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Preface

About This User Guide

Part Information Manager User Guide explains how to use Part Information Manager to add and replace parts in a schematic or board in Allegro EDM and as non-Allegro EDM projects. This guide also explains the standalone Part Information Manager available in the standard mode.

Related Documentation

You can also refer to the following documentation to know more about related tools and methodologies:

- For information about the new features, see *Allegro EDM: What's New in Release* 17.4.
- For information on the procedure for adding components using Allegro Design Entry HDL, see *Allegro Design Entry HDL User Guide*.

Cadence Web Resources

For a list of Allegro EDM-related known problems and solutions, visit <u>Cadence Online Support</u>.

Related Tools and Flows

- For information about various PCB design working environments such as a team of designers working on a Design Entry HDL project, implementing FPGAs in designs, working with high-speed constraints, importing IFF files for radio-frequency designs, and reusing existing modules, see *Allegro PCB Design Flows*.
- To learn how to create and configure Design Entry HDL projects, see *Allegro Project Manager User Guide*.

Typographic and Syntax Conventions

This list describes the syntax conventions used for this user guide:

literal	Nonitalic words indicate keywords that you must enter literally. These keywords represent command (function, routine) or option names.
argument	Words in italics indicate user-defined arguments for which you must substitute a name or a value.
	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.

1

Getting Started with Part Information Manager

Understanding Part Information Manager

Part Information Manager allows designers to search for, browse, and add components to designs. These components may be available locally (in a designer's system) or at the reference library location.

Part Information Manager also lets you view physical part table properties, attributes, searchable properties, and graphical information, such as symbol and footprint, for the components.

In the Allegro EDM design mode, the components are stored in the Allegro EDM component database. In this mode, Part Information Manager allows you to access, search for, add, modify, and replace components from the database.

Getting Started with Part Information Manager

Part Information Manager Modes

You can work with Part Information Manager in the following modes:

- Allegro EDM Mode
- Standard Mode

Allegro EDM and Standard Mode

■ In the Allegro EDM mode, for both cache and reference flows of Allegro EDM, Part Information Manager is connected to the Allegro EDM component database and library data is accessed from the Allegro EDM component database. This allows you access to a larger, and accessible-from-anywhere database, of components. For cache-enabled flows, parts are locally cached when you add a part to the design. In the standard mode, data is accessed from libraries specified in the cds.lib file.

Note: If the database is not available, parts are accessed from the cache.

■ In the standard (offline) mode, you can search for a component using the ECAD properties defined in the PTF. However, in the Allegro EDM mode, you can do a further search for components using non-ECAD properties that your librarian may have defined for parts in the Allegro EDM part database. You can also search for parts by specifying a life cycle value that your librarian may have associated with each part or by specifying the PPL to which the part belongs.

You can also search for a part using associated part names, associated footprints, and associated mechanical parts. Unlike in the standard mode, in the Allegro EDM mode, you can additionally search for properties or attributes of a part simply by typing in a free-text search window.

 A library administrator can associate a list of parts to a preferred part list (PPL). One part can be part of many PPLs. As a designer, you can then define the PPLs to be

In the Allegro EDM mode, the following is also possible:

used at the project level.

- You can also enable a strict mode in the Allegro EDM Part Information Manager that allows users to add parts only from selected PPLs.
- The librarian can associate a life cycle status with a part, such as *nearing EOL*, *RoHS non-compliant*, *in short supply*. This status is visible in the Allegro EDM mode and helps you decide whether or not to add a part to a design. In addition, when you try and add such parts to your design, a warning may be displayed.

Getting Started with Part Information Manager

One electrical part can be associated with a number of Manufacture Part Numbers
(MPNs). You can view all the related MPNs in the part details window.

- You can use the Shopping Cart tab to find parts that are selected or added to a design.
- ☐ The shopping list can be used to import parts from other designs or from a shopping cart created by another designer.
- In the Allegro EDM mode, you can switch between the PTF and metadata view to view search results. The PTF view displays the PTFs of a component. In the metadata view, the attributes, properties, and relations of a component are displayed.
- Deleted parts used in designs are indicated with a red, cross icon in the Shopping Cart.

Allegro EDM Mode

In this mode, for both cache and reference flows of Allegro EDM, Part Information Manager accesses part information from the component database. For cache-enabled flows, parts are locally cached when you add a part to the design. If the database is not available, parts are accessed from the cache.

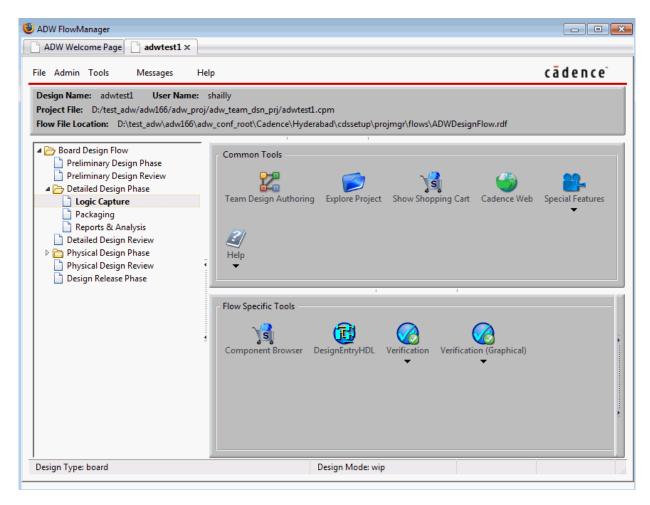
Important

In Design Entry HDL, parts are cached when added to a design. However, parts added to a System Connectivity Manager design from Part Information Manager are not cached.

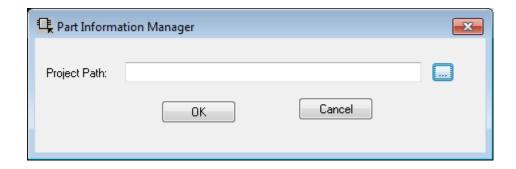
You can launch Part Information Manager in the following ways:

Getting Started with Part Information Manager

By default, the Part Information Manager option is available in the Detailed Design Phase
 Logic Capture node/option of the Board Design flow. Your site might have a different implementation of the flow.



■ To launch Part Information Manager as a standalone application, type componentbrowser at the Workbench Prompt. The Part Information Manager dialog box appears prompting you for the project path.



Getting Started with Part Information Manager

You can also use the <code>-proj</code> argument to specify the project path. For example, you can use the <code>componentbrowser -proj C:\Work\174\des_mig\desmig.cpm</code> command.

Getting Started with Part Information Manager

Standard Mode

In the standard mode, Part Information Manager is launched from Design Entry HDL or System Connectivity Manager in a non-Allegro EDM environment. Part information is accessed from the part table, and not any database.

To launch Part Information Manager, do the following:

- In Allegro Design Entry HDL, choose Component Add.
- In System Connectivity Manager, choose *Design Add Component*. The Part Information Manager window appears.
- To launch Part Information Manager as a standalone application, type componentbrowser at the Command Prompt. The Part Information Manager dialog box appears prompting you for the project path.

For information on the interface elements of Part Information Manager such as menu commands and dialog boxes, see <u>Appendix D, "Part Information Manager User Interface"</u>.

You can also access the Allegro EDM component server from Design Entry HDL and System Connectivity Manager, if required. To identify the Allegro EDM component server of Part Information Manager, in the START_COMPBROWSER section of your project .cpm file, specify the following two directives:

- Online Mode 'TRUE'
- server_url <server_URL>

where server_url points to the Allegro EDM database. For example, 'http://edmserver01:9999

To access symbols, the cds.1ib file in your design project should point to the Allegro EDM server libraries, and the PPT directive in the Global section of your . cpm file should point to the server PTF to access parts.

Local cells/blocks other than those in the design library are not available in the Allegro EDM mode. To access cells and blocks from your local libraries, you can switch to the offline mode by selecting *File* — *Switch to Offline* or by clicking the *Switch to Offline* button () in the Allegro EDM Part Information Manager.

Getting Started with Part Information Manager

Specifying Multiple Designer Server URLs

To maintain server availability uptime, a site might support multiple servers. Designers in a particular geography can connect to a Designer Server available locally. When this server is not accessible, they can connect to the next available one.

If you want to specify multiple Designer Servers, you can do so as follows:

- Online Mode 'TRUE'
- server_url '<server_URL>' '<server_URL>' '<server_URL>'

where server_url points to the Allegro EDM database. For example:

'http://edmserver01:9999' 'http://edmserver02:7100' 'http://edmserver03:9999'

Getting Started with Part Information Manager

Configuring Part Information Manager

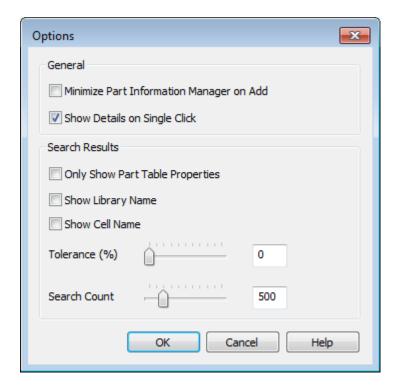
Part Information Manager allows you to configure search options and general preferences using the Options dialog box.

Configuring Part Information Manager Settings

To configure Part Information Manager in the Allegro EDM mode, do the following:

1. Choose *Tools – Options*.

The Options dialog box appears.



2. Select *Minimize Part Information Manager on Add* to minimize the Part Information Manager window when you place a selected component on the schematic.

Configuring Part Information Manager

- **3.** Select *Show Details on Single Click* to view the details of the component when you single-click it.
- **4.** Select *Only Show Part Table Properties* to view only the physical part table data in the search results.

By default, metadata information can be viewed in the search results.

- **5.** Select *Show Library Name* to view the library name for the parts that appear in the search results.
- **6.** Select *Show Cell Name* to view the cell name for the parts that appear in the search results.
- **7.** Use the *Tolerance* slider to set the relevance of the search results involving numeric properties. The default tolerance is 0%.

Important

This setting is valid only for numeric properties in the component database.

8. Use the *Search Count* slider to set the maximum number of rows to appear in the search results.

It is recommended that you use 500 as the default value for performance optimization. However, you can set this value up to 2500 using the Search Count slider.

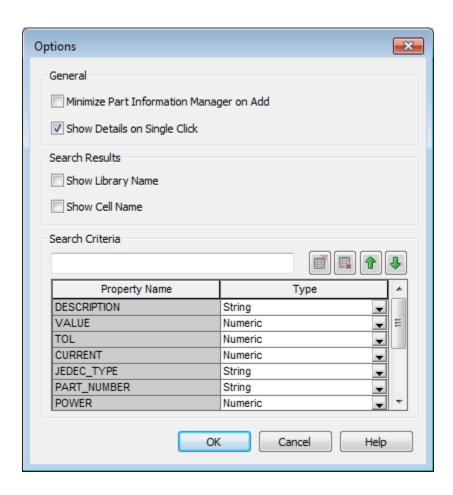
If you want to specify a number greater than 2500, use the Max_Search_Rows directive in the START_COMPBROWSER section of your . cpm file. Using this directive, you can specify up to a maximum of 32767 rows.

Note: Specifying a number greater than 500 can impact search performance.

9. Click OK.

Configuring Part Information Manager

Part Information Manager in the standard (non-database) mode has the following settings:



In the *Search Criteria* section, do the following:

- **1.** Enter the name of a property in the text box.
- **2.** Click the *Add Property* button.

The property is added to the bottom of the property list.

Note: You cannot add a property name similar to one that already exists in the list. If you try to do so, an alert appears prompting that the property name already exists.

- 3. By default, all the properties you add are of the type String. To modify the property type to Numeric, click the property type, and choose Numeric from the drop-down list.
- 4. To change the position of a property (that appears in the search pane), click the up or down arrow to move the position of the property up or down in the list.
- **5.** To remove a property, select the property name and click the *Remove Property* button.

Configuring Part Information Manager

6. Click OK.

Controlling Accessibility of Components

In the standard mode, there might be situations where you want to restrict the availability of some components. For example, to implement the Restriction of Hazardous Substances (RoHS) directive, you might want to disallow the use of certain components.

To enforce this, you need to eliminate the possibility of any designer adding components that are on the RoHS list. You can mark these components as obsolete and disable the addition of these obsolete physical parts to a design.

Modifying or deleting PTF rows might affect existing designs. As a result, to identify any such components, you need to modify the part table file (PTF) by adding an injected or key property field, such as VERSIONSTATUS. The possible values for VERSIONSTATUS could be:

- Obsolete (O)
- Current (C)

After a design is created, a custom checkplus rule can be run that can flag violations in case a physical part has VERSIONSTATUS set to OBSOLETE.

Part Information Manager also recognizes VERSIONSTATUS as a special property (or any other name) and can generate warnings when an Obsolete part is added to the design.

You can control the accessibility of components using a set of CPM directives:

- Search_Result_Highlight_Attr_Name '<PROP>'
 Where PROP is the property name, such as VERSIONSTATUS
- Search_Result_Highlight_Attr_Value '<VALUE>'

Where VALUE is the value of the property. Continuing the example, VERSIONSTATUS could have the values Current and Obsolete.

■ Search_Result_Highlight_Attr_Action '<Number>'

For each PTF row that matches the property value, for example, for all the PTF rows that have the VERSIONSTATUS as OBSOLETE, you can do the following:

То	Specify Action as
Highlight the search results in red	1
Generate a warning while adding the part	2

Configuring Part Information Manager

То	Specify Action as
Generate an error while adding the	4
part and block the part from	

You can also choose a bitwise combination of the values in the table. For example, to color the part and generate warnings, specify

```
Search_Result_Highlight_Attr_Action as 3.
```

addition

You can also specify more than one value from a column. For example, if you have column STATUS in a PPT file with its values as \mathbb{X} , OBS, and AVA. If you want to highlight as well as generate warning for the part \mathbb{X} , and generate an error for OBS, you can specify:

```
Search_Result_Highlight_Attr_Name 'STATUS' 'STATUS' Search_Result_Highlight_Attr_Value 'OBS' 'X' Search_Result_Highlight_Attr_Action '4' '3'
```

3

Working with Part Information Manager (Allegro EDM Environment)

Overview

For Allegro EDM design projects and mode, Part Information Manager is connected to the Allegro EDM component database. The tasks you can perform in this mode are:

- Searching Parts
 - Searching Parts by Classifications
 - □ Free-Text Search
- Browsing Parts by Libraries
- Working with Parts
- Working with Shopping Cart
- Working with Search Results
- Working with Property Options

If you are working in the non-Allegro EDM mode, see <u>Working with Part Information Manager (Standard Mode)</u>.

Working with Part Information Manager (Allegro EDM Environment)

Searching Parts

You can use the following to search for parts:

- free-text search when you know the part number or any other information about the part such as its manufacturer or cost.
- classification-based search when you know the part in terms of its classification or any property of the part, such as VALUE or TOLERANCE.
- browse option for searching when you are aware of the library and cell structure. This option is recommended for nonelectrical parts.

Searching Parts by Classifications

Using Part Information Manager, you can search for electrical parts, mechanical parts, and block parts based on the classifications. A classification is a logical way to categorize the libraries.

Part Information Manager (in the Allegro EDM mode) allows you to search for parts on the basis of the following set of parameters:

- Searching by Properties
- Searching by Part Attributes
- Searching by Relations

/Important

In Part Information Manager (Allegro EDM mode), a search result row can either indicate the database information or the physical part table information. You can configure this using the Options dialog box.



If you want to specify a default, active tab in Part Information Manager, you can use the DEFAULT_SEARCH_TAB directive in the START_COMPBROWSER section of the .cpm file. When Part Information Manager is launched, when you select a classification in Part Information Manager, or when you load search criteria, the tab you define using this directive will be the active tab by default.

You can also add or block parts in your design from the Part Information Manager interface. For more information on this, see <u>Adding Parts to Design</u>.

Working with Part Information Manager (Allegro EDM Environment)

Note: The classification information is specified in the Allegro EDM component database by the library administrator.

Searching by Properties

Searchable properties are defined for a classification in the component database. These are the common properties that are generally used by designers to search for parts and block parts. To search using searchable properties, do the following:

- 1. Launch Part Information Manager.
- **2.** Expand the *Classifications* node, and choose a classification node in the explorer pane (tree-like pane).



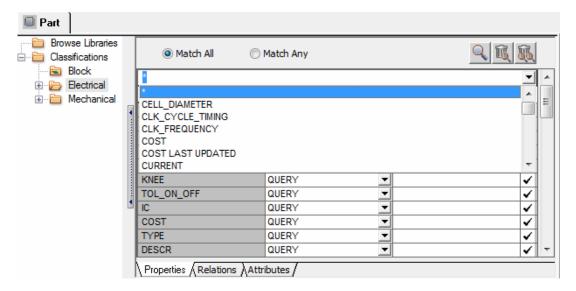
Cadence recommends that you not perform a search by selecting the root node, that is, Classifications. This triggers an exhaustive component search that may take long to find results.

- 3. Click the *Properties* tab. The right pane has a four-column grid containing:
 - Names of searchable properties.
 - □ A column for specifying the conditional operator (<, >, =, !=, =>, or <=) or custom query operator (QUERY).
 - □ A column for specifying the parametric value.
 - □ A check mark icon that indicates if the property will be visible in the search results.

Working with Part Information Manager (Allegro EDM Environment)

/Important

The right pane contains an additional filter that helps you select the desired property on which you want to perform the search.

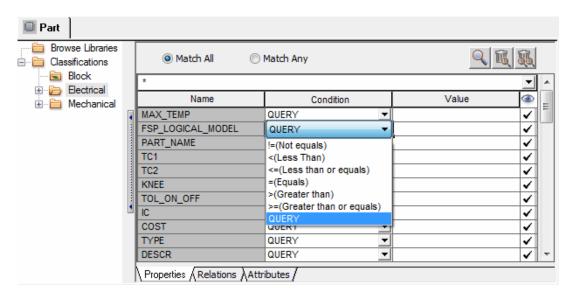


4. For a searchable property, choose a conditional operator (<, >, =, !=, =>, or <=) using the drop-down list (under the *Condition* column).

To specify a complex search expression, choose QUERY under the *Condition* column. In such a case, you need to enter a complex expression under the *Value* column. For example, if you want to search for part names starting from 12 or AB, then choose QUERY from the *Condition* drop-down box, and enter the search expression: "12* | AB*", in the *Value* field.

Working with Part Information Manager (Allegro EDM Environment)

For more information on the various operators supported and how to use them in a custom query, see <u>Appendix A, "Custom Searches,"</u>.

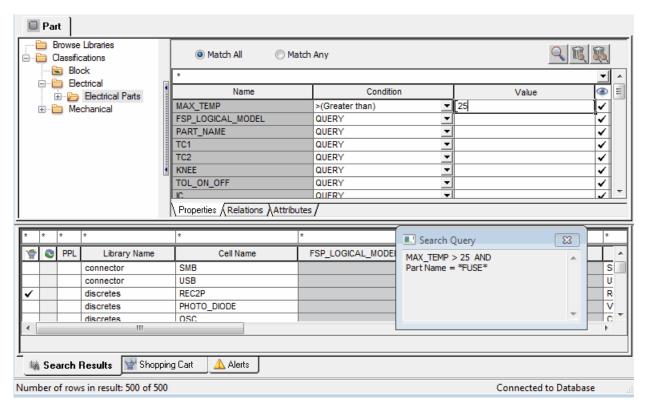


5. Enter a parametric value to search under the *Value* column.

You can also use wildcard characters, such as * and ?, for specifying the values. For search parameter values that involve special characters, ensure that you use double quotes (" ") around the value.

Working with Part Information Manager (Allegro EDM Environment)

As soon as you enter search criteria, the Search Query window appears displaying the search criteria specified in multiple tabs.



6. When you have specified the values, select the Match All or Match Any radio button.

The check mark icon indicates whether a property will be included as one of the headers in the search results. You cannot control the display and the order of the properties as they appear in search results, because it is predefined by the library administrator.

/Important

The library administrator sets the property display order for properties of a classification. You can see the display order as specified by the library administrator but you cannot change it.

If you select any check boxes for property names under other tabs such as *Attributes* and *Relations* then those properties also appear as headers in the search results.

7. Click the Search icon ().

The Search Query window disappears and the search progress bar appears indicating that the search is in progress.

Working with Part Information Manager (Allegro EDM Environment)

The search results matching your criteria appear in the *Search Results* tab. The number of search results appears at the bottom of the Part Information Manager window.

If a part is linked to multiple classifications, the search results show the part according to the property display order on the root electrical part node.

Note: If no property display order is specified by the library administrator, the property order on a classification as seen in Database Editor may differ from that of Part Information Manager.

Searching by Part Attributes

Attributes are part-specific properties defined in the component database. To search for parts or block parts by attributes:

- 1. Launch Part Information Manager.
- **2.** Expand the *Classifications* node, and choose a part or block part classification node in the explorer pane (tree-like pane).
- 3. Click the Attributes tab.

The right pane appears with a four-column grid that contains:

- Names of attributes.
- A column for specifying the conditional operator (<, >, =, !=, =>, or <=) or custom query operator (QUERY).
- □ A column for specifying the parametric value.
- A check box to control the visibility of an attribute in the search results.
- **4.** For an attribute, choose a conditional operator (<, >, =, !=, =>, or <=) using the drop-down list under the *Condition* column.

To specify a complex search expression, choose QUERY under the *Condition* column. For an example, see <u>Searching by Properties</u>.

Note: For more information on the various operators supported and how to use them in a custom query, see <u>Appendix A, "Custom Searches,"</u>.

5. Enter a parametric value to search under the *Value* column.

Note: You can also use wildcard characters, such as * and ?, to specify the values. For search parameter values that involve special characters, ensure that you use double quotes (" ") around the value specified.

Working with Part Information Manager (Allegro EDM Environment)

As soon as you enter search criteria, the Search Query window appears displaying the search criteria entered.

- **6.** When you have specified the values, select the *Match All* or *Match Any* radio button.
- 7. Select the check box (at the other end of the attribute name) to include an attribute as one of the headers in the search results.

Note: If you select other check boxes for property names under the *Relations* tab then those properties also appear as headers in the search results.

8. To control the order of the attributes as they appear in search results, use the up and down arrow icons.

The order of the search parameters you specify in the right pane determines the order of the results that appear in the *Search Results* tab.

9. Click the Search icon.

The Search Query window disappears and the search progress bar appears indicating that the search is in progress.

The search results matching your criteria appear in the *Search Results* tab. The number of search results appears at the bottom of the Part Information Manager window.

Searching by Relations

Parts and block parts can be associated with other library components such as symbols, footprints, preferred parts lists (PPLs), and so on. Allegro EDM allows you to capture these relations in the component database, and allows you to search for parts and block parts based on these relations. To search for parts or block parts by relations:

- 1. Launch Part Information Manager.
- **2.** Expand the *Classifications* node, and choose a classification node in the explorer pane (tree-like pane).
- 3. Click the Relations tab.

The right pane appears with a five-column grid that contains:

- ☐ The *Relation* column stating the name of relations applicable to parts or block parts.
- ☐ The *Name* column signifies the type of information contained in the relation.
- A column for specifying the conditional operator (<, >, =, !=, =>, or <=) or custom query operator (QUERY).

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- □ A check box to control the visibility of the relation name in the search results.
- **4.** For a relation, choose a conditional operator (<, >, =, !=, =>, or <=) using the drop-down list (under the *Condition* column).

To specify a complex search expression, choose QUERY under the *Condition* column. For an example, see <u>Searching by Properties</u>.

Note: For more information on the various operators supported and how to use them in a custom query, see <u>Appendix A, "Custom Searches,"</u>.

5. Enter a parametric value to search under the *Value* column.

Note: You can also use wildcard characters, such as * and ?, to specify the values. For search parameter values that involve special characters, ensure that you use double quotes (" ") around the value specified.

As soon as you enter search criteria, the Search Query window appears displaying the search criteria entered.

- **6.** When you have specified the values, select the *Match All* or *Match Any* radio button.
- **7.** Select the check box to include a relation name as one of the headers in the search results.

Note: If you select other check boxes for property names under the *Attributes* tab then those properties also appear as headers in the search results.

8. To control the order of the relations as they appear in search results, use the up and down arrow icons.

The order of the search parameters you specify in the right pane determines the order of the results that appear in the *Search Results* tab.

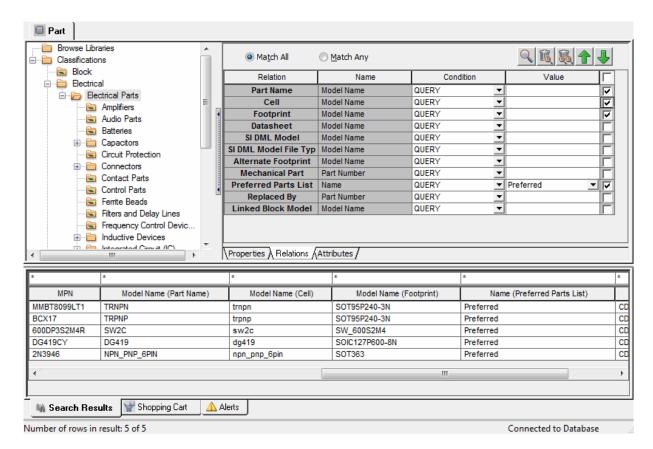
9. Click the Search icon.

The Search Query window disappears and the search progress bar appears indicating that the search is in progress.

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The search results matching your criteria appear in the *Search Results* tab. The number of search results appears at the bottom of the Part Information Manager window.

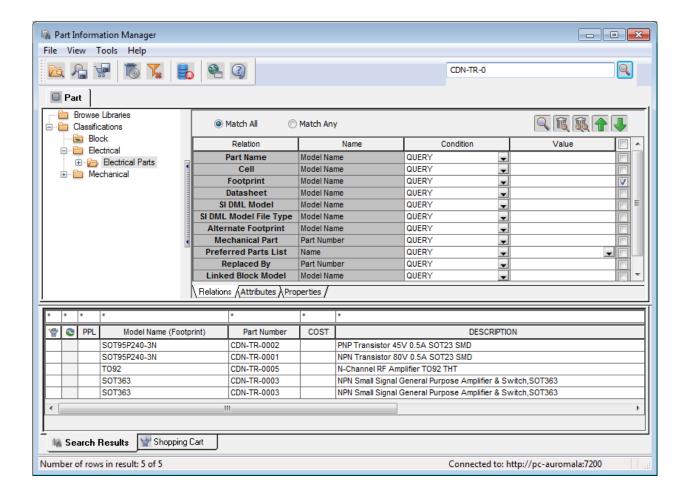


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Free-Text Search

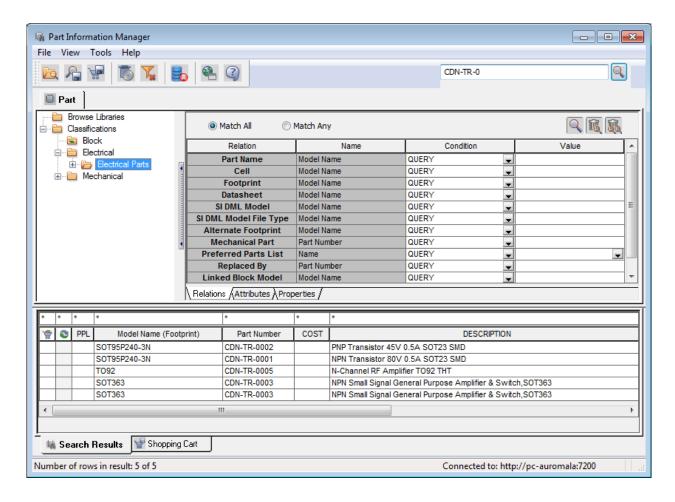
Part Information Manager in the Allegro EDM mode allows free-text search. When you search for parts, by default, the part rows display searchable properties (metadata information) in the search results.

The display and order of the property columns in the search results depend on the default settings defined in the <code>.cpm</code> file. You can modify these settings. If you select a column then perform a free-text search, the data in the selected column will not be displayed in the search results.



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To see the physical part table rows, select *Only Show Part Table Properties* from the *Options* dialog box.



The toolbar contains a search text box. To search for a part, enter search terms, separated by a space character, in this box.

Note: The asterisk (*) and plus (+) characters are no longer supported as operators for Part Information Manager free-text search.

Press the Enter key or click the Search icon. Part Information Manager searches for your search criteria and displays the results in descending order with the best possible match at the top of the results list, and the least relevant result at the bottom of the list.

For example, a search for a criterion such as "res 1k 5%" will be displayed as follows:

Part 1 res 1k 5%

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Part 2	res 1000 5%
Part 3	res 1000 5percent
Part 4	1000 5%
Part 5	5%

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Browsing Parts by Libraries

If you prefer to browse for parts and block parts using the library and cell information, you can do so using Part Information Manager.

To browse for a part or block part by libraries, do the following:

1. In the explorer pane of Part Information Manager, click the *Browse Libraries* node.

The right pane appears containing the Library and Cells list boxes.

The Library list box has all the libraries included in your design project. The Cells list box contains the cells available in a library you select.

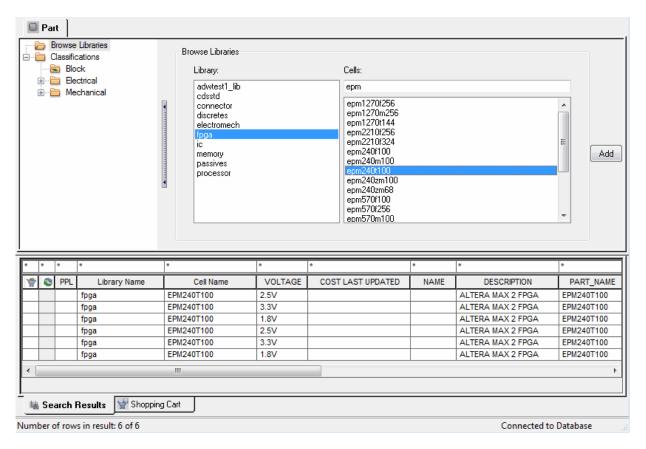
By default, all the libraries and their cells appear in the right pane. You can select a library in the Library list box to view the cells it contains in the Cells list box.

2. Select a cell in the Cells list box.

To filter the cells listed in the Cells list box, enter the initials of the cell name in the text box above the Cells list box. You can also use wildcard characters (*) to filter the cell

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name. If you select the block model library, the Cells list box displays all the block models in it.



3. By default, the part rows for the selected cells display searchable properties (metadata information) in the search results.

To view the physical part table rows, select *Only Show Part Table Properties* from the Options dialog box.

Note: If you are accessing Part Information Manager from Allegro Design Entry HDL, and have copied a cell from an external library into your design library, then run the command, lib library_name> in the Allegro Design Entry HDL console. Select the library in the Library list box of Part Information Manager, and choose Reload Library Data from the pop-up menu.

Working with Part Information Manager (Allegro EDM Environment)

Working with Parts

This section details the following tasks:

- Viewing Part Details
- Adding Parts to Design
- Modifying Components
- Replacing Components
- Defining Physical Property Options
- Working with Shopping Cart

You can also work with block parts to view, add, modify, and replace them.

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Viewing Part Details

Part Information Manager lets you view part details and block part details. For details, see the following:

- Viewing Graphics Information
- Viewing Properties
- Viewing Part Attributes and Relations
- Viewing Part History

Viewing Graphics Information

To view the part graphics details, do the following:

1. In the Search Results tab, click a part row.

Alternatively, right-click a row and choose *Show Details* in the pop-up menu.

Note: You can also view part information by clicking a row in the Shopping Cart tab. For more information about Shopping Cart-related tasks, see <u>Working with Shopping Cart</u>.



The single-click and double-click actions in the *Search Results* tab depend on the setup options in the *Options* dialog box.

The part details open in the right pane. By default:

- The Graphics tab is selected
- ☐ The symbol and footprint graphics of the part appear in the right pane
- ☐ The explorer pane remains collapsed.

To display the footprints correctly, ensure that:

- ☐ You have defined the PSMPATH and PADPATH environment variables for the footprints using the enved utility.
- Your footprints contain the quickview data that the footprint viewer uses. To generate this data, use the qvupdate utility.
- **2.** To view schematic symbols, you can use the icons available at the top of the viewer to control the zoom functions.

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Viewing Properties

To view the searchable properties of a part, click the *Properties* tab. These properties appear in a two-column grid format. The column headers are *Name* and *Value*.

Viewing Part Attributes and Relations

- 1. To view part attributes defined in the component database, click the *Attributes* tab. The attributes appear in a two-column grid format. The column headers are *Name* and *Value*.
- 2. To view the relations (associations) of the part selected, use the Explorer pane, which is collapsed by default. This pane lists all the relations in a tree-like structure. You can expand the tree to view the model, preferred parts list, and classification information for the part.
- 3. Select a relation instance and choose *Show Details* from the pop-up menu.

The details appear in a new tab.

Viewing Part History

To view history information of the part in the component database, click the *History* tab. Information such as revision log and comments for the part appear in this tab.

Note: For a block part, details that you can view are graphics, searchable properties, attributes, and the block part history.

Viewing Physical Part Table Properties

To view physical part table properties, set the following directive:

```
Show_PTF_Tab 'TRUE'
```

when this directive is set to TRUE, or ON, the PTF tab appears in the Part Details tab. These properties appear in a three-column grid format. The first two column headers describe the property name and value, while the last column describes the type of PTF property (key, injected, or added).

Viewing Datasheets and Other Part Details

To help you decide which parts to add to your design, you might want to refer to an external file or a URL for a component. To easily access the file or URL, you can use the

Working with Part Information Manager (Allegro EDM Environment)

Datasheet_URL directive and the Display_URL directive, in the START_COMPBROWSER section of the .cpm file.

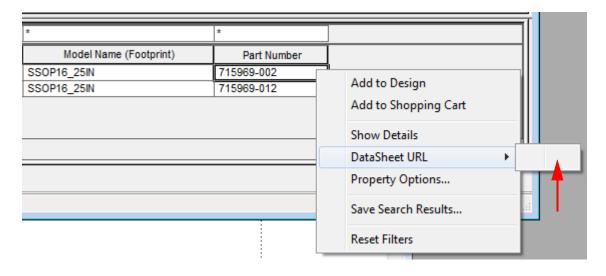
Use the Datasheet_URL directive to specify a location (a directory or the URL of a web page or intranet) where the file resides. For example:

- Datasheet_URL 'D:/datasheets/@<column name>@'
- Datasheet_URL 'http://www.intel.com/content/www/us/en/support/processors/desktop-processors/000006479.html/@<column name>@'

The value of the column name you specify within the at the symbol signs will be appended to the file or website page that opens. For example, there are 10 datasheets in PDF format in the D drive in a folder called datasheets. You can specify the directive as follows:

Datasheet_URL 'D:\datasheets\@Part Number@.pdf'

When you right-click on a part row in Part Information Manager, and select the *Datasheet URL* option, Part Information Manager searches for a PDF with the same name as the column value, and opens the relevant PDF.

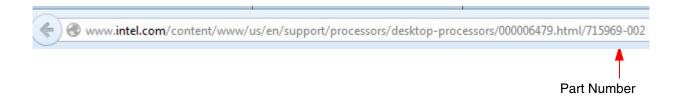


If you specify the directive as follows:

Datasheet_URL 'http://www.intel.com/content/www/us/en/support/processors/desktop-processors/000006479.html/@Part Number@'

the URL is displayed as follows:

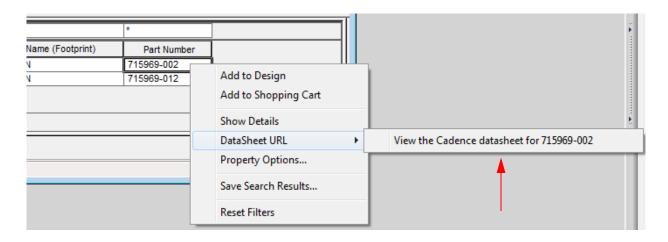
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Note: If Firefox is configured as the default browser for the system, you cannot open and view more than one DataSheet URL at a time. You could configure multiple Firefox profiles, if required, or use a different default browser. Refer to the Firefox documentation for details about creating and managing multiple profiles.

The Display_URL directive can be used to specify how you want Part Information Manager to show the option in Part Information Manager.

For example, setting Display_URL 'View the Cadence datasheet for @Part Number@' shows the option as follows:



You can specify as many datasheet and display URLs, as required. Ensure however that the number of datasheet URLs is greater than or equal to the number of display URLs. Also make sure that the Datasheet_URL value matches the column name exactly, including the casing.

The DataSheet (and Display) URL option is available from the Search Details tab and from the shopping cart or shopping list.

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Working with Part Information Manager (Allegro EDM Environment)

Adding Parts to Design

If you are working with Allegro Design Entry HDL, you can directly add parts and block parts from Part Information Manager into your schematic. This however will depend on the PPL mode assigned to your project.

- PPL Plus: This is the default mode in which both PPL-compliant, and other parts, are accessible. If you instantiate a non-compliant part from Part Information Manager, a warning is generated that the part being added to the schematic is not in the PPL of the current design. You can choose to not add this part, or continue and add the part.
- PPL Only: You can search all the parts and block parts but only the PPL-compliant parts can be selected for instantiation.

To add a part, do the following:

1. Choose *Component – Add i*n the Allegro Design Entry HDL window.

The Part Information Manager window appears.

2. Search for a part. For information on how to search for parts, see Searching Parts.

Alternatively, you can browse for parts. For information on how to browse for parts, see <u>Browsing Parts by Libraries</u>.

3. Select a part in the Search Results tab.

The *Part - <Detail>* tab appears with the part information.

4. To add a part, click *Add* in the right pane.

Alternatively, right-click a part in the Search Results tab or part node in the explorer pane, and choose *Add to Design* from the pop-up menu.

5. Click on the schematic where you want to place the part.

Note: All the parts that you add for the first time are available to you in the QuickPick toolbar subsequently.

To add a component that contains physical information, do the following:

- **1.** Choose *Component Add* to select a component.
- 2. Right-click a part row in the Search Results tab, and choose *Property Options* from the pop-up menu.

The Property Options dialog box appears.

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See <u>Defining Physical Property Options</u> for more information on defining physical property options.

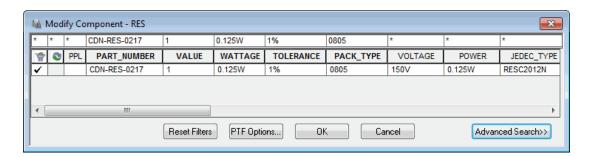
All the new parts (that were not present in your design project) that you added to your design (directly from the component database) are automatically added to the Shopping Cart. For more information on the shopping cart, see <u>Working with Shopping Cart</u>.

Modifying Components

If you are working with the Allegro Design Entry HDL tool, you can modify the existing parts and block parts in the schematic using Part Information Manager. To modify a single component, do the following:

- **1.** Choose *Component Modify*.
- 2. Select a component whose physical properties you want to modify.

The Modify Component dialog box appears with the filter set to the current physical property values in the component.



- **3.** Click *Reset Filters* to display all rows in the part table file.
- **4.** Select the row of physical properties to attach to the component you want to modify.

Note: Parts you select in the Modify dialog box are also added to Shopping Cart.

You can continue selecting and modifying components until you choose another menu command or choose *Done* from the pop-up menu.

You can modify the physical properties of all components in a group if they are the same logical components. To modify a group of components, do the following:

- **5.** Choose *Group Components Modify*.
 - The Modify Component dialog box appears.
- 6. Select a row in this dialog box.

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The physical properties of all the components in the group are replaced with the row you select from this dialog box.

Replacing Components

If you are working with the Allegro Design Entry HDL tool, you can replace the existing parts and block parts in the schematic using Part Information Manager.

To replace a part, do the following:

- **1.** In the Allegro Design Entry HDL window, choose *Component Replace* to display Part Information Manager.
- 2. Search for a part. For information on how to search for parts, see <u>Searching Parts</u>.
 - Alternatively, you can browse for parts. For information on how to browse for parts, see <u>Browsing Parts by Libraries</u>.
- **3.** Click a part row in the Search Results pane, and click *Replace* in the right pane. Alternatively, click the part table row for the part and choose *Replace to Design* from the pop-up menu.
- **4.** Click on the component on the schematic to replace it.

If you are in the pre-select mode in Allegro Design Entry HDL, you can replace multiple components by doing the following:

- 1. Use Ctrl+Click or Shift+Click to select multiple components.
- **2.** Choose *Component Replace* to display Part Information Manager.
- **3.** Select the component that should replace all the components.
- **4.** Click *Replace* in the right pane. Alternatively, click the part table row for the part and choose *Replace to Design* from the pop-up menu.

Working with Part Information Manager (Allegro EDM Environment)

Working with Shopping Cart

Shopping Cart is the list of parts you choose from the Allegro EDM component database. It is the list of parts that you as a designer intend to use in your design or which are already used in the design. The shopping cart can contain parts from the cache, reference libraries, and the Allegro EDM component database. As soon as you save the Shopping Cart, all of its components are stored in the project cache area.

A shopping cart is specific to your project and helps you access parts even when you are not connected to the database. In other words, it can act as an offline database for parts that you expect to use frequently in your designs. Major tasks related to the shopping cart are as follows:

- Adding Parts to Shopping Cart
- Saving Shopping Cart
- Importing Shopping Cart
- Customizing Shopping Cart
- Creating Shopping List

Adding Parts to Shopping Cart

To add parts to shopping cart, do the following:

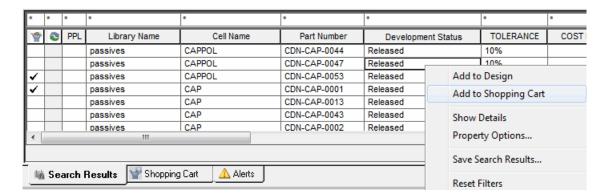
- 1. Launch Part Information Manager.
- **2.** Search for a part. For information on how to search for parts, see <u>Searching Parts</u>. Alternatively, you can browse for parts. For information on how to browse for parts, see <u>Browsing Parts by Libraries</u>.
- 3. Double-click a row in the Search Results tab.

The part selected is added to the shopping cart.

Alternatively, click a part in the Search Results tab and choose *Add to Shopping Cart* from the pop-up menu.

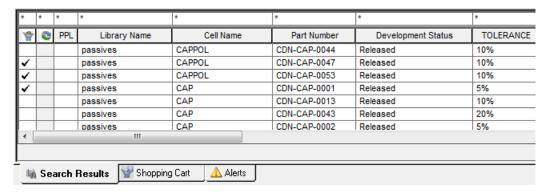
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Note: You can select multiple parts at a time to add to the shopping cart.



The part is added to the Shopping Cart, and appears in the grid when you click the Shopping Cart tab.

The Search Results tab containing the part that is added to the shopping cart now displays a check mark at the beginning of the row indicating that the part is in your shopping cart.



Note: Search results that appear with a check mark indicate that those parts already exist in your shopping cart.



Notifications and warnings, if encountered during the addition of parts to design, appear under the Alerts tab.

Saving Shopping Cart

To save the current items in your shopping cart, do the following:

1. Click the *Shopping Cart* tab.

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2. Right-click any row and choose *Save Shopping Cart*.

This moves the components added to the shopping cart to the project cache area.





You can define a custom file name and location for the shopping cart using the shopping_cart_path directive. For example, shopping_cart_path `./atdmdir/lists/myshopcart.xml'.

Importing Shopping Cart

If you have an existing shopping cart that contains parts you use frequently, you can import it into other designs. This helps you avoid searching for frequently-used parts in new designs you create. To import an existing shopping cart into Part Information Manager, do the following:

1. Choose File - Import Shopping Cart.

The *Open* dialog box appears.

2. Navigate to the location of the *<Shopping_Cart_Name>*. xml file. Select the file and click *Open*.

The *Shopping Cart* tab displays the parts of the imported shopping cart.

Customizing Shopping Cart

If you want to see any of the searchable and injected properties in the Shopping Cart tab for the parts added to the shopping cart, you need to add the SHOPCART_DISPLAY_PROPS directive in the START_COMPBROWSER section of the cpm file. Cpm file. For example:
SHOPCART_DISPLAY_PROPS 'HEIGHT' 'ROHS'

Creating Shopping List

Shopping List is a list of parts from where you can import parts into your shopping cart, either completely, or partially, depending on the selection made.

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You can save an existing shopping cart as a shopping list for use at a later time or to share with other team members.

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Working with Search Results

Whether you search for parts, block parts, or models, the search has some common tasks that include the following:

- Filtering Search Results Pane
- Saving Search Results
- Saving Search Criterion Configuration
- Loading Search Criterion Configuration
- Loading Default Search Criteria

Filtering Search Results Pane

You can refine search results by entering a filter string in the appropriate headers of the Search Results pane. As you keep entering the string, the search results rows that meet the initials appear in the search results pane.

To reset the filters, right-click on the search results and choose *Reset Filters* from the popup menu.

Saving Search Results

You can save the search results of a part or model search that appear in the Search Results pane. All the search results are saved as a comma separated value (.csv) file.

To save search results, do the following:

1. Choose *File – Save Search Results*. Alternatively, in the Search Results tab, right-click a row and choose the *Save Search Results* pop-up menu option.

The Save As dialog box appears.

- 2. Navigate to a desired location, and enter the file name to save the search results.
- 3. Click Save.

Saving Search Criterion Configuration

You can save the search parameters and the order in which they appear in the right pane for a part or model search.

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To save search criteria, do the following:

1. Choose File - Save Search Criteria.

The Save As dialog box appears.

2. Navigate to a desired location, and enter the file name to save the search criteria.

The search criterion files are saved with a .ctr extension.

3. Click Save.



When you save a search criterion, the search parameters specified in all the tabs (Properties, Relations, and Attributes) are saved.

Loading Search Criterion Configuration

To open an existing saved search criterion, do the following:

1. Choose File - Load Search Criteria.

The *Open* dialog box appears.

2. Navigate to the location where you have saved the search criterion file.

The search criterion files are saved with a .ctr extension.

3. Click Open.

Loading Default Search Criteria

You can configure Part Information Manager so that, by default, it loads an existing search criteria set when launched. This simplifies and speeds up searches. For example, administrators can limit the search to RoHS compliant parts by defining default search criteria. In this case, when you perform a search in Part Information Manager, only RoHS compliant parts in your design are displayed.

Or, for example, you could define a search criteria set with ALT_SYMBOLS. When Part Information Manager is launched, this default search criteria is loaded automatically. A search would then display alternate footprints.

After launching Part Information Manager, you may sometimes perform a search for components not defined in the default search criteria set. In this case, if you click on a classification node, the default search set will be loaded again.

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To set the default search criteria, in the START_COMPBROWSER section of your .cpm file, define the following directive:

Default_Search_Criteria '<path of search file with name>.ctr | <search file name>.ctr |

Note: If you specify only the search file name without the path, Part Information Manager will fetch data only from the working directory.

Default Search Criteria and Classifications

The search set that you define applies to the classification for which you define the search set and for its sub-classifications, and vice versa. For example, a classification, Electrical, has a sub-classification called IC which in turn has three sub-classifications—Analog, Digital, and Mixed Signal.

The default search can be applied at any of these levels. If you define the search for Electrical, the default search will also display results for IC and for its three sub-classifications. Similarly, if you define the search for Analog, the display results will include Digital, Mixed Signal, IC, and Electrical.

Default Search Criteria and Saved Search Criteria

If you load a saved search criteria set, and the default and saved search criteria set are the same but with different values, the default search takes precedence over the saved search criteria.

Resetting Search Filters

To reset search filters in the *Search Results* tab, right-click a search result row and choose *Reset Filters* from the pop-up menu.

Working with Part Information Manager (Allegro EDM Environment)

Working with Property Options

Physical part numbers and their attribute information for a design project are stored in a Part Table File (PTF). Before using this information on a schematic, the physical property options (of a part) are configured to define the format and visibility of the properties. For example, the physical property options can be defined in such a way that properties such as PART_NUMBER and TOL do not appear on the schematic.

Settings for a specific part are stored in a ppt_optionset.dat file. These settings are called an option set, also referred to as a PPT option set.

Designers can do one of the following:

- Create a ppt_optionset.dat file for their individual projects and configure the file themselves.
- Use a company-wide, pre-configured ppt_optionset.dat file generated by a librarian. The use of this ppt_optionset.dat ensures that the display settings of the physical property properties of a part are consistent in a design, regardless of the number of designers working on the project.

To generate a company-wide <code>ppt_optionset.dat</code> file, the librarian runs the <code>lib_dist</code> command. After the library distribution process is completed, a <code>ppt_optionset.dat</code> file (referenced by the <code>PPT_OPTIONSET_PATH</code> directive) is generated and stored in <code>\<library>\reflib\model_sym</code>. For more information on the <code>lib_dist</code> command, refer to <code>Allegro EDM Library Distribution User Guide</code>.

/Important

It is recommended that designers point to the company-wide ppt_optionset.dat file in their projects to ensure consistency in the display settings of the physical property options of a part in a project.

As a designer, if you choose to create your own ppt_optionset.dat file, then, using the property options feature, you can do the following:

- Configure various physical property options for parts
- Control the appearance of PTF columns in the Part Information Manager window

Defining Physical Property Options

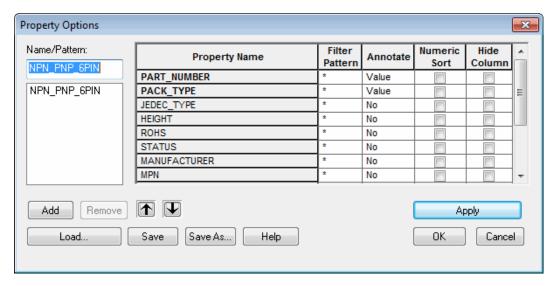
1. Do one of the following:

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- □ Choose *Property Options* from the pop-up menu that appears when you right-click a part row in the Search Results tab.
- □ Click *PTF Options* in the Modify Component dialog box.

The Property Options dialog box appears

2. Select a physical property listed under the Property Name column, and click the up or down arrow button to modify the order in which the property appears in the Property Options dialog box and on the schematic.



For example, if you move the *PACK_TYPE* property to the lowest level in the list, the part row in the Part Information Manager window displays it as the last column. When you click on a row to place a part with physical information, Allegro Design Entry HDL displays *PACK_TYPE* at the bottom of the list of properties.

3. Use the *Filter Pattern* column to filter physical property values based on the string you enter.

For example, if you want the *Search Results* tab in the Part Information Manager window to display only that row of the PTF that has the value of VOLTAGE as 63V, select the VOLTAGE property under the *Property Name* column, enter 63 in the filter, and click *Apply*.

- **4.** Select a value from the *Annotate* drop-down list to specify a visibility level of the physical property on the schematic.
 - **a.** If you select *No*, physical properties do not appear on the schematic.
 - **b.** If you select *Name*, only the names of the physical properties appear on the schematic.

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- **c.** If you select *Value*, only the values of physical properties appear on the schematic.
- **d.** If you select *Both*, the names as well as the values of physical properties appear on the schematic.
- **e.** If you select *Invisible*, the physical properties are added on the schematic but are not displayed on the schematic.
- **5.** Select the *Numeric Sort* check box to sort the property columns. Numeric sort treats property values as numbers and sorts them accordingly. In addition to alphanumeric and numeric sort, the property columns can be sorted on the basis of MKS units such as micro, milli, kilo, and so on.

Important

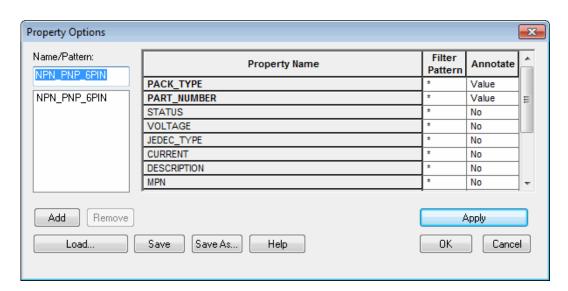
You can do a numeric sort on property columns in the *Search Results* tab of Part Information Manager if all the part table rows have the same part name. You cannot use numeric sort on a property value (in the part tables) that contains strings.

- **6.** Select the *Hide Column* check box to hide the selected property column in the Part Information Manager window.
- 7. Click OK or Apply to apply the options you define.
- **8.** Click Save to save all options to the ppt_optionset.dat file. You can load these options in later sessions using the Load button. To save all the options in a new file, click Save As.
- **9.** Click the *Load* button to load the option sets and the options from the ppt_optionset.dat file.

Working with Part Information Manager (Allegro EDM Environment)

/Important

By default, you see the metadata information in the search results. In this case, the Property Options dialog box allows you to set only the Filter Pattern and the Annotate option.



Sample ppt_optionset.dat File

The syntax of the ppt_optionset.dat file is as follows:

```
( "VERSION 3.0"
(
( OPTION_SET_ATTRIBUTES )
( PROPERTY_ATTRIBUTES )
)
```

OPTION_SET_ATTRIBUTES has the following four fields:

Field	Description
optionsetname	A character string to identify the option set
totalprops	Total number of properties in the option set
Keyprops	Number of key properties in the set

Working with Part Information Manager (Allegro EDM Environment)

Field Description

Injprops Number of injected properties in the set

PROPERTY_ATTRIBUTES has the following nine fields:

Field	Lets you
Proptype	Define the type of property. Use 1 for key property and 0 for the injected property.
Propname	Specify the name of the property.
Filterpattern	Define a filter pattern to be used for the property.
SortType	Use 1 to specify numeric sort; use 0 to ensure that numeric sort is not applied
Annotate	Define 0 for not using annotation, 1 for name, 2 for value, 3 for both, and 4 for invisible.
Visible	Use 1 to make a property visible in the Part Information Manager window; use 0 to hide a property in the Part Information Manager window.
Propcol	Specifies the column number of the property. Use 0 for the property in the first column.

Given below is a sample ppt_optionset.dat file with the following option sets:

Working with Part Information Manager (Allegro EDM Environment)

```
("DG419" 4 1 3)

(1 "PACK_TYPE" "*" 1 0 0 2 1 0)

(0 "PART_NUMBER" "*" 0 0 0 0 1 1)

(0 "DESCRIPTION" "*" 0 0 0 0 1 2)

(0 "JEDEC_TYPE" "*" 0 0 0 0 1 3)
```

Where, ("20L10" 4 1 3) and ("DG419" 4 1 3) represent the OPTION_SET_ATTRIBUTES for the two option sets, 20L10, and DG419. The following table lists the OPTION_SET_ATTRIBUTES details for the two option sets.

Field	20L10	DG419
optionsetname	20L10	DG419
totalprops	4	4
Keyprops	1	1
Injprops	3	3

The following table explains the first row of PROPERTY_SET_ATTRIBUTES for the two option sets.

Field	20L10	DG419
Proptype	1	1
Propname	PACK_TYPE	PACK_TYPE
Filterpattern	LST	*
SortType	0	1
Annotate	1	2
Visible	1	1
Propcol	0	0

Note: SortOrder and Annotate Type are obsolete properties that are no longer used in Allegro EDM.

Working with Part Information Manager (Allegro EDM Environment)

Adding an Option Set

To add an option set, do the following:

- 1. Enter an option name in the Name/Pattern field.
- 2. Click Add.

The newly added option set appears in the list.

Removing an Option Set

To remove an option set, do the following:

- 1. Select a name in the Name/Pattern list.
- 2. Click Remove.

Note: You cannot remove the current option set that you are working with.

Customizing Property Options Filters

You can also seed initial part table filter values in the Property Options dialog box in addition to the default * filter.

To create a custom filter, do the following:

- 1. In Part Information Manager, select a part.
- **2.** Right-click a row in the Search Results window and choose *Property Options* from the pop-up menu.

The Property Options dialog box is displayed.

3. Type * in the Name/Pattern field and click *Add*.

An entry will be created automatically by copying the properties from the existing part from which the Property Options dialog box was launched.

4. Right-click a row on the grid and choose *Insert Row* or *Remove Row* from the pop-up menu to add and remove properties.

Note: This pop-up menu is available for the part name *.

- **5.** Specify the filter values.
- **6.** Click *Save* to save the ppt_optionset.dat file.

Working with Part Information Manager (Allegro EDM Environment)

7. Click *OK* to close the Property Options dialog box.

When a search is performed on a part for which property options exist, the options are applied. Otherwise, the default settings saved as * are applied.

4

Working with Part Information Manager (Standard Mode)

Overview

In the standard (non-database) mode, the standalone Part Information Manager is available to non-Allegro EDM design projects and mode.

This chapter explains only those tasks that are specific to Part Information Manager in the standard mode.

- Searching Parts
- Browsing Parts by Libraries
- Viewing Detailed Part Information
- Adding Components
- Modifying Components
- Replacing Components

/Important

For information on procedures in Part Information Manager common to both modes, Allegro EDM and standard, see <u>Chapter 3</u>, "Working with Part Information Manager (Allegro EDM Environment),".

Working with Part Information Manager (Standard Mode)

Searching Parts

In the standard (non-database) mode, you can search for parts and block parts available in the reference libraries if the libraries are defined in the project file and are accessible to the design project. The search can be performed on part-specific properties such as TOLERANCE, VALUE, DESCRIPTION, JEDEC_TYPE, POWER, and so on. You can perform searches based on classifications as well as design libraries.

Classification is a logical way of categorizing your design libraries.

To search for parts by classification or project libraries, do the following:

1. In the explorer pane of the Part Information Manager, select either a classification node or a library node.

For a quick and specific part search in classifications, you can select multiple classifications by using Shift+Click or Ctrl+Click. Similarly, you can select multiple cells from one or many library nodes (cells).

Note: You cannot select a combination of classification, as well as library, nodes.

The right pane appears with a three-column grid containing the following:

- ☐ The name of properties.
- \Box A column for specifying the conditional operator (<, >, =, =>, !=, or <=).
- A column for specifying the parametric value.
- 2. Choose a property from the drop-down box under the *Name* column.
- **3.** Choose a relational operator (<, >, =, =>, !=, or <=) using the drop-down box under the *Condition* column.
- **4.** Enter a parametric value to search in the field under the *Value* column.

Note: To search parameter values that have special characters, ensure that you use double quotes (" ") around the value or expression specified.

Often, physical properties of components are expressed in units representing power-of-10 multiples. In such cases, an effective search requires you to include units along with the values.

Using Part Information Manager, you can perform a search not only by providing values for attributes but also by including power-of-10 multiples with it. Some of the power-of-10 multiples you can use are: pico (10^{-12}), nano (10^{-9}), micro (10^{-6}), milli (10^{-3}), kilo (10^{3}), mega (10^{6}), giga (10^{9}), and tera (10^{12}).

Working with Part Information Manager (Standard Mode)

Part Information Manager is equipped to automatically handle the inter-conversion of units and display all the components that meet the search criteria. For example, if you want to search for a component with resistance less than 1000 ohms, you can specify <= (logical operator) in the second drop-down list box, and 1K in the third drop-down list box. This will provide search results containing components with resistance in milliohms and micro ohms.

To get the desired results, ensure that you specify the correct power-of-10 multiple acronym (such as K= Kilo, Meg= Mega, m/M=mili, p=pico, and so on) after the value. For searches requiring M to be interpreted as Meg, make sure that M is not followed by any unit. For example, use "10M" instead of "10MOhm."

You can specify more than the default properties provided. To do so, click Insert Row icon

 (). A new row with three drop-down list boxes appears.

To delete a row, click the Delete Row icon (



You can also insert a new row by choosing any row, and using the *Insert Row* popup menu option. Similarly, use the *Delete Row* pop-up menu option to delete an existing attribute. To reset the search criteria, click the *Clear Search Criteria* icon.

- **6.** Select the *Match All* radio button to perform a search that meets all the specified parameters. It is similar to using the AND operator. To perform a search that meets any of the criteria, select the *Match Any* radio button. It is similar to using the OR operator.
- **7.** Click **Q** .

The search results appear in the Search Results tab. It consists of physical part rows for all the cells that satisfy the search criteria.

Note: To reload the part table for a part, select a part table row and choose the *Reload Library Data* from the Tools menu.

Note: For information on search-related tasks common in the Allegro EDM and standard environments of Part Information Manager, see <u>Chapter 3</u>, "Working with Part Information <u>Manager (Allegro EDM Environment)</u>,". All the search-related tasks are not available in the standard environment.

Working with Part Information Manager (Standard Mode)

Browsing Parts by Libraries

If you prefer to browse for parts and block parts using the library and cell information, then you can do so using Part Information Manager. To browse for a part by libraries:

1. In the explorer pane of Part Information Manager, click the *Browse Libraries* node.

The right pane appears containing the Library list box and the Cells list box. The Library list box contains all the libraries listed in the cds.lib file for your design project.

The Cells list box contains the cells available in a library you select. By default, all the libraries and their cells appear in the right pane. You can select a library in the Library list box to view cells it contains under the Cells list box.

Note: To refresh a library in the Library list box, right-click the library and choose Reload Library Data from the pop-up menu.

Important

If you are accessing Part Information Manager from Allegro Design Entry HDL, and have copied a cell from an external library into your design library, run the command, lib library_name> in the Allegro Design Entry HDL console. Select the library in the Library list box of Part Information Manager, and choose *Reload Library Data* from the pop-up menu.

2. Select a cell in the Cells list box.

To filter the cells listed in the Cells list box, enter the initials of the cell name in the text box above the Cells list box. You can also use wildcard characters (*) to filter the cell name.

The physical part table rows belonging to the selected cells appear in the Search Results tab.

Refreshing Libraries

You can update the libraries while browsing for parts in Part Information Manager. This is helpful when you add or remove cells from libraries and want the changes to reflect in Part Information Manager immediately. To refresh a library in the Library list box, right-click the library and choose *Reload Library Data* from the pop-up menu.

Working with Part Information Manager (Standard Mode)

Viewing Detailed Part Information

Part Information Manager in the standard (non-database) mode lets you view the part details, graphics, and the PTF information. For more information on this, see <u>Chapter 3</u>, "Working with Part Information Manager (Allegro EDM Environment)".

Adding Components

For information on the procedure for adding components using Allegro Design Entry HDL, refer to *Allegro Design Entry HDL User Guide*. However, if you are using Part Information Manager in System Connectivity Manager, refer to *System Connectivity Manager User Guide*.

Modifying Components

For information on the procedure for modifying components using Allegro Design Entry HDL, refer to *Allegro Design Entry HDL User Guide*. However, if you are using Part Information Manager in System Connectivity Manager, refer to *System Connectivity Manager User Guide*.

Replacing Components

For information on the procedure for replacing components using Allegro Design Entry HDL, refer to *Allegro Design Entry HDL User Guide*. However, if you are using Part Information Manager in System Connectivity Manager, refer to *System Connectivity Manager User Guide*.

Part Information Manager User Guide Working with Part Information Manager (Standard Mode)

Enabling Server-Client Version Independence for Part Search

Enabling Server-Client Version Independence for Part Search

Ideally, all client machines that run Design Entry HDL and Allegro EDM Flow Manager design flows should be on the same release as the Pulse master node. For example, if the Pulse master node is on 22.1, all client machines, across sites, should be on 22.1.

However, if the client and the server are on different versions, set the following variable:

Client	Server	Environment Variable
17.40	22.1	ADWCLIENTCHECK_RELAX=TRUE
22.1	17.40	

This environment variables ensures that Allegro EDM Flow Manager skips the check of whether the server and client are on the same version.

Part Information Manager User Guide Enabling Server-Client Version Independence for Part Search



Custom Searches

Part Information Manager allows you to specify complex search expressions using a variety of relational, logical, and special operators. This is possible when you choose QUERY in the Condition column in the right pane. When you do so, you can specify a complex search expression within the Value field.

The search expression supports the following operators.

Operator	Usage
< (Less than)	The values to be searched must be less than the value specified.
> (Greater than)	The values to be searched must be greater than the value specified.
!= (Not Equal to)	The values to be searched must not match the value specified.
= (Equal to)	The values to be searched must match to the value specified.
<= (Less than or equal to)	The values to be searched must be less than or equal to the value specified.
>= (Greater than or equal to)	The values to be searched must be greater than or equal to the value specified.
~~	The pattern of the first value must match the pattern of the
(String match)	second value. The value can be included anywhere in the string. With this operator, character case is ignored so that library is considered a match for LIB*.
	This operator is available when you choose QUERY in the Condition drop-down box. In addition, the QUERY operator is available only in the Allegro EDM mode.

Part Information Manager User Guide Custom Searches

Operator	Usage
!~~ (Not string match)	The pattern of the first value must not match the pattern of the second value. The value can be included anywhere in the string.
	With this operator, character case is ignored. For example, a first value of <code>Part Name</code> and a second value of <code>pa* na*</code> would result in a <code>False</code> comparison since the two are considered a match regardless of the difference in uppercase and lowercase characters.
	This operator is available when you choose QUERY in the Condition drop-down box. In addition, the QUERY operator is available only in the Allegro EDM mode.
~= (Case sensitive match)	The pattern of the first value must match the pattern of the second value. The value can be included anywhere in the string. This includes testing for uppercase and lowercase characters. For example, Part Number is not a sensitive match for the pattern value pa* nu* because the uppercase values (P and N) will not match the lowercase specification of the pattern.
	This operator is available when you choose QUERY in the Condition drop-down box. In addition, the QUERY operator is available only in the Allegro EDM mode.
!~= (Case sensitive not) match	The pattern of the first value must not match the pattern of the second value. The value can be included anywhere in the string. For example, if the first value is $Part*$, a second value of part would produce a $True$ result because the lowercase p is not an exact match to the uppercase p of the first value.
	This operator is available when you choose QUERY in the Condition drop-down box. In addition, the QUERY operator is available only in the Allegro EDM mode.
AND	The first and second values must be present.
	This operator is available when you choose QUERY in the Condition drop-down box. In addition, the QUERY operator is available only in the Allegro EDM mode.
OR	Specifies that either of the values must be present.
	This operator is available when you choose QUERY in the Condition drop-down box. In addition, the QUERY operator is available only in the Allegro EDM mode.

Custom Searches

Operator	Usage
*	Specifies any number of characters match.
?	Specifies exactly one character match.
_ Underscore	If you specify underscore ($_$) as a part of the search string, it is treated as a ? character (single character).



By default, if you do not provide any operator, the ~~ (string match) operator is used.

Part Information Manager User Guide Custom Searches

В

Working with Models

By default, the Model tab does not appear in the explorer pane. To specify whether the Model tab appears beside the Part tab, you need to set the following directive on:

```
Show_Model_Tab 'TRUE'
```

By default, the value of this directive is set to FALSE.

Model Types Supported

Part Information Manager allows you to search, browse, add, replace, and modify parts. In addition, you can search for the following types of models:

- Allegro Flash Model
- Allegro Footprint Model
- Allegro Format Model
- Allegro Mechanical Model
- Allegro Module Model
- Allegro Padstack Model
- Allegro Shape Model
- ConceptHDL Block Model
- ConceptHDL Part Name Model
- Datasheet Model
- SI DML Model

Working with Models

Searching Models

Using Part Information Manager (in the Allegro EDM mode), you can search for models based on the model classifications. This is helpful when you want to search for parts based on a specific model type. The tasks related to model search are as follows:

- Searching by Model Attributes
- Searching by Relations

You can also add the parts and block parts in your design from Part Information Manager interface. For more information on this, see <u>Adding Parts to Design</u>.

Searching by Model Attributes

Attributes are model-specific properties defined in the component database. To search by model attributes, do the following:

- 1. Launch Part Information Manager.
- 2. Click the *Model* tab.
- **3.** Expand the *Classifications* node, and choose a classification node in the explorer pane (tree-like pane).
- 4. Click the Attributes tab.

The right pane appears with a four-column grid containing the following:

- Names of model attributes.
- A column for specifying the conditional operator (<, >, =, !=, =>, or <=) or custom query operator (QUERY).
- □ A column for specifying the parametric value.
- □ A check box to control the visibility of a model attribute in the search results.
- **5.** For a model attribute, choose a conditional operator (<, >, =, !=, =>, or <=) using the drop-down list (under the *Condition* column).

To specify a complex search expression, choose QUERY under the *Condition* column. For more information on the various operators supported and how to use them in a custom query, see <u>Appendix A, "Custom Searches,"</u>.

6. Enter a parametric value to search under the *Value* column.

Note: You can also use wildcard characters (for example, * and ?) for specifying the

Working with Models

values. For search parameter values that involve special characters, ensure that you use double quotes (" ") around the value specified.

As soon as you enter search criteria, the Search Query window appears displaying the specified search criteria.

- **7.** When you have specified the values, select the *Match All* or *Match Any* radio button.
- **8.** Select the check box (at the other end of the attribute) to include the model attribute in one of the headers in the search results.

Note: If you select other property name check boxes under the *Relations* tab, then they also appear as headers in the search results.

9. To control the order of the attributes as they appear in search results, use the up and down arrow icons.

The order of the search parameters you specify in the right pane determines the order of the results that appear in the *Search Results* tab.

10. Click the Search icon.

The search progress bar appears indicating that a search is in progress.

The search results matching your criteria appear in the *Search Results* tab. A search result row indicates the information retrieved from the component database.

The number of search results appears at the bottom of the Part Information Manager window.

Searching by Relations

Models can be associated with other library components, such as tools, libraries, symbols, and model request status and so on. Allegro EDM allows you to capture these relations in the component database, and allows you to search for models based on these relations. To search for models, by relations, do the following:

- 1. Launch Part Information Manager.
- 2. Click the *Model* tab.
- **3.** Expand the *Classifications* node, and choose a model classification node in the explorer pane (tree-like pane).
- **4.** Click the *Relations* tab.

The right pane appears with a five-column grid containing:

Working with Models

The <i>Relation</i> column listing the name of relations applicable to models.
The Name column signifying the type of information contained in the relation.
A column for specifying the conditional operator ($<$, $>$, $=$, $!=$, $=>$, or $<=$) or custom query operator (QUERY).
A column for specifying the parametric value.
A check box to control the visibility of relation name in the search results.

5. For a relation, choose a conditional operator (<, >, =, !=, =>, or <=) using the drop-down list (under the *Condition* column).

To specify a complex search expression, choose QUERY under the *Condition* column. For more information on the various operators supported and how to use them in a custom query, see <u>Appendix A, "Custom Searches,"</u>.

6. Enter a parametric value to search under the *Value* column.

Note: You can also use wildcard characters, such as * and ?, to specify the values. For search parameter values that involve special characters, ensure that you use double quotes (" ") around the value specified.

As soon as you enter a search criterion, the Search Query window appears displaying the specified search criterion.

- 7. After specifying the values, select the Match All or Match Any radio button.
- **8.** Select the check box (at the other end of the relation) to include a relation as one of the headers in the search results.

Note: If you select other property name check boxes under the *Attributes* tab, then they also appear as headers in the search results.

9. To control the order of the relations as they appear in search results, use the up and down arrow icons.

The order of the search parameters you specify in the right pane determines the order of the results that appear in the *Search Results* tab.

10. Click the Search icon.

The search progress bar appears indicating that the search is in progress.

The search results matching your criteria appear in the *Search Results* tab. The number of search results appears at the bottom of the Part Information Manager window.

Working with Models

Searching by Properties

The right pane does not contain any searchable properties because they are added at the part classification level only.

Viewing Model Information

This section explains the following tasks:

- Viewing Model Graphics
- Viewing Model Properties
- Viewing Model Attributes and Relations

Viewing Model Graphics

1. In the *Search Results* tab, click a row. Alternatively, right-click the row and choose the *Show Details* pop-up menu option.

The <Mode1_Detail> tab appears in the right pane of the Part Information Manager window.

By default, the *Graphics* tab is selected, and the symbol graphic appears in the right pane.

To view schematic symbols, you can use the icons available at the top of the viewer to control the zoom functions.

Viewing Model Properties

To view the searchable properties of a model, do the following:

1. In the *Search Results* tab, click a row. Alternatively, right-click the row and choose the *Show Details* pop-up menu option.

The <Model_Detail> tab appears in the right pane of the Part Information Manager window.

2. Click the *Properties* tab in the right pane. These properties appear in a two-column grid format. The column headers are *Name* and *Value*.

Working with Models

Viewing Model Attributes and Relations

To view model attributes defined in the component database, do the following:

1. In the *Search Results* tab, click a row. Alternatively, right-click the row and choose the *Show Details* pop-up menu option.

The <Mode1_Detail> tab appears in the right pane of the Part Information Manager window.

- **2.** Click the *Attributes* tab in the right pane. The attributes appear in a two-column grid format. The column headers are *Name* and *Value*.
- **3.** To view the relations (associations) of the model selected, use the Explorer pane (which is collapsed by default). This pane lists all the relations in a tree-like structure. You can expand the tree to view the linked parts, linked models, library, and classification for the model.
- **4.** Select a relation instance, and choose *Show Details* from the pop-up menu.

The details appear in a new tab.



The relations depend on the model type. Hence, the right pane may show different attributes for different models.

Viewing Model History

To view the history information of the model in the component database, click the *History* tab in the right pane. Information such as the revision log and comments for the model appear in this tab.

C

Troubleshooting

Server Connectivity Problems When Using Part Information Manager

If you are a Design Entry HDL user, you might sometimes see either ERROR(SPDWUB-59) or ERROR(SPDWUB-6) when opening Part Information Manager to place components. These errors mean that Part Information Manager cannot communicate with the Designer Server.

First, ensure that the HotFix installed on the client machine and the Designer Server is the same, unless the client machine is intentionally on a higher HotFix and the server administrator has configured it accordingly.

Server connectivity problems can happen for various reasons, such as the following:

- Case 1: The server is not running or is not responding to the client machines
 - **a.** If not already stopped, the server administrator needs to stop the Designer Server from Windows Services or by using adwstop.bat.
 - **b.** Restart the Designer Server from Windows Services or by using adwstart.bat.
- Case 2: Allegro EDM configuration issue
 - **a.** Confirm whether the mapped drive path to the Designer Server PCBDW_LIB on your machine is configured right and can connect to the Designer Server.

```
SERVER_HOST = http://<Designer_Server_Name>:<Port_Number>
SERVER_USER = library_admin
SERVER_PASSWORD =
SERVER_TYPE = Cadence_Library_Server
SERVER_VERSION =

[adwserver_properties]
ADWSERVER_HOST = http://<Designer_Server_Name>:<Port_Number>
```

Troubleshooting

- **b.** Edit the workbench.ini file on the Designer Server and make sure that it points to the same Designer Server.
- Case 3: Change the http protocol to https in the workbench.ini file on the Designer Server.
 - a. Edit workbench.ini at ../adw_conf_root/<company>/<site>/
 workbench.ini.
 - **b.** Change the protocol from http to https.

```
Server_properties]
SERVER_HOST = https://<Designer_Server_Name>:<Port_Number>
SERVER_USER = library_admin
SERVER_PASSWORD =
SERVER_TYPE = Cadence_Library_Server
SERVER_VERSION =

[adwserver_properties]
ADWSERVER_HOST = https://<Designer_Server_Name>:<Port_Number>
```

■ Case 4: Firewall issue

Check whether the Windows firewall is blocking any of the following:

- □ Port 7100 or the assigned port on the EDM Designer Server.
- iava.exe and/or port 7100 or the assigned port on the client machine.
- Case 5: Request is timing out

Increase the timeout by adding the "DAO_Timeout" directive with a value greater than 300ms in the project CPM file, as follows:

```
START_COMPBROWSER
DAO_Timeout `500'
END_COMPBROWSER
```

D

Part Information Manager User Interface

This chapter details the user interface components of Part Information Manager in both modes—Allegro EDM and standard.

Part Information Manager User Interface

Menu Help

File - Load Search Criteria

Lets you load an existing saved search criterion.

Note: This command is available in the Allegro EDM mode.

File - Save Search Criteria

Lets you save a search criterion.

Note: This command is available in the Allegro EDM mode.

File - Save Search Results

Lets you save the search results at a physical location on your computer or network.

File - Switch to Cache

Disconnects from the Allegro EDM Server database.

Note: This command is available in the Allegro EDM mode. You can access locally available libraries and cells.

File - Import Shopping Cart

Lets you import an existing shopping cart into Part Information Manager.

Note: This command is available in the Allegro EDM mode.

File - Connect to Database

Lets you change the Part Information Manager environment from standard to Allegro EDM (database).

Note: This command is available in the standard (non-database) mode.

Part Information Manager User Interface

File – Save Shopping Cart as Shopping List

Lets you save a an existing shopping cart for use at the later time or to share with other team members.

Note: This command is available in the Allegro EDM mode.

File - Exit

Lets you close the Part Information Manager window.

View - Toolbar

Lets you display the toolbar.

Note: This command is available in the standard (non-database) mode.

View - Search Results

Lets you open the Search Results pane that lists the part or model search results.

View – Shopping Cart

Lets you display the Shopping Cart tab containing the list of parts added to it.

Note: This command is available in the Allegro EDM mode.

View - Alerts Tab

Lets you display the *Alerts* tab containing the notifications and warnings related to design data.

View – Single Detail Tab

Lets you display only one object detail tab at a time.

Part Information Manager User Interface

View - Close All Detail Tabs

Lets you close all the part or model information tabs (other than the default Part tab).

View – Reset Filter

Lets you reset the filters in the Search Results tab.

Note: This command is available in the standard (non-database) mode.

Tools – Options

Lets you customize Part Information Manager settings.

Tools – Reload Library Data

Lets you refresh the libraries any time to reflect the latest changes made to it, if any.

Note: This command is available in the standard (non-database) mode.

Help – Documentation

Lets you view the online Help for Part Information Manager.

Part Information Manager (Standard Mode)

Part Tab

Left pane When the *Part* tab is clicked, by default, the left pane contains (Explorer Pane)

three standard nodes—Browse Libraries, Classifications,

and *Libraries*—in a tree-like hierarchy. This hierarchy signifies the categorization of cells for performing a part

search.

The nodes of the tree are expandable and collapsible. You can

select a classification or subclassification for a part search.

Right Pane With the *Part* tab selected, the right pane contains the fields

that help you define search parameters for the classifications

or libraries selected in the explorer pane.

Properties tab Lets you define search criteria using properties defined in the

component database for parts.

Click this icon to run a search.

Click this icon to clear and reset the currently selected search

criterion.

Click this icon to add an attribute row.

Click this icon to remove an attribute row.

Match All Select this radio button to specify the AND condition between

multiple search parameters.

Match Any select this radio button to specify the OR condition between

multiple search parameters.

Part Information Manager User Interface

Search Grid This grid contains the following drop-down boxes:

Name: Lets you specify the name of attributes.

Condition: Lets you specify the conditional operator (<, >, =,

=>, !=, and <=).

Value: Lets you specify the parametric value.

Bottom Pane This pane is where the Search Results and Alerts tabs

appear.

Filter Lets you narrow the list of parts returned by your search

query.

Search Results tab Contains the search results returned by your query.

Alerts tab Lists all the notifications and warnings related to the parts you

add to the design.

Part Details Tab

Left Pane (Explorer Pane) This pane contains the relations for the part selected. This

includes information such as classification, models (symbol and footprint), preferred parts list, and accessory parts.

Right Pane This pane contains the Graphics and PTF tabs. Selecting a

tab displays the appropriate information.

Graphics tab Contains the graphics information (symbol and/or footprint) for

the part selected.

PTF tab Contains the part table rows for the part selected.

Add Click this button to add the part to the design.

Model Tab

This tab is available only in the Allegro EDM mode.

Property Options Dialog Box

Name/Pattern Contains the name of the currently selected option set.

Right pane Contains the current list of properties for the option set you

select in the Name/Pattern field.

Property Name The name of the key and injected properties appear under this

column. Properties in bold are the key properties.

Filter Pattern Lets you filter physical property values based on the string you

enter.

For example, to filter the row of the PTF that has a VOLTAGE value set as 63V, select VOLTAGE property in the *Property Name* column, enter 63 in the *Filter Pattern* field, and click

Apply.

Annotate Controls the visibility of the physical property on the

schematic.

If you select No, the physical properties do not appear on the

schematic.

If you select *Name*, only the names of the physical properties

appear on the schematic.

If you select *Value*, only the values of physical properties

appear on the schematic.

If you select *Both*, the names as well as the values of physical

properties appear on the schematic.

If you select *Invisible*, physical properties are added on the schematic and are read by all tools, but they are not visible.

Part Information Manager User Interface

Numeric Sort

There are two types of sorting that Design Entry HDL employs to list the rows in a PPT file.

Numeric Sort

In numeric sorting, the lower numbers are placed initially followed by the greater numbers (50<150).

String Sort

In string sorting, the first characters of two values are taken and compared. If they are the same, the second characters are compared. For example: 150<50. 150 is lower than 50 because 1 and 5 are compared together.

Note: This column is not available in the Allegro EDM mode.

Hide Column

Hide the column in the *Search Results* tab (*Part Information Manager* window).

Note: This column is not available in the Allegro EDM mode.

Add

Adds a new option set with the name that appears in the *Name/Pattern* field. If the name already exists, you have to add an option set with a new name.

Remove

Removes the current option set.

Load

Click this button to display a file browser that lets you load a completely new set of option sets.

If you specify the path to the PPT Option Set file in *Tools > Options > Paths*, the ppt_optionset.dat file will load by default.

Save

Click to save to a file (ppt_optionset.dat) the option sets you have defined using the Property Options dialog box in the default location of the current project directory.

Save As

Click to save the option sets you have defined using the Property Options dialog box to a file (with a.dat extension) other than the default file (ppt_optionset.dat).

Part Information Manager User Interface

1	Lets you move the position of a property name up in the order. For example, for a physical part, if PART_NUMBER is the third cell of the <i>Property Name</i> column, and you select it and click the <i>Up</i> arrow twice, the property will move to the first cell. Now, the PART_NUMBER will be the first column that appears in a part table row.
	Note: This button is not available in the Allegro EDM mode.
•	Lets you move the position of a property name down in the order. For example, for a physical part, if JEDEC_TYPE is the second cell of the <i>Property Name</i> column, and you select it and click the <i>Down</i> arrow twice, the property will move to the fourth cell. As a result, JEDEC_TYPE will be the fourth property column that appears in a part table row.
	Note: This button is not available in the Allegro EDM mode.
Apply	Reflects the changes you made in the option set on the Property Options dialog box and other related interface elements, such as Part Information Manager.
OK	Applies the changes in the Search Results tab (Part Information Manager window) and closes the Property Options dialog box.
Cancel	Closes the Property Options dialog box without saving the changes you made in the current session.
Help	Lets you view the online Help for the Property Options dialog box.

Options Dialog Box (Standard Mode)

This dialog box contains the following fields:

Field	Description
General Section	This section lets you configure general preferences for Part Information Manager.
Minimize Part Information Manager on Add	Selecting this check box minimizes the Part Information Manager window when you place a component on the schematic.

Part Information Manager User Guide Part Information Manager User Interface

Field	Description
Show Details on Single Click	Lets you view the details of the part when you click it.
Search Results Section	Lets you configure search result-specific options.
Show Library Name	Lets you view the library names for the parts that appear in the search results.
Show Cell Name	Lets you view the cell name for the parts that appear in the search results.
Search Criteria Section	Lets you configure the search criteria details when you choose to search by classifications or libraries. The default search criteria appears in the right pane of Part Information Manager.
Text box	Lets you enter a property name to be added for a part.
Add Icon	Adds a new property with the specified property name, which appears in the two-column grid. If the name already exists, add the property with another name.
Remove Icon	Removes the selected property.
Property list	Contains the name of the part property and the property type in a two-column grid.
•	Lets you move the position of an attribute up in the list.
•	Lets you move the position of an attribute down in the list.
Help	Lets you view the online help for the dialog box.
OK	Applies and saves the changes made in the dialog box.
Cancel	Closes the dialog box without saving the changes you made in the current session.

Options Dialog Box (Standard Mode)

This dialog box contains the following fields:

Field	Description
General Section	This section lets you configure general preferences for Part Information Manager.
Minimize Part Information Manager on Add	Select the <i>Minimize Part Information Manager on Add</i> check box to minimize the Part Information Manager window when you place a selected component on the schematic.
Show Details on Single Click	Select Show Details on Single Click to view the details of the part when you click it.
Search Results Section	Lets you configure search-results-specific options.
Show Library Name	Select the <i>Show Library Name</i> check box to view the library name for the parts that appear in the search results.
Show Cell Name	Select the <i>Show Cell Name</i> check box to view the cell name for the parts that appear in the search results.
Search Criteria Section	Lets you configure the search criteria details when you choose to search by classifications or libraries. The default search criteria appears in the right pane of Part Information Manager.
Text box	Lets you enter the property name to add.
Add Icon	Adds a new property with the specified property name, which appears in the two-column grid. If the name already exists, you have to add the property with another name.
Remove Icon	Removes the selected property.
Property list	Contains the property name and the property type in a two-column grid.

Part Information Manager User Guide Part Information Manager User Interface

Field	Description
	Click this icon to move the position of an attribute up in the list.
•	Click this icon to move the position of an attribute down in the list.
Help	Lets you view the online Help for the dialog box.
ОК	Applies and saves the changes made in the dialog box.
Cancel	Closes the dialog box without saving the changes you made in the current session.

Part Information Manager User Interface

Modify Component Dialog Box

Filters Help you refine the parts in the grid.

Grid Columns Contains key and injected PTF properties. Properties in bold

are the key properties.

Reset Filters Lets you reset filters above the table columns.

PTF Options Click this button to open the Property Options dialog box.

OK Applies and saves the changes made in the dialog box.

Cancel Closes the dialog box without saving the changes you made in

the current session.

Advanced Search Click this button to bring up the Part Information Manager

window.

Part Information Manager (Allegro EDM Mode)

Part Tab

The Part tab, by default, contains the following interface controls:

Left Pane (Explorer

Pane)

By default (*Part* tab selected), this pane contains two standard nodes—Browse Libraries and Classifications in a tree-like hierarchy. This hierarchy signifies the categorization

of cells for performing a part search.

The nodes of the tree are expandable and collapsible. You can select a classification or subclassification for part search.

Right Pane With the *Part* tab selected, this pane contains the fields that

help you define search parameters for the classification

selected in the explorer pane.

Properties tab Lets you define a search using properties defined in the

component database for parts.

Note: You cannot select the display and order of properties as displayed in the search results as these are predefined by the

library administrator.

Attributes tab Lets you define a search using attributes defined in the

component database for parts.

Relations tab Lets you define a search using relations defined in the

component database for parts.

Click this icon to run a search.

Q

Click this icon to clear and reset the search criterion in the

active tab.

Click this icon to clear and reset the search criterion in all the

tabs.



Part Information Manager User Interface

•	Click this icon to move the position of a search parameter up in the list.	
•	Click this icon to move the position of a search parameter down in the list.	
Match Any	Select this radio button to specify an OR condition between multiple search parameters.	
Match All	Select this radio button to specify an AND condition between multiple search parameters.	
Search Grid	This grid contains the following drop-down boxes:	
	□ <i>Name</i> : Lets you specify the names of attributes.	
	☐ Condition: Lets you specify the conditional operator (<, >, =, =>, =!, <=, and QUERY).	
	□ Value: Lets you specify the parametric value.	
	 Check box: Controls the visibility of an attribute or relation in the search results. 	
	Note: This check box control is available only in the Allegro EDM mode and only for the <i>Attributes</i> and <i>Relations</i> tabs.	
Bottom pane	This pane is where the Search Results, Shopping Cart, and Alerts tab appear.	
Filter	Lets you narrow the list of parts returned by your search query.	
Search Results tab	Contains the search results returned by your query.	
Shopping Cart tab	Contains the parts you decided to get from the database. Lists all the notifications and warnings related to the parts you add to the design.	
Alerts tab		

returns any notifications or warnings.

Note: This tab appears when Part Information Manager

Part Information Manager User Interface

Part Details Tab

The title of the Part Detail tab follows the nomenclature, *Part - <Part Number>*. A detail tab is specific to the part whose information you are viewing.

Left Pane (Explorer This pane contains the relations for the part selected. This

Pane) includes information such as classification, models (symbol

and footprint), preferred parts list, and accessory parts.

By default, this pane is collapsed.

Right Pane This pane contains the following four tabs. Selecting a tab

displays the appropriate information.

Graphics tab Contains the graphics information (symbol and/or footprint) for

the part selected.

Properties tab Contains the properties defined in the component database

for the part selected.

Attributes tab Contains part-specific attributes and their values.

History tab Contains part-specific revision log information.

Add Use this button to add the part to the design.

Model Tab

Left Pane (Explorer Pane)

By default, the *Model* tab is turned off. When configured to appear, this pane shows all the model classifications available, which are:

- Allegro Flash Model
- Allegro Footprint Model
- Allegro Format Model
- Allegro Mechanical Model
- Allegro Module Model
- Allegro Padstack Model
- Allegro Shape Model
- ConceptHDL Block Model
- ConceptHDL Part Name Model
- Datasheet Model
- SI DML Model

These models appear in the form of a tree-like hierarchy. The nodes of the tree are expandable and collapsible. You can select a model classification for your search.

Right Pane

With the *Model* tab selected, this pane contains the fields that help you define search parameters for the classification selected in the explorer pane.

Properties tab

The right pane does not contain any searchable properties because they are added at the part classification level only.

Attributes tab

Lets you define a search using attributes defined in the component database for models.

Relations tab

Lets you define a search using relations defined in the component database for models.

Part Information Manager User Interface

Q

Click this icon to run a search.

Û

Click this icon to clear and reset the search criterion in the active tab.

86

Click this icon to clear and reset the search criterion in all the

tabs.

1

Click this icon to move the position of a search parameter up

in the list.

4

Click this icon to move the position of a search parameter

down in the list.

Match Any Select this radio button to specify an OR condition between

multiple search parameters.

Match All Select this radio button to specify an AND condition between

multiple search parameters.

Search Grid This grid lets you specify the name-value pair for the search

parameters.

The check box in the last column of the grid indicates whether to include a parameter (which can be from the *Attributes* or

Relations tab) in the search results header.

Bottom pane This pane is where the Search Results, Shopping Cart, and

Alerts tabs appear.

Filter Lets you narrow the list of parts returned by your query.

Search Results tab Contains the search results returned by your query.

Shopping Cart tab Contains the parts you decided to get from the database.

Alerts tab Lists all the notifications and warnings related to the parts you

add to the design.

Property Options Dialog Box

See Property Options Dialog Box.

Options Dialog Box (Allegro EDM Mode)

This dialog box contains the following fields:

-	
Field	Description
General Section	This section lets you configure general preferences for Part Information Manager.
Minimize Part Information Manager on Add	Select the <i>Minimize Part Information Manager on Add</i> check box to minimize the Part Information Manager window when you place a selected component on the schematic.
Show Details on Single Click	Select Show Details on Single Click to view the details of the part when you click it.
Search Results Section	Lets you configure search-results-specific options.
Show Only Part Table Properties	Choose this to view the part table file (PTF) information in the search results. By default, you see the metadata information in the search results.
Show Library Name	Select the <i>Show Library Name</i> check box to view the library name for the parts that appear in the search results.
Show Cell Name	Select the <i>Show Cell Name</i> check box to view the cell name for the parts that appear in the search results.
Tolerance	Use the <i>Tolerance</i> slider to set the relevance of the search results.
	Note: The default tolerance is 0.
Search Count	Use the <i>Search Count</i> slider to set the maximum number of rows to appear in the search results.
	Note: The default count is 500.
Help	Lets you view the online Help for the dialog box.
ОК	Applies and saves the changes made in the dialog box.

Part Information Manager User Interface

Field	Description
Cancel	Closes the dialog box without saving the changes you made in the current session.

Modify Component Dialog Box

Filters	Help you refine the parts in the grid.
Grid Columns	Contains key and injected PTF properties for the parts. Properties in bold are the key properties.
Reset Filters	Lets you reset filters above the table columns.
PTF Options	Click this button to open the Property Options dialog box.
OK	Applies and saves the changes made in the dialog box.
Cancel	Closes the dialog box without saving the changes you made in the current session.
Advanced Search	Click this button to bring up the Part Information Manager window.

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