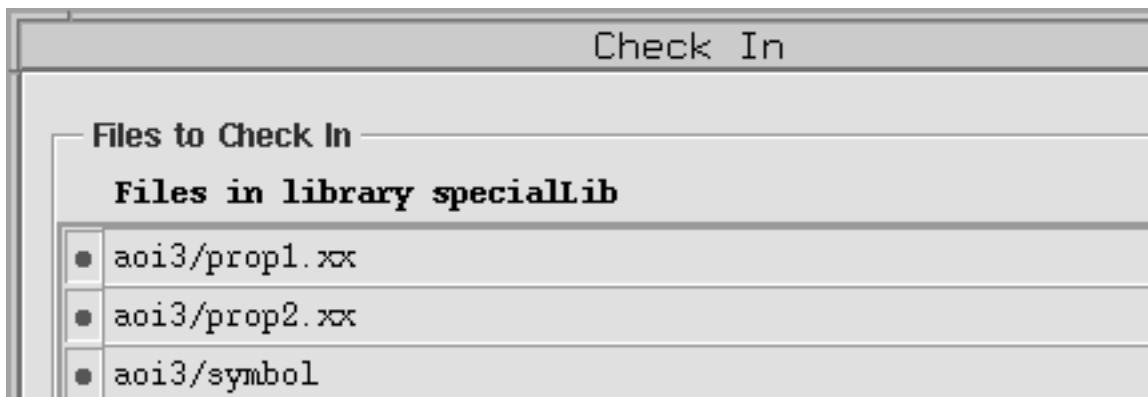
To check in all the files associated with a library, follow these steps:

1. In the *Library* list box, select a library.

Note: When you check in a library for the first time, you must add the library name to the *project.lib* file before team members can share the data. For more information about the *project.lib* file, refer to the [Team Design Manager User Guide](#).

2. Choose *Design Manager – Check In*.

The Check In form appears. The form lists all the checked-out cellviews and files associated with the specified library.



3. To select or deselect a file, toggle the button to the left of the row. A dot is displayed to the left of a selected file.
4. Use the *Description* field to attach a note (maximum 100 characters) to a library.

When you attach a note to a library, the software attaches a copy of the note to every cellview in the library.

Note: You cannot edit or delete notes after you close the Check In form.

1. To check in the selected files, click *OK*.

The software sends a mail message notifying team members when a new file is checked in.

Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For more information, see ["Changing Files to Read-Only Mode"](#) on page 175.

Checking Out Designs

The check-out and check-in processes control access to the design data files that design team members store in a project data repository.

When you check out a file, the software copies the file from the project data repository to your workarea. When you check in a file, the software moves the file, as a completed version, from your workarea to the project data repository and assigns the next version number.

You can check out files associated with the following:

- Cellview data
- Cell data
- Library data
- Properties

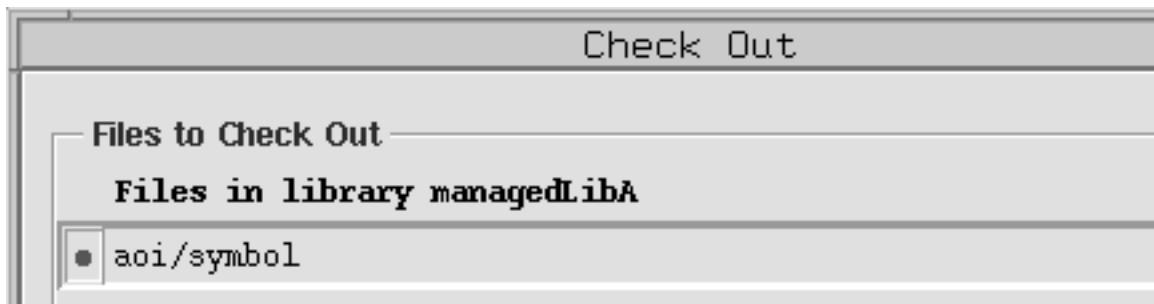
You can control automatic check-outs by setting the environment variables.

Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For additional information, refer to the File – Make Read Only command.

To check out all the data files associated with a cellview, follow these steps:

1. In the *View* list box, select the view you want to check out.
2. Choose *Design Manager – Check Out*.

The Check Out form opens. The form displays all the files associated with the specified view.



To select or deselect a file for check out, toggle the button to the left of the filename. A dot is displayed to the left of a selected file.

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3. To check out the selected files, click *OK*.

Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For additional information on the *Make Read Only* command, see [“Selecting Cellviews to Be Read Only”](#) on page 177.

If you do not want to save any changes you make to the checked-out files, you can [cancel the check-out operation](#).

To check out all the data files associated with a cell, follow these steps:

1. In the *Cell* list box, select a cell.
2. Choose *Design Manager – Check Out*.

The Check Out form appears.



The form displays all the checked-in files associated with the selected cell.

3. To select or deselect a file for check out, toggle the button to the left of the filename. A dot is displayed to the left of a selected file.
4. To check out selected files, click *OK*.

Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For additional information, refer to the *Make Read Only* command.

If you do not want to save any changes you make to the checked-out files, you can [cancel the check-out operation](#).

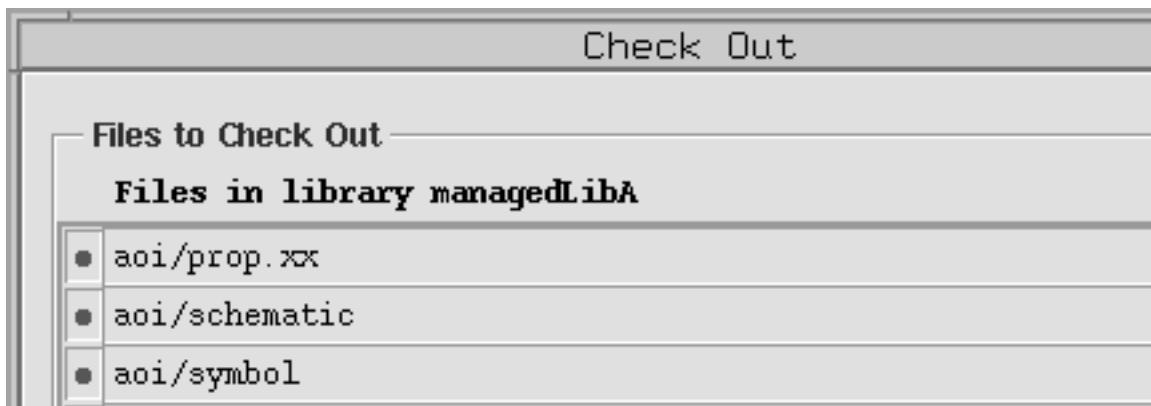
To check out all the data files associated with a library, follow these steps:

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1. In the *Library* list box, select the library whose files you want to check out.
2. Choose *Design Manager – Check Out*.

The Check Out form appears.



The form lists all the files in the selected library.

3. To select or deselect a file for check-out, toggle the button to the left of the filename. A dot is displayed to the left of a selected file.
4. To check out selected files, click *OK*.

Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For additional information, refer to the *File – Make Read Only* command.

If you do not want to save any changes you make to the checked-out files, you can cancel the check-out operation.

Canceling Check-Outs for Designs

When you cancel a check-out operation, the software restores your workarea and the project data repository to the states they were in prior to the check-out.

You can cancel a check-out operation if you have not made any changes to the checked-out files or do not want to save any changes you made to checked-out files.

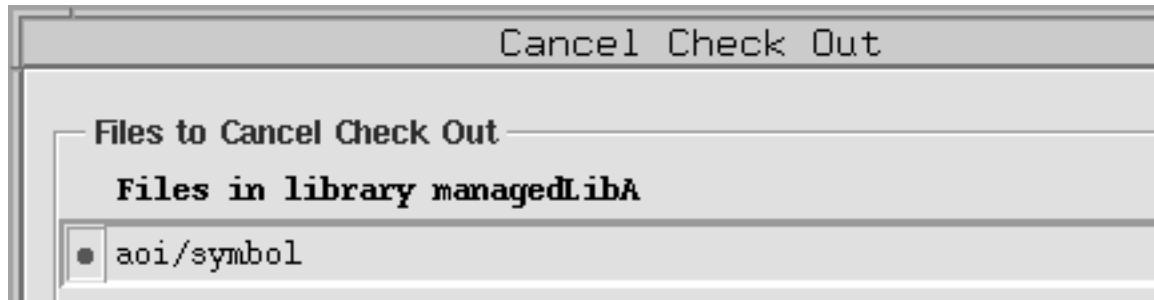
Note: Cadence recommends that you do not cancel check-out for design data files that are locked. Close design windows or change the files to read mode before you cancel the check-out. For additional information, see “Changing Files to Read-Only Mode” on page 175.

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To cancel a check-out operation, follow these steps:

1. In the Library Manager list boxes, specify the library, cell, view, or file whose check-out you want to cancel.
2. Choose *Design Manager – Cancel Checkout*.
 - ❑ If another team member working in your workarea has locked a file, you cannot cancel the check-out.
 - ❑ If you locked a file, the software prompts you to confirm that you do not want to save any changes.
 - ❑ If there are no locked files, the Cancel Check Out form opens. The form lists the selected library, cell, view, or file.



To select or deselect a file, toggle the button to the left of the filename. A dot is displayed to the left of a selected file.

3. Click *OK*.

The software cancels the check-out operation for each selected file. Files that are not selected remain checked out.

Checking In Properties

To check in the property file associated with a cellview, follow these steps:

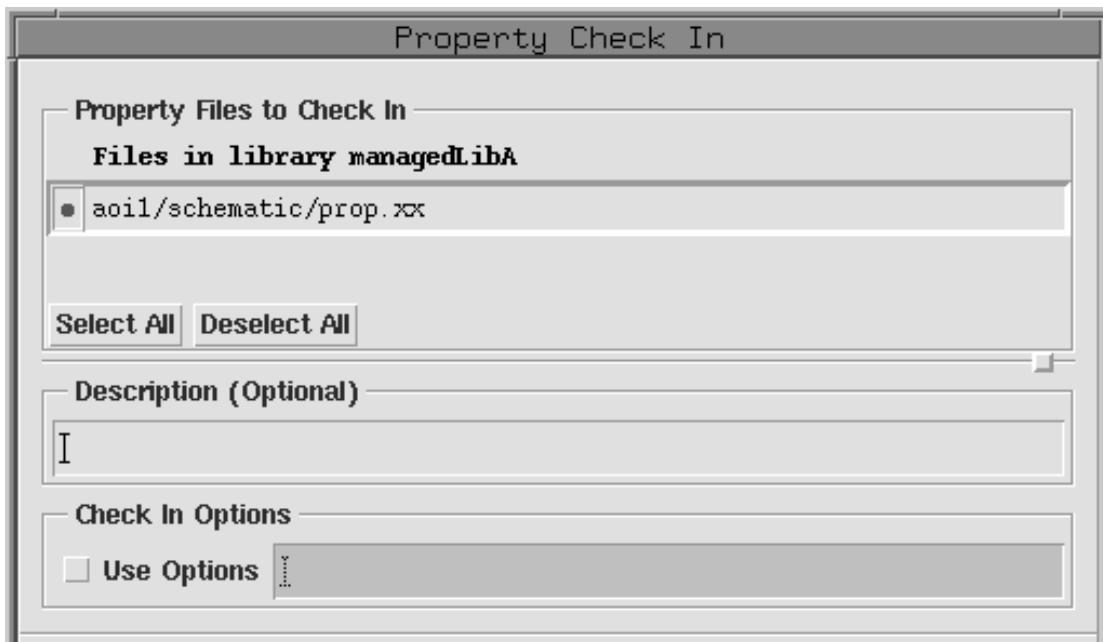
Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For more information, see [“Changing Files to Read-Only Mode”](#) on page 175.

1. In the *View* list box, select the view that contains the property file you want to check in.
2. Choose *Design Manager – Properties – Check In*.

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The Check In form appears. The form displays the property file path.



3. If you want to describe your design changes, type a comment in the *Description* field (maximum 100 characters).

Note: You cannot edit or delete notes after you close the form.

4. Click *OK*.

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Summary Table of Automatic Check-In Settings

The following table summarizes the shell environment variable settings you enter in the `.cdsenv` file to control automatic check-in behavior.

CDS_PROMPT_CKIN

	all	views	file (default)	none
all	Prompt displayed after you close properties, files, or views.	Prompt displayed after you close a view.	Prompt displayed after you close files or properties.	Prompt not displayed.
	Auto check in files, properties, and views.	Auto check in files, properties, and views.	Auto check in files, properties, and views.	Auto check in files, properties, and views.
views	Prompt displayed after you close properties, files, or views.	Prompt displayed after you close a view.	Prompt displayed after you close files or properties.	Prompt not displayed.
	Auto check in views only.	Auto check in views only.	Auto check in views only.	Auto check in views only.

CDS_AUTO_CKIN

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CDS_PROMPT_CKIN

	all	views	file (default)	none
files (default)	Prompt displayed after you close properties, files, or views	Prompt displayed after you close a view.	Prompt displayed after you close files or properties.	Prompt not displayed.
	Auto check in files and properties only.	Auto check in files and properties only.	Auto check in files and properties only.	Auto check in files and properties only.
none	Prompt displayed after you close properties, files, or views.	Prompt displayed after you close a view.	Prompt displayed after you close properties or files.	Prompt not displayed.
	Never auto check in properties, files, or views.	Never auto check in properties, files, or views.	Never auto check in properties, files, or views.	Never auto check in properties, files, or views.

CDS_AUTO_CKIN

Checking Out Properties

The Base Team Design Manager lets you manage the property files independently of their associated design data files. Each library, cell, and cellview can have a `prop.xx` file associated with it. Usually, you check out and check in the property files along with the other design data files, although you might want to check out the property files without the associated design data files; for example, when you want to edit the CDF information for a library or cell.

You can perform the following operations to manage property files:

- [Check-out](#)
- [Cancel Check-out](#)
- [Check-in](#)

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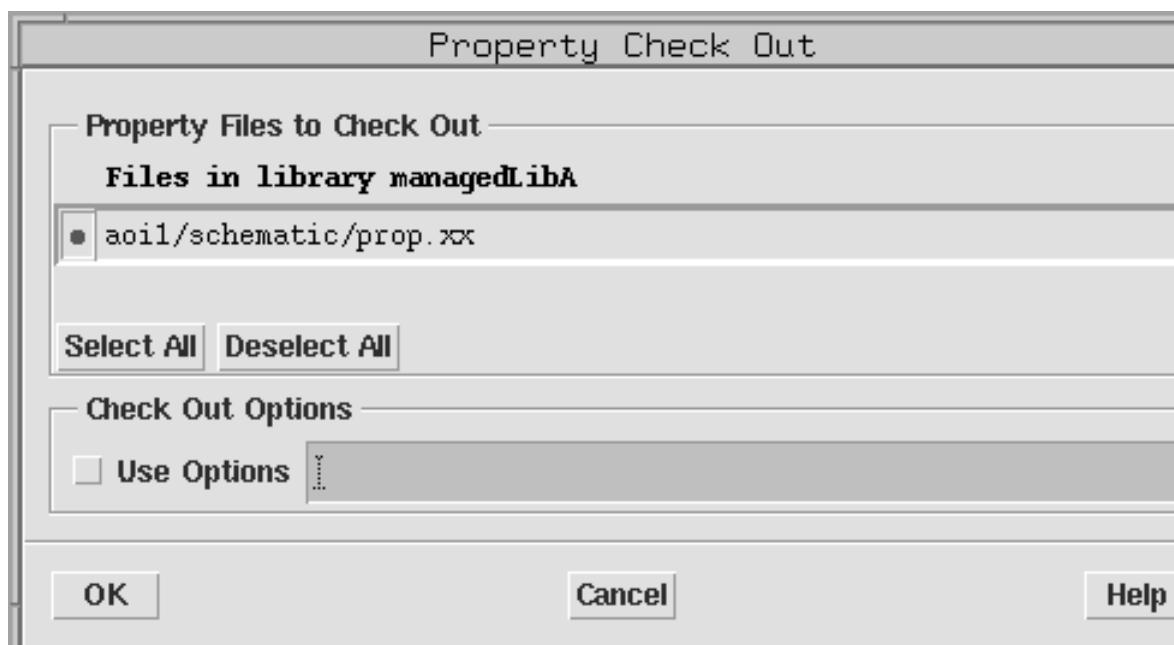
Managing Designs

The procedures are the same for managing property files associated with libraries, cells, or views. This section describes the procedure to manage a property file associated with a view.

To check out the property file associated with a cellview, follow these steps:

1. In the *View* list box, select the view whose property file you want to check out.
2. Choose *Design Manager – Properties – Check Out*.

The Property Check Out form appears.



The form displays the file path in the *Files in library <library name>* field.

3. If you want to use specific options for the check-out, turn on *Use Options* and type your options.
4. Click *OK*.

Note: You can cancel the check-out operation if you have not made changes to the file or if you do not want to save any changes you might have made to the checked-out file.

Canceling Check-Outs for Properties

When you cancel a check-out operation, the software restores your workarea and the project data repository to the states they were in prior to the check-out.

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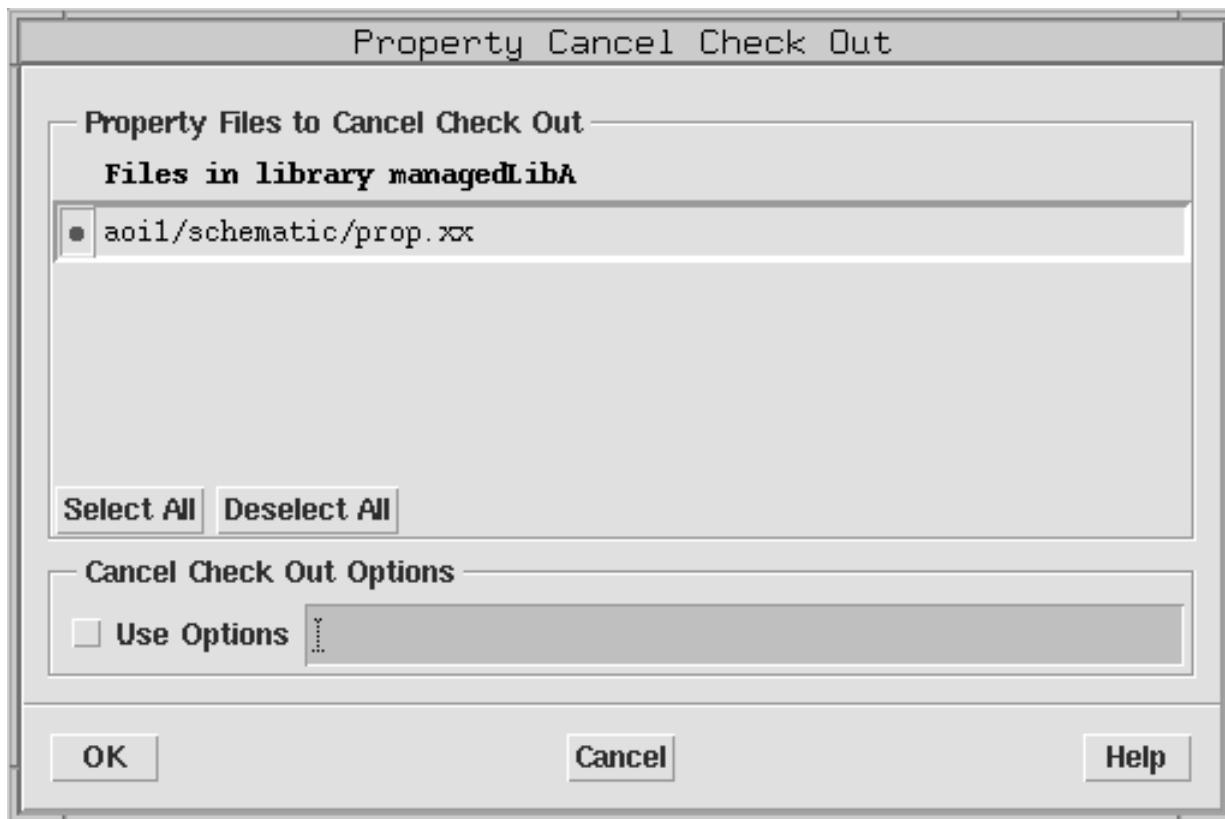
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You can cancel a check-out operation if you have not made any changes to a checked-out file or do not want to save any changes you made to a checked-out file.

To cancel a check-out operation, follow these steps:

1. In the *View* list box, select the view that contains the property file whose check-out operation you want to cancel.
2. Choose *Design Manager – Properties – Cancel Checkout*.

The Property Cancel Check Out form appears.



The form displays the checked-out property files in the *Files in library <library name>* field.

3. To select or deselect a file for canceling the check-out, toggle the button to the left of the filename. A dot is displayed to the left of a selected file.
4. Click *OK*.

The software cancels the check-out operation for each selected file.

Checking In Categories

To check in a category, follow these steps:

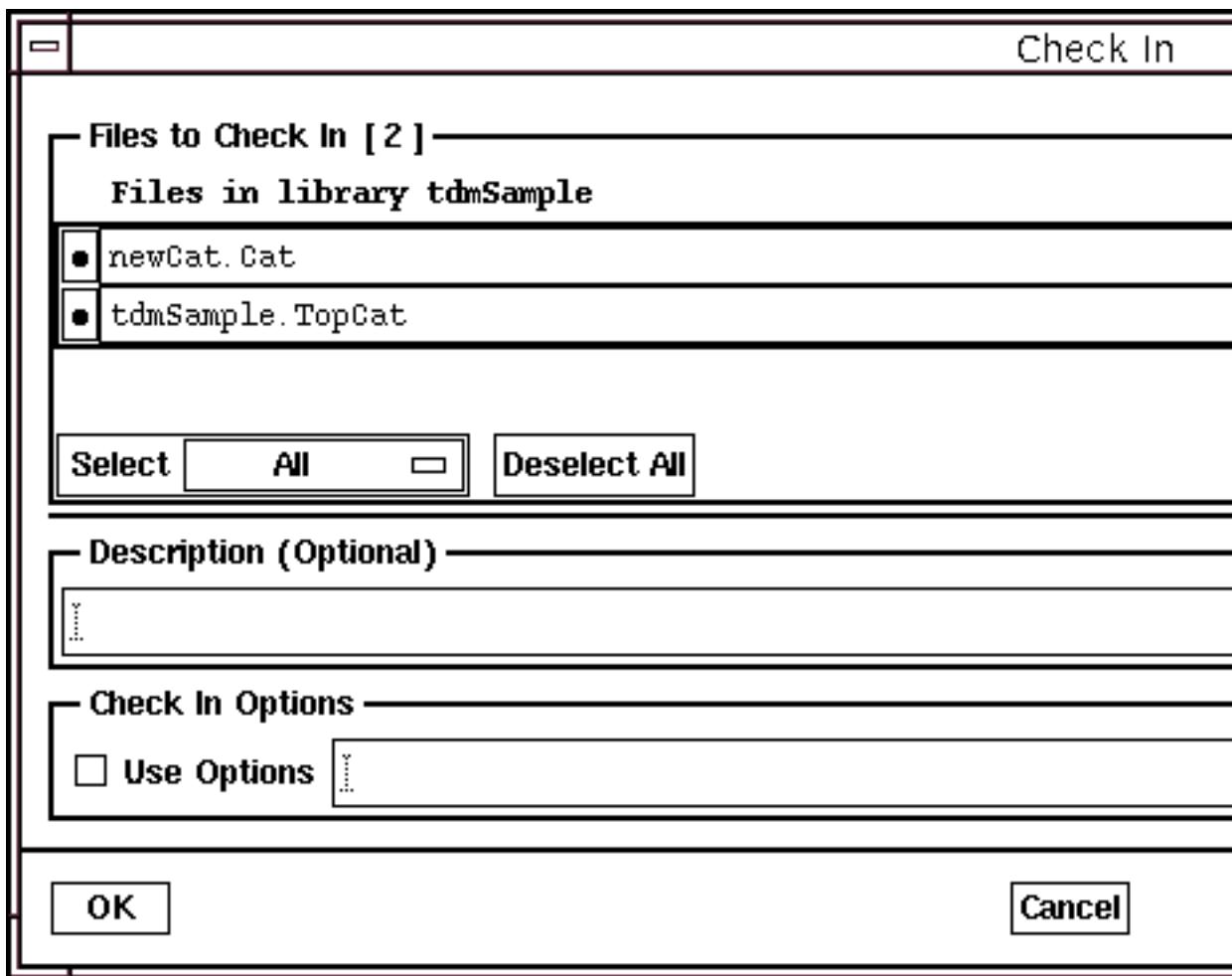
Note: Cadence recommends that you do not check in design data files that are locked. Close design windows or change the files to *read* mode before you check them in. For more information, see [“Changing Files to Read-Only Mode”](#) on page 175.

1. Select a library under design management.
2. Turn on the Show Categories checkbox.
3. Hold down the right mouse button over the selected category to bring up the pop-up menu.
4. Choose *Check In*.

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The Check In form appears.



The form displays the category files selected for check-in in the *Files in library <library name>* field. A dot is displayed to the left of a selected file.

5. To select or deselect a file for check-in, toggle the button to the left of the filename.
 - To select all files, click on *Select All*.
 - To remove the file selection, click on *Deselect All*.
6. Use the *Description* field to attach a note (maximum 100 characters) to a cell.

When you attach a note to a cell, the software attaches a copy of the note to every cellview in the cell.

Note: You cannot edit or delete notes after you close the Check In form.

1. To check in the selected files, click *OK*.

The software sends a mail message notifying team members when a new file is checked in.

2. If you want to use specific options for the check-in, turn on *Use Options* and type your options.
3. Click *OK*.

For more information on using categories, see [Chapter 10, “Managing Categories.”](#)

Checking Out Categories

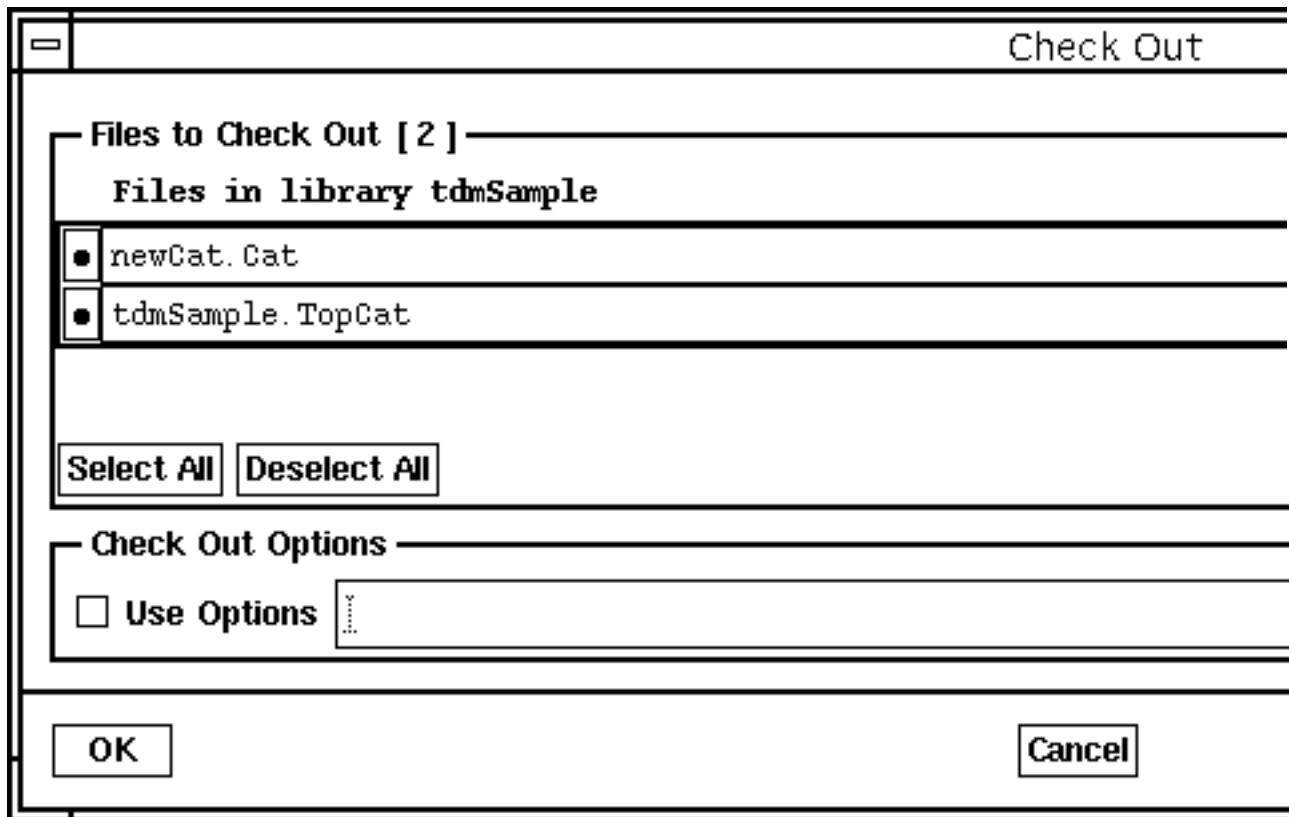
To check out a category, follow these steps:

1. Select a library under design management that is checked in.
2. Turn on the *Show Categories* checkbox.
3. Choose the category in the *Category* list box to check out. A red box encloses the selected category name.
4. Press and hold the right mouse button over the selected category to bring up the pop-up menu.
5. Choose *Check Out*.

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The Check Out form appears, displaying the categories to be checked out.



The form displays the category files selected for check-out in the *Files in library <library name>* field. A dot is displayed to the left of a selected file.

6. To select or deselect a file for check-in, toggle the button to the left of the filename.
 - To select all files, click on *Select All*.
 - To remove the file selection, click on *Deselect All*.
7. If you want to use specific options for the check out, turn on *Use Options* and type your options.
8. Click *OK*.

For more information on using categories, see [Chapter 10, “Managing Categories.”](#)

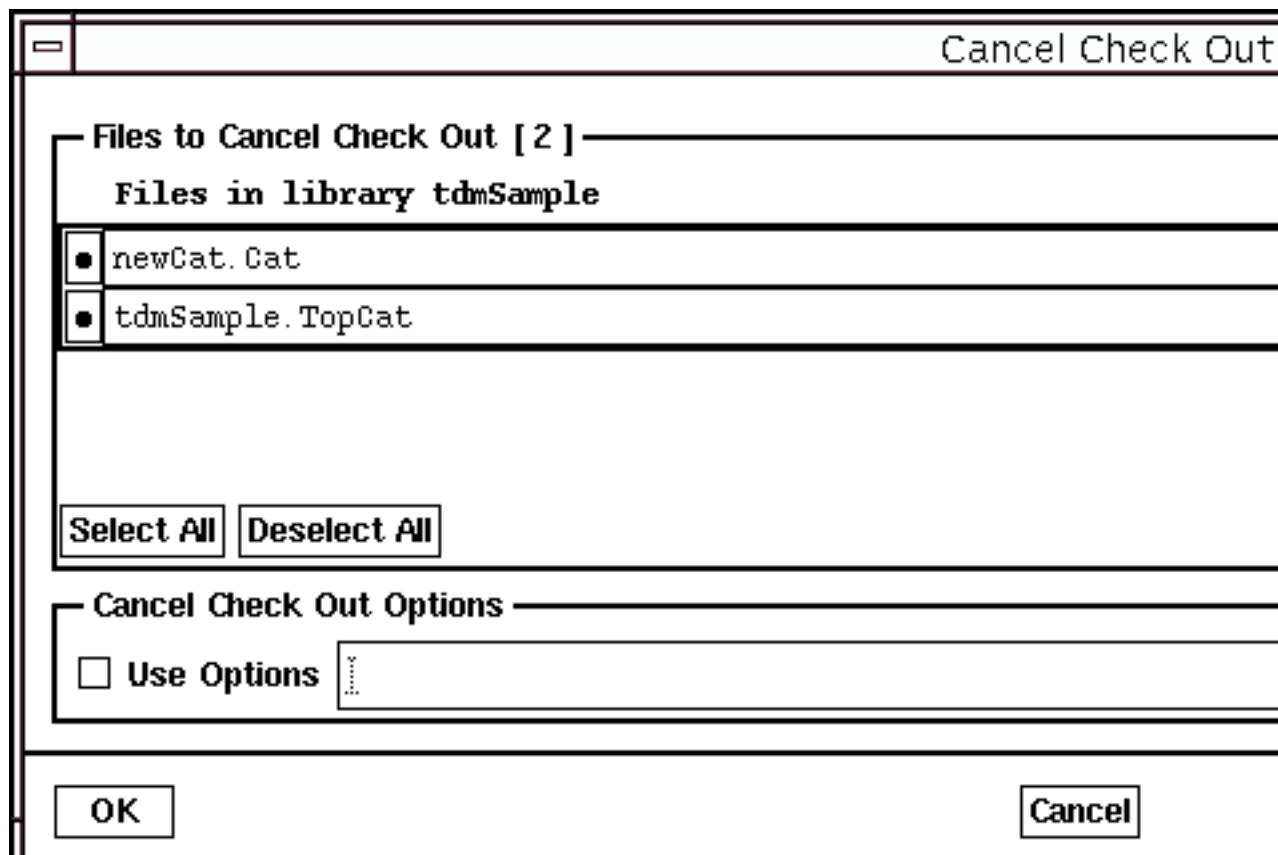
Canceling the Check-Out of a Category

You can cancel the check-out of categories that you have checked out so that no changes you might have made to your files are saved.

To cancel the check-out of your categories, follow these steps:

1. Select the library under design management that is checked out.
2. Make sure the *Show Categories* checkbox is turned on.
3. Choose the category in the *Category* list box to check out. A red box encloses the selected category name.
4. Press and hold the right mouse button over the selected category to bring up the pop-up menu.
5. Choose *Cancel Check Out*.

The Cancel Check Out form appears.

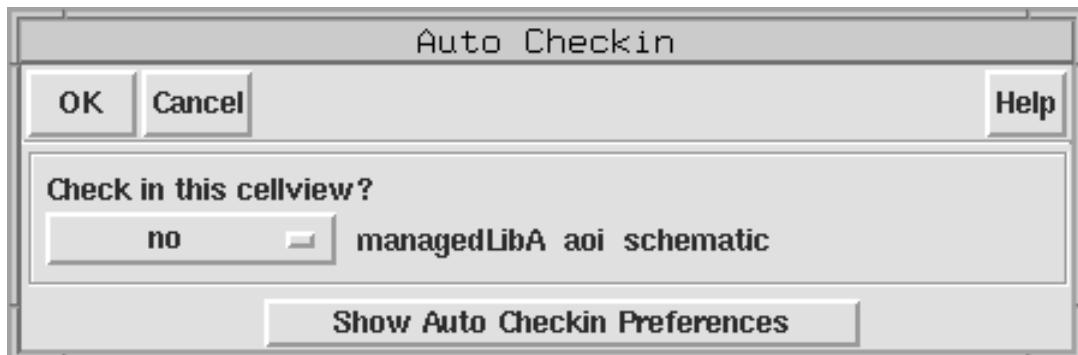


The form displays the category files selected for cancellation of check-out in the *Files in library <library name>* field. A dot is displayed to the left of a selected file.

6. To select or deselect a file for which you want to cancel the check-out, toggle the button to the left of the filename. Click on the *Select All* or *Deselect All* buttons to select all files or remove the selection of all the files listed.
7. If you want to use specific options for the cancellation of check out, turn on *Use Options* and type your options.
8. Click *OK*.

Using the Automatic Check-In Process

By default, when you close properties or files that were automatically checked out, or try to exit a session without closing properties or files that were automatically checked out, the software begins an automatic check-in process and prompts you to confirm the automatic check-in.



1. To continue the automatic check-in process, select yes from the cyclic field and click *OK*.
2. To stop the automatic check-in process, select *no* from the cyclic field and click *OK*, or simply click *Cancel*.
3. To cancel a check-out, select *cancel checkout* from the cyclic field and click *OK*.

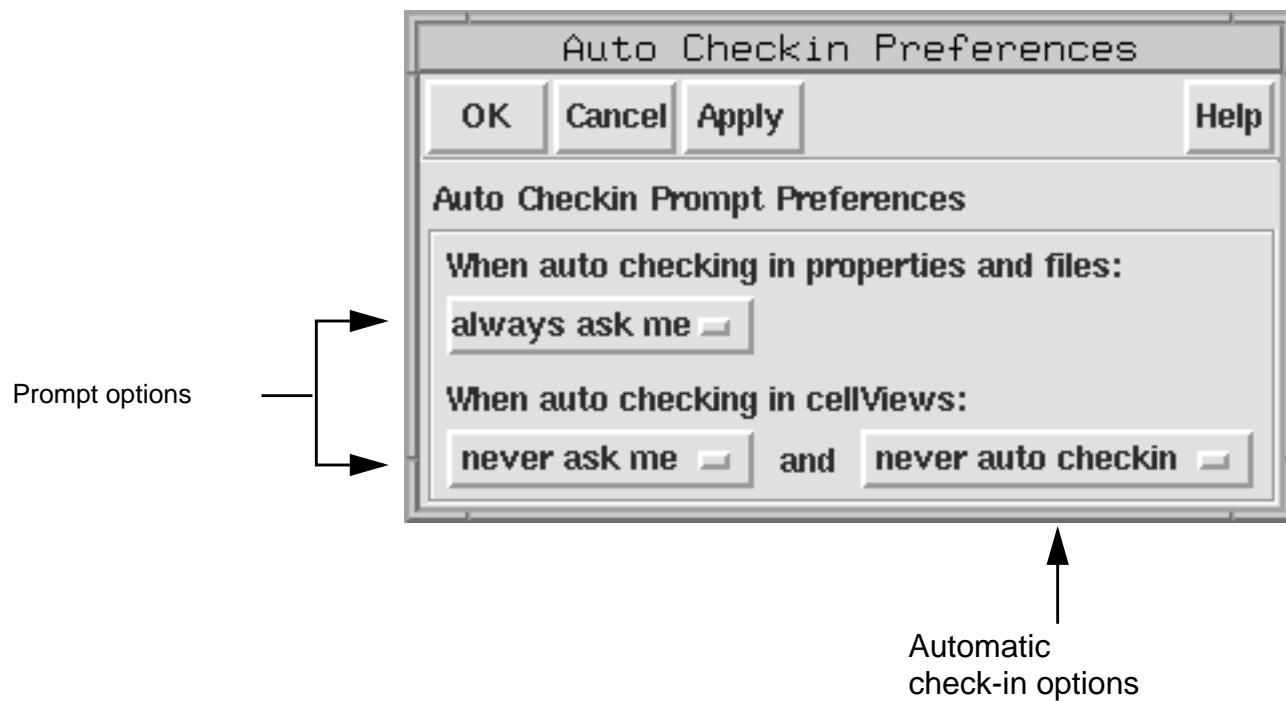
Controlling Automatic Check-In Behavior in the UI

The following graphic and table show how to set the options in the Auto Checkin Preferences form. The form displays the prompt options and automatic check-in options in a matrix. The

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always ask me prompt does not require an automatic check-in option. The *never ask me* prompt requires an automatic check-in option.



The following table shows how to set the prompt and automatic check-in options to affect specific automatic check-in behavior.

Prompt and Check-In Option Settings		Automatic Check-In Behavior
Properties and files	always ask me	Always prompt after closing properties and files.
Cellviews	always ask me	Always prompt after closing views.
Properties and files	never ask me – always auto check-in	Never prompt. Always auto check in properties and files.
Cellviews	always ask me	Prompt after closing views.

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Prompt and Check-In Option Settings		Automatic Check-In Behavior
Properties and files	never ask me – never auto check-in	Never prompt. Never auto check in properties and files.
Cellviews	always ask me	Prompt after closing views.
Properties and files	always ask me	Prompt after closing properties and files.
Cellviews	never ask me – always auto check-in	Never prompt. Always auto check in views.
Properties and files	always ask me	Prompt after closing properties and files.
Cellviews	never ask me – never auto check-in	Never prompt. Never auto check in views.
Properties and files	never ask me – always auto check-in	Never prompt. Always auto check in properties and files.
Cellviews	never ask me – always auto check-in	Never prompt. Always auto check in views.
Properties and files	never ask me – never auto check-in	Never prompt. Never auto check in properties and files.
Cellviews	never ask me – always auto check-in	Never prompt. Always auto check in views.
Properties and files	never ask me – always auto check-in	Never prompt. Always auto check in properties and files.
Cellviews	never ask me – never auto check-in	Never prompt. Never auto check in views.

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Prompt and Check-In Option Settings		Automatic Check-In Behavior
Properties and files	never ask me – never auto check-in	Never prompt. Never auto check in properties and files.
Cellviews	never ask me – never auto check-in	Never prompt. Never auto check in views.

Changing Auto Check-In Environment Variable Settings

You can set the `CDS_PROMPT_CKIN` and `CDS_AUTO_CKIN` shell environment variables to control the prompting and automatic check-in behavior.

Purpose of `CDS_PROMPT_CKIN` Variable

`CDS_PROMPT_CKIN` controls whether the Auto Checkin form opens when you close properties or files that were automatically checked out, or if you try to exit a session without closing properties or files that were automatically checked out, while using a Cadence design framework II (DFII) tool that has both a graphical user interface and automatic check-in capability.

Note: This variable works with `CDS_AUTO_CKIN`.

Values for `CDS_PROMPT_CKIN` Variable

all specifies that the form opens when either cellview or noncellview data is still checked out.

none specifies that the form never automatically opens.

views specifies that the form opens only when cellview data is still checked out.

files (default) specifies that the form opens only when noncellview data is still checked out.

Purpose of CDS_PROMPT_CKOUT Variable

CDS_AUTO_CKIN controls whether the software automatically checks in data files when you close properties or files that were automatically checked out or when you exit a DFII session without closing properties or files that were automatically checked out.

- If a tool has a graphical user interface, this variable works with CDS_PROMPT_CKIN. When CDS_PROMPT_CKIN is set to display the Auto Checkin form, the software seeds the form to reflect the value of CDS_AUTO_CKIN. When CDS_PROMPT_CKIN is not set to display the Auto Checkin form, the software performs the check-in action specified by the value of CDS_AUTO_CKIN.
- If the tool does not have a graphical user interface, the software ignores CDS_PROMPT_CKIN and performs the specified automatic check-in action.

Values for CDS_AUTO_CKOUT Variable

all specifies automatic check-in for both cellview and noncellview data.

none specifies no automatic check-in operations.

views specifies an automatic check-in for cellview data only.

files (default) specifies an automatic check-in for noncellview data only.

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Summary Table of Automatic Check-In Settings

The following table summarizes the shell environment variable settings you enter in the `.cdsenv` file to control automatic check-in behavior.

CDS_PROMPT_CKIN				
	all	views	file (default)	none
CDS_AUTO_CKIN	all	Prompt displayed after you close properties, files, or views.	Prompt displayed after you close a view.	Prompt displayed after you close files or properties.
	views	Auto check in files, properties, and views.	Auto check in files, properties, and views.	Auto check in files, properties, and views.
	all	Prompt displayed after you close properties, files, or views.	Prompt displayed after you close a view.	Prompt displayed after you close files or properties.
	views	Auto check in views only.	Auto check in views only.	Auto check in views only.

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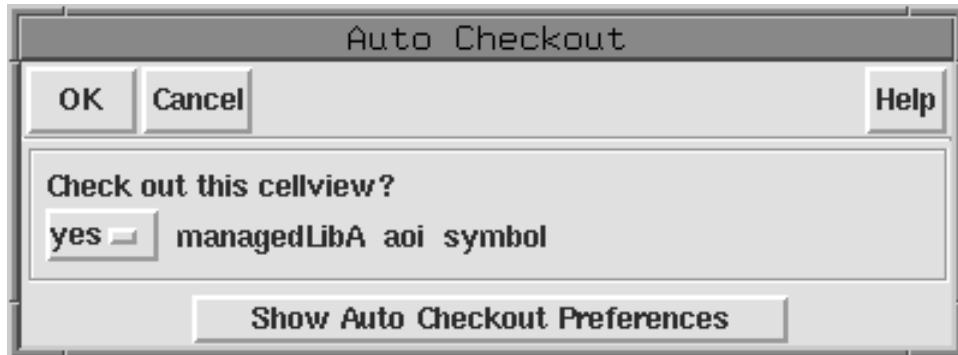
CDS_PROMPT_CKIN

CDS_AUTO_CKIN

	all	views	file (default)	none
files (default)	Prompt displayed after you close properties, files, or views	Prompt displayed after you close a view.	Prompt displayed after you close files or properties.	Prompt not displayed.
	Auto check in files and properties only.	Auto check in files and properties only.	Auto check in files and properties only.	Auto check in files and properties only.
none	Prompt displayed after you close properties, files, or views.	Prompt displayed after you close a view.	Prompt displayed after you close properties or files.	Prompt not displayed.
	Never auto check in properties, files, or views.	Never auto check in properties, files, or views.	Never auto check in properties, files, or views.	Never auto check in properties, files, or views.

Using the Automatic Check-Out Process

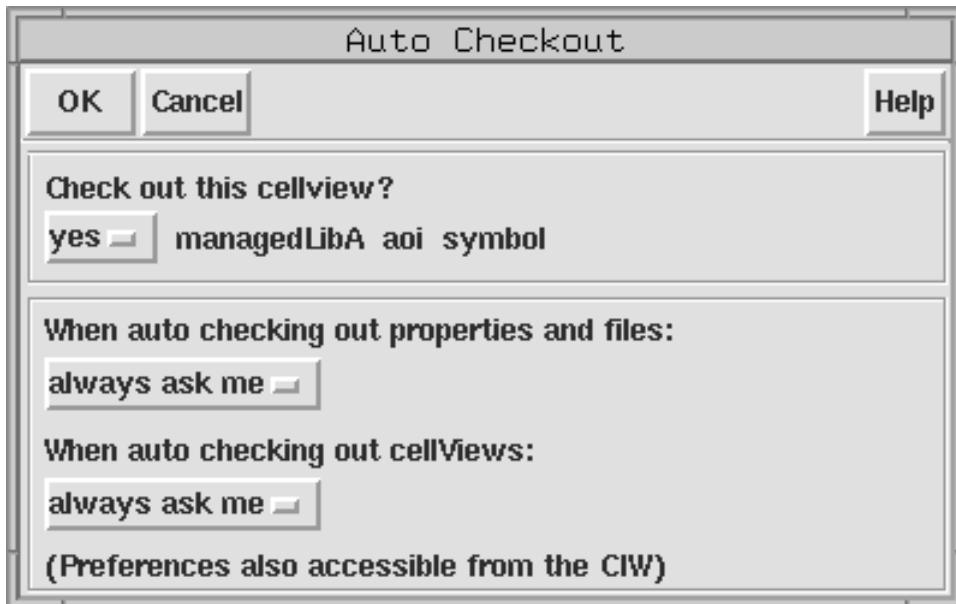
By default, when you try to open properties, files, or cellviews that you have not checked out, the software automatically begins an automatic check-out process and prompts you to confirm the check-out.



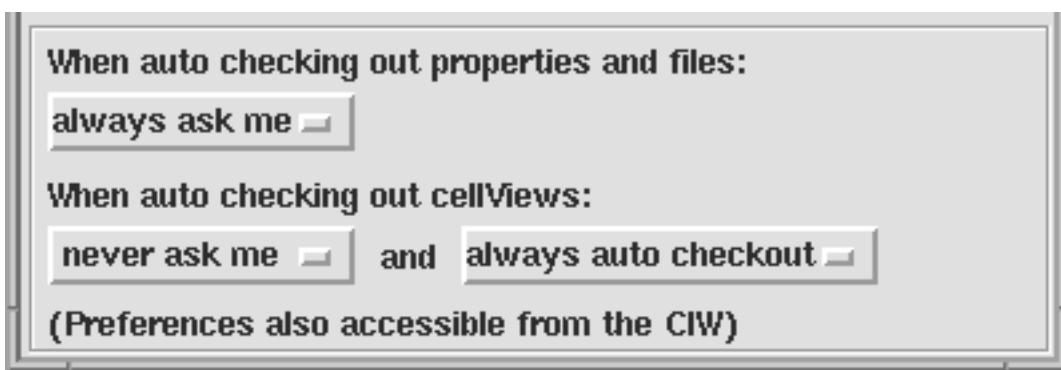
- To continue the automatic check-out process, select *yes* from the cyclic field and click *OK*.
- To stop the automatic check-out process, select *no* from the cyclic field and click *OK*, or simply click *Cancel*.

Controlling Automatic Check-Out Behavior in the UI

To display the automatic check-out and prompting options, click *Show Auto Checkout Preferences* in the Auto Checkout form. The Auto Checkout form expands to display the automatic check-out and prompting options.



You can change the settings in the Auto Checkout form to control automatic check-outs and prompting during the current session. There are nine possible settings.



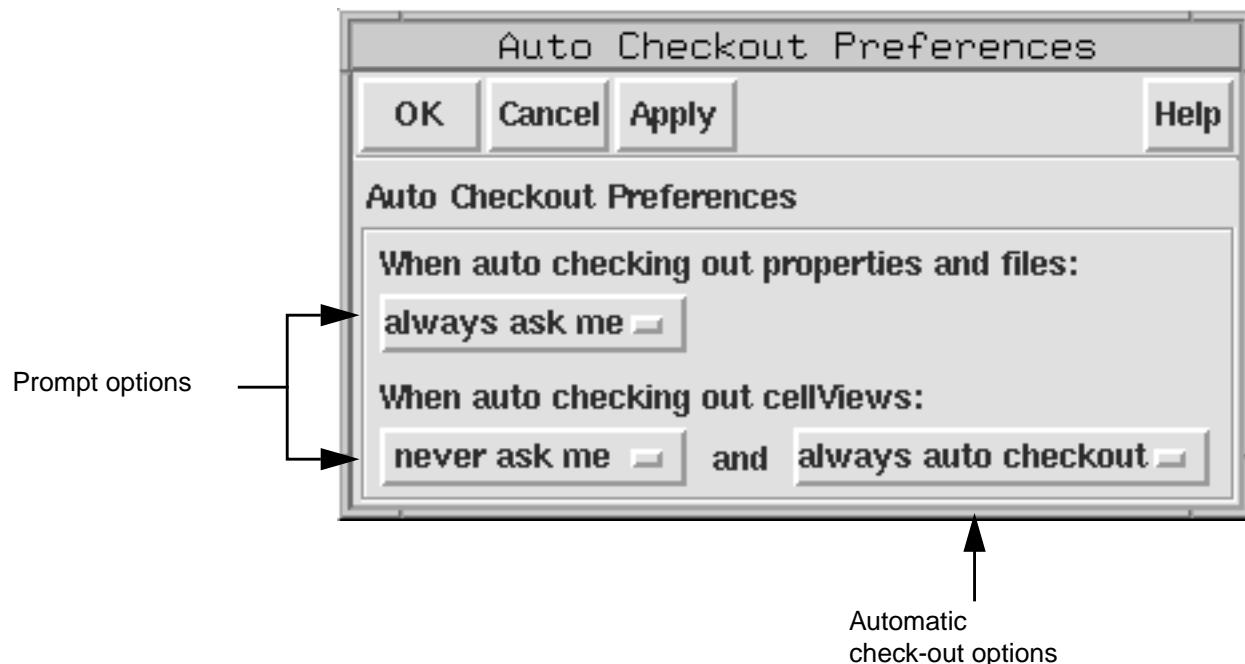
Note: Any changes you make take effect when you close the form. If you set the options so the Auto Checkout form does not automatically open, you can use *Options – Checkout Preferences* on the CIW to reset the preferences for the current session.

The following graphic and table show how to set the options in the Auto Checkout Preferences form. The form displays the prompt options and automatic check-out options in a matrix. The

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always ask me prompt does not require an automatic check-out option. The *never ask me* prompt requires an automatic check-out option.



The following table shows how to set the prompt and automatic check-out options to affect specific automatic check-out behavior.

Prompt and Check-Out Option Settings		Automatic Check-Out Behavior
Properties and files	always ask me	Always prompt before opening properties and files.
Cellviews	always ask me	Always prompt before opening views.

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Prompt and Check-Out Option Settings		Automatic Check-Out Behavior
Properties and files	never ask me – always auto check out	Never prompt. Always auto check out properties and files.
Cellviews	always ask me	Prompt before opening views.
Properties and files	never ask me – never auto check out	Never prompt. Never auto check out properties and files.
Cellviews	always ask me	Prompt before opening views.
Properties and files	always ask me	Prompt before opening properties and files.
Cellviews	never ask me – always auto check out	Never prompt. Always auto check out views.
Properties and files	always ask me	Prompt before opening properties and files.
Cellviews	never ask me – never auto check out	Never prompt. Never auto check out views.

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	Prompt and Check-Out Option Settings	Automatic Check-Out Behavior
Properties and files	never ask me – always auto check out	Never prompt. Always auto check-out properties and files.
Cellviews	never ask me – always auto check out	Never prompt. Always auto check out views.
Properties and files	never ask me – never auto check out	Never prompt. Never auto check-out properties and files.
Cellviews	never ask me – always auto check out	Never prompt. Always auto check out views.
Properties and files	never ask me – always auto check out	Never prompt. Always auto check out properties and files.
Cellviews	never ask me – never auto check out	Never prompt. Never auto check out views.
Properties and files	never ask me – never auto check out	Never prompt. Never auto check out properties and files.
Cellviews	never ask me – never auto check out	Never prompt. Never auto check out views.

Changing Auto Check-Out Environment Variable Settings

To change the default behavior of the Auto Checkout form, reset the `CDS_PROMPT_CKOUT` and `CDS_AUTO_CKOUT` shell environment variables.

Purpose of `CDS_PROMPT_CKOUT` Variable

`CDS_PROMPT_CKOUT` controls whether the Auto Checkout form automatically opens when you open data files using a design framework II tool that has a graphical user interface and automatic check-out capability.

Note: This variable works with `CDS_AUTO_CKOUT`.

Values for `CDS_PROMPT_CKOUT` Variable

all (default) specifies that the form opens when you open either cellview or noncellview data.

none specifies that the form never automatically opens.

views specifies that the form opens only when you open cellview data.

files specifies that the form opens only when you open noncellview data.

Purpose of `CDS_AUTO_CKOUT` Variable

`CDS_AUTO_CKOUT` controls whether the software automatically checks out a file when you open it with a design framework II tool.

- If a tool has a graphical user interface, this variable works with `CDS_PROMPT_CKOUT`. When `CDS_PROMPT_CKOUT` is set to display the Auto Checkout form, the software seeds the form to reflect the value of `CDS_AUTO_CKOUT`. When `CDS_PROMPT_CKOUT` is not set to display the Auto Checkout form, the software performs the check-out action specified by the value of `CDS_AUTO_CKOUT`.
- If the tool does not have a graphical user interface, the software ignores `CDS_PROMPT_CKOUT` and performs the check-out action specified by the value of `CDS_AUTO_CKOUT`.

Values for `CDS_AUTO_CKOUT` Variable

all (default) specifies automatic check-out for cellview and noncellview data.

none specifies no automatic check-out operations.

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views specifies an automatic check-out for cellview data only.

files specifies an automatic check-out for noncellview data only.

Summary Table of Automatic Check-Out Settings

The following table summarizes the environment variable settings you enter in the `.cdsenv` file to control automatic check-out behavior.

CDS_AUTO_CKOUT

CDS_PROMPT_CKOUT				
	all (default)	views	file	none
all (default)	Prompt displayed when you open files, properties, or views.	Prompt displayed when you open a view.	Prompt displayed when you open files or properties.	Prompt not displayed.
	Auto check out files, properties, and views.	Auto check out files, properties, and views.	Auto check out files, properties, and views.	Auto check out files, properties, and views.
views	Prompt displayed when you open files, properties, or views.	Prompt displayed when you open a view.	Prompt displayed when you open files or properties.	Prompt not displayed.
	Auto check out views only.	Auto check out views only.	Auto check out views only.	Auto check out views only.

CDS_PROMPT_CKOUT

	all (default)	views	file	none
files	Prompt displayed when you open files, properties, or views.	Prompt displayed when you open a view.	Prompt displayed when you open files or properties.	Prompt not displayed.
	Auto check out files and properties only.	Auto check out files and properties only.	Auto check out files and properties only.	Auto check out files and properties only.
none	Prompt displayed when you open files, properties, or views.	Prompt displayed when you open a view.	Prompt displayed when you open files or properties.	Prompt not displayed.
	Never auto check out properties, files, or views.	Never auto check out properties, files, or views.	Never auto check out properties, files, or views.	Never auto check out properties, files, or views.

Submitting Changes

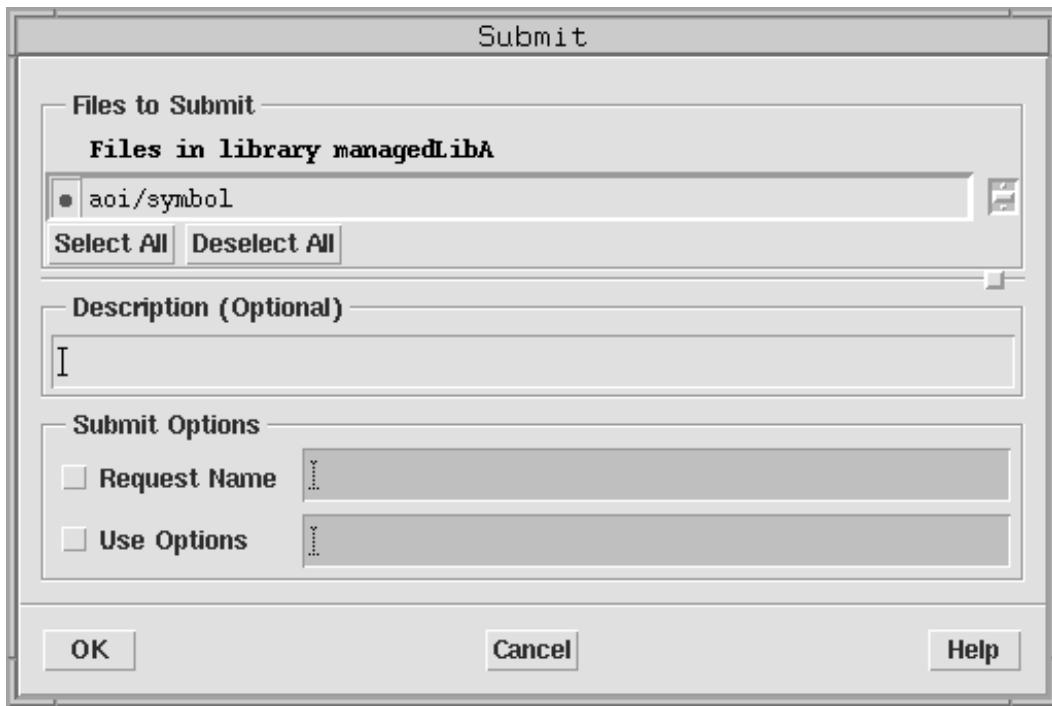
When you are ready to integrate your design changes into the release, submit the files or cellviews to the project data repository.

1. In the appropriate list box, select a library, cell, view, or file.
2. Choose *Design Manager – Submit*.

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The *Submit* form appears. For details about the *Submit* form see [Submit Form](#) on page 266.



3. Select the files you want to submit.

To select or deselect a file for submission, toggle the button to the left of the filename. A dot is displayed to the left of a selected file.

4. If you want to describe your design changes, type a comment in the *Description* field (maximum 100 characters).
5. If you want to assign a name to the Integration Request (IR), turn on *Request Name* and type a name.

If you do not specify a name, the design manager generates a name in the form *<user_date_time>.Ireq*.

6. If you want to use specific options for the IR, turn on *Use Options* and type your options.
7. Click *OK*.

The system submits an IR for your files and notifies you by e-mail.

Updating Workareas

Two update commands let you update an item with the latest design data changes.

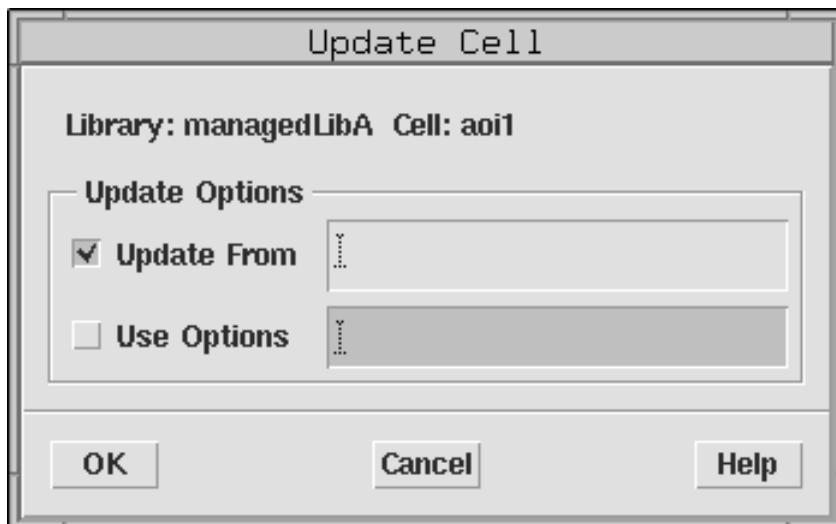
- Update lets you extract the latest design data from files that team members have checked in to the project data repository. *Update* lets you update a library, cell, or view.
- Update Workarea lets you update your entire workarea simultaneously with the latest design data from files that team members have checked in to the project data repository.

You can update libraries, cells, views, or files. The *Update* command is active if the selected item can be updated. If an item is checked out, it cannot be updated. The process is the same for libraries, cells, views, and files. This example is for a cell.

To update a cell, follow these steps:

1. In the *Cell* list box, select the cell you want to update.
2. Choose *Design Manager – Update*.

The Update Cell form appears.



3. (optional) To update your workarea relative to a design management configuration, type the name of the configuration in the *Update From* field.

For information about the types of configurations you can specify, refer to the documentation for your design management system.

4. Click *OK*.

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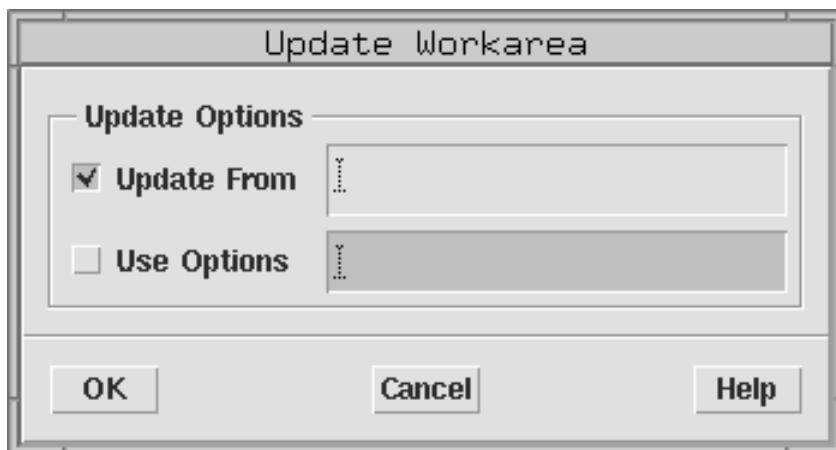
Managing Designs

Your workarea is updated with the latest design data for the selected cell.

To update your workarea to the latest release, follow these steps:

1. Choose *Design Manager – Update WorkArea*.

The Update Workarea form appears.



2. To update the workarea, click *OK*.

The software updates all the files in your workarea.

Note: The length of time required to update your workarea depends on the number of cellviews you are updating. Because an update could take a long time, you should choose an appropriate time to run the procedure.

When team members check in a library for the first time, they must also add the library to the `project.lib` file before team members can share the data. For more information about the `project.lib` file, refer to the [Team Design Manager User Guide](#).

Versioning

You can do the following with the versions of a file:

- View the versions for a file
- Check out a file that has been checked in
- Update the default read-only version for a file
- Roll back to a previous project default version

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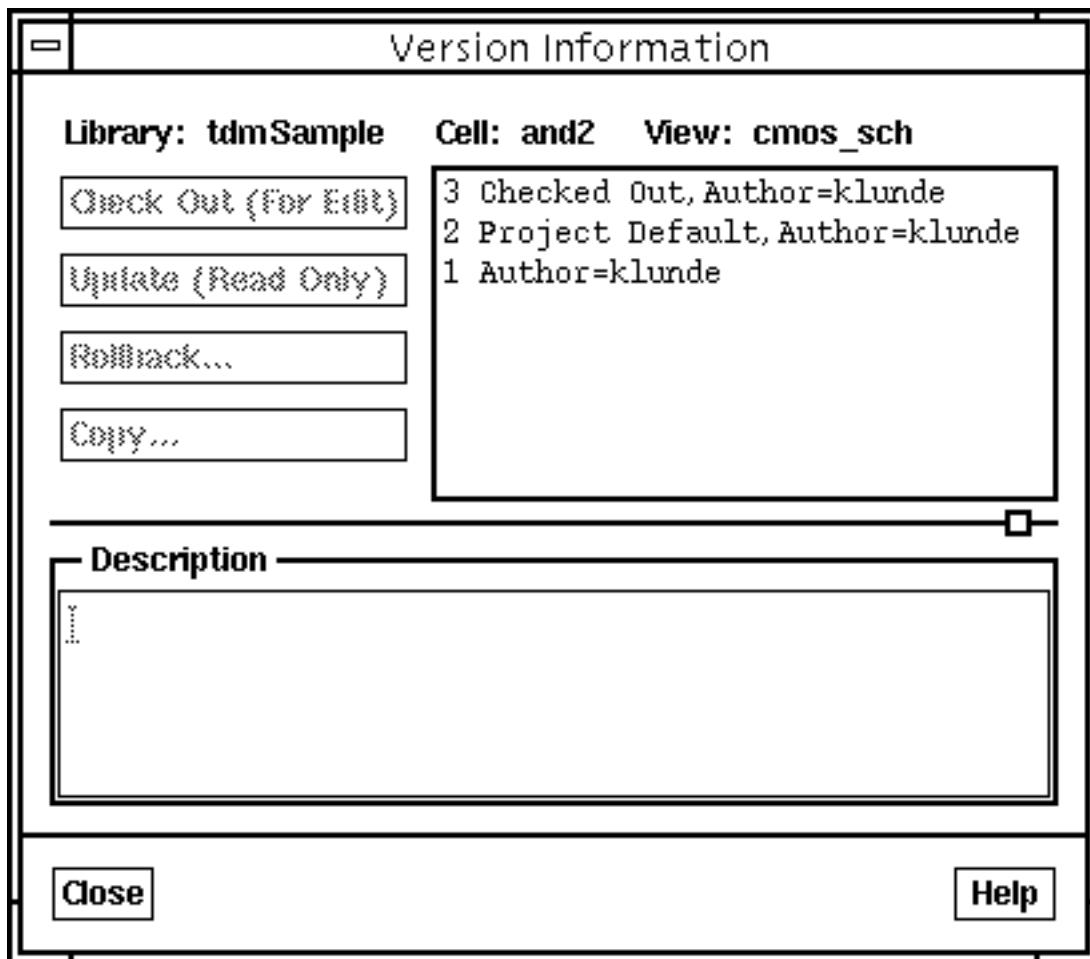
- Copy a version of a file

Viewing Versions for a File

To access version information for a file, follow these steps:

1. Select the library, cell, and view file for which you want to access the version information.
2. Choose *Design Manager – Version Info*.

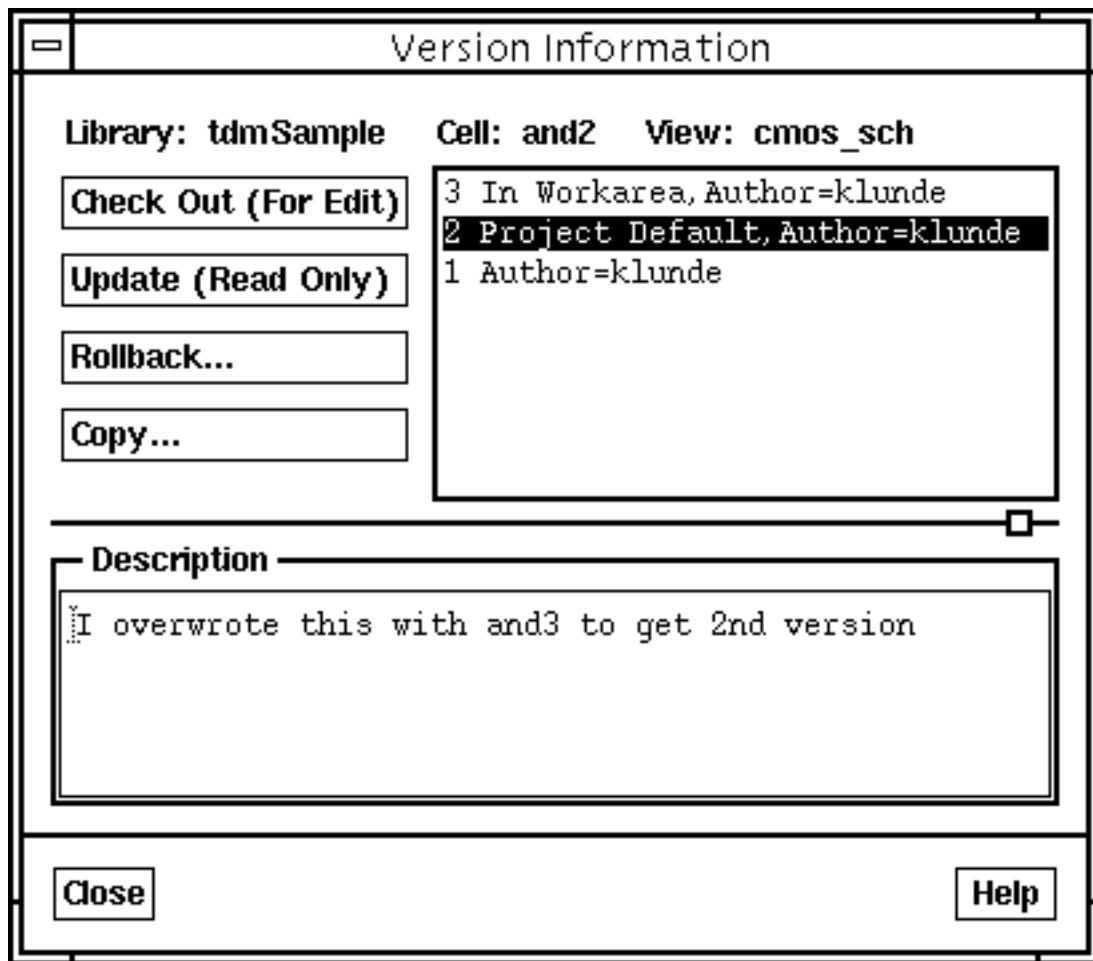
The *Version Information* form appears. For details about the *Version Information* form see [Version Information Form](#) on page 267.



Checking Out a Checked-In Version of a File

To check out the project default version of a file (already checked in) to your workarea, follow these steps:

1. Select the version in the list box for a file that has been checked in.
The software enables the appropriate option buttons.

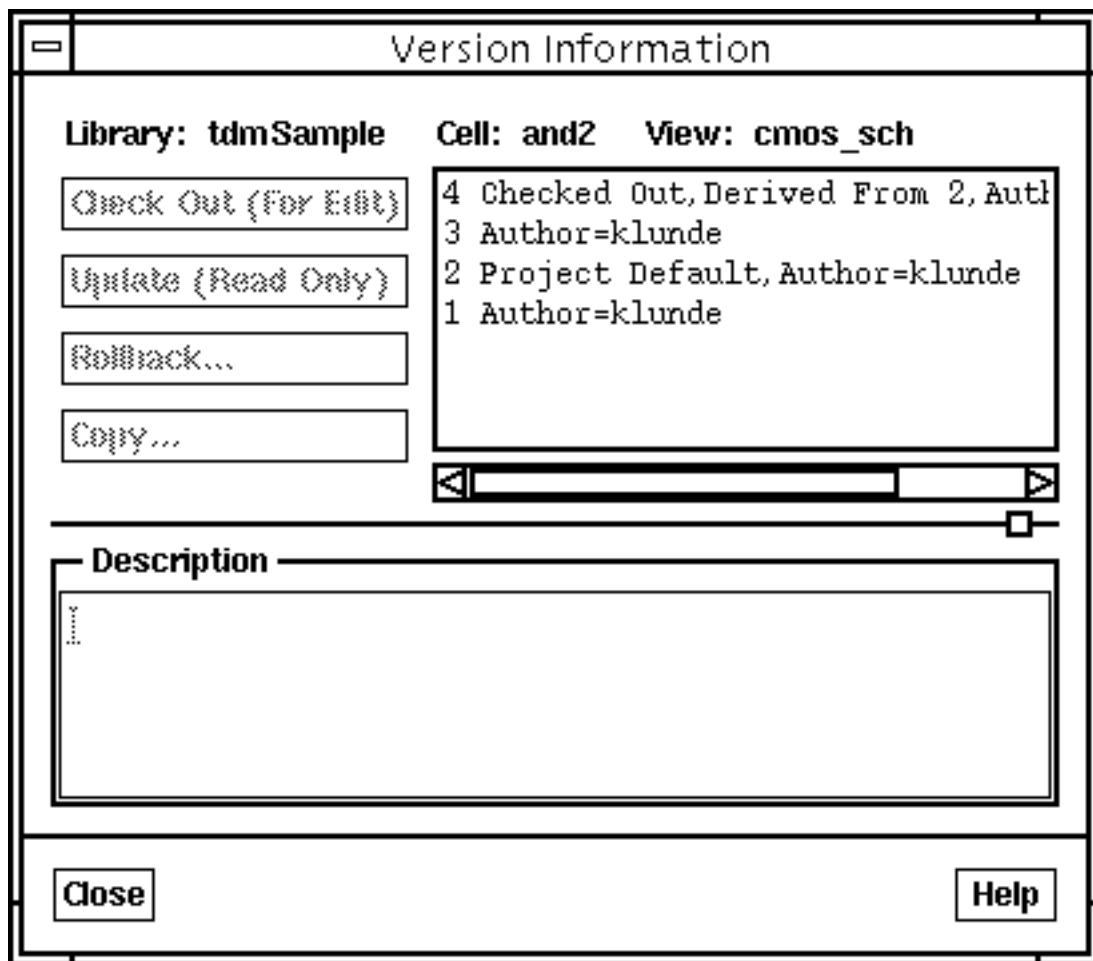


2. Click *Check Out (For Edit)*.

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The form shows the checked-out version of the file.



Updating the Default Read-Only Version

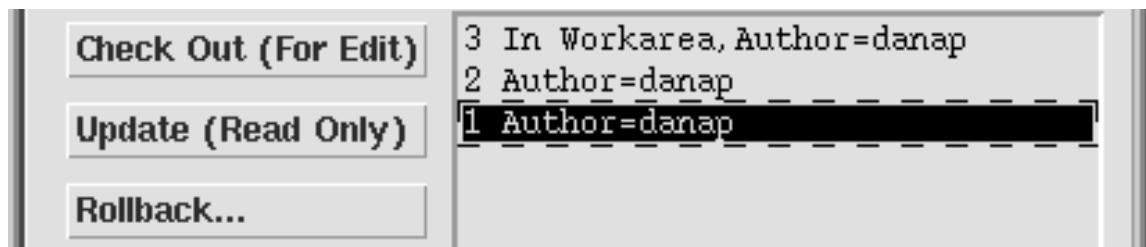
To specify a version (other than the project default version) as the version the software opens when you open a file in read-only mode, follow these steps:

1. Select the version in the list box.

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The software enables the appropriate option buttons.



2. Click *Update (Read Only)*.

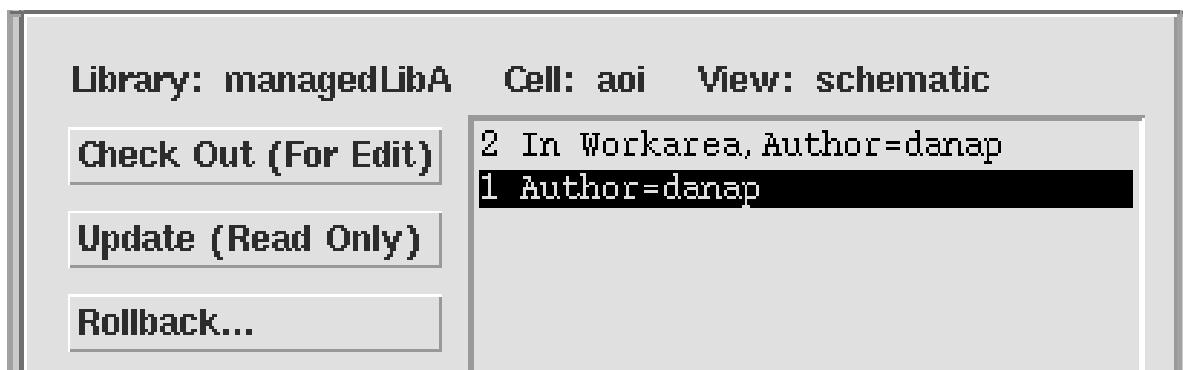
The software updates the workarea with the specified version. The active version is displayed at the top of the list box, preceded by the label *In WorkArea*.

Rolling Back to a Previous Project Default Version

To specify an earlier version as the project default version, follow these steps:

1. Select the earlier version in the list box.

The software enables the appropriate option buttons.

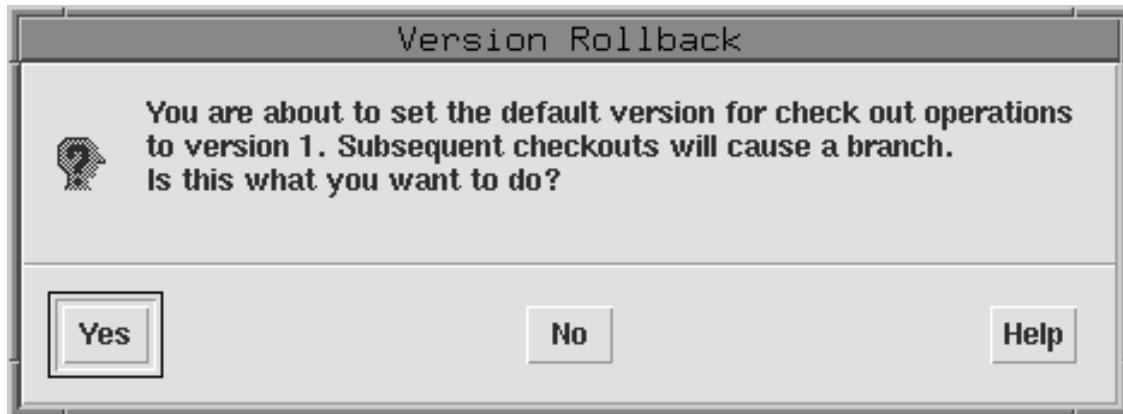


2. Click *Rollback*.

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The software prompts you to confirm the rollback operation.



3. Click *Yes*.

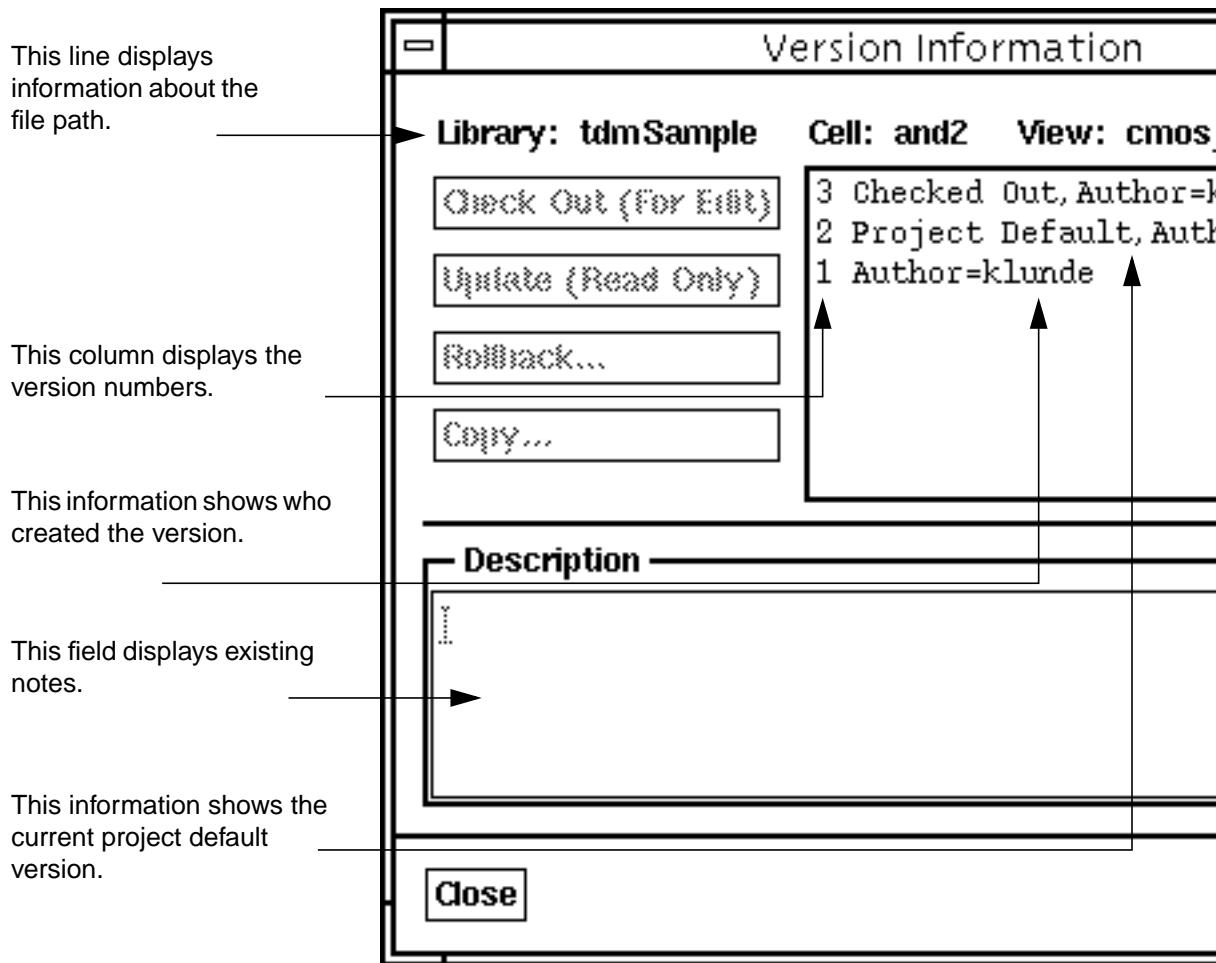
The software does the following:

- Performs the rollback operation
- Sends e-mail to team members announcing the rollback
- Updates the Version Information form to reflect the rollback by displaying the *In WorkArea* label next to the version number

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Copying a Version of a File



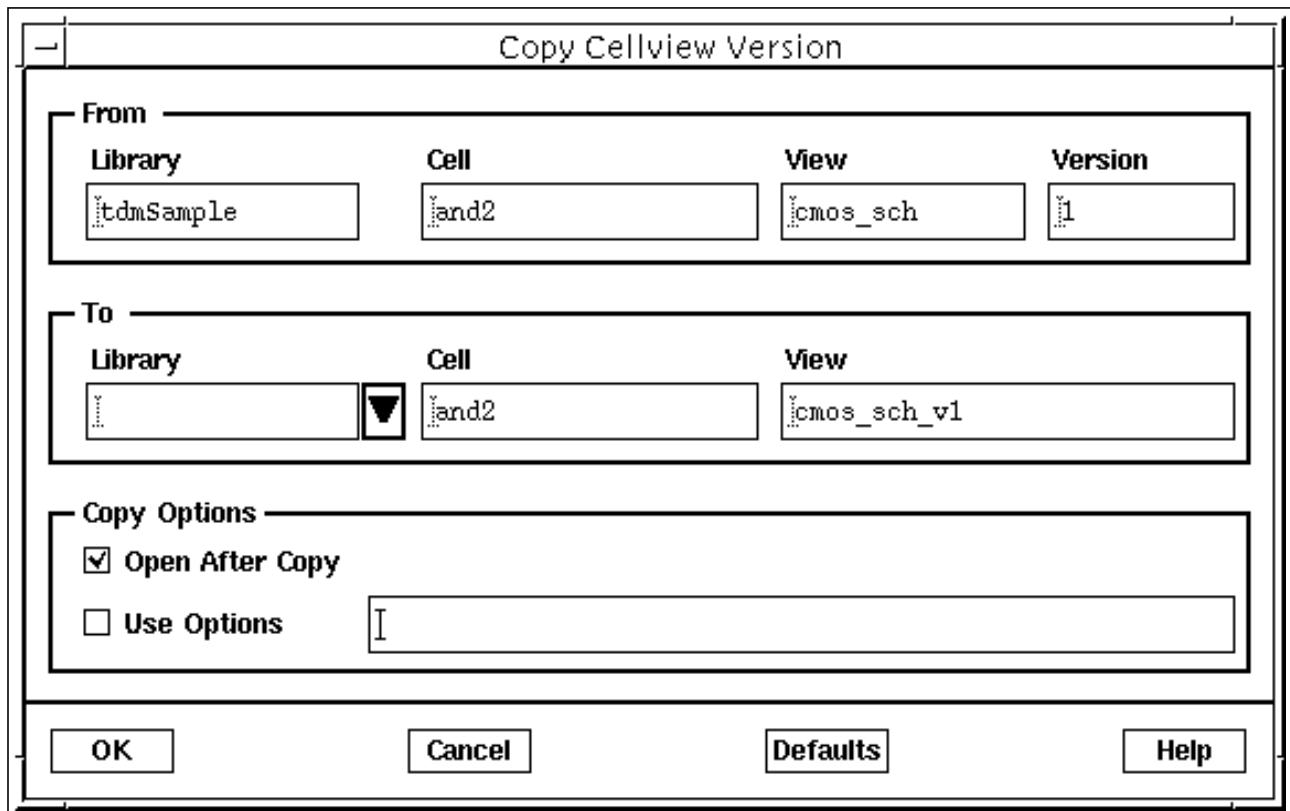
To copy a version of a file, follow these steps:

1. In the *Library*, *Cell*, and *View* list boxes of the Library Manager form, choose the files to copy for a cellview that has been checked in.
2. Choose *Design Manager — Version Info*.
3. The Version Information form appears.
4. Choose the version of the cellview you want to copy in the list box to the right.
5. The *Copy* option becomes activated.
6. Click the *Copy* button.

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7. The *Copy Cellview Version* form appears. For details about the *Copy Cellview Version* form see [Copy Cellview Version Form](#) on page 249.



8. You have the option of changing the default displayed in the *From* and *To* fields:

- Displayed by default in the *From* fields are the name of the source library, cell, and view, and the cellview version number.
- Displayed by default in the *To* fields are the same cell name, and the same view name appended with an incremented version number, as the destination (copied) cellview version.

9. If you want to view the copied cellview version, you can leave the *Open After Copy* checkbox selected (by default), or, if you want to copy the cellview version without opening it, you can deselect it.

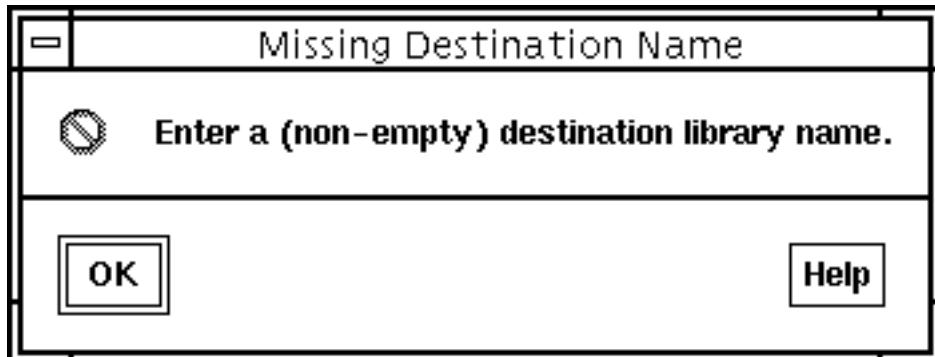
10. You can click the *Use Options* checkbox if you want to pass in options specific to your particular design management system. For more information on the options you have, see the [Team Design Manager User Guide](#).

11. Enter the name of the library you want to copy the cellview version to.

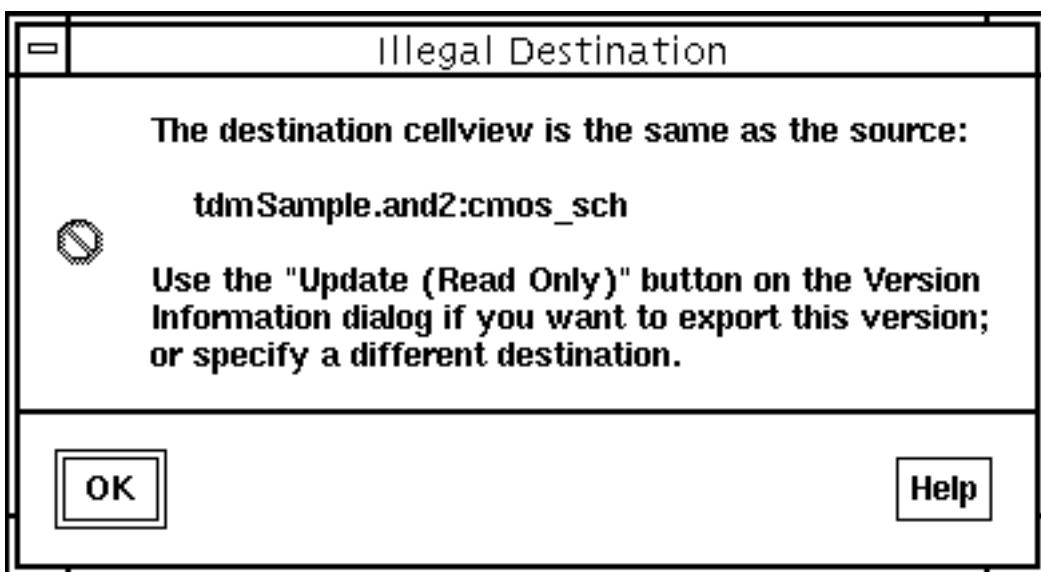
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- If you do not enter the name of a destination library, the following error message appears. (The same applies to a missing cell or view name.) Click *OK* and enter the missing destination library, cell, or view name.



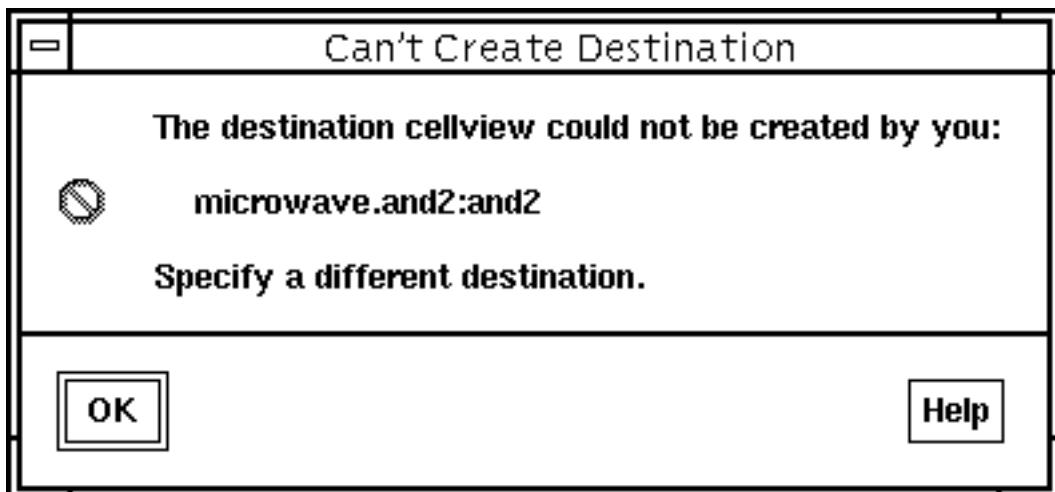
- If you enter the name of a cellview version that already exists, the following error message appears. Click *OK* and enter a name that does not already exist.



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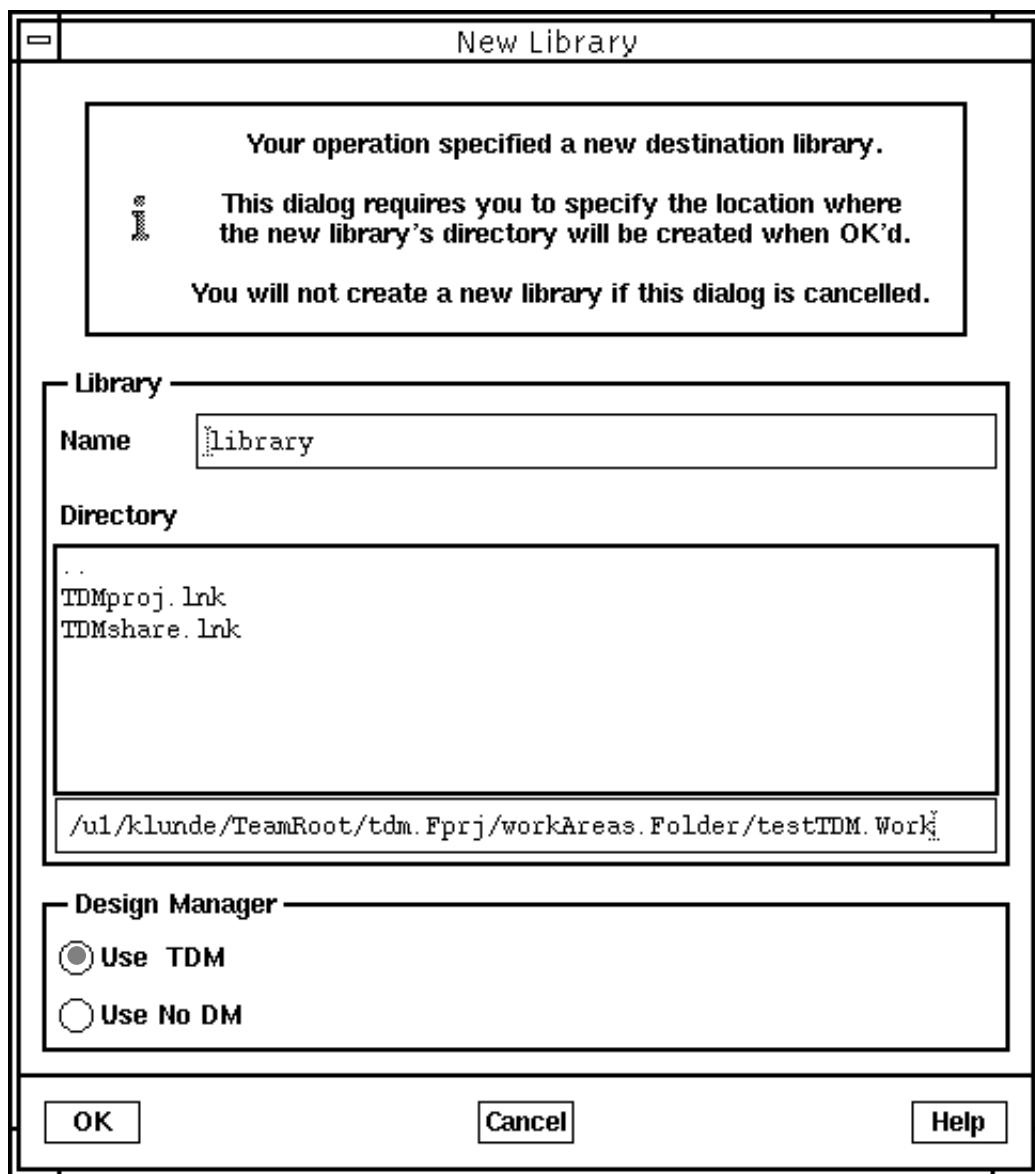
- If you enter an invalid cellview name, the following error message appears. Click *OK* and enter a valid destination cellview name.



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- If you enter the name of a destination library that does not already exist, the following form appears, confirming the name and path of the new library:



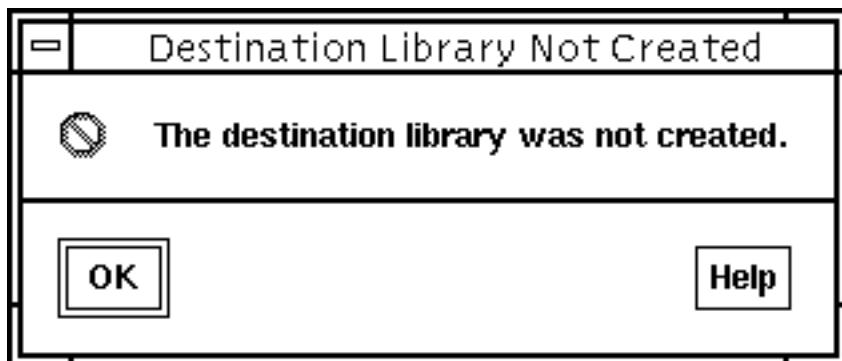
You can choose to place this new library under design management (the current default being Team Design Manager) or not. The default selection is to use TDM.

If you do not want to create a new library for the copied cellview version, click *Cancel*.

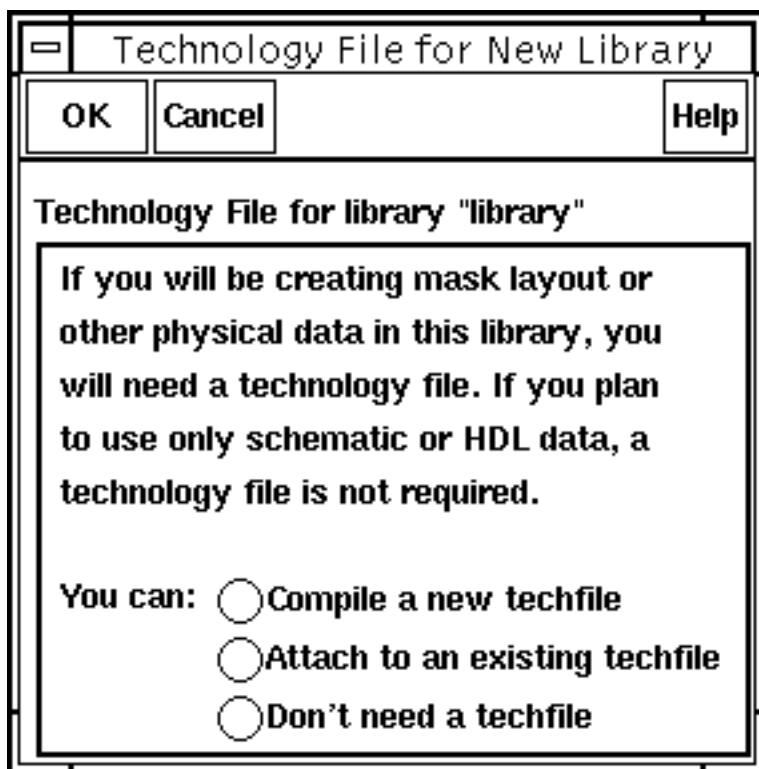
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The following dialog box appears:



If you want to create a new library for the copied cellview version, click *OK*. The Virtuoso® schematic composer opens with the cellview you copied. In addition, the following dialog box appears:

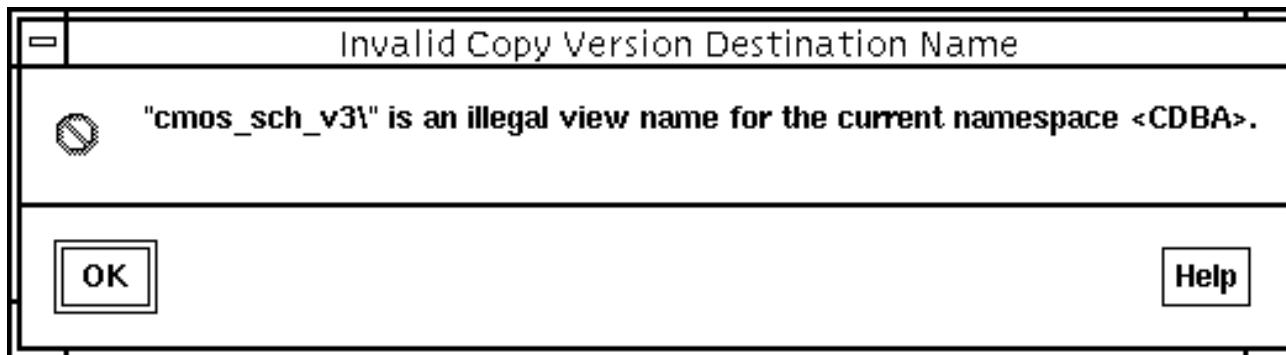


Click the radio button corresponding to the requirements for the data in your copied cellview version.

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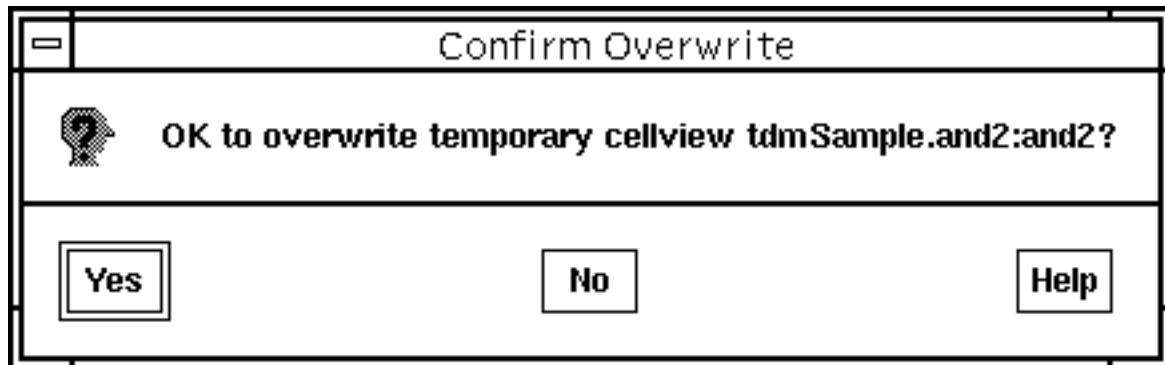
Managing Designs

- ❑ If you try to copy a cellview version that is being edited by someone else, the message **Is currently edit locked** appears.
- ❑ If you enter an illegal character in one of the destination fields for library, cell, or view, the following error message appears:



Examples of illegal characters are a space, backslash (\), slash (/), or punctuation marks such as a period (.) or a comma (,).

- ❑ If you copy a cellview version to a different name that already exists in your library, the following message appears:

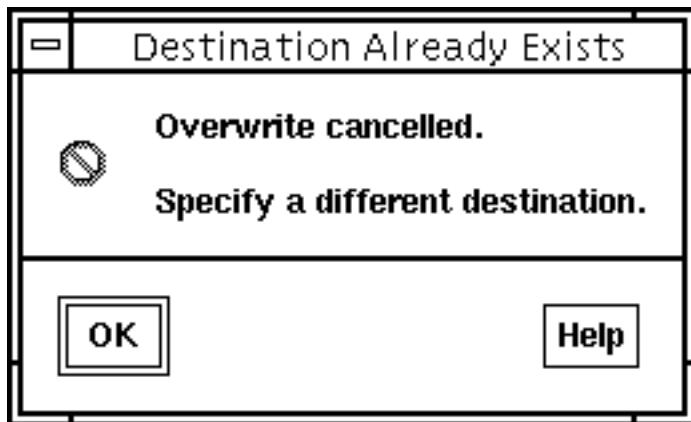


If you click *Yes*, the original cellview version information is overwritten with cellview version information of the same name.

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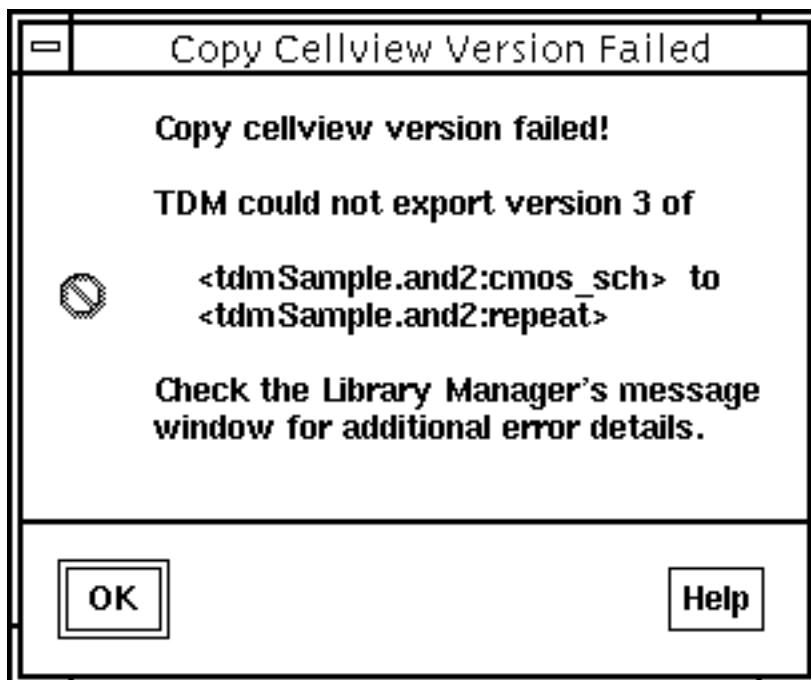
Managing Designs

If you click *No*, the following message appears, confirming your decision to cancel the copy operation.



Click *OK* to close the dialog box.

- If you try to copy a cellview version for which you do not have file permission, a message to that effect appears.
- If you try to copy a read-only version of a cellview file (or any other file), the following error message appears:



The dialog box indicates the particular design management system you are using.

This operation fails because you cannot overwrite a read-only version of a file. To make the file writable, you must change the access permissions.

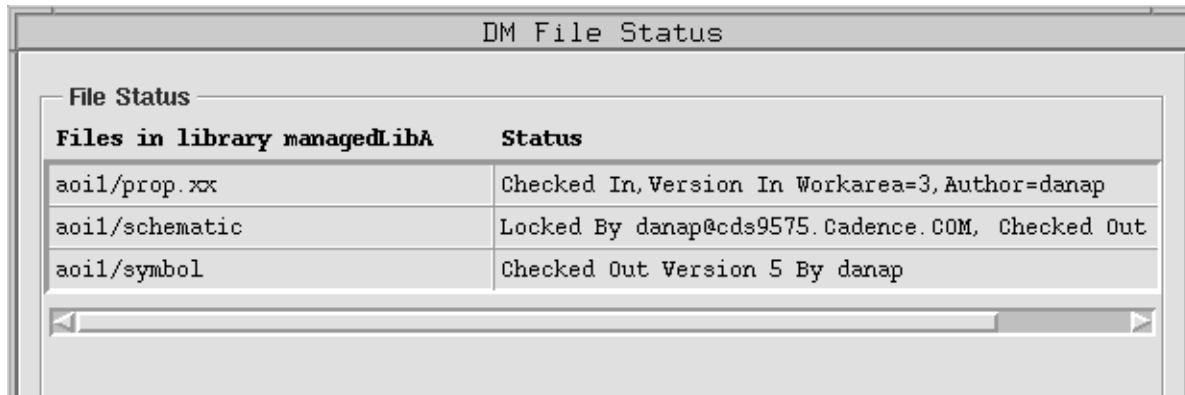
Viewing File Status

The *Show File Status* command lets you view the status of individual files or all files associated with a cell or a library. The following example shows how to view the status of all files associated with a cell. Use the same procedure to view the status of individual files or all files in a library.

To view the status of all the files associated with a cell, follow these steps:

1. In the *Cell* list box, select a cell.
2. Choose *Design Manager – Show File Status*.

The DM File Status form opens and lists the paths to the files and the status of each file (checked in, checked out, or locked).



Checked In specifies that a file is available for check-out to a workarea. The form also shows the project default version number and who created the version.

Checked Out specifies that a file has been checked out to a workarea. The form displays who has checked out the file.

Locked specifies that a file has been locked by you or someone who shares your workarea (sandbox model). The form shows who locked the file and the machine that person is working on. Do not check in a locked file.

Project Setup Example

The following topics are discussed in this section: [Overview](#) on page 168.

- [Accessing the Tools](#) on page 169
- [Creating a Site Directory](#) on page 169
- [Referencing the Site Directory](#) on page 170
- [Creating a Project](#) on page 171
- [Creating a Workarea](#) on page 171
- [Setting Up Design Data](#) on page 172
- [Converting Existing Libraries](#) on page 172
- [Importing Unmanaged Libraries](#) on page 172
- [Adding Reference Libraries](#) on page 173
- [Setting Up Multiple-User Projects](#) on page 173

Overview

This example describes how to set up a simple, single-user, single-machine project environment and how to extend the example to set up [multiple-user, multiple-machine project environments](#).

The example uses the Cadence® team design manager capabilities and IC 4.4.x library structure terminology. For more information about the commands, terminology, and procedures used in this example, refer to the [Team Design Manager User Guide](#).

You can also refer to the UNIX man pages for information about any of the team design manager commands:

- For information about a particular TDM command, type

```
man command
```

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Project Setup Example

- For a synopsis of a particular TDM command, type

```
command -help
```

- For information about all the TDM commands, type

```
man tdm
```

If you cannot access the `man` pages, add the following line to your `.cshrc` file, then source the file.

```
setenv MANPATH $(MANPATH):cdsinstallpath/share/man
```

Accessing the Tools

To configure your environment so you can access the software, follow these steps:

1. Use a text editor to add the following line to your `.cshrc` file:

```
set path=(cdsinstallpath/tools/bin $path); rehash
```

2. Source your `.cshrc` file by typing the following:

```
source ~/.cshrc
```

3. Test the path by typing the following command in the UNIX window:

```
tdmdbinfo
```

When the path is correct, the software returns the following message:

```
Team Design Manager data base info:
```

```
You must be in a Team Design Manager workarea to get  
data base version information with this command.
```

```
The software version is x.x.xx.
```

Creating a Site Directory

To create a site directory, follow these steps:

1. Identify a host machine that has sufficient disk space to store your anticipated project and workarea data.
2. Use the *network global* format to describe the site directory path:

```
Product Version 4.4.6/net/machine/disk
```

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Project Setup Example

Be cautious when any component of a network global path contains a UNIX symbolic link. If the links are not properly set up (for example, if you specify the absolute path instead of the relative path), some team members cannot access the directory.

3. Test your path by doing the following:

- Use `rsh` to log in to another machine.
- Change directories (`cd`) to your `network global` path.

If no error occurs, your path is valid.

4. Select a disk on which to locate the site.

5. Create a site directory by typing the following:

```
mkdir /net/machine/.../site_dir
```

6. Change directories (`cd`) to the new site directory:

```
cd /net/machine/.../site_dir
```

Notice that the example uses the `network global` format.

7. Type the following command:

```
tdmsitesetup
```

The software creates a directory called `TeamRoot` in the current site directory:

```
/net/machine/.../site_dir/TeamRoot
```

For more information about the `TeamRoot` directory, refer to the [Team Design Manager User Guide](#).

Referencing the Site Directory

To reference a site directory, follow these steps:

1. Use a text editor to add the following information to your `.cshrc` file:

```
setenv TWROOT /net/machine/.../site_dir/TeamRoot
```

2. Source your `.cshrc` file by typing the following:

```
source ~/.cshrc
```

For more information about the `TWROOT` environment variable, refer to the [Team Design Manager User Guide](#).

Creating a Project

To create a Base Team Design Management project, follow these steps:

1. Type the following command in the site directory you created:

```
tdmmkproject -project mytest -location  
/net/machine/.../site_dir -basic
```

The `-basic` option specifies a Base Team Design Management project.

The software creates the following:

- ❑ A Team Design Management project in your site directory. The project contains a directory called `mytest.Fprj`.
- ❑ A directory called `projects.Cata` in `$HOME`. The `projects.Cata` directory contains a link to `mytest.Fprj` in your site directory.

2. To confirm the creation of the Base Team Design Management project, type the following command:

```
ls /net/machine/.../site_dir
```

The software displays the contents of your site directory, which in this example includes the `TeamRoot` and `mytest.Fprj` directories.

Creating a Workarea

To create a workarea, follow these steps:

1. Change directories (`cd`) to the project directory:

```
cd /net/machine/.../site_dir/mytest.Fprj
```

2. Type the following command:

```
tdmmkworkarea -workarea myworkarea
```

The software creates the following:

- ❑ A directory called `myworkarea.Work` in the following location:
`/net/machine/.../site_dir/mytest.Fprj/workAreas.Folder`
- ❑ A link to `myworkarea.Work` in your `$HOME/workAreas.Cata` directory

Setting Up Design Data

After you create the workarea, you are ready to work on design data files. The following sections describe the three ways to bring library data into your project data repository:

- [Convert existing 4.3.x libraries to 4.4](#)
- [Import unmanaged 4.4.x libraries](#)
- [Link to reference libraries](#)

Converting Existing Libraries

To convert existing 4.3.x libraries to 4.4, do the following:

- Use the `libcvt` utility.

Refer to the [Compatibility Guide](#) for information about using the `libcvt` utility.

Importing Unmanaged Libraries

To bring unmanaged libraries or design files into your workarea, follow these steps:

1. Change directories (`cd`) to your workarea by typing

```
cd $HOME/workAreas.Cata/myworkarea.Work
```

2. Type the following command:

```
tdmimportcdslib -library /net/machine/.../path/myLib
```

The `tdmimportcdslib` command does the following:

- ❑ Copies `myLib` into your workarea
- ❑ Checks in the design data
- ❑ Defines `myLib` in the `cds.lib` file in your workarea
- ❑ Automatically checks in the data to the project data repository
- ❑ Sends you e-mail confirming the files created in `myLib`

For more information about using the `tdmimportcdslib` command, refer to the [Cadence Application Infrastructure User Guide](#).

Adding Reference Libraries

To reference existing libraries from other projects or from locations that are not part of a team design manager project, follow these steps:

1. Change directories (`cd`) to the workarea by typing

```
cd $HOME/workAreas.Cata/myworkarea.Work
```

2. Type the following command:

```
tdmlinkreflib -name refLib -librarypath /cdsinstallpath/path
```

where *refLib* is the reference library and */cdsinstallpath/path* is the full path to the reference library. Do not include the name of the reference library in the path.

The software does the following:

- ❑ Creates a link to the reference library
- ❑ Sends an e-mail confirming the link to the reference library

Note: If the directory has a `cdsinfo.tag` file, this process works even when the directory does not have a `cds.lib` file. For more information about the `cdsinfo.tag` file, refer to the [Team Design Manager User Guide](#).

For more information about using the `tdmlinkreflib` command, refer to the [Team Design Manager User Guide](#).

Setting Up Multiple-User Projects

Before you create projects and workareas in a multiple-user, multiple-machine environment, do the following:

1. Make sure the project (in particular, the project data repository) is on a machine that has the appropriate resources:
 - ❑ All the potential project members have access to the machine
 - ❑ A version of `cdsd` is running
 - ❑ Sufficient disk space exists for the anticipated project needs or the disk can be upgraded to satisfy future needs
2. Adopt a policy for the location of user workareas.

Depending on project storage requirements, tool and file server performance, and site machine configurations, user workareas can be located on any of the following:

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Project Setup Example

- The same system/disk and directory structure as the project repository
- The network file servers
- A local disk

3. Consider project security.

In a single-user project, you can use UNIX permissions to control access. In a multiple-user project, you might need a combination of UNIX permissions and the team design manager project security.

Typically, all the members of a project are members of the same UNIX group. If members need to be included in other groups, and not all members share the same default group, set the `TDMGROUP` environment variable on a per-project basis.

For additional information about the `TDMGROUP` environment variable, refer to the UNIX man pages (`man tdmrc`) or the [*Team Design Manager User Guide*](#).

If a design group wants to restrict administrative access, use the secure project option when you create the project. This restricts access to both the project and checked-in data to a single UNIX user account.

For more information about secure projects, refer to the [*Team Design Manager Administrator Guide*](#).

Changing Files to Read-Only Mode

The following topic is discussed in this section:

- [Selecting Cellviews to Be Read Only](#) on page 177

Introduction

When you open a cellview in edit mode or edit the properties of a cellview, the software locks the file to prevent another member of your design team from opening the same file for modification.

When you are working in a design-managed environment or when you have more than one copy of a cellview open, these protective locks sometimes prevent you or other team members from checking in your design or canceling a checkout, even though you have finished your editing and have closed or iconified the cellview.

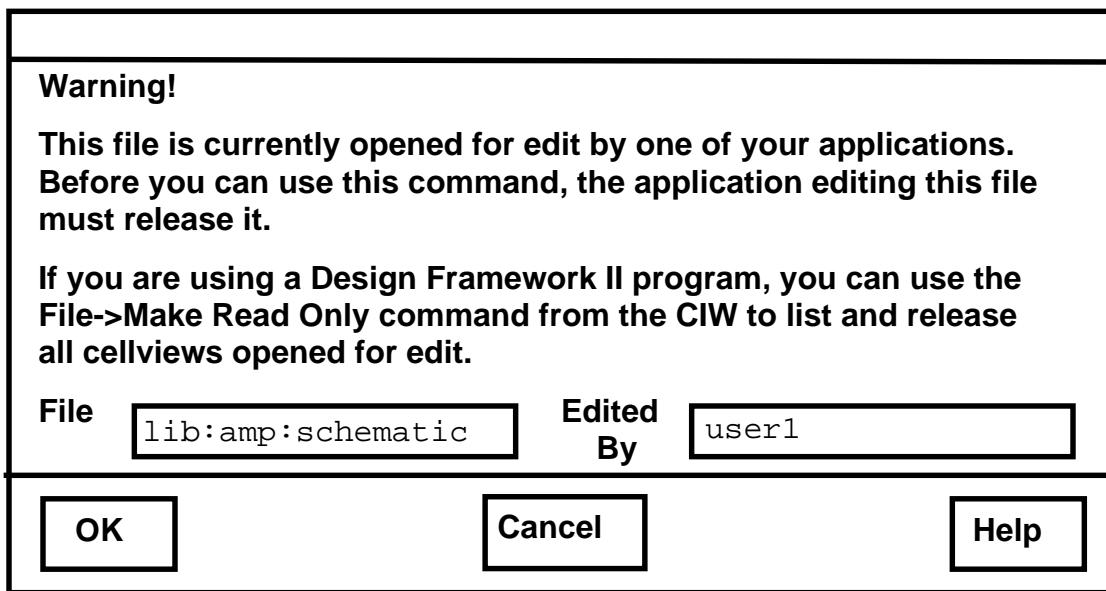
In situations like these, the Cadence® library manager software sends you a warning message when you try to check in a file. The message explains that you need to use the CIW *File – Make Read Only* command to do the following:

- Display the names of open cellviews
- Release the locks on the cellviews you want to check in (by making the files read-only and not editable)

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Changing Files to Read-Only Mode

When you open a cellview for editing and try to check it in, you might see a warning message similar to the following:



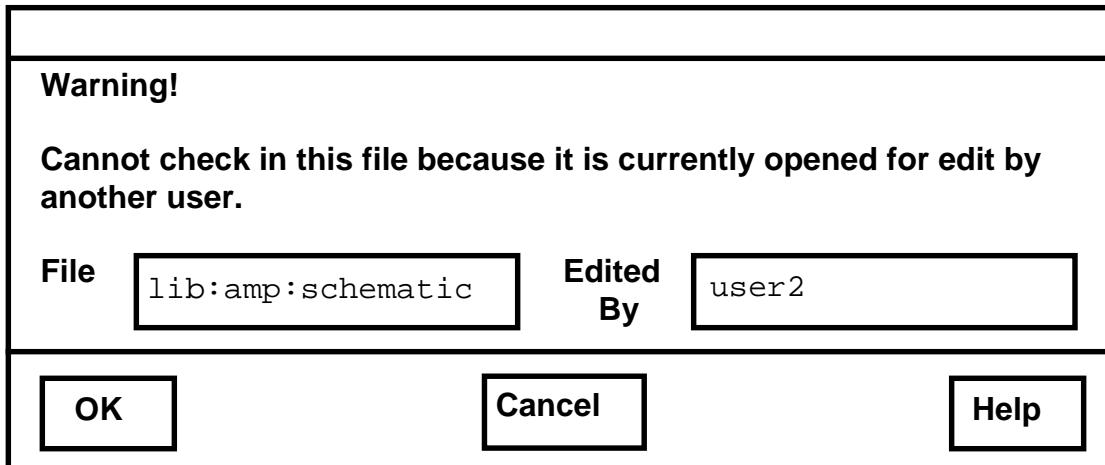
When you get this warning message, do the following:

1. To continue an ongoing process, such as checking in a library, click *OK*. To stop an ongoing process, click *Cancel*.
Clicking *OK* or *Cancel* does not let you check in the file.
2. Use the CIW *File – Make Read-Only* command to change the mode of the file you want to check in.

Cadence Library Manager User Guide

Changing Files to Read-Only Mode

You might see a warning message similar to this one if you first open a file that another member of your team has opened and then try to check it in or cancel the checkout.



When you get this message, do the following:

- Request that the other user use *File – Make Read-Only* in the CIW to change the mode of the file you want to check in.

Selecting Cellviews to Be Read Only

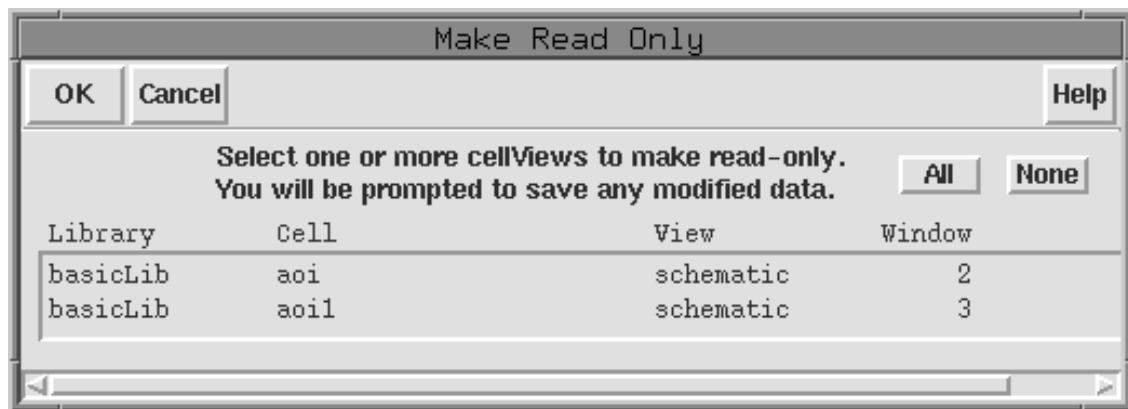
To change files that are open in edit mode to read-only mode so the locks on them are released and you or someone else can open the file for editing in another tool, follow these steps:

1. From the CIW, choose *File – Make Read Only*.

Cadence Library Manager User Guide

Changing Files to Read-Only Mode

The Make Read Only form opens. The form lists the cellviews you have open and the window number assigned to each.



2. Select the cellviews you want to change to read-only mode.

- To select all listed cellviews, click *All*.
- To deselect all cellviews, click *None*.
- To select a specific cellview, click the line displaying the cellview name.
- To select more than one cellview from the list, hold down the `Control` key when you click the line displaying the second and subsequent cellview names.
- To deselect cellview names, hold down the `Control` key when you click the selected cellview.

3. Click *OK*.

The Make Read Only form closes and the software changes the selected cellview to read-only mode.

If you had unsaved changes in a cellview you selected, the software opens a dialog box asking if you want to save your changes.

4. If you want to save your changes before making the cellview read-only, click *OK*.

The software saves the changes and changes the cellview to read-only mode.

Note: This command works only on cellviews, not on property files.

Managing Categories

The following topics are discussed in this section: [Overview](#) on page 179.

- [Displaying Categories](#) on page 180
- [Creating a Category](#) on page 180
- [Editing a Category](#) on page 183
- [Deleting a Category](#) on page 184
- [Creating a Subcategory](#) on page 185
- [Creating a New Category That Includes Subcategories](#) on page 185
- [Creating a Subcategory in an Existing Category](#) on page 186
- [Modifying a Category](#) on page 187

Overview

To better manage a large number of cells, you can assign them to categories. You must have [write permission](#) for the library before you can create categories, assign cells to categories, or modify the categories to which the cells belong.

You can use Cadence® library manager commands to do the following:

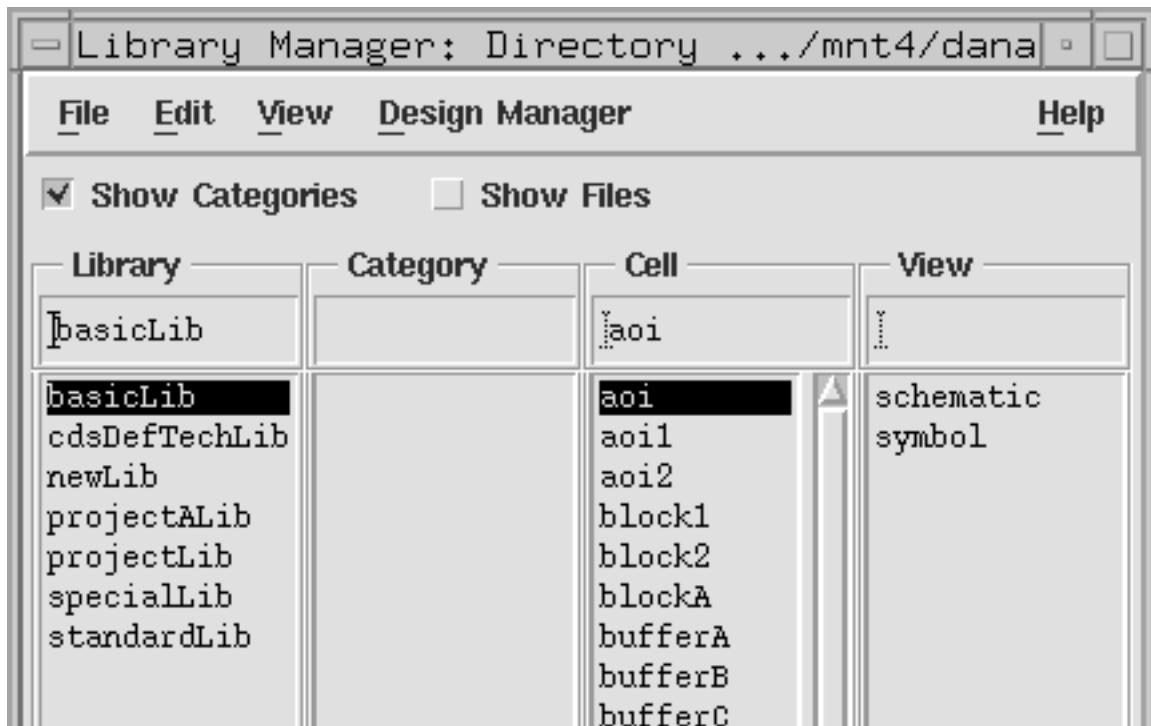
- [Display categories](#)
- [Create new categories](#)
- [Change the contents of categories](#)
- [Delete categories](#)
- [Create subcategories](#)

Displaying Categories

To display the categories associated with a library, follow these steps:

1. In the Library Manager form, in the *Library* list box select a library.
2. Click *Show Categories*.

The *Category* list box appears in the Library Manager form between the *Library* and *Cell* list boxes.



Creating a Category

To create a new category, follow these steps:

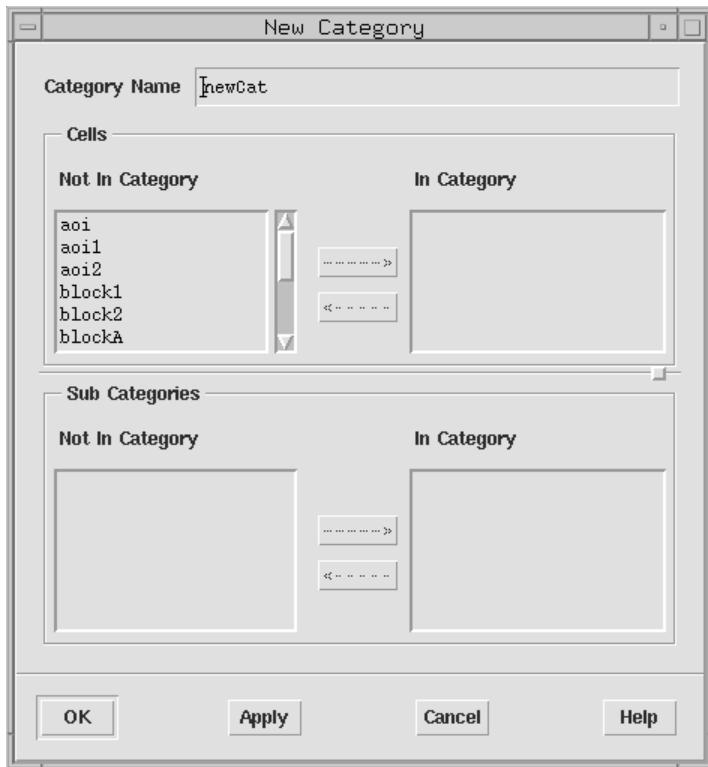
Note: You must have write permission for the library to create a category.

1. In the Library Manager form, in the *Library* list box select a library.
2. Choose *Edit – Categories – New*.

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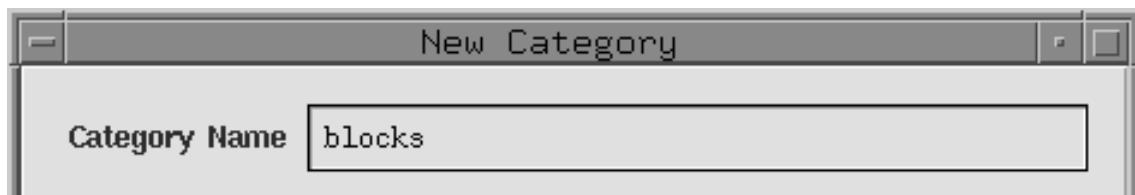
Managing Categories

The *New Category* form appears. For details about the *New Category* form see [New Category Form](#) on page 264.



3. In the *Category Name* field, type the name of the new category.

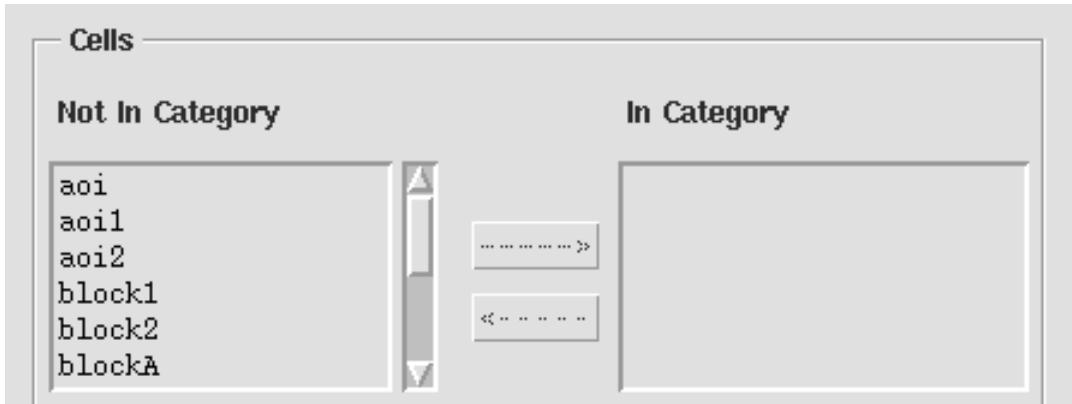
Category names must be unique.



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Managing Categories

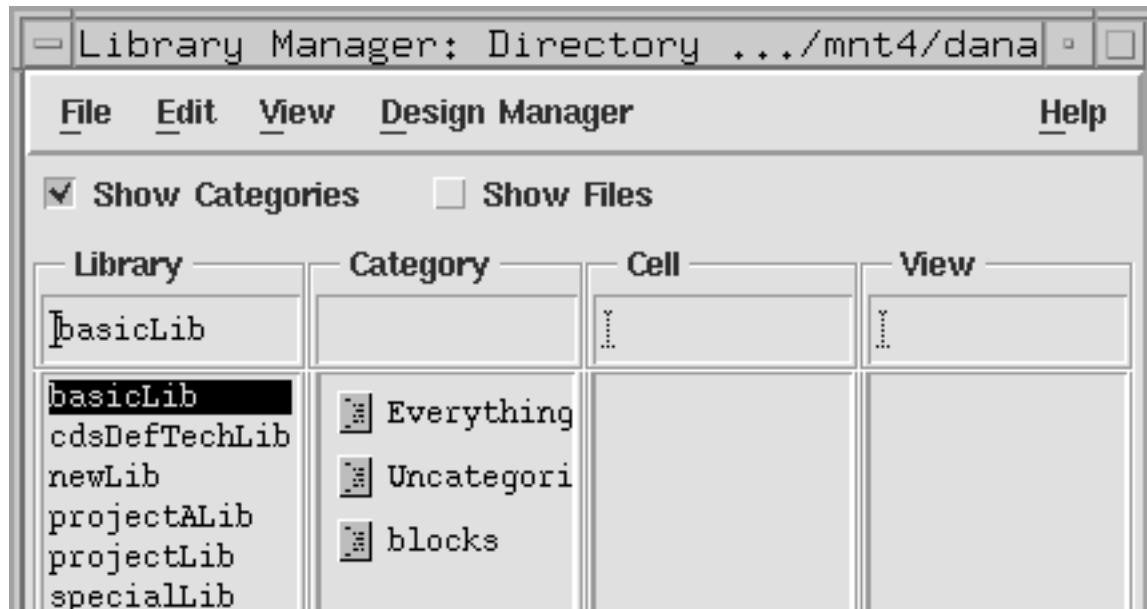
4. In the *Cells* section, select the cells to include in this category and click the arrow to move them to the *In Category* list box.



If an error message stating that the software cannot open or cannot write to the category appears, make sure you have write permission for the category files.

5. When you have moved all the cells you want to the *In Category* list box, click *OK*.

The New Category form closes and the name of the new category appears in the Library Manager *Category* list box. When you create a category in a library, the categories *Everything* and *Uncategorized* are created by default.

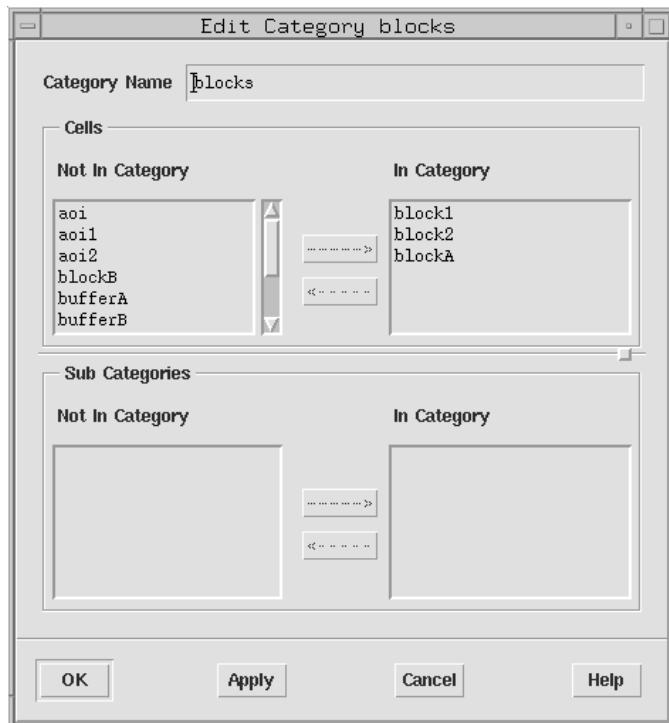


Editing a Category

To change the contents of a category, follow these steps:

1. In the Library Manager form, in the *Category* list box select the category you want to change.
2. Choose *Edit – Categories – Modify*.

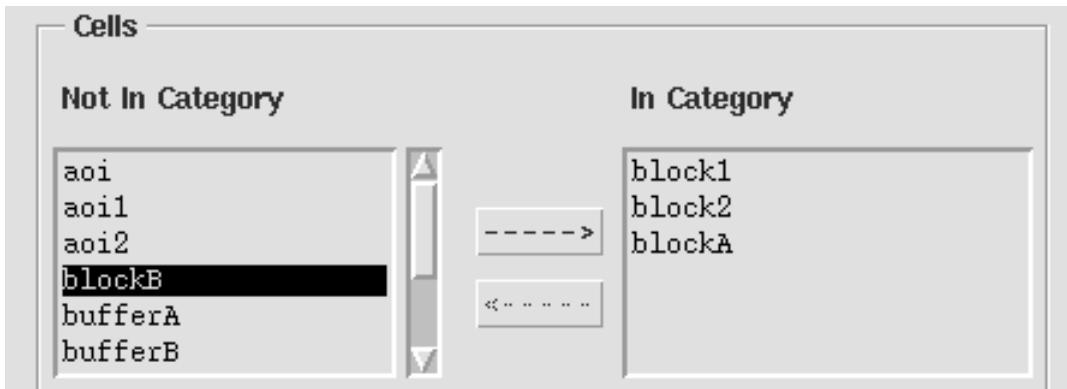
The *Edit Category* form appears. The contents of the category you specified are shown in the *Edit Category* list box. For details about the *Edit Category* form see [*Edit Category Form on page 260*](#).



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Managing Categories

3. In the *Cells* section, select the cells to move to this category and move them to the *In Category* list box.



4. When you are satisfied with the cells in the *In Category* and *Not In Category* list boxes, click *OK*.

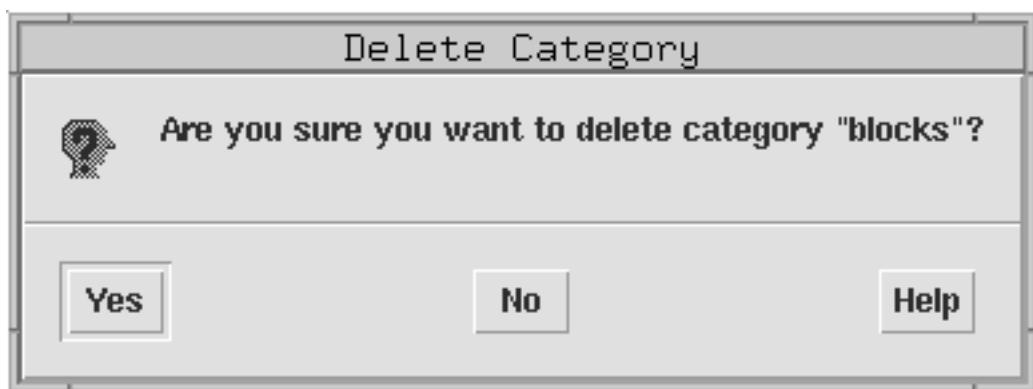
Library Manager saves the modifications you made to the category.

Deleting a Category

To delete a category, follow these steps:

1. In the Library Manager form, in the *Category* list box select the category you want to delete.
2. Choose *Edit – Categories – Delete*.

A dialog box asks you to confirm the deletion.



3. Click *Yes*.

Library Manager deletes the category.

Creating a Subcategory

You can group cells into subcategories within a category. For instance, a pins category might be too inclusive, and subcategories of bidirectional, input, and output pins might be more manageable.

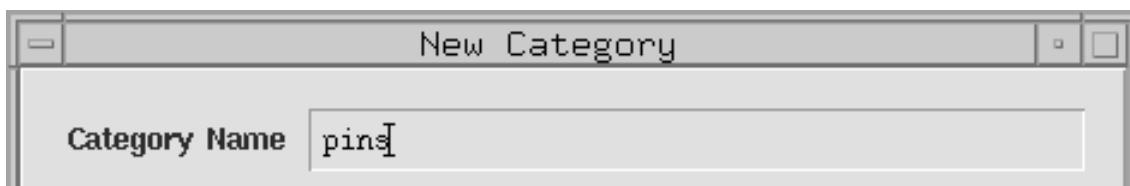
There are several methods you can use to create subcategories:

- [Create a new category that includes subcategories](#)
- [Create a new subcategory for an existing category](#)
- [Modify a category to include another category](#)

Creating a New Category That Includes Subcategories

To create a new category that includes subcategories, follow these steps:

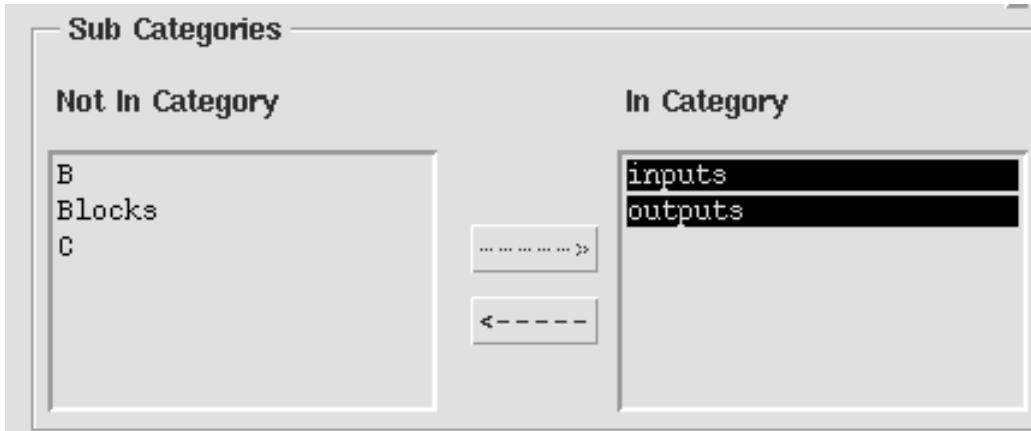
1. In the Library Manager form, in the *Library* list box select a library.
2. Choose *Show Categories*.
3. Create each of the [categories](#) (such as *inputs* and *outputs*) that you want to specify as subcategories.
The new categories are displayed in the *Category* list box in the Library Manager form.
4. After you have created all the categories that will be specified as subcategories, create the top-level category in the following way:
 - Choose *Edit – Categories – New*.
The New Category form appears.
 - In the *Category Name* field, type the name of the top-level category (such as *pins*).



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Managing Categories

- In the *Sub Categories* section, move the categories you want to be subcategories (such as *inputs* and *outputs*) to the *In Category* list box.



- Click *OK*.

The New Category form closes and the *Category* list box in the Library Manager form displays the new *pins* category.

5. To display the subcategories in the new category, select the category in the *Category* list box.

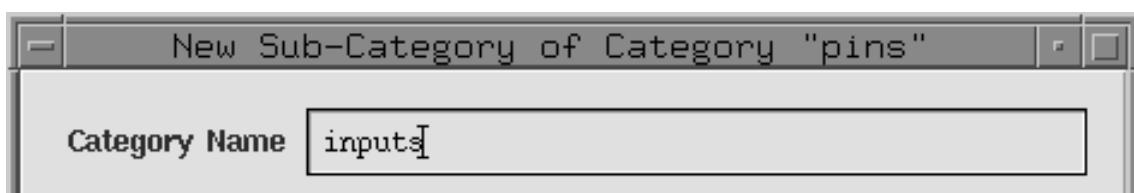
Creating a Subcategory in an Existing Category

To create a new subcategory in an existing category, follow these steps:

1. In the Library Manager form, in the *Library* list box select a library.
2. Choose *Show Categories*.
3. Select the category for which you want to create a subcategory.
4. Choose *Edit – Categories – New Sub-Category*.

The New Sub-Category form appears.

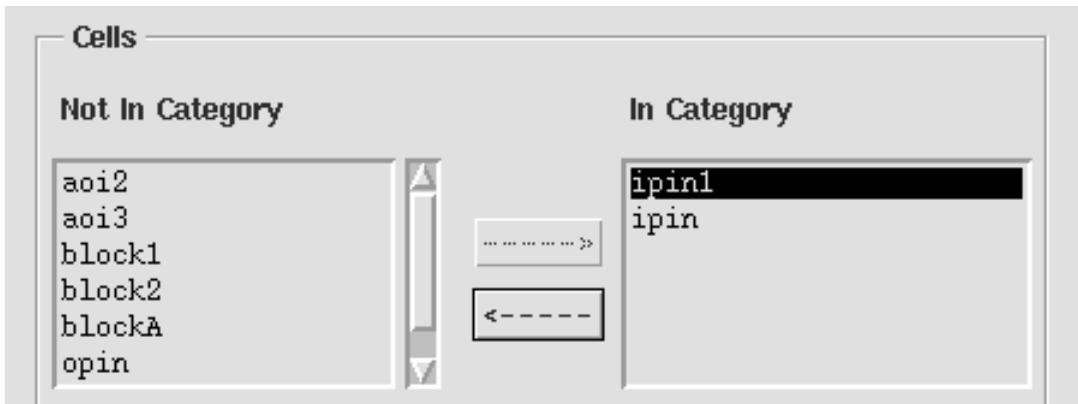
5. In the *Category Name* field, type the name of the new subcategory.



Cadence Library Manager User Guide

Managing Categories

6. In the *Cells* section, move the cells you want to include in the subcategory (*inputs*) to the *In Category* list box.



7. Click *OK*.

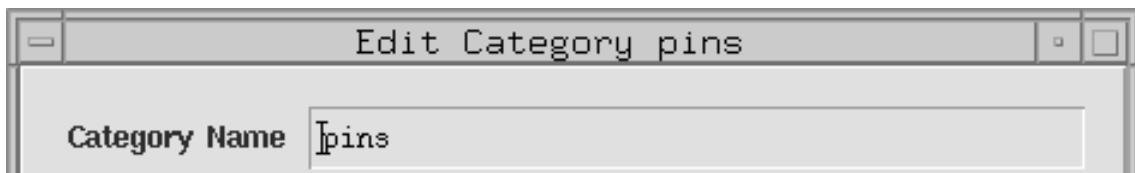
The New Sub-Category form closes and Library Manager creates a subcategory in the selected category.

Modifying a Category

To modify a category to include another category, follow these steps:

1. In the Library Manager form, in the *Library* list box select a library.
2. Select *Show Categories*.
3. In the *Category* list box, select the category (for example, *pins*) in which you want to include a subcategory.
4. Choose *Edit – Categories – Modify*.

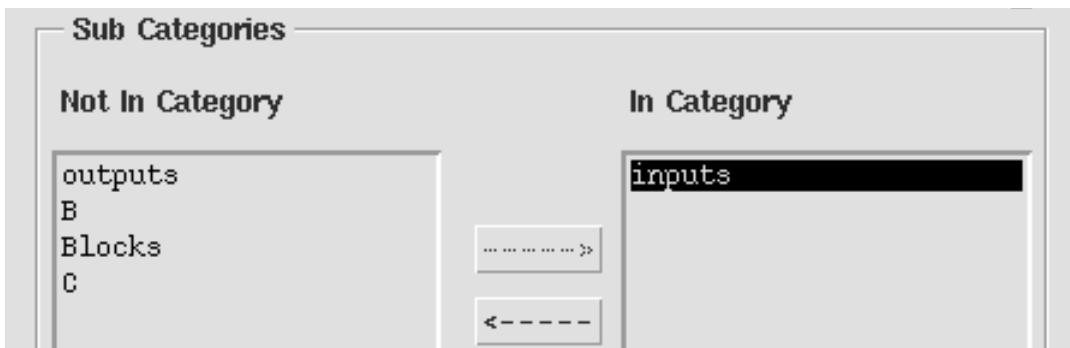
The Edit Category form appears.



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Managing Categories

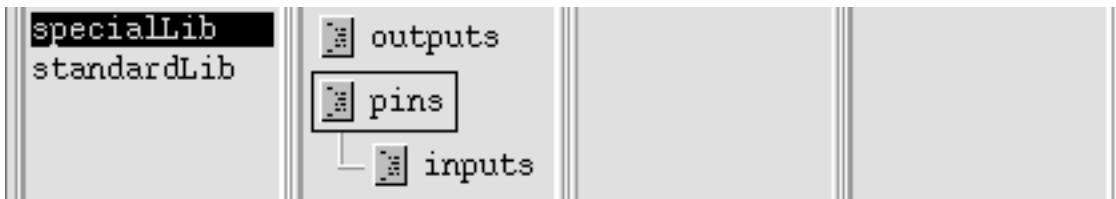
5. In the *Sub Categories* section, move the category you want included as a subcategory to the *In Category* list box.



6. Click *OK*.

The Edit Category form closes and the category you moved is now a subcategory of the modified category.

7. To display the new subcategory, select the modified category in the *Category* list box.



Setting UNIX Environment Variables

The following topics are discussed in this section:

- [Editing the File](#) on page 189
- [Specifying the Location of Help Files](#) on page 190
- [Adding the Installation Directory to the Search Path](#) on page 190
- [Specifying the CDS.log Filename](#) on page 190
- [Specifying Check-In and Check-Out Policies](#) on page 191
- [Other Variables You Might Want to Change](#) on page 193

Editing the File

To make UNIX-level changes affecting file locations, paths, display devices, and so forth, edit your `.cshrc` file, `.login` file, or `.profile` file in your home directory. (A home directory is specified by a tilde, such as `~/.cshrc`.)

1. Open the file in `vi`, `emacs`, or another text editor.
2. Type your changes.
3. Save the file.
4. Source the file so new changes are incorporated.

When the Cadence® software loads, it reads the site-specific settings first and the individual settings last, so settings in your home directory override system and group settings.

The Cadence software includes commented sample files in `install_dir/tools/dfII/samples`. (The `install_dir` directory is the directory where the Cadence software is installed.) You can use these files as guides to modify UNIX environment variables.

Specifying the Location of Help Files

To specify the location of your Cadence help files, add the following command to your `.cshrc` file, `.login` file, or `.profile` file:

```
setenv HELPDIR install_dir/tools/dfII/myhelp
```

Where `install_dir` is the path to the directory in which the Cadence software is installed and `myhelp` is the name of the Help directory you want.

Adding the Installation Directory to the Search Path

To add the installation directory to your UNIX search path, use one of the following commands:

```
set path = ($PATH install_dir/tools/dfII/bin)
setenv PATH $PATH:install_dir/tools/dfII/bin
```

where `install_dir` is the path to the directory in which the Cadence software is installed.

Specifying the CDS.log Filename

To specify a unique log filename using the `CDS_LOG_VERSION` environment variable, set the variable before starting the Cadence software or include the `setenv` command in your `.cshrc` file.

The `CDS_LOG_VERSION` environment variable can specify either `sequential` or `pid`:

- `sequential` adds a sequential number to the name of the log file, such as `CDS.log.1` or `CDS.log.2`
- `pid` adds the number of the UNIX process to the name of the log file, such as `CDS.log.1719` or `CDS.log.2250`

To append a sequential number to `~/CDS.log`, include the following command in your `.cshrc` file or use the command before you start the software:

```
setenv CDS_LOG_VERSION sequential
```

To append the process number of the session to `~/CDS.log`, include the following command in your `.cshrc` file or use the command before you start the software:

```
setenv CDS_LOG_VERSION pid
```

Specifying Check-In and Check-Out Policies

The following four environment variables control the behavior of automatic check out and automatic check in of Cadence design framework (DFII) files:

- CDS_PROMPT_CKOUT
- CDS_PROMPT_CKIN
- CDS_AUTO_CKOUT
- CDS_AUTO_CKIN

Each of these four variables can have one of the following four values:

<i>all</i>	Perform behavior for cellviews and other files (on Auto Checkout/in Preferences form: <i>always ask me</i>)
<i>none</i>	Do not perform behavior for cellviews or other files (on Auto Checkout/in Preferences form: <i>never ask me</i>)
<i>files</i>	Perform behavior for non cellview files only (on Auto Checkout/in Preferences form: <i>properties and files</i>).
<i>views</i>	Perform behavior for cellviews only, not for other files (on Auto Checkout/in Preferences form: <i>cellviews</i>)

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Setting UNIX Environment Variables

Set these variables in your `.cshrc` file. You can set these variables in any combination; however, some combinations are not useful.

Variable	Description
<code>CDS_PROMPT_CKOUT</code>	<p>Default is <code>all</code>.</p> <p>This variable controls whether the Auto Check Out form opens when you attempt to check out data files using a design framework II tool that has a graphical user interface and automatic check-out capability.</p> <p>The default value <code>all</code> causes all such tools to display the Auto Check Out form before performing an automatic checkout for both cellviews and non cellview files (such as property bags) regardless of the values of the other variables controlling check-out or check-in behavior.</p> <p>Tools that have no automatic check-out capability will not automatically check out data (unless the <code>CDS_AUTO_CKOUT</code> variable is also set).</p> <p>For a more information about check-out environment variables, see Chapter 7, “Managing Designs.”</p>
<code>CDS_AUTO_CKOUT</code>	<p>Default is <code>all</code>.</p> <p>If <code>CDS_PROMPT_CKOUT</code> is set to <code>all</code>, then <code>CDS_AUTO_CKOUT</code> has no effect on DFII tools with graphical user interface and automatic check-out capability. Otherwise, this variable, set to <code>all</code>, causes DFII tools with automatic check-out capability to automatically check out both cellview and non cellview files for modification.</p> <p>For a more information about check-out environment variables, Chapter 7, “Managing Designs.”</p>

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Setting UNIX Environment Variables

Variable	Description
CDS_PROMPT_CKIN	<p>Default is <code>files</code>.</p> <p>The default value causes all DFII-based tools that have a graphical user interface and automatic check-out capability to display the Auto Check In form before performing an automatic check-out for non cellview files (such as property bags) regardless of the values of the other variables controlling check-out or check-in behavior. Such tools will not display the Auto Check In form for cellviews. Tools that do not have a graphical user interface are not affected by this variable (for example, translators such as batch PIPO).</p> <p>For a more information about check-in environment variables, see Chapter 7, “Managing Designs.”</p>
CDS_AUTO_CKIN	<p>Default is <code>files</code>.</p> <p>If a tool has a graphical user interface and <code>CDS_PROMPT_CKIN</code> is set to <code>all</code>, then <code>CDS_AUTO_CKIN</code> has no effect. Otherwise, this variable, when set to the default, causes all DFII-based tools to automatically check in any file it automatically checked out.</p> <p>For a more information about check-in environment variables see Chapter 7, “Managing Designs.”</p>

Other Variables You Might Want to Change

You can also set these variables in your `.cshrc` file.

Variable	Description
<code>CDS_COLOR_MODE</code>	Monochrome display of Cadence software. Value: <code>BlackAndWhite</code>
<code>CDS_LOG_VERSION</code>	Suffix for the Cadence log file. Value: <code>sequential</code> or <code>pid</code>

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Setting UNIX Environment Variables

Variable	Description
DISPLAY	Where you see the visual display of the X Window System
FMHOME	Path to FrameMaker product directory if not in the default directory
HELPDIR	Path to Cadence help files if not in the default directory
PATH	Path to UNIX commands

Customizing the Operating Environment

The following topics are discussed in this section:

- [Creating an .Xdefaults File](#) on page 195
- [Editing an .Xdefaults File](#) on page 196
- [Cadence Design Framework II Commands](#) on page 197
- [Cadence Library Manager Commands](#) on page 200

Overview

To change the behavior of the X Window System or Motif window system, edit the `.Xdefaults` file or `.xresources` file in your home directory. A home directory is specified by a tilde (~).

You can customize the colors, fonts, or location of the Cadence® and FrameMaker windows by adding commands to the `.Xdefaults` or `.xresources` file in your home directory. These commands control the same characteristics as the *Window Controls* section and *Text Font* section of the User Preferences form.

When the Cadence software loads, it reads the site-specific settings, then reads the individual settings, so settings in the `.Xdefaults` file in your home directory override settings made in site-specific `.Xdefaults` files.

Creating an .Xdefaults File

If you do not have an `.Xdefaults` file or `.xresources` file in your home directory, follow these steps to create one:

1. Locate the default file.

Cadence ships a sample `.Xdefaults` file that is stored in the `tools/dfII/cdsuser` directory in your installation directory.

Cadence Library Manager User Guide

Customizing the Operating Environment

If you have the Cadence software running, you can find the name of the installation directory by typing the following Cadence SKILL command in an X window or on the input line of the CIW:

```
println(getInstallPath())
```

2. Change to your home directory by typing the following.

```
cd ~
```

3. Copy the default file to your home directory.

Use the appropriate operating system command. For example, in UNIX, type the following:

```
cp install_dir/tools/dfII/cdsuser/.Xdefaults
```

where *install_dir* is the name of the installation directory.

Editing an .Xdefaults File

To customize an *.Xdefaults* file, follow these steps:

1. Open the file with *vi*, *emacs*, or another text editor.
2. Edit any of the following:
 - ❑ Motif commands
 - ❑ FrameMaker commands
 - ❑ Cadence commands
 - ❑ Cadence design framework II commands
3. Save and quit the file.
4. Initialize the changes.

If you are in the X Window System, do one of the following:

- ❑ Read the changes into the X Window System server by typing the following:

```
xrdb -nocpp ~/ .Xdefaults
```
- ❑ Restart the X Window System

This reloads the X Window System and sets up your environment with the configurations in the *.Xdefaults* file.

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Customizing the Operating Environment

If you are not using the X Window System, refer to your window management system documentation to restart the window manager or incorporate the changes.

Cadence Design Framework II Commands

To control the location and size of the Cadence library manager as well as panels within it, put the following list of values in your `.Xdefaults` file.

```
cdsLibManager.x: 0
cdsLibManager.y: 82
cdsLibManager.width: 608
cdsLibManager.height: 469
cdsLibManager*listsTopForm.height: 315
cdsLibManager*messageFrame.height: 108
```

The library manager also retains the setting for the position and size of the window when you closed it, by saving these values in the `.libmgr` file. Because the values in this file override the values in the `~/.Xdefaults` file, the library manager window opens in the same size and location it was set to in the previous session.

To set the initial positions for pure Motif-compliant applications

- You need to specify the x and y positions in pixel coordinates for each desired dialog.
- You also need to eliminate the standard default positioning feature which is built into the Motif widgets. For more details, consult the Motif documentation for the `XmBulletinBoard` (on `UNIX => man`) command.

Example

You want to have all the dialog boxes appear at the (x,y) pixel position of (0,1), which is at the top left corner of the display and down one line.

Use the following general commands to allocate Motif window manager resources:

```
appName*dialogName.defaultPosition: false
appName*dialogName.x: 0
appName*dialogName.y: 1
```

The following is a list of names for the dialog boxes that are currently part of the library manager and for which you generate resources:

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Customizing the Operating Environment

```
aboutDialog
autoDialog
ckoutDialog
copyDialog
copyErrorDialog
copyListDialog
deleteDialog
deleteViewDialog
editCatDialog
errorDialog
genericDialog
isLockedDialog
newLibDialog
overrideLockMsgBox
permissionDialog
renameDialog
renameReplibDialog
simpleCopyDialog
simpleCopyErrorDialog
updateDialog
versionDialog
viewFilterByDialog
```

You can generate a complete list of resources for these dialog boxes by using a `csh` script or equivalent method. The following is a complete list of resources for the sample position:

```
cdsLibManager*aboutDialog.defaultPosition: false
cdsLibManager*aboutDialog.x: 0
cdsLibManager*aboutDialog.y: 1
cdsLibManager*autoDialog.defaultPosition: false
cdsLibManager*autoDialog.x: 0
cdsLibManager*autoDialog.y: 1
cdsLibManager*ckoutDialog.defaultPosition: false
cdsLibManager*ckoutDialog.x: 0
cdsLibManager*ckoutDialog.y: 1
cdsLibManager*copyDialog.defaultPosition: false
cdsLibManager*copyDialog.x: 0
cdsLibManager*copyDialog.y: 1
cdsLibManager*copyErrorDialog.defaultPosition: false
cdsLibManager*copyErrorDialog.x: 0
cdsLibManager*copyErrorDialog.y: 1
cdsLibManager*copyListDialog.defaultPosition: false
cdsLibManager*copyListDialog.x: 0
cdsLibManager*copyListDialog.y: 1
cdsLibManager*deleteDialog.defaultPosition: false
cdsLibManager*deleteDialog.x: 0
cdsLibManager*deleteDialog.y: 1
```

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```
cdsLibManager*deleteViewDialog.defaultPosition: false
cdsLibManager*deleteViewDialog.x: 0
cdsLibManager*deleteViewDialog.y: 1
cdsLibManager*editCatDialog.defaultPosition: false
cdsLibManager*editCatDialog.x: 0
cdsLibManager*editCatDialog.y: 1
cdsLibManager*errorDialog.defaultPosition: false
cdsLibManager*errorDialog.x: 0
cdsLibManager*errorDialog.y: 1
cdsLibManager*genericDialog.defaultPosition: false
cdsLibManager*genericDialog.x: 0
cdsLibManager*genericDialog.y: 1
cdsLibManager*isLockedDialog.defaultPosition: false
cdsLibManager*isLockedDialog.x: 0
cdsLibManager*isLockedDialog.y: 1
cdsLibManager*newLibDialog.defaultPosition: false
cdsLibManager*newLibDialog.x: 0
cdsLibManager*newLibDialog.y: 1
cdsLibManager*overrideLockMsgBox.defaultPosition: false
cdsLibManager*overrideLockMsgBox.x: 0
cdsLibManager*overrideLockMsgBox.y: 1
cdsLibManager*permissionDialog.defaultPosition: false
cdsLibManager*permissionDialog.x: 0
cdsLibManager*permissionDialog.y: 1
cdsLibManager*renameDialog.defaultPosition: false
cdsLibManager*renameDialog.x: 0
cdsLibManager*renameDialog.y: 1
cdsLibManager*renameReflibDialog.defaultPosition: false
cdsLibManager*renameReflibDialog.x: 0
cdsLibManager*renameReflibDialog.y: 1
cdsLibManager*simpleCopyDialog.defaultPosition: false
cdsLibManager*simpleCopyDialog.x: 0
cdsLibManager*simpleCopyDialog.y: 1
cdsLibManager*simpleCopyErrorDialog.defaultPosition: false
cdsLibManager*simpleCopyErrorDialog.x: 0
cdsLibManager*simpleCopyErrorDialog.y: 1
cdsLibManager*updateDialog.defaultPosition: false
cdsLibManager*updateDialog.x: 0
cdsLibManager*updateDialog.y: 1
cdsLibManager*versionDialog.defaultPosition: false
cdsLibManager*versionDialog.x: 0
cdsLibManager*versionDialog.y: 1
cdsLibManager*viewFilterByDialog.defaultPosition: false
cdsLibManager*viewFilterByDialog.x: 0
cdsLibManager*viewFilterByDialog.y: 1
```

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Caution

Do not set the values for the “genericDialog” and the other various error and warning dialogs. The default Motif positioning gives the best position (centered) when alerting you of problems.

Cadence Library Manager Commands

The following table identifies the library manager commands that can be used in the `.Xdefaults` file to customize the colors of the library manager user interface.

Note: Pay attention to the asterisk (*) versus the period (.) in syntax.

Command	Description
<code>cdsLibManager*Background</code>	Color of the background for the library manager UI such as <i>wheat</i> .
<code>cdsLibManager . XmForm*Foreground</code> (Use same color for all foreground commands)	Color of the foreground for forms when using the common desktop environment.
<code>cdsLibManager*XmDialogShell*Foreground</code> (Use same color for all foreground commands)	Color of the foreground for dialog boxes when using the common desktop environment.
<code>cdsLibManager*XmMenuShell*Foreground</code> (Use same color for all foreground commands)	Color of the foreground for menus when using the common desktop environment.
<code>cdsLibManager*TroughColor</code>	Color of the scrollbar channel such as <i>wheat</i> .
<code>cdsLibManager.recessColor</code>	Color for filled buttons such as <i>black</i> .
<code>cdsLibManager.textColor</code>	Color of normal text such as <i>black</i> .

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Command	Description
<code>cdsLibManager.copyErrorColor</code>	Color of cellview listings in library copy operations that cannot be copied because of error such as <i>red</i> .
<code>cdsLibManager.copyNoColor</code>	Color of cellview listings in library copy operations that the user specifies not to copy.
<code>cdsLibManager.copyYesColor</code>	Color of cellview listings in library copy operations that the user specifies to copy.

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The following topics are discussed in this section: [Overview](#) on page 202.

- [Using SKILL to Customize the Library Manager](#) on page 202
- [Using the .cdsenv File to Customize the Library Manager](#) on page 239
- [Using the .libsel File to Customize the Library Manager](#) on page 243

Overview

You can customize your menus in the Cadence® library manager in three ways:

- Through SKILL functions in both library manager and design framework II. See [Using SKILL to Customize the Library Manager](#) on page 202.
- Through the .cdsenv file in the library manager menus. See [Using the .cdsenv File to Customize the Library Manager](#) on page 239.
- Through the .libsel file. Seen [Using the .libsel File to Customize the Library Manager](#) on page 243.

Using SKILL to Customize the Library Manager

To customize the library manager when you use the Cadence SKILL language, you need the following:

- The `cdsLibMgr.il` file
- Corresponding SKILL callback functions defined in design framework II

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Customizing the Cadence Library Manager Menus

About `cdsLibMgr.il` File

The extension definition file, `cdsLibMgr.il`, is the starting point for the library manager customization. This file defines SKILL extensions specific to the library manager and specifies the name of the startup customization file.

The file is written using the SKILL language. You can use the core Cadence SKILL language as described in the [*Cadence SKILL Language Reference*](#) as well as the library manager API functions described in this chapter. The file can alter existing menus and menu items (including removal and change of appearance), as well as add new menus and menu items. You can add menu items to start a SKILL callback in design framework II.

Note: A mechanism to start a SKILL callback within the internal library manager SKILL interface is not currently provided.

The file is loaded from the first location in the order defined in the Cadence setup search file (`setup.loc`) as described in the [*Cadence Application Infrastructure User Guide*](#). The typical order used to load this file is:

- the current working directory
- the home directory
- the `install_dir/share` file

When a file is found from one of these locations, the file is loaded and the search stops.

You can customize the name for the `cdsLibMgr.il` file using a default setting in your `.cdsenv` file. For a detailed description of this setting, see [“Using UNIX to Add Settings to .cdsenv”](#) on page 240.

Using the `cdsLibMgr.il` File to Customize Menus

The library manager uses the `cdsLibMgr.il` extension file as follows:

1. The library manager loads the `cdsLibMgr.il` extensions file containing menu customization. This includes initialization and termination commands.
2. The library manager modifies its GUI menus to reflect the customization directives from the extension file.
3. The library manager sends any defined initialization command to the MPS (Message Passing Subsystem) client (that is, design framework II).

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4. The library manager GUI interaction triggers MPS callbacks to SKILL routines run within design framework II. The library manager repeats this sequence as often as is necessary.
5. Custom SKILL routines can modify GUI menu attributes via the MPS interface. Steps 4 and 5 are repeated as often as necessary.
6. The user requests (through the GUI) to terminate the library manager.
7. The library manager sends any defined termination commands to the MPS client (design framework II).
8. The library manager process terminates.

Triggering Callback Functions

You can trigger callbacks at either of two points in the customization process:

- When you select a menu item
- Before you map a menu

This feature allows dynamic customization of menus. It is very important that you implement pre-map callbacks to be as fast as possible to avoid blocking the X Window System for too long.

Using the Library Manager in Standalone Mode While Customizing

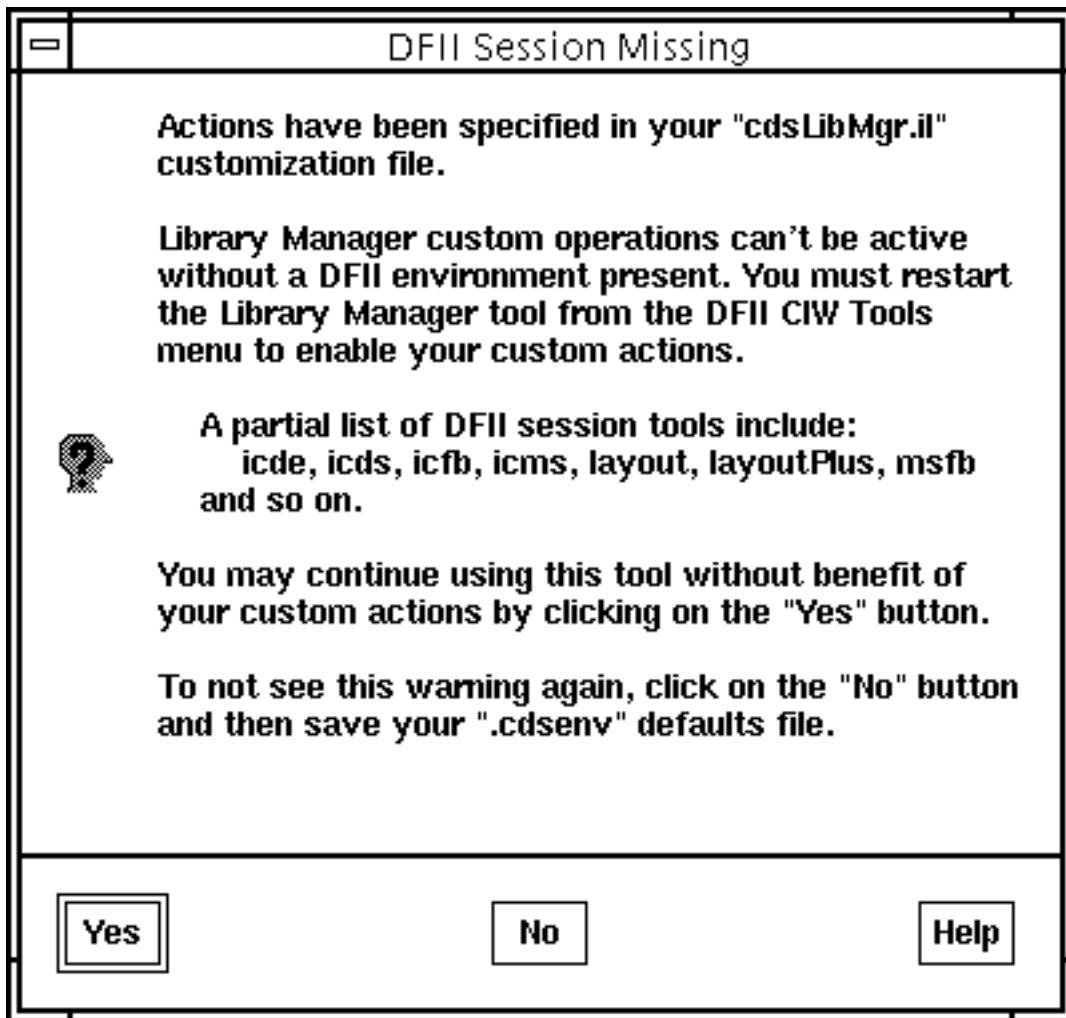
The customization system will not work when you run the library manager stand alone. You must run it with a companion design framework II process within the same MPS (Message Passing Subsystem) session.

If the customization code is loaded in the library manager session that is running in standalone mode, the library manager allows only attribute changes to objects such as deletion of unmanaged label attributes. The library manager disallows any new objects from

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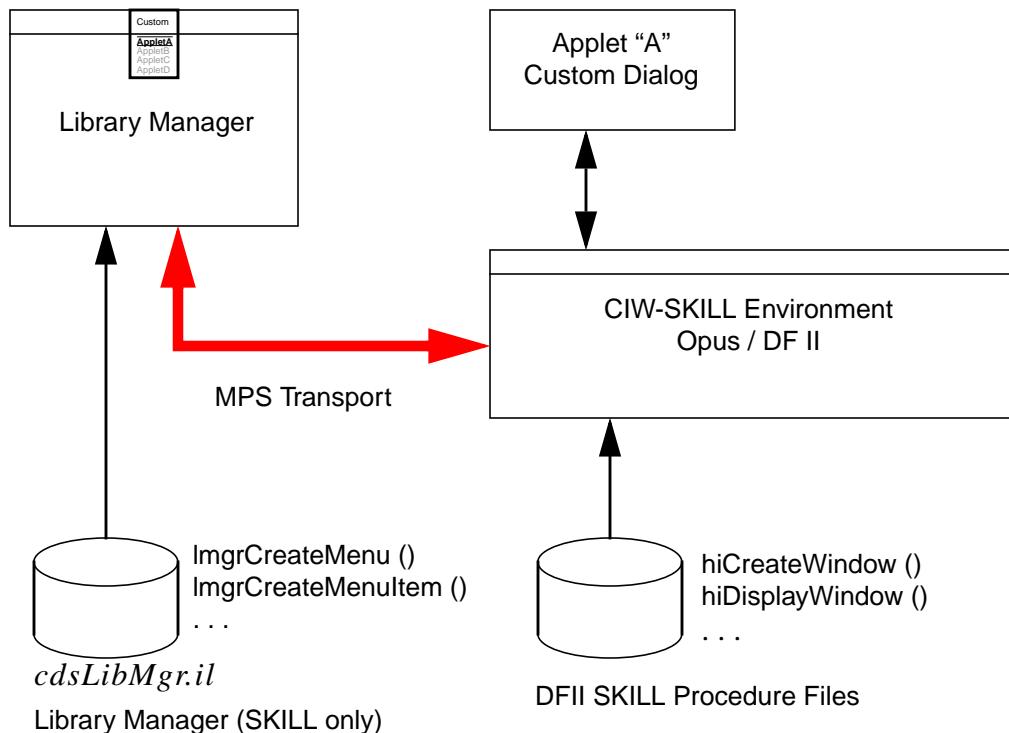
Customizing the Cadence Library Manager Menus

becoming active and then issues the following warning message that you need to use a design framework II session:



Library Manager Customization with Other Processes

The diagram shows how customization is defined and shared among the various cooperating processes.



Restrictions on the Library Manager Customization File

The following are the restrictions on the library manager customization file, `cdsLibMgr.il`:

- The `cdsLibMgr.il` file contains static descriptions of menu customization and is read once at initialization only. Therefore, all possible menus and menu items that you might need during the life of the library manager session you must define at startup. Although you cannot define the menus and menu items dynamically at some later time, you can define and leave them unmanaged at startup, so that they can be made visible or invisible dynamically.
- You must define all objects with string names, which are case sensitive. There are two reserved names with special meaning: `menuBar` and `popup`. `menuBar` refers to the library manager top menu bar object, from which all pull-down menus descend. `popup`

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refers to the pop-up menu selected when you click the middle mouse button over one of the list boxes.

- You must define menus as strictly bottom-up, with a strict tree structure. You must define all menu items in a menu before adding them to a menu. You can insert menu items into only one pull-down menu. However, a menu item can appear in both a single pull-down and selected pop-up menus. A pull-down menu can appear only once in either the menu bar or in another pull-down menu.
- You can use the SKILL API to customize only menus from the menu bar and list pop-ups. No forms are affected by these customizations, although you can partially customize the forms through the `.cdsenv` facilities.
- Pop-up menus cannot contain any submenus. They must have a flat structure.
- You can define only a single callback on pre-map on each menu (including predefined Cadence menus). The callback process must be fast.
- You can define only a single callback on pre-map for all pop-ups. The callback process must be fast.

Allowed Actions in the Customization File

You can do the following to the `cdsLibMgr.il` customization file:

- Delete existing predefined (Cadence) menus and menu items from the top menu bar and the pop-up menus.
- Add custom menus to the menu bar or add menu items to predefined menus.
- Determine which menu items appear in the pop-up menus for each list box in the library manager form (including existing menu items).
- Alter the visual attributes of existing menus and menu items (managed, sensitized, fonts, labels).
- Display anything printed to standard output, such as `printf()` in the library manager output pane.

GUI Objects Supported in the Customization File

The `cdsLibMgr.il` customization file supports the following objects in the graphical user interface:

- Menus, which can contain menu items, toggle items, radio buttons, or separators.

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- Menu items as simple buttons. A menu item activates an action callback.
- Toggle buttons. You select a toggle button as a single on/off setting.
- Radio buttons. Radio buttons are mutually exclusive. You select one of several radio buttons displayed.

Issues with Design Framework II SKILL

In order to perform useful custom tasks, any related task functions must be available from SKILL code executed within the design framework II process. In some cases, you might need to start an external UNIX process using SKILL IPC (interprocess communication) functions.

When you use a GUI to customize tasks, you must decide whether you want the library manager to block the input from the GUI and wait for the task to finish before proceeding. You implement this decision by using the SKILL function `hiCreateAppForm()` with or without the `dontBlock` field set, together with `hiDisplayForm()`. See [*Cadence User Interface SKILL Functions Reference*](#) for more information.

When you write callback functions, take into account that the library manager effectively waits for the return value from the callback in design framework II to become available.

Caution with Pre-Map Callbacks

The library manager calls any pre-map callbacks when a menu is to be displayed, whether or not an item is selected, provided there is a map callback function defined for the menu. The library manager can stop waiting for this callback to finish after a time-out period has been reached, since the screen will become locked from all access during the execution of the map callback, where X windows are blocked as well as the design framework II session.

Note: The map callback function must be as fast as possible to avoid time-out, which makes your workstation unusable in the interim. You can specify the time-out value in the environment customization file, `.cdsenv`, as a given number of seconds. In the following example, the default value is 5.0 seconds. However, this is much longer than a reasonable response time.

```
cdsLibManager.customize mapTimeout float 5.0
```

About the Library Manager `cdsLibMgr.il` File

The library manager `cdsLibMgr.il` file contains the following:

- Callback definition list

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- Callback options and return values
- Current selection list

Callback Definition List

The `lmgrDefineInits()`, `lmgrCreateMenu()`, and `lmgrCreateMenuItem()` functions in the `cdsLibMgr.il` file define callbacks that are started on the design framework II program. These functions all use the same syntax for describing the callbacks.

A callback is a list of strings. The first element in the list must be a valid SKILL procedure name in the design framework II session. The rest of the list consists of option strings. The following is an example of a callback:

```
'( "myDeleteObject" "refreshIf" )
```

This callback starts the SKILL procedure `myDeleteObject` in the associated design framework II session, which must accept the standard set of arguments described with a single option. The library manager redisplays its data if the return value is valid (`t`).

You can define only one list for every callback or map callback function.

The arguments to the callback SKILL procedure include the name of the menu object that this callback is registered with, followed by five arguments representing the current library manager selection. The five selection arguments are described in the next section. `Init` and `Close` callbacks defined by `lmgrDefineInits()` do not get passed any arguments.

Callback Options and Return Values

The option names for a callback function are

- `noOpts`. Use this optional placeholder when you want to use no options. You can also use this option to reset preceding options.
- `refresh`. Use this option to tell the library manager to always regenerate its data display after it runs the callback.
- `refreshIf`. Use this option to tell the library manager to regenerate its data display after it runs the callback if the return value of the callback indicates success.
- `update`. Use this option to tell the library manager to always regenerate its own data display and that of design framework II after it runs the callback.

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- `updateIf`. Use this option to tell the library manager to regenerate its own data display and that of design framework II after executing the callback if the return value of the callback indicates success.

These options can each appear zero or more times. The rightmost options override any to the left, except where noted above. If a sequence ends with `noOpts`, then the entire sequence is interpreted as having no options.

The return value for a correctly run SKILL callback procedure is `t` for success and `nil` if an error occurred.

Note: The library manager cannot continue processing if the library manager cannot understand the return value of the callback function, such as a database object, a design data (dd) object, or an IPC handle.

Current Selection List

SKILL callback procedures always receive the argument list selection currently specified in the library manager. This list might correspond to a new data object you create, rather than an existing object. The library manager sends the data selection specification fully corresponding to the 5.X architecture as a list of five strings:

`LIBNAME CELLNAME VIEWNAME FILENAME CATEGORY.`

If any component of the selection is not specified, it is passed as a string value of `""`. For example, if nothing at all is selected, then the selection list consists of five empty strings.

Names for a library, cell, and view are located within the designated namespace such as CDBA. A filename is always in the file system namespace.

In addition, the current 5.X category in use is sent as the fifth string in the list, which can be a zero length string if categories are disabled in the library manager. In general, only commands specific to library categories need to examine the `CATEGORY` parameter. Examples of such commands are `COPY CATEGORY`, `RENAME CATEGORY`, or `CREATE NEW CATEGORY`.

Functions Used in the `cdsLibMgr.il` File Only

You can use the functions in this section only in the library manager file, `cdsLibMgr.il` file. These functions are

- `lmgrDefineInits`
- `lmgrCreateMenu`

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- `lmgrCreateMenuItem`
- `lmgrAddMenuItems`
- `lmgrInsertMenuItems`
- `lmgrDeleteMenuItems`

lmgrDefineInits

```
lmgrDefineInits( l_initCallback l_termCallback ) => t/nil
```

Description

Defines the initialization action to perform when the customization code begins (after parsing the extension file) and the termination action to perform immediately before library manager terminates. You must define the callback in the design framework II program before it starts. Otherwise, you get an error. No arguments are passed to either callback.

Arguments

l_initCallback

A callback definition using the syntax described earlier in this section.

l_termCallback

A callback definition using the syntax described earlier in this section.

Value Returned

t All arguments were processed without error.

nil An error occurred.

Example

```
lmgrDefineInits( ' ( "myInitLibMgr" )  ' ( "myCloseLibMgr" ) )=> t
```

Defines a callback to be started when library manager is started and another when it terminates. This can then do some dynamic customization, depending on the current session.

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ImgrCreateMenu

```
lmgcCreateMenu( t_menuName l_menuAttributes ) => t/nil
```

Description

Creates a structure for a menu, which can be populated with menu items. Once this menu is created, you can install it into the top menu bar or into another parent menu using `lmngrAddMenuItems`.

You can specify a predefined menu name in order to change its label or to add a single map callback attribute to a predefined menu. See [About the Library Manager cdsLibMgr.il File](#) on page 208 for details on how to specify a callback list.

A map callback must finish its execution very quickly. Lengthy callback options are automatically ignored. Additionally, the library manager may choose to not wait for map callbacks to finish if callbacks require more than 5 seconds elapsed time. The reason behind these restrictions is that the X Window System remains locked for all other programs while a map callback is being processed. Efficient shared usage necessitates very fast and efficient execution of map callbacks.

The predefined name `pop-up` refers to all pop-ups started from the main selection lists. The `label` and `font` attributes have no significance within a pop-up menu. This mechanism exists only to allow specifying the map callback of pop-ups.

Arguments

t_menuName A unique global name to reference this menu.

1 menuAttributes

List of tagged elements consisting of name-value pairs for the following attributes:

label

Paired value is the string displayed with this menu. This attribute is mandatory when specifying a custom (non predefined) menu.

font

Paired value is a string for the font to use for this particular menu. If this attribute is not specified, or if *nil* or an empty string is specified, the global default fonts are used.

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`mapCallback`

Value is the callback list defining the action, if any, which will be called directly before mapping the menu.

Value Returned

`t` All arguments were processed without error.

`nil` An error occurred. In this case, the menu will *not* be created.

Example

```
lmgrCreateMenu( "MyPulldown" ' ( ( "label" "My pulldown" ) ) ) => t
```

Creates a new pulldown menu.

Reference

`lmgrCreateMenuItem`, `lmgrAddMenuItems`, `lmgrInsertMenuItems`

lmgrCreateMenuItem

```
lmgrCreateMenuItem( t_itemName t_itemType l_itemAttributes ) => t/nil
```

Description

Creates an instance of a menu item, which should be populated into a single menu. Once this menu item is created, you can install it into a menu using `lmgrAddMenuItems()`.

There are four types of menu items: `simple`, `toggle`, `radio`, and `separator`. `simple` is a normal menu item, `toggle` is a menu item with a tick box next to it, `separator` is a line to draw between menu items. You define one `radio` item for each choice in the set of `radio` options. All the `radio` items in the set must be collected in their own pull-down menu or submenu.

Refer to the section on callback definitions for details on how to specify the callback list.

Arguments

`t_itemName` A unique global name to reference this menu item.

`t_itemType` A standard type, one of `simple`, `toggle`, `radio`, `separator`.

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l_itemAttributes

List of tagged elements consisting of name value pairs for the following attributes. None of these attributes are valid for separators:

`label`

Paired value is the string displayed by this item. This attribute is mandatory except when the item type is separator.

`mnemonic`

Paired value is a string representing the character mnemonic to use with this object.

`accelerator`

This attribute is not supported in the current release.

`font`

Paired value is a string for the font to use for this particular item. If this attribute is not specified, or if *nil* or an empty string is specified, the global default fonts are used.

`callback`

Paired value is the callback list defining the action, if any, and the interpretation of results, which will be called when activating this menu item. See the previous section describing callback definitions. For radio items, when the item is selected through the user interface, the callback for both the item being selected and the item being deselected is started.

Value Returned

`t`

All arguments were processed without error.

`nil`

An error occurred. In this case, the menu item will not be created.

Example

```
lmgrCreateMenuItem( "myMenuItem1" "simple"
  ' ( ("label" "Do My Thing")
    ( "callback" ( "myThingCallback" ) )
  )
) => t
```

Reference

`lmgrCreateMenu`, `lmgrAddMenuItems`, `lmgrInsertMenuItems`

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ImgrAddMenuItems

```
lmgrAddMenuItems( t_menuName t_popupSet l_names) => t/nil
```

Description

Appends the named objects to the specified menu. An item can be another menu. Each menu item or menu can be added to only one menu. Likewise, any menu item can appear at most once in every pop-up menu. Menus cannot be added to a pop-up. Pop-ups must remain a flat structure only. Pop-ups cannot be added to menus.

You can add only menus to the main pull-down menu bar. Do this by specifying an empty string "", or the reserved name `menuBar` for the `t_menuName` argument. It is also legal to specify the `t_menuName` argument as `pop-up` or `nil` when the sole purpose is to add an already added object to an indicated pop-up set.

If radio items are added to a particular menu, then only radio items can be added to that menu. The pull-down menu or submenu cannot contain both radio and non-radio items.

Arguments

t_menuName The name of the menu, to which items are added.

t_popupSet A string of characters indicating which pop-ups this item is also to be included in.

The pop-up set is a string including 0 or more characters using the following mapping:

L = included in library list
C = included in cell list
V = included in view list
l = included in library file list
c = included in cell file list
v = included in view file list
t = included in category list

l_names List of item names that indicates items to be added.

Value Returned

All arguments were processed without error.

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nil An error occurred. You might have added a menu item to more than one menu or added a menu item that does not exist.

Example

```
; Add into the new pull-down menu and into
; the Library and Cell popups
lmgrAddMenuItems( "MyPulldown" "LC" '( "myMenuItem1" ) )=> t

; Add the new pull-down menu into the menu banner
lmgrAddMenuItems( "menuBar" "" '("MyPulldown") )=> t
```

Reference

`lmgrCreateMenu`, `lmgrCreateMenuItem`, `lmgrInsertMenuItems`

lmgrInsertMenuItems

```
lmgrInsertMenuItems( t_menuItem t_popupSet l_names ) => t/nil
```

Description

Inserts the named objects into the menu directly before the indicated menu item. An object can be an entire menu. Each menu item or menu can be inserted or added to only one menu. Likewise, any menu item can appear at most once in each pop-up menu. Menus can not be inserted (added) to a pop-up. Pop-ups must remain a flat structure only. You cannot insert or add pop-ups to menus. This function is similar to `lmgrAddMenuItems()`, except in the meaning of the first argument.

Only menus can be added to the main pull-down menubar. This is indicated by specifying an empty string "" or the reserved name `menuBar` for the `t_menuName` argument. It is also legal to specify the `t_menuItem` argument as `pop-up` or `nil` when the sole purpose is to add an already added user-defined object to an indicated pop-up set.

If radio items are added to a particular menu, then only radio items may be added to that menu. The pull-down menu or submenu may not contain both radio and non-radio items.

Arguments

`t_menuName` The name of the menu to which the items are added.

`t_popupSet` A string of characters indicating which pop-ups this item is to be included in.

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The pop-up set is a string including 0 or more characters using the following mapping:

L = included in library list
C = included in cell list
V = included in view list
l = included in library file list
c = included in cell file list
v = included in view file list
t = included in category list

l_names List of item names that indicates items to be added.

Value Returned

t All arguments were processed without error.
nil An error occurred. You might have added a menu item to more than one menu or added a menu item that does not exist.

Example

```
; Add into the Edit pull-down menu, before the Copy item
; and not into any popups
lmgrInsertMenuItems("copySimpleButton" "" '("myMenuItem2")) => t
```

Reference

lmgrCreateMenu, lmgrCreateMenuItem, lmgrAddMenuItems

lmgrDeleteMenuItems

```
lmgrDeleteMenuItems( l_names) => t/nil
```

Description

Deletes the named objects from the menu/pop-up hierarchy. The object can be either a single item or an entire menu. There is no recovery or undo from this operation. If you merely wish to temporarily disable the view of an object, consider using lmgrManageMenuItems() instead.

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You can also specify items that have been predefined by Cadence. This function is supplied in the library manager local extension file parse environment so you can use it predefined objects. In most cases, newly defined custom items are not deleted. Otherwise, there is no reason to create them in the first place.

Arguments

`l_names` List of item names to be deleted.

Value Returned

`t` All arguments were processed without error.

`nil` An error occurred.

Example

```
lmgrDeleteMenuItems( "designCascade" )=> t
```

Permanently removes the *Design Manager* menu and all associated menu items. It also removes the menu items from the pop-up sets.

Reference

`lmgrManageMenuItems`, `lmgrSensitizeMenuItems`

SKILL Functions Used in `cdsLibMgr.il` or the DFII Session

The following functions can be used on either side of the interface.

- `lmgrManageMenuItems`
- `lmgrSensitizeMenuItems`
- `lmgrGetObject`
- `lmgrSetObject`

lmgrManageMenuItems

```
lmgrManageMenuItems( l_names g_manageOn) => t/nil
```

Description

Manages the named objects (enabling the display of named objects) inside their menu hierarchy and pop-up sets. Objects can be either a single item or an entire menu.

You can also specify items that have been predefined by Cadence.

This function has the same effect as specifying the `managed` attribute in `lmgrSetObject()`.

Arguments

<code><i>l_names</i></code>	List of item names that indicates items to be deleted.
<code><i>g_manageOn</i></code>	A Boolean that sets unmanaged (invisible) if it is <code>nil</code> , and managed otherwise.

Value Returned

<code><i>t</i></code>	All arguments were processed without error because the named objects exist.
<code><i>nil</i></code>	An error occurred.

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Example

```
lmgrManageMenuItems(list("fileSeparator1" "fileSeparator2"  
"fileSeparator3" "fileSeparator4") nil) => t
```

This example causes the separators on the *File* menu to be made invisible.

Reference

`lmgrDeleteMenuItems`, `lmgrSensitizeMenuItems`

lmgrSensitizeMenuItems

```
lmgrSensitizeMenuItems( l_names g_sensitive) => t/nil
```

Description

Sensitizes the named objects (enabling the active state of named objects) inside their menu hierarchy and pop-up sets. Objects can be either a single item or an entire menu.

You can also specify items that have been predefined by Cadence.

This function has the same effect as specifying the `sensitive` attribute in `lmgrSetObject()`.



Caution

Some Cadence predefined “simple” items can become sensitive or insensitive dynamically whenever a selection is made.

For example, the *Check In* and *Check Out* menu items are only sensitive when over a library under design management. Consequently, you might want to permanently disable these menu items by making them unmanaged instead, to avoid your customization being overridden automatically by the library manager itself.

Arguments

l_names List of item names to be deleted.

g_sensitive If `nil`, the menu or menu item is shown grayed-out so that it cannot be selected. Otherwise, it is drawn as normal and can be selected.

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Value Returned

t	All arguments were processed without error because the named objects exist.
nil	An error occurred.

Example

```
lmgrSensitizeMenuItems(list("viewFilterButton") nil) => t
```

This example causes the *View – Filter* menu item to be grayed-out.

Reference

`lmgrDeleteMenuItems`, `lmgrSensitizeMenuItems`

lmgrGetObject

```
lmgrGetObject( t_objName ) => l_attrList/nil
```

Description

Returns a list describing the state of the single named object or `nil` if the object does not exist. The format of the attribute list will be variable length list of tags (strings) paired with matching values that are either a string or Boolean value.

Arguments

`t_objName` Name of a menu or menu item.

Value Returned

`l_attrList` An associated list of tags (strings) paired with values to reflect the status of the named object.

The example below shows how this associated list appears. The possible tags are `parent`, `type`, `managed`, `sensitive`, `state`, `label`, `mnemonic`, and `font`.

The `state` value can be `nil` for objects that have no state, such as for separators or simple buttons. The `state` uses `nil` for `off` /

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false, and t for on/true. This also applies to the Boolean managed and sensitive values.

The sensitive value returned is the logical AND combination of the current value for the object and the values of the menus. For example, menu `M` contains menu item `I`. `M` is not sensitive, but `I` is sensitive, so the sensitive value returned for `I` would be `nil`.

nil The named object does not exist.

Example

```
lmgrGetObject( "viewFilterButton" ) =>  
  
( ( "parent" "viewCascade" )  
  ( "type" "simple" )  
  ( "managed" t )  
  ( "sensitive" t )  
  ( "label" "Filters... " )  
  ( "font" nil )  
  ( "mnemonic" nil )  
)
```

Retrieves the settings of the *View – Filters* menu item.

Reference

lmgrSetObject

ImgrSetObject

```
lmgrGetObject( t_objName l_attrList) => t/nil
```

Description

Accepts a list describing the state of the named object. Returns `nil` if the object does not exist. The format of the attribute list is a variable-length list of tags (strings) paired with matching string or Boolean values.

Arguments

t_objName Name of a menu or menu item.

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l_attrList

Associated list of attribute names and paired values, such as the following:

```
( "managed" t )
( "sensitive" t )
( "label" "Copy" )
( "mnemonic" "C" )
( "state" t )
)
```

Valid attributes to change are `managed`, `sensitive`, `label`, `mnemonic`, `font`, and `state`. Additionally, the following attributes are recognized, but are silently ignored: `accelerator`, `parent`, and `type`. Any other attribute specifications are illegal and generate an error.

Not all attribute values need to be specified in *l_attrList*. Unspecified values are left unchanged.

Value Returned

`t`

The function was called correctly.

`nil`

The named object does not exist, or invalid attributes are specified.

Example

```
lmgrSetObject( "designCascade" ' ( ( "font" "-adobe-courier-bold-o-normal--25-180-100-100-m-150-iso8859-1" ) ) ) => t
```

Sets the font of the Design Manager pull-down to a large bold courier font.

Reference

`lmgrGetObject`

Associated SKILL Functions Used in Design Framework II

The following functions can be used only in the design framework II interface to customize the library manager interface:

- `lmgrDisplayMessage`
- `lmgrQueryNamedObjects`
- `lmgrVerbose`

lmgrDisplayMessage

```
lmgrDisplayMessage( t_text [g_logOnly]) => t/nil
```

Description

Displays a string in the message window of the library manager and appends it to the library manager log file. If desired, the message can be written just to the library manager log file and not echoed to the user. Ensure that the string is terminated by a newline character, or the string might be confused with the output from other library manager commands or other calls to this function.

Arguments

<i>t_text</i>	The string to output in the library manager log file.
<i>g_logOnly</i>	An optional Boolean that echoes the string to the message window and writes it to the log file if the string is not specified or is specified as <code>nil</code> , and writes the string just to the log file otherwise.

Value Returned

<i>t</i>	The string is successfully transmitted to the library manager.
<i>nil</i>	Either no library manager process is running or an error occurred in transmitting the string.

Example

```
lmgrDisplayMessage( "DFII talking to libManager" ) => t
```

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This example writes a short message to the log file.

Reference

lmgVerbose

ImgrQueryNamedObjects

```
lmgrQueryNamedObjects( [ t_menuName ] ) => list/nil
```

Description

Returns a list containing the names of all menu items in the library manager menu named *t_menuName*.

If `t_menuName` is not specified, the names of all menus and menu items in the library manager are returned. The order in the list is arbitrary. The list will contain the names of any standard library manager objects as well as any objects which have been specified in the `cdsLibMgr.il` file.

Arguments

t_menuName The option menu name to query.

Value Returned

list The list of menu names found.

nil Either no library manager process is running or an error occurred in retrieving the information, for example, a nonexistent menu name was specified.

Example

```
lmgrQueryNamedObjects( "viewCascade" ) =>
  ( "viewFilterButton" "viewSeparator1" "viewRefreshButton" )
```

Retrieves the menu items for the *View* menu.

lmgrVerbose

```
lmgrVerbose( x_level ) => x_level/nil
```

Description

To aid in debugging the callbacks registered in the `cdsLibMgr.il` file, it is possible to get additional informational messages to be output to the CIW.

Arguments

<code>x_level</code>	An integer representing the verbose level to use. 0 means no messages are written and 1 means that messages are written to the CIW. Any other value is reserved for future use.
----------------------	---

Value Returned

<code>x_level</code>	The verbose level if a valid value was specified.
----------------------	---

<code>nil</code>	An invalid verbose level was specified.
------------------	---

Example

```
lmgrVerbose(1) => 1
(lmgr) Calling: abCopyEnableCallback("popup_L" "andrew" " " " " " " )
(lmgr) Calling: abRadioExample("RadioOption1" "andrew" " " " " " " )
(lmgr) Calling: abRadioExample("RadioOption2" "andrew" " " " " " " )
(lmgr) Calling: abShowAllCheckOuts("ShowAllCheckOuts" "andrew" " " " "
" " )
```

The above example shows the effect of selecting several menus after setting verbose to 1.

Customization Examples Using SKILL

Each of these examples demonstrates some aspect of the library manager customization. Some examples solve a particular requirement. Others just demonstrate a principle.

Each example includes both the code you add to the `cdsLibMgr.il` file and the functions you need to define in design framework II.

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Example 1: Checking for Startup of DFII in a Design Management System

In this example, the initialization procedure is used to check whether design framework II has been started from a DM (design management) workarea, such as TDM (team design management). If not, the *Design Manager* pull-down menu and all of the menu items contained within it are set to be unmanaged. This simplifies the appearance of the library manager menus for those not using DM.

1. Add the following code to the `cdsLibMgr.il` file:

```
; specify names of functions to call at startup and exit
lmgrDefineInits('("abLibMgrInitProc") '("abLibMgrCloseProc"))
```

2. Define the following functions in design framework II, such as in the `.cdsinit` file:

```
/*********************************************
*
*          abLibMgrInitProc( )
*
*  When Library Manager is initialized, this gets invoked.      *
*  It checks to see if we're in a DM workarea, and if not, removes *
*          all the DM menus from the libManager.                  *
*
********************************************/
```

```
procedure( abLibMgrInitProc()
    let((path dm filePD)
        path = simplifyFilename(getWorkingDir())
        dm   = ddGetPathDMSys(path)
        ; if you're not in a DM workarea, then remove the Design
Manager
        ; menu
        when(null(dm) || equal(dm "none"))
            lmgrManageMenuItems(list("designCascade") nil)
            lmgrDisplayMessage("Not in TDM workarea, so DM menus
removed\n")
        )
        t
    )
)
```

```
/*********************************************
*
*          abLibMgrCloseProc( )
*
*  Sample close procedure.
*
********************************************/
```

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```
procedure( abLibMgrCloseProc()
    ; no reason to display lib manager, since it has been closed.
    printf( "My closing procedure was called\n" )
)
```

Example 2: Displaying Checked-Out Library Manager Cellviews and Files

This example uses a script, `tdmfindallcheckouts`, to display all files and cellviews in a library selected within the library manager that are checked out and opened by any user.

The menu command starts the callback in design framework II, which then uses asynchronous techniques to start the script that uses SKILL IPC. Because the program does not block the user interface, you do not need to wait for it to finish. When the results are available, they are postprocessed and displayed in a Show File window.

Although this particular example is based around TDM, it demonstrates the principles of using an external program via IPC and of displaying the results to the user using a design framework II applet.

1. Add the following code to the `cdsLibMgr.il` file:

```
lmgrCreateMenuItem( "ShowAllCheckOuts" "simple"
    '(( "label" "Show All CheckOuts"
        ("callback" ( "abShowAllCheckOuts" ))
    )
)
; show the pop-up in library (L) list box only, and on the
; design manager pull-down menu
lmgrAddMenuItems( "designCascade" "L" ' ( "ShowAllCheckOuts" ))
```

2. Define the following code in the design framework II session:

```
; define the command to execute to find out the checkout information
unless( boundp( 'abShowAllCheckOutsCommand)
    abShowAllCheckOutsCommand="tdmfindallcheckouts -lisp"
)
*****
* abListCompare(a b) *
* Compares two lists of strings, for use in a sort function. *
* *
*****
procedure( abListCompare(a b)
```

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```
let( ((status 0))
    while(status==0 && a && b
        status=strcmp(car(a) car(b))
        a=cdr(a)
        b=cdr(b)
    )
    status<0
))

/
*****
*
*          abShowAllCheckOutsPostHandler(child      exitStatus)      *
*
* Read the results of tdmfindallcheckouts - which is in LISP format
* for easy parsing. Then sort it and display it neatly in a window to
* the user. This function gets called when the tdmfindallcheckouts *
* command completes.
*
*****
*/
procedure( abShowAllCheckOutsPostHandler(child exitStatus)
    let( (fileName filePort readData window owner libName cellName
viewName)
        fileName=abShowAllCheckOutsFileTable[child]
        if( fileName then
            /* read the data from the tdmfindallcheckouts output file
            -
            - it's in LISP syntax, so easy to read */
            filePort=infile(fileName)
            when(filePort
                readData=car(lineread(filePort))
                close(filePort)
            )
            /* remove the file - don't want to leave junk around */
            deleteFile(fileName)
            /* remove entry from the file table */
            remove(child abShowAllCheckOutsFileTable)
            if( readData then
                /* create a text window */
                window=hiCreateWindow(list(100:100 500:400) "text"
"Show File")
                /* put the show file menus in */
                hiInsertBannerMenu(window fileMenu 0)
                /* sort the data, user, then lib, cell, view */
                readData=sort(readData 'abListCompare)
```

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```
/* put the titles in the window */
hiTextDisplayString(window sprintf(nil "%-10s %-10s
%-10s %-10s\n"
"Library" "Cell" "View" "CheckOut") nil)
hiTextDisplayString(window sprintf(nil "%-10s %-10s
%-10s %-10s\n"
"===== " === " === " =====") nil)
/* output the entries into the window */
foreach( entry readData
/* set the variables to the values in the list -
do it this way to make sure that each
variable has a default value of "" if the list isn't long enough */
owner=libName=cellName=viewName=""
foreach( (val varName) entry '(owner libName
cellName viewName)
set(varName val)
)
/* display the formatted output in the window */
hiTextDisplayString(window
sprintf(nil "%-10s %-10s %-10s %-10s\n"
libName cellName viewName owner) nil)
) ; foreach
/* set the title */
hiSetWindowName(window "Show All Checkouts")
/* finally, display the window to the user */
hiDisplayWindow(window)
else
    lmgrDisplayMessage("No cellViews checked out\n")
) ; if
else
    lmgrDisplayMessage("Couldn't find fileName for show all
checkouts\n")
) ; if
t
))

/
*****
*
*      abShowAllCheckOuts(MenuName lib cell view file cat)
*
*      Callback function for show all checkouts. Checks to see
*      if a library has been selected, is under DM, and then
*      starts the script to find all the checkouts. The post
*      handler will take care of reading the results and displaying
*      them in a window. This means that it will behave asynchronously.
*
```

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```
*****
/
```

```
procedure( abShowAllCheckOuts(MenuName lib cell view file cat)
    let( (fileName dirName handle)
        cond(
            (lib==""
                lmgrDisplayMessage( "Must have library name
selected\n" )
            )
            (ddAmUsingDM(ddGetObj(lib))
                dirName=ddGetObj(lib)~>readPath
                unless( boundp( 'abShowAllCheckOutsFileTable )
                    abShowAllCheckOutsFileTable=makeTable(
                        'abShowAllCheckOutsTable nil)
                )
                fileName=makeTempFileName( "/tmp/
abShowAllCheckOuts" )
                ; fire off background process
                handle=ipcBeginProcess(
                    sprintf(nil "%s %s > %s"
                        abShowAllCheckOutsCommand
                        dirName fileName)
                    "" nil nil 'abShowAllCheckOutsPostHandler)
                ; remember where the output was stored
                abShowAllCheckOutsFileTable[handle]=fileName
                lmgrDisplayMessage(
                    sprintf(nil
                        "Finding all checkouts for %s - this may
take some time\n" lib))
                )
            )
            (t
                lmgrDisplayMessage(sprintf(nil "%s is an unmanaged
library\n" lib))
            )
        ) ; cond
    t
))
```

3. Put the script `tdmfindallcheckouts` (shown here) in the UNIX search path:

```
#!/bin/csh -f
#
# Author      John Doe
# Group       Custom IC, Cadence UK
# Machine    SUN
```

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```
# Date      Mar 13, 1998
# Modified   Mar 26, 1998
# By
#
# script to locate all checkouts from a specified library directories
#
# Usage: tdmfindallcheckouts [-lisp] pathToLibrary
[pathToLibrary...]
#
# SCCS Info: @(#) tdmfindallcheckouts 03/26/98.14:50:20 1.2
#
set progName=$0
set progName=$progName:t

#check for -lisp argument
if ("arg$1" == "arg-lisp") then
    set lispMode
    shift
endif

# check sufficient arguments
if ($#argv < 1) then
    echo "Usage: $progName [-lisp] pathToLibrary"
    exit 1
endif

# choose awk in a platform independent way
if (-x /bin/nawk) then
    set awk=/bin/nawk
else
    set awk=/bin/awk
endif

# if the -lisp argument was specified, write out the query in a form
# that's asily readable from skill
if ($?lispMode) then
    tdmcls -c $* | $awk '\
BEGIN {printf("(\\n")}\\
{\\
owner=$4;\
paths[1]=paths[2]=paths[3]="" ;\
numf=split($1,paths,"/");\
paths[numf+1]=$2;\
if(paths[1]!=lib || paths[2]!=cell || paths[3]!=view) \
printf("(\\\"%s\\\" \\\"%s\\\" \\\"%s\\\" \\\"%s\\\")\\n", \
owner,paths[1],paths[2],paths[3]);\
}'
```

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```
lib=paths[1];cell=paths[2];view=paths[3]\}\  
END {printf(")\n")}'  
else  
# otherwise write it out in a human readable form  
echo "The following cellViews and files are checked out by:"  
tdmls -c $* | $awk '{owner=$4;\  
paths[1]=paths[2]=paths[3]="";\  
numf=split($1,paths,"/");\  
paths[numf+1]=$2;\  
if(numf<3 || paths[1]!=lib || paths[2]!=cell || paths[3]!=view) \  
print owner ":" ,paths[1],paths[2],paths[3];\  
lib=paths[1];cell=paths[2];view=paths[3]\}' | sort  
echo "$progName completed"  
endif
```

Example 3: Displaying Cellviews and Files to Be Updated with the Next Update Operation

Use this example to add a new command to display any cellviews and files to be updated when the next update operation is performed.

This example also uses the SKILL IPC to start `tdmupdate -n` on the directory that has been selected in the library manager. That is, if a cell is selected, just the updates within that cell will be reported. Rather than displaying the results in a Show File window, the results from `tdmupdate -n` are echoed back into the library manager output pane.

1. Add the following code to the `cdsLibMgr.il` file:

```
lmgrCreateMenuItem( "ShowUpdates" "simple"  
'(( "label" "Show Updates")  
("callback" ( "abShowWhatWillBeUpdated" ))  
)  
)  
  
; show the pop-up in library (L), cell (C) and View (V) list boxes  
lmgrAddMenuItems("designCascade" "LCV" '("ShowUpdates"))
```

2. Define the following code in the design framework II session:

```
*****  
*  
*          abTdmUpdateDataHandler(child data)  
*  
* Data handler for tdmupdate to echo output into the libManager  
*          output pane.  
*  
*****
```

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```
procedure(abTdmUpdateDataHandler(child data)
  lmgrDisplayMessage(data)
)

/*********************************************
*
*          abTdmUpdateExitHandler(child status)
*
*  When tdmupdate -n exits, put a message into the libManager
*          output pane.
*
********************************************/
```

```
procedure(abTdmUpdateExitHandler(child status)
  lmgrDisplayMessage("tdmupdate -n completed\n")
)

/*********************************************
*
*          abRunTdmUpdateCheck(@optional fileName)
*
*  Start tdmupdate -check, with a couple of handler functions
*
********************************************/
```

```
procedure(abRunTdmUpdateCheck(@optional fileName)
  let( (tdmUpdateCmd)
    tdmUpdateCmd = if(fileName (strcat "tdmupdate -n " fileName)
      "tdmupdate -n")
    ipcBeginProcess(tdmUpdateCmd "" 'abTdmUpdateDataHandler nil
      'abTdmUpdateExitHandler)
  )
)

/
*********************************************
*
*          abShowWhatWillBeUpdated(MenuName lib cell view file cat)
*
*
*  This will cause tdmupdate -n to be started on either the lib/cell/
*  view selected, or on the whole workarea if nothing is selected. It
*  uses IPC to start the command, and the results will be displayed
*  back into the libManager output pane.
*
********************************************/
```

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```
/  
  
procedure( abShowWhatWillBeUpdated(MenuName lib cell view file cat)  
  let((ddObj ddGetObjArgs)  
    ddGetObjArgs=setof(lcv list(lib cell view) lcv!="")  
    if(ddGetObjArgs  
      then  
        ddObj=apply('ddGetObj setof(lcv list(lib cell view) lcv!=""))  
        lmgrDisplayMessage(  
          sprintf(nil  
            "The following files will be updated by an update operation  
for %s:\n"  
          buildString(ddGetObjArgs)))  
        abRunTdmUpdateCheck(ddObj~>readPath)  
      else  
        lmgrDisplayMessage("The following files will be updated by an  
update for the whole workarea:\n")  
        abRunTdmUpdateCheck()  
    )  
  t  
))
```

Example 4: Replacement of File – New – Library in the Library Manager

One potential problem with *File – New – Library* in the library manager is that it actually creates the library itself and then triggers design framework II to compile a technology file if needed. Therefore, if you define a `CreateObj` trigger in design framework II, the trigger will not be started if the library is created from the library manager.

You can resolve this problem by removing the existing facility in the library manager and creating a new menu item for which the callback is the function that is started from *File – New – Library* in the CIW.

1. Add the following code to the `cdsLibMgr.il` file:

```
; create a new menu item to start the new library in DFII  
; directly, without the lib manager version of the form appearing  
lmgrCreateMenuItem("abNewLib" "simple"  
  '("label" "Library ...")  
  ("callback" ("abCreateNewLib"))  
)  
  
; Stop the existing new library "button" from being displayed.  
; Do this by unmanaging it  
lmgrManageMenuItems(list("FileNewLibButton") nil)
```

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```
; insert the new menu item before the old, now unmanaged, button.  
lmgrInsertMenuItems( "FileNewLibButton" " " ' ( "abNewLib" ) )
```

2. Use the following function in the design framework II session:

```
/  
*****  
**  
*  
*      abCreateNewLib(menuName _l _c _v _f _cat)  
*  
*  Callback so that the File -> New -> Library from the libManager  
*  calls DFII's File -> New -> Library. This means that the library  
*  will be created from within DFII so the postCreateLib trigger *  
*  will get invoked, for example. Most of the arguments here are  
*          ignored.  
*  
*****  
**/  
  
procedure( abCreateNewLib(menuName _l _c _v _f _cat)  
  when(equal(menuName "abNewLib") ddsHiCreateLibrary())  
)
```

Example 5: Dynamically Sensitizing Menu Items in a DM Workarea

In this particular example, the capabilities of the function shown in Example 1 are extended so that certain menus can be sensitized within a design management workarea (such as TDM), based on whether the library currently selected is DM-managed or not.

When either the pop-up menu is selected or the design manager pull-down menu is selected, the specified map callback is started in design framework II. This then sensitizes the menu items from examples 2 and 3 depending on whether the selected library is under TDM control or not. It is vital for this kind of pre-map callback to be fast so that it can make the modification prior to the menu being displayed without blocking the window system.

1. Add the following code to the `cdsLibMgr.il` file:

```
lmgrCreateMenu( "popup" ' ( ( "mapCallback" ( "abPopupCallback" ) ) ) )  
lmgrCreateMenu( "designCascade" ' ( ( "mapCallback"  
  ( "abPopupCallback" ) ) ) )
```

2. Define the following function in design framework II:

```
/  
*****
```

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```
*  
*  
*      abPopupCallback(_menuName lib _c _v _f _cat) *  
*  
* pre-map callback to be started from either pop-up or design manager  
*  
* pull-down. This sensitizes two of the menu items based on whether *  
*           this library is DM managed or not. *  
*  
*****  
*/  
  
procedure( abPopupCallback(_menuName lib _c _v _f _cat)  
lmgrSensitizeMenuItems('("ShowAllCheckOuts" "ShowUpdates")  
    lib!=" " && ddAmUsingDM(ddGetObj(lib)))  
    t  
)  
)
```

Example 6: Changing Labels and Fonts

You can use this sample function either in design framework II or in the `cdsLibMgr.il` file. In the following simple example, the label for *Copy Wizard* is changed to *Advanced Copy* and the font for *File – Open* is changed.

```
; change label for Copy Wizard  
lmgrSetObject("editCopyButton" '("label" "Advanced Copy..."))  
;; choose silly font for File->Open  
lmgrSetObject("FileOpenButton"  
'("font"  
"-adobe-helvetica-medium-o-normal--12-120-75-75-p-67-iso8859-1")  
)
```

Example 7: Adding Toggles and Radio Button Fields

This example does not perform any useful task, but it demonstrates how you use the other menu types that are available. It creates a new pull-down menu in the menu bar, *GUI Objects*, which contains a toggle menu underneath, and then a submenu containing three radio options. The callback to design framework II causes a message to be displayed in the library manager output pane reflecting the current settings.

Note: The radio options must be in their own menu.

1. Add the following code to the `cdsLibMgr.il` file:

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```
; create the toggle button
lmgrCreateMenuItem( "ToggleExample" "toggle"
  '((("label" "Toggle Example")
    ("callback" ( "abToggleExample"))
    )
  )

; create a new pull-down menu, to contain the toggle example
lmgrCreateMenu("GUICascade" '((("label" "GUI Objects"))))

; Add the toggle example into the new pull-down menu
lmgrAddMenuItems( "GUICascade" " " '("ToggleExample"))

; Add the new pull-down menu into the menu banner
lmgrAddMenuItems( "menuBar" " " '("GUICascade"))

; Create Three radio options
lmgrCreateMenuItem( "RadioOption1" "radio"
  '((("label" "Option 1")
    ("callback" ( "abRadioExample"))
    )
  )

lmgrCreateMenuItem( "RadioOption2" "radio"
  '((("label" "Option 2")
    ("callback" ( "abRadioExample"))
    )
  )

lmgrCreateMenuItem( "RadioOption3" "radio"
  '((("label" "Option 3")
    ("callback" ( "abRadioExample"))
    )
  )

; Create a pull-down to contain the three radio options
lmgrCreateMenu("RadioPulldown" '((("label" "Radio Pulldown"))))
; Add the radio options to the pull-down. Note that radio options must
; be in their own submenu
lmgrAddMenuItems( "RadioPulldown" " " '("RadioOption1" "RadioOption2"
  "RadioOption3"))

lmgrAddMenuItems( "GUICascade" " " '("RadioPulldown"))
```

2. Use the following callbacks in design framework II:

```
/
*****
```

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```
*          *
*      abToggleExample(_menuName _l _c _v _f _cat)      *
*
* Just prints a message saying what the current state of the toggle      *
* setting is      *
*
*****
*/
procedure( abToggleExample(_menuName _l _c _v _f _cat)
    lmgrDisplayMessage(
        sprintf(nil "Toggle set to %L\n"
            ; note - uses assoc to lookup state information
            cadr(assoc("state" lmgrGetObject("ToggleExample"))))
        )
    )
/*
*
*      abRadioExample(menuName _l _c _v _f _cat)      *
*
*      Displays which radio option was selected or unselected      *
*
*****
/
procedure( abRadioExample(menuName _l _c _v _f _cat)
    lmgrDisplayMessage(
        sprintf(nil "Radio %s %sselected\n" menuName
            if( cadr(assoc("state" lmgrGetObject(menuName))) "" "un" )
        )
    )
)
```

Using the .cdsenv File to Customize the Library Manager

You can use the `.cdsenv` file in the library manager as well as in design framework II to customize the values and settings on various forms and fields. In addition, some of the settings previously stored in the `.libmgr` file are now saved in the `.cdsenv` file instead.

The library manager saves only the settings that it reads from the `.libmgr` file: the screen location and size of the library manager.

Use the *Save Defaults* menu option to save settings in the `.cdsenv` file explicitly, as described in ["Using the Library Manager to Save Settings to .cdsenv" on page 242](#).

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Customizing the Cadence Library Manager Menus

.cdsenv File Search Path Order

The library manager searches for the .cdsenv file in the following locations:

- *install_dir/tools/dfII/etc/tools/cdsLibManager*
(This file contains the default settings.)
- *install_dir/tools/dfII/local*
- *\$HOME*
- *\$CWD*

Note: Currently, design framework II does not look for the .cdsenv file in the current directory, although the library manager does.

Using UNIX to Add Settings to .cdsenv

You can add any of the settings in the following table directly to your .cdsenv file.

tool[.partition]	varName	type	default	description
cdsLibManager.ckCancel	useOptionText	string	""	Options for cancel check out
cdsLibManager.ckCancel	useOptionsOn	boolean	nil	Options toggle for cancel ckout
cdsLibManager.ckIn	useOptionText	string	""	Options for check in
cdsLibManager.ckIn	useOptionsOn	boolean	nil	Options toggle for check in
cdsLibManager.ckOut	useOptionText	string	""	Options for check out
cdsLibManager.ckOut	useOptionsOn	boolean	nil	Options toggle for check out
cdsLibManager.copy	allViewsOn	boolean	t	Copy all views during hier copy
cdsLibManager.copy	hierOn	boolean	nil	Copy hierarchically
cdsLibManager.copy	skipLibsOn	boolean	nil	Skip Libraries during hier copy
cdsLibManager.copy	skipLibsText	string	""	Skipped lib names during hier copy

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tool[.partition]	varName	type	default	description
cdsLibManager.copy	updateOn	boolean	nil	Update instances after copy
cdsLibManager.copy	viewsText	string	""	Views to copy if all not selected
cdsLibManager.copyWizard	skipLibsText	string	""	Names of libraries to skip in wizard
cdsLibManager.copyWizard	updateOn	boolean	t	Update instances after copy wizard
cdsLibManager.customize	mapTimeoutfloat	float	5.0	Timeout for mapCallbacks
cdsLibManager.customize	showDFIICustomization	boolean	t	Give warning if customization file present but not started from DFII
cdsLibManager.customize	startupFile	string		Customizes the name for the .cdsLibMgr.il file
cdsLibManager.defaults	saveAsText	string	".cdsenv"	Default name for .cdsenv in save defaults form
cdsLibManager.delete	localRadio	toggle	(t nil)	Toggle options for delete - means ("both" "local")
cdsLibManager.deleteView	localRadio	toggle	(t nil)	Toggle options for delete by view - means ("both" "local")
cdsLibManager.filter	cellFilter	string	""	Cell names to display
cdsLibManager.filter	viewFilter	string	""	View names to display
cdsLibManager.main	categoryText	string	""	Category that is initially selected
cdsLibManager.main	cellLevelText	string	""	Cell Name that is initially selected
cdsLibManager.main	libraryText	string	""	Library that is initially selected
cdsLibManager.main	showCategoriesOn	boolean	nil	Show Categories toggle
cdsLibManager.main	showFilesOn	boolean	nil	Show Files toggle
cdsLibManager.main	viewLevelText	string	""	View that is initially selected

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tool[.partition]	varName	type	default	description
cdsLibManager.newLib	pathText	string	""	
cdsLibManager.rename	updateOn	boolean	t	Update instances after rename
cdsLibManager.submit	useNameOn	boolean	nil	Use the specified Request Name in Submit
cdsLibManager.submit	useNameText	string	""	Request Name for Submit
cdsLibManager.submit	useOptionText	string	""	Options for Submit
cdsLibManager.submit	useOptionsOn	boolean	nil	Use the Options for Submit
cdsLibManager.update	useNameOn	boolean	nil	Update from toggle
cdsLibManager.update	useNameText	string	""	Update from named release
cdsLibManager.update	useOptionText	string	""	Options for update
cdsLibManager.update	useOptionsOn	boolean	nil	Use the Options for update

Using the Library Manager to Save Settings to .cdsenv

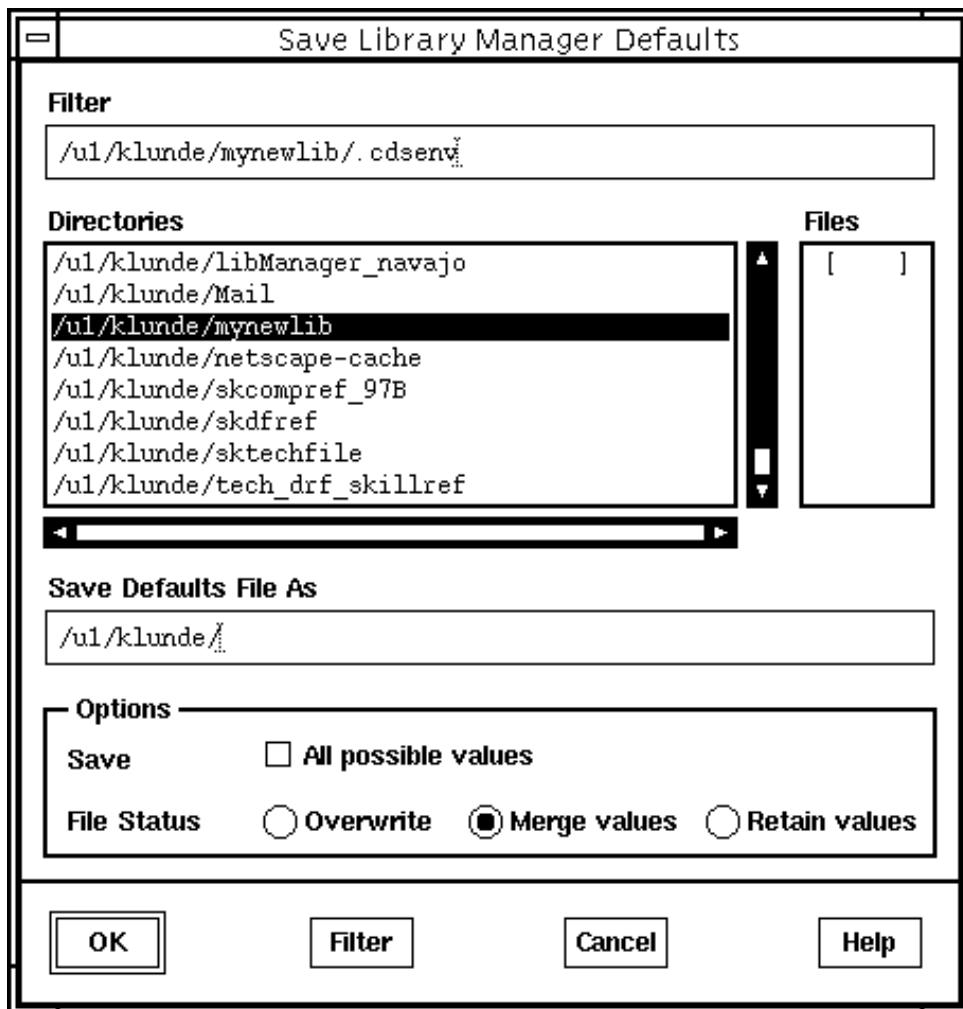
You can also save settings from a file you specify into your .cdsenv file by using the Save Library Manager Defaults form.

- In the library manager form, choose *File – Save Defaults*.

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Customizing the Cadence Library Manager Menus

The Save Library Manager Defaults form appears.



Note: The Save Library Manager Defaults form currently updates only settings that already exist in the .cdsenv file. For details on the Save Library Manager Defaults form, see [Chapter 14, "Library Manager Forms."](#)

Using the .libsel File to Customize the Library Manager

The .libsel file is created by the Library Selector (the libSelect application). This browser appears when you click the *Browser* button in a design framework II form.

The .libsel file is created to store the libSelect values so that next time it is invoked it retains settings such as size, screen location, and whether the *Show Categories* button was on during the previous session of the library manager.

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Customizing the Cadence Library Manager Menus

Library Manager Forms

This chapter includes more detailed explanation of options in forms referred to in the previous chapters. For details on procedures using these forms, see the related chapters.

This chapter describes the following forms:

- [Access Permission Form](#) on page 246
- [Add Property Form](#) on page 247
- [Cell Property Editor Form](#) on page 248
- [Copy Cell Form](#) on page 249
- [Copy Cellview Version Form](#) on page 249
- [Copy Library File Form](#) on page 250
- [Copy Library Form](#) on page 251
- [Copy View Form](#) on page 251
- [Copy Wizard Form \(By Configuration\)](#) on page 252
- [Copy Wizard Form \(By View\)](#) on page 254
- [Copy Wizard Form \(Hierarchical\)](#) on page 255
- [Copy Wizard Form \(Simple Copy\)](#) on page 257
- [Create New File Form](#) on page 258
- [Delete By View Form](#) on page 258
- [Delete Cells Form](#) on page 259
- [Delete Libraries Form](#) on page 259
- [Delete Library Views Form](#) on page 260
- [Edit Category Form](#) on page 260

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- [Library Manager Form](#) on page 261
- [Library Property Editor Form](#) on page 261
- [Library Select Form](#) on page 262
- [Modify 'property_name' Form](#) on page 263
- [New Category Form](#) on page 264
- [New Library Form](#) on page 264
- [Save As Form](#) on page 265
- [Save Library Manager Defaults Form](#) on page 265
- [Submit Form](#) on page 266
- [Technology File for New Library Form](#) on page 267
- [Version Information Form](#) on page 267
- [View Filter By Form](#) on page 268
- [View Property Editor Form](#) on page 269

Access Permission Form

Library, Cell, or Cell-View is the name of the library, cell, or cellview you selected in Library Manager.

Owner is the user ID of the owner of the file.

Group is the name of the working group to which the owner is assigned by the project leader or system administrator.

Access Permission shows the access categories:

Owner (user ID of the owner)

Group (the owner's working group)

Others (anyone who has access to the files)

and the permissions they have:

Read (open and view)

Write (edit, save changes to, or delete)

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Library Manager Forms

Execute (run, if an executable program)

- By default, the owner has read, write, and execute permission.
- By default, the owner must have write permission before the group or others can have write permission.
- If the group or others have write or execute permission, by default they must also have read permission.

Apply sets the values you selected in the *Access Permission* section.

Close closes the Access Permissions form without changing any values.

Help opens the online help system to display information about the *Access Permission* command.

Add Property Form

OK adds the specified property to the selected cellview and keeps the Add Property form open.

Cancel closes the Add Property form without adding any properties.

Defaults clears all values in the fields and sets *Type* to *int*.

Apply adds the specified property to the selected cellview and keeps the Add Property form open.

Help opens the online help system to display information about the *Add Property* command.

Name lets you assign a name to the property.

Type lets you choose a property type. Depending on the type you choose, the remaining fields change to prompt you for values for the property.

Value is the default value for the property.

Minimum Value is the minimum value for the property.

Maximum Value is the maximum value for the property.

Used for *int*, *float*, and *time* property types. The View Property Editor form or the Cell Property Editor form displays these minimum and maximum values next to the property name.

Cell Property Editor Form

OK saves any changes and closes the Cell Property Editor form.

Cancel closes the Cell Property Editor form without saving any changes.

Apply saves any changes and keeps the Cell Property Editor form open.

Add opens the Add Property form.

Delete removes the selected property.

Modify opens the Modify‘ property_name’ form.

Cell

name is the cell name of the selected cellview.

owner is the user ID of the owner of the selected cellview.

group is the group of the owner of the selected cellview.

lastModify is the date and time of the last modification to the cellview.

readPath is the path to a read-only version of the cellview.

writePath is the path to a writable version of the cellview.

UNIX Permissions Mode

Owner displays the read/write/execute permissions for the owner of the cellview.

Group displays the read/write/execute permissions for the group of the owner of the cellview.

Other displays the read/write/execute permissions for anyone who has access to the cellview.

You cannot change any of the values in the UNIX Permissions Mode section.

cdfData indicates that this cellview has no attached properties. If the cellview has properties, they are listed at the bottom of the Cell Property Editor form.

Copy Cell Form

From Library is the name of the library from which you want to copy. Defaults to the selected library.

From Cell is the name of the cell you want to copy. Defaults to the selected cell.

To Library is the library to which the library files are copied.

To Cell is the new cell name to which the specified cell is copied.

Options

Copy Hierarchical copies all referenced cells in your design to the destination library.

Skip Libraries prevents cells in the specified reference libraries from being copied.

Copy All Views copies all views of the specified cell. For a hierarchical copy, the *Copy* command also copies all views of cells instantiated in the specified cell.

Views To Copy copies only specified views of the selected cell.

Update Instances updates the views in the destination cell with the new cell name.

- When *Update Instances* is selected, the software overwrites occurrences of the *From Cell* name with the *To Cell* name.
- When *Update Instances* is deselected, the software leaves references to the *From Cell* name unchanged.

OK copies the specified cellviews to the new cell name and closes the Copy Cell form.

Apply copies the specified cellviews to the new cell name and leaves the Copy Cell form open.

Cancel closes the Copy Cell form without copying any cellviews.

Help opens the online help system to display information about the *Edit – Copy* command.

Copy Cellview Version Form

From

Library is the library containing the cellview version to be copied.

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Library Manager Forms

Cell is the cell containing the cellview version to be copied.

View is the name of the cellview version to be copied.

Version is the version number of the cellview to be copied.

To

Library is the library in which to copy the cellview version.

Cell is the cell in which to copy the cellview version.

View is the name of the copied cellview version.

Copy Options

Open After Copy opens the copied cellview version for you to view.

Use Options lets you pass in options specific to your particular design management system.

OK copies the specified views to the new view name and closes the Copy Cellview Version form.

Cancel closes the Copy Cellview Version form without copying any files.

Defaults restores the default values displayed when you initially opened the form.

Help opens the online help system to display information about the *Edit – Copy* command.

Copy Library File Form

From Library is the name of the library containing the file you want to copy. Defaults to the selected library.

File is the name of the file you want to copy.

To Library is the library to which the library file is copied.

File is the name of the copied file.

OK copies the library file you specify and closes the Copy Library File form.

Apply copies the library file you specify to the library you specify and leaves the Copy Library File form open.

Cancel closes the Copy Library File form without copying any files.

Help opens the online help system to display information about the *Edit – Copy* command.

Copy Library Form

From Library is the name of the library you want to copy. Defaults to the selected library.

To Library is the library to which the library files are copied.

Options

Update Instances update the cells and views in the destination library with the new library name. Choose the option *Of Entire Library* or *Of New Copies Only* in the cyclic field to the right of *Update Instances*.

When *Update Instances* is off, the software leaves references to the *From Library* name unchanged.

Of Entire Library

When *Update Instances* is on and the *Of Entire Library* option is selected, the software replaces the the *From Library* name with the *To Library* name.

Of New Copies Only

When *Update Instances* is on and the *Of New Copies Only* option is selected, the software overwrites only the cellview references you copied from the original library.

OK copies all the files (cellviews) to the library you specify and closes the Copy Library form.

Apply copies all the files (cellviews) you specify to the library you specify and leaves the Copy Library form open.

Cancel closes the Copy Library form without copying any files.

Help opens the online help system to display information about the *Edit – Copy* command.

Copy View Form

From Library is the name of the library from which you want to copy a view. Defaults to the selected library.

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Library Manager Forms

From Cell is the name of the cell from which you want to copy a view. Defaults to the selected cell.

From View is the name of the view you want to copy. Defaults to the selected view.

To Library is the library to which the specified files are copied.

To Cell is the cell to which the specified view is copied.

To View is the new view name to which the specified view is copied.

Options

Copy Hierarchical copies all referenced views in your design to the destination cellview.

Skip Libraries prevents views in the specified reference libraries from being copied.

Copy All Views copies all views of the specified cell.

Views To Copy copies only specified views of the selected cell.

Update Instances updates the views in the destination cellview with the new view name.

- When *Update Instances* is selected, the software overwrites occurrences of the *From View* name with the *To View* name.
- When *Update Instances* is deselected, the software leaves references to the *From View* name unchanged.

OK copies the specified views to the new view name and closes the Copy View form.

Apply copies the specified view to the new view name and leaves the Copy View form open.

Cancel closes the Copy View form without copying any views.

Help opens the online help system to display information about the *Edit – Copy* command.

Copy Wizard Form (By Configuration)

Copy Options lets you choose how you want to copy.

Simple lets you copy libraries or selected cells or views in a library.

Hierarchical lets you copy all the cells in a hierarchical design.

By View lets you copy only specified views.

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Library Manager Forms

By Configuration lets you copy a configuration of cells you have previously grouped together.

Copy Using Configuration

Library lets you enter the name of the library from which you want to copy the configuration view. You can use only one name.

Cell lets you enter the cell name of the configuration to be copied.

Config View lets you specify the name of the configuration to copy.

Skip Libraries lets you enter the names of libraries that do not contain any elements of the configuration (to make the search process more efficient).

Generate Copy List changes the list to show only the cells and cellviews that are included in the specified configuration. None are displayed until you fill in the required information in the *Copy Using Configuration* section.

Generate Copy List changes from *(not needed)* to *(needed)* whenever you make a change to the copy list. You must regenerate the copy list each time you change information in the Copy Wizard form.

Destination Library is the library to which the files are copied.

Update Instances overwrites all occurrences of the source library name with the destination library name. For example, instances of
/origLib/NOR/symbol are renamed to /newLib/NOR/symbol.

When *Update Instances* is not selected, placed instances in the new library continue to reference their original library. For example, instances of . . . /origLib/NOR/symbol in the newLib library reference
. . . /origLib/NOR/symbol.

Select All selects all cellviews displayed on the Copy Wizard.

Deselect All deselects all cellviews displayed on the Copy Wizard. The cell names are grayed out and the *Copy* button to the left of the row is deselected. To reselect the row, click the *Copy* button.

Clear All removes all information from the Copy Wizard. You can enter new information in an empty row using one of two methods:

- ❑ Click in the table cell, click the down arrow, and choose from the pop-up menu.
- ❑ Click in the table cell and type your information.

OK copies the files (cellviews) in the copy list to the specified library and closes the Copy Wizard form.

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Apply copies the files (cellviews) in the copy list to the specified library and leaves the Copy Wizard form open.

Check Files verifies that all the files (cellviews) in the copy list are present and have the correct permissions.

Cancel closes the Copy Wizard without copying any files.

Help opens the online help system to display information about the *Copy Wizard* command.

Copy Wizard Form (By View)

Copy Options lets you choose how you want to copy.

Simple lets you copy libraries or selected cells or views in a library.

Hierarchical lets you copy all the cells in a hierarchical design.

By View lets you copy only specified views.

By Configuration lets you copy a configuration of cells you have previously grouped together.

Copy By View

Library lets you enter the name of the library from which you want to copy views. You can use only one name.

Cell Filter lets you enter the criteria for specifying the names of cells whose views you want to copy. You can use an asterisk (*) as a wildcard character; for example, cc* or *a2d. You can specify only one string.

Views To Copy lets you specify the views to copy or criteria for specifying the names of cells whose views you want to copy. You can use an asterisk (*) as a wildcard character; for example, sym*. You can specify only one string.

Skip Libraries is not used in *Copy By View*.

Generate Copy List changes the copy list to show only the specified cells and cellviews. None are displayed until you fill in the required information in the *Copy By View* section.

Generate Copy List changes from *(not needed)* to *(needed)* whenever you make a change to the copy list. You must regenerate the copy list each time you change information in the Copy Wizard form.

Destination Library is the library to which the files are copied.

Update Instances overwrites all occurrences of the source library name with the destination library name.

When *Update Instances* is not selected, placed instances in the new library continue to reference their original library.

Select All selects all cellviews displayed in the Copy Wizard form.

Deselect All deselects all cellviews displayed in the Copy Wizard form. The cell names are grayed out and the *Copy* button to the left of the row is deselected. To reselect the row, click the *Copy* button.

Clear All removes all information from the Copy Wizard form. You can enter new information in an empty row using one of two methods:

- Click in the table cell, click the down arrow, and choose from the pop-up menu.
- Click in the table cell and type your information.

OK copies the files (cellviews) in the copy list to the specified library and closes the Copy Wizard form.

Apply copies the files (cellviews) in the copy list to the specified library and leaves the Copy Wizard open.

Check Files verifies that all the files (cellviews) in the copy list are present and have the correct permissions.

Cancel closes the Copy Wizard without copying any files.

Help opens the online help system to display information about the *Copy Wizard* command.

Copy Wizard Form (Hierarchical)

Copy Options lets you choose how you want to copy.

Simple lets you copy libraries or selected cells or views in a library.

Hierarchical lets you copy all the cells in a hierarchical design.

By View lets you copy only specified views.

By Configuration lets you copy a configuration of cells you have previously grouped together.

Copy Hierarchically

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Library Manager Forms

Top Library is the name of the library that contains the highest level of the hierarchical design to be copied.

Top Cell is the name of the cell that contains the highest level of the hierarchical design to be copied.

Views To Copy lets you copy only the specified views.

Skip Libraries lets you enter the names of libraries that do not contain any elements of the hierarchy (to make the search process more efficient).

Generate Copy List changes the Copy List fields to show only the cells and cellviews that are included in the specified hierarchy. The Copy List is empty until you fill in the required information in the *Copy Hierarchically* section.

Generate Copy List changes from *(not needed)* to *(needed)* whenever you make a change to the Copy List. You must regenerate the Copy List each time you change information in the Copy Wizard.

Destination Library is the library to which the files are copied.

Update Instances overwrites all occurrences of the source library name with the destination library name. For example, instances of

.../origLib/NOR/symbol are renamed to

.../newLib/NOR/symbol. When *Update Instances* is not selected, placed instances in the new library continue to reference their original library. For example, instances of .../origLib/NOR/symbol in the newLib library reference .../origLib/NOR/symbol.

Select All selects all cellviews displayed on the Copy Wizard.

Deselect All deselects all cellviews displayed on the Copy Wizard. The cell names are grayed out and the *Copy* button to the left of the row is deselected. To reselect the row, click the *Copy* button.

Clear All removes all information from the Copy Wizard. You can enter new information in an empty row using one of two methods:

- Click in the table cell, click the down arrow, and choose from the pop-up menu.
- Click in the table cell and type your information.

OK copies the files (cellviews) in the Copy List to the specified library and closes the Copy Wizard.

Apply copies the files (cellviews) in the Copy List to the specified library and leaves the Copy Wizard open.

Check Files verifies that all the files (cellviews) in the Copy List are present and have the correct permissions.

Cancel closes the Copy Wizard without copying any files.

Help opens the online help system to display information about the *Copy Wizard* command.

Copy Wizard Form (Simple Copy)

Copy Options lets you choose how you want to copy.

Simple lets you copy libraries or selected cells or views in a library.

Hierarchical lets you copy all the cells in a hierarchical design.

By View lets you copy only specified views.

By Configuration lets you copy a configuration of cells you have previously grouped together.

Generate Copy List generates a list of source and destination files for the *Hierarchical*, *By View*, and *By Configuration* copy modes. You do not need to generate a copy list for a *Simple* copy operation.

Destination Library is the library to which the files are copied.

Update Instances overwrites all occurrences of the source library name with the destination library name. For example, instances of `/origLib/NOR/symbol` are renamed to `/newLib/NOR/symbol`. When *Update Instances* is not selected, placed instances in the new library continue to reference their original library. For example, instances of `/origLib/NOR/symbol` in the `newLib` library reference `/origLib/NOR/symbol`.

Select All selects all cellviews displayed on the Copy Wizard.

Deselect All deselects all cellviews displayed on the Copy Wizard. The cell names are grayed out and the *Copy* button to the left of the row is deselected. To reselect the row, click the *Copy* button.

Clear All removes all information from the Copy Wizard. You can enter new information in an empty row using one of two methods:

- Click in the table cell, click the down arrow, and choose from the pop-up menu.
- Click in the table cell and type your information.

OK copies the files (cellviews) you specify to the destination library and closes the Copy Wizard.

Apply copies the files (cellviews) you specify to the destination library and leaves the Copy Wizard open.

Check Files verifies that all the files (cellviews) you specify to be copied are present and have the correct permissions.

Cancel closes the Copy Wizard without copying any files.

Help opens the online help system to display information about the *Copy Wizard* command.

Create New File Form

OK closes the Create New File form, adds the specified cellview to Library Manager, and opens the tool you selected to create the cellview.

Cancel closes the Create New File form without creating a new cellview.

Defaults clears all values in the *Cell Name* and *View Name* fields.

Help opens the online help system to display information about the *Create New File* command.

Library Name lets you choose the library in which you create the new cellview.

Cell Name is the name of the new cell.

View Name is the name of the new view.

Tool lets you select the tool with which you create the new cellview.

Library path file is the path to the `cds.lib` file you are using. You cannot edit this field.

Delete By View Form

Library Name is the library of the selected view.

Cell Filter lets you enter the criteria for specifying the names of cells whose views you want to delete. You can use an asterisk (*) as a wildcard character, such as `cc*` or `*a2d`. You can specify only one string.

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View Filter lets you specify the view you want to delete from the specified cell or cells, in the selected library. Click the down arrow to display a list box from which you can select a view name.

Add View Name To Selection List lets you add a view name to the *View Filter* list box.

Find Copied Versions lets you delete only cellview versions you have previously copied.

OK opens the *Delete Library Views* list box and closes the Delete By View form.

Apply opens the *Delete Library Views* list box and keeps the Delete By View form open.

Cancel closes the *Delete By View* form without deleting any views.

Help opens the online help system to display information about the *Delete By View* command.

Delete Cells Form

Delete Cells lets you enter the name of the libraries you want to delete.

Delete lists all the libraries in the design that you want to delete.

Don't Delete lists all the libraries in the design that you do not want to delete.

OK deletes the specified cells and closes the Delete Cells form.

Cancel closes the Delete Cells form without deleting any libraries.

Help opens the online help system to display information about the *Edit – Delete* command.

Delete Libraries Form

Delete Libraries lets you enter the name of the libraries you want to delete.

Delete lists all the libraries in the design that you want to delete.

Don't Delete lists all the libraries in the design that you do not want to delete.

You include libraries in the *Delete* list by moving the library names from the *Don't Delete* list box to the *Delete* list box.

OK deletes the specified libraries and closes the Delete Libraries form.

Cancel closes the Delete Libraries form without deleting any libraries.

Help opens the online help system to display information about the *Edit – Delete* command.

Delete Library Views Form

The Delete Library Views form displays a list of the paths for views you chose to delete in the Delete By View form. The name of the library containing these views is displayed above the list.

- Views with a dot to the left of the row are selected for deletion.
- Views without a dot will not be deleted.

You can select or deselect views by clicking the toggle button at the left of each path.

Select All selects all views (and adds a dot to the left of the row).

Deselect All deselects all views (and removes the dot to the left of the row).

Options lets you choose to delete the files either in the data repository or in only the local copies.

Delete Local And Inactive From DM System deletes your local copy and the copy in the data repository.

Delete Local Only deletes the specified views from your Library Manager but not from the data repository.

OK deletes the specified views and closes the Delete Library Views form.

Cancel closes the Delete Library Views form without deleting the specified views.

Help opens the online help system to display information about the *Delete By View* option.

Edit Category Form

Category Name displays the name of the category to be edited.

Cells

Not In Category lists all the cells in the design that are not in the selected category.

In Category lists all the cells in the design that are in the selected category.

Sub Categories

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Library Manager Forms

Not In Category lists all the subcategories in the library that are not in the category.

In Category lists all the subcategories that are in the category.

OK makes the specified changes to the category and closes the Edit Category form.

Apply makes the specified changes to the category and keeps the Edit Category form open.

Cancel closes the Edit Category form without changing the category.

Help opens the online help system to display information about the *Edit – Categories – Modify* command.

Library Manager Form

File lets you open or create libraries, cellviews, or categories or open a UNIX shell window.

Edit lets you manipulate libraries, cellviews, or categories or edit your `cds.lib` file.

View lets you specify filters for displaying cellviews.

Design Manager lets you access design management functions.

Commands in the *Design Manager* menu are active only if you are using a design management system.

Show Categories lets you display the *Category* list box.

Show Files lets you display the *Files In Library* and *Files In Cell* list boxes. See [“View Filter By Form”](#) on page 268 for more information.

Library displays the libraries defined in your `cds.lib` file.

Category displays the categories in the selected library.

Cell displays the cells in the selected library or selected category.

View displays the views in the selected cell.

Messages displays information about actions initiated from Library Manager.

Library Property Editor Form

OK saves any changes and closes the Library Property Editor form.

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Cancel closes the Library Property Editor form without saving any changes.

Apply saves any changes and keeps the Library Property Editor form open.

Add opens the Add Property form.

Delete removes the selected property.

Modify opens the Modify 'property name' form.

Help opens the online help system to display information about the Property Editor form.

Library

name is the view name of the selected library.

owner is the user ID of the owner of the selected library.

group is the group of the owner of the selected library.

lastModify is the date/time stamp of the last modification to the library.

readPath is the path to a read-only version of the library.

writePath is the path to a writable version of the library.

You cannot change any of the values for the library.

UNIX Permissions Mode

Owner displays the read/write/execute permissions for the owner of the library.

Group displays the read/write/execute permissions for the group of the owner of the library.

Other displays the read/write/execute permissions for anyone who has access to the library.

You cannot change any of these permissions.

No Property Attached indicates that this library has no attached properties. If the library has properties, they are listed at the bottom of the Library Property Editor form.

Library Select Form

The Library Select form was called the Library Browser in previous releases. The Library Select form saves the information you enter and restores it every time you open and close it,

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Library Manager Forms

even from one Design Framework II session to the next. For information on the file that stores these settings you create, see [Chapter 13, “Customizing the Cadence Library Manager Menus.”](#)

Show Categories expands the form to display categories.

Library displays the names of the libraries specified in your `cds.lib` file.

Cell displays the names of the cells in the selected library.

View displays the names of the views in the selected cell.

OK opens the selected cellview and closes the Library Select form.

Cancel closes the Library Select form without opening a cellview.

Filters opens the [View Filter By form](#).

Help opens the online help system to display information about the CIW *Options – Browser Preferences* command.

Modify ‘property_name’ Form

OK changes the property values and closes the Modify form.

Cancel closes the Modify ‘property_name’ form without changing any properties.

Defaults clears all values in the fields and sets *Type* to *int*.

Apply changes the property values and keeps the Modify ‘property_name’ form open.

Name is the name of the property. You cannot change this value.

Type lets you change the property type. Depending on the type you choose, the remaining fields change to prompt you for values for the property.

Value lets you change the default value for the property.

Minimum Value lets you change the minimum value for the property.

Maximum Value lets you change the maximum value for the property.

Used for *int*, *float*, and *time* property types. The View Property Editor form or Cell Property Editor form displays these minimum and maximum values next to the property name.

Possible Choices lets you change the possible property values. Used for *string* property type only. The View Property Editor form or the Cell Property Editor form creates a cyclic field of these choices.

New Category Form

Category Name lets you enter the name of the new category you want to create.

Cells

Not In Category lists all the cells in the design that are not in the new category (initially, all the cells in the design).

In Category lists all the cells in the design that are in the new category (initially, no cells).

Sub Categories

Not In Category lists all the subcategories in the library that are not in the new category (initially, all the subcategories in the library).

In Category lists all the subcategories in the library that are in the new category (initially, no subcategories).

OK creates the category and closes the New Category form.

Apply creates the category and keeps the New Category form open.

Cancel closes the New Category form without creating a new category.

Help opens the online help system to display information about the *Edit – Categories – New* command.

New Library Form

Library lets you specify a new library name and path.

Name lets you specify a name for the new library.

Directory lists the directories in the path displayed below the list box. You can select a directory from this list or specify a path to a directory in the field below the list.

Design Manager lets you choose your design management setup.

Use None indicates that there is no DM system currently available to use.

Use No DM indicates that you do not want the library to be placed under DM control, whether there is a DM system available there or not, now or later. (If there is one available, you can still decide to check it in later on).

OK creates the new library in the specified path and closes the New Library form.

Apply creates the new library in the specified path and keeps the New Library form open.

Cancel closes the New Library form without creating a new library.

Help opens the online help system to display information about the *File – New – Library* command.

Save As Form

Filter is the path and filename, including wildcard characters, you enter to point to the original file you want to save from.

Directories shows the directories available at the end of the path (filtered by the character string at the end of the *Filter* path, if any).

Files shows the files available at the end of the path (filtered by the character string at the end of the *Filter* path, if any).

Selection is the filename you enter as the new filename.

Save Library Manager Defaults Form

Filter is the path and filename you enter (including wildcard characters) to point to the original file you want to save from.

Directories shows the directories available at the end of the path (filtered by the character string at the end of the *Filter* path, if any).

Files shows the files available at the end of the path (filtered by the character string at the end of the *Filter* path, if any).

Save Defaults File As is the filename you enter as the new filename.

Options

Click on the *All possible values* check box for the *Save* option to save to your .cdsenv file all values of the directory you specified.

File Status

Overwrite saves the values you enter by overwriting your `.cdsenv` file (the output file).

Merge values saves the values you modify into your `.cdsenv` file (the output file). However, it does not delete pre-existing unmodified values.

Retain values saves the values you enter by creating another file. You must enter a different filename in the *Save Defaults File As* field.

OK submits the files you selected and closes the Submit form.

Filter uses the path you entered in the *Filter* field as the filter for your directory search lists.

Cancel closes the Submit form without submitting any files.

Help opens the online help system to display information about the *Design Manager – Submit* command.

Submit Form

Files to Submit lets you select files to submit to the project data repository.

Select All selects all files in the list for submitting.

Deselect All deselects all files in the list so that no files are submitted.

Description (Optional) lets you type a description of your design changes.

Submit Options

Request Name lets you assign a name to the integration request.

Use Options lets you specify the options you want to use for the submit operation. These options are defined in the [Team Design Manager User Guide](#).

OK submits the files you selected and closes the Submit form.

Cancel closes the Submit form without submitting any files.

Help opens the OpenBook online Help system to display information about the *Design Manager – Submit* command.

Technology File for New Library Form

Compile a new techfile attaches a specified technology file to the new library.

Attach to an existing techfile opens a form that lets you select (from a list) a technology file for the new library.

Don't need a techfile lets you create a new library that does not need a technology file. (By default, the system will attach the `default.tf` file the first time you access the library from a DFII tool.)

OK submits the files you selected and closes the Submit form.

Cancel closes the Technology File for New Library form without submitting any files.

Help opens the online help system to display information about the command.

Version Information Form

Check Out (For Edit) checks out the selected version for editing. The Version Information form shows that the file is checked out.

Update (Read Only) lets you specify which version, other than the project default, is read in to your workarea when you open a file in read-only mode.

Rollback lets you roll back a version so it becomes the project default version.

Description is the field in which you can type a description of the selected cellview version.

Copy lets you copy versions of a cellview that has been checked in.

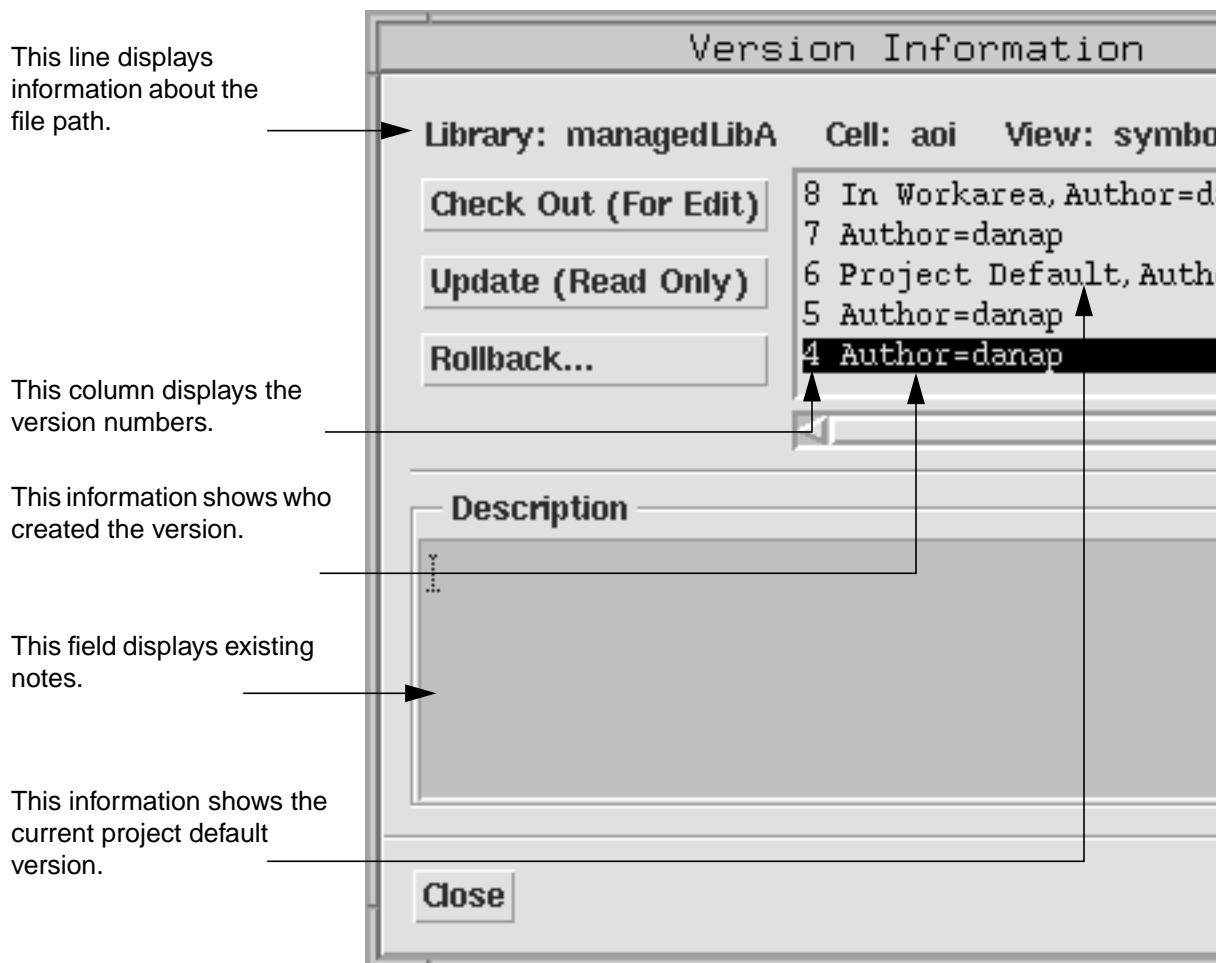
Note: These commands are active only for checked-in files. You can use the Version Information form to display version information about checked-out files, but these commands are inactive.

Close closes the Version Information form without making any changes.

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Help opens the online help system to display information about the command you need information on.



View Filter By Form

When *Show Files* is selected in the Library Manager form, the filter names are *Cell-level Filter* and *View-level Filter*. When *Show Files* is not selected, the filter names are *Cell Filter* and *View Filter*. Regardless of the name, the function is the same.

Cell Filter lets you enter characters that define the range of cell names you want to display in the *Cell* list box. You can use an asterisk (*) as a wildcard character to filter cell name patterns.

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Library Manager Forms

View Filter lets you enter characters that define the range of view names you want to display in the *View* list box. You can use an asterisk (*) as a wildcard character to filter view name patterns.

OK sets the specified filters and closes the View Filter By form.

Cancel closes the View Filter By form without setting any filters.

Help opens the online help system to display information about the *View – Filters* command.

View Property Editor Form

OK saves any changes and closes the View Property Editor form.

Cancel closes the View Property Editor form without saving any changes.

Apply saves any changes and keeps the View Property Editor form open.

Add opens the Add Property form.

Delete removes the selected property.

Modify opens the Modify 'property_name' form.

View

name is the view name of the selected cellview.

owner is the user ID of the owner of the selected cellview.

group is the group of the owner of the selected cellview.

lastModify is the date and time of the last modification to the cellview.

readPath is the path to a read-only version of the cellview.

writePath is the path to a writable version of the cellview.

UNIX Permissions Mode

Owner displays the read/write/execute permissions for the owner of the cellview.

Group displays the read/write/execute permissions for the group of the owner of the cellview.

Other displays the read/write/execute permissions for anyone who has access to the cellview.

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No Property Attached indicates that this cellview has no attached properties. If the cellview has properties, they are listed at the bottom of the View Property Editor form.

Glossary

G

GUI

Graphical user interface

M

managed

When a menu or menu item is described as “managed,” it means that it is visible to the user.

mapped

When a menu is displayed in the library manager, it is referred to as being “mapped.”

menu

A pull-down menu from the menu bar or a slider-type menu from another pull-down menu.

menu item

An individual command that appears on a pull-down or pop-up menu.

MPS

The Cadence® message passing subsystem. This is a mechanism for performing remote SKILL function calls between two processes, specifically the Library Manager and Cadence design framework II.

P

pop-up

The menu that appears when you click the middle mouse button over one of the list boxes in the Library Manager form.

project default version

The version of cellview, library file, or cell file that design team members normally check out to a workarea.

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Glossary

S

sensitized

When a menu or menu item is “sensitized,” it is visible and active. When it is desensitized, it is visible but grayed out.

SKILL

The Cadence extension language.