cadence

OrCAD Component Information Portal User Guide

Product Version 17.4, 22.1, 23.1
September 2023

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Table of Contents

1 Introduction

This CIP User Guide assists first time users of OrCAD® Component Information Portal (CIP) get started. The information presented also provides reference information such as user administration, rule administration and setting up and using email notifications.

Once CIP is installed, it provides an interface for entering, deleting or modifying parts without the need to access the master CIS database using native tools. CIP enables the general user to view data in the CIS database without using a CIS license. CIP also facilitates the conversion of temporary parts to formal parts. Persons in the administrative role can assign login and passwords to those who need to use CIP.

CIP is a web-based application that helps you manage components used in schematic designs.

The CIP User Guide is organized in three sections:

- CIP Administration – Explains how the Admin sets up:
  - Build rules for part type and description
  - Distributors configuration and synchronization
  - Configurations for fields and views, part number prefix, email notifications, pick lists, and data values
  - Bulk Operations
  - User accounts, roles and field permissions
- Using CIP – Explains how non-administrative users:
  - Manage their components by searching, adding, deleting, and modifying parts
  - Place parts
  - Create and place reuse modules
  - Import and export BOMs
- Appendix – Additional information on topics regarding usage of CIP

2 Getting Started with CIP

You can open CIP from a standard browser such as Chrome or Edge. You can access CIP from OrCAD Capture or System Capture (23.1 only) after you install the corresponding CIP Client plugin.

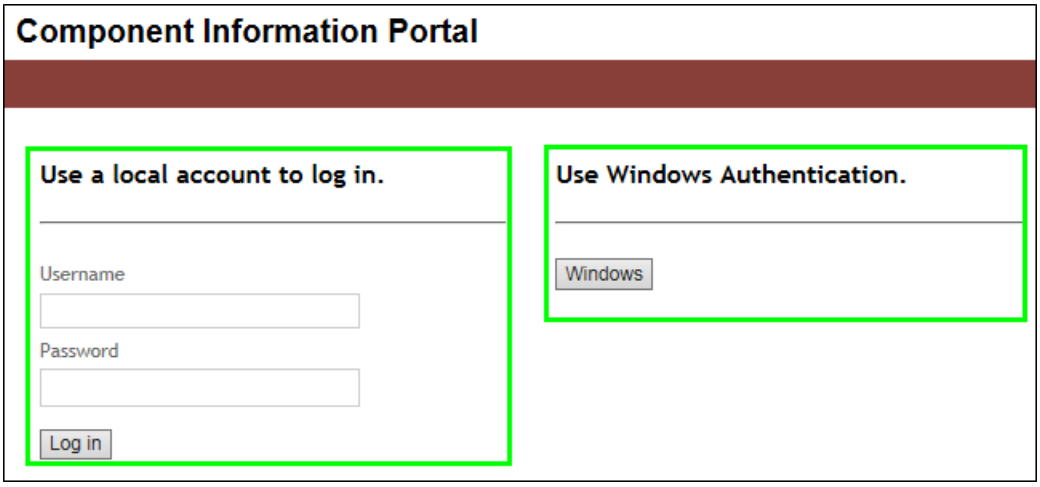
To start CIP, launch Chrome and enter the URL address: http://<servername>/CIP-E where the <servername> is the hostname of the CIP web application server.

Log into CIP with the username and password that your CIP Administrator assigned to you.

First time Admin login information is provided in the CIP Installation Guide. The first time login to the local account uses the Username “Admin”. User accounts are created and modified with the menu selection: **Admin** > **User**, **Roles & Permissions Administration**. We recommend that the Admin user change the Admin password after the first log in.

You can launch CIP from OrCAD Capture after you install the CIP Client plugin and configure the CIP URL in Capture.

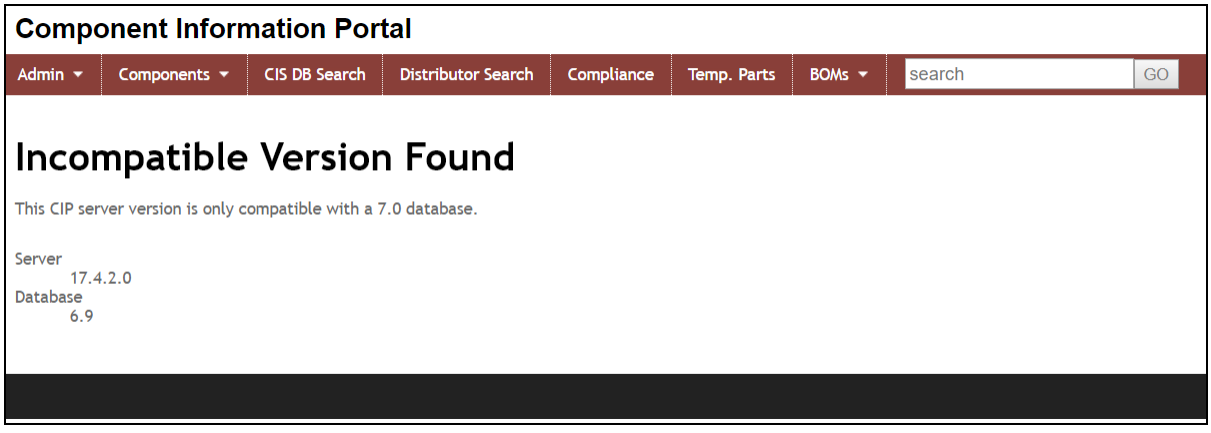
The CIP Client Installation Guide includes additional information regarding the usage of CIP as well as information to help you set up your Capture.ini file.



CIP Login Screen

If you are unable to see the CIP login screen, please contact your administrator or IT team who installed CIP.

If a version incompatibility screen displays when you navigate to the CIP URL, please contact your administrator or IT team who installed CIP. A partial upgrade of CIP may cause this error. An example of the screen in shown in the following figure.



3 CIP Administration

CIP Administrative features are available through the Admin menu. Users need to be granted specific administrative role permissions to configure options.

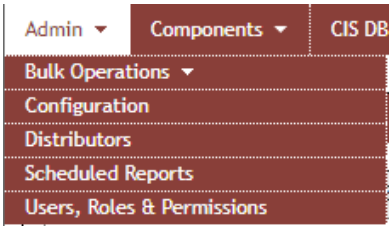
Admin Menu Items

The Admin menu enables you access any of the following admin options:

- ***Build Rules*** – Set-up build rules for auto-build of part type and description
- ***Distributors*** – Distributors Administration
  - Automatic sync of data from distributors
  - Country settings and customer ID
- ***Configuration***
  - Set up of component views and customizable fields
  - Reorder and Group View Fields
  - Email notification setup
  - Configure Indicator for manufacturer part status
  - Separator selection for Import and Export files
  - Configure part number prefix
  - CIP Link setup (for viewing of CIP parts from CIS)
  - Configure Reuse Module Location
  - Ultra Librarian download options
  - Configure fields to be transferred to design
  - System Capture Configuration
  - Show link to active users on the log in page
- ***Bulk Operations***
  - Delete parts in CSV from CIP
  - Component View Mover – Move parts between views within a table
  - Import parts from CSV to CIP
  - TMPPRTS Import
- ***Users, Roles, & Permissions*** – Users, Roles & Permission Administration
  - Add, remove and modify users
  - Configure user specific notification
  - Define new roles

- Configure field permissions for each role

Users who have partial administrative permissions can view only the list of options that are specifically granted to them. Conversely, a user without granted permission to the build rules option is unable to view those options. The figure that follows, for example, shows a view of the menu items that are available to an admin user who lacks privileges to the build rules. Refer to User Administrative Role Permissions for more info.



Admin Menu Items Without Privilege to Build Rules

3.1 Build Rules

The Rule Administration page is used to manage build rules. This includes editing predefined rules and deleting rules. Rules can be set for the description and part type fields only. The default rules are provided in the Appendix topics, Part Type Standards and Description Standards. More samples of rules can be found later in this document.

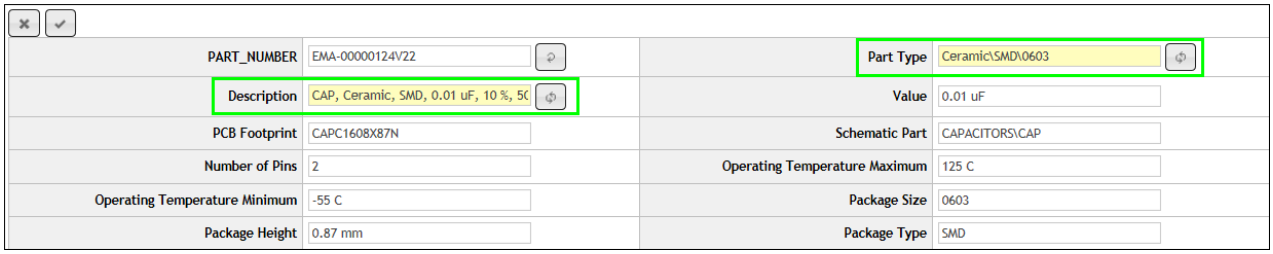
Admin > Build Rules

3.1.1 Rule Basics

A rule is a set of instructions used to automatically create data using data that has been derived elsewhere. An example of this would be creating a description for a part based on other data, which has already been provided such as Part Type, Package Size, Value, Tolerance, etc. A person in the role of Librarian will find the Rule building capability useful when trying to pull existing data from various fields relating to a specific part, and "build" new data descriptions or part types using the Auto-Build function. This capability promotes a consistent and accurate method for adding data to the description or part type fields in the database.

A sample of the output of a rule is shown below, where the results have been populated into the Description field or the Part Type field by clicking the **Auto-Build** button. The data in the Description field and the data in the Part Type field is a result of requesting specific information from parametric data that resides in the CIS database.

Note: CIP users with Edit Formal Parts permission may use the Auto-Build button. However, only CIP users with Set Rules administrative permission may define rules. The process for creating and using rules is explained in the following sections.

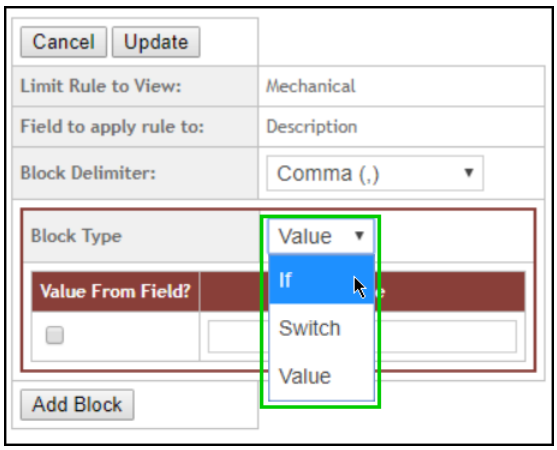


Sample Rule Results

Each Rule is defined for a Table which the rule applies to, and the Field name (Part Type or Description) that will be populated when the Auto-Build feature is used. Rules can only be applied to two parametric fields: Part Type and Description. Each rule has a set of one or more data blocks. Additionally, a Block Delimiter may be set to add a predefined character delimiter between each data block. The default Block Delimiter is "None," which puts one field immediately after another. In general, the Block Delimiter should be set to one of the options provided. The Block Delimiter may be set to "None" for complex rules. If more than one of the same rule has been defined, the one that is lowest on the list will take effect.

3.1.2 Block Types

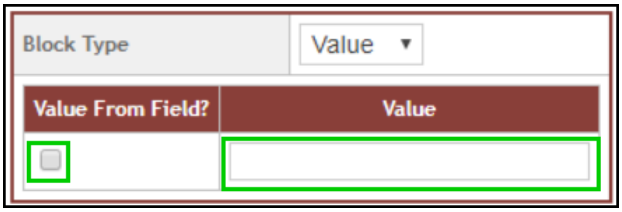
There are three **Block Types** that can be used to build each block of a rule. Up to 10 blocks can be applied per rule. You may change between block types at any time by selecting a new block type from the drop down list. The block types available are If, Switch, and Value. Each behaves in a specific manner.



Block Types

3.1.2.1 Value Blocks

When the **Block Type** is set to *Value*, a simple value is added to the output either in the form of a constant or a value pulled directly from another CIS field. The "Value from Field" checkbox, when checked, allows the use of another CIS field as the value.



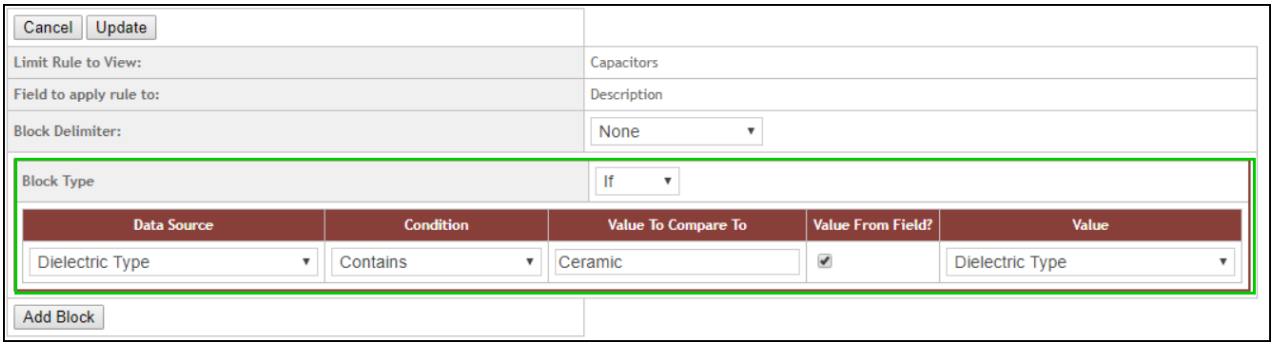
Value Block Type

3.1.2.2 If Blocks

When the **Block Type** is set to "If," the value set is based on the conditions you select from the drop list menus as well as the text strings you type into the input boxes. For example, when you select "If" as the Block Type, you need to select values from the drop list menus to define the "Data Source" and "Condition." The menu options for Data Source are values from the CIP database.

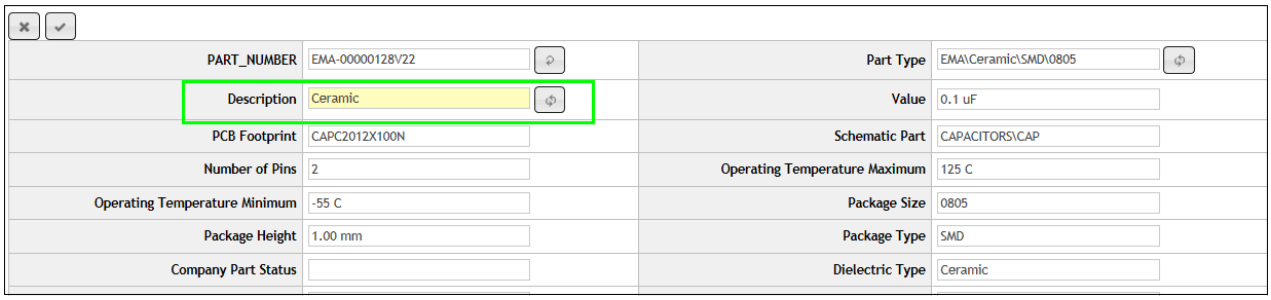
You need to type in a text string to define the value for the "Value to compare to" condition. The "Value to compare to" box is the specified value used for testing the condition.

When you check the "Value from Field?" checkbox, the value you select in the "Field" column is used. When this checkbox is unchecked, you need to type a text string into the "Field" input box. The "Value from Field?" checkbox operates just like it does in Value Blocks switching between a “Constant” value and pulling a value from a specified field for use in the output if the condition is true.



If Blocks

The result of the above example after **Auto-Build** is shown below, where, IF the Data Source “Dielectric Type” uses the Condition “Contains”, and the "Value to compare to" is Ceramic, then the Description field would be populated with the Dielectric Type (Ceramic) after the Auto-Build button is selected.

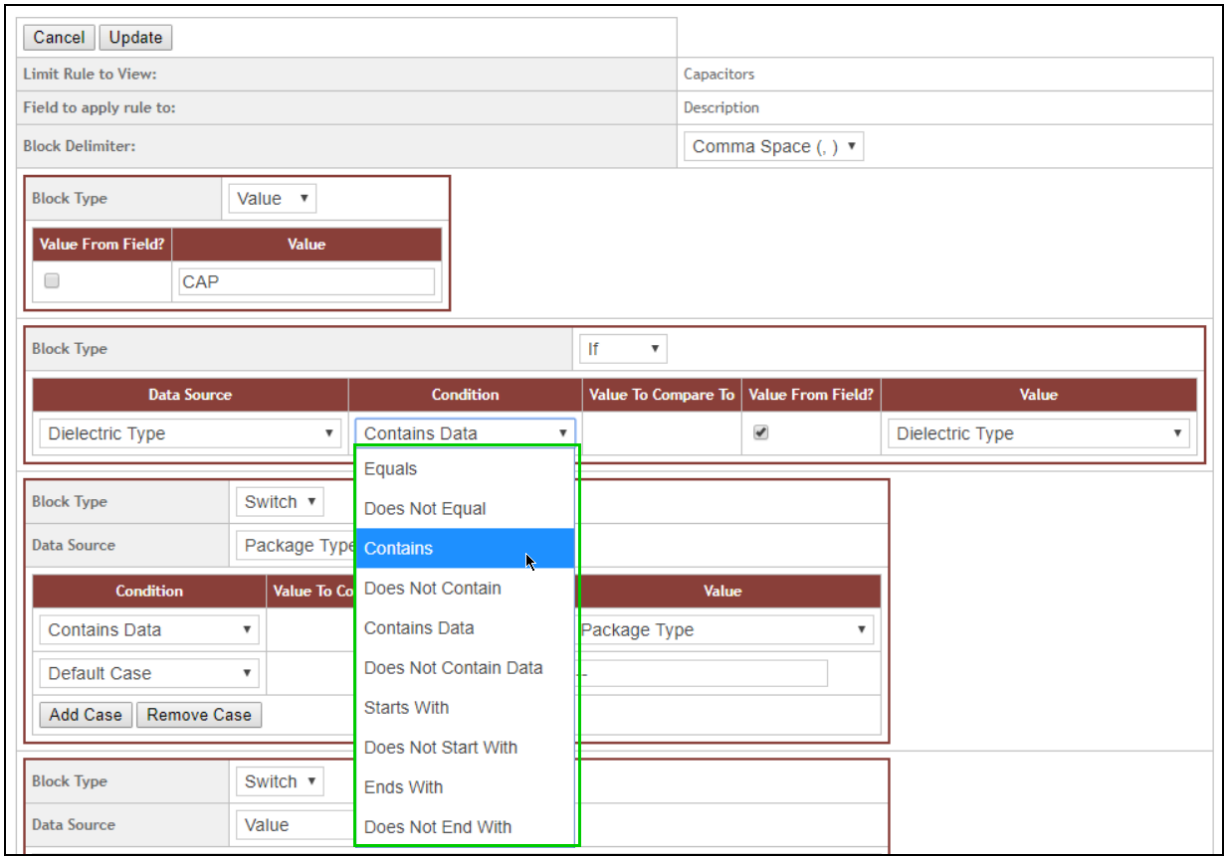


If Block Results

Conditions

The Data Source box is used to select the CIS field that the condition will test. The Condition box is the test condition to be used. Allowable conditions can be any one of the following (conditions are tested in a case insensitive fashion):

- **Equals** – Used to see if the field's data matches the value provided.
- **Does Not Equal** – This is the negative case of "Equals" and is used to see if the field data does not match the value provided.
- **Contains** – This test is used to find a certain string within the field. For example: Our field has the value "Metallic Film" and our test is: Contains "film". In this case the condition is true because "Metallic Film" does contain "film" and the constant or field value defined would be used for the output.
- **Does Not Contain** – This is the negative case of "Contains" and using the example from "Contains." Our field has the value "Metallic Film" and our test is: Does Not Contain "film". This time the condition is false because "Metallic Film" does in fact contain "film" so nothing will be added to the output from this Block.
- **Contains Data** – This is used to simply determine whether the specified field has any data at all.
- **Does Not Contain Data** – This is the negative case of "Contains Data" and is used to test whether the field is empty.
- **Starts With** – Used to see if the field's data has the specified value at the beginning.
- **Does Not Start With** – This is the negative case of "Starts With" and is used to see if the field data does not have the specified value at the beginning.
- **Ends With** – Used to see if the field's data has the specified value at the end.
- **Does Not End With** – This is the negative case of "Ends With" and is used to see if the field's value does not have the specified value at the end.

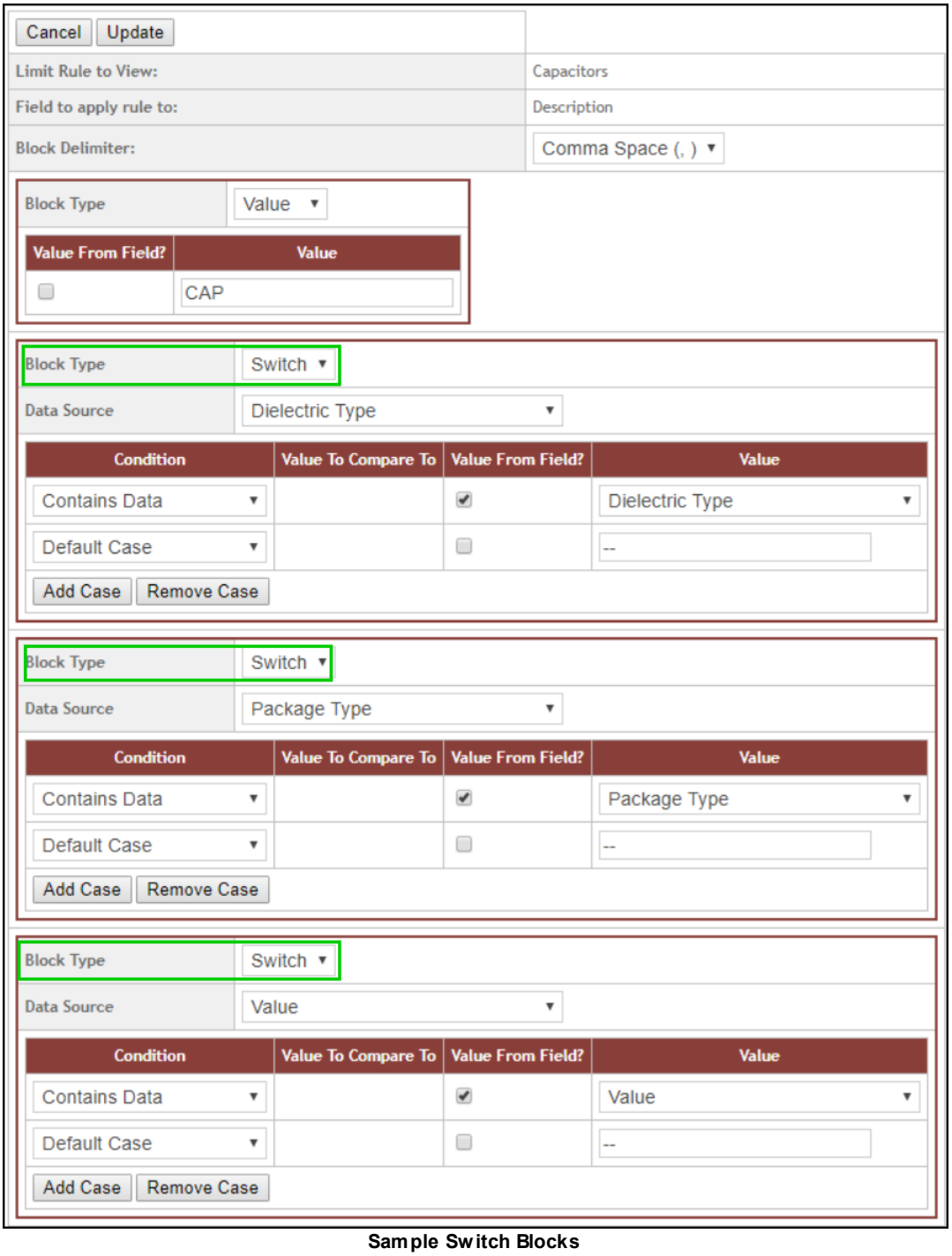


Build Rule If Block

3.1.2.3 Switch Blocks

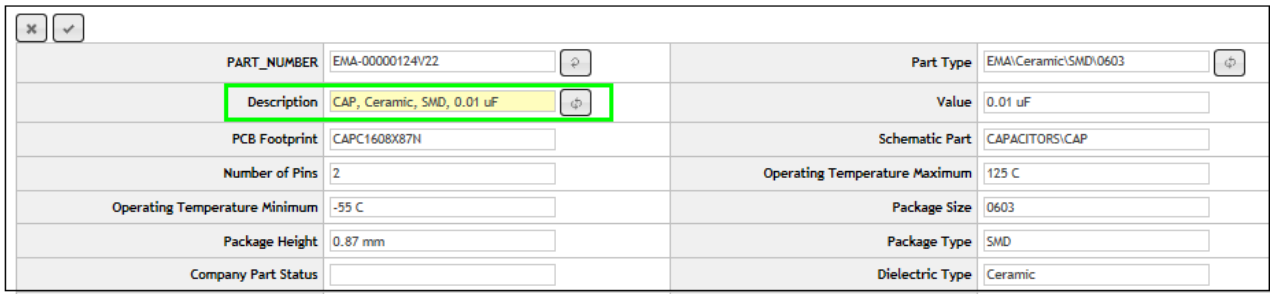
Switch Blocks are used to compare a single field's value sequentially against multiple conditions (Cases) to find a true condition (uses the first true condition). All conditions that can be used with If Blocks can be used with Switch Blocks and additionally there is the Default Case condition, which is used if all conditions up to that point are false. To add additional cases to the Switch Block click the **Add Case** button. A sample of a set of Switch Blocks is shown below.

Note: A Default Case is required at the end of each Switch Block.



Sample Switch Blocks

The results for the sample shown are below, where the Description field was populated with the Output Values indicated in the Switch Block rule if the conditions were met as true.



PART_NUMBER	EMA-00000124V22	Part Type	EMA\Ceramic\SMD\0603
Description	CAP, Ceramic, SMD, 0.01 uF	Value	0.01 uF
PCB Footprint	CAPC1608X87N	Schematic Part	CAPACITORS\CAP
Number of Pins	2	Operating Temperature Maximum	125 C
Operating Temperature Minimum	-55 C	Package Size	0603
Package Height	0.87 mm	Package Type	SMD
Company Part Status		Dielectric Type	Ceramic

Switch Block Sample Results

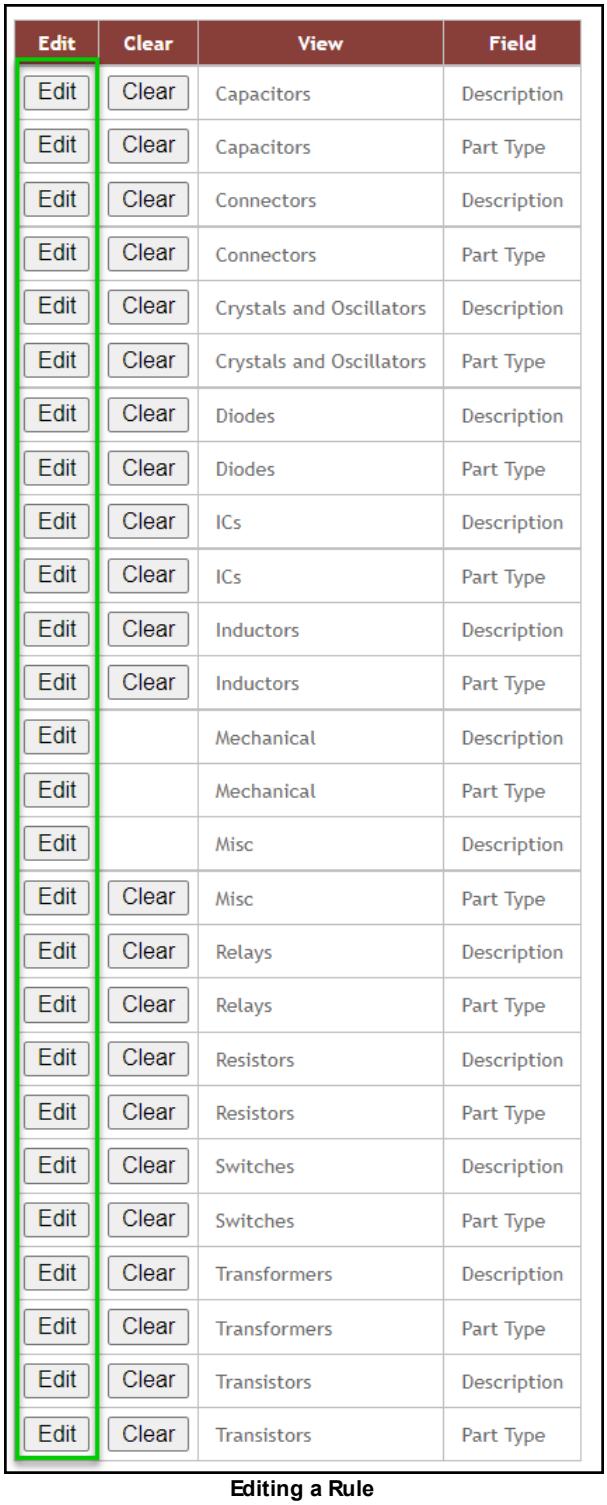
If you have added too many cases you may remove a case by clicking the **Remove Case** button. With switch blocks you may mix and match conditions, values to compare to, and determine whether the output value is a constant or is pulled directly from a field. Click the **Add Block** button to add an additional block (of any type).

Note: There is a maximum limit of 10 blocks that a rule may possess. Removing a block if too many were added is easy; simply click the Remove Block button. The last block will be removed from the rule once clicked.

To save rules you have just constructed click the **Add** button. If you are editing a rule, click **Update** to save.

3.1.3 Editing a Rule

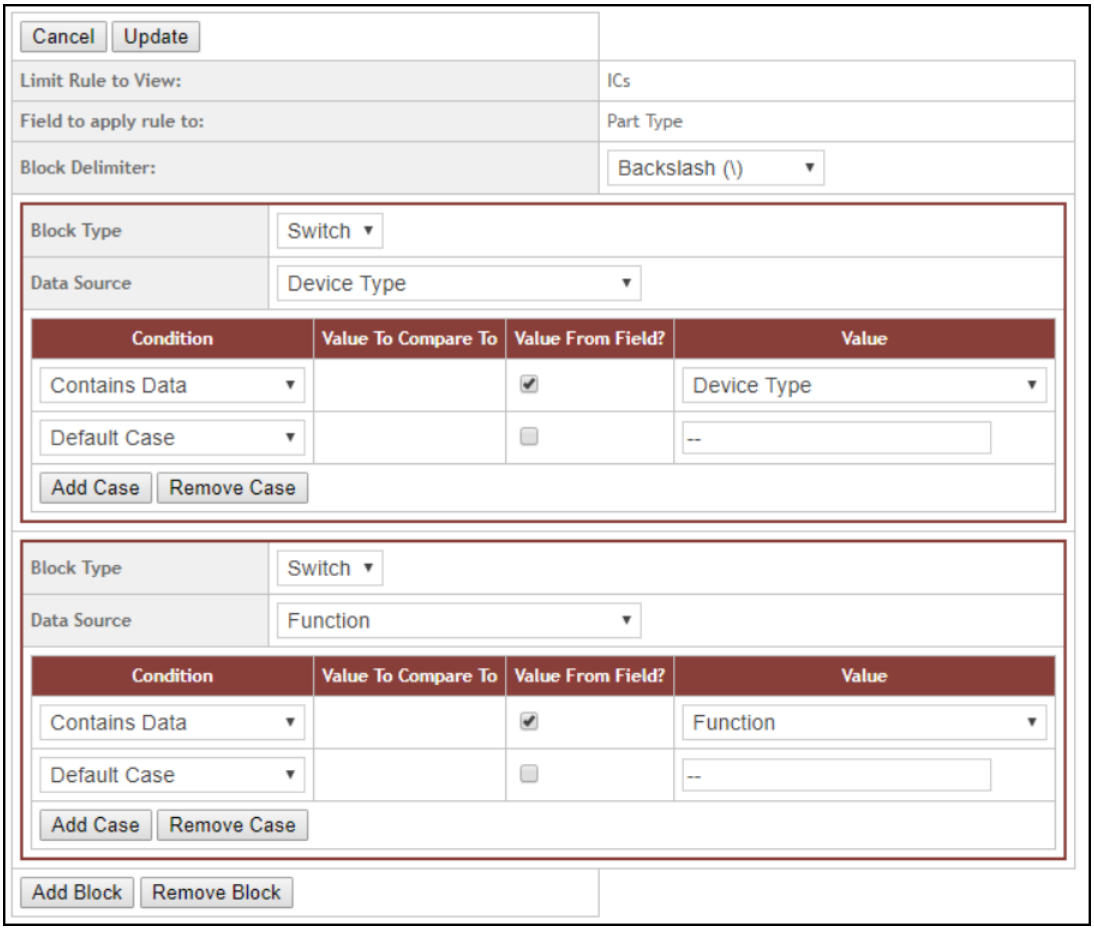
Each of the tables has a set of predefined rules for description and part type. You may remove any of these by selecting the **Clear** button. You will be required confirm to complete the deletion. To add a new rule that has been removed or edit an existing rule, click on the **Edit** button.



Edit	Clear	View	Field
Edit	Clear	Capacitors	Description
Edit	Clear	Capacitors	Part Type
Edit	Clear	Connectors	Description
Edit	Clear	Connectors	Part Type
Edit	Clear	Crystals and Oscillators	Description
Edit	Clear	Crystals and Oscillators	Part Type
Edit	Clear	Diodes	Description
Edit	Clear	Diodes	Part Type
Edit	Clear	ICs	Description
Edit	Clear	ICs	Part Type
Edit	Clear	Inductors	Description
Edit	Clear	Inductors	Part Type
Edit		Mechanical	Description
Edit		Mechanical	Part Type
Edit		Misc	Description
Edit	Clear	Misc	Part Type
Edit	Clear	Relays	Description
Edit	Clear	Relays	Part Type
Edit	Clear	Resistors	Description
Edit	Clear	Resistors	Part Type
Edit	Clear	Switches	Description
Edit	Clear	Switches	Part Type
Edit	Clear	Transformers	Description
Edit	Clear	Transformers	Part Type
Edit	Clear	Transistors	Description
Edit	Clear	Transistors	Part Type

Editing a Rule

Once the appropriate **Edit** button is clicked the existing rule corresponding to your selection becomes visible. The following figure shows an example of the ICs Part Type rule.



Updating a Rule

You may change the following:

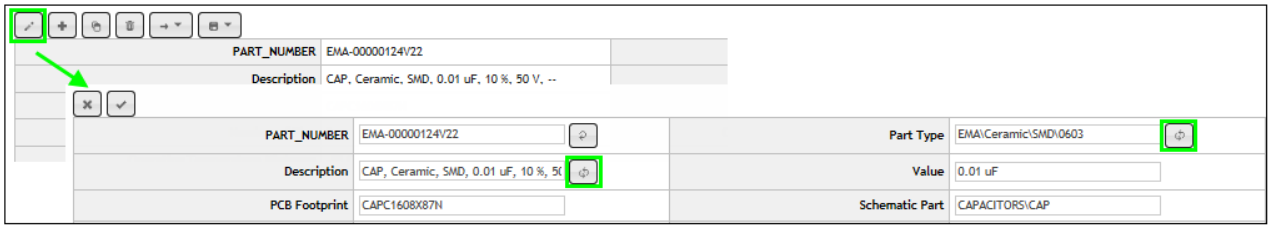
- ***Block Delimiter*** – is used to separate individual blocks.
- ***Block Type*** – defines how each block is built. There are three block types available.

When you are finished editing the rule, click the **Update** button to complete the edit.

To cancel current editing changes made to a rule click the **Cancel** button. Clicking Cancel also closes the editing mode.

3.1.4 Using a Rule

After a rule is defined, you can apply the rule when editing part information of a component. Click the **Edit** button  and then click the field **Auto-Build** button. 

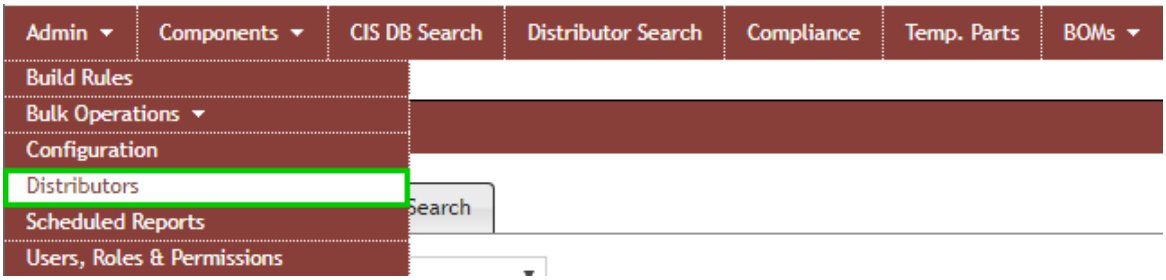


Using Auto-Build

When you click **Auto-Build**, the field updates with the rule output. The image above shows the **Auto-Build** buttons for the Description and Part Type fields.

3.2 Distributors Administration

You can select the **Admin > Distributors** menu to synchronize dynamic distributor data, such as cost and quantity. You can also select this menu to configure distributors' regional and customer settings.



Admin > Distributors

3.2.1 Distributor Sync

Project part data from a distributor is added to your CIP database after you conduct a Distributor Search and save the part information. When you need updated part information from a distributor, you can use the Distributor Sync feature that retrieves up-to-date distributor cost and quantity information for the Distributor Part Number. You can run Distributor Sync as needed or schedule the sync to run periodically.

Distributor Sync only updates the distributor cost and quantity information. All valid part numbers from configured manufactures will be synchronized. Data from distributors for component and manufacturer part fields may differ between distributors and are not updated during Distributor Sync to avoid overwriting manually edited data with potential blank manufacturer data.

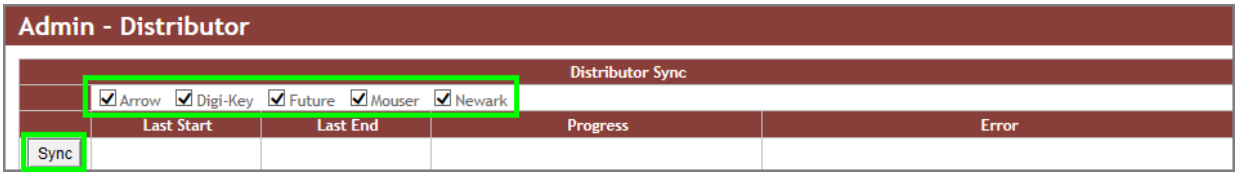
Navigate to the **Admin > Distributors** page to open the Distributor Sync options.

▼ **Run Distributor Sync On Demand**

To start the Distributor Sync immediately, check the distributor(s) you want to sync: Arrow, DigiKey®, Future, Mouser®, or Newark. Click the **Sync** button. Notice how the Last Start timestamp changes to the current time/date. The synchronization process may take several minutes or more, based on the amount of distributor

parts in your database, as well as the Internet connection to the distributors. While the Sync is running, you may continue normal activities within CIP.

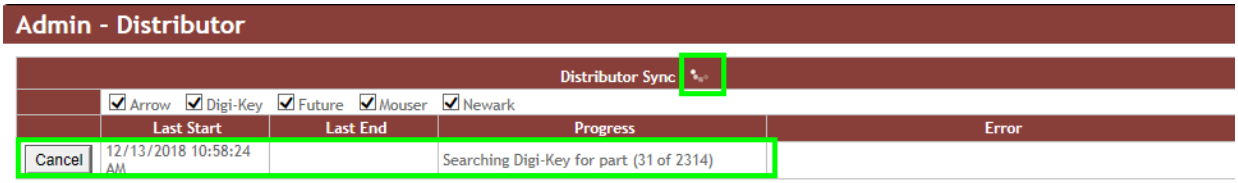
When multiple distributors are selected, the order of processing is alphabetical. When you sync parts that have multiple distributors, the value of common manufacturer fields (e.g. Datasheet and RoHS compliant status) update when the last distributor is processed.



Synchronize Distributor Data

During synchronization, the Progress column displays the current distributor being updated, as well as the current and total distributor part counts. An activity throbber, specifically a circular trail, remains in motion until the process is complete.

Note: When a Distributor Sync is in progress, the Sync button changes to a Cancel button. Clicking Cancel terminates the current Distributor Sync operation.



Distributor Sync Progressing

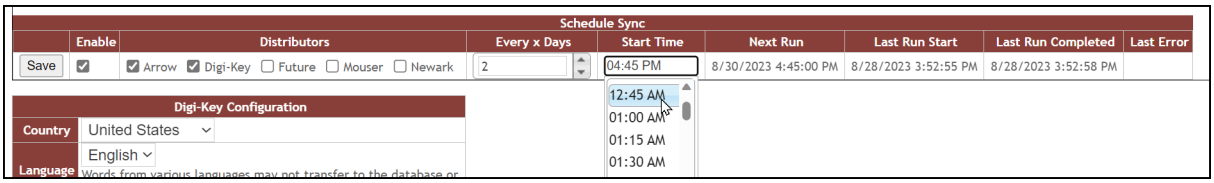
Once complete the Data Last Updated field for each distributor updates with a new date and time. If an error occurs, the Last Message column displays an error message.

Note: The Distributor Sync is unable to synchronize Arrow part numbers that are manually added or modified.

Schedule Distributor Sync

To schedule the Distributor Sync to run periodically:

1) Make the following selections in the Schedule Sync section.
   - Select the Enable checkbox to add a check mark.
   - Check the distributor(s) you want to schedule for the sync: Arrow, DigiKey®, Future, Mouser®, or Newark.
   - Select the number of days between each sync period.
   - Select the start time for the sync.



Schedule Distributor Sync

2) Select **Save** to retain your settings.

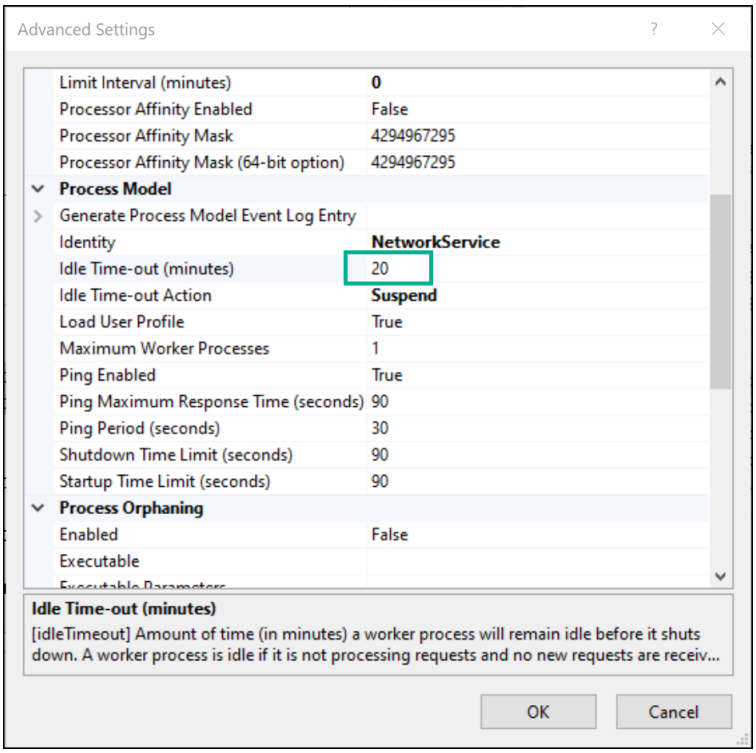
Once syncing starts, the progress information is the same as starting Distributor Sync on demand.

Note: The Next Run time may show a date in the past. The sync will start within 15 minutes after you schedule the sync for this case.

If you suspect scheduled sync or reports are not running for some reason, review the information in the section CIP Scheduler Service not running to determine how to get this process started again.

▼ Scheduled Distributor Sync not finishing:

When you can run a sync manually and see it finish but the schedule sync runs without finishing, it is most like that the CIP web application timed out and shut down before your entire set of parts has completed processing. Web server user activity time out is configured for 20 minutes by default. The schedule sync task runs without user activity and requires a longer time out period. Contact your IT administrator to extend the time out for the CIP_AppPool. The CIP_AppPool setting can be changed in the **Advanced Settings** for the Application Pool in the **Internet Information Services (IIS) Manager** that hosts the CIP Web application. The time out setting is shown in the following figure.

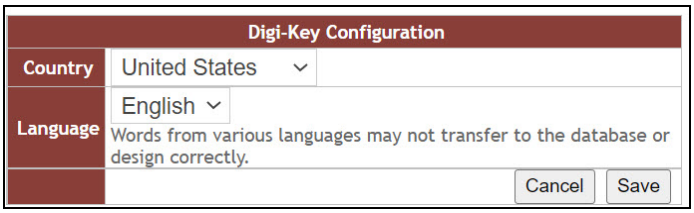


3.2.2 Configure Distributors

Distributors that allow regional settings in their API include Digikey, Mouser and Premier/Farnell/Newark. Users with configure distributors permissions will be able to change regional settings. Premier/Farnell/Newark distributor also provides settings for Customer ID and Customer Key and user credentials. Distributors that do not support regional settings in the API are not configurable.

DigiKey Configuration

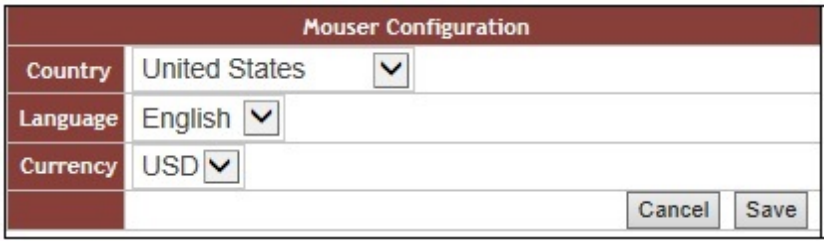
The DigiKey Configuration option allows privileged users to change the applicable **Country** and **Language** for DigiKey searches as provided by DigiKey. Prices and currency will vary with different combinations of these fields. Select the desired options from the list, then click **Save**. Click **Cancel** to discard changes.



Digikey Configuration

Mouser Configuration

The Mouser Configuration option allows privileged users to change the applicable Country, Language, and Currency for Mouser searches as provided by Mouser. Prices and currency will vary with different combinations of these fields. Select the desired options from the list, then click **Save**. Click **Cancel** to discard changes.

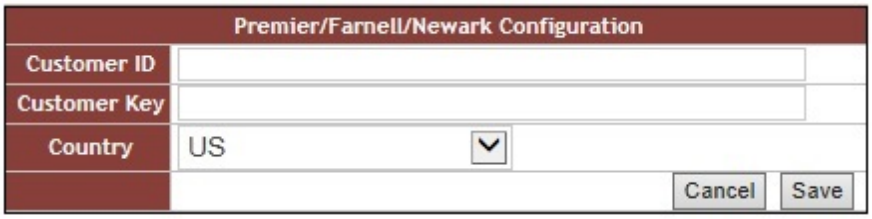


Mouser Configuration

Premier/Farnell/Newark Configuration

The Premier/Farnell/Newark Configuration option allows privileged users to change the applicable Customer ID, Customer Key, and Country for Premier/Farnell/Newark searches. Customers can view customer-specific part pricing, based on their Customer ID and Customer Key. Select/enter the desired options, then click **Save**. Click **Cancel** to discard changes.

Note: The Customer ID and Customer Key fields are not required. These fields must be left blank if you do not have a valid customer ID and Customer Key. Customer-specific pricing may vary from Newark's website (www.newark.com).



Premier/Farnell/Newark Configuration

3.3 Configuration

Admin > Configuration

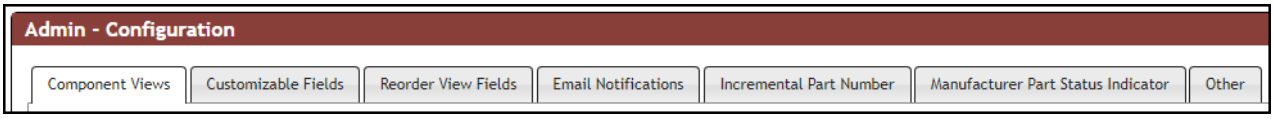
The Configuration menu under the Admin menu item allows you to do the following:

- Create Component Views utilizing subsets of data from default tables.

- Customize Fields to add/remove/rename fields, display pick lists, default field values, include fields for history tracking, and control required fields for TMP and Formal parts. Configure fields to be transfer to design when placing parts from CIP and enable System Capture Configuration.
- Reorder View Fields - to change order and grouping of fields in each component view.
- Set up Email Notifications to inform a team or work group when changes to the CIP database occur.
- Incrementally auto-number new parts by configuring a auto-increment part numbering scheme.
- Color code Manufacturer Part Status field by matching a part status with a color coded configuration .
- System Capture Configuration to configure substitution rules and create PTF file.

Other additional items you can configure:

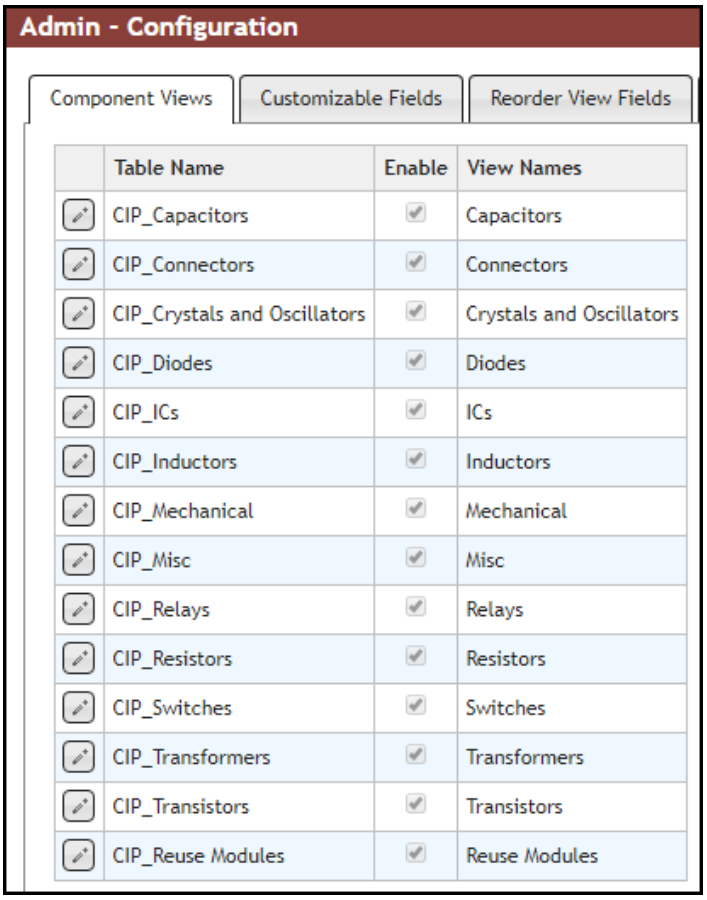
- Import/Export Separator – Configures the separator to be used for CSV file import and export.
- Schematic Part Delimiter – Configures the delimiter for symbols when multiple symbols are specified for a part.
- CIP Base URL – Configure the URL for CIP to enable CIS users to open CIP parts from the CIS Explorer Window within Cadence OrCAD Capture.
- Component Company Action Link – Enable a global link enabled on all components pages.
- Reuse Module Directory – Configure the location where reuse module .DSN files are stored.
- Show CIP Client Download Link – This allows users in a company to download the CIP client directly from the CIP page.
- Temp Part Prefix – Configure the part number prefix used for temporary parts.
- Full Text Search Enabled - This enables/disables full text search functionality.
- Enable Download of Ultra Librarian Models - Enable Ultra Librarian model download and configure common download location.



Admin > Configuration

3.3.1 Component Views

Component Views can be created to show more specific categories and fields for parts than the default views. All tables that can be used to derived new views are shown in the Table Name column under **Admin** > **Configuration** > **Component Views,** but tables are only shown in this section. Component Views are seen by the CIP users and CIS users. Views can be renamed or removed. Any changes to a component view will likely **require an update to the CIS .DBC file** used by Capture CIS. Review the Appendix for instructions to create or update the CIP/CIS .DBC file.

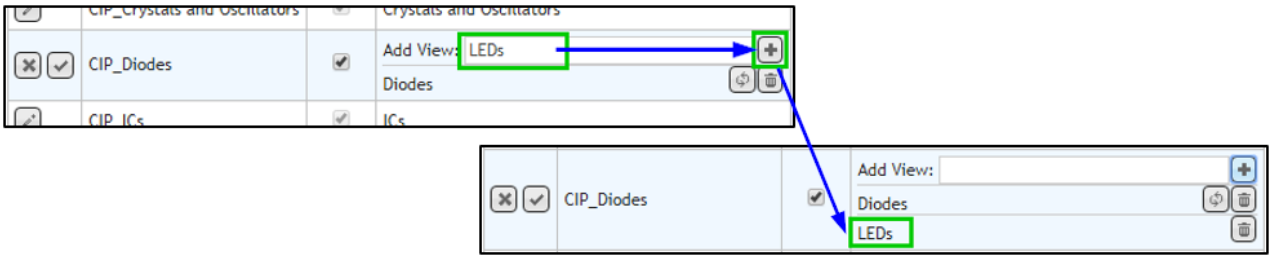


Default CIP Tables and Component Views

To create a new Component View

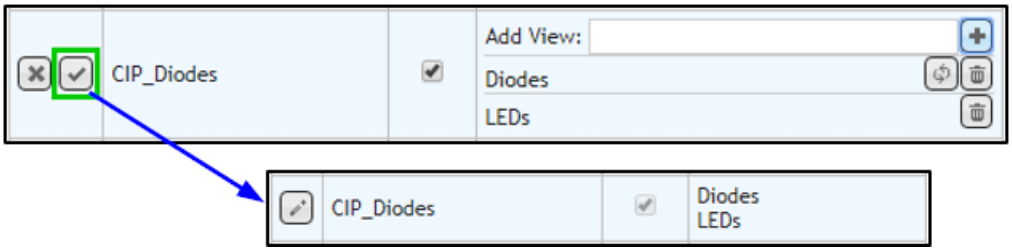
1. Click the **Edit** button next to the table name from which to create the new view.

2. Enter a name for the view in the **Add View** field and click the button to create the Component View. The example below shows the view name, LEDs, is entered into the Add View field of the CIP_Diodes table.



Creating Component View

3. Click the **Save** button when you have finished adding your views to the selected table.

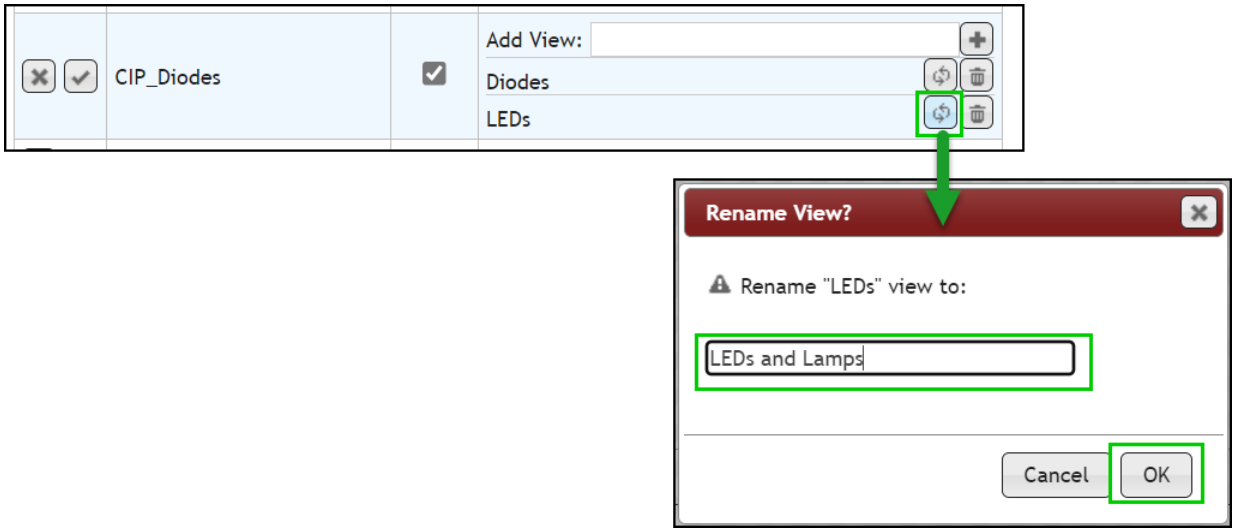


Once you've created a new component view, you can optionally begin to add, import, or move parts into it.

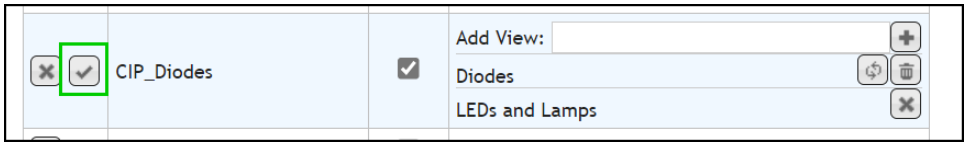
To rename a Component View

1. Click the **Edit** button next to the table name with the view that you want to remove.

2. Click the **Rename** button next to the view you want to rename.



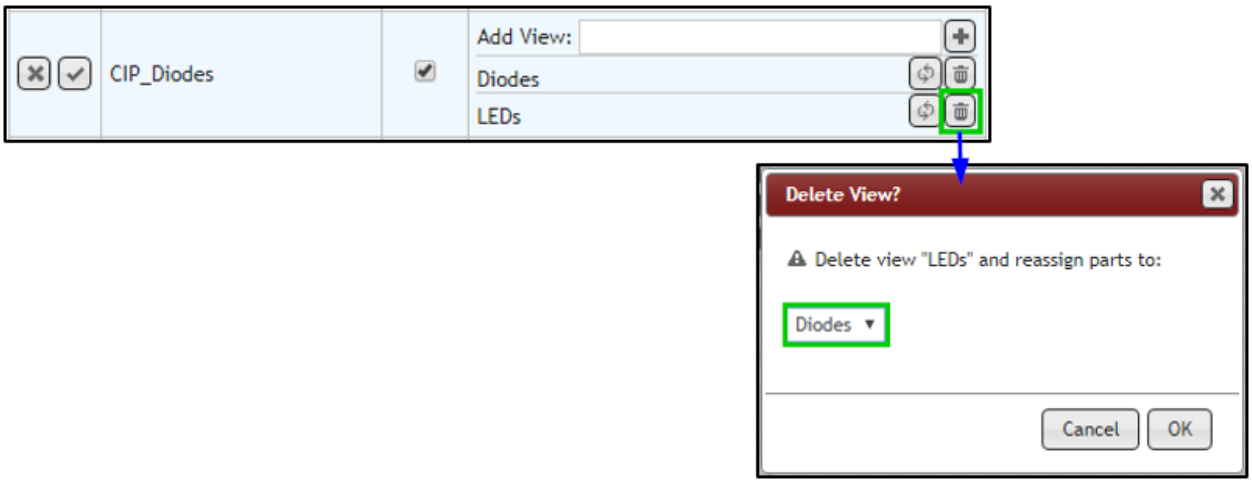
3. Click the **Save** button to complete the rename.



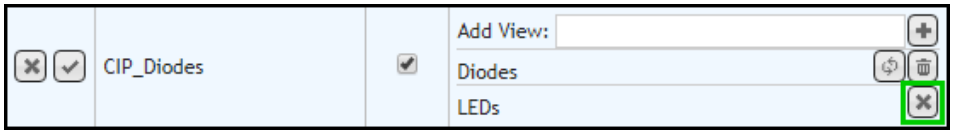
To remove Component Views - Remove a single view

1. Click the **Edit** button next to the table name with the view that you want to remove.

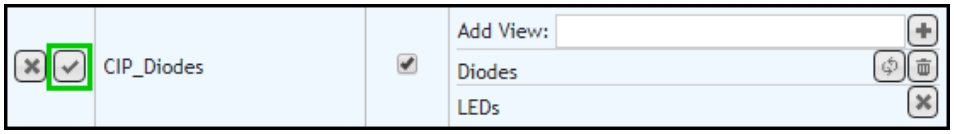
2. Click the **Delete** button next to the view you want to remove. You will need to select a new view to move all parts into before deleting the view, as shown in the following figure, then click **OK**.



3. You may still cancel and restore the view by clicking the **Restore View** button.



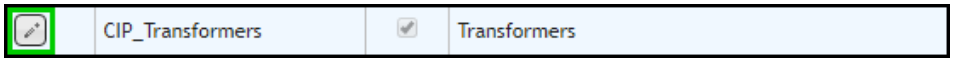
4. Click the **Save** button to complete the deletion and part reassignment.



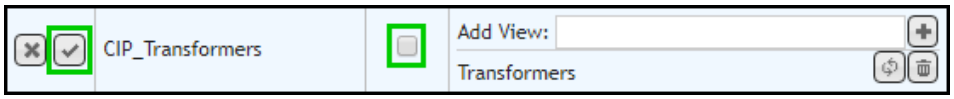
To remove Component Views - Disable a table

If you have a table you do not want to use in CIP, you can disable it. Any views and parts derived from the disabled table will be disabled and hidden, but not be deleted.

1. Click the **Edit** button next to the table name that you want to disable.



2. Deselect the **Enable** checkbox and click the **Save** button. Any parts in the table remain but the table is disabled.



3.3.2 Customizable Fields

Privileged users may configure up to 75 customizable fields (UserFieldXX) and 5 numerical fields (NUserFieldXX) per component view, 5 customizable component manufacturer fields, and 30 customizable manufacturer part fields. Unused customizable fields will not display on Part Information pages.

In addition to customizing fields, fields to be transferred for design are configured in this tab of the **Admin** > **Configuration** menu item.

Note: You need to enable a field in this section to make it visible to a CIP user. Enabling, disabling, or renaming a display field in component views, component manufacturer parts, or manufacturer parts will require a new or updated CIS .DBC file for use with Capture CIS. Review the Appendix for instructions to create or update the CIP/CIS .DBC file.

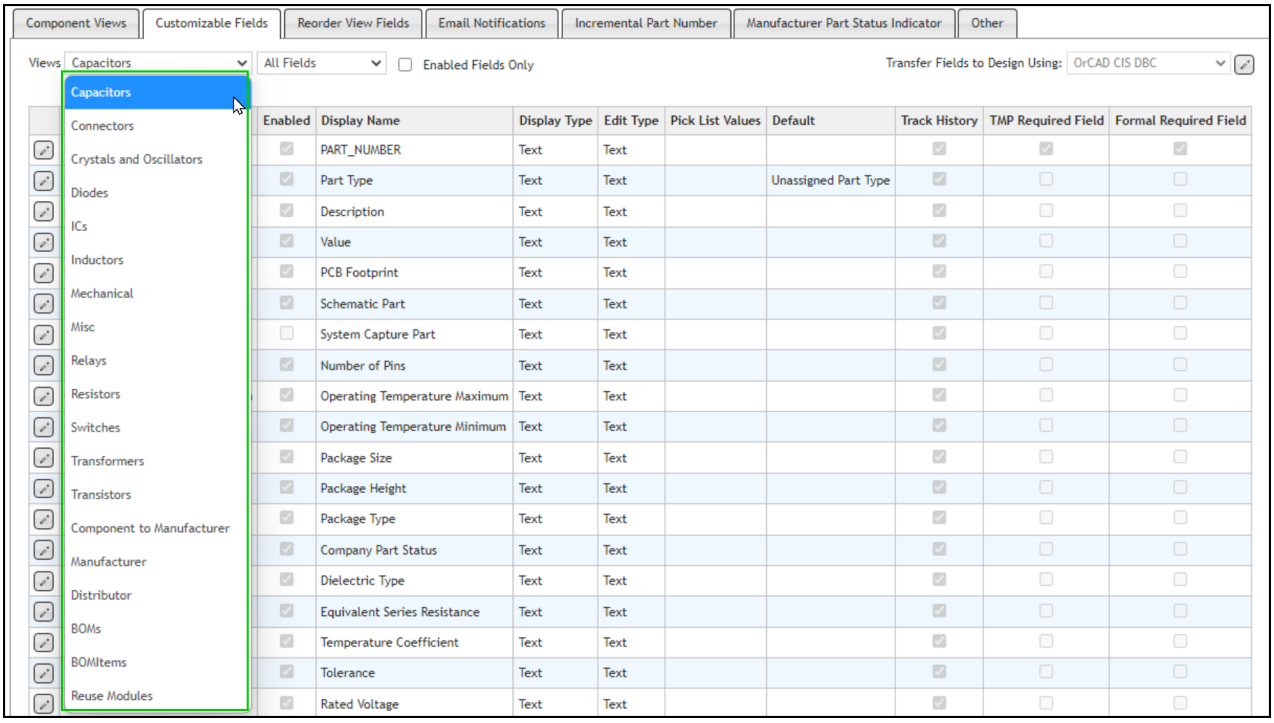
The following Views can be customized:

- Customize Component Fields – Each of the enabled **Component Views** are listed. Selecting a specific view shows parametric data fields available for each company part number. Fields may be saved per view or across all views. Fields include many parametric fields and user fields (UserFieldXX).
- Component to Manufacturer Parts – The **Component Manufacturer Parts** allows unique relationships between the company part number and associated manufacturer part. For example, you may want to identify a manufacturer part as a preferred part for one company part number and an alternate source for a different company part number.
- Manufacturer Part Info – The **Manufacturer Part Info** identifies all fields for manufacturer parts. Configurable fields include Manufacturer PN Status, Datasheet, and various compliance fields. User fields (M_UserFieldXX) are also available.
- Distributor Part Info – The **Distributor Part Info** identifies fields for distributor parts. Configurable fields include Distributor, Distributor PN, Quantity, Cost, Unit Price, and Data Last Updated. User fields (D_UserFieldXX) are also available.
- BOMs – The **BOMs** section identifies fields for BOM part numbers. Configurable fields include Description, Revision, Build/Buy, Variant, Cost, Part Type, and Company Part Status. User fields (B_UserFieldXX) are also available.
- BOMItems – **BOM Items** section identifies fields used for items that are associated to BOM part numbers. Configurable fields include RefDes, Unit, Cost, Build/Buy, Reuse Module, Reuse Module Revision, and Reuse Module RefDes. User fields (BI_UserFieldXX) are also

available. **Note**: You may disable the reuse module fields for BOM Items if disabling the reuse module view.

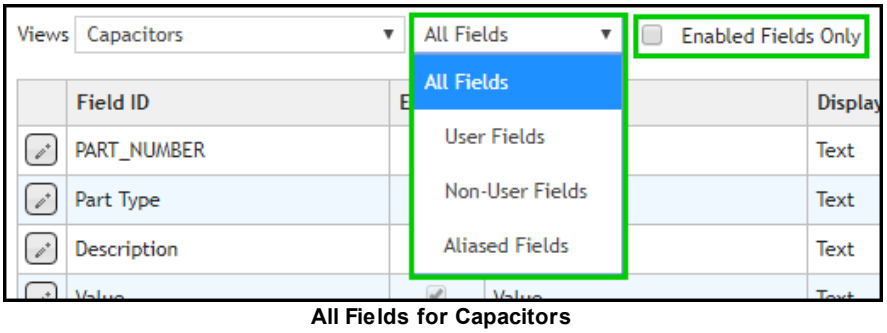
- Reuse Modules – The **Reuse Modules** section identifies fields for Reuse Modules part numbers. Configurable fields include Description, Revision, Variant, Schematic Part, Part Type, Design File, and REUSE_MODULE. User fields (UserFieldXX) are also available.

Navigate to the **Admin > Configuration** menu item and select the **Customizable Fields** tab. From there, select an item from the **Views** drop-down list that provides access to the configured component views (Capacitors, Connectors, etc.), component manufacturer parts, manufacturer part, distributor part, BOMs, and BOMItems.



Select Table For Customizable Fields

In addition to selecting a View, you can optionally select the Field Filter Options to more easily review and update the list of configured fields. The **Field Filter** drop-down list allows you to filter on All Fields, User Fields, Non-User Fields, and Aliased Fields. The **Enabled Fields Only** check box allows you to show enabled and disabled fields or hide disabled fields.



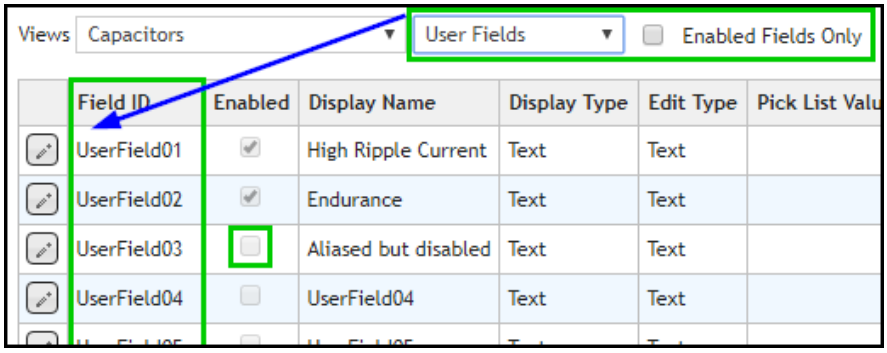
All Fields for Capacitors

- ***Field Filter drop-down list***

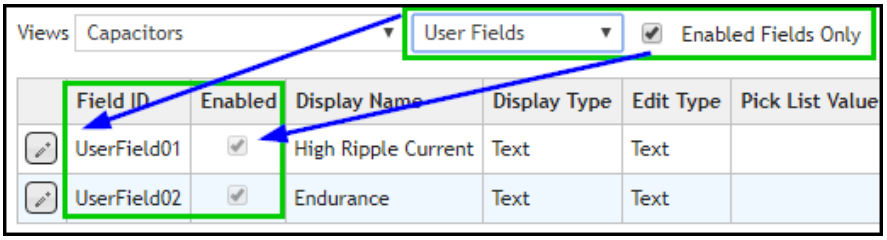
- **All Fields** – displays all fields for the selected View. This is the default.
  - **User Fields** – displays User Fields (UserFieldXX), whether aliased or not.
  - **Non-User Fields** – displays Non-User Fields (e.g. Description, Value, etc.).
  - **Aliased Fields** – displays all Aliased Fields, both User Fields and Non-User Fields.

- ***Enabled Fields Only check box*** – Select this option to show only Enabled fields. Deselect it to show Enabled and Disabled fields.

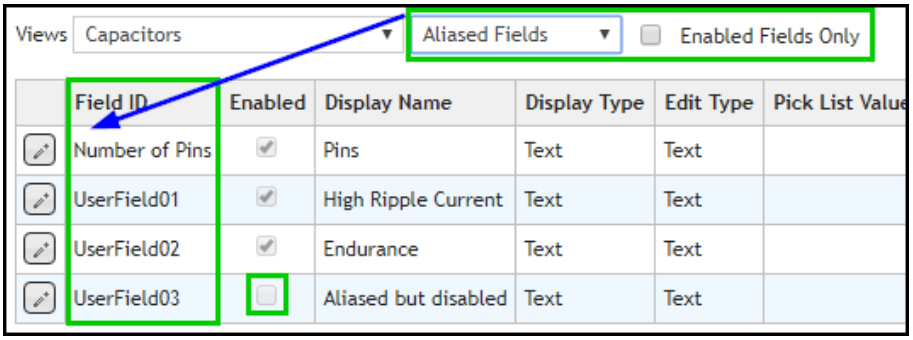
Below are examples showing some combinations of the Field Filter Options.



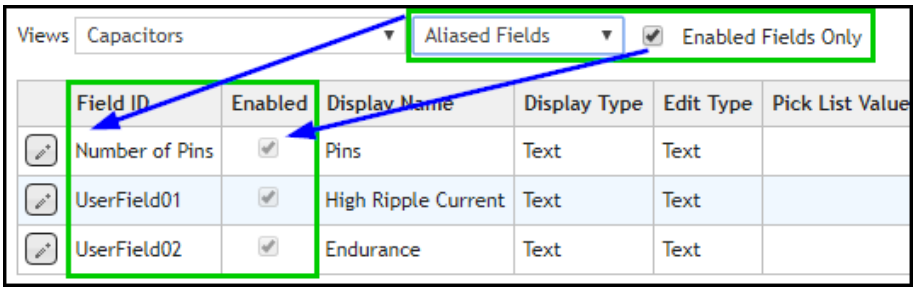
All User Fields for Capacitors



Enabled User Fields for Capacitors



All Aliased Fields for Capacitors



Enabled Aliased Fields for Capacitors

Once a desired **View** and **Field Field Options** are selected, you may begin to enable custom User Fields or change the Display Name of pre-configured fields. Most view fields are configured the same way, though some core fields such as PART_NUMBER have options that cannot be changed.

You can configure the following characteristics of a customized field:

- ***Enabled*** – Checking or unchecking the checkbox changes whether you can select the field in Component Views. There are 50 user fields that may be added to the components or manufacturer table. There are 5 numerical user fields that may also be added to the components tables. Only numbers may be entered to the numerical user fields. When you use CIS Explorer, the numerical user fields sort numerically.
- ***Display Name*** – Changing the display name will change the appearance of the field name inside CIP.
- ***Display Type*** – The display type changes the appearance of the data associated with the field. The options allowed are Text or Link. This controls whether the data is to be shown as hyperlink or plain text.
- ***Edit Type –*** The edit type controls whether the user is to manually enter the data or choose data from a pick list.
- ***Pick List Values*** – The values that are available for a user to choose from must be configured. Users will only be able to select options in the pick list values when they create parts.
- ***Default*** – The default value is the initial value of the data when a new part is created. Default values can be specified for Edit Types of Text or Pick List. Numeric user defined fields can be assigned a default numeric value.

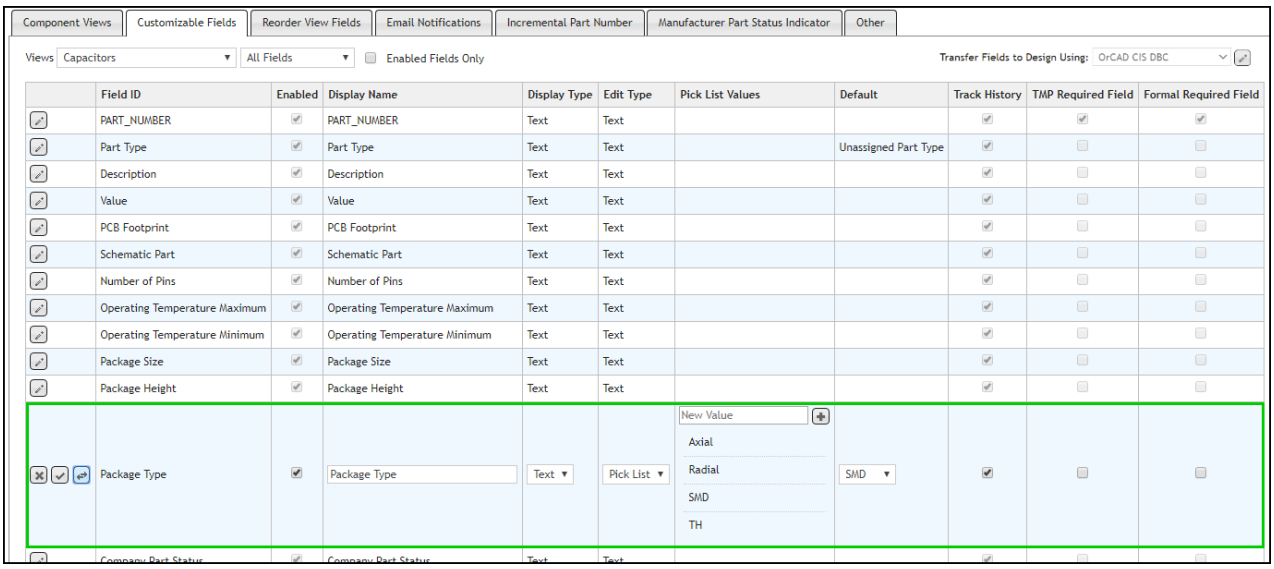
- ***Track History*** – The default for each field is enabled for tracking of history. However, for a configured field that may be updated often, e.g. quantity, you may want to exclude from history.
- ***TMP Required Field*** – The TMP Required Field controls whether the field is mandatory when creating or modifying a TMP part. This control is only available for the component fields. The Part Number and Implementation Type fields are always mandatory and may not be changed, though you can disable the Implementation Type field if it will not be used.
- ***Formal Required Field*** – The Formal Required Field controls whether the field is mandatory when creating or modifying a Formal (i.e. non-TMP) part. This control is only available for the component and BOMs fields. The Part Number and Implementation Type fields are always mandatory and may not be changed, though you can disable the Implementation Type field if it will not be used.

Note: TMP and Formal required fields are only enforced using the new, edit, and copy part forms. They are not enforced when using Compliance Search, Distributor Search, Import, or external integrations.

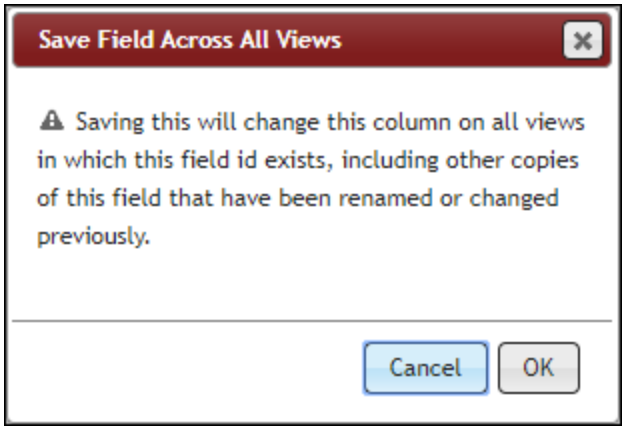
3.3.2.1 Customize Component Fields

Each field of a component view may be changed individually or across all views that share the same Field ID. To customize a field, select the **Edit** button and modify the desired fields. After making updates, click the **Save** button to save your changes or the **Cancel** button to discard them. To save the field across all part views, click the **Save All** button. When using the save all option, a pop-up window will appear to confirm the change.

The following figure is a sample view named Capacitors, derived from the CIP_Capacitors table, that shows fields that can be modified.

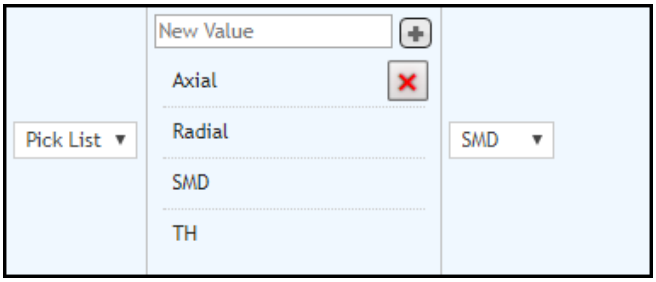


Sample Capacitors Customizable Field Options



Save Field Across All Component/Part Views

Select or deselect the **Enabled** checkbox to add or remove a field from a view. You may alter the Display Name column to change the way the field name appears in CIP. After choosing the Display Name, select the Display Type, which can be Text (standard) or Link (recognized as active hyperlinks). You may define a field's Edit Type as user editable Text or Pick List. If you select Pick List, you need to enter the Pick List values. To add values to your pick list, type in the text box, then hit Enter key or click the **Add** button  . Click and drag a pick list value to change the sequence of the pick list. To remove a value from the list, hover over the item on the list and click the **Remove** button,  . If you want the pick list to have an initial default value when new parts are created, you can select from the list after you have added all your pick list values.



Sample Pick List Configuration

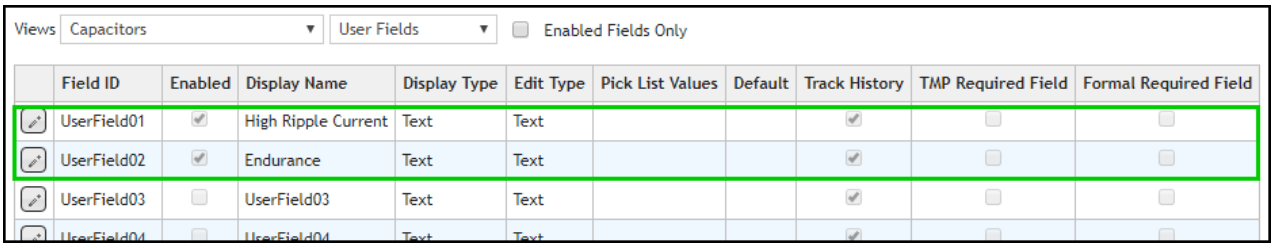
If you want to exclude field modifications from the Part History, you can disable Track History by de-selecting the check mark. This removes the field from the Part History. Repeat this process for each field you want to customize. Fields that change frequently should has history tracking disabled to keep history to a manageable size.

If you want to make a field mandatory when a TMP part is created or modified, you can enable the **TMP Required Field** by selecting the checkbox. Users will not be able to create or change a TMP part without populating the field.

If you want to make a field mandatory when a formal part is created, modified or converted from a TMP part, you can enable the **Formal Required Field** by selecting the checkbox. Users will not be able to create or change a formal part without populating the field.

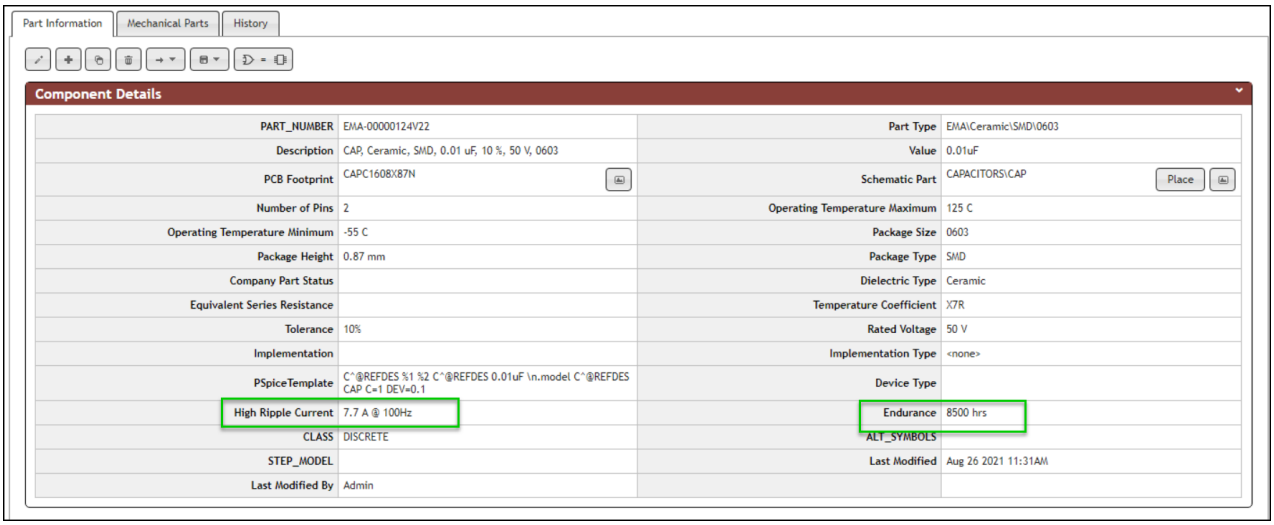
Note: TMP and Formal required fields are only enforced using the new, edit, and copy part forms. They are not enforced when using Compliance Search, Distributor Search, Import, or external integrations.

The following figure shows a sample configuration for the Capacitors view. UserField01 and UserField02 are highlighted in green to provide an example of user-defined fields.

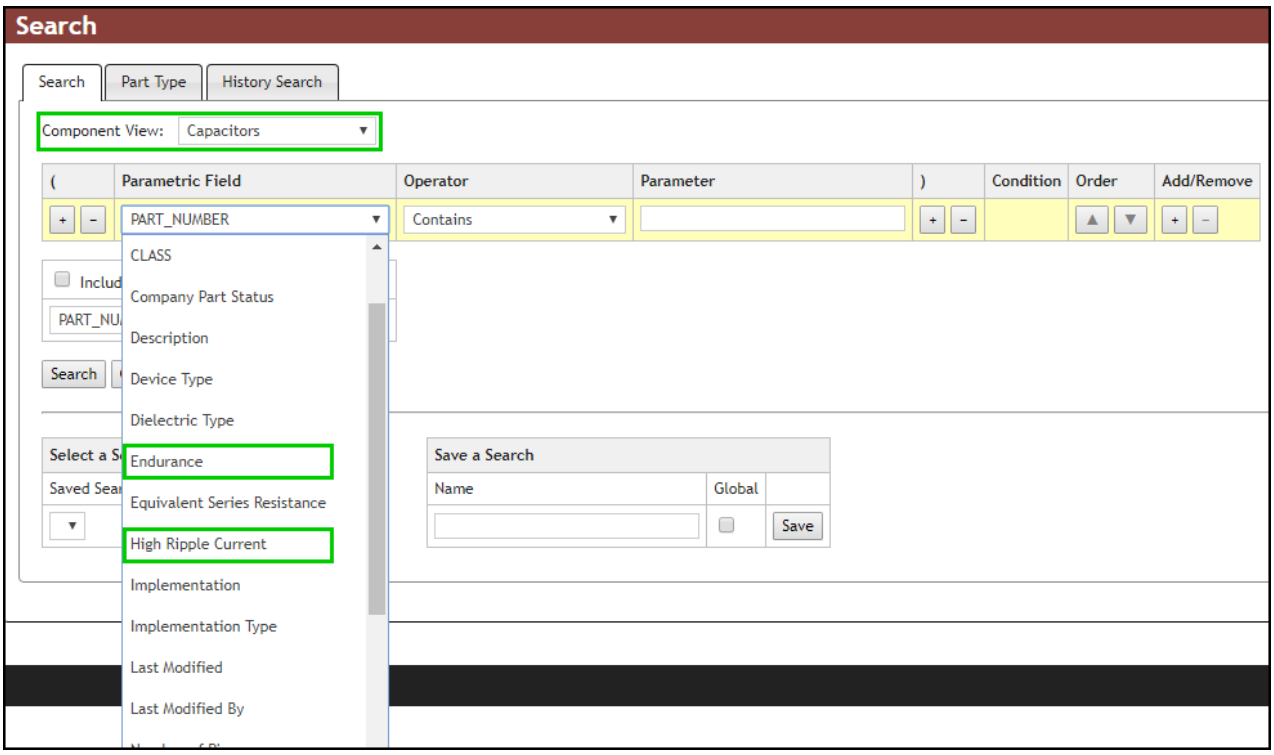


Capacitors View Customization Sample

After you configure the Customizable Fields, navigate to the appropriate Component View. From there, you may View or Edit any field included in that View. The custom fields will also appear in the **CIS DB Search**, under the **Parametric Field** drop-down list.



Custom Fields Shown in a Capacitor Part Data



Custom Fields In CIS DB Search

Note: When you modify or enable the display name of a field and update the field in the Component View, CIS users who use CIS Explorer or Part Manager are affected. The CIS .DBC file will also need to be updated as explained in the Appendix.

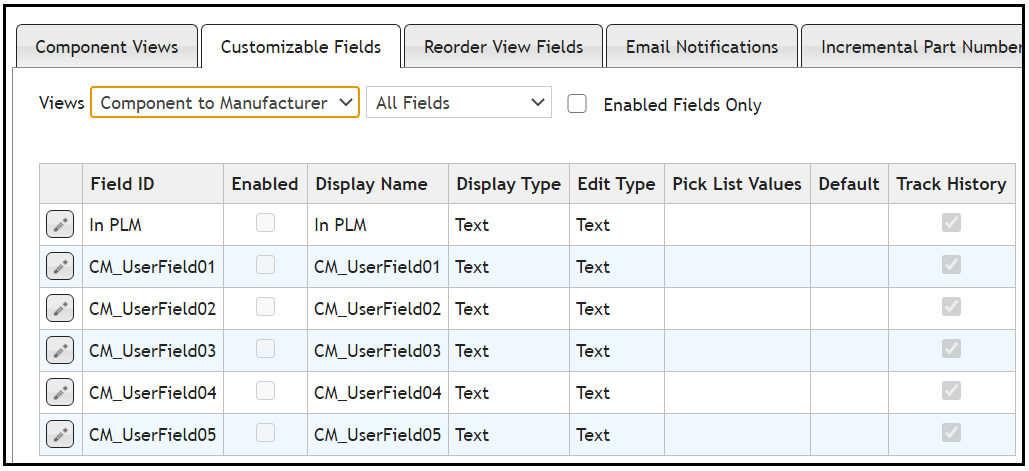
3.3.2.2 Customize Component Manufacturer Part Fields

Configuring component manufacture part information is completed the same way the fields for manufacturer parts are configured and customized. History tracking may be disabled to reduce the size of database growth. Required field settings are not available for Component Manufacturer Part fields.

The Component Manufacturer Parts fields can be used for various purposes. The bullet list below provides some examples.

- The "In PLM" field can be used to indicate whether a manufacturer part is associated with the specific company part in your PLM or ERP system.
- If you have manufacturer parts that need to be associated with multiple company part numbers and you need to set different property values (e.g. Preferred Status) for each, you may configure a field for this purpose.

The following figure shows the default settings for the Component Manufacturer Parts fields.

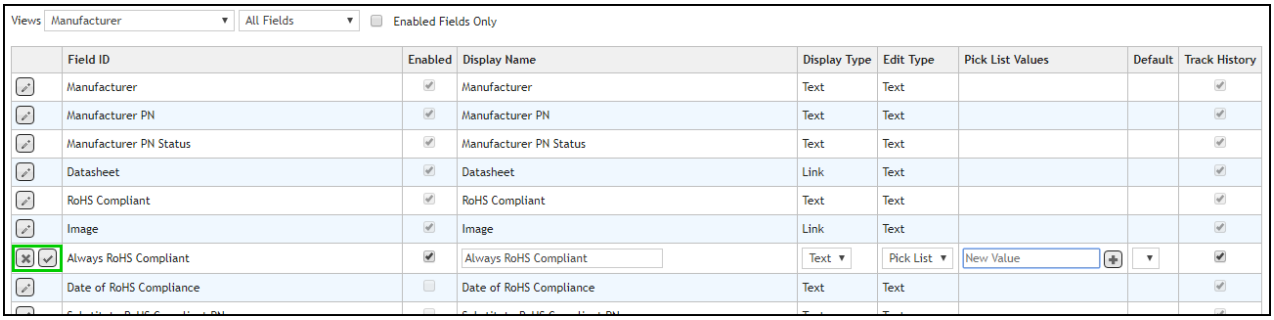


Customize Fields for Component Manufacturer Parts

To customize a field, click the **Edit** button. After making your updates, select the **Save** button to save your changes or the **Cancel** button to discard them.

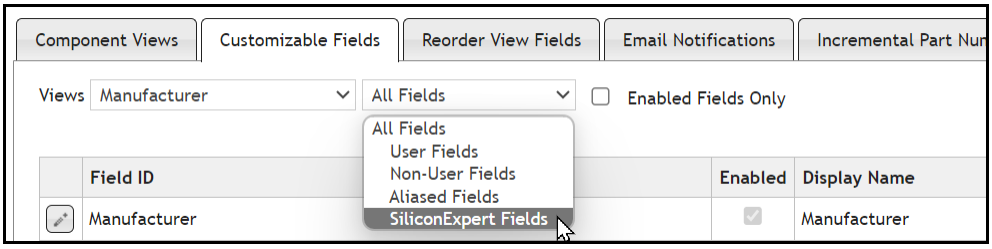
3.3.2.3 Customize Manufacturer Part Fields

Manufacturer Part Info fields can be modified individually. To customize a field, click the **Edit** button next to the desired Field ID. After you complete your updates, select the **Save** button to save your changes or the **Cancel** button to discard them. History tracking may be disabled to reduce the size of database growth. Required field settings are not available for Manufacturer Part fields.



Customize Fields for Manufacturer Parts - Editing a Field

To show the list of manufacturer fields that are specific to Silicon Expert in the Compliance Module, select the **SiliconExpert Fields** filter.



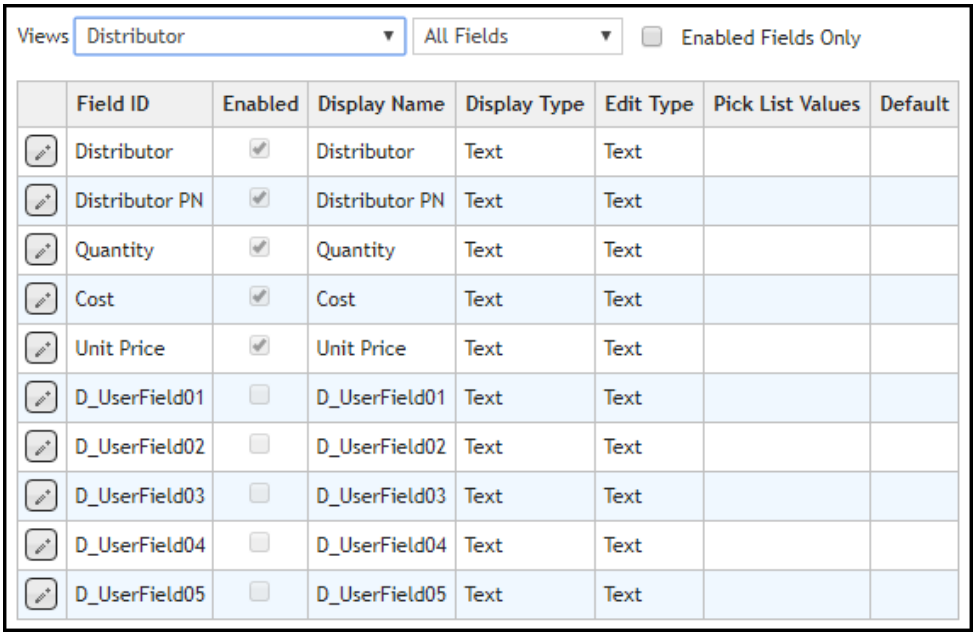
Note: Enabling, disabling, or renaming a display field from Manufacturer Part Info or Distributor Part Info will also affect the way the manufacturer/relational view appears for Capture CIS users. This will require a new CIS .DBC file to display correctly. Review the Appendix for instructions to create a new CIP/CIS .DBC file. Consult your OrCAD Capture CIS User Guide for additional information regarding the CIS .DBC file.

3.3.2.4 Customize Distributor Part Fields

User configuration of distributor part information is similar to the configuration and customization of manufacturer part fields. History tracking and required fields settings are not available for Distributor Part fields.

Distributor part fields are automatically populated when temp parts are added from either the distributor search or distributor sync.

You can modify a field display name without changing the purpose of the field. For example, you can change the name of the "Cost" field to "Quantity" and vice versa, while the type of data that automatically populates the fields remains the same.



Views Distributor All Fields Enabled Fields Only

	Field ID	Enabled	Display Name	Display Type	Edit Type	Pick List Values	Default
	Distributor	☑	Distributor	Text	Text		
	Distributor PN	☑	Distributor PN	Text	Text		
	Quantity	☑	Quantity	Text	Text		
	Cost	☑	Cost	Text	Text		
	Unit Price	☑	Unit Price	Text	Text		
	D_UserField01	☐	D_UserField01	Text	Text		
	D_UserField02	☐	D_UserField02	Text	Text		
	D_UserField03	☐	D_UserField03	Text	Text		
	D_UserField04	☐	D_UserField04	Text	Text		
	D_UserField05	☐	D_UserField05	Text	Text		

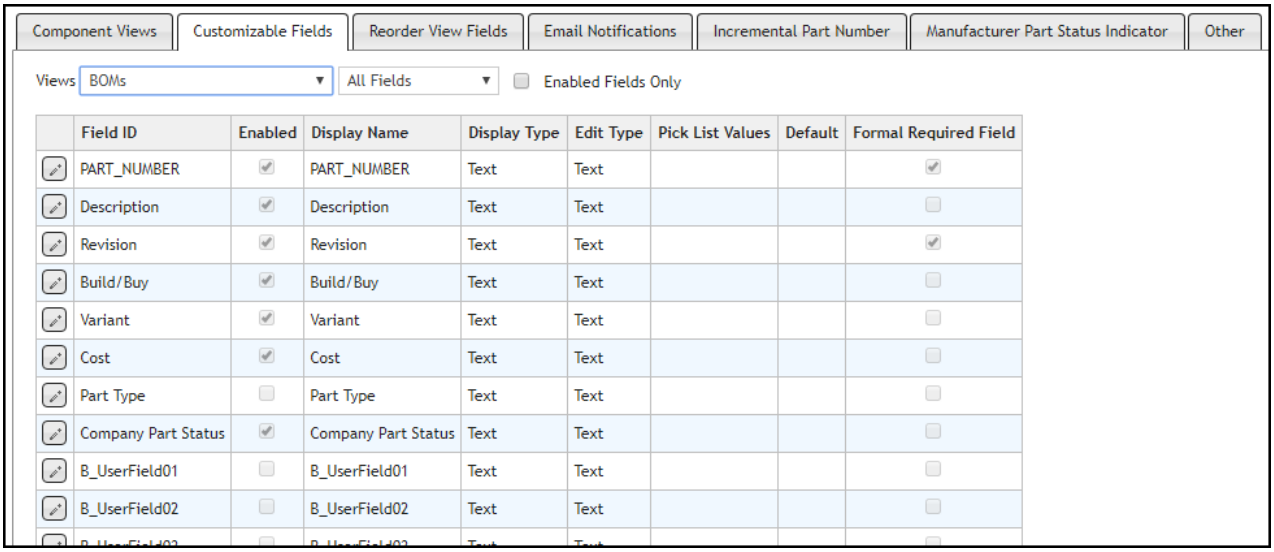
Customize Fields for Distributor Parts

To customize a field, click the **Edit** button. After making your updates, select the **Save** button to save your changes or the **Cancel** button to discard them.

3.3.2.5 Customize BOMs Fields

The BOMs table identifies fields for BOM part numbers. There are 30 customizable fields you may use for BOM parts. BOM fields are configured the same way component part fields are configured. You may configure fields to be mandatory when creating and editing BOMs.

Default fields for BOMs include Description, Revision, Build/Buy, Variant, Cost, and Company Part Status. Although the Revision and Variant field names may be modified, the purpose of these fields remains unchanged. When you conduct a search for BOMs, the search results include the BOM part number, revision, and variant name.



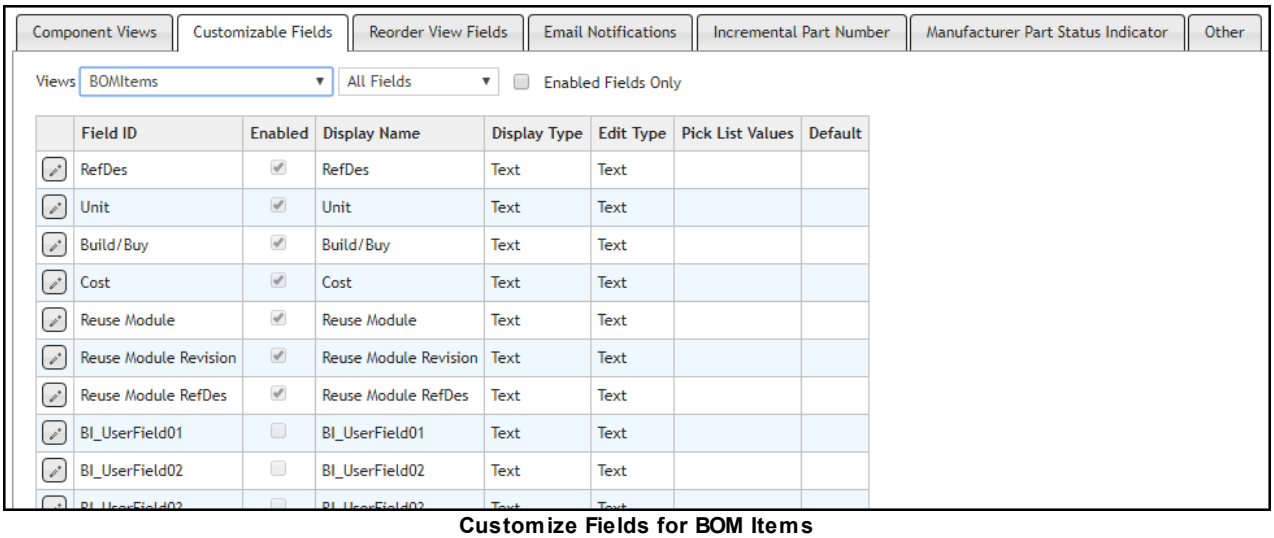
Customize Fields for BOMs

To customize a field, click the **Edit** button. After making your updates, select the **Save** button to save your changes or the **Cancel** button to discard them.

3.3.2.6 Customize BOM Item Fields

BOM Items identify fields associated to BOM part numbers. BOM Item fields are configured and updated the same way the fields for manufacturer parts are configured and updated. History tracking and required fields settings are unavailable for BOM Item fields.

Default fields include RefDes, Unit, Build/Buy, Cost, Reuse Module, Reuse Module Revision, and Reuse Module RefDes. Although the RefDes field names can be modified, the field must be used for reference designators of your parts list. The following figure shows the default settings for the BOMItems table.



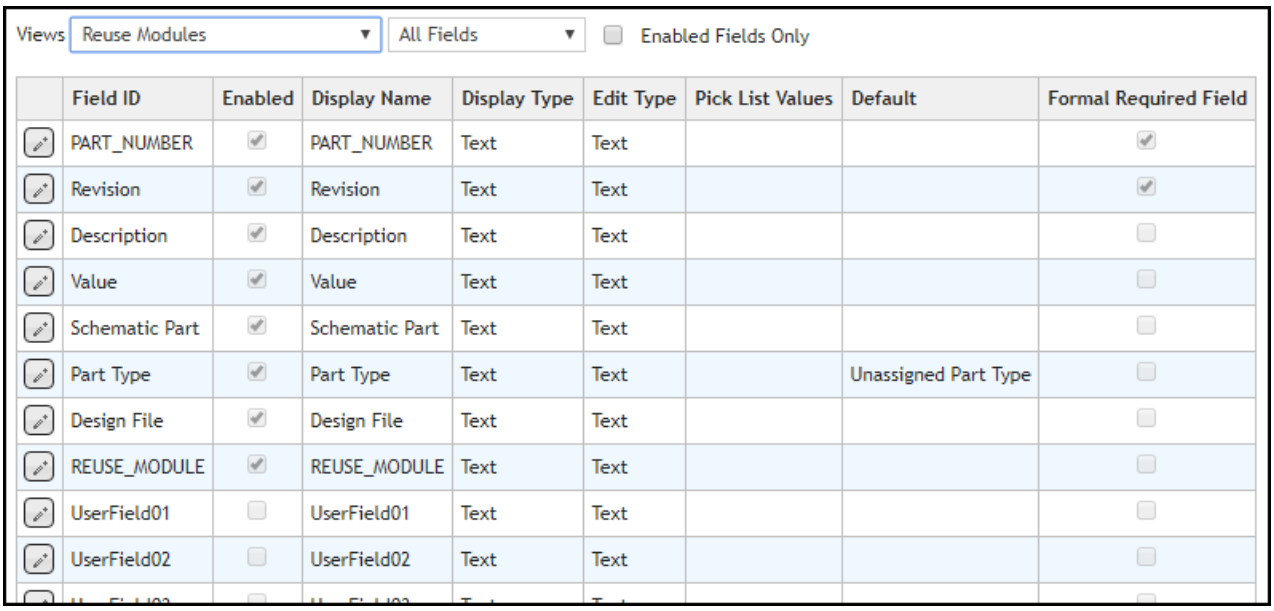
Customize Fields for BOM Items

To customize a field, click the **Edit** button . After making your updates, select the **Save** button to save your changes or the **Cancel** button to discard them.

3.3.2.7 Customize Reuse Modules Fields

The Reuse Modules view identifies fields for Reuse Modules part numbers. There are 75 customizable fields available for Reuse Modules parts. Reuse Modules fields are configured the same way component part fields are configured. You may configure fields to be mandatory when creating and editing Reuse Modules.

Default fields for Reuse Modules include Revision, Description, Value, Schematic Part, Part Type, Design File, and REUSE_MODULE.



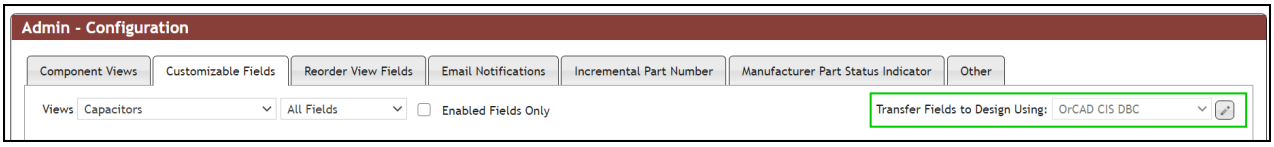
	Field ID	Enabled	Display Name	Display Type	Edit Type	Pick List Values	Default	Formal Required Field
	PART_NUMBER	☑	PART_NUMBER	Text	Text			☑
	Revision	☑	Revision	Text	Text			☑
	Description	☑	Description	Text	Text			☐
	Value	☑	Value	Text	Text			☐
	Schematic Part	☑	Schematic Part	Text	Text			☐
	Part Type	☑	Part Type	Text	Text		Unassigned Part Type	☐
	Design File	☑	Design File	Text	Text			☐
	REUSE_MODULE	☑	REUSE_MODULE	Text	Text			☐
	UserField01	☐	UserField01	Text	Text			☐
	UserField02	☐	UserField02	Text	Text			☐

Customize Fields for Reuse Modules

To customize a field, click the **Edit** button . After making your updates, select the **Save** button to save your changes or the **Cancel** button to discard them.

3.3.2.8 Configure Transfer Fields to Design

There are four settings available for **Transfer Fields to Design Using**.

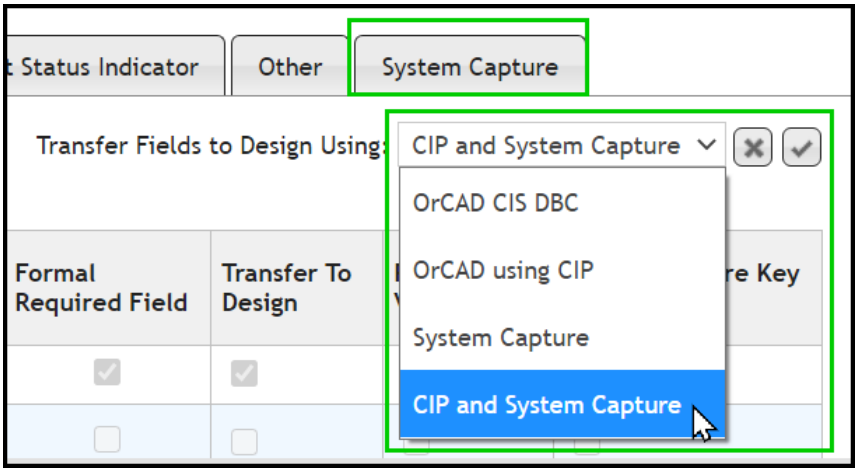


- **OrCAD CIS DBC** - This is the default out of the box configuration. When placing parts from CIP, the CIP OrCAD client plug-in will use the DBC file configured is CIS Configuration to determine the fields that will be transferred to the design. With this setting, your Capture.ini

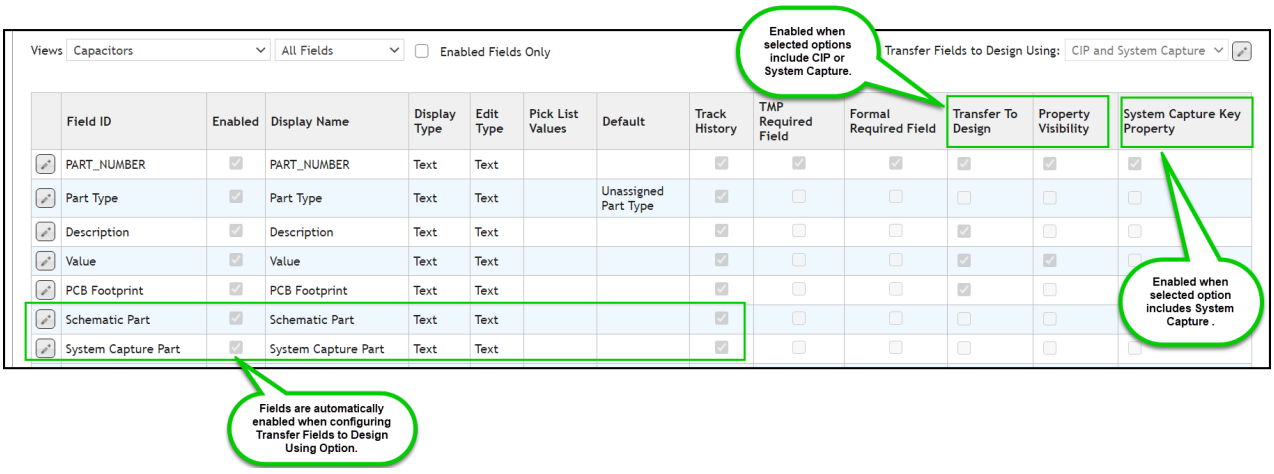
file must contain the Configuration File path and name. The CIP Client Installation Guide includes information to help you set up your Capture.ini file. With this configuration, the **Schematic Part** (OrCAD Symbol name) field is enabled for use with Capture CIS. The **System Capture Part** field is disabled as well as the System Capture Tab.

- **OrCAD Using CIP** - When placing parts from CIP, the CIP OrCAD client plug-in will transfer fields configured in the Customizable Fields tab. The DBC file will not be used by the OrCAD Client plug-in. With this configuration, the **Schematic Part** (OrCAD Symbol name) field is enabled for use with Capture CIS. Transfer to Design and Property Visibility columns are enabled for configuration. The **System Capture Part** field is disabled as well as the System Capture Tab.
- **System Capture** - When placing parts from CIP, the CIP System Capture client plug-in will transfer fields configured in the Customizable Fields tab. With this configuration, the **System Capture Part** field is enabled for use with System Capture. The **System Capture** tab is enabled.**Transfer to Design**, **Property Visibility** and **System Capture Key Property** columns are enabled for configuration. The **Schematic Part** (OrCAD Symbol name) field is disabled. Configured fields will be added to the PTF file during generation.
- **CIP and System Capture** - When placing parts from CIP, both CIP System Capture and OrCAD client plug-ins will transfer fields configured in the Customizable Fields tab. With this configuration, the System Capture Part Field is enabled for use with System Capture. The **System Capture** tab is enabled. **Transfer to Design**, **Property Visibility** and **System Capture Key Property** columns are enabled for configuration. Configured fields will be added to the PTF file during generation. Both **Schematic Part** and **System Capture Part** fields are enabled.

To change the **Transfer Fields to Design Using** settings,, click on the **Edit** button. When the **System Capture** or the **CIP and System Capture** options are selected, the **System Capture** tab will appear.



Click the **Save** button to start configuring **Transfer to Design**, **Property Visibility** and **System Capture Key Property** settings.



To customize a field, select the **Edit** button and modify the desired fields.

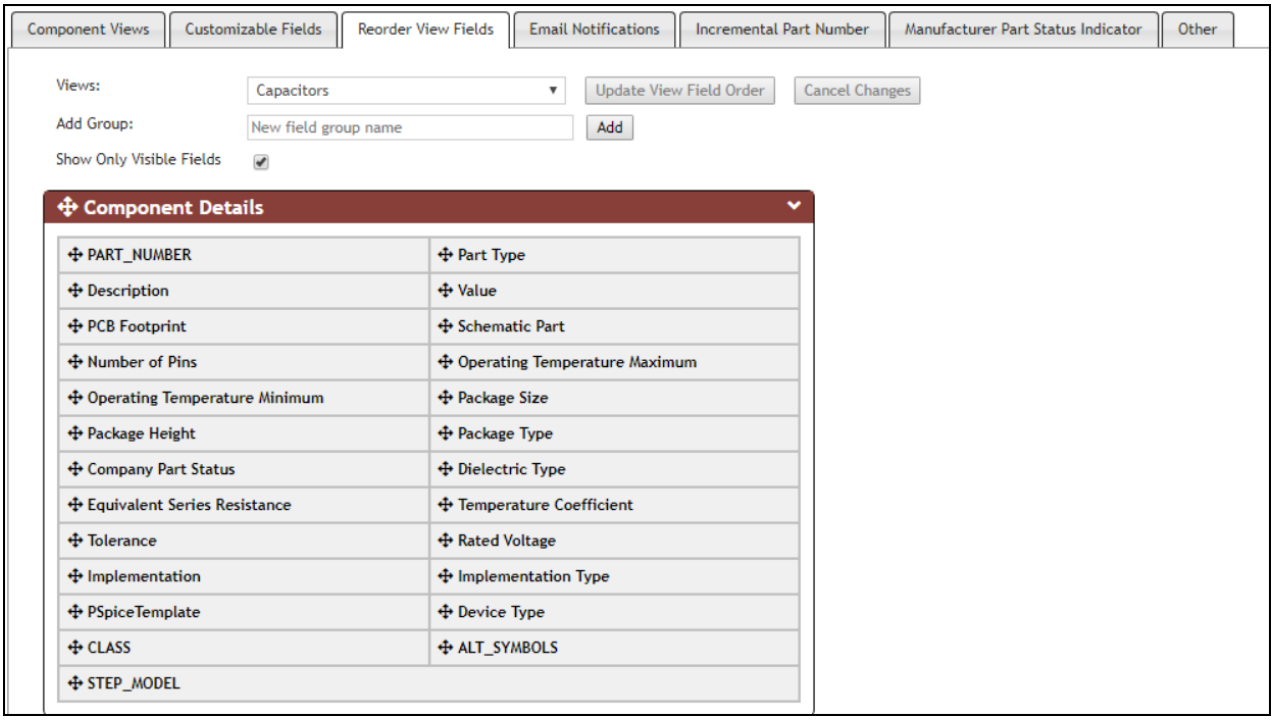
If you want to transfer the value of a field to the symbol when placing a part, you can enable the **Transfer to Design** by selecting the checkbox.

If you want the value of a field to be visible after being placed onto a design, you can enable the **Property Visibility** by selecting the checkbox.

For System Capture Parts, if you want make a field a key property, you can enable the **System Capture Key Property** by selecting the checkbox. CIP will generate the PTF file with fields with this designation as key properties.

3.3.3 Reorder View Fields

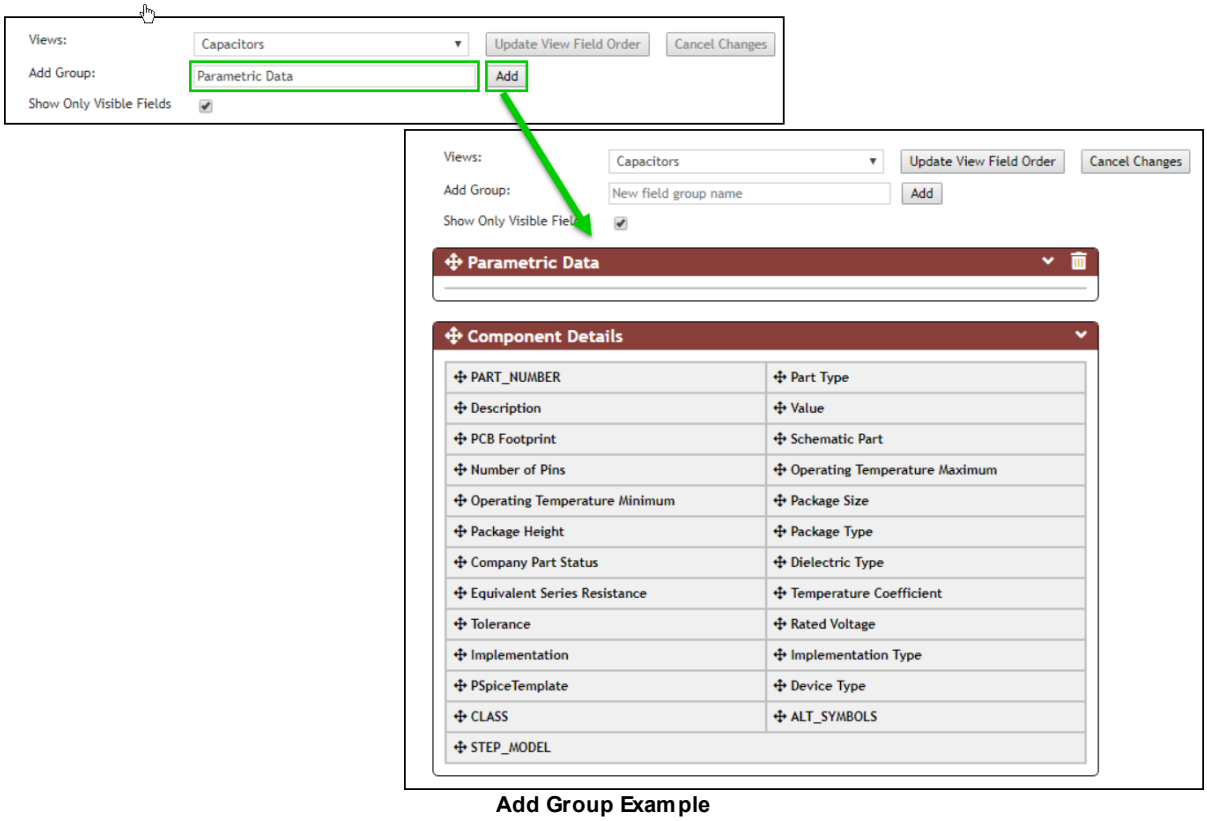
The appearance of fields in the Component Views within the CIP Web interface may be arranged using **Admin** > **Configuration** > **Reorder View Fields**. Each of the views are configurable separately. The fields in the Component Manufacturer Part Info and Manufacturer Part Info can also be reordered. Groups can be created and named for for each individual component view. When multiple groups exist, you can drag and drop the fields to arrange the position of the fields. You can also drag and drop the groups to change their order. Click anywhere on the non-text portion of the header to collapse/expand a group's field list.



Default Field Order for Capacitors View

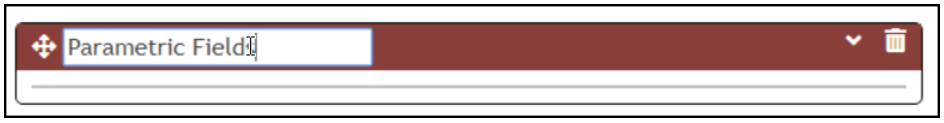
To Create a Field Group:

1. Enter a new group name next to **Add Group** and click on the **Add** button.



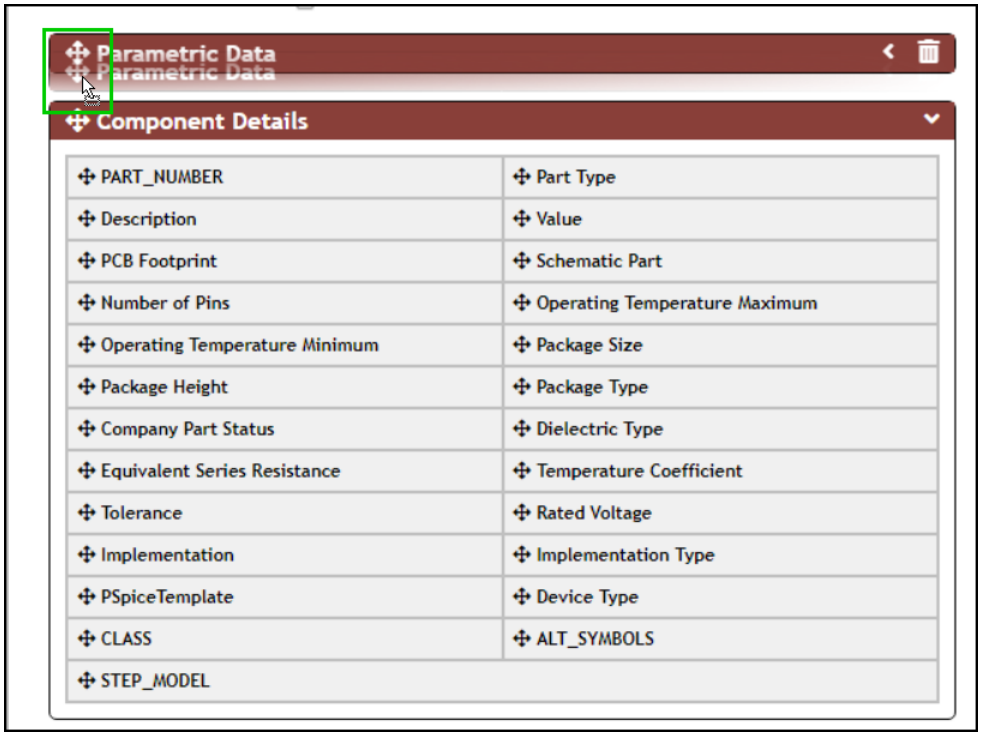
Add Group Example

2. Continue to add groups as desired. Group names may be changed by clicking on the name and updating it, as shown in the following sample figure.



Change Group Name Example

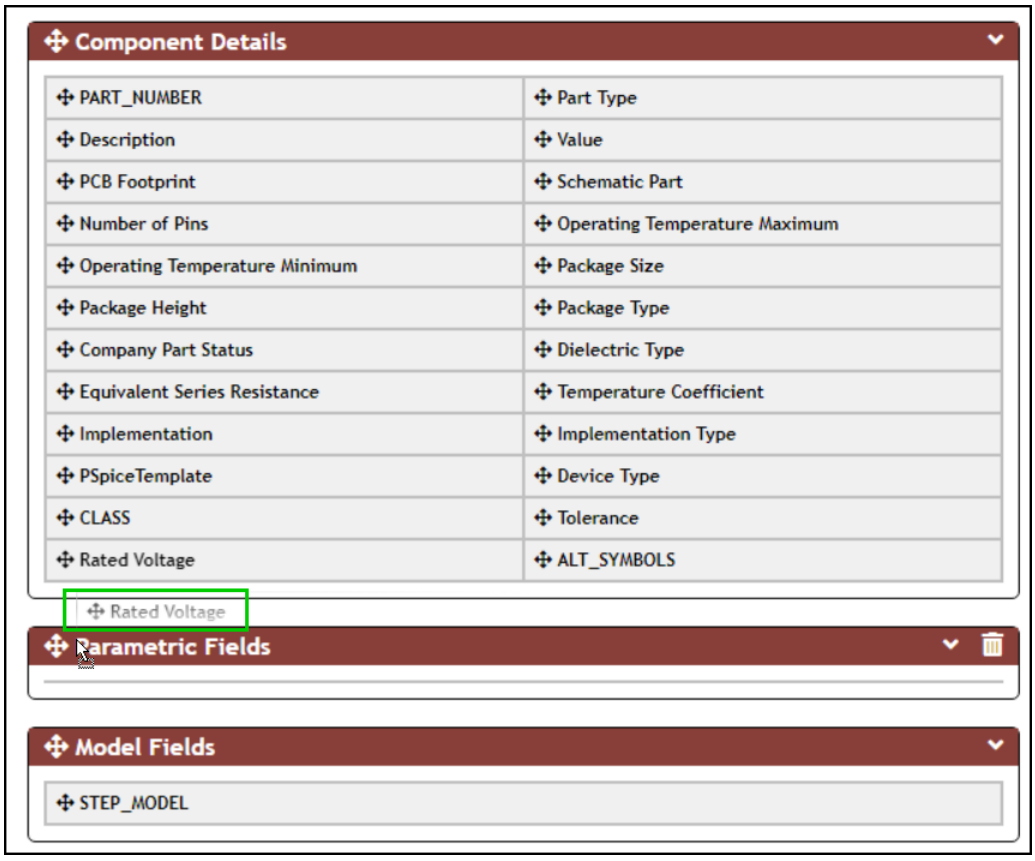
3. To adjust the group order, click the **Move** icon, then drag and drop to the desire location as shown in the following example.



Move Group Example

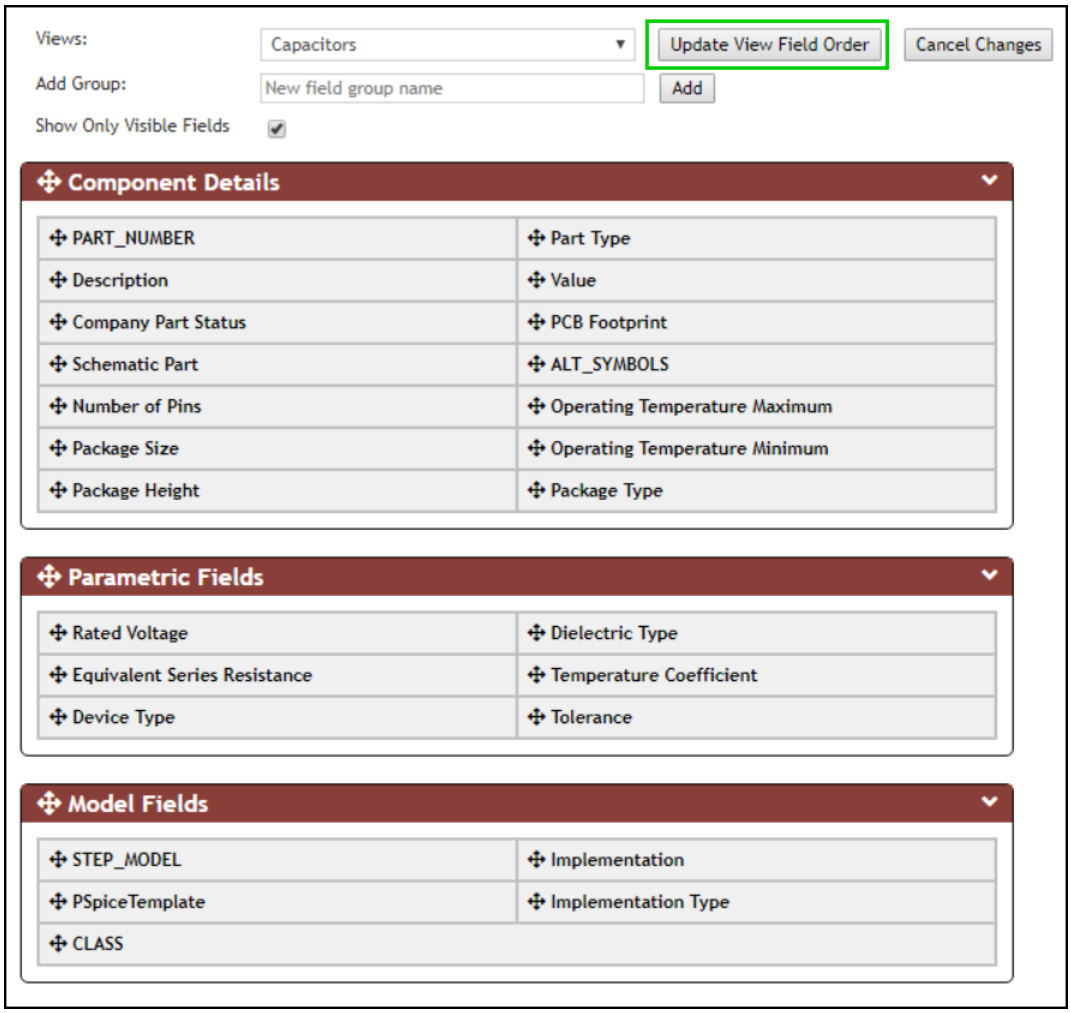
To Change field order:

1. To adjust the field order, click the **Move** icon, then drag and drop to the desire location as shown in the following sample figure.



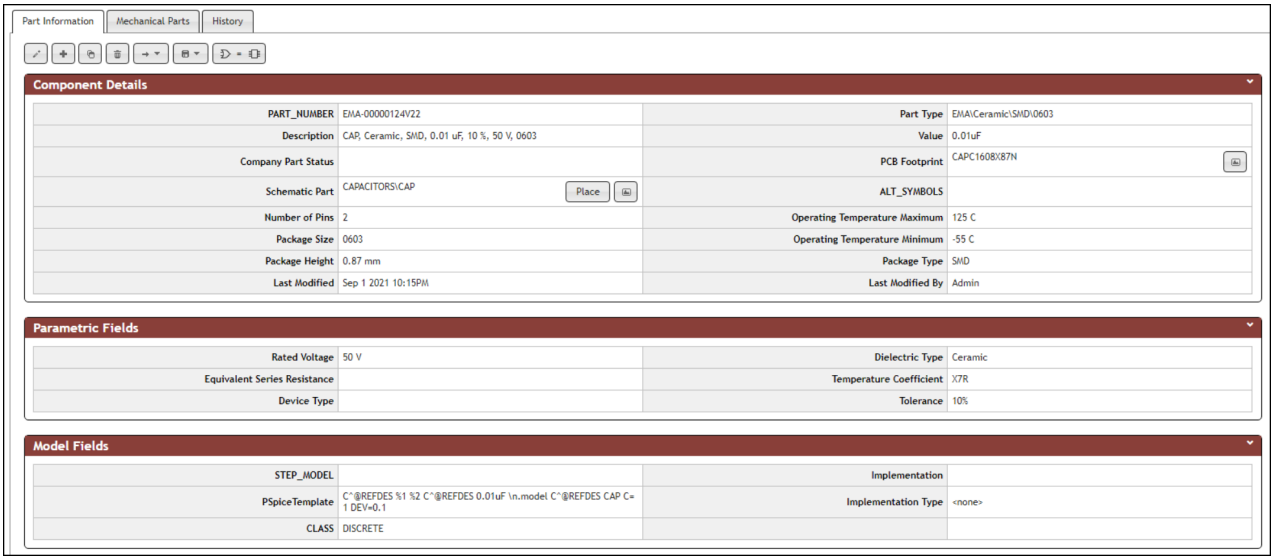
Move Field Example

2. Click the **Update View Field Order** button to save all changes.



Sample of New Order for Capacitors

Select a component in the newly configured component view to see the updated order. The following figure shows the example of the updated Capacitors View.



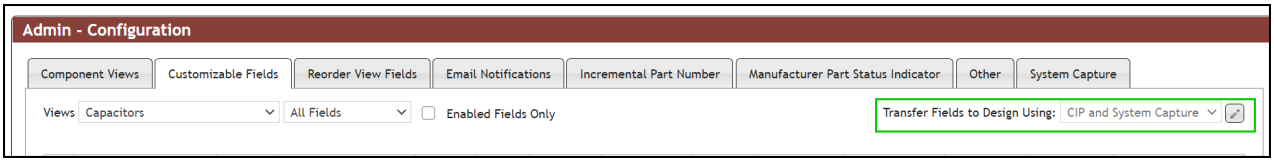
Capacitors View With New Field Order

3.3.4 System Capture Configuration

The System Capture configuration tab allows you to:

- Configure the location in which to create your PTF file.
- Define field and value name substitution rules to apply during PTF file creation.
- Generate the PTF file of formal parts with a report logging substitutions applied and number of parts for each System Capture Part.

You will need to have permissions to configure these settings or create a PTF file. To enable CIP to provide full functionality with CIP System Capture client plug-in, you must enable the **Transfer Fields to Design** settings to either **System Capture** or **CIP and System Capture** as shown in the following figure.



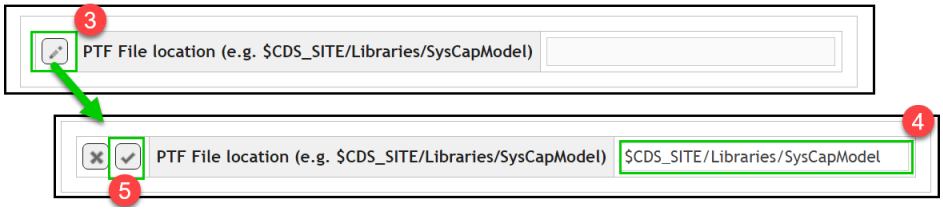
Characters allowed for field names in System Capture include only the following character set: 0-9, a-z, and _. Additionally, length of field names cannot exceed 30 characters. For example, field names such as Rated Voltage or Rated Power will not be allowed in System Capture. To avoid manually changing all your field names and potentially affecting OrCAD Capture designs, you can define substitution rule using the System Capture tab in **Admin** > **Configuration**.

Configure Location of PTF file:

The PTF file is not required by CIP to place parts onto a schematic page. The PTF file is used by System Capture to display parts in Unified Search as well as other System Capture functions.

1. Make sure you open CIP while inside System Capture if you plan on generating the PTF file. The location, subtitution rules, and PTF report functions can be used inside or outside of System Capture.
2. Select **Admin** > **Configuration** > **System Capture**.

3. Select the **Edit** button to enter/edit the **PTF File location.**
4. Enter the path of the PTF file. The PTF file should be placed in the same location as your library. CIP will add this path to the site.cpm file during PTF generation. A path name that includes CDS_SITE will ensure consistent access by all users. Prepend a "$" to specify a directory relative to a predefined environment variable. If using the System Capture starter library as your guide, enter **$CDS_SITE/Libraries/SysCapModel**.



Note: If the CDS_SITE environment variable was not set up during installation of the CIP System Capture Client plugin, you will need to set it up manually and restart System Capture.

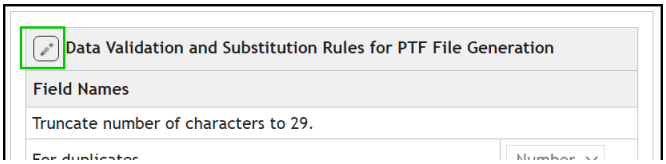
5. Click the **Save** button.

Define Substitution Rules for PTF Generation:

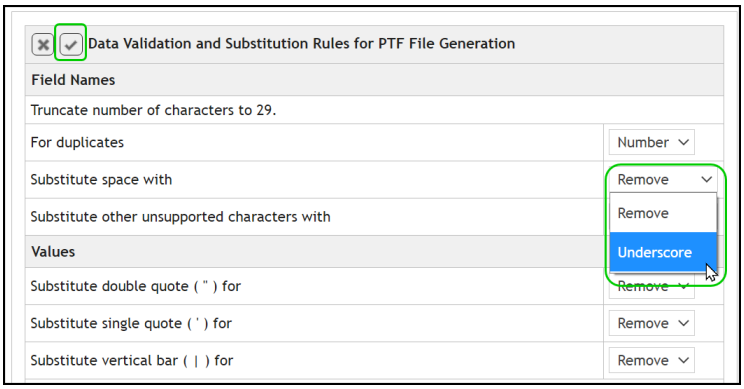
The format of the PTF file must conform to specifications for DE-HDL. Additional information may be found in Cadence documentation *Working with Part Table Files (PTF) in Design Entry HDL*.

PTF files for System Capture and indexer have restriction on fields and values. Supported characters for field names consists of a-z, 0-9, and _. Field name lengths are limited to 31. Truncation of fields to meet the length requirement may lead to duplicate field names. To ensure a validate PTF is generated, by default, a sequential number will be added. You have the option to change this to a letter. Options available for field name substitution of unsupported characters are removal or replacement with an underscore. Options available for value substitution of unsupported characters are provided in the UI. Alternately, you may modify the display name of the field.

1. Select **Admin** > **Configuration** > **System Capture**
2. Click the **Edit** button to change **Data Validation and Substitution Rules for PTF Generation**. This option ensures that truncation of fields do not to duplicate field names.



3. Use the pull down list to change the rules you want to apply. Click the **Save** button when complete.



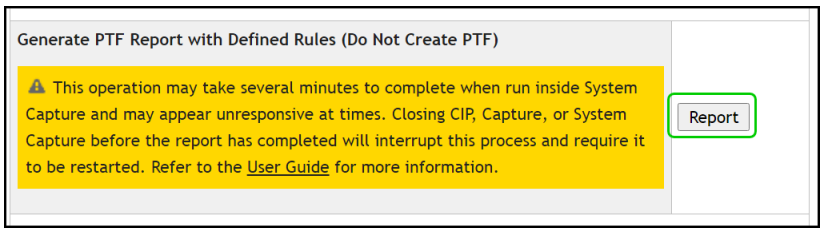
Generate PTF file:

The PTF generation process performed by CIP performs the following:

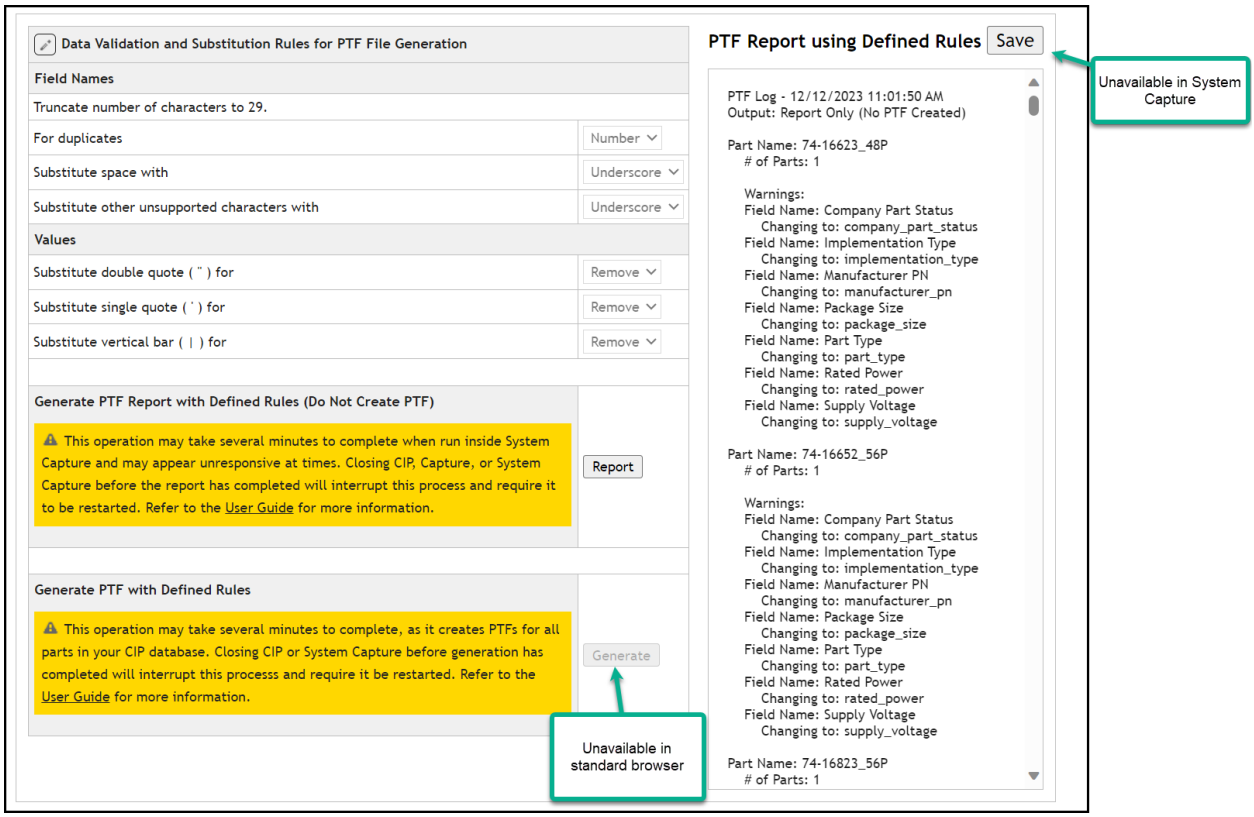
- Generate PTF Report with defined (substitution) rules and the number of parts, before the PTF file is actually created.
- Generate PTF File (**global.ptf**) using the same Defined (Substitution) Rules as the report. A backup of the prior global.ptf is save each time the Generate button is clicked.
- Indexing of the System Capture Library and PTF file to show models and parts in the System Capture Unified Search.

Steps for PTF file generation are:

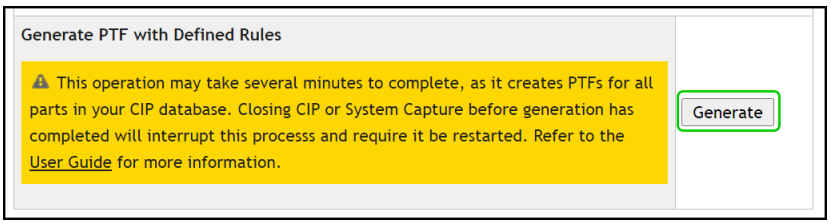
1. Review the substitution rules to ensure they contains the rules you want to apply during PTF generation.
2. Click the **Report** button to see a report of the parts before generating the PTF file. If running **Report** while in System Capture, it may take more time for System Capture to display the entirety of results. You may run the report in a standard browser (such as Chrome or Edge) for faster response time.



3. Review the PTF Report on the right side of the page, which was created using your defined substitution rules. Look for reported PTF Errors and fix any issues before proceeding to Generate. You may save a copy of the Report when using a standard browser.

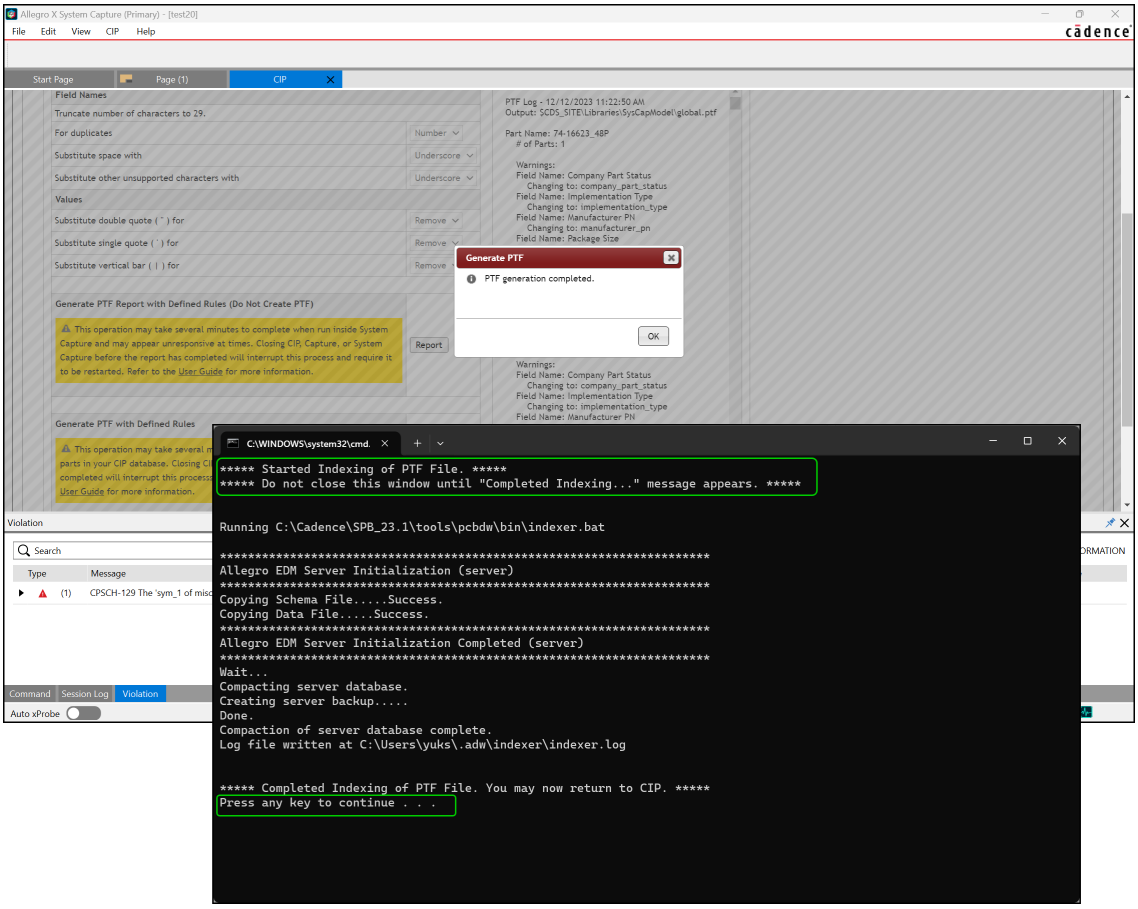


4. Click the **Generate** button, which is enabled inside System Capture in order to run the indexing process. This will Generate the PTF Report and PTF File, and perform indexing of the System Capture Library and PTF file. These processes run in parallel and performance will depend on the configuration, hardware, and security rules set on your web, database, and file servers. The activity busy screen shows during Report generation. This process can take several minutes for a large library or number of parts. Once the PTF file is created, a command window opens to index the contents of your library and PTF file. DO NOT close this window until you see the message to "**Press any key to continue...**" that indicates completion. Review the command window screen for any errors before pressing any key to continue, since the window will dismiss immediately after you press any key. The index process enables System Capture to display parts and library models in Unified Search.



5. A completion pop-up window appears when the PTF report and PTF file have been created. The indexing of the PTF file occurs in parallel. You may click OK to dismiss the Generate

PTF window and continue using CIP. Press any key in the command window screen to dismiss the indexing window. Both of these processes need to finish before you can use the parts in System Capture's Unified Search.



3.3.4.1 PTF Generation Report Format

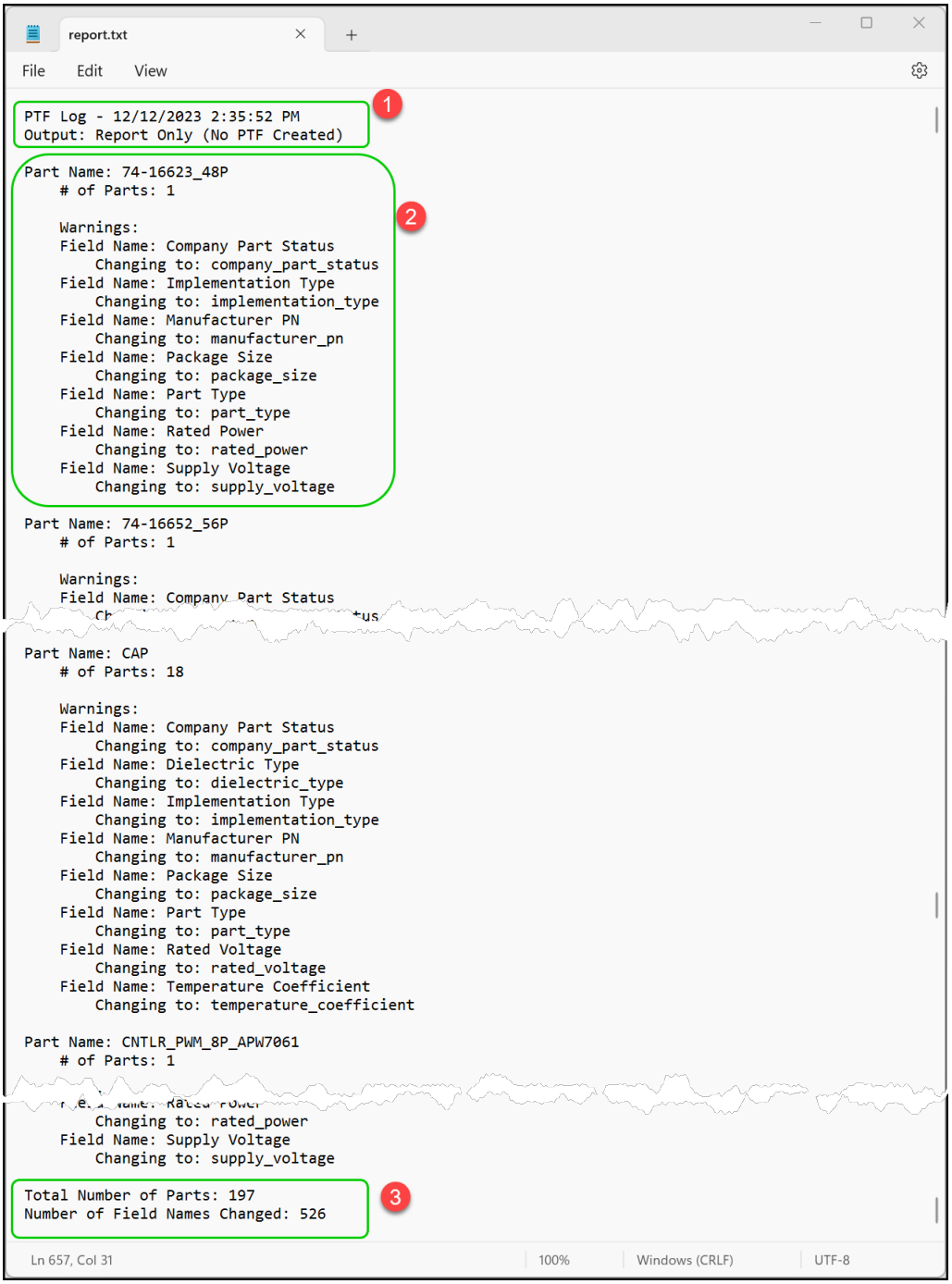
CIP creates a report consisting of number of parts per System Capture Part along with the substitution rules applied. When running Report from a standard browser, you can save the report to review using notepad or another text editor.

There are three sections in the Report.

1. Header
   a. **PTF Log** - Consists of the date and time that this report is run.
   b. **Output**: Contains the location of the PTF file when the Generate is used.
2. Part Information - This section is repeated for each System Capture Part Name
   a. **Part Name** - This is the symbol name in the System Capture Part field. All parts with the same part name are grouped together per PTF format specification for DE-HDL.
   b. **# of Parts** - Shows the number of parts found using this part name. TMP parts are excluded.

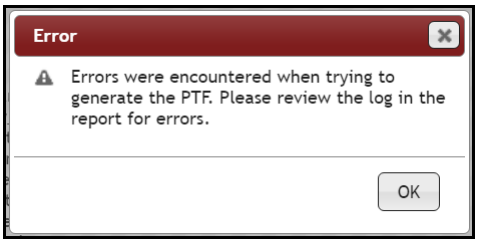
c. **Warnings** - Identifies any substitution rules applied for the Part Name.

3. Summary
   a. **Total Number of Parts** - This is the number of parts that will be in the PTF file. TMP parts are excluded from the PTF file.
   b. **Number of Fields Changed** - Total number of fields where substitution rules were applied.



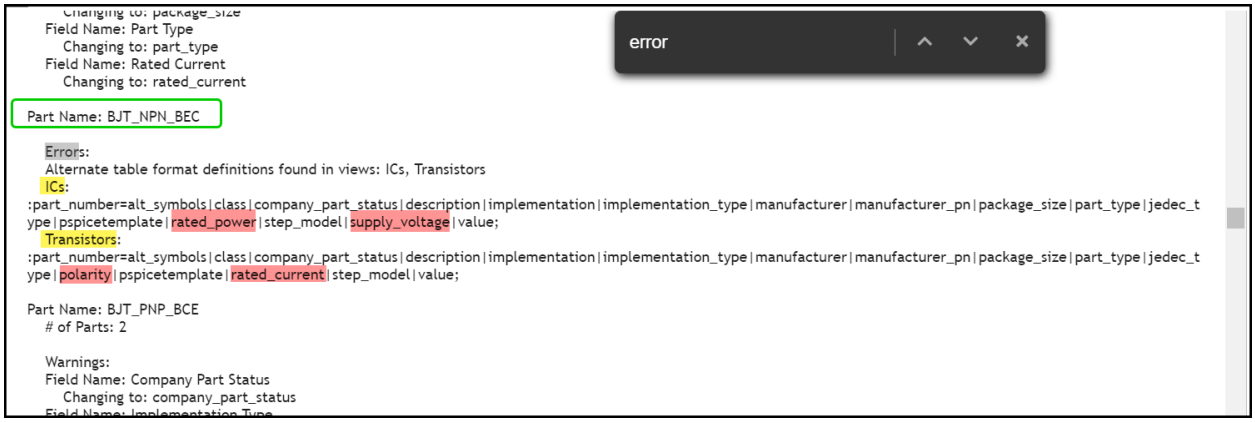
Finding and Fixing Errors in Report

An error message displays when errors are found during report generation.



You will need to locate the source of the problem and fix before PTF Generation.

1. Click OK to dismiss error message.
2. Type Control F to locate "error" in the report.
3. Review the Part Names showing error.



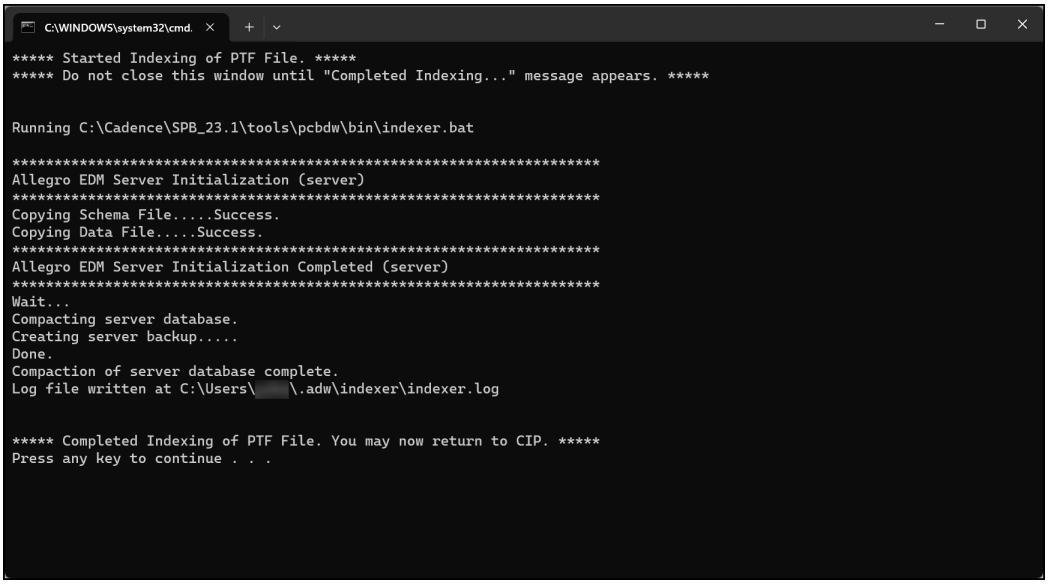
Sample Error in Report

4. In this example, the Part Name, "BJT_NPN_BEC" is found in both ICs and Transistors views. However, there is a conflict (highlighted in pink) with fields defined for transfer to design between each of these views. To fix this problem, you can change the fields for transfer to design to match or change the Part Name for one of these parts.

3.3.4.2 Indexer Command Window

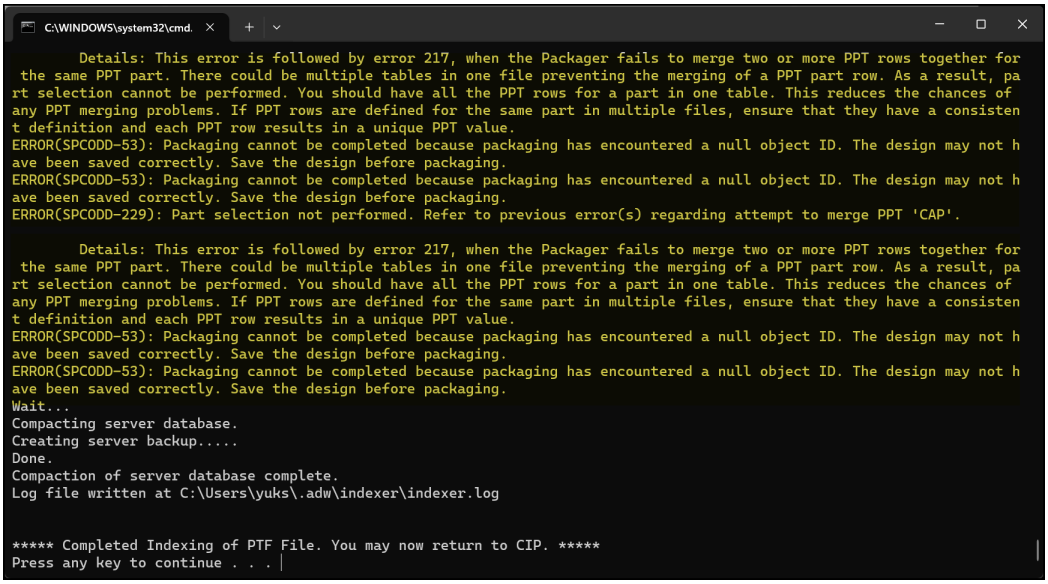
The Indexer generates an index for parts in the PTF as well as symbols in the library. Parts added to CIP or the PTF file manually will not be visible in Unified Search in with being indexed first.

The command window that runs the Indexer will look like the following example when run the first time to create the index.



Subsequent runs will look as follows to update the index.

Errors can occur when PTF files are manually created or edited. Another possible error can occur if you have multiple PTF files that have the same Part Name with different fields for Transfer to Design. To fix errors in the command window, review the errors identified. Then review the PTF files for part name with the errors and make the correction as identified in the errors. As a generally rule, make sure that you have only one source generating the PTF file.

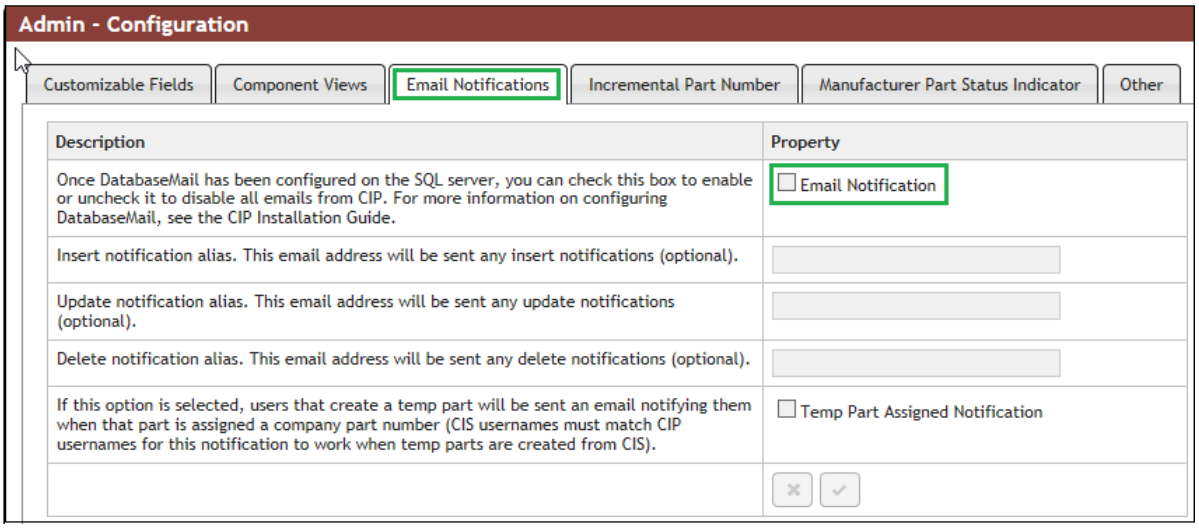


3.3.5 Email Notifications

You can set up CIP Email Notifications so that users are notified when company or manufacturer parts are added, modified, or deleted from the CIS database. This feature also allows users who create Temp Parts (either through CIS or CIP) to receive emails when their Temp Parts are assigned formal part numbers.

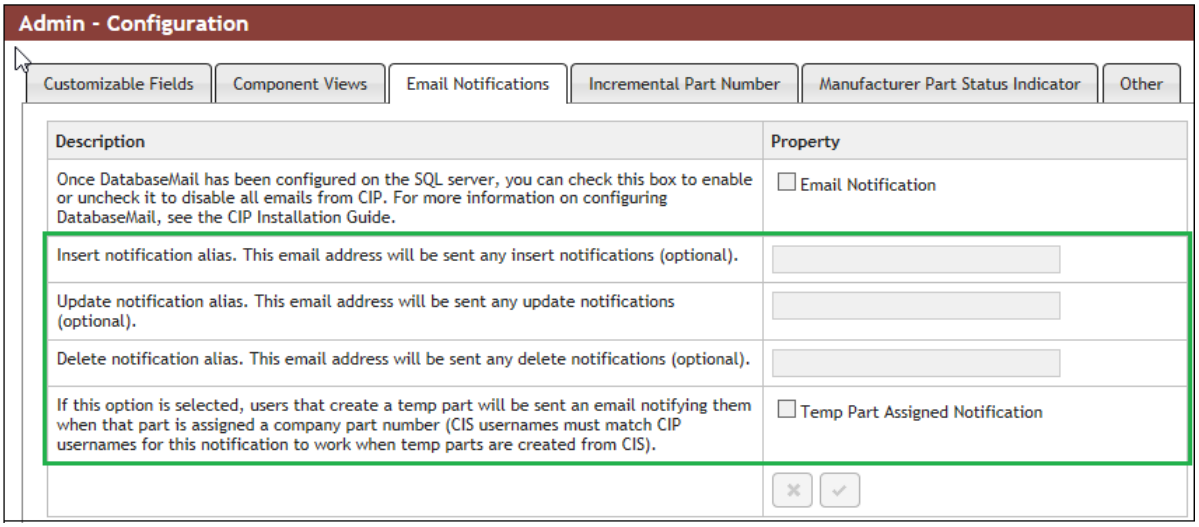
Note: The SQL Server Administrator must enable and configure Database Mail on the SQL server before email notifications can be successfully enabled. This setup occurs outside of CIP. See the figure Email Configuration Required to see the error message you may see when you attempt to set up email notifications before Database Mail is set up on the CIP server.

A CIP Admin can enable Email Notifications for individual CIP Users or for Email Aliases (which may or may not contain CIP Users). To enable Email Notifications within CIP, navigate to the **Admin > Configuration** menu item, select the **Email Notifications** tab. Select the **Email Notification** checkbox to start configuring email notifications.



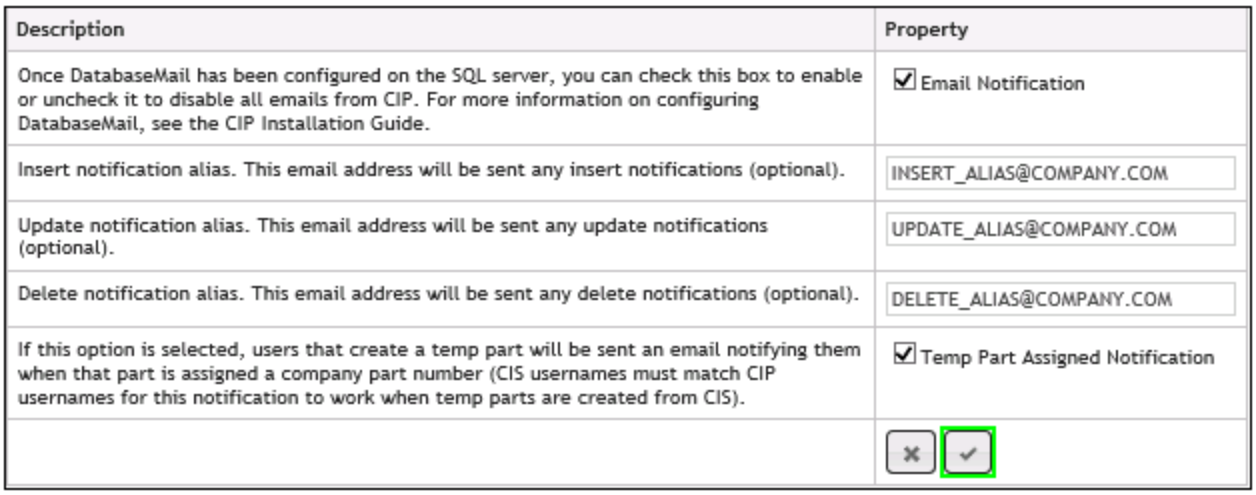
Email Notification

Once the email notifications are enabled (checked), options to enter notification aliases becomes available. Enter an email alias where desired so that all users belonging to an alias are notified when a database Insert, Update, or Delete occurs.



Email Notification Aliases Enabled

Optionally, you can enable the Temp Part Assigned Notification if users who create Temp Parts want to be notified when their Temp Parts are assigned Formal Part Numbers. After email notifications are configured as desired, click the **Save** button. When the settings are saved, the Save and Cancel buttons de-activate. The buttons become enabled again when changes are made.

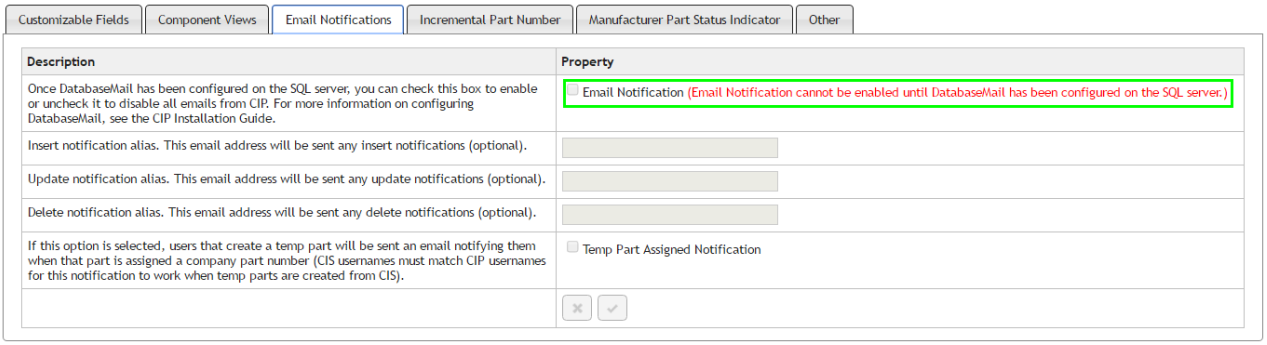


Email Notifications Updated

The Temp Part Assigned Notification works smoothly when a Temp Part is created from CIS and the user's Windows Authenticated username matches the CIP username. CIS and CIP record the users who are logged in when a Temp Part is created.

Note: Email Notifications can be configured for individual CIP Users via the **Admin** > **Users, Roles & Permissions** page. Although email aliases are not required, an alias address can be set up to notify groups of people or people that are not CIP Users. Email alerts can not be sent until the Email Notification option is enabled.

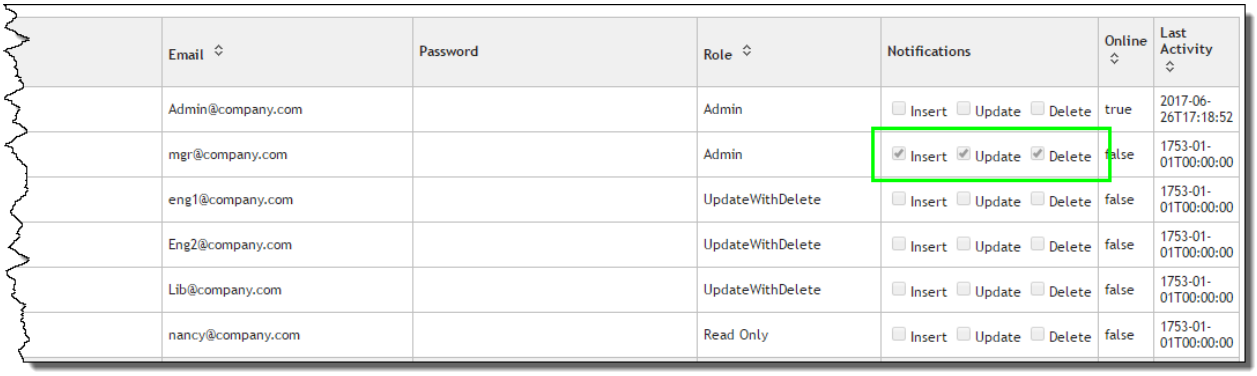
The image below shows the email error message that displays when DatabaseMail is not yet set up on the SQL server.



Email Configuration Required

3.3.5.1 Email Notification for Individual Users

After Email Notifications are enabled, you can assign them to specific CIP Users. Navigate to the **Admin > User, Roles & Permissions Administration** tab. Click **Edit** for a particular CIP User, and then click the desired checkboxes under the Notifications column. When a user is configured, click **Update** to save the settings.



Email	Password	Role	Notifications	Online	Last Activity
Admin@company.com		Admin	Insert Update Delete	true	2017-06-26T17:18:52
mgr@company.com		Admin	Insert Update Delete	false	1753-01-01T00:00:00
eng1@company.com		UpdateWithDelete	Insert Update Delete	false	1753-01-01T00:00:00
Eng2@company.com		UpdateWithDelete	Insert Update Delete	false	1753-01-01T00:00:00
Lib@company.com		UpdateWithDelete	Insert Update Delete	false	1753-01-01T00:00:00
nancy@company.com		Read Only	Insert Update Delete	false	1753-01-01T00:00:00

Email Notification for Individual Users

3.3.6 Incremental Part Number

Each part entered into CIP requires a unique part number. The part number can be assigned either manually or automatically by CIP. Part numbers entered manually can have any format. Part numbers automatically assigned by CIP are incrementally numbered with the next available sequential number.

To configure CIP to auto-increment part numbers

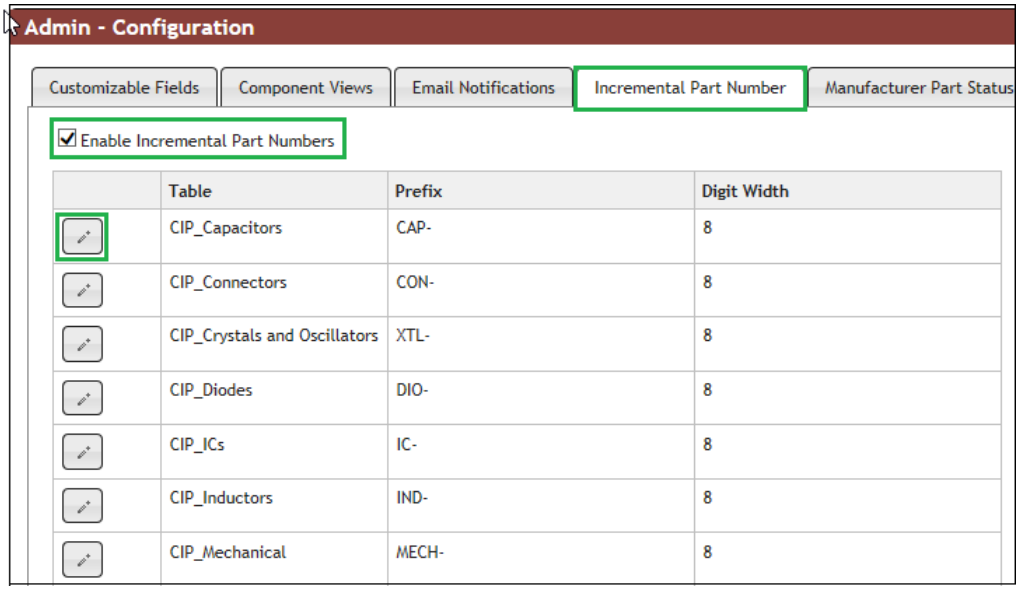
1. Select the **Admin > Configuration** menu and **Incremental Part Number** tab.
2. Select the **Enable Incremental Part Number** checkbox.

   Note: Options to configure auto-number only display for users assigned to roles that include Incremental PN Format.

   Once enabled, CIP can automatically assign the next incremental part number when a formal part is created. The part numbering scheme can be configured differently for each table. A set of default pre-fixes are pre-populated during CIP installation. Once enabled, you may edit the scheme for each table.

To edit the numbering scheme of a part table

1. Select the **Edit** button that precedes the table of the component numbering scheme you want to edit.

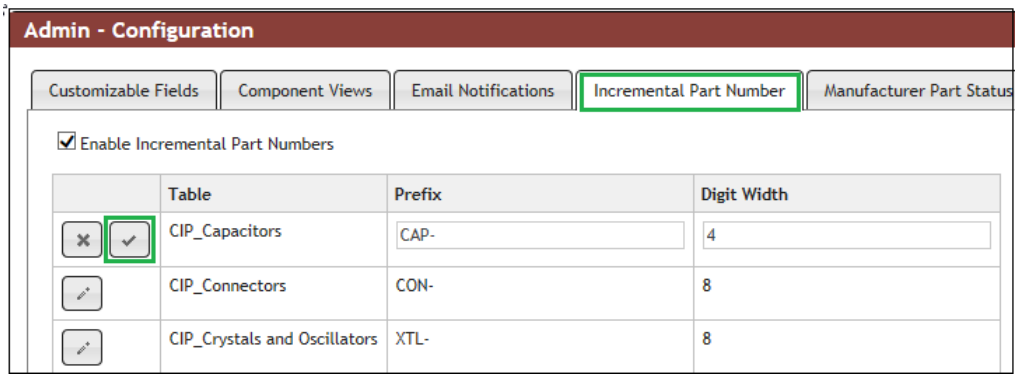


Enable Part Number Auto-Numbering

2. Edit the prefix and number of characters in each part number as desired.

   The prefix may be in any format while the numbers for each part number can range from 0 to 15 digits. For example, if the value 8 is entered, there will be 8 placeholder digits for the part number.

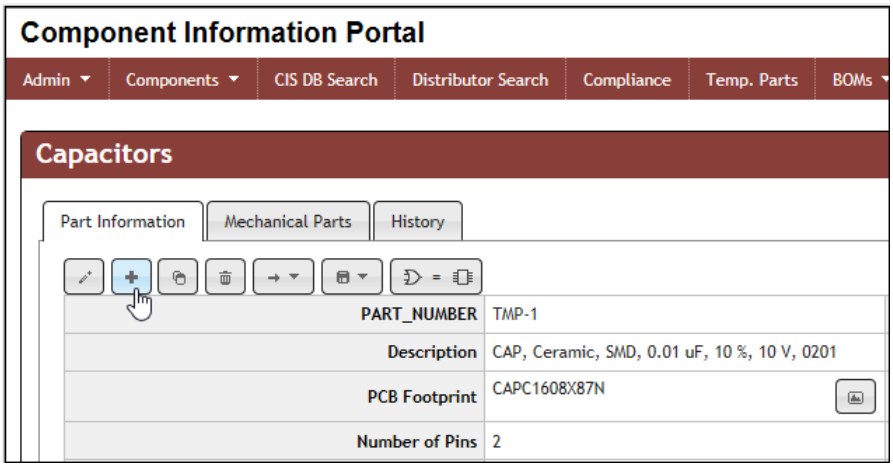
   The following figure provides an example where the prefix is CAP and the number 4 is the Digit Width for the CIP_Capacitor table.



Edit Capacitors Auto Part Numbering Scheme

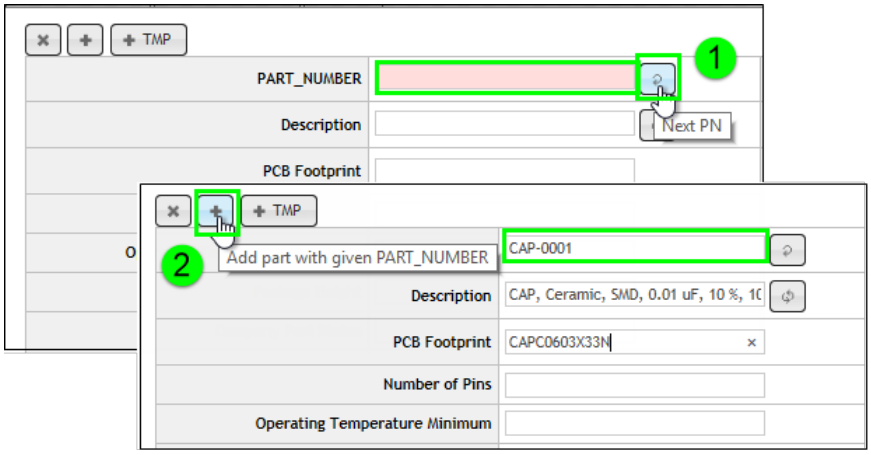
To create a new formal part

1. Open a Part Information page (**Components** > **Component View**).
2. Click the **Add** button  to open a new part form.



Make Selection to Add a New Part

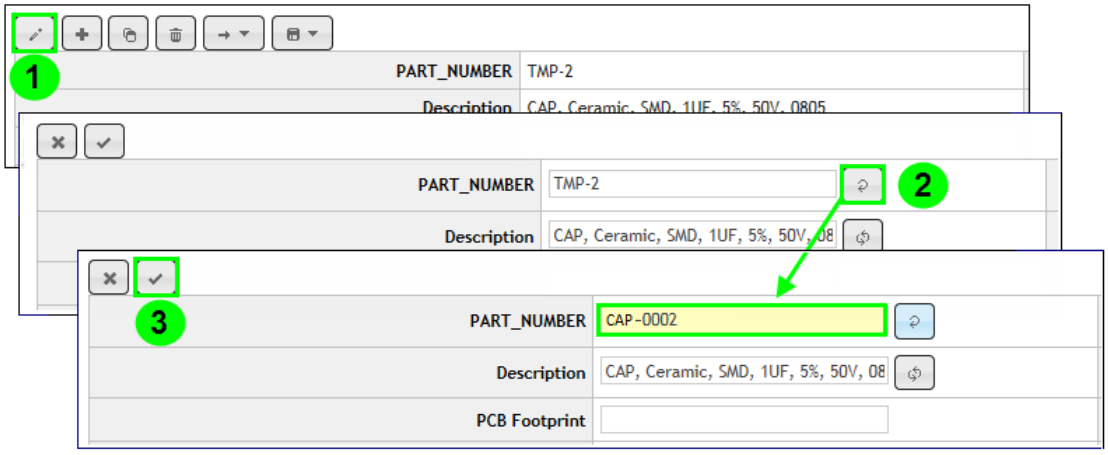
2. Click the **Next PN** button to retrieve next available number. As shown in the sample image below, the first part number for this new part format is CAP-0001.



Obtain An Auto-Increment Part Number

3. Enter parametric data and click the **Add** button.

To convert a TMP part to the next available auto-increment part number, click **Edit** button when viewing a TMP part as shown below. While in Edit mode, click **Next PN** and **Save** to complete the conversion of the TMP part to a formal auto-increment part number.

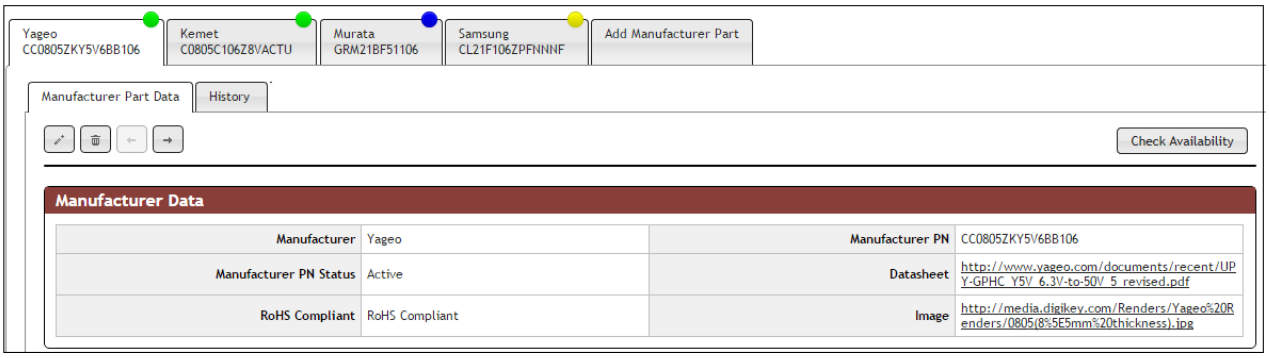


Convert From TMP Part Number To Auto-Increment Number

3.3.7 Manufacturer Part Status Indicator

Privileged users can set up a field to be used as the manufacturer part status indicator. The **Manufacturer Part Status Indicator** reports the status of a part by color code assignment associated to options available in the Part Status field. Four colors are available: red, green, blue, and yellow.

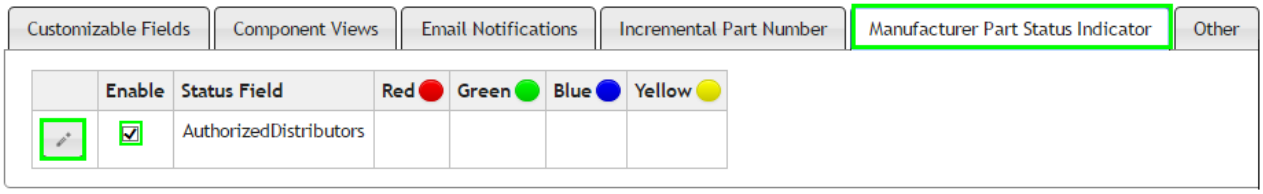
Note: The CIP Admin must grant the user permission to configure Customizable Fields before the user can make changes to the **Manufacturer Part Status Indicator**. Users who lack this permission will be unable to set up this feature.



Manufacturer Parts With Color Coding Based on PN

To enable the Manufacturer Part Status Indicator

1. Navigate to the **Admin > Configuration** > **Manufacturer Part Status Indicator** tab.
2. Click the **Edit** button and check the **Enable** checkbox to begin defining the status indicators.

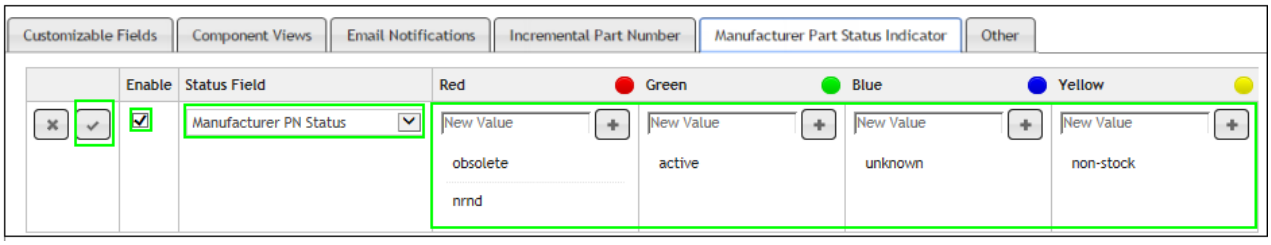


Configuring Manufacturer Part Status Indicator

4. Click the **Status Field** drop-down list and select the field for which you want to set up a status indicator.
5. Type a string (New Value) into each color field to indicates the status value you want to associate to each color.

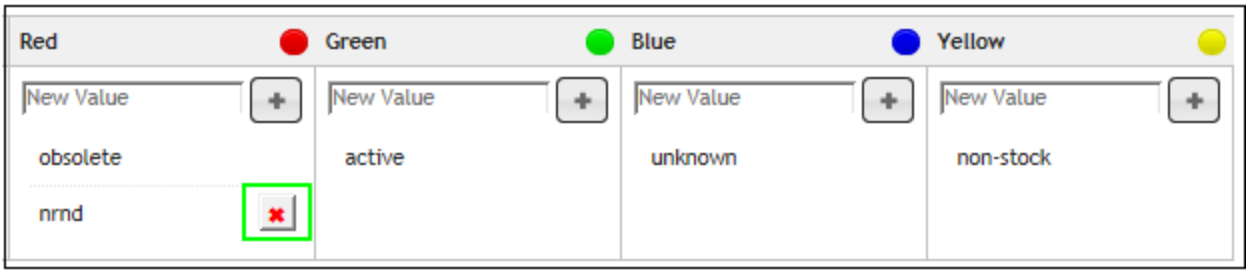
   Note: You can assign more than one status string to each color.

6. To save the strings you added, either press your keyboard **Enter** key or click the **Add** button . When done, click the **Save** button .



Defining Color Code of Status Indicators

If you want to discard all changes, click the **Cancel** button. If you wish to remove a string from the list, hover over the string and select the red X button, .



Discarding Editing Changes to Status Indicators

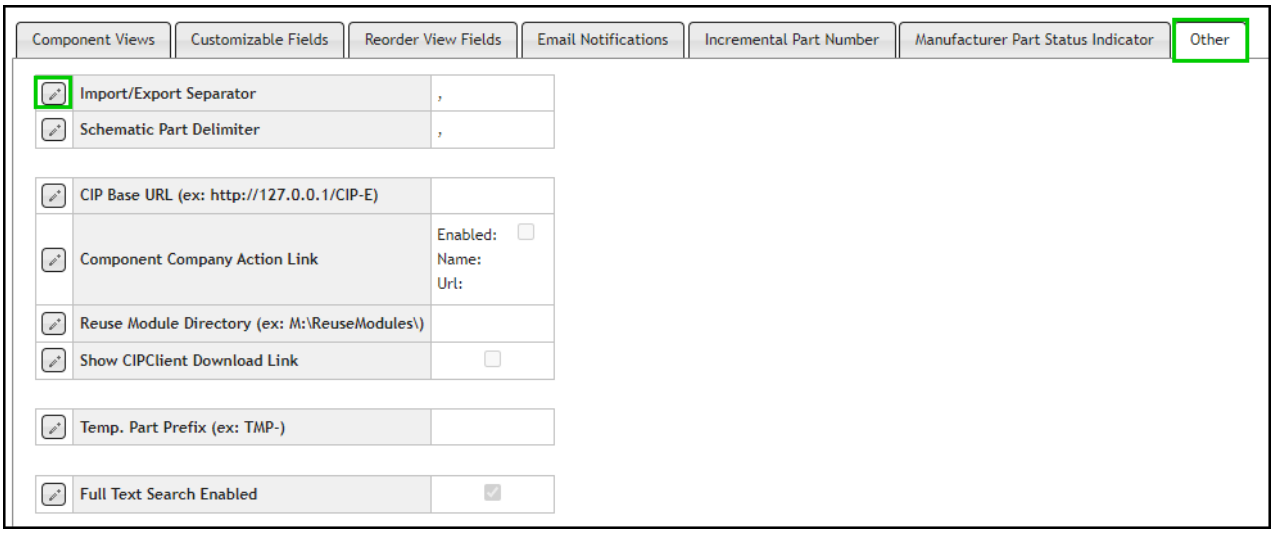
3.3.8 Import/Export Separator

Privileged users can define the separators used for importing and exporting CSV files. CIP uses the comma (,) symbol as its default delimiter/separator for handling BOMs and other data lists. However, there are some occasions when you may prefer to use a semicolon (;) symbol instead.

Note: Users who are granted permission to configure customizable fields are also granted permission to change the Import/Export Separators.

To change the default separator

1. Navigate to the **Admin > Configuration** menu item and select the **Other** tab.



Edit Import and Export Separator

2. Select the **Edit** button that is located next to the Import/Export Separator option.
3. Select the (;) semicolon from the drop list and click the **Save** button.

Configuring Import And Export Separator

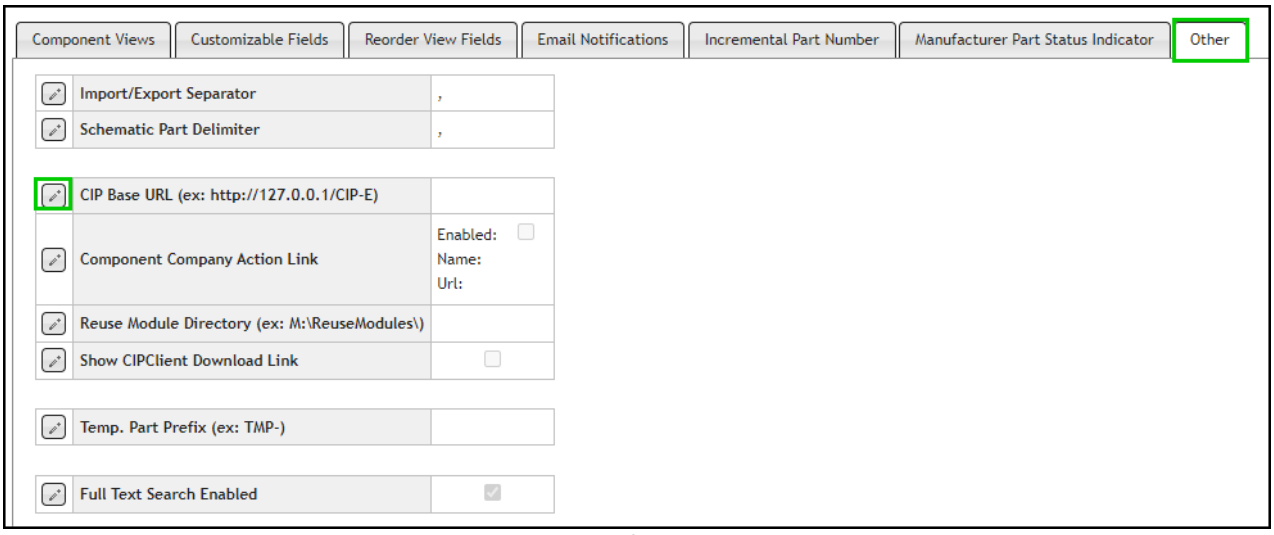
Or to discard changes, select **Cancel**.

3.3.9 CIP Base URL

The CIP base URL allows easy access to the CIP part directly when you view a part in CIS.

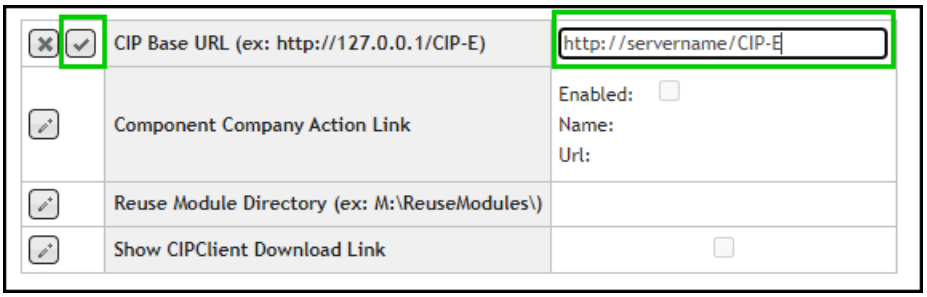
Note: Users who are granted permission to configure customizable fields are also granted permission to change the CIP Base URL.

To configure the Link for all parts, navigate to the **Admin** > **Configuration** menu item and select the **Other** tab. Select the **Edit** button that is located next to the **CIP Base URL** option.



Editing the CIP Base URL

Type in the URL for CIP and click the **Save** button. Or to discard changes, select the **Cancel** button.



Entering the CIP URL

After you save the link, all parts in the database that correspond to this link update. Depending upon the number of parts in your CIP database, the update process may take serveral minutes. The next time you open CIS, the CIP link will be active.

	Table	PART_NUMBER	Description	Value	CIP Link	PCB Footprint
1	Capacitors	EMA-00000124V2	CAP, Ceramic, SMD, 0.01 uF, 10 %, 50 V,	0.01uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000124V22	CAPC1608X87N
2	Capacitors	EMA-00000135V2	CAP, Ceramic, SMD, 0.1 uF, 10 %, 25 V,	0.1uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000135V22	CAPC1608X87N
3	Capacitors	EMA-00000372V2	CAP, Ceramic, SMD, 0.01 uF, 10 %, 16 V,	0.01uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000372V22	CAPC1608X86N
4	Capacitors	EMA-00000374V2	CAP, Ceramic, SMD, 0.01 uF, 20 %, 16 V,	0.01uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000374V22	CAPC1608X86N
5	Capacitors	EMA-00000381V2	CAP, Ceramic, SMD, 0.012 uF, 10 %, 50	0.012uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000381V22	CAPC1608X90N
6	Capacitors	EMA-00000384V2	CAP, Ceramic, SMD, 0.015 uF, 10 %, 50	0.015uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000384V22	CAPC1608X90N
7	Capacitors	EMA-00000387V2	CAP, Ceramic, SMD, 0.018 uF, 5.0 %, 50	0.018uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000387V22	CAPC1608X90N
8	Capacitors	EMA-00000389V2	CAP, Ceramic, SMD, 0.022 uF, 10 %, 50	0.022uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000389V22	CAPC1608X90N
9	Capacitors	EMA-00000392V2	CAP, Ceramic, SMD, 0.033 uF, 10 %, 50	0.033uF	http://servername/CIP-E/Component/Index/All?pn=EMA-00000392V22	CAPC1608X90N

CIP Link Updated

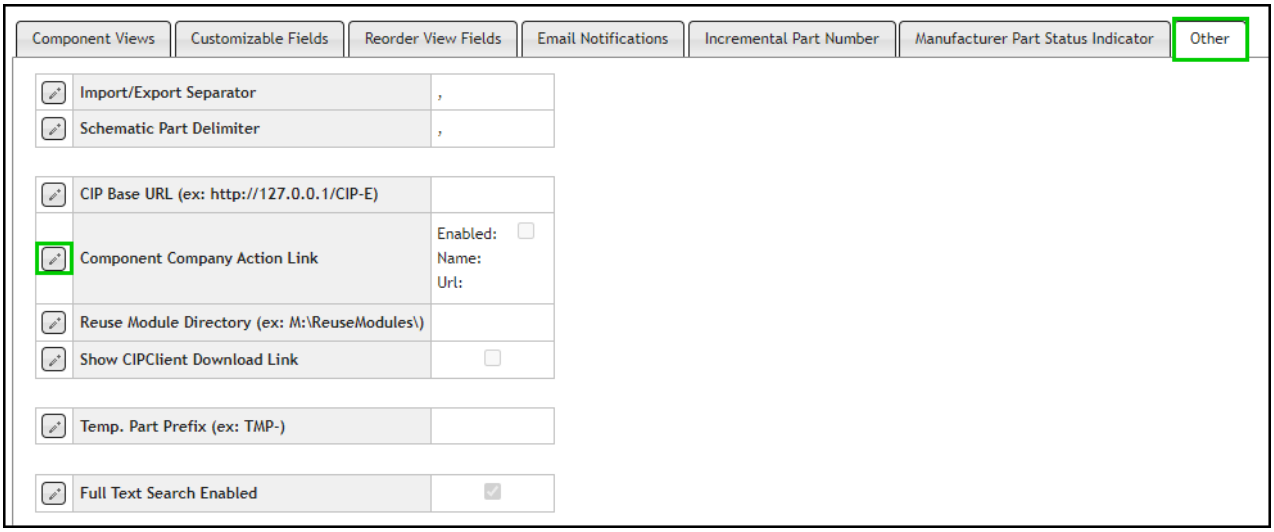
3.3.10 Enable Link on Component Pages

A link may be shown on all components pages to enable easy access from CIP to another system, i.e. PLM.

Note: Users who are granted permission to configure customizable fields are also granted permission to configure **Component Company Action Link**.

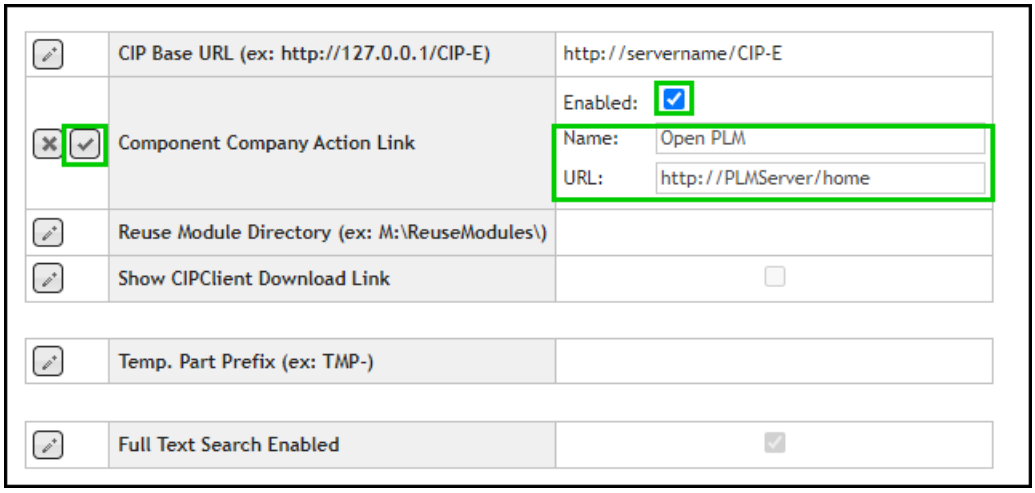
To configure the Component Company Action Link

1. Select **Admin > Configuration.** Then open the **Other** tab.
2. Select the **Edit** button for **Component Company Action Link**.



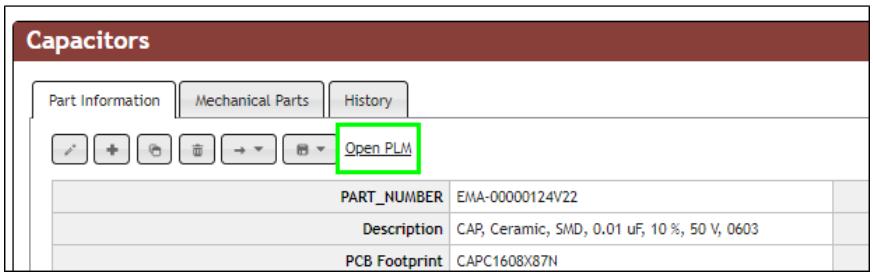
Configure Component Company Action Link

3. Select the checkbox for **Enabled.** Enable the Name in which to show in the component page for the link and enter the URL for the link and click the **Save** button. To discard changes, select the **Cancel** button.



Enable and Save Component Company Action Link

After configuring this setting, the component pages contains the added link as shown in the example below.



Example of Component Page with Added Company Link

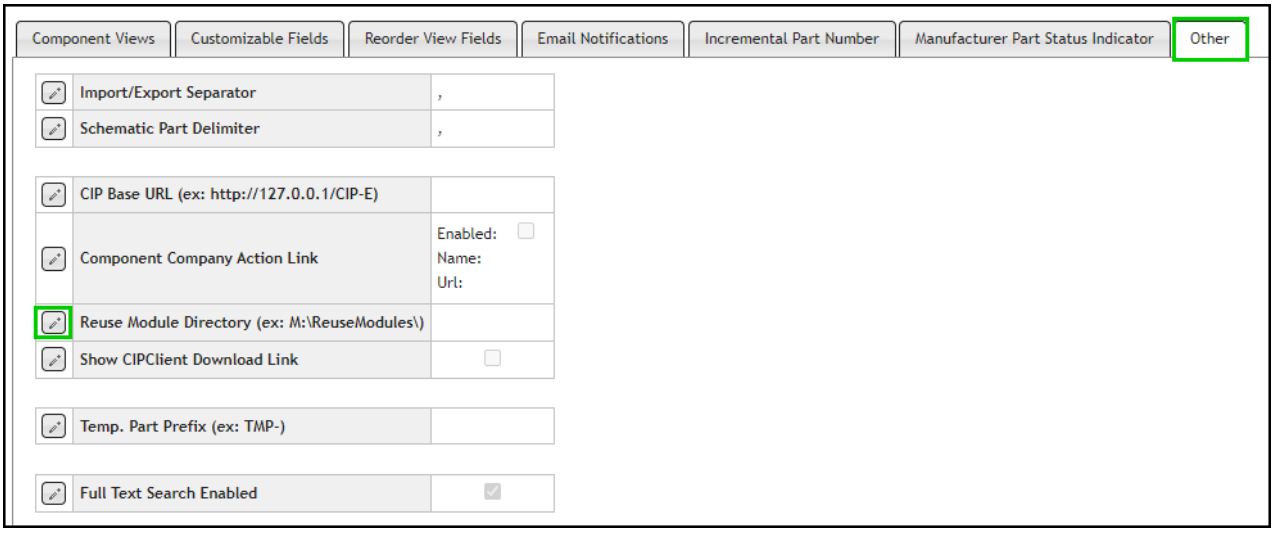
3.3.11 Configure Reuse Module Directory

Reuse Modules enable users to save designs and part information to the CIP database where it can easily be retrieved for use in a subsequent design. To enable use of the this feature, you must first configure the directory where you want Reuse Module .DSN files to be stored.

Note: Users who are granted permission to configure customizable fields are also granted permission to configure **Reuse Module Directory**.

To configure the Reuse Module Directory

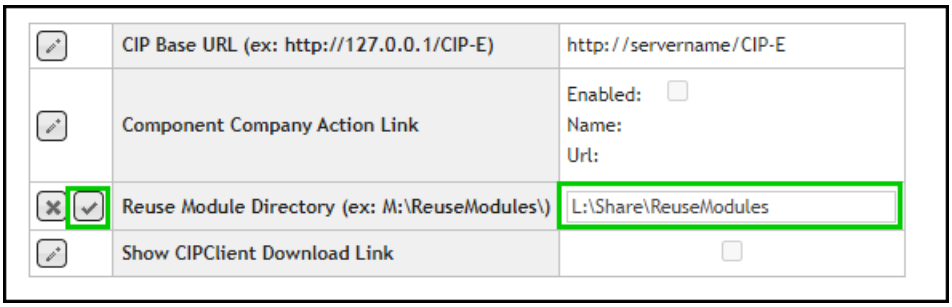
1. Select **Admin > Configuration.** Then open the **Other** tab.
2. Select the **Edit** button for **Reuse Module Directory**.



Configure Reuse Module Directory

3. Enter the directory where you want to store your Reuse Module .DSN files. Then click the **Save** button.

   The directory should be a network directory that CIS users may access. To discard changes, select the **Cancel** button.



Save Configuration for Reuse Module Directory

3.3.12 Download the CIP Client

The CIP Client is a separate installation that adds features for OrCAD Capture CIS or System Capture users when the corresponding plugin is installed. Client plugins for all supported SPB versions are included in the download. For SPB 23.1, the System Capture client plugin is included.

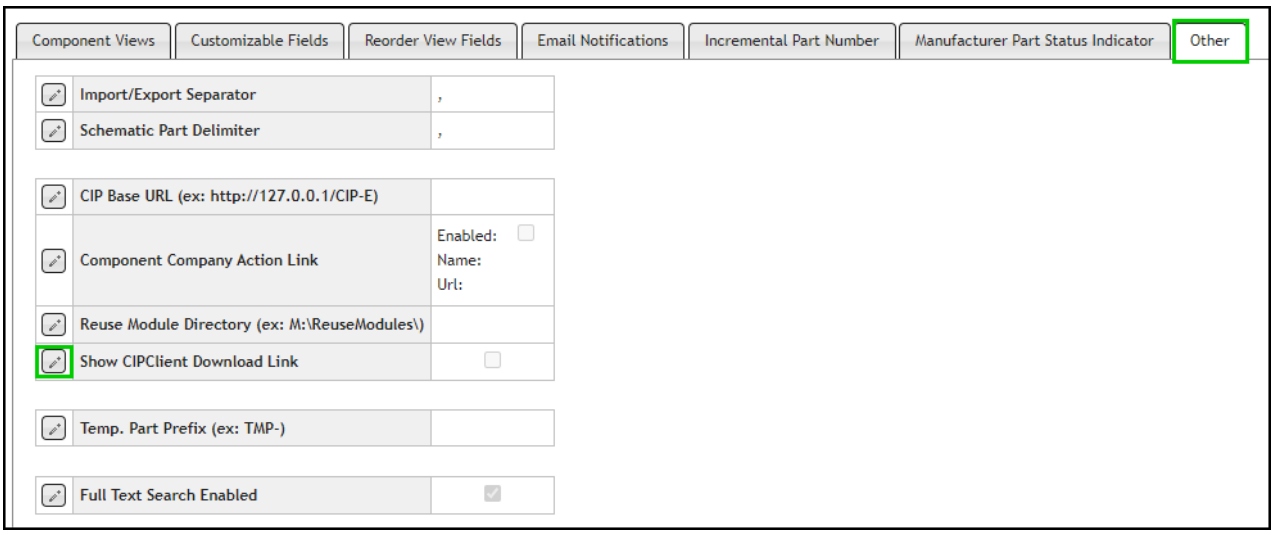
The CIP Client enables a user to open CIP from OrCAD or System Capture and use all the standard features of CIP as well as preview/place symbols, preview footprints, compare symbols to footprints, create/import reuse modules and import BOMs directly into CIP. Any differences in functionality between OrCAD Capture and System Capture are identified in sections where they occur.

Users who also have Library Builder installed on their system, can launch Library Builder from CIP to build symbols and footprints.

Note: Users who are granted permission to configure customizable fields are also granted permission to enable the **Show CIPClient Download Link**.

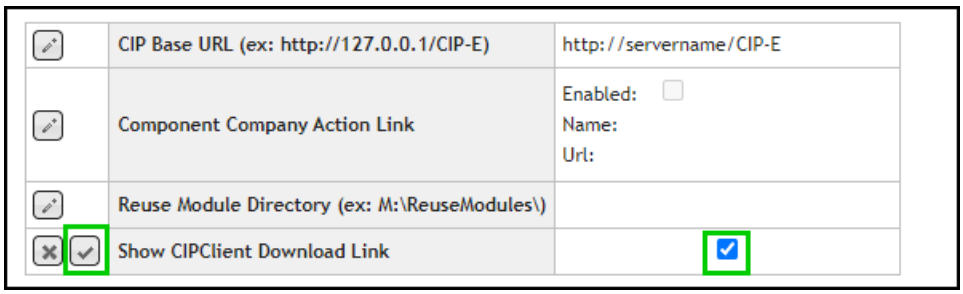
To enable the CIPClient Download Link

1. Select **Admin** > **Configuration** and the **Other** tab.
2. Select the **Edit** button for **Show CIPClient Download Link**.



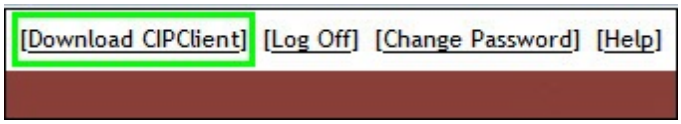
Edit Show CIP Client Download Link

3. Select the checkbox for **Show CIPClient Download Link** and click the **Save** button. To discard changes, select the **Cancel** button.



Save Configuration Setting for Show CIP Download Link

After making this change, the **Download CIPClient** link appears when you refresh the page.



Link to Download CIP Client

To download the CIP client, open CIP from a standard browser and click the **Download CIPClient** link.

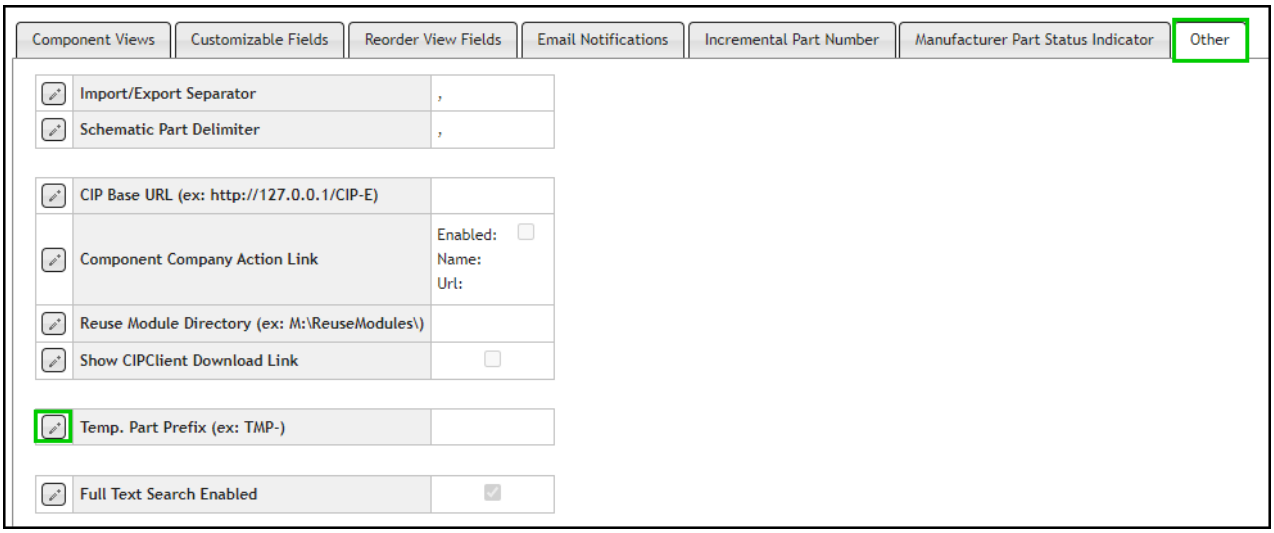
3.3.13 Temp Part Prefix

TMP parts are created with a prefix and incremented by one from the previous entry. The default temp part prefix for a CIP that doesn't have any temp part is **TMP-**.

When CIS is used to create TMP parts, the prefix will be based on user CIS settings. For a system that has numerous prefixes already in use, you will need to configure a prefix for CIP. Once configured, new TMP parts will use the configured prefix.

To configure the Temp Part Prefix

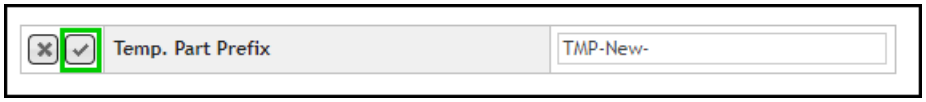
1. Select **Admin > Configuration.** Then open the **Other** tab.
2. Select the **Edit** button for **Temp Part Prefix**.



Configure Temp Part Prefix

3. Enter the prefix you want to use. Then click the **Save** button.

   To discard changes, select the **Cancel** button.



Save Configuration for Temp Part Prefix

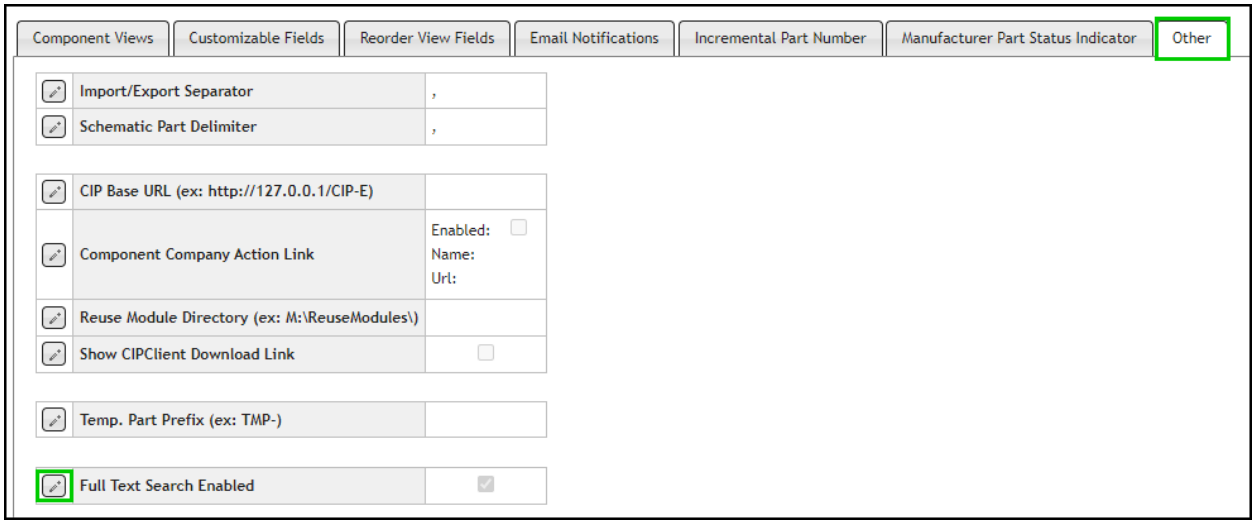
3.3.14 Enable/Disable Full Text Search

Full text search enables you to enter a text string into Keyword search that may not have an exact match to strings.

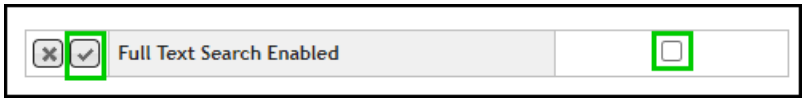
Full text search may run slower if you have not allocated sufficient resources to your SQL server. You may disable to switch to original search functionality.

To enable or disable full text search,

1. Select **Admin** > **Configuration**. Then open the **Other** tab.



2. Select the **Edit** button for **Full Text Search Enabled**.
3. By default, the full text search is disabled after a fresh install. Select the checkbox to change the setting for **Full Text Search Enabled** and click the **Save** button. To discard changes, select the **Cancel** button. Note that this may take several minutes to update the database.



When enabled or disabled, this setting applies to the keyword search functionality within CIP for all users. This is not a user configurable option.

3.3.15 Enable Download of Ultra Librarian Models

Ultra Librarian® functionality enables users with appropriate permissions to download symbols and/or footprints and update corresponding part information. With the use of the CIP client, symbols and footprints may be downloaded when a TMP part created or can be added to existing parts.

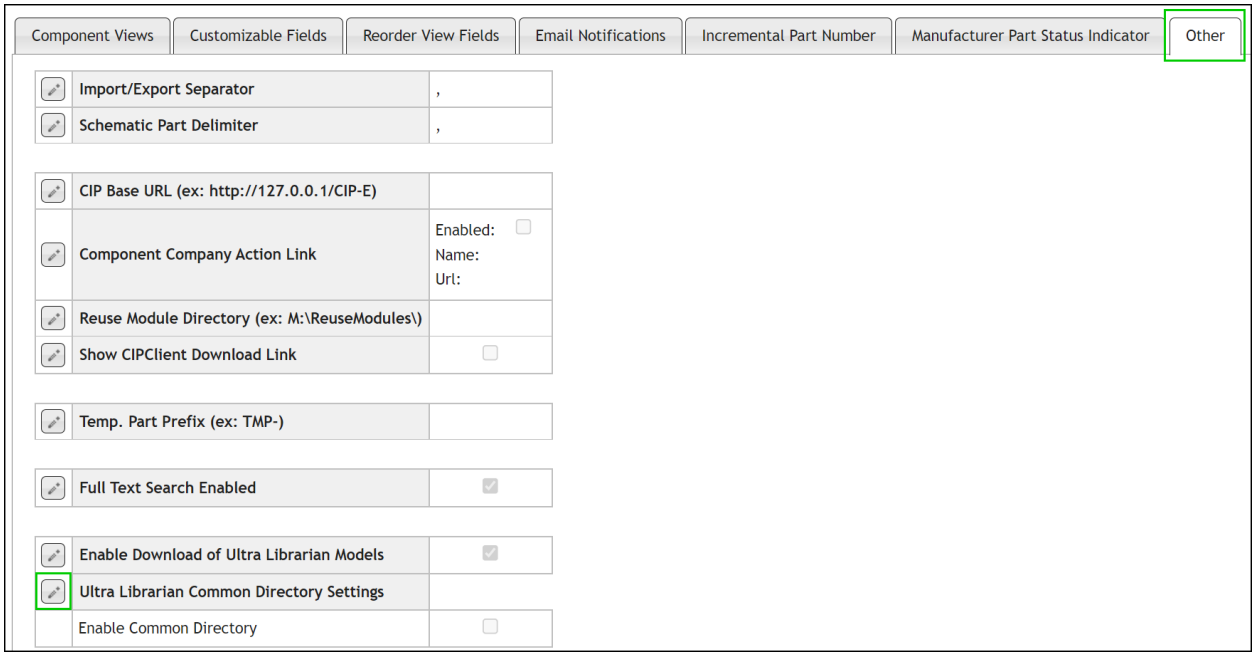
Ultra Librarian can be configured to download symbols and footprints to a common configured location or individually as each user downloads from *Ultra Librarian*. Defining a common location enables easy access to symbols and footprints to everyone after download. Individual download locations provide a layer of control to prevent duplicate symbols and footprints from being added to the common corporate library. When no common directory has been configured, each user will be presented with a dialog to select download locations each time a user performs a model export or TMP part creation with Ultra Librarian option selected.

The Ultra Librarian Model Download is enabled by default and may be disabled using configuration options in the **Admin** > **Configuration** > **Other**.

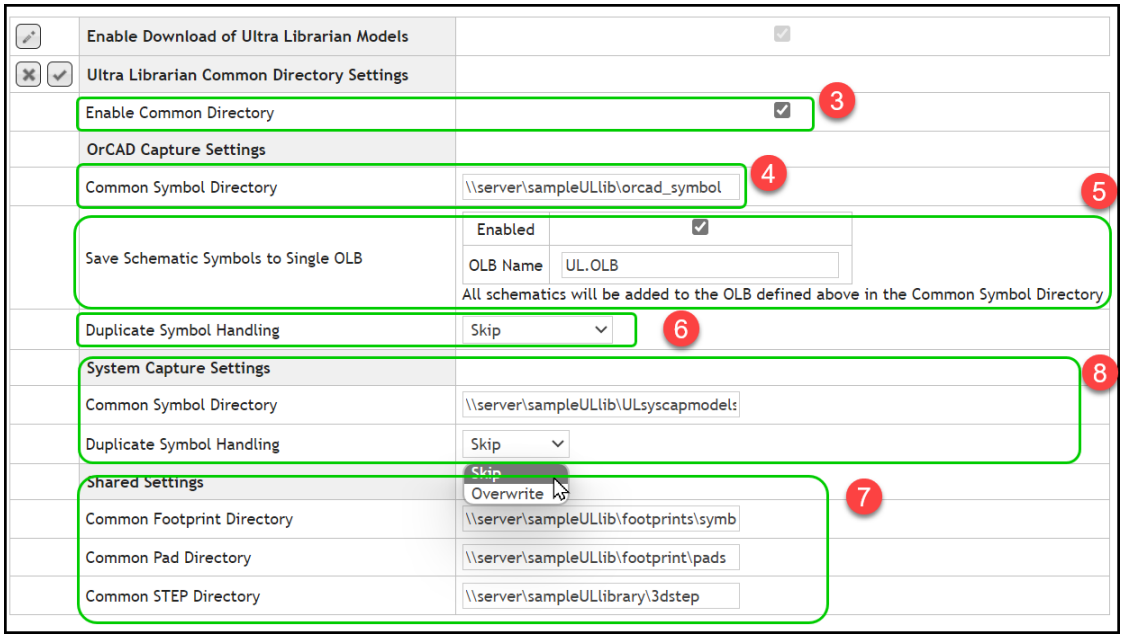
Note: When configured to work with System Capture plugin and Ultra Librarian is enabled, common directory must be also be configured.

To configure a common directory for Ultra Librarian downloaded models

1. Select **Admin** > **Configuration**. Then open the **Other** tab.



2. Select the **Edit** button for **Ultra Librarian Common Directory Settings**.
3. Select the checkbox to **Enable Common Directory**. The settings for each type of models appear.



4. Enter the directory path for OrCAD Capture models that will be downloaded to the **Common Symbol Directory**. Make sure that users performing downloads have Read/Write/Modify permissions to these directory locations. In order to save **Enable Common Directory** setting, this directory path field must be configured when the **Transfer Fields to Design** settings is configured for **OrCAD CIS DBC, OrCAD using CIP** or **CIP and System Capture.**

5. If you want to have all OrCAD symbols downloaded to a single OLB file, select the checkbox to **Save Schematic Symbols to Single OLB** and enter the name of the OLB you want to have all symbols saved to.

6. Configure options for the handling of models that have the same name. Symbols are generally named with the Manufacturer Part Number. When a part is downloaded from 2 different manufacturers, the symbol name may be the same. When multiple users download models that have the same part number or downloaded footprint, padstack or step files name are the same. The configured rule will be applied to both OrCAD Symbol names as well as footprint, padstack and step file naming.

   a. Skip - Schematic symbol names, footprint, pad or step filenames found in the configured location will be preserved.

   b. Overwrite - Schematic symbol names, footprint, pad or step filenames found in the configured location will be overwritten with the same name.

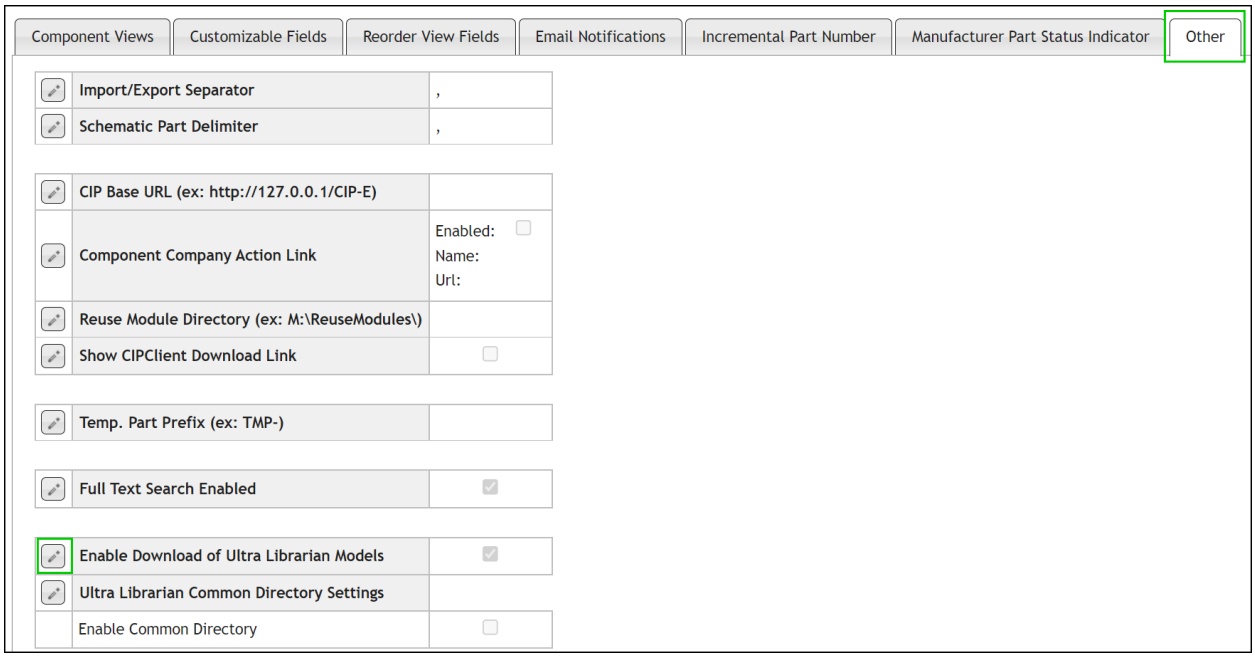
   c. Append Number - Schematic symbol names, footprint, pad or step filenames found in the configured location will be saved to a new name with _1, _2, etc appended.

7. Enter the directory path for Common Footprint, Pad and STEP directory. Make sure that users performing downloads have Read/Write/Modify permissions to these directory locations. This field must be configured before saving the **Enable Common Directory** setting.

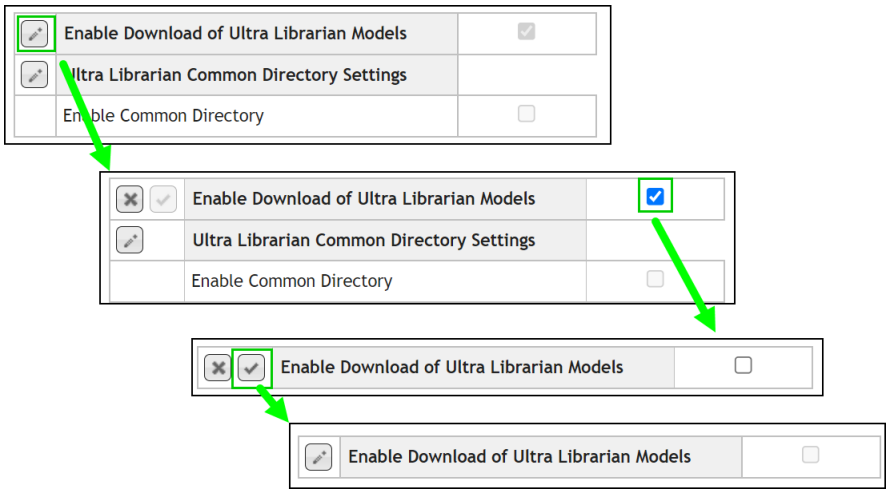
8. Enter the directory path for System Capture models that will be downloaded to the **Common Symbol Directory for System Capture**. Make sure that users performing downloads have Read/Write/Modify permissions to these directory locations. Configure options for the handling of models that have the same name. In order to save **Enable Common Directory** setting, this directory path field must be configured when the **Transfer Fields to Design** settings is configured for **System Capture** or **CIP and System Capture.**

To enable or disable Ultra Librarian downloads

1. Select **Admin** > **Configuration**. Then open the **Other** tab.



2. Select the **Edit** button for **Enable Download of Ultra Librarian Models**



3. By default, the **Enable Download of Ultra Librarian Models** option is enabled. Select the checkbox to change the setting for **Enable Download of Ultra Librarian Models** and click

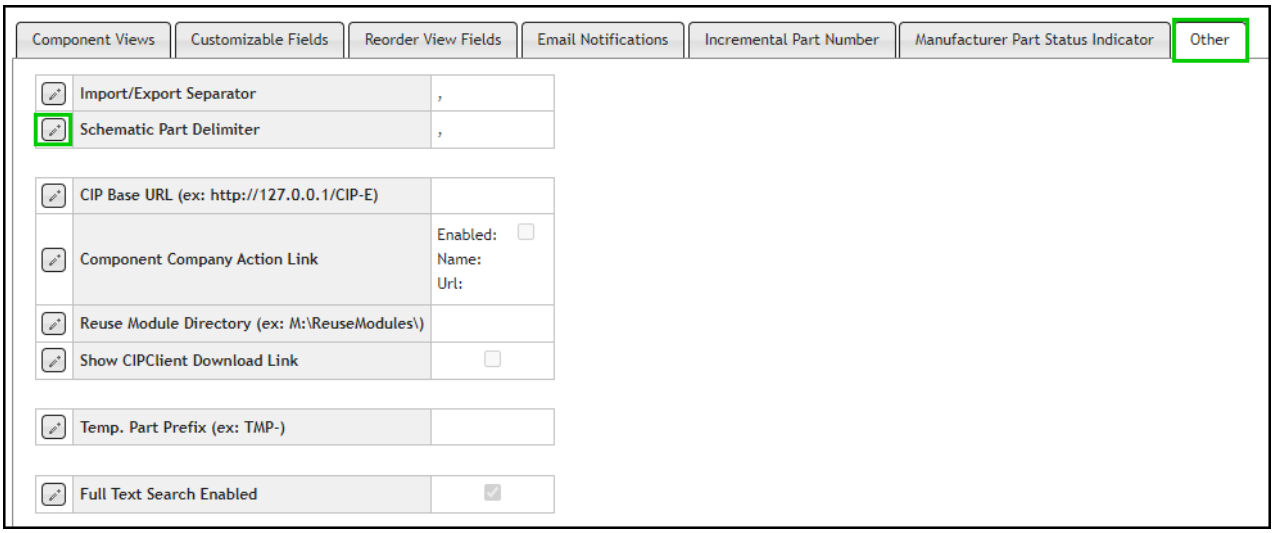
the **Save** button . To discard changes, select the **Cancel** button . When disabled, the settings for **Ultra Librarian Common Directory Settings** are not shown.

3.3.16 Schematic Part Delimiter

The Schematic Part Delimiter is used by Capture CIS when a part has more than one symbol in the Schematic Part field. By default, a comma is the delimited used.

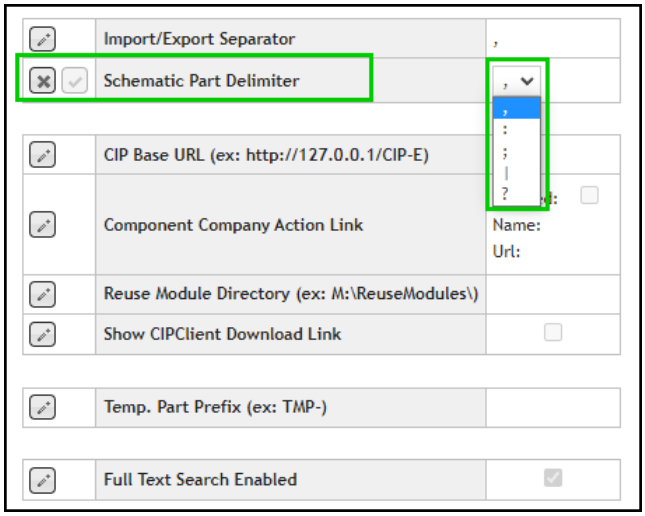
Note: Users who are granted permission to configure customizable fields are also granted permission to change the **Schematic Part Delimiter**.

To configure the Schematic Part Delimiter, select **Admin > Configuration** and then the **Other** tab.



Editing the Schematic Part Delimiter

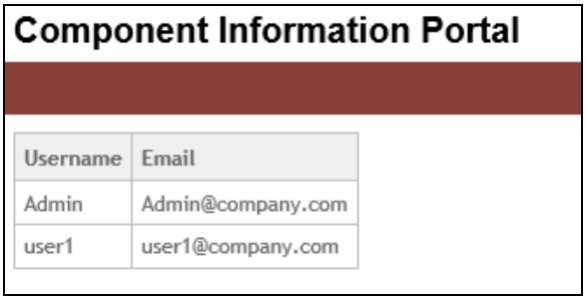
Select the **Edit** button for the Schematic Part Delimiter. Allowable delimiters are shown in the following figure. If Capture CIS is configured to use a different limiter, you need to set CIP to use the same delimiter. This enables CIP to treat each symbol separately. After changing your selection, select the **Save** button to accept changes or the **Cancel** button to discard changes.



Configuring Schematic Part Delimiter

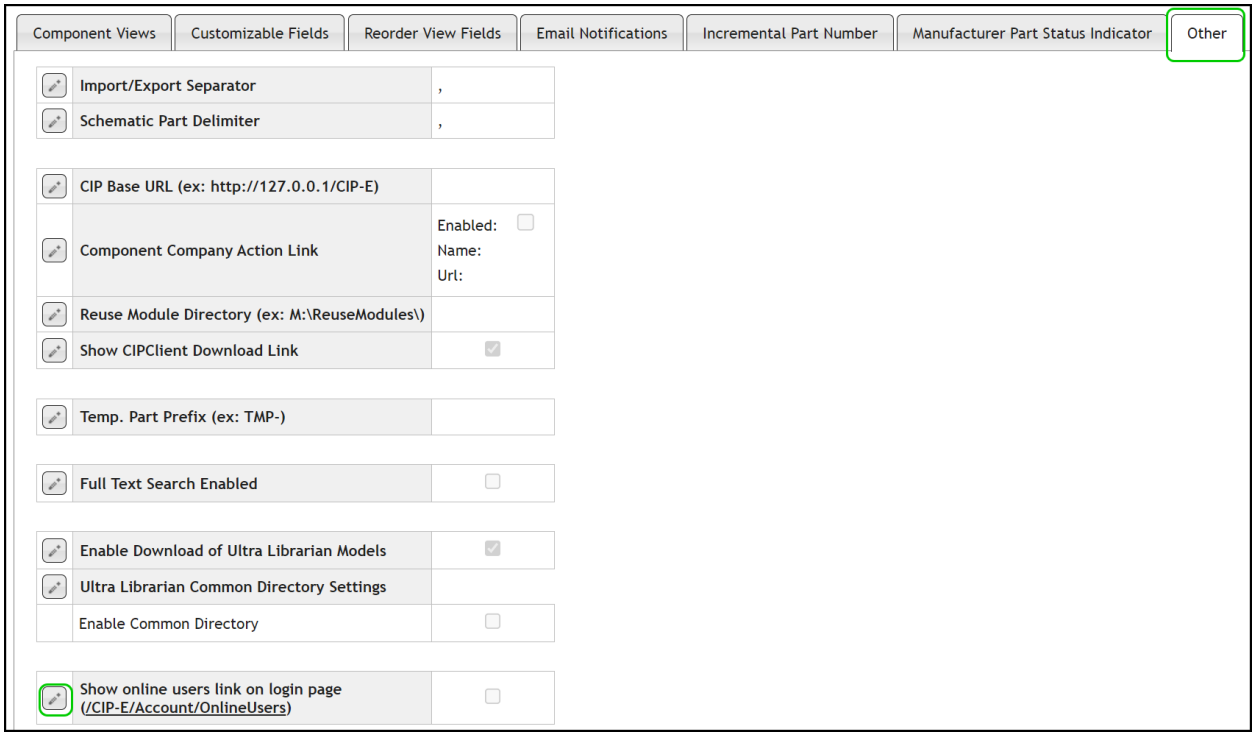
3.3.17 Show Online Users

To check which users are logged in and using a CIP license, you can navigate to http://[Base CIP URL]/Account/onlineusers directly or enable the link to show on the login page. Contact one of the users in the list to free a CIP license.

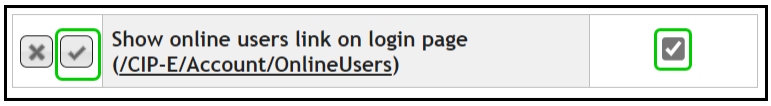


To enable the online users link to show on the login page

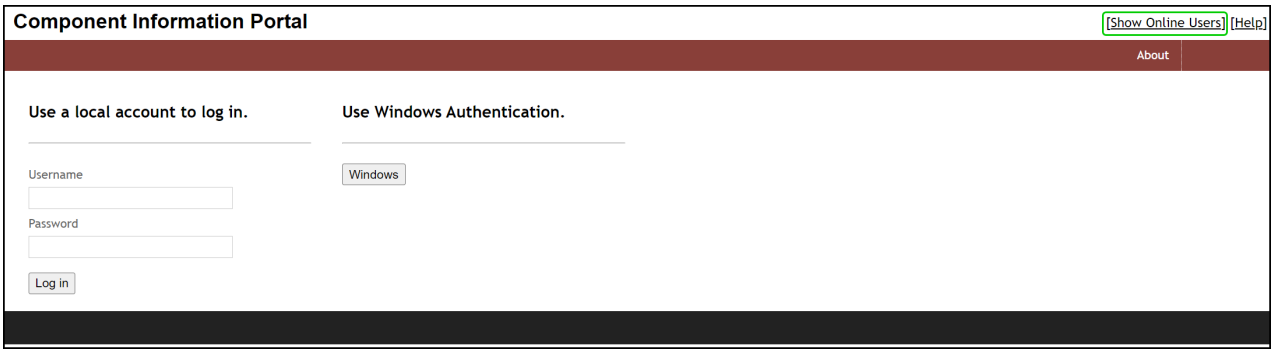
1. Select **Admin > Configuration** and then the **Other** tab.



2. Select the **Edit** button for **Show online users link on login page**.
3. By default, the link is not shown. Select the checkbox to change the setting to show the link and click the **Save** button. To discard changes, select the **Cancel** button.



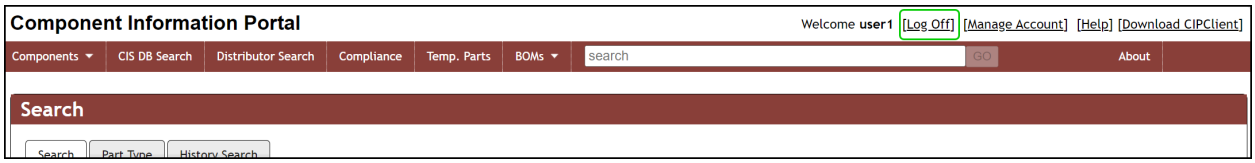
4. Log off CIP to see the link on the login page.



To Free a license

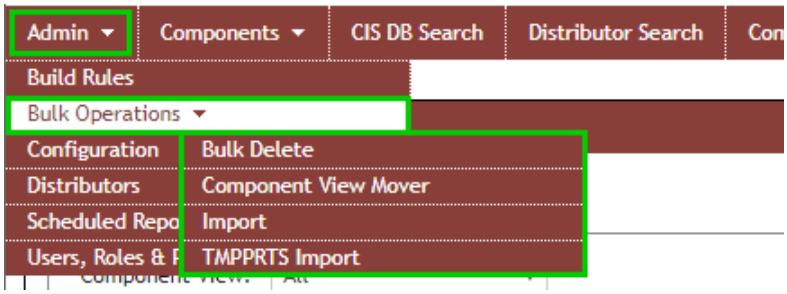
1. Check for online users.
2. Have an online user open CIP web page and log in.

3. Then have the user click the log off link in the upper right hand corner of CIP web page.



3.4 Bulk Operations

The **Admin > Bulk Operations** menu allows you to perform the operations shown below. Only users belonging to a user role with Bulk Operations permission will be allowed to access these features.



Admin > Bulk Operations

These options enable you to process the following routine bulk operations:

- Bulk Delete – deletes specified parts and/or their associated Manufacturer/Manufacturer PN and Distributor/Distributor PN pairs from a Comma Separated Value (CSV) file.
- Component View Mover – moves parts from one component view to another view that is associated to the same table.
- Import – adds parts or updates existing part properties from a Comma Separated Value (CSV) file.
- TMPPRTS Import – imports TMP part (TMPPRT) associations when migrating data from a non-CIP CIS database into your CIP/CIS database. This is required to migrate existing and converted TMP parts and will allow them to be properly associated in CIS Part Manager.

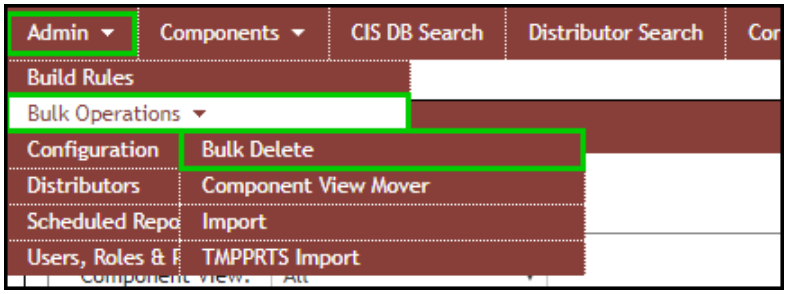
3.4.1 Bulk Delete

The Bulk Delete feature allows a list of parts to be deleted from a Comma Separated Value (CSV) file. In CIP, a company part number (component PN, PART_NUMBER) can have zero-to-many child Manufacturer/Manufacturer PN (MFR/MFR PN) associations. Each of the Manufacturer/Manufacturer PN pairs can have zero-to-many child Distributor/Distributor PN (Dist/Dist PN) associations. Bulk deletion allows you to map these fields to determine what will be deleted in bulk. Component PN is always required when using Bulk Delete.

After the deletion is complete, you are not able to undo database deletions. Back up your database to ensure you are able to restore to the state prior to deletion, if needed.

Note: Backing up your database may require assistance from your IT or your DBA (database administrator).

Bulk Delete can be accessed from **Admin** > **Bulk Operations** > **Bulk Delete.**



Admin > Bulk Operations > Bulk Delete

Configure for Deletion explains how to:

- Select and upload your CSV file
- Map fields from CSV to CIP

Delete Parts explains how to:

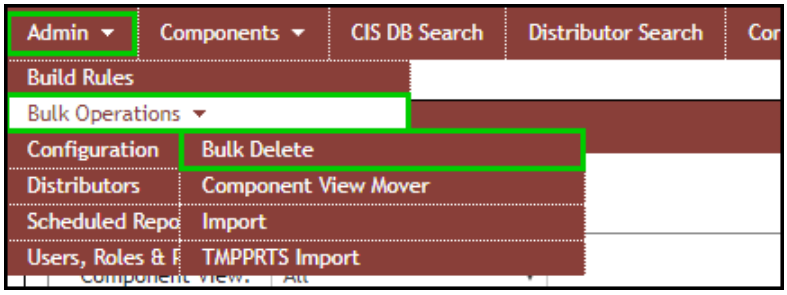
- Preview and simulate the impact of part deletion
- Delete parts from your CIS/CIP database

When using Bulk Delete, it's important to know how to properly specify what you are trying to delete.

- **Component PN** – Delete the specified component PN and ALL associated child MFR/MFR PN and Dist/Dist PN pairs.
- **Component PN and MFR/MFR PN** – Delete only the specified MFR/MFR PN associations from the component PN, along with ALL MFR/MFR PN child Dist/Dist PN associations.
- **Component PN, MFR/MFR PN, and Dist/Dist PN** – Delete only the specified Dist/Dist PN associations from the MFR/MFR PN.

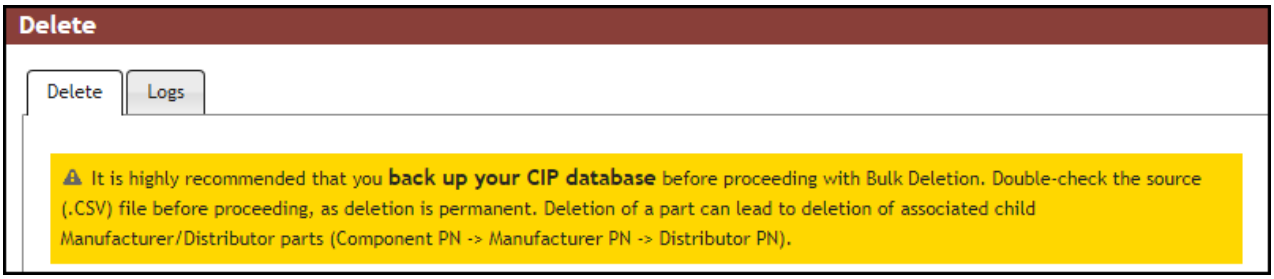
3.4.1.1 Configure for Deletion

The bulk delete process begins with the selection of the **Admin > Bulk Operations > Bulk Delete** menu. Each time you select the menu, you are required to verify part configuration before you can simulate and delete parts. This gives you the opportunity to review and update part mappings when fields have changed.



Admin > Bulk Operations > Bulk Delete

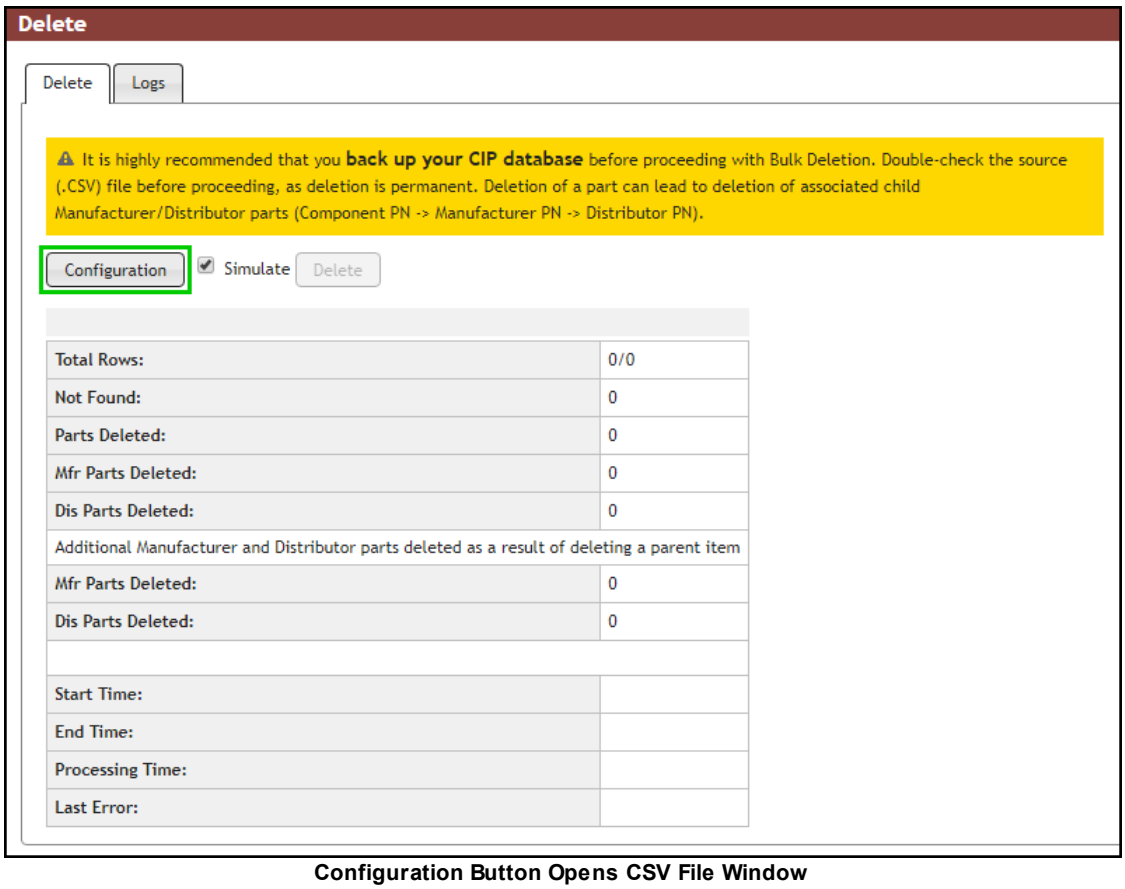
A warning shows immediately, informing you that deletion is permanent and advising you to back up your database before proceeding.



Bulk Delete Warning Message

To configure part data from CSV to CIP

1. Select the **Admin** > **Bulk Operations** > **Bulk Delete** menu.
2. Click the **Configuration** button.



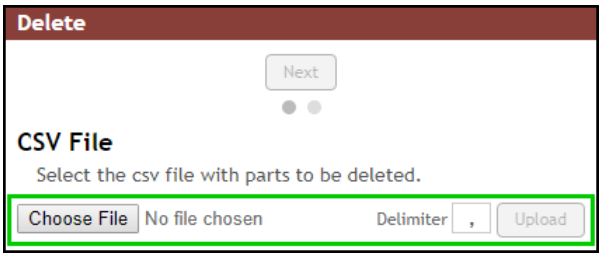
Configuration Button Opens CSV File Window

If for some reason the bulk delete was interrupted by unforeseen activity (e.g. database restart) or the deletion stalls at the same state, the **Configuration** button will be disabled and will be enabled after 30 minutes.

3. Click the **Choose File** or **Browse** button (depending on your browser) to select the .CSV file you want to upload.

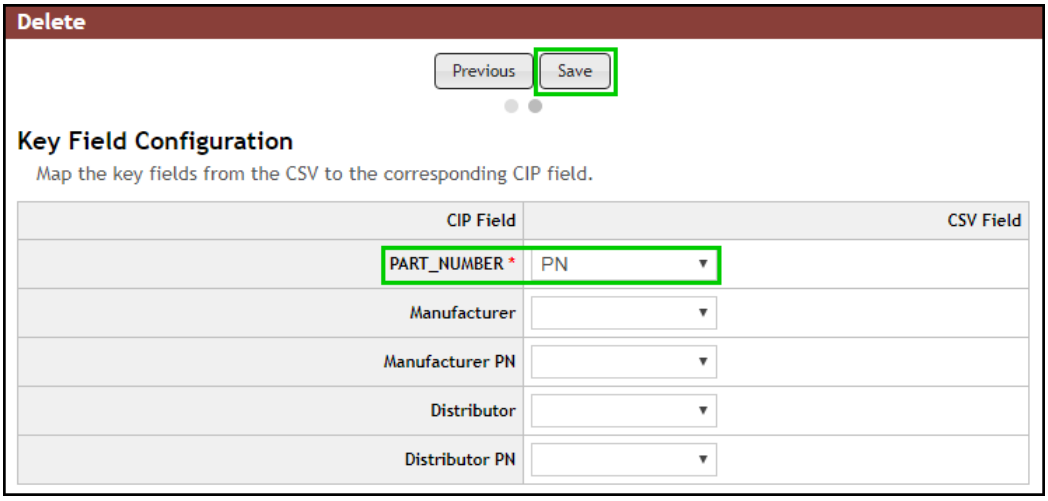
Note: The CSV file must be a valid CSV file without duplicate column headers. Extra columns of data without headings are considered duplicate headings.

4. Verify that the delimiter selected by default matches the delimiter of your file. Enter another delimiter if needed.
5. Click the **Upload** button. If successful, the Key Field Configuration screen will appear when the upload process is complete.

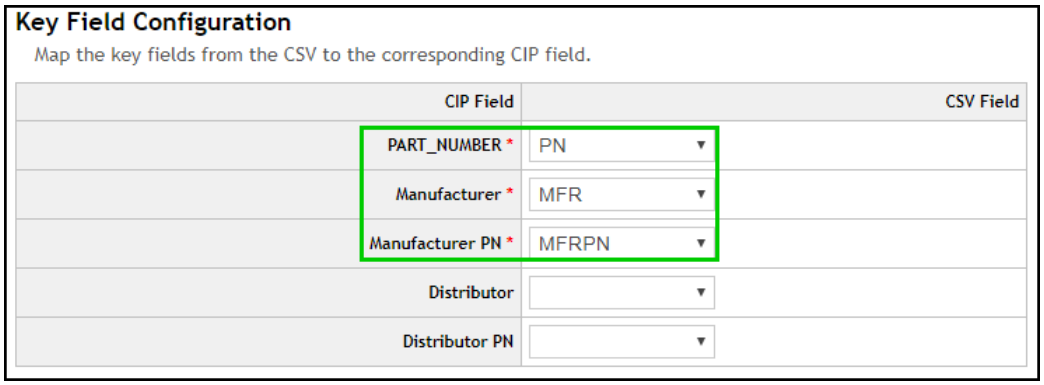


Choose File, Delimiter, and Upload

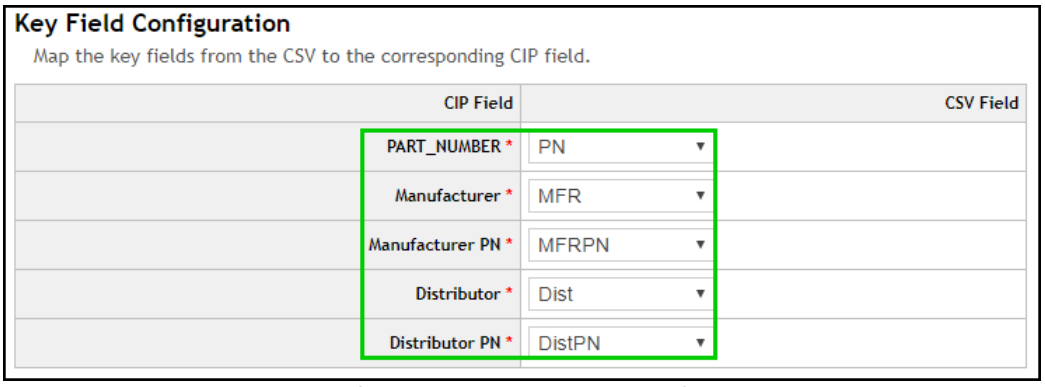
6. The Key Field Configuration screen shows the CIP fields and the .CSV fields of your uploaded file side-by-side to help you map the key fields. Select desired Import Fields from your uploaded .CSV file to map them to the CIP fields.
   - **PART_NUMBER** – This is the company part number (component PN) field. This field is a required field that must be mapped.
   - **Manufacturer/Manufacturer PN** – These fields identify the **manufacturer name** and **manufacture part number**, only required when you want to delete specific Manufacturer/Manufacturer PN associations from a component PN. Once you specify Manufacturer, Manufacturer PN becomes required, and vice versa.
   - **Distributor/Distributor PN** – These fields identify the **distributor name** and **distributor part number**, only required when you want to delete specific Distributor/Distributor PN associations from a specific Manufacturer/Manufacturer PN. Once you specify Distributor, Distributor PN becomes required, and vice versa. In addition, Manufacturer/Manufacturer PN becomes required.
7. Click the **Save** button to complete configuration and take you back to the Delete tab's summary screen. You are now ready to Delete Parts.



Delete the specified component PN and ALL associated child MFR/MFR PN and Dist/Dist PN pairs.



Delete only the specified MFR/MFR PN associations from the component PN, along with ALL MFR/MFR PN child Dist/Dist PN associations.



Delete only the specified Dist/Dist PN associations from the MFR/MFR PN.

Import File Format

Ensure your .CSV file satisfies the following formatting conventions:

- The import file must be in CSV format. Excel can be used to generate CSV files. After creating your file, you need to save the file as a .CSV file.
- The first line of the file must contain the field names for each column. If a title is in the first few lines of the file, you will need to remove those lines first. The field name for each column must be unique.
- There must be a column for the component PN (PART_NUMBER). Parts without a part number will not be deleted and will be considered Not Found. Manufacturer, Manufacturer PN, Distributor, and Distributor PN are optional columns, only required when you want to delete specific associations to a component PN.
- The CSV file must not have any duplicate column headers. This includes duplicate blank columns with blank headings.
- All rows within the CSV file should have the same number of columns.
- Characters in the CSV file must be UTF-8 encoded to avoiding encoding warnings.

Warning about using Excel

Older versions of Excel, when used to create or edit .CSV, have caused problems with creating files that are not well-formed. When this occurs, you will either need to manually fix the file or use a later version of Excel.

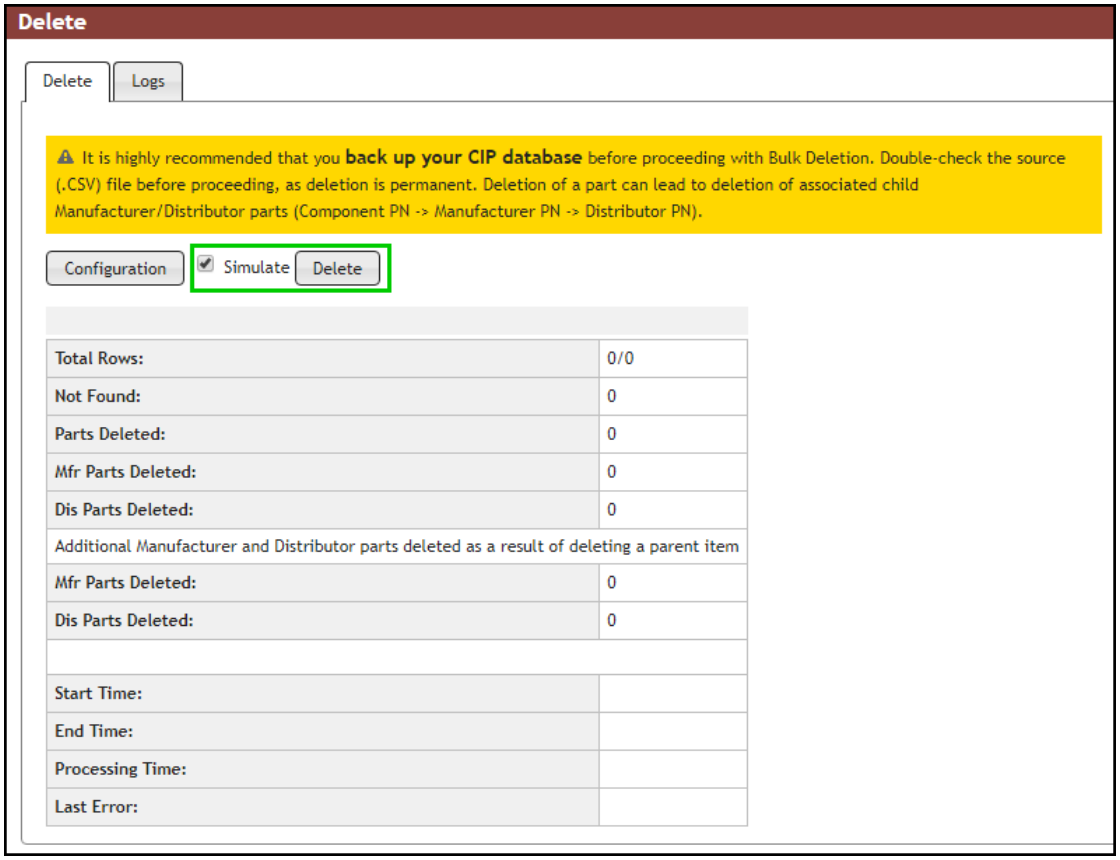
3.4.1.2 Delete Parts

After you configure your file for deletion, you can review the log file to preview a description of changes before you delete your parts from the CIP database. The preview functionality is enabled when the **Simulate** check box is selected.

The **Simulate** check box allows you to verify actions before they are performed on the database. Each time you click the **Delete** button a deletion or simulated deletion will occur and a log file will be created. The log file name corresponding to the **Simulate** option contains a date-time code and the **Simulate** text in the file name. The log file name without the **Simulate** option contains a date-time code and the **Delete** text in the file name. The Component PNs, Manufacturer/Manufacture PNs, and Distributor/Distributor PNs deleted (or to be deleted in the case of simulation) are recorded in the log file.

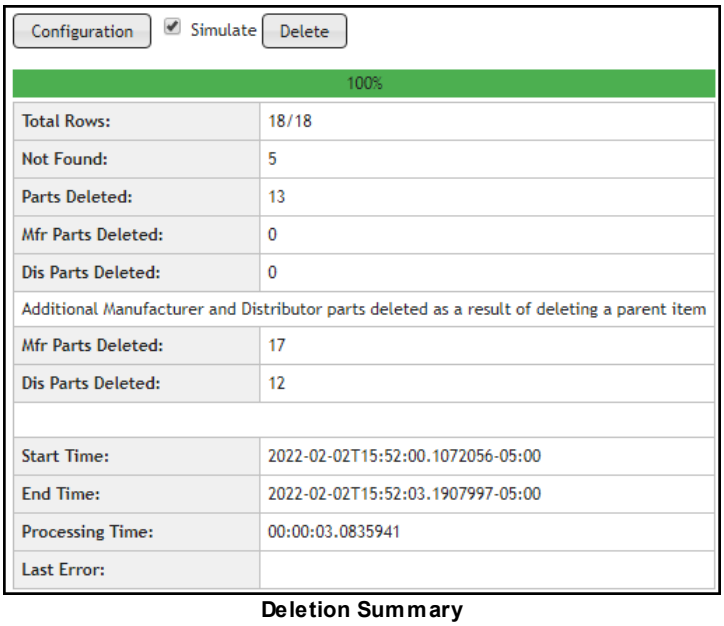
The summary section below the Configuration and Delete buttons shows details like Total Rows, Not Found, Parts Deleted, Mfr Parts Deleted, etc. Additional details can be found by reviewing the log files shown in the **Logs** tab.

1. Click the **Simulate** check box to enable simulation mode and click the **Delete** button to continue.



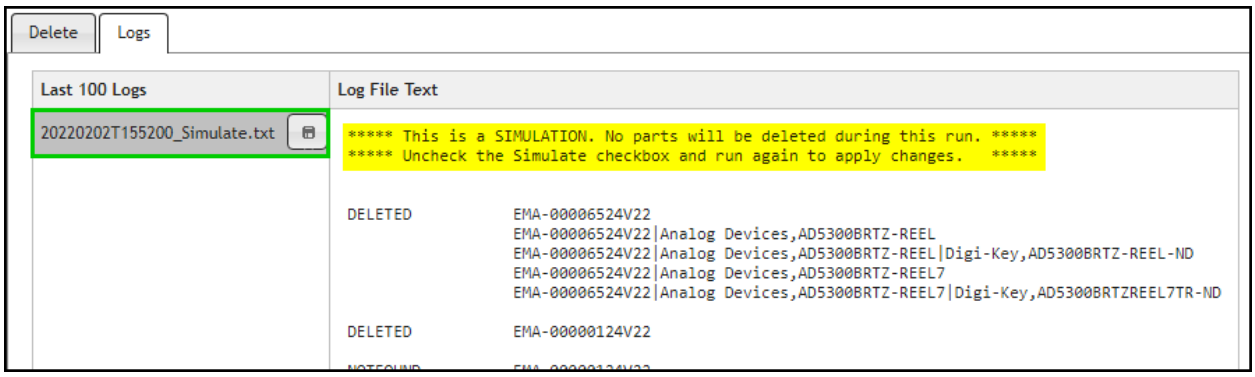
Simulate the Deletion

2. The summary will be updated until the simulation is completed. No deletions will occur during simulation.

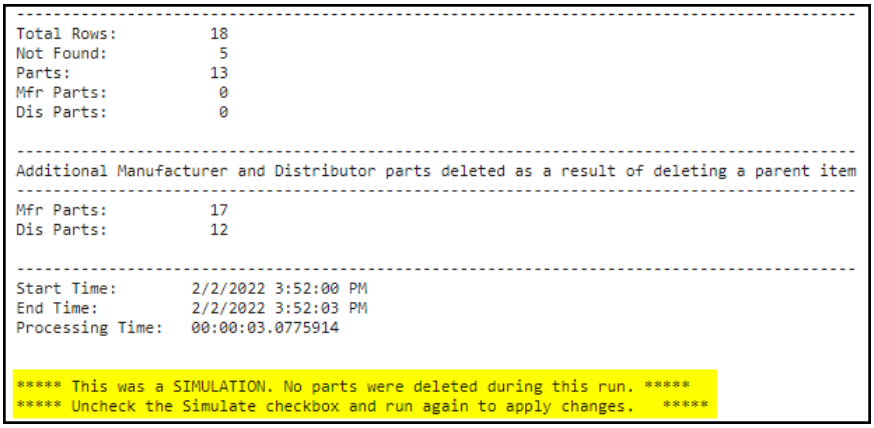


Deletion Summary

3. Click the **Logs** tab to view the list of completed logs. Simulation log files will have the **Simulate** text while deletion logs will have the **Delete** text. Click an individual log file name to view it. Click the Download button to save the file. Notice that logs with the **Simulate** text in the file name also have the simulation message at the top and bottom of the log file, as shown below.



Log File Selected, Displaying Simulation Message at the Top of Log

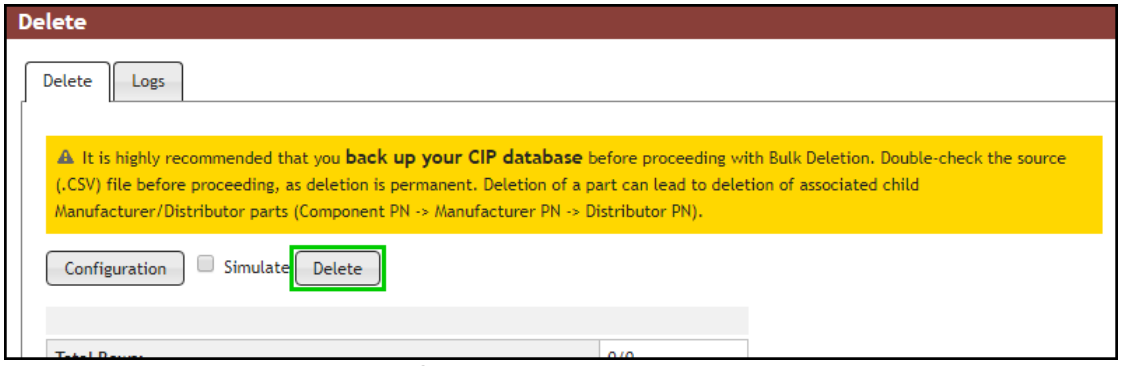


Summary and Simulation Message at the End of Log

4. Review the log file and confirm the desired changes. When ready, click the **Delete** tab.

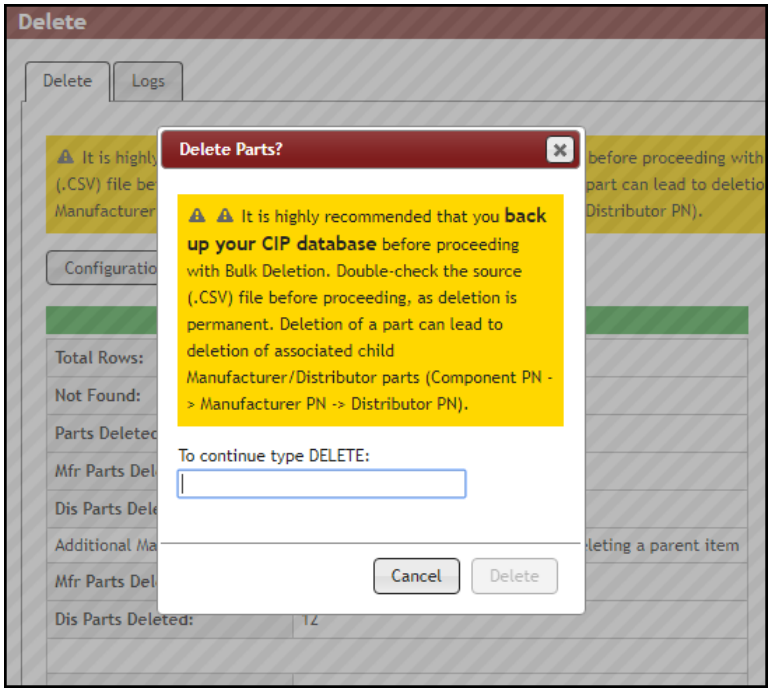
   Keep in mind that once parts are deleted from the database, the only way to recover is to restore a previous database backup. Re-importing the deleted parts would bring the parts back, but all parametric field values would be lost unless you also saved a file to import those. Reviewing the log file simulation before deleting parts from your database helps minimize problems associated with accidental deletion.

5. Uncheck the **Simulate** check box and click **Delete**.



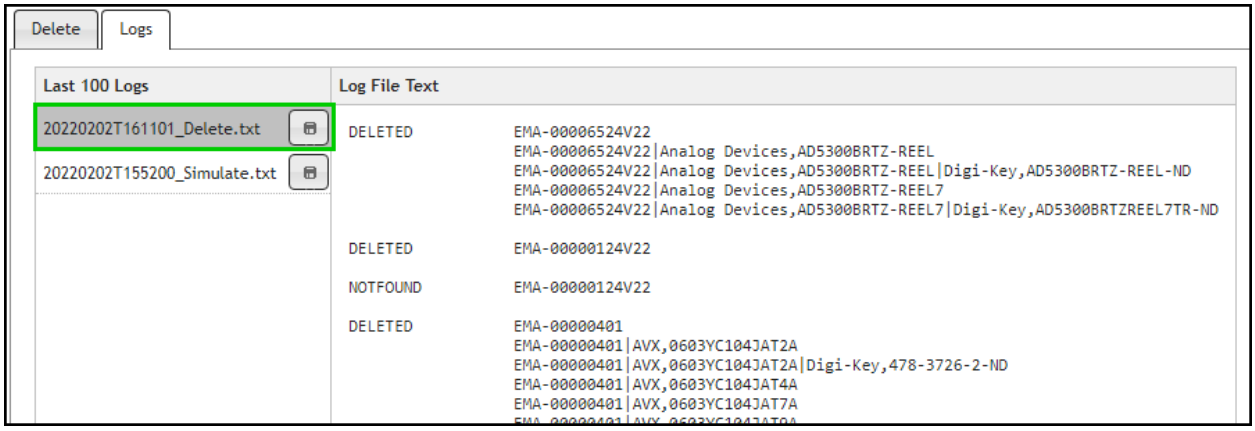
Uncheck Simulate and Proceed with Deletion

6. A **Delete Parts?** confirmation window appears. Enter the word **DELETE** in ALL CAPS. The **Delete** button will be disabled until you do so. Click **Delete**. The summary will be updated until the deletion is completed.

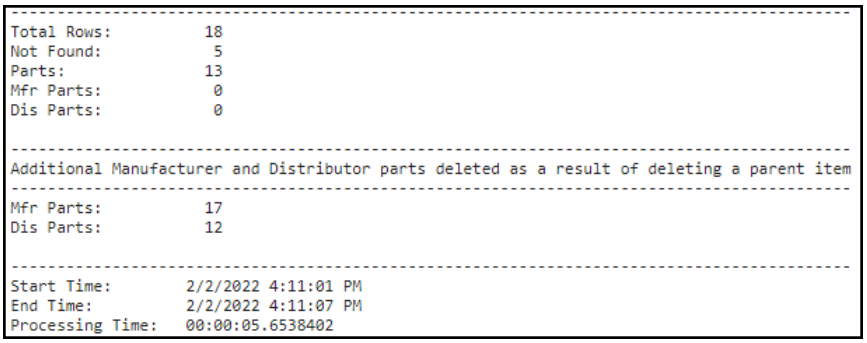


Delete Parts Confirmation Pop-up Window

7. Click the **Logs** tab to view the list of completed logs. Simulation log files will have the **Simulate** text in the file name, while deletion logs will have the **Delete** text. Click an individual log file name to view it. Click the Download button to save the file. Notice that logs with the **Delete** text in the file name do not have a simulation message at the top and bottom of the log file, as shown below.



Log File Selected

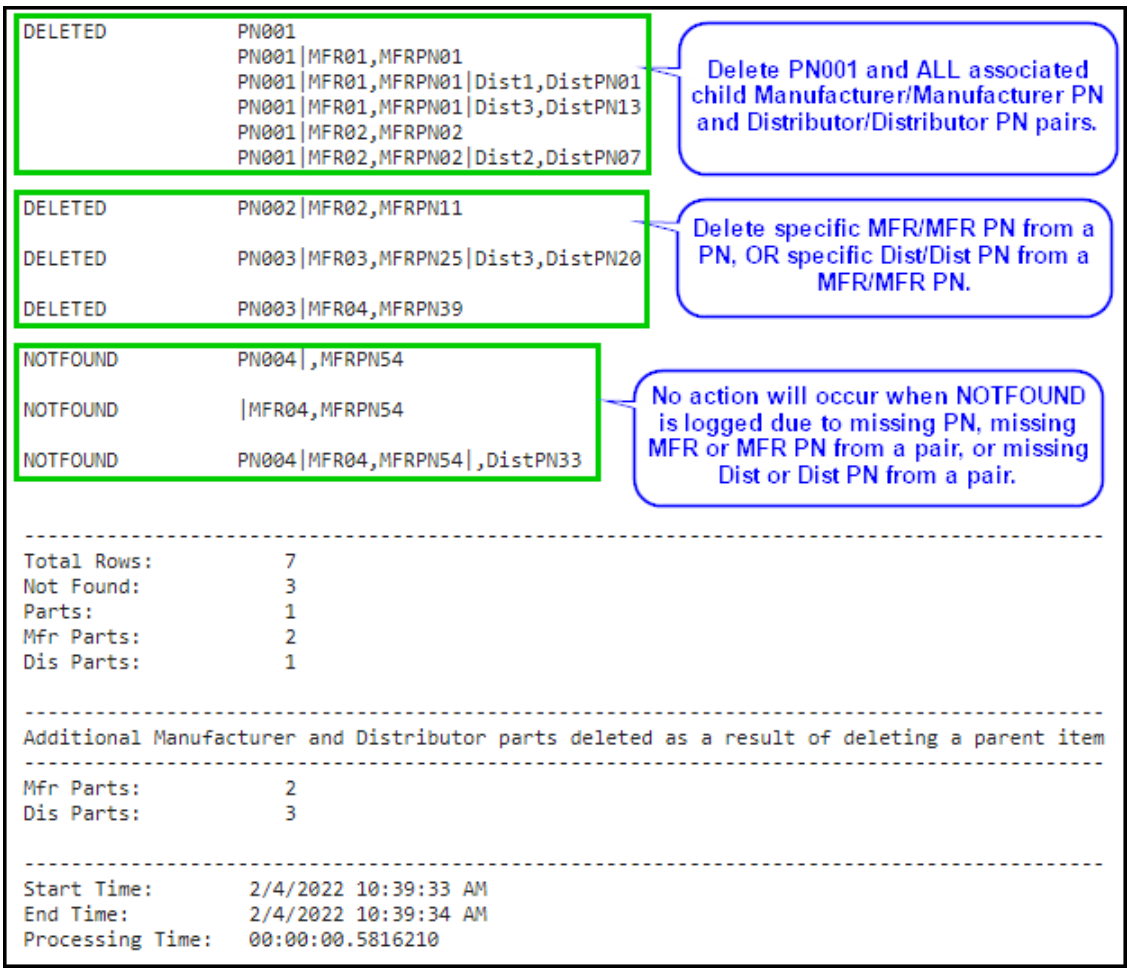


Summary at the End of Log

Here's an example of what you can specify. The column header names in your CSV file are up to you, since you'll be mapping those when you Configure for Deletion.

PN	MFR	MFR PN	Dist	Dist PN	Expected Behavior
PN001					Delete PN001 and ALL associated child Manufacturer/Manufacturer PN and Distributor/Distributor PN pairs.
PN002	MFR02	MFRPN11			Delete MFR02/MFRPN11 association from PN002, along with ALL child Distributor/Distributor PN associations on MFR02/MFRPN11.
PN003	MFR03	MFRPN25	Dist3	DistPN20	Delete Dist3/DistPN20 association from MFR03/MFRPN25.
PN003	MFR04	MFRPN39			Delete MFR04/MFRPN39 association from PN003, along with ALL child Distributor/Distributor PN associations on MFR04/MFRPN39.
PN004		MFRPN54			No action, MFR not found.
	MFR04	MFRPN54			No action, PN not found.
PN004	MFR04	MFRPN54		DistPN33	No action, Dist not found.

Below is the log file from the example above, showing how deletions are output in the log. A pipe (|) delimiter separates Component PN, MFR/MFR PN, and Dist/Dist PN. A comma (,) delimiter separates MFR and MFR PN pairs and Dist and Dist PN pairs. Each parent or child deletion is logged on a new line.



Import File Format

Ensure your .CSV file satisfies the following formatting conventions:

- The import file must be in CSV format. Excel can be used to generate CSV files. After creating your file, you need to save the file as a .CSV file.
- The first line of the file must contain the field names for each column. If a title is in the first few lines of the file, you will need to remove those lines first. The field name for each column must be unique.
- There must be a column for the component PN (PART_NUMBER). Parts without a part number will not be deleted and will be considered Not Found. Manufacturer, Manufacturer PN,

Distributor, and Distributor PN are optional columns, only required when you want to delete specific associations to a component PN.

- The CSV file must not have any duplicate column headers. This includes duplicate blank columns with blank headings.
- All rows within the CSV file should have the same number of columns.
- Characters in the CSV file must be UTF-8 encoded to avoiding encoding warnings.

Warning about using Excel

Older versions of Excel, when used to create or edit .CSV has caused problems with creating files that are not well-formed. When this occurs, you will either need to manually fix the file or use a later version of Excel.

Log files

Log files are accessible from the **Admin** > **Bulk Operations** > **Bulk Delete** > **Log** tab. Two types of log files may be generated, (Simulate and Delete). The file name of each log file consists of the date, separated by a "T" and the time, followed by "Simulate" or "Delete." For example, the file name of the log is based on one of the two naming conventions:

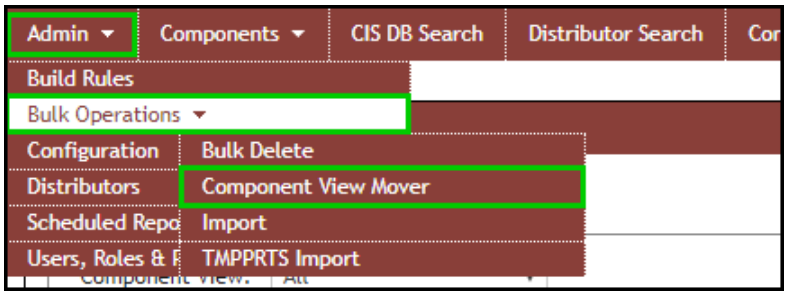
YYYYMMDDTHHMMSS_Simulate.txt – generated each time you run Delete with the Simulate check box selected.

YYYYMMDDTHHMMSS_Delete.txt – generated each time you run Delete without the Simulate check box selected, where:

YYYY = year
MM = month
DD = day
T - separates the date and time of log generation.
HH = hour
MM = minutes
SS = seconds

The log files record information for potential or actual deletions, warnings, and errors. Warnings are generated for parts that are not processed. This is often caused by improperly configured field mappings.

3.4.2 Component View Mover



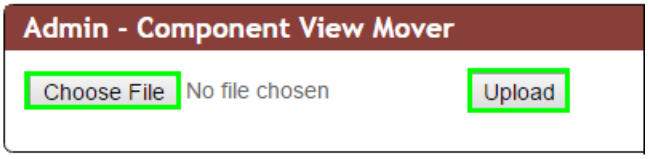
Admin > Bulk Operations > Component View Mover

The Component View Mover can be used to move parts in bulk to a different Component View of the same table. Once you create a Component View, you can move selected parts from an originating table to the new component view.

Note: Users who are granted the role to perform Bulk Operations (**Admin** > **User Roles & Permissions** > **Roles** tab) have permission to move components in bulk.

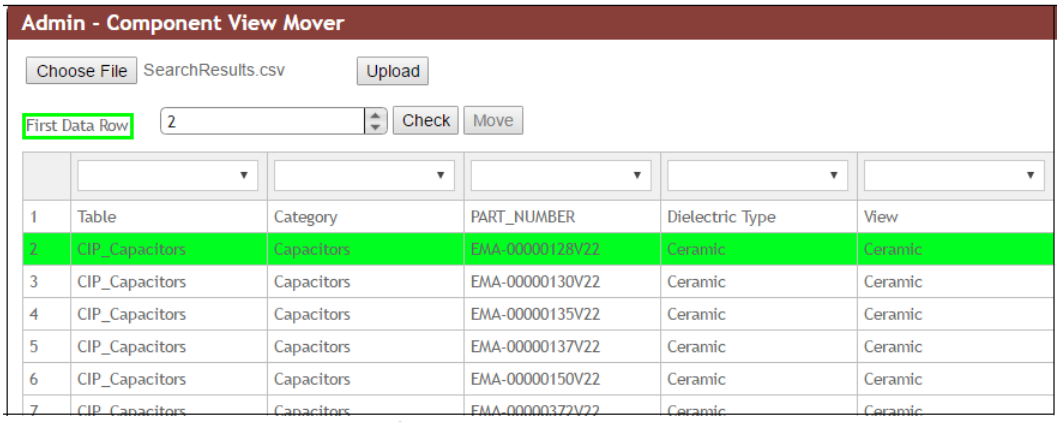
To begin, create a .CSV file that includes the parts that you want to move. You can do this by exporting search results.

1. Open the exported .CSV file. Add or modify a column to contain the name of the Component View for the parts you want to move. Save your .CSV file.
2. Click **Admin > Bulk Operations > Component View Mover** to access the Component View Mover tool.
3. Click **Choose File**, browse to the saved .CSV file you created, then click **Upload**.



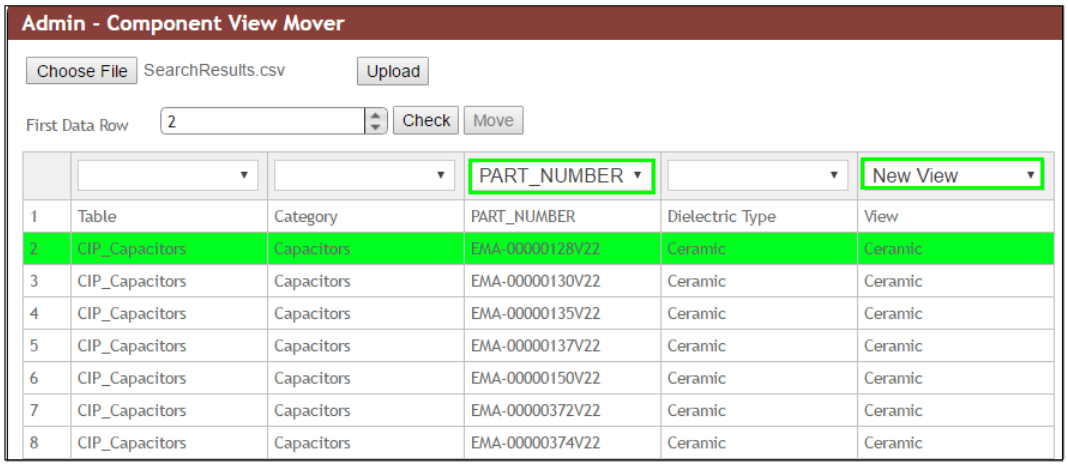
Select .CSV List of Parts To Be Moved

4. Use the First Data Row field to select the first row of data below the heading row. The first row to be included is highlighted in green as shown in the screen image below.



Select the First Data Row

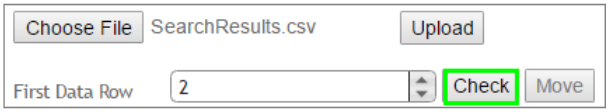
5. Select the columns that contain part number information and the Component View name, by using the drop-down menus above the column headings.



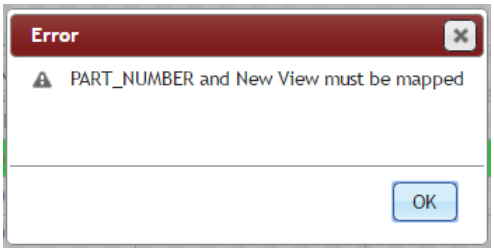
			PART_NUMBER		New View
1	Table	Category	PART_NUMBER	Dielectric Type	View
2	CIP_Capacitors	Capacitors	EMA-00000128V22	Ceramic	Ceramic
3	CIP_Capacitors	Capacitors	EMA-00000130V22	Ceramic	Ceramic
4	CIP_Capacitors	Capacitors	EMA-00000135V22	Ceramic	Ceramic
5	CIP_Capacitors	Capacitors	EMA-00000137V22	Ceramic	Ceramic
6	CIP_Capacitors	Capacitors	EMA-00000150V22	Ceramic	Ceramic
7	CIP_Capacitors	Capacitors	EMA-00000372V22	Ceramic	Ceramic
8	CIP_Capacitors	Capacitors	EMA-00000374V22	Ceramic	Ceramic

Map PART_NUMBER Column

6. To verify that the information is properly selected, click the **Check** button.



If one or both of the required columns is improperly selected, the following error message opens:

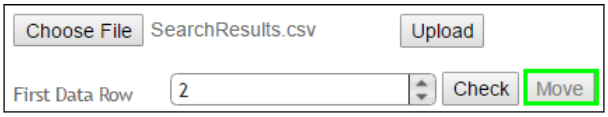


Mapping Error Message

If all information is entered and selected properly, "Validation Succeeded" displays.

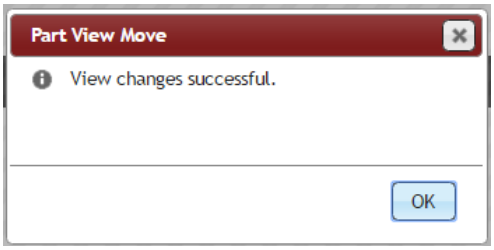
Mapping Validation Message

7. Click **Move** to move the parts to the new Component View.



Move Button to Reconfigure Component View

Once the parts are successfully moved, the following message displays:



Confirmation Message

Note: If you want to move a single part to an alternate view, see topic, Moving a Part to a Different View.

3.4.3 Import

The Import feature loads parts and properties from a Comma Separated Value (CSV) file to your CIP/CIS database. Although usage of this feature is available when you open CIP from Capture, when you are importing a large number of parts you may prefer to open CIP from your browser to more quickly process part information.

Configure for Import explains how to:

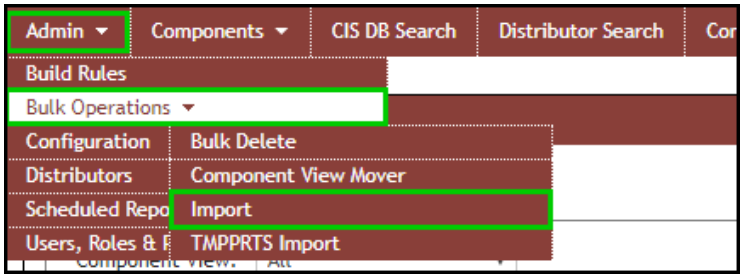
- Select and upload your CSV file
- Map fields from CSV to CIP

Add Import Data explains how to:

- Preview and simulate the impact of a data import
- Add parts and update your CIS/CIP database

After the import is complete, you are not able to undo database updates. If you are making numerous updates, be sure to back up your database to ensure you are able to restore your pre-update state. **Note**: Backing up your database may require assistance from your IT or your DBA (database administrator).

As shown in the screen image that follows, access to Import is provided from **Admin** > **Bulk Operations** > **Import**.. Screens that display guide you as you configure, simulate, and import data.



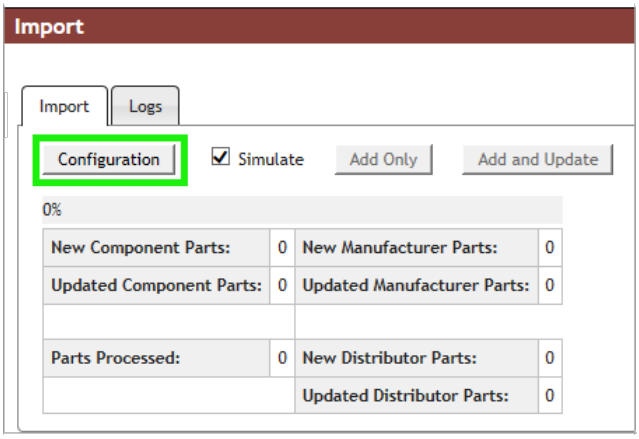
Admin > Bulk Operations > Import

3.4.3.1 Configure for Import

The import process begins with the selection of the **Admin > Bulk Operations > Import** menu. Each time you select the Import menu, you are required to verify part configuration before you can simulate, add, and update parts. This gives you the opportunity to review and update part mappings when part properties may have changed.

To configure part data from CSV to CIP

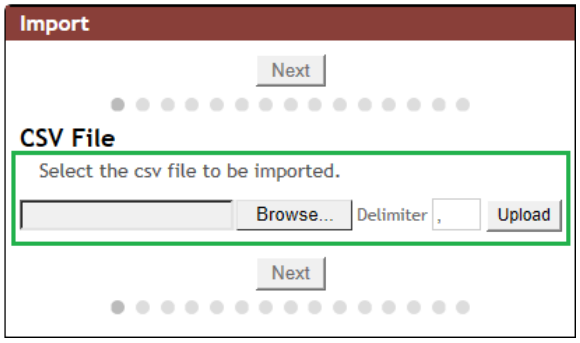
1. Select the **Admin** > **Bulk Operations** > **Import** menu.
2. Click the **Configuration** button.



Configuration Button Opens CSV File Window

If for some reason the import was interrupted by unforeseen activity (e.g. database restart) or the import stalls at the same state, the **Configuration** button will be disabled and will be enabled after 30 minutes.

3. Click the **Choose File** or **Browse** button (depending on your browser) to select the .CSV file you want to import.



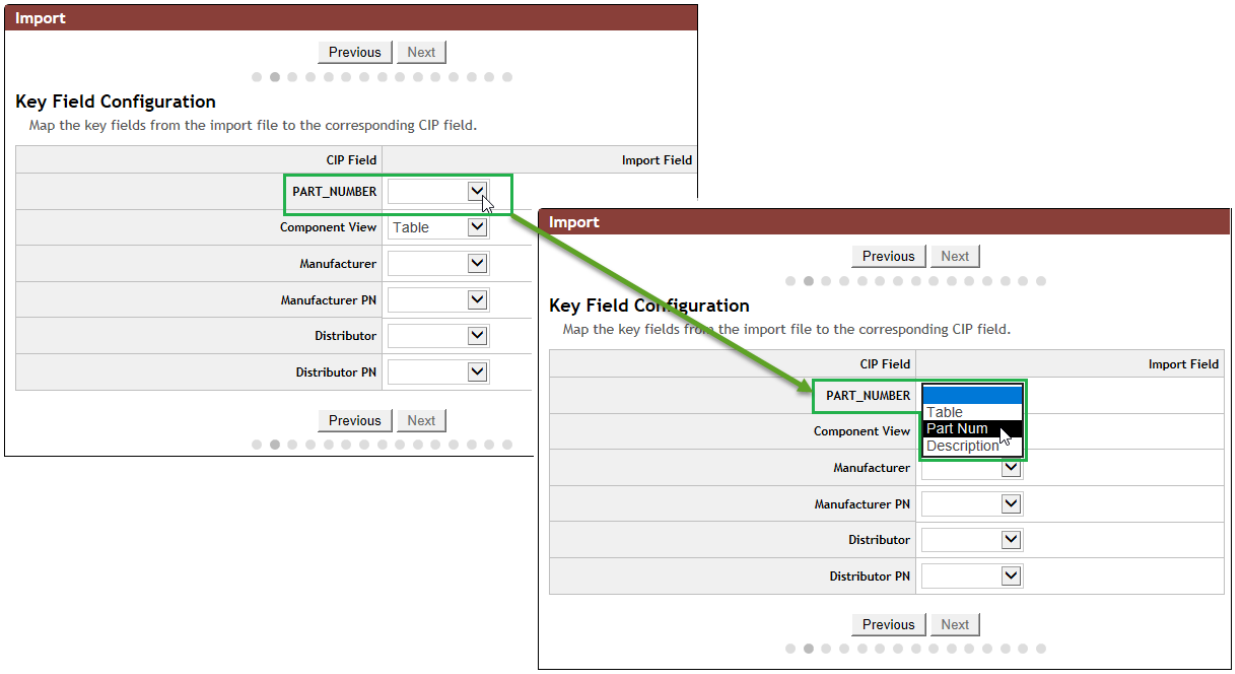
Selecting and Uploading CSV File

Note: The CSV file must be a valid CSV file without duplicate column headers. Extra columns of data without headings are considered duplicate headings. Non-ANSI characters in a ANSI formatted CSV file will not import correctly. CSV files containing UTF-8 characters and formatted as UTF-8 will import as the UTF-8 characters. When using Excel to view or edit a CSV file, you will need to ensure that you import the data in the correct format.

4. Verify that the delimiter selected by default matches the delimiter of your file. Enter another delimiter if needed.
5. Click the **Upload** button. When the upload process is complete, the word "Success" displays to the right of the Upload button.
6. Click the **Next** button to open the Key Field Configuration screen. This screen shows the CIP fields and the .CSV fields of your uploaded file side-by-side to help you map the key fields.

7. Click the selection arrow of each Import Field to map CIP fields to the field of your uploaded .CSV file.

   The image that follows, for example, shows the CIP Field PART_NUMBER being mapped to the Part Num field of your CSV file.

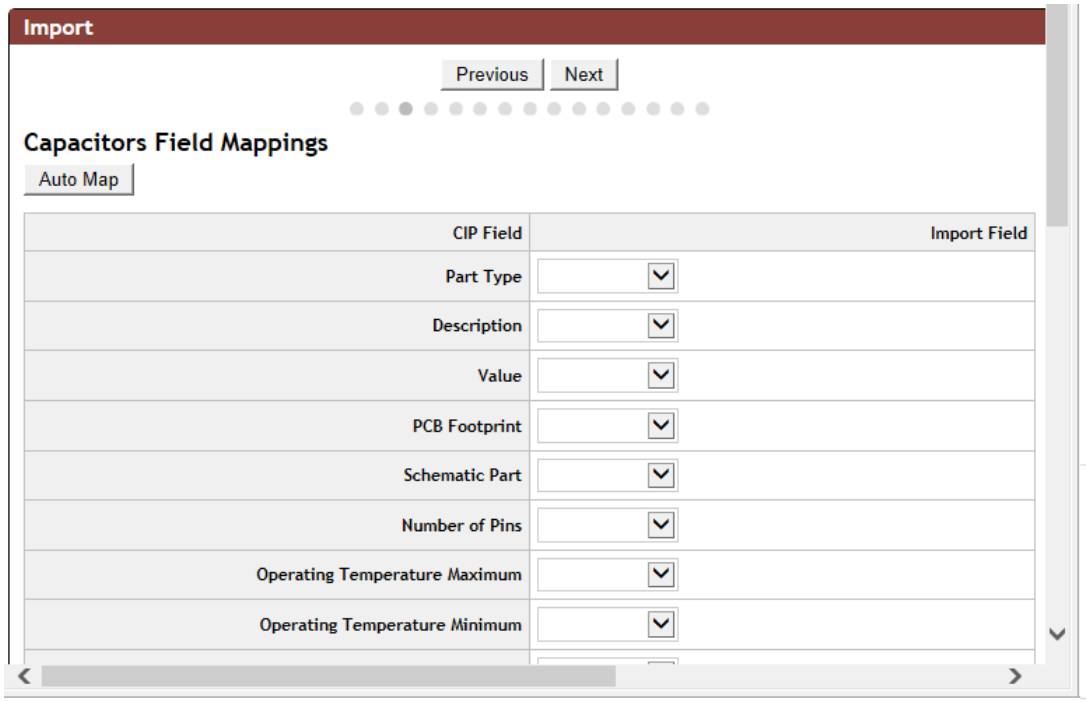


Sample Key Field Configuration Screen
Mapping the CIP PART_NUMBER field to the Part Num field

- **Part Number** – This is the company part number field. This field is a required field and must be filled in.
- **Component View** – This is the field in your CSV file that identifies the table for which the part is to be imported. This is a required field.
- **Manufacturer** – This is the field in your CSV file that identifies the name of the manufacturer. This is an optional field. To successfully import manufacturer parts, both the "Manufacturer" field and "Manufacturer PN" field must be mapped.
- **Manufacturer PN** – This is the field in your CSV file that identifies the manufacturer part number. This is an optional field. To successfully import manufacturer parts, both the "Manufacturer" field and "Manufacturer PN" field must be mapped.
- **Distributor** – This is the field in your CSV file that identifies the name of the distributor. This is an optional field. To successfully import a distributor part, both the "Distributor" field and "Distributor PN" field need to be mapped.

- **Distributor PN** – This is the field in your CSV file that identifies the distributor part number. This is an optional field. To successfully import a distributor part, both the "Distributor" field and "Distributor PN" field need to be mapped.

7. Click **Next** to proceed to the Capacitors Fields Mappings page.



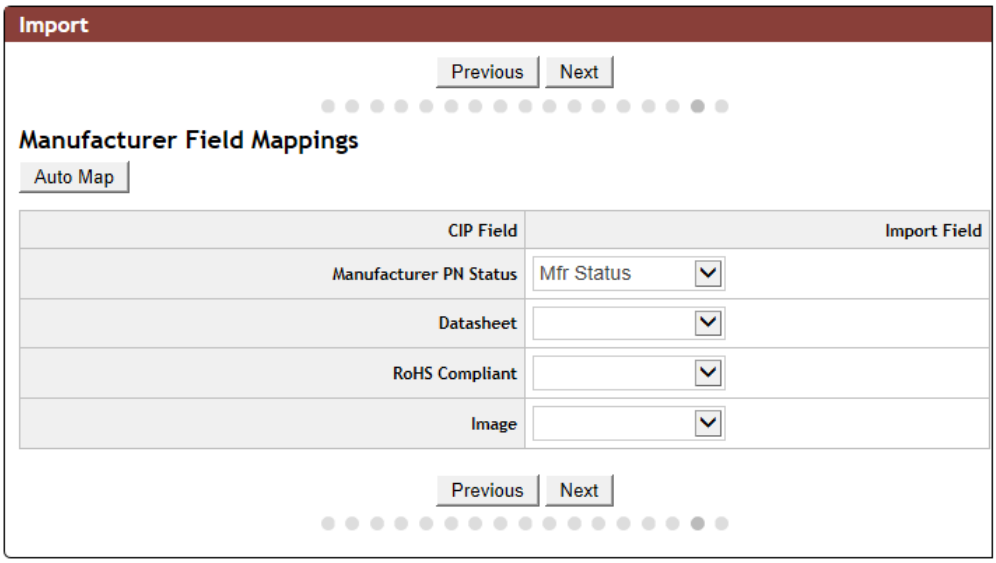
Component Field Mappings Screen

Note: A separate "Field Mapping" page is provided for each component view. To successfully import parts into a component view, you need to map one or more fields in the Field Mappings page for that component view. The series of gray dots below the Previous and Next buttons indicate the current or active page as you progress through the pages.

8. Click the **Auto Map** button to automatically map CIP field names that are an exact match to the fields of your uploaded CSV file. Each field may optionally be mapped manually.

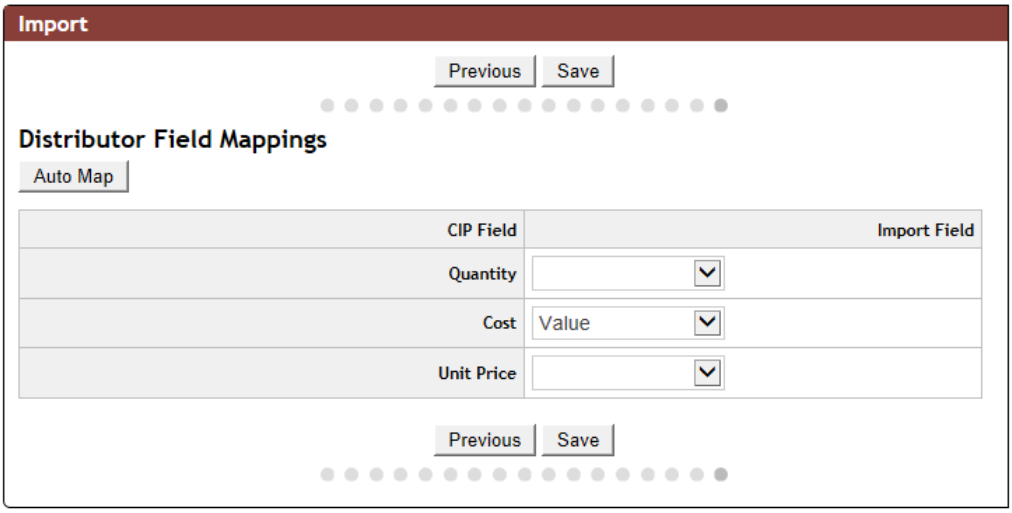
   Be sure to verify all view configurations each time you go through this process. Changes to the import file may impact parts imported. Review mapped fields and edit as appropriate.

9. Continue through all configured component views. If the Manufacturer Name and Manufacturer PN are configured in step #6, then Manufacturer Field Mappings screen opens. Map manufacturer fields using the same instructions in step #8.



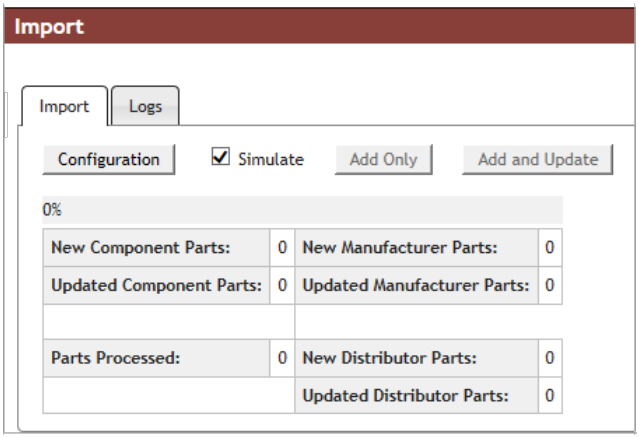
Manufacturer Fields Mappings Screen
Only displays when Manufacturer field mapped in Key Field Configuration screen

10. If the Distributor Name and Distributor PN are configured in step #6, then the Distributor Field Mappings screen opens. Map the distributor fields using the same instructions provided in step #8.



Distributor Fields Mappings Screen
Only displays when Distributor field mapped in Key Field Configuration screen

11. Click the **Save** button that is included on the last configuration mapping page. A summary screen displays that shows the number of component parts processed, updated, and imported. Because you have only completed configuration mappings, each section of the summary screen is zero.



The last saved configuration that is applicable to the newly uploaded CSV file will pre-populate each time you revisit the Field Mappings pages.

3.4.3.2 Add Import Data

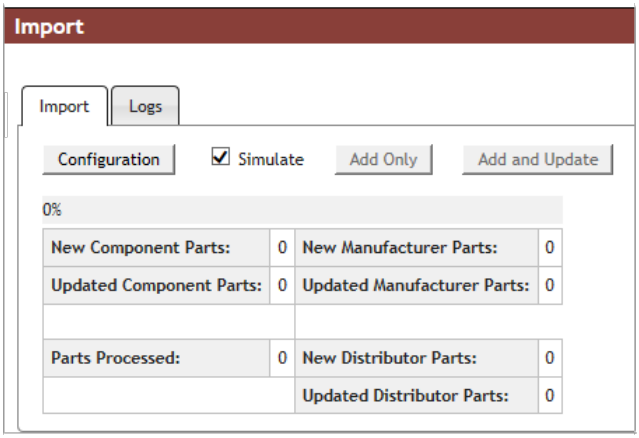
After you configure your file for import, you can review the log file to preview a description of changes before you import your parts into the CIP database. The preview functionality is enabled when the **Simulate** check box is selected.

Whether you are previewing or performing an actual import, you have the following import options:

- Add new parts without updating existing parts (**Add Only** button) - The **Add Only** button adds new parts and new manufacturer parts. Parts that already exist in the database remain unaltered. Field data for existing parts in the CSV will not be used in the import.
- Add new parts and update existing parts (**Add and Update** button) - The **Add and Update** button adds new parts and updates attributes associated to parts already in the database.

Each time you click the **Add Only** or **Add and Update** button a log file is created. The log file name corresponding to the **Simulate** option contains a date-time code and the text "Simulate". The log file name without the **Simulate** option contains a date-time code and the text "Import". Information presented in the log describes changes that correspond to the **Add Only** or **Add and Update** action.

The **Simulate** check box allows you to verify actions before they are performed on the database. A summary number of new parts added, the number of existing parts updated, the number of new manufacturer parts added, the number of existing manufacturer parts updated, the number of new distributor parts added, the number of existing distributor parts updated and the total number of parts processed is included in the log file. Summary information is provided in the Import screen.



Keep in mind that once an update to the database is performed, the only way to recover is to restore a previous database backup. Reviewing the log file simulation before updating your database helps minimize problems and the unintentional import of wrong data.

Import File Format

Ensure your .CSV file satisfies the following formatting conventions:

- The import file must be in CSV format. Excel can be used to generate CSV files. After creating your file, you need to save the file as a .CSV file.
- The first line of the file must contain the field names for each column. If a title is in the first few lines of the file, you will need to remove those lines first. The field name for each column must be unique.
- There must be a column for the part number and a column for the part category. Each part in the file must have a part number and a part category. Parts without a part number or part category are not imported. Manufacturer, Manufacturer PN, Distributor, and Distributor PN are optional columns.
- The CSV file must not have any duplicate column headers. This includes duplicate blank columns with blank headings.
- All rows within the CSV file should have the same number of columns.
- Characters in the CSV file must be UTF-8 encoded to avoiding encoding warnings.

Required Values

The PART NUMBER may be in any format. However, values for the part category field must match the CIP view names configured using Admin > Configuration > Component Views tab. The capitalization of the letter case must also match. The following list shows the views from an out-of-the-box CIP installation.

- Capacitors
- Connectors
- Crystals and Oscillators
- Diodes

- ICs
- Inductors
- Mechanical
- Misc
- Relays
- Resistors
- Switches
- Transformers
- Transistors

Duplicate Parts

When a part is duplicated in the import file but contains different values, only one set of the data is imported. If the duplicate part has different manufacture or manufacturer part number, each of the manufacturer parts is added. In the following example, part PN0001 will be added once, but with only one of the two descriptions shown. Both manufacturer parts will be added and will be associated to PN0001.

Part Number	Category	Manufacturer	Manufacturer PN	Description
PN0001	Capacitors	VISHAY	293D336X9016B2TE3	CAP, 33 uF 10% 16 V 3528 SMD Tantalum
PN0001	Capacitors	AVX Corporation	TAJA336K006RNJ	CAP, 33 UF 10% 6.3V 3216-18 SMD Tantalum

When a part in the .CSV file is already in the database but has a Part Category mismatch from the part in the database, the part will not be update and a warning will be in the log file.

Different manufacturer Name or part Number from database

Manufacturer parts that have any differences in the manufacturer name or part number will be added. Manufacturer part data will only be updated when both manufacturer name and part number are an exact match. For example, when AVX is compared to AVX Corporation, it will be considered as a different part and will be added.

Warning about using Excel

Older versions of Excel, when used to create or edit .CSV, have caused problems with creating files that are not well-formed. When this occurs, you will either need to manually fix the file or use a later version of Excel.

Log files

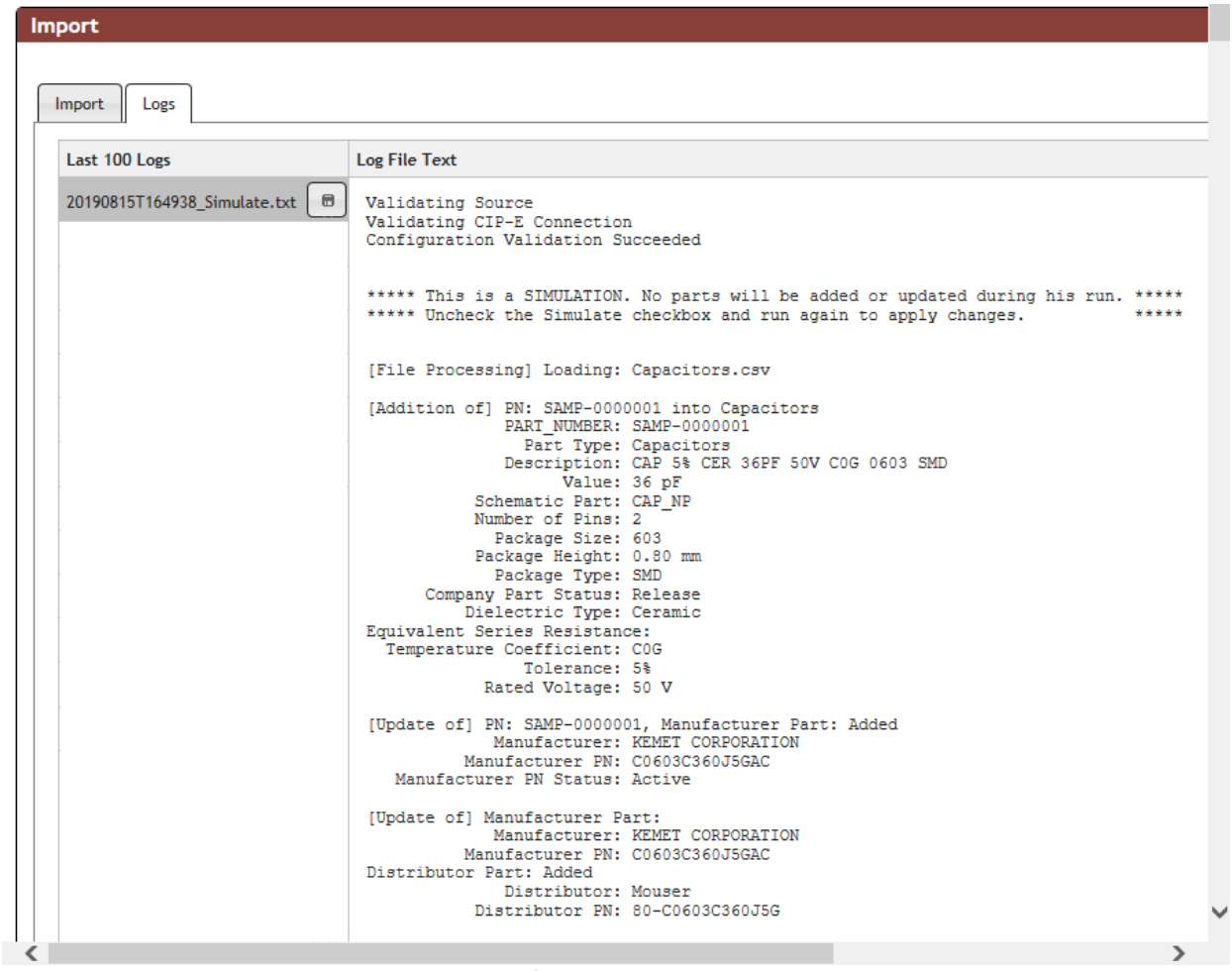
Log files are accessible from the **Admin** > **Bulk Operations** > **Import** > **Log** tab. Two types of log files may be generated, (Simulate and Import). The filename of each log file consists of the date, separated by a "T" and the time, followed by "Simulate" or "Import." For example, the file name of the log is based on one of the two naming conventions:

YYYYMMDDTHHMMSS_Simulate.txt – generated each time you run either **Add Only** or **Add and Update** import options with the Simulate check box selected.

YYYYMMDDTHHMMSS_Import.txt – generated each time you run without the Simulate check box selected where:

YYYY = year
MM = month
DD = day
T - separates the date and time of log generation.
HH = hour
MM = minutes
SS = seconds

The log files record information for potential or actual changes and list warnings and errors. Warnings are generated for parts that are not processed. This is often caused by improperly configured field mappings. Information is not logged when a part is missing a Part Number.



Sample Log File

A "Summary" of actions is located at the end of the log. The image that follows provides an example of the log summary.

```
--------------- Summary ---------------
            Warnings:      2
         Parts Added:     16
       Parts Updated:      0
     Mfr Parts Added:     16
   Mfr Parts Updated:      0
     Dis Parts Added:     12
   Dis Parts Updated:      0
# of Parts Processed:     18
          Start Time: 10/26/2018 9:55:12 AM
            End Time: 10/26/2018 9:55:13 AM
     Processing Time: 00:00:01.9218809
```

Sample Log Summary

Sample Warning

The number of warnings recorded in the log is stated in the Summary located at the bottom of the log. For example, the following log file shows two warnings. Categories must be named the same as your CIP views.

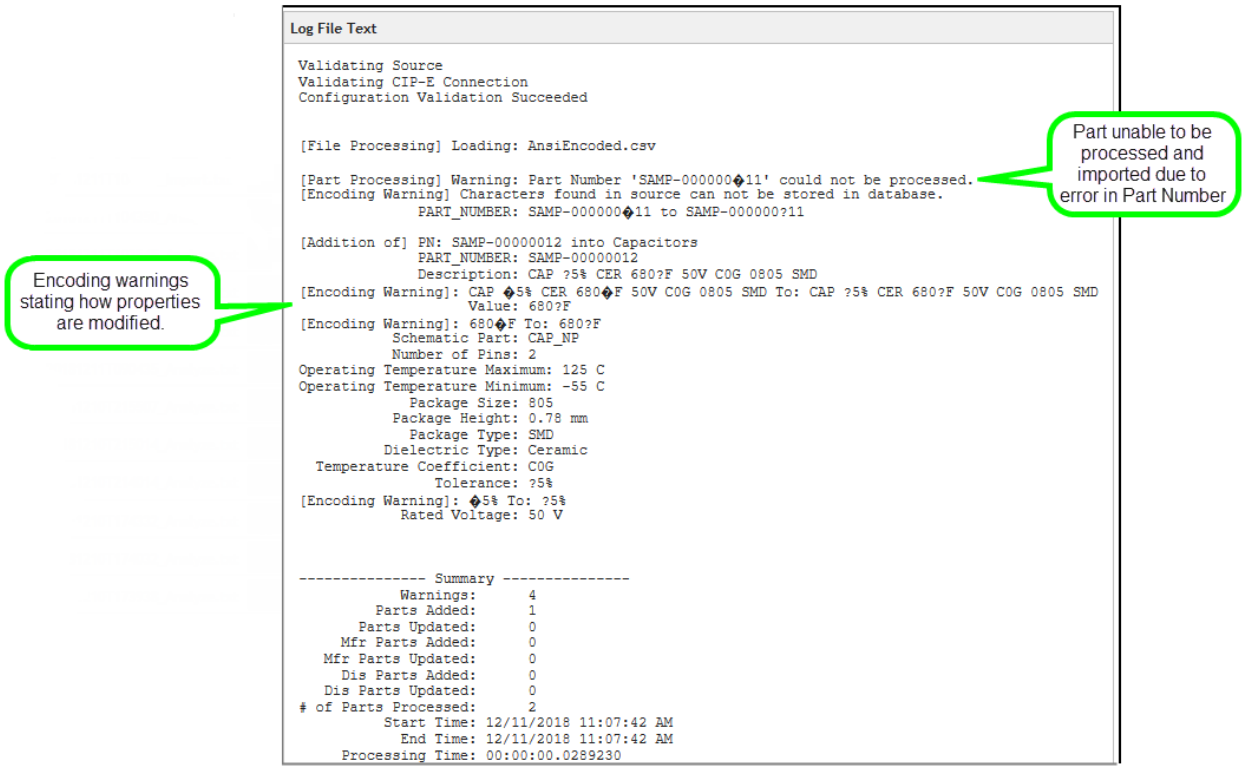
```
[Update of] PN: SAMP-0000015, Manufacturer Part: Added
            Manufacturer: VISHAY
         Manufacturer PN: 293D335X9016B2TE3
   Manufacturer PN Status: Active

[Part Processing] Warning: Part Number 'SAMP-0000016' could not be processed. No mapping found for category 'Cap
'.
[Part Processing] Warning: Part Number 'SAMP-0000017' could not be processed. No mapping found for category 'Cap


--------------- Summary ---------------
            Warnings:      2
         Parts Added:     16
       Parts Updated:      0
     Mfr Parts Added:     16
   Mfr Parts Updated:      0
     Dis Parts Added:     12
   Dis Parts Updated:      0
# of Parts Processed:     18
          Start Time: 10/26/2018 9:55:12 AM
            End Time: 10/26/2018 9:55:13 AM
     Processing Time: 00:00:01.9218809
```

When the .CSV file you are importing contains ANSI encoded characters, an encoding warning is recorded in the log. Parts that have a Part Number containing ANSI characters cannot be processed. Parts that have attribute values that contain ANSI characters will be imported with the character shown in the log.

The image below provides an example of a part that has an encoding error in its part number--this part cannot be processed. The other part will be imported but data imported is changed as stated in the log file.

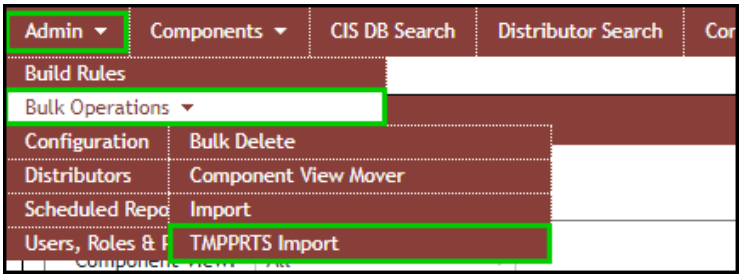


Log warnings indicating use of ANSI Encoded characters

3.4.4 TMPPRTS Import

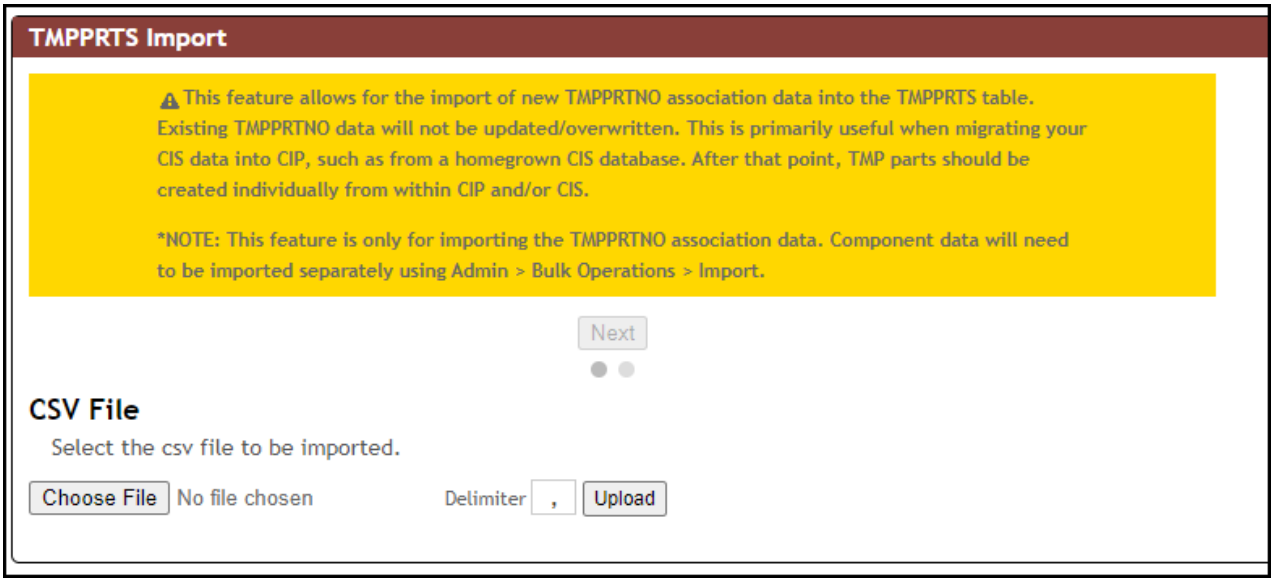
When parts are migrated from an existing CIS database to a new CIP database, your parts may also include TMP parts that have been converted to formal parts as well as TMP parts that are not ready to be converted. You will need to import the TMP part associations to ensure existing designs that use TMP parts will continue to get updated with the CIS Part Manager. The TMPPRTS Import feature enables you to migrate TMP parts to the new CIP database.

Select **Admin** > **Bulk Operations** > **TMPPRTS Import** to access the TMP parts import functionality.



Admin > Bulk Operations > TMPPRTS Import

A warning shows immediately. The TMPPRTS Import functionality will only import the association data. Parts that have TMP part numbers will need to be first imported using the Import Instructions.

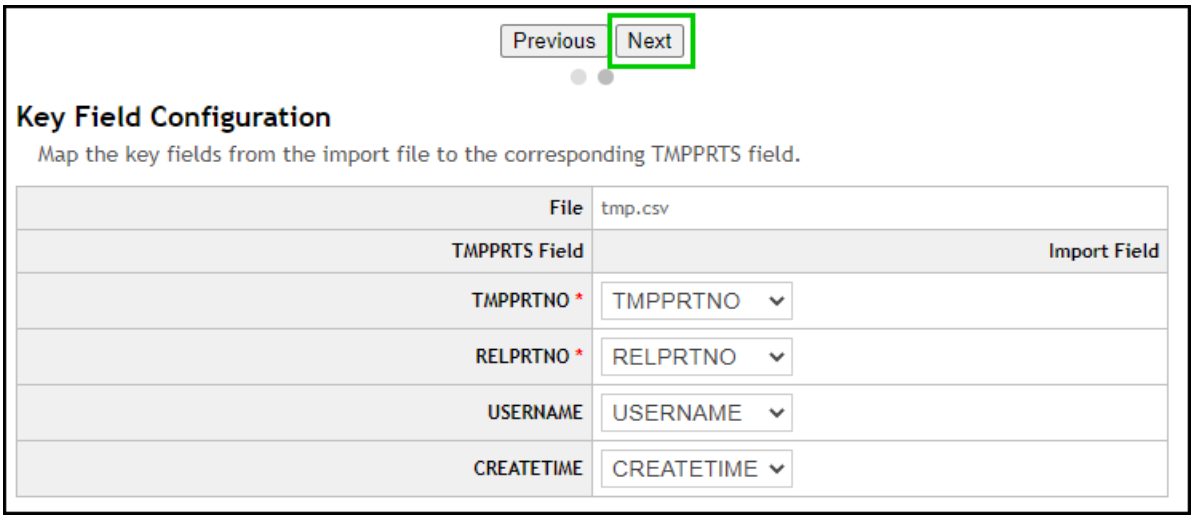


Export the TMPPRTNO association from your existing TMPPRTS Table to a CSV format before starting. An example is shown in the following figure.

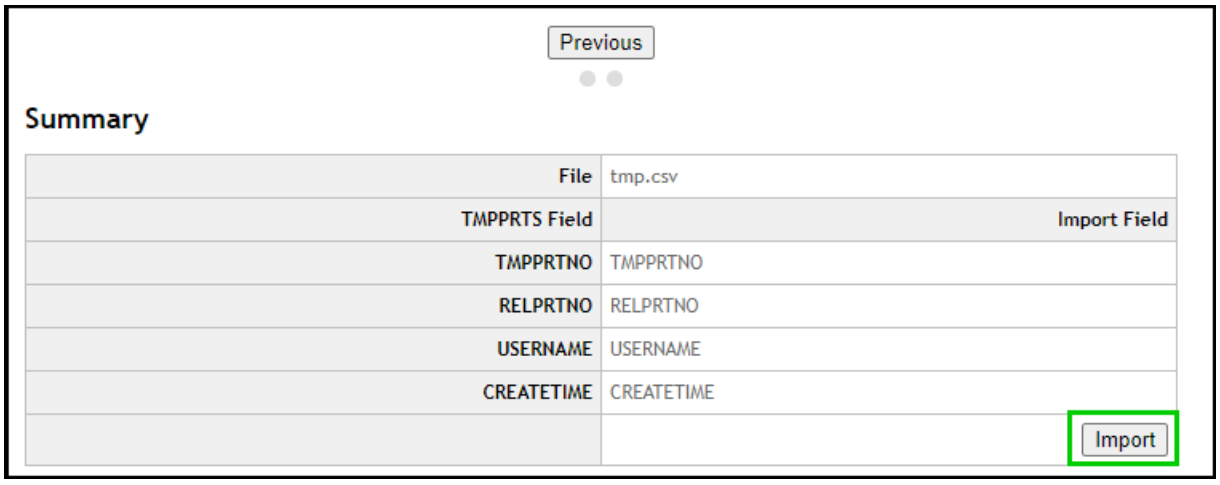
TMPPRTNO	RELPRTNO	USERNAME	CREATETIME
TMP-1	NULL	Joe	August 16, 2021, 19:05:47
TMP-2	NULL	Joe	August 16, 2021, 19:06:00
TMP-3	NULL	Jane	August 16, 2021, 19:06:30
TMP-4	DIO-00000001	Jane	August 16, 2021, 19:06:46
TMP-5	NULL	Jane	August 16, 2021, 19:07:10
TMP-6	NULL	Joe	August 16, 2021, 19:07:38

The following steps describe how to import the TMPPRTNO association:

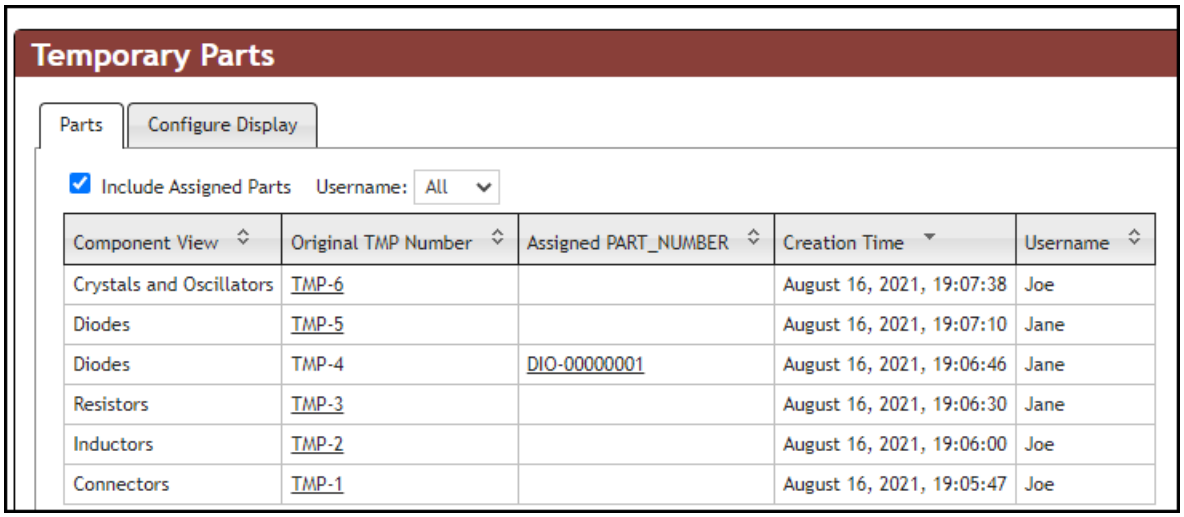
1. Select **Choose File** button and select the file you exported from your CIS database.
2. Change the **delimiter**, if not using a comma and select the **Upload** button.
3. Select the **Next** button and verify that mapping is correct as shown in the figure below.



4. Select the **Next** button again to complete the mapping.



5. Select the **Import** button to import the association. A **Success** pop up shows when done.
6. Click on the **Temp. Parts** tab to review the TMP parts.



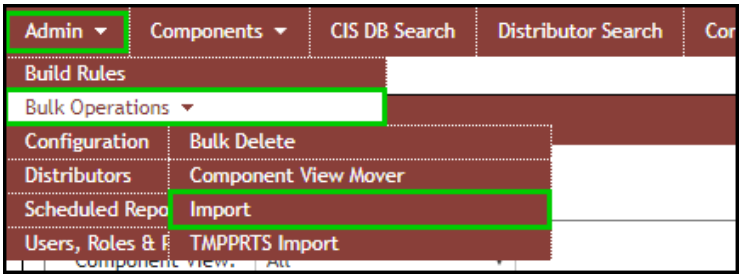
3.4.5 Import Starter Library

The Starter Library includes over 5,000 manufacturer parts, datasheets, PCB footprints, and schematic symbols. The part numbers with parametric data are installed as a CSV file with the CIP client installation. The datasheets, PCB footprints, and schematic symbols are installed with the web application. You have access to Starter Library symbol and footprint libraries after your company IT configures Starter Library file sharing.

The Starter Library is imported into CIP as an **Admin** > **Bulk Operation** as described in the steps that follow. After you complete the import, you need to update the default path to datasheet parts.

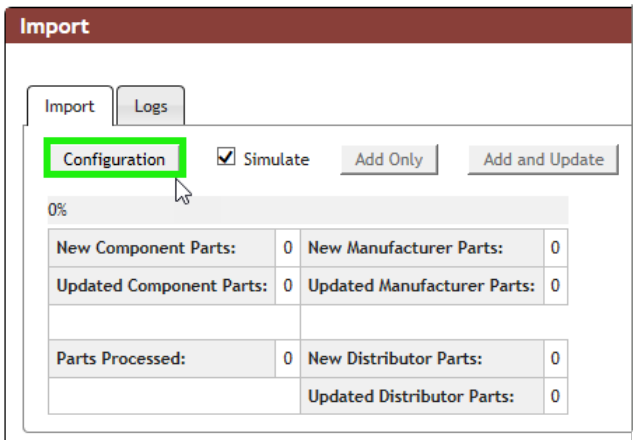
To import the CIP Starter Library

1. Select the **Admin** > **Bulk Operations** > **Import** menu.



Menu selection to import Starter Library

2. Click the **Configuration** button.



Configuration button of Import window

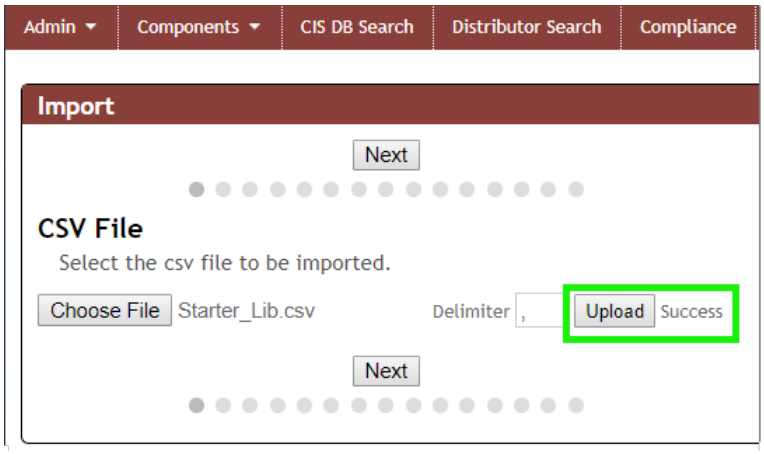
3. Select **Choose File** and browse to select the Starter Library file: Starter_Lib.csv. The Starter_Lib.csv is installed with the CIP client installation. The default path for each of version of the client plugin is:

   C:
   \Cadence\SPB_17.4\tools\captureTclscripts\capAutoLoad\ClPClient\CIP\StarterLibraryParts\Starter_Lib.csv

C:
\Cadence\SPB_22.1\tools\captureTcl scripts\capAutoLoad\ClPClient\ClP\StarterLibraryParts\Starter_Lib.csv
C:
\Cadence\SPB_23.1\tools\captureTcl scripts\capAutoLoad\ClPClient\ClP\StarterLibraryParts\Starter_Lib.csv

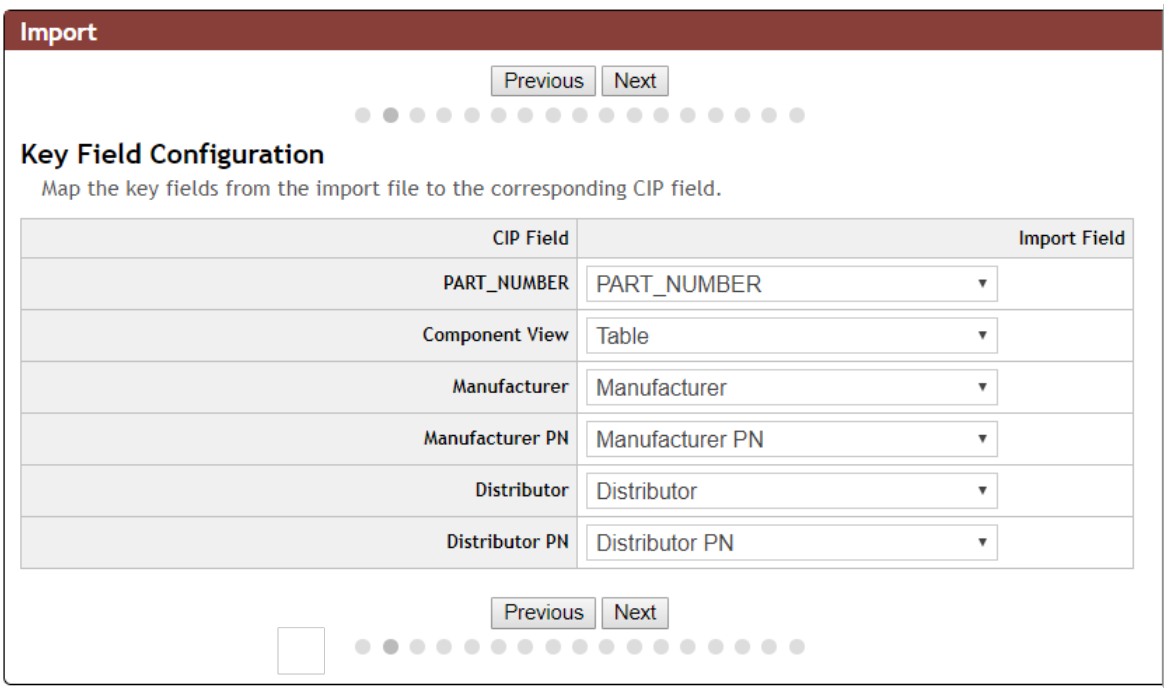
If you have the System Capture Plugin installed, the starter library file is in
%CDS_SITE%\syscap\Libraries\StarterLib.csv

4. Click the **Upload** button. When the file successfully uploads the word "Success" displays.



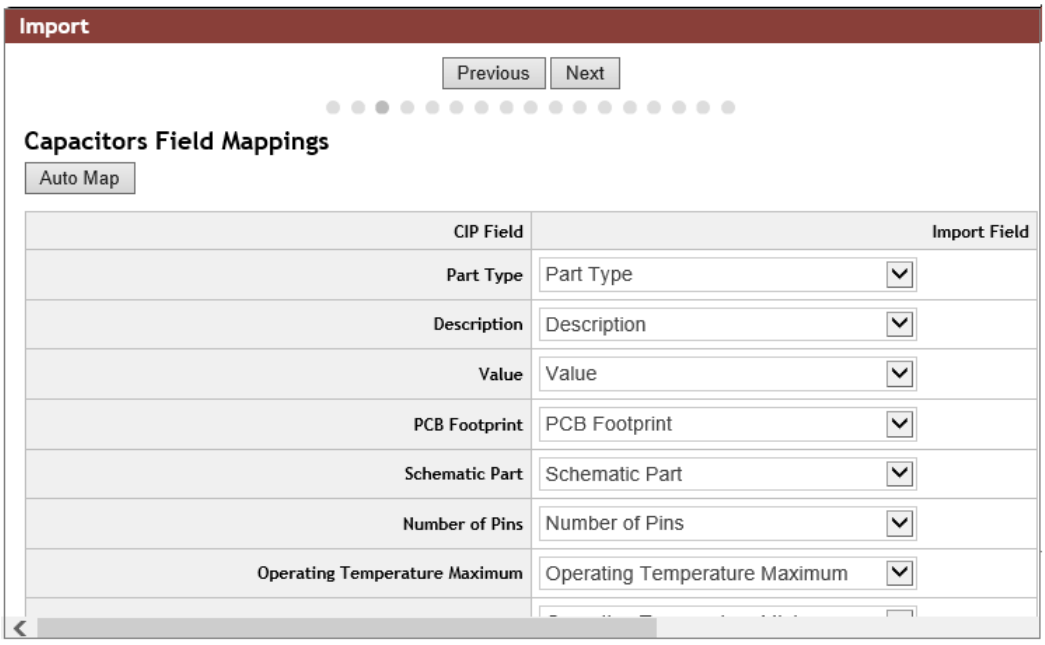
Upload Starter Library CSV File

5. Click the **Next** button to continue.
6. Configure field mappings in the Key Field Configuration screen. The figure that follows provides an example of recommended field mappings.



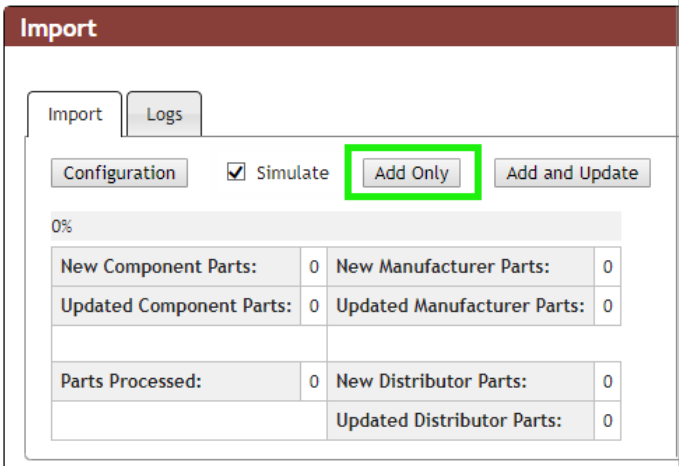
Map Key Field Configuration

7. Click **Next** and **Automap** to map the Component Field Mappings for each Component View (e.g. Capacitors, Connectors, etc.). Also map the Manufacturer and Distributor fields as well.



Capacitors Field Mappings

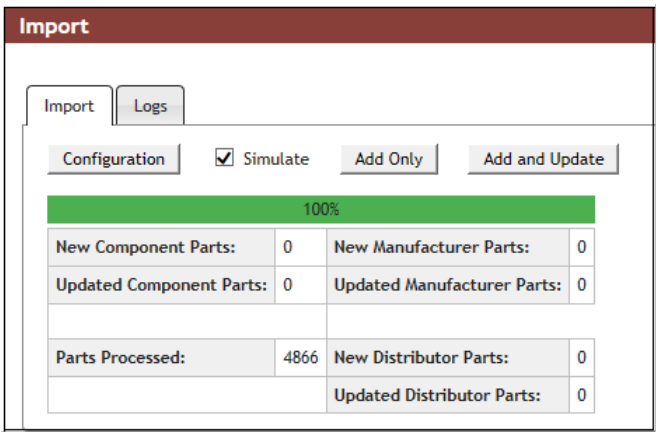
8. Click the **Save** button that is located in the last Import screen to redisplay the main Import screen.
9. Click the **Add Only** button to start processing on your selected file in **Simulate** mode.



Click Add Only

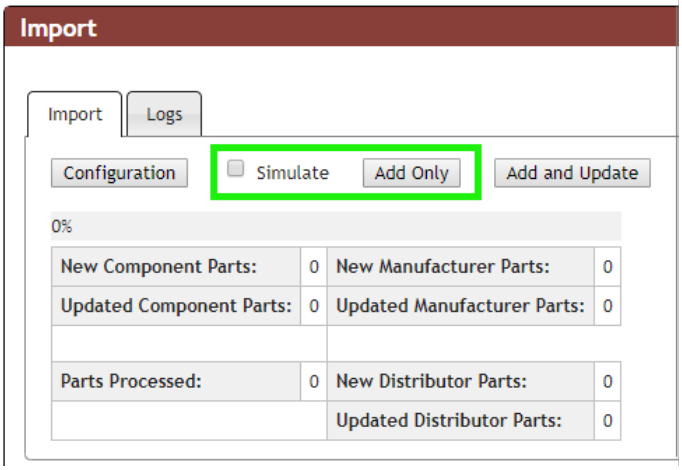
As Starter Library parts are processed, the green status bar indicates the percent complete. When the status bar reaches 100% the Stater Library is fully processed.

Note: The **Simulate** check box allows you to verify actions before they are performed on the database.



100% Indicates Processing is Complete

10. Select the Logs tab to review the log for the simulated processing of the Starter Library.
11. Deselect the **Simulate** check box and select the **Add Only** button to start importing the Starter Library data into CIP.



Deselect Simulate Check box and Click Add Only

12. When the status bar reaches 100%, the Starter Library is fully imported into CIP.

    The datasheet paths in the Starter Library are configured with a generic path. After you successfully import the CIP Starter Library you need to update datasheet paths as described in the next section topic.

3.4.6 Update Datasheet Paths

The path of the technical datasheet links may be configured for access from the CIP web interface or Capture CIS Explorer. The datasheet paths in CIP will need to be updated according to the method configured by your IT administrator.

Your IT administrator may define datasheet paths using any of the following methods:

- ***URL to datasheets*** (e.g. http://server/datasheetpath/datasheet.pdf) - Your IT administrator creates a virtual directory in IIS that is linked to your datasheet directory. If you choose to install the Starter Library, the virtual directory will link to the Starter Library datasheet directory on the web server. Your IT administrator needs to share this directory to allow users to add new datasheets. The virtual directory may be added as a path within CIP-E or as separate URL. Instructions that explain how to create a virtual directory are provided by Microsoft: https://docs.microsoft.com/en-us/dotnet/framework/wcf/samples/virtual-directory-setup-instructions.
- ***UNC path to datasheets*** (e.g. \\server\datasheetdirectory\datasheet.pdf) - Datasheets can only be accessed by users using the CIS Explorer. Users opening CIP will need to copy and paste the path into the address bar of a File Manager window. This method may be slower the first time a datasheet is accessed.
- ***Mapped drive to datasheets*** - Datasheets can only be accessed by users using the CIS Explorer. Users opening CIP will need to copy the path and paste it into a Windows file manager navigation address bar. If this configuration is set up, all users requiring access must have the same mapped drive letter.

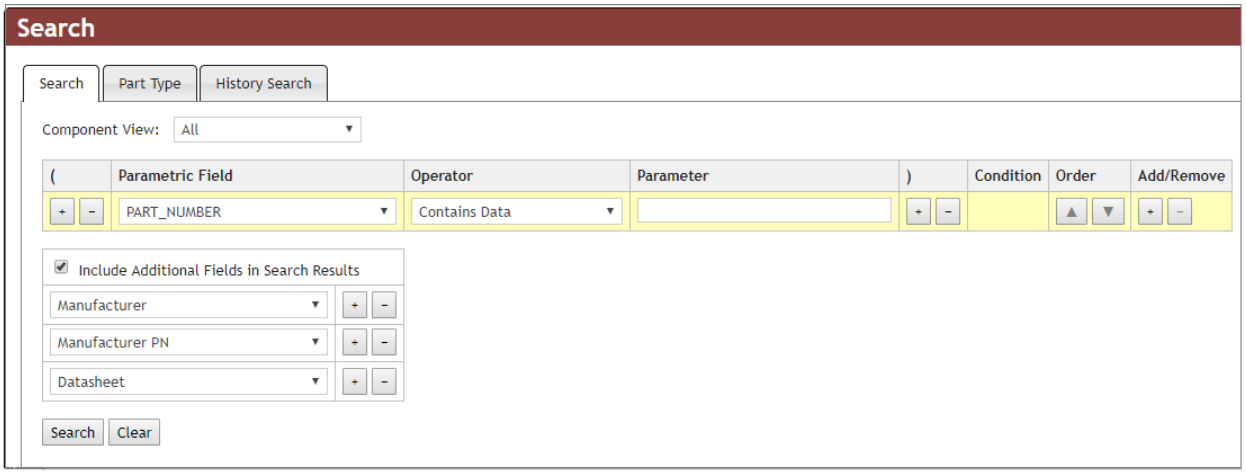
Before updating the datasheet paths, determine which of the above options is configured. You need to update the Datasheet field to part datasheets whenever the location of the datasheets changes.

Updating the datasheet paths in CIP is a 3-step process:

1. Create a CSV export file that includes the CIP datasheet field.
2. Modify the datasheet field to the new datasheet path in the exported CSV file.
3. Import the modified CSV file to update CIP.

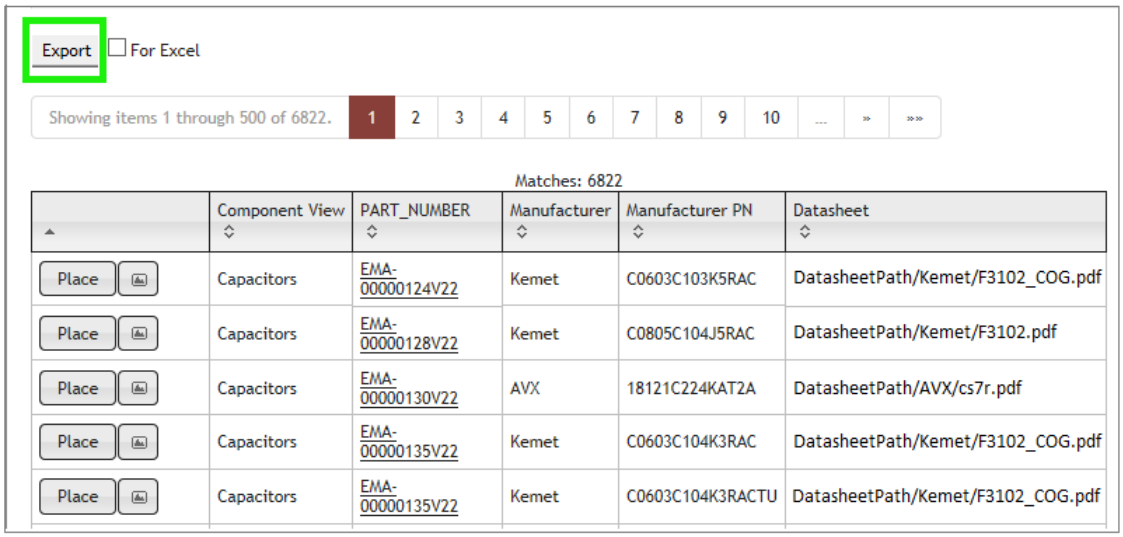
Step 1 - Create CSV export file

1. Open the CIS DB Search window and specify search options.



   a) Select **PART_NUMBER** as the Parametric Field.
   b) Select **Contains Data** as the Operator.
   c) Check the **Include Additional fields in Search Results** check box and select **Manufacturer**, **Manufacturer PN**, and **DataSheet**.
   d) Click **Search**.
2. Click the **Export** button. (Do not check the For Excel checkbox).

Note: Export functionality is not available when using the System Capture plugin.



	Component View	PART_NUMBER	Manufacturer	Manufacturer PN	Datasheet
Place	Capacitors	EMA-00000124V22	Kemet	C0603C103K5RAC	DatasheetPath/Kemet/F3102_COG.pdf
Place	Capacitors	EMA-00000128V22	Kemet	C0805C104J5RAC	DatasheetPath/Kemet/F3102.pdf
Place	Capacitors	EMA-00000130V22	AVX	18121C224KAT2A	DatasheetPath/AVX/cs7r.pdf
Place	Capacitors	EMA-00000135V22	Kemet	C0603C104K3RAC	DatasheetPath/Kemet/F3102_COG.pdf
Place	Capacitors	EMA-00000135V22	Kemet	C0603C104K3RACTU	DatasheetPath/Kemet/F3102_COG.pdf

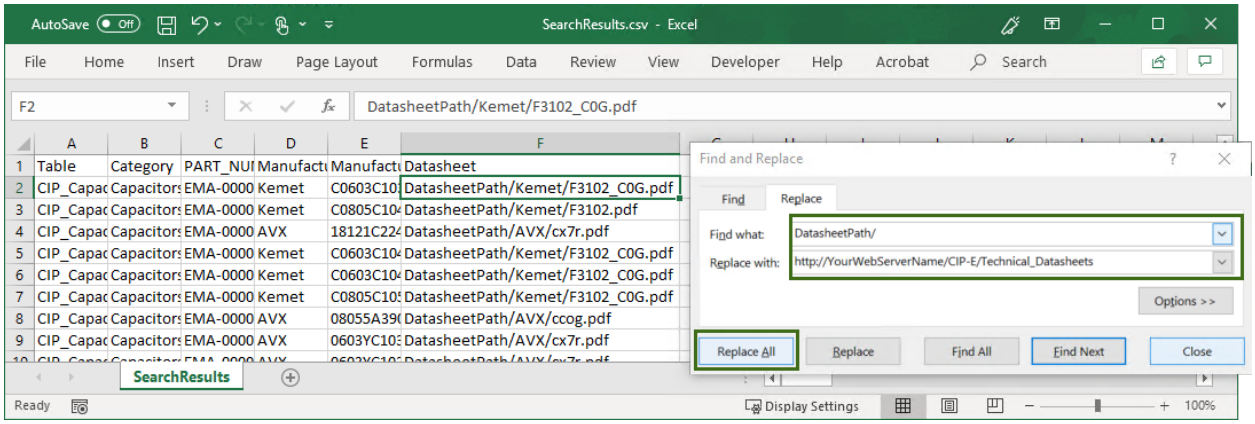
Step 2 - Modify the datasheet field

1. Open the exported file using Excel.
2. Conduct a search in Excel for the path you want to replace. The generic path to the Starter Library that needs to be replaced is "DatasheetPath/".

   The next screen image that follows, for example, shows a search entry for DatasheetPath/.

3. Enter replacement text that matches the path your IT administrator configured, (URL, UNC, or network drive).

   The example in the figure below shows replacement text for a URL.

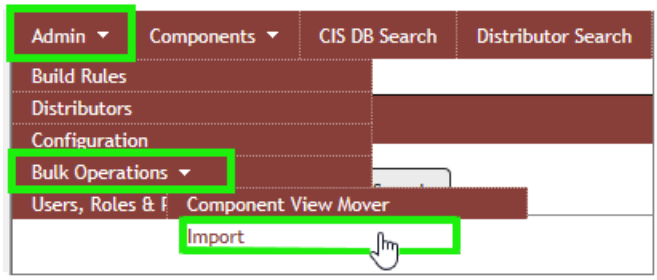


Entry of Search and Replace Text

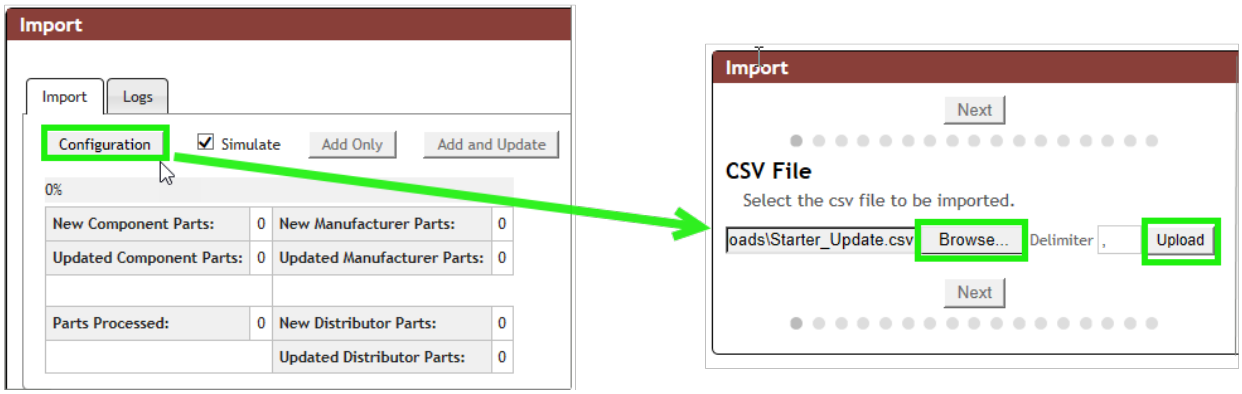
4. Click the **Replace All** button.
5. Save the .CSV file and close Excel.
6. Return to CIP.

Step 3 - Import the modified CSV file

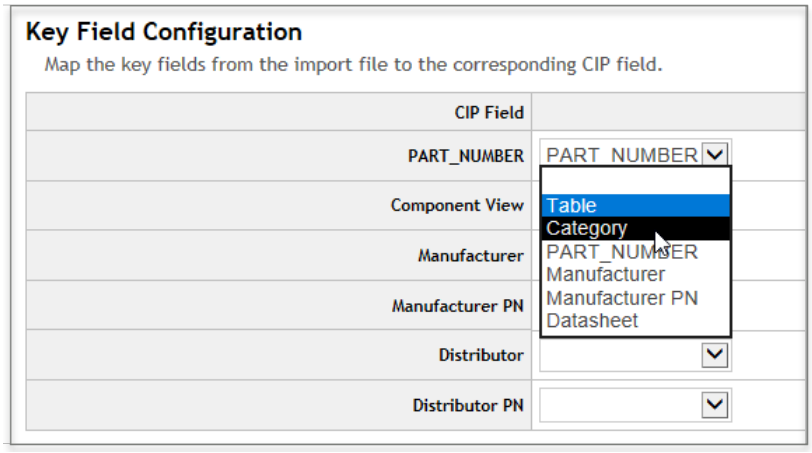
1. Select the **Admin** > **Bulk Operations** > **Import** menu to open the main Import window.



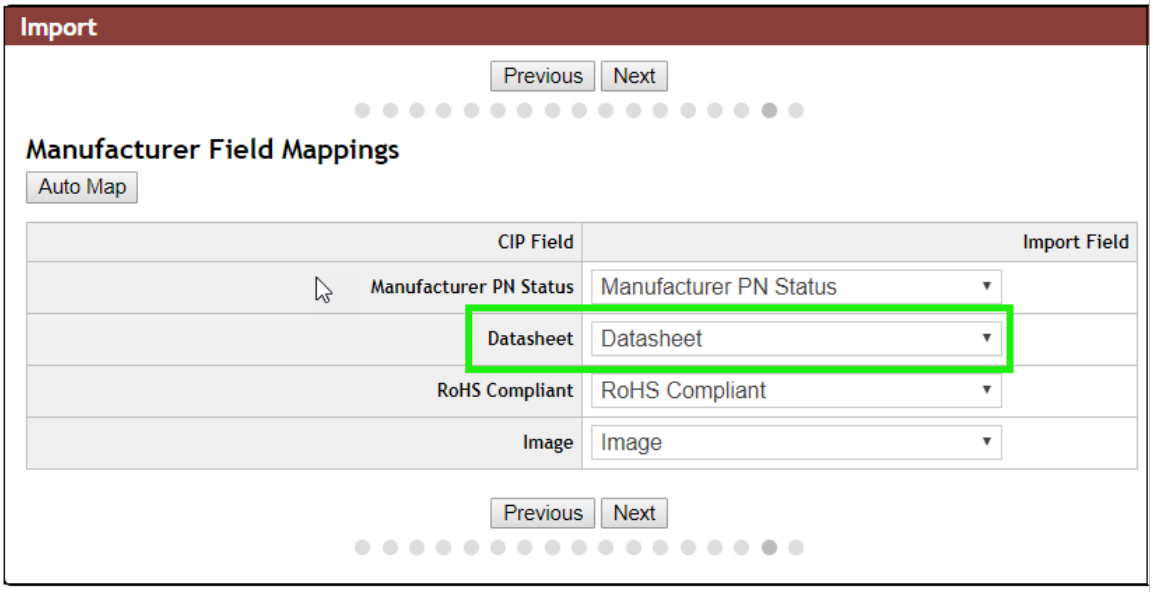
2. Click **Configuration** and browse to select the updated CSV file you saved in step 2. Then **Upload** the selected file.



3. Map the Component View to **Category**. Page through the component configuration pages and save the configuration mappings.

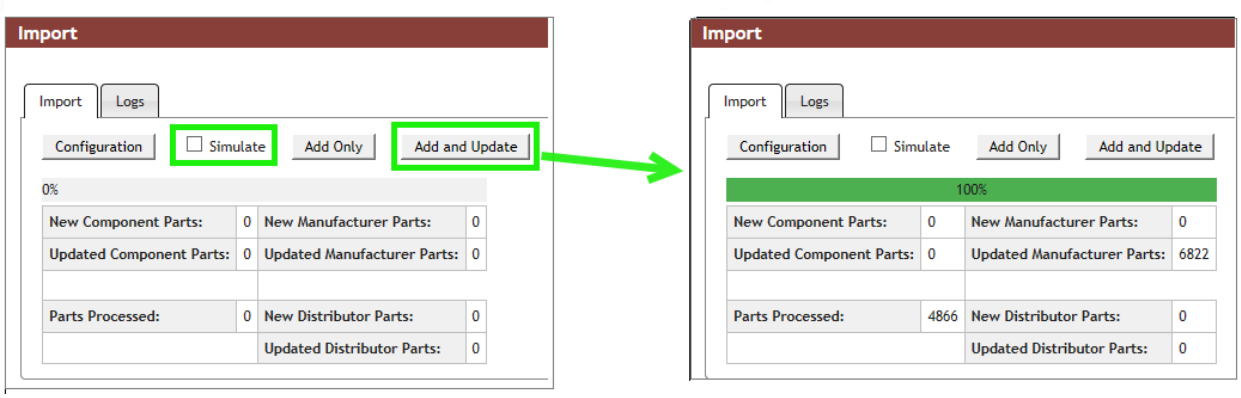


4. From the Manufacturing Field Mappings page map the **Datasheets** field as shown in the screen capture below.

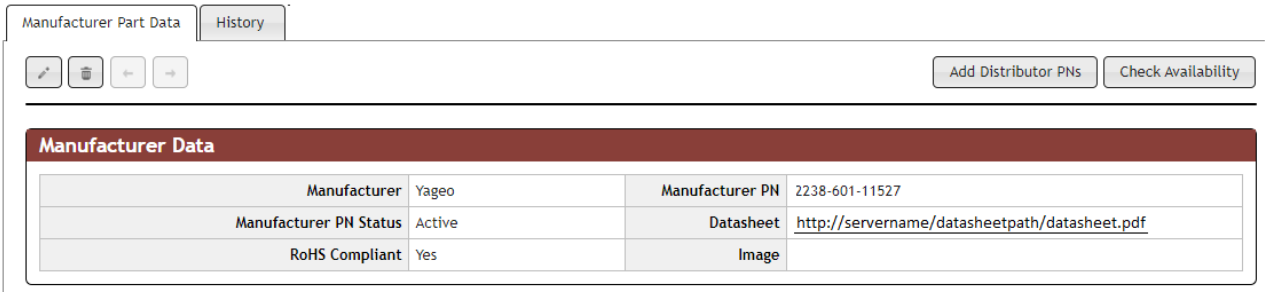


5. Save the configuration mappings.
6. You may proceed by either simulating the import and review the log of potential changes first or making real changes to the database without simulate.
   a. If you'd like to simulate the import before making any real changes to your CIP database, check the **Simulate** check box before clicking **Add and Update**.
   b. To make real changes to your CIP database, deselect the **Simulate** check box and click **Add and Update**.

The green status bar informs you of the update progress which may take a few minutes.



7. View the Manufacturer Data from the Part Details page of a component and confirm the path to the part datasheet successfully displays the part datasheet when selected.



3.5 Users, Roles & Permissions Administration

CIP can be utilized by a wide variety of users. The range of tasks each type of user can perform is controlled through the assignment of roles and permissions. Operations each user type (determined by role) can perform on the CIS database may include such tasks as creating, editing, searching, updating, and deleting parts, etc. Other users, for example, may only require CIP view and search capabilities and have a role where it is unnecessary to modify anything in the CIS/CIP database.

By default, there are four default roles that can be assigned to a CIP user:

- Read Only
- UpdateWithoutDelete
- UpdateWithDelete
- Admin

Additionally, users with permission to define roles can create additional roles or modify the default roles.

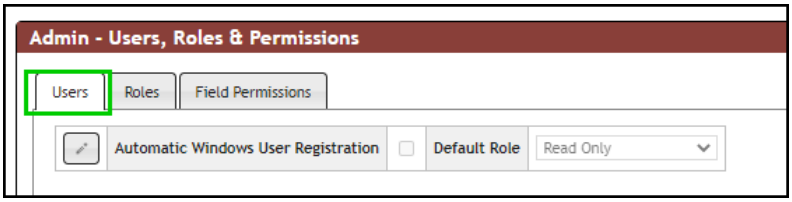
The User, Roles & Permissions menu item is only visible to users who are granted permission to modify Users, Roles or Permissions.

Admin > Users, Roles & Permissions

3.5.1 Manage User Accounts

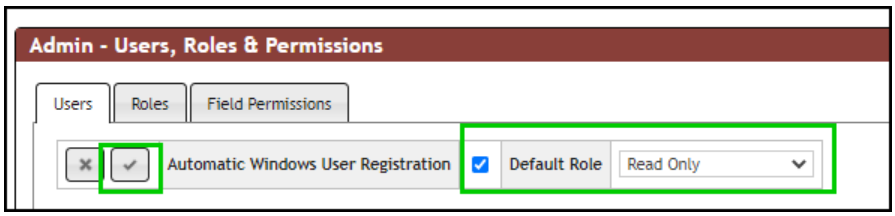
Users granted the User Admin role permission may create a user account, edit an existing user account, delete an existing user account, as well as manage user roles and permissions through the **Admin** tab and **Users, Roles and & Permissions** menu option.

A User Admin can enable the **Automatic Windows User Registration** option and set the **Default Role** for new users added in this fashion. This allows Windows domain users to automatically add themselves to CIP by clicking the Windows authentication button at the CIP log in screen. The first time they do so their Windows domain user will be added to the CIP Users list and their role will be auto-assigned based on the configured default role.



User Administration

To enable this option, select the **Edit** button next to **Automatic Windows User Registration**. Select the check box next to the **Default Role** option and select role from the drop-down list. Click the **Save** button to save the settings.



Enable Auto User Account Option

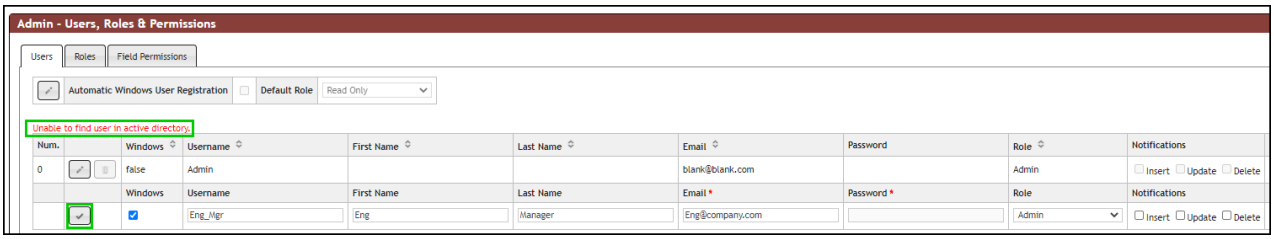
3.5.1.1 Creating User Accounts

A user can be added as a Windows user or local CIP user. When adding a user as a Windows user, a password is not required. The username of the Windows user must be valid.

To add a new Windows user account into CIP, enter the Windows username, first and last name, email address, and select the Windows checkbox. The optional fields for adding a new Windows user include the email, first and

last names. By default, the CIP server will search the Active Directory domain it belongs to when checking the validity of Windows logins. If there are multiple domains in your company's environment and CIP has not been configured for this environment, you may not find Windows usernames for users belonging to different domains. Contact your CIP Admin or your IT team to make changes to support multiple domains for your CIP installation. Information on setup can be found in the appendix of the CIP installation guide.

Email notifications can only function properly when a correct email address is provided. The figure that follows shows a warning alert that displays when CIP is unable to identify a valid username in the Active Directory.



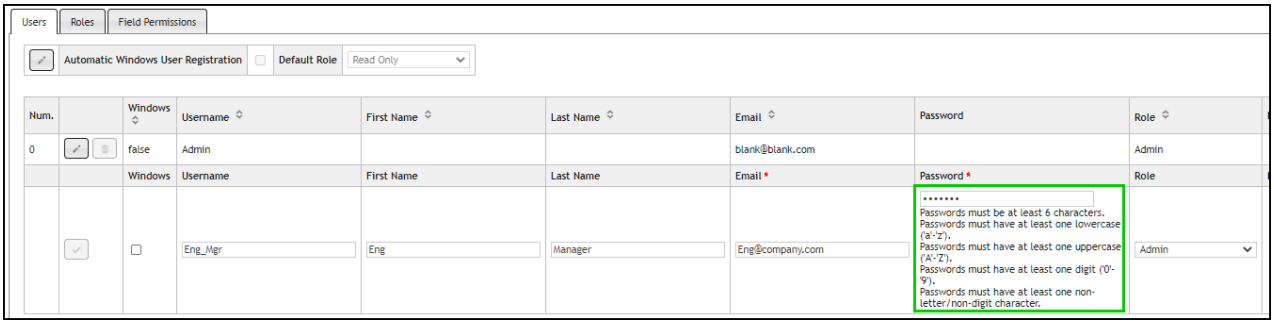
Creating User Account: Windows or CIP Local User

To add a new local CIP user account, enter a username, first and last name, email address, and password. You are not allowed to save a user account if the password entered fails to conform to the following standards.

Passwords must be at least 6 characters AND include the following:

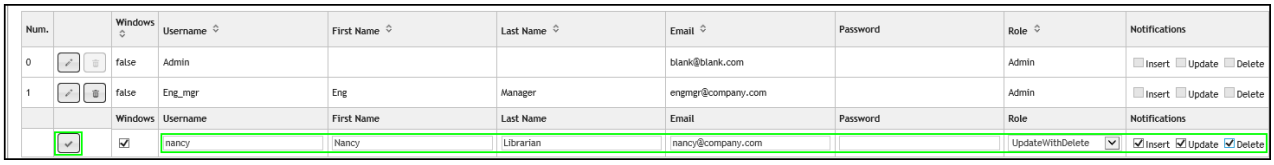
- Passwords must have at least one lowercase ('a'-'z')
- Passwords must have at least one uppercase ('A'-'Z')
- Passwords must have at least one digit ('0'-'9')
- Passwords must have at least one non-letter/non-digit character.

Note: When adding a new Windows user, the Username field populates with available users as the name is typed into the field. This list may take a moment to populate.



Creating New CIP User Account: Alert Message With Entry of Invalid Password

Next, select a Role for the account. Four default roles have been pre-defined. If this user wishes to receive Email Notifications, select the appropriate checkbox next to the desired Notifications for Insert, Update, and Delete. After entering the new user information, click on the Add button to create the new user account. Before a CIP User can receive Email Notifications, Email Notifications must be enabled through the **Admin** > **Configuration** > **Email** Notifications tab. The Email Notifications section of this document will guide an Admin through the email setup. You should create a second Admin user account if you change the Admin User password.



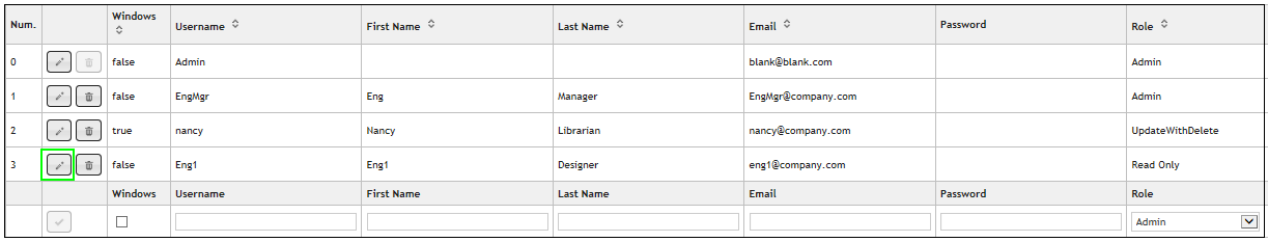
Num.		Windows	Username	First Name	Last Name	Email	Password	Role	Notifications
0		false	Admin			blank@blank.com		Admin	Insert Update Delete
1		false	Eng_mgr	Eng	Manager	engmgr@company.com		Admin	Insert Update Delete
		Windows	Username	First Name	Last Name	Email	Password	Role	Notifications
		☑	nancy	Nancy	Librarian	nancy@company.com		UpdateWithDelete	☑Insert ☑Update ☑Delete

Define Role for New User

User permissions for the default user roles are provided in the section on default roles. The Role Administration section will also guide you through defining new roles.

3.5.1.2 Editing an Existing Account

To edit an existing account click on the **Edit** button on the User Administration screen for the account you need to edit.



Num.		Windows	Username	First Name	Last Name	Email	Password	Role
0		false	Admin			blank@blank.com		Admin
1		false	EngMgr	Eng	Manager	EngMgr@company.com		Admin
2		true	nancy	Nancy	Librarian	nancy@company.com		UpdateWithDelete
3		false	Eng1	Eng1	Designer	eng1@company.com		Read Only
		Windows	Username	First Name	Last Name	Email	Password	Role
		☐						Admin

User Administration Edit

Editing an account allows the Administrator to change the email address, password, role type, or email notification associated with the account. Once an acceptable change is made, click the **Save** button to update and save the account.

Usernames are uneditable. If a user needs to change the name on the account, delete the account and generate a new one.

Num.		Windows	Username	First Name	Last Name	Email	Password	Role
0		false	Admin			blank@blank.com		Admin
1		false	EngMgr	Eng	Manager	EngMgr@company.com		Admin
2		true	nancy	Nancy	Librarian	nancy@company.com		UpdateWithDelete
3		☐	Eng1	Eng1	Designer	eng1@company.com		Admin / Read Only / UpdateWithDelete / UpdateWithoutDelete
		Windows	Username	First Name	Last Name	Email	Password	
		☐						Admin

User Administration Update

You can change a CIP user to a Windows user, when the Windows user name is the same, by clicking the **Edit** button. Select the checkbox for Windows and click the **Save** button.

If the CIP username is different from the Windows username, you will need to remove the CIP username and then add the Windows username.

3.5.1.3 Deleting an Existing Account

When a CIP account is deleted, it is completely removed.

To delete an account select the **Delete** button for the account that you want to remove.

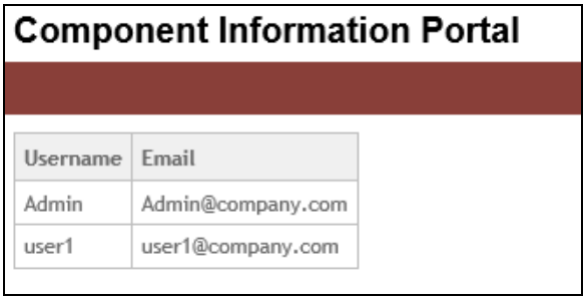
Num.		Windows	Username	First Name	Last Name	Email	Password	Role
0		false	Admin			blank@blank.com		Admin
1		false	Eng_mgr	Eng	Manager	engmgr@company.com		Admin
2		true	nancy	Nancy	Librarian	nancy@company.com		UpdateWithDelete
3		false	Eng1	Eng1	Designer	eng1@company.com		Read Only
4		false	Eng2	Eng2	CE	eng2@company.com		UpdateWithoutDelete

User Administration Delete

3.5.1.4 Check Licenses In Use

You may check the licenses that are currently being used at any time, by opening a web browser and visiting http://[Base CIP URL]/Account/onlineusers. All logged in users are listed on the page. The link to OnlineUsers page may be configured to show on the login page.

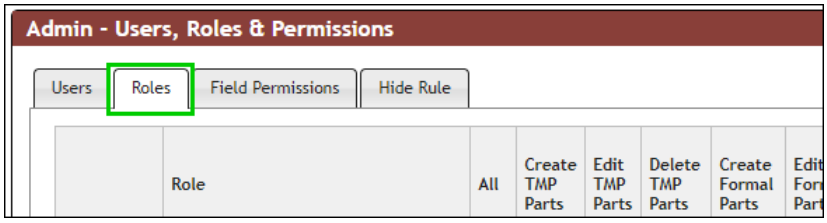
For example: if your Base CIP URL is http://ServerName/CIP-E, navigate to http://ServerName/CIP-E/Account/onlineusers.



Verify CIP Licenses Currently In Use

3.5.2 Manage Roles

Role administration can be performed from the **Admin > Users, Roles and Permissions > Roles tab**. Roles can be added, modified or deleted from this tab. CIP consists of administrative and user permissions. Any of these types of permissions can be assigned to any role.



Role Administration

3.5.2.1 Default Roles

Four default roles are available:

- Read Only Role

  The default Read Only role has similar permissions as that of the CIS user. The user can view, query, and search, as well as complete other tasks. Users with the Read Only role can view and search for parts within the CIS Database using CIP. To enable the Read Only user to create Temp Parts from distributor search, update the Read Only Role to include Add Manufacturer Parts. The Read Only user cannot modify parts within the database.

- UpdateWithoutDelete Role

  The default UpdateWithoutDelete role can perform all functions of the default Read Only role, as well as add new formal parts and edit existing parts. This role may be assigned to a Librarian or Component Engineer.

- UpdateWithDelete Role

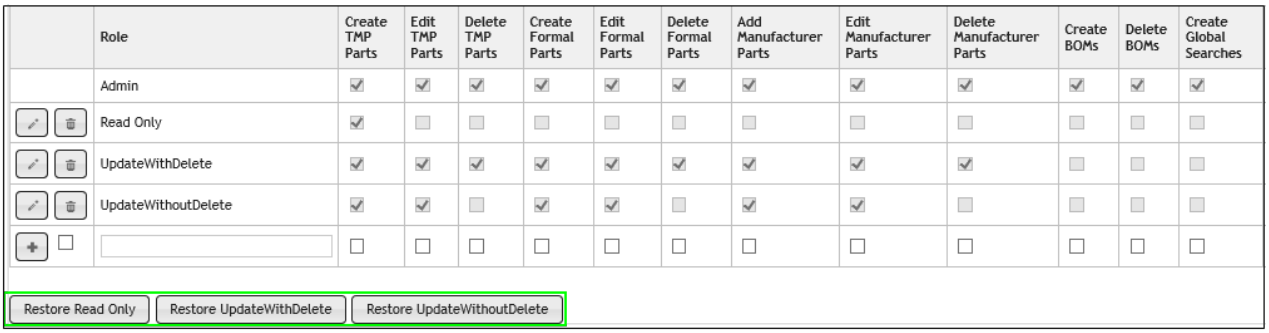
  The default UpdateWithDelete role can perform all functions of the default UpdateWithoutDelete role, and can also delete both Temp and Formal parts from the database. This role may be assigned to a Librarian or Component Engineer.

- Admin Role

  The default Admin role has the superset of all administrative and user permissions. Users who have been assigned the default Admin role can do everything that the UpdateWithDelete user can do, and they also have access to the Admin tab. The Admin tab includes options for: User Administration, Role Administration, Rule Administration, Email Notification setup, Customizable UserFieldXX setup, Bulk Operations and Distributor Administration. An administrative role would most likely be assigned to an Engineering Manager, IT personnel or potentially Librarians or Component Engineers.

  The Admin Role is the only role that cannot be modified or deleted.

The predefined roles, Read Only, UpdateWithoutDelete, and UpdateWithDelete, can be modified by anyone who is granted the Define Roles permission. To restore any of these roles to the default settings, click on the applicable **Restore** button at the bottom of the Role Administration tab. The Admin role is a system role that cannot be changed by anyone.



Role Administration Restore

3.5.2.2 User Role Permissions

User permissions pertain to permissions that apply to parts and BOMs. User permissions can be assigned to any named role including the following:

Create TMP Parts	Edit TMP Parts	Delete TMP Parts	Create Formal Parts	Edit Formal Parts	Delete Formal Parts	Add Manufacturer Parts	Edit Manufacturer Parts	Delete Manufacturer Parts	Create BOMs	Delete BOMs	Create Reuse Modules	Delete Reuse Modules

User Permissions That Can Be Assigned to a Role

- Create TMP Parts

  A user with this permission is able to

  - Create TMP parts from the Distributor Search tab.
  - Create TMP parts from new part form.
  - Create TMP parts from copy part form.
  - Add new manufacturer part and associated distributor part when creating TMP parts from distributor search.
  - Associate an existing manufacturer part when creating TMP parts from distributor search.

- Edit TMP Parts

  A user with this permission is able to

  - Edit TMP parts using the edit part form.
  - Edit TMP parts data from distributor search by selecting overwrite component data.
  - Add new manufacturer part and associated distributor part to an existing TMP part from distributor search.
  - Associate an existing manufacturer part to an existing TMP part from distributor search.

- Delete TMP Parts

  A user with this permission is able to

  - Delete a TMP part and associated manufacturer and distributor parts.

- Create Formal Parts

A user with this permission is able to

- Create TMP and formal parts from the Distributor Search tab.
- Create TMP and formal parts from new part form.
- Create TMP and formal parts from copy part form.
- Add new manufacturer part and associated distributor part when creating TMP and formal parts from distributor search.
- Associate an existing manufacturer part when creating TMP and formal parts from distributor search.

▸ Edit Formal Parts

A user with this permission is able to

- Edit TMP and formal parts using the edit part form.
- Edit TMP and formal parts data from distributor search by selecting overwrite component data.
- Add new manufacturer part and associated distributor part to an existing TMP and formal part from distributor search.
- Associate an existing manufacturer part to an existing TMP and formal part from distributor search.

▸ Delete Formal Parts

A user with this permission is able to

- Delete a TMP and formal part and associated manufacturer and distributor parts.

▸ Add Manufacturer Parts

A user with this permission is able

- Add manufacturer parts to existing TMP or formal parts.

▸ Edit Manufacturer Parts

A user with this permission is able to

- Edit manufacturer parts using the edit manufacturer part form.

- Add distributor part to an existing manufacturer part when creating or updating a TMP or formal part from distributor search.
- Add distributor part using add distributor part form.
- Edit distributor part
- Delete distributor part

▸ Delete Manufacturer Parts

A user with this permission is able to

- Delete a manufacturer part and associated distributor parts from a TMP or formal part.

▸ Create BOMs

A user with this permission is able to add parts into the BOMs table and import parts to the BOM.

▸ Delete BOMs

A user with this permission is able to delete BOM part numbers.

▸ Create Reuse Modules

A user with this permission is able to create and edit reuse modules.

▸ Delete Reuse Modules

A user with this permission is able to delete reuse modules.

3.5.2.3 Administrative Role Permissions

Administrative permissions that can be assigned to any named role include the following:

Create Global Searches	User Admin	Define Roles	Set Rules	Email Notification	Increment PN Format	Views, Custom Fields, Reorder Fields, MFR PN Status, Other, System Capture	Sync Distributor and Compliance Data	Configure Distributors	Bulk Operations	Scheduled Reports

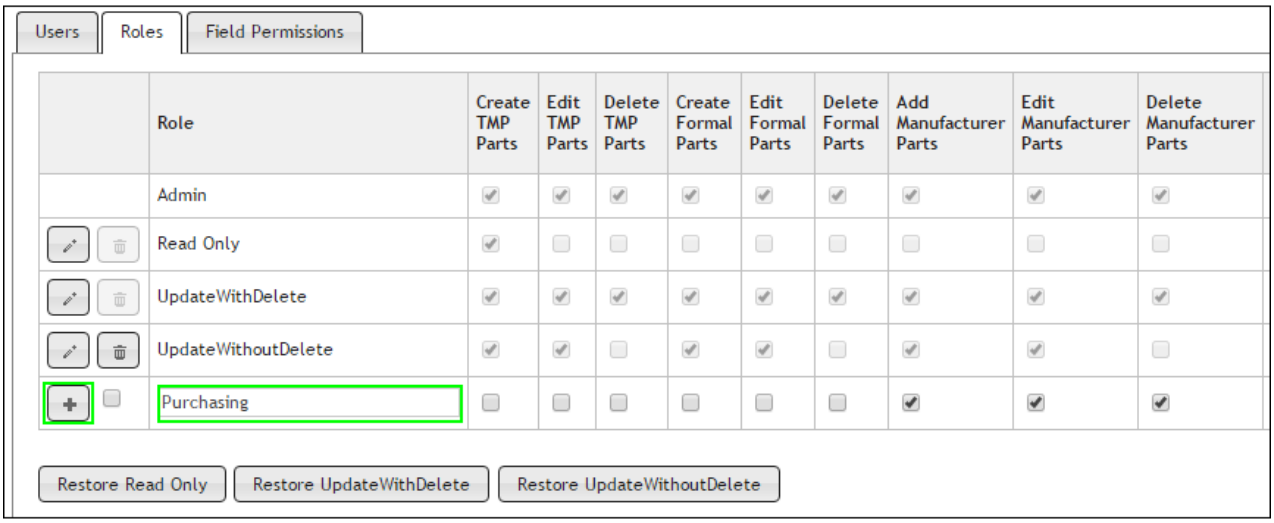
Admin Permissions That Can Be Assigned to a Role

- ***Create Global Searches -*** A user with this permission is able to create, edit and delete global searches that can be used by all users.
- ***User Admin*** – A user with this permission is able to view the User Administration menu items and manage users. This user can create, modify and delete CIP users. Any users online status as well as last activity status may be viewed. Email Notification for Individual Users may also be managed by a user with this permission.
- ***Define Roles*** – A user with this permission can create new roles, modify or delete an existing role as well as assign permissions to each new roles.
- ***Set Rules*** – A user with this permission can modify or delete existing build rules. The Rule Administration section provides detail description on how rules can be defined, modified or deleted.
- ***Email Notification*** – A user with this permission can enable Email Notification for Individual emails and for Email Aliases. Email notification configuration may be found in the Configuration menu item.
- ***Incremental PN Format*** – A user with this permission can define the format for the part number to be automatically incremented. The configuration of PN formats may be found in the Configuration menu item.
- ***Views***, ***Custom Fields***, ***Reorder Fields***, ***MFR PN Status***, ***Other***, ***System Capture*** – A user with this permission can access settings in these Admin > Configuration tabs: Component Views, Customizable Fields, Reorder View Flelds, Manufacturer Part Status Indicator, Other, and System Capture.
- ***Sync Distributor and Compliance Data*** – A user with this permission can run or schedule a sync of Distributor data and Compliance data.
- ***Configure Distributors*** – A user with this permission can change distributor locale and language.
- ***Bulk Operations*** – A user with this permission can use the Bulk Delete, Component View Mover, Import, and TMPPRTS Import features.
- ***Scheduled Reports*** – A user with this permission can create Scheduled Reports from any saved Global Search.

3.5.2.4 Creating Roles

Roles can be created with any name. The Admin can assign permissions to a role when the role is created or modified at a later time.

To create a role, select **Admin > Roles & Permissions.** Type the name of the role into a blank table row and click the **Add** button. 

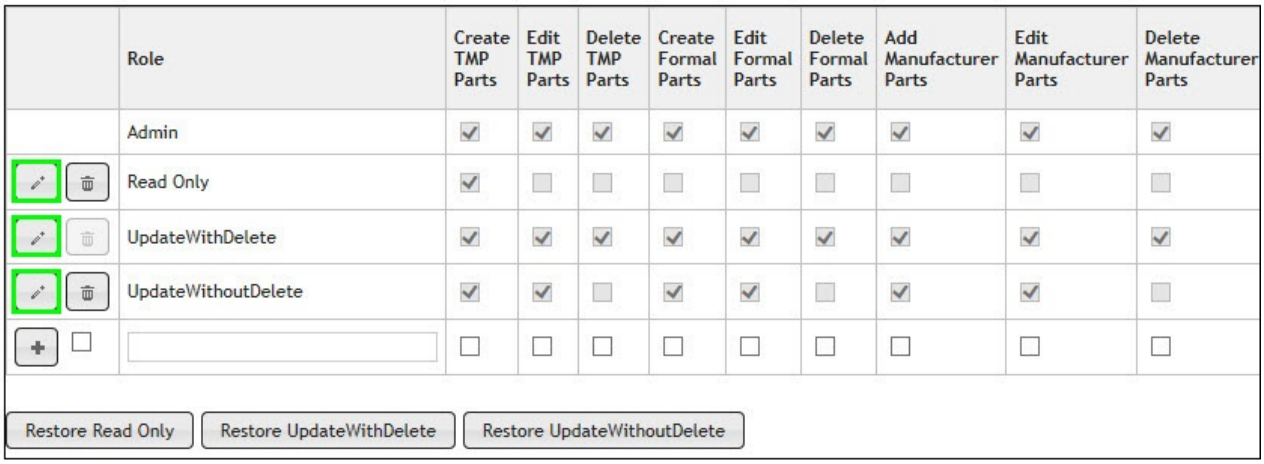


Role Administration Create

3.5.2.5 Modifying Roles

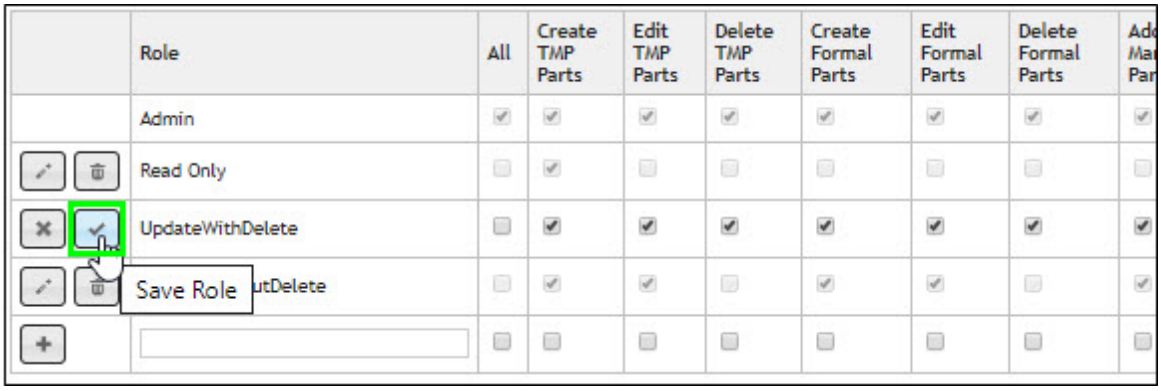
Modifying a role is similar to adding a role.

1. Click the **Edit** button that precedes the row of the role you want to modify.



Modification of Role Administration

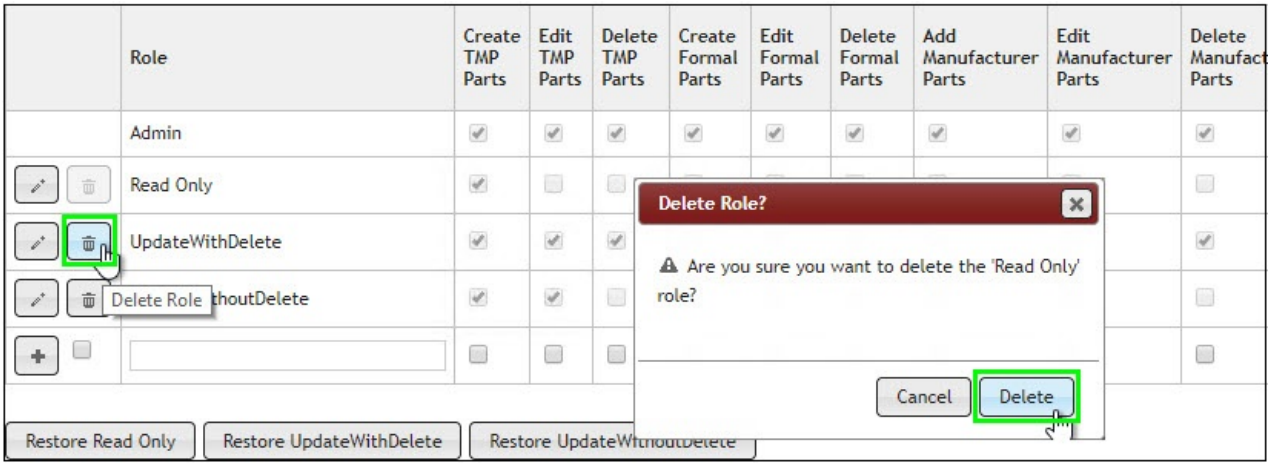
2. Click to place a check mark in each column you want to assign to the role you are updating.
3. Click the **Save Role** button to save the changes. Or click the **Cancel Edit** Role button to cancel changes.



Role Administration: Save Update Button

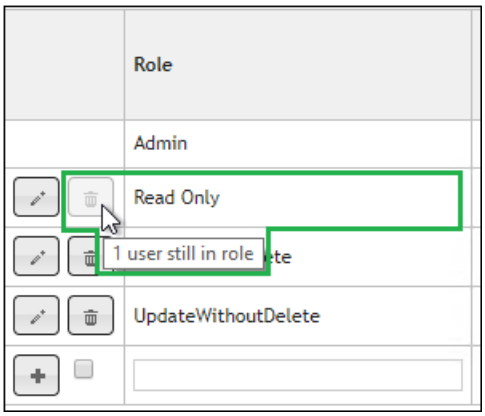
3.5.2.6 Deleting Roles

To delete a role that was created, click the **Delete** button. When you are prompted to confirm the deletion, click the **Delete** button.



Role Administration: Delete Button

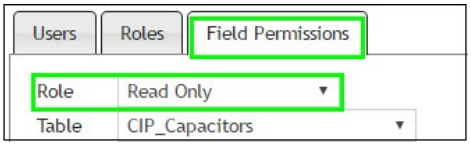
You cannot delete a role when a user is still assigned to the role. The image below shows the grayed-out **Delete** button for the Read Only role is disabled. You can hover your cursor over the disabled button to see the number of users still assigned to the role.



Role Administration: Delete Button Disabled

3.5.3 Field Permissions

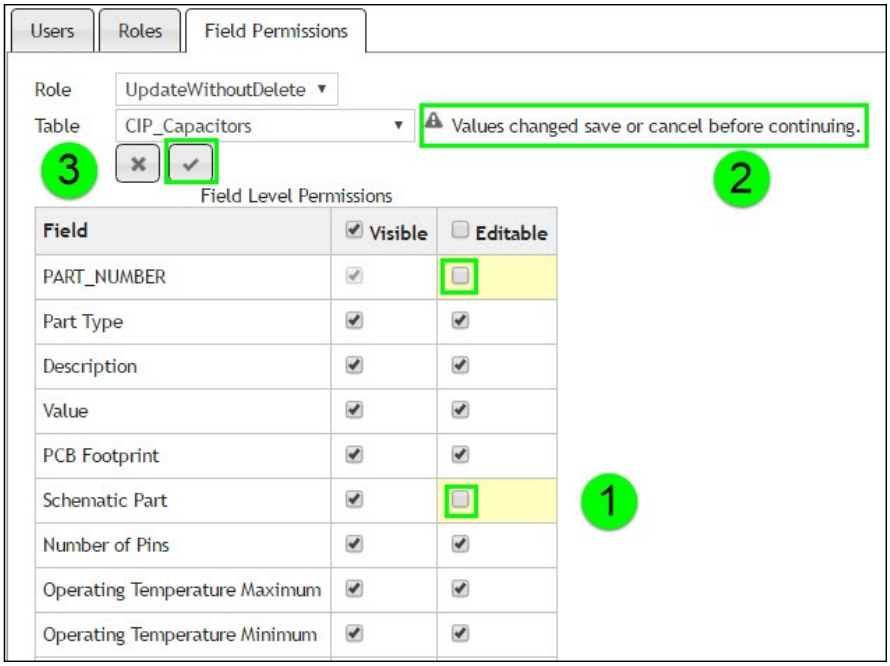
The administration of field permissions is performed from the selection of **Admin > Users, Roles & Permissions** menu > **Field Permissions** tab.



Field Permission Administration

The users' permission to edit or view a field can be configured by role. By default, all roles include permission to view and edit all configured fields. The permission for the Admin role are uneditable. The field permission for each role and category are controlled individually.

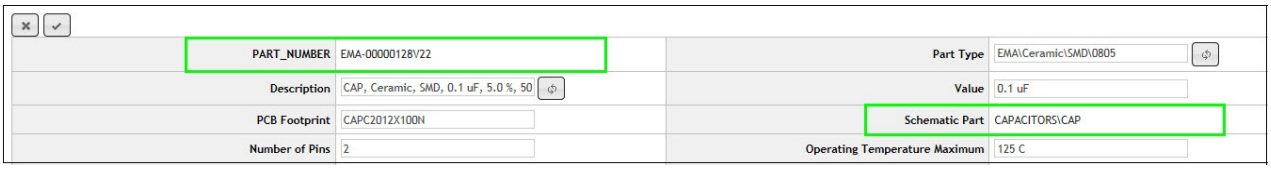
To make changes, select the role for each table you wish to change. Deselect fields that you do not want the user to either see or edit. Once you make any changes, you will see a warning immediately notifying you that a change has been made. The changed fields are highlighted as yellow. If you want to keep the changes, select **Save** button. Once changes are accepted, the warning and highlighting disappears.



Edit Field Permissions

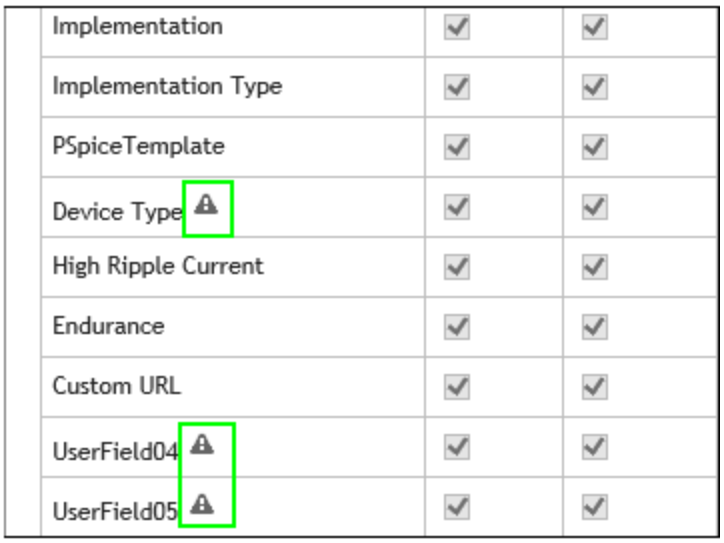
The changes takes effect the next time a user with the changed role opens a new page in CIP. The following example shows a user show can edit a part but not the Part_Number or the Schematic part.

Note: Users who are not allowed to edit Part_Number will not be able to create formal parts.



Example Of User With Partial Field Edit Permissions

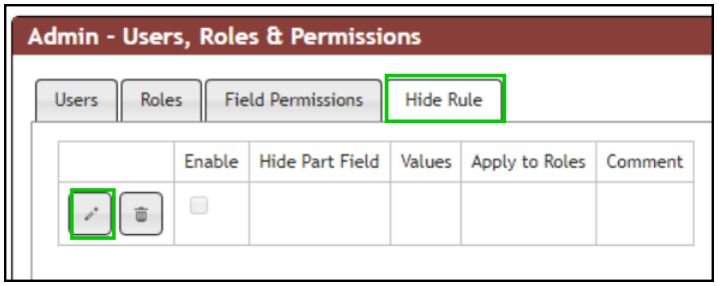
Fields that have not been configured as visible will be designated with an alert triangle, ⚠ next to the field name as shown in the following figure.



Fields Without Visibility Have Alert Triangles

3.5.4 Hide Rule

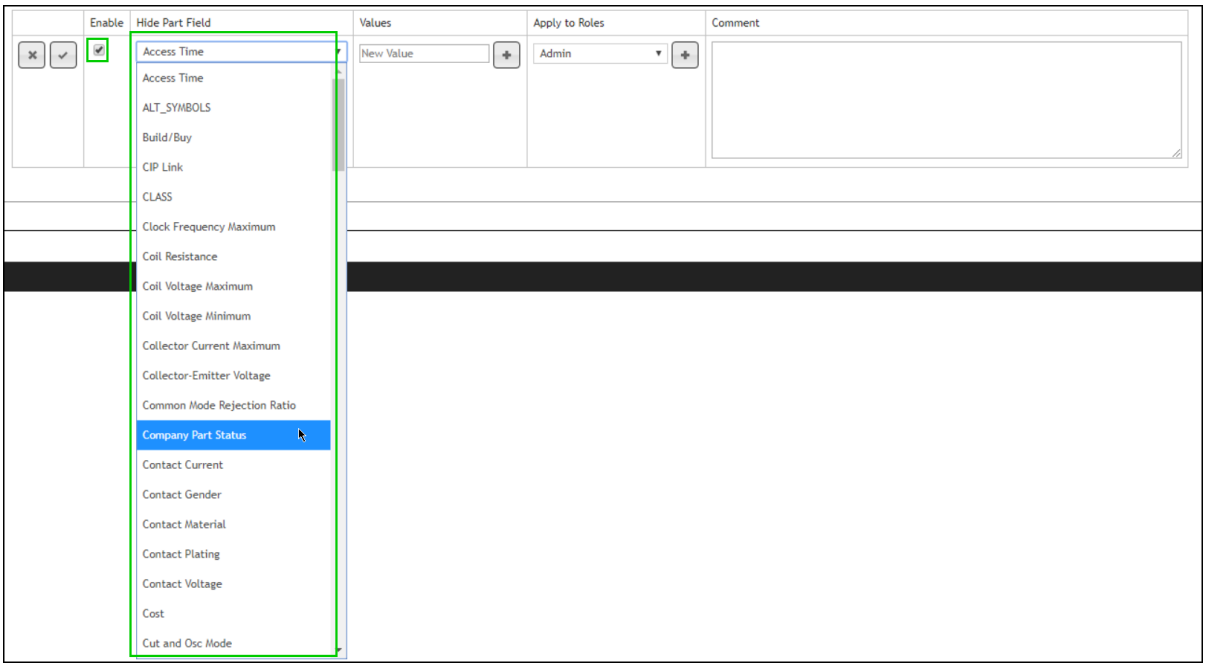
A rule can be defined to hide parts from users in a selected role. For example, if you do not want electrical engineers to be able to find and use obsolete parts, you can create a rule from the **Admin > Users, Roles and Permissions > Hide Rule tab.**



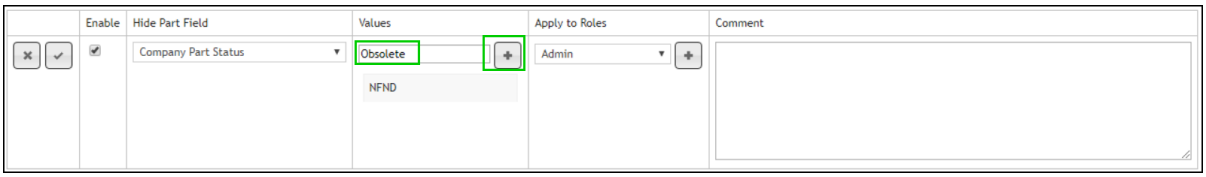
Configure Hide Rule

To Define a Rule to Hide Parts:

1. Click the **Edit** button to edit the rule.

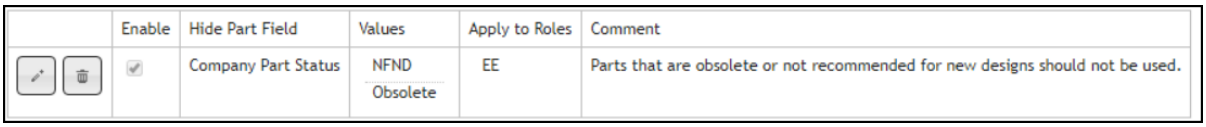


2. Select the **Enable** checkbox to enable a rule.
3. Select a **Field** from the drop list that will be used to determine which parts to hide.
4. Add **Values** for the matching conditions for the part to be hidden. Multiple values may be added as shown in the example. Click the **Add** button to add the value to the list.



5. Select a role that you want to apply this rule. Multiple roles may be added.

6. Add a comment for the rule and click the Save button to your configuration.



Once defined, users who are assigned the role will not be able to search or see parts that match this rule.

3.6 Scheduled Reports

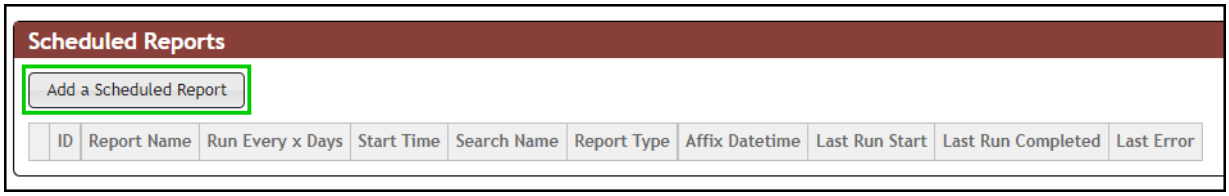
Scheduled Reports may be created from any saved Global Search. You can create multiple reports to run at different schedules.

To create a report task for a scheduled report

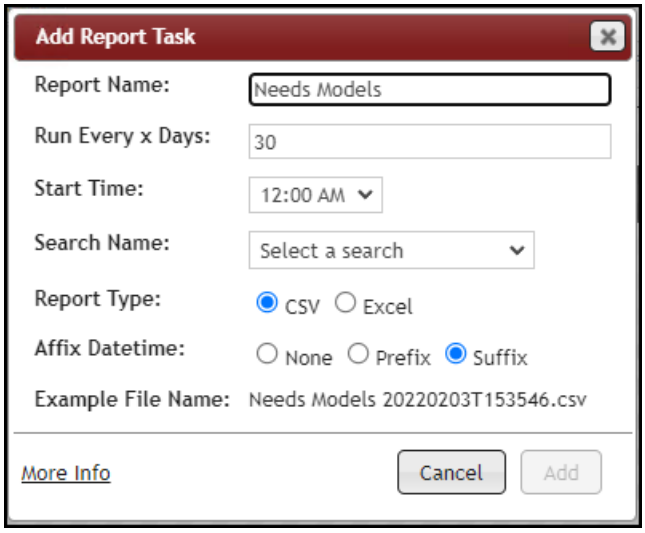
1. Select the **Admin** > **Scheduled Reports** menu.

Admin > Scheduled Reports

2. Click the **Add a Scheduled Report** button.



3. Enter the following configuration settings for your report task.



a. **Report Name** - Specify a file name for your report. The file name may have a date and time stamp pre- or appended.

b. **Run Every x Days** - Specify the periodicity of your report. Shortest period of automated reports is daily.

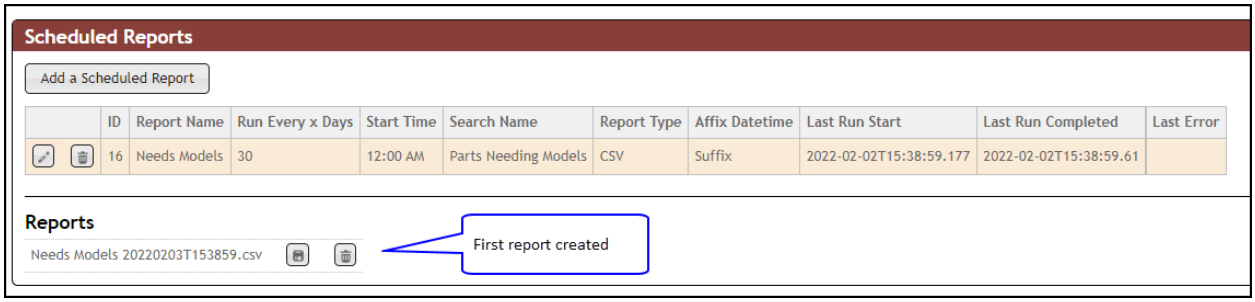
c. **Start Time** - You may specify a time that is off hours or any time to run the report. After specifying the time, a report may be generated immediately if the report has not run within 24 hours.

d. **Search Name** - Any saved global searches will be available to use for your schedule report task. Select a saved global search.

e. **Report Type** - You may specify to have your report generated in Excel or CSV format.

f. **Affix Datetime** - You may configure to include the date and time stamp as part of the output report name. As you select one of the option, an example file name updates.

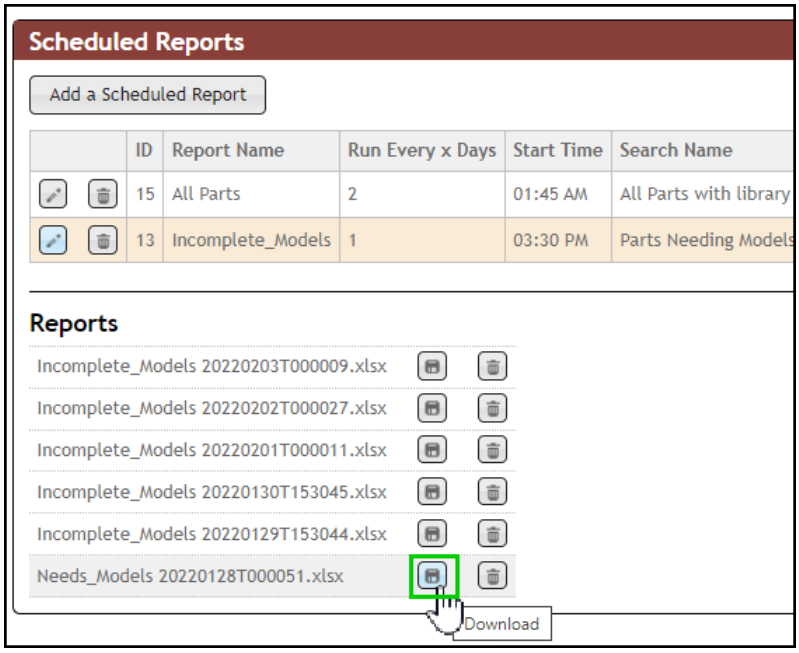
4. Click the **Add** button to save your configuration. Your report task shows in the list of all configured report.



To view, download or delete generated reports,

1. Click on the row with your report name. The output of a report task shows in the bottom. When you have more than 1 task configured, report for each shows as you click on each row.

2. Click the download button to download a report within a schedule task.

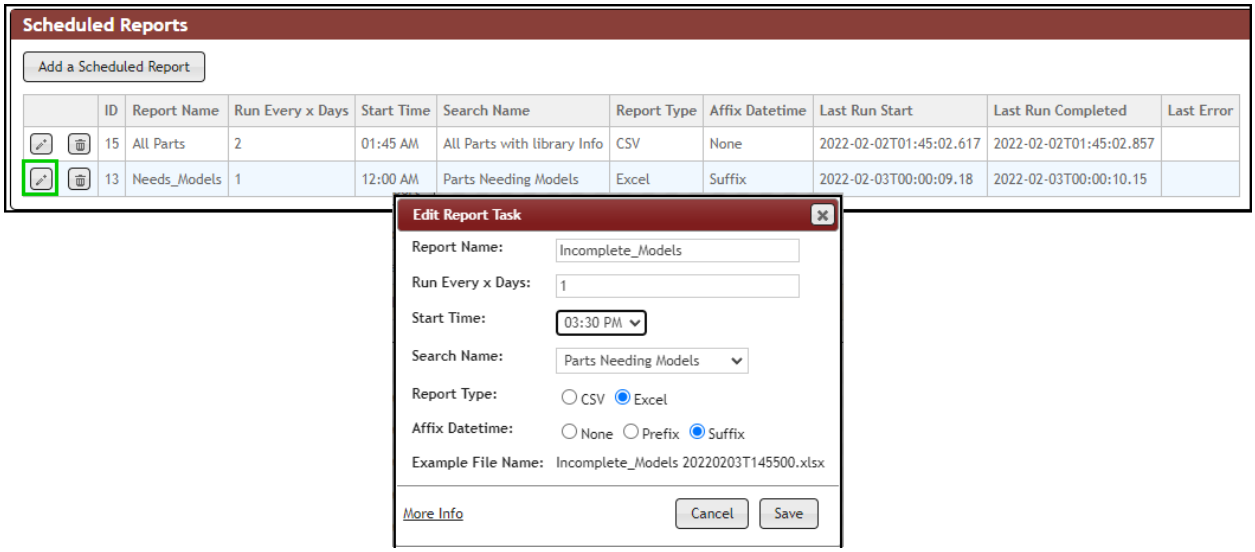


3. Click the delete button to remove a specific report. You are required to confirm before the report is deleted.

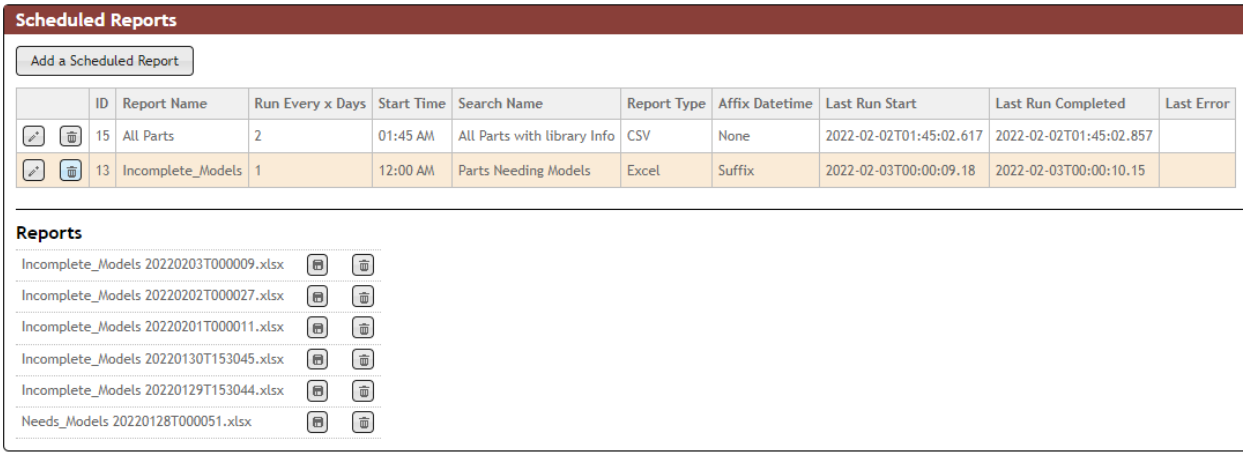
To Edit a scheduled task

1. Click the **Edit**,  button to open the Edit Report Task form. You may change any of the information configured, including report names.

2. You may change any of the information configured during add report task. Make your changes and click **Save**. Note that a new report will not be generated if already created within the period specified.

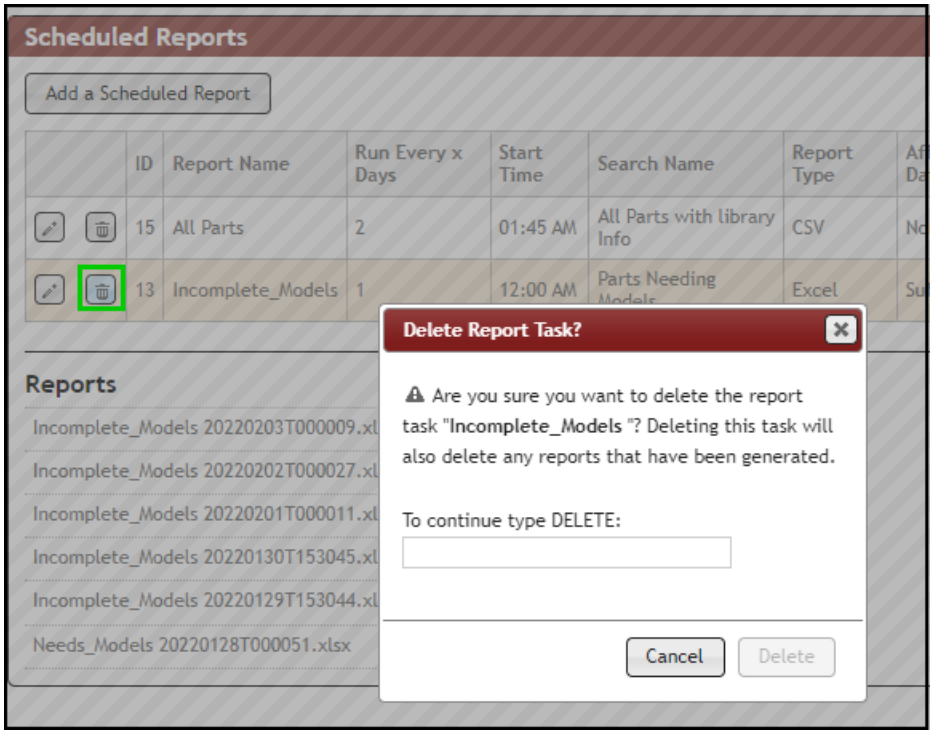


3. When date time is include in the report name of a report task, reports prior to the configuration change also shows when you click on the row of your report.



To Delete a scheduled task

1. Click the **Delete**, button for the report task you no longer need.



2. You are asked to confirm deletion by typing "DELETE". Once confirmed, the configuration and all reports associated to the task are removed. You will no longer have access to deleted reported.

Physical location of reports

- Physical file may be found directly on the server where the CIP web application has been installed, <CIP_Install_Location>\Web\Reports\ID#. The ID# can be found in the ID column in the list of Scheduled Reports.
- If access to physical files are needed to work with scripts, request the your company system administrator share the reports folder.
- A new ID will be create when tasks with the same report name are deleted and recreated.

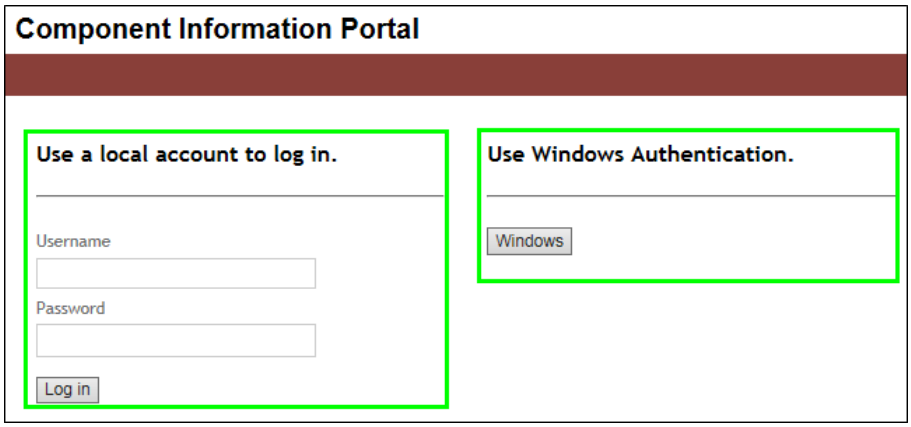
4 Using CIP

CIP is a powerful web-based interface that connects directly to the CIP Database. It allows users to perform basic tasks such as creating, editing, deleting, and searching for parts, as well as advanced tasks such as searching the distributors' databases, setting up email notifications and generating customizable fields, etc. CIP also enables Admin users to assign and manage different user roles.

CIS users connect to component and manufactures views of the CIP database.

4.1 Logging into CIP

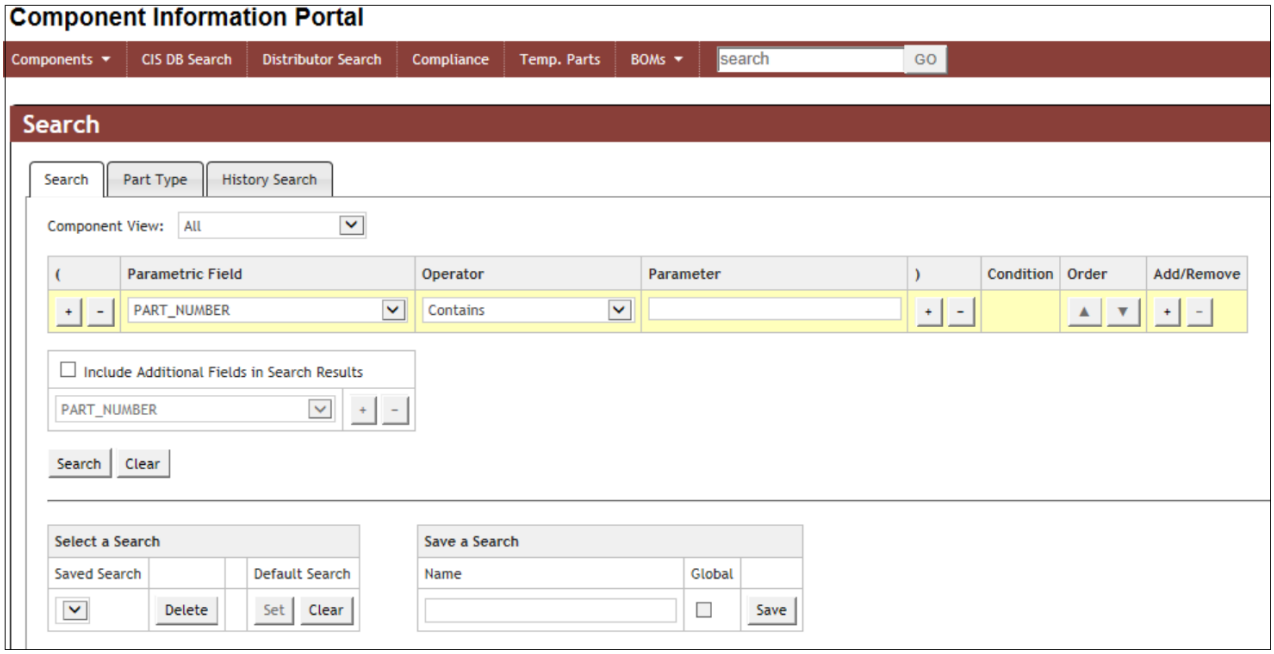
To start using CIP, you need a username and password. This will normally be provided by your CIP Administrator along with the CIP URL. Your username can be set up as either a CIP user or a Windows user, depending on the type of account your administrator created for you.



CIP User Login

If your account is a CIP account, type your username and password before you click the **Log In** button. If your account is a Windows account, you only need to click the **Windows** button to automatically log in. If you are unable to log in with your Windows account and your company has multiple Windows domains, you will need to contact your CIP Admin to confirm that CIP has been configured correctly. When using CIP in Capture and you see a blank screen either when you open CIP or when using Windows log in, you may need additional settings as described in CIP Client Installation guide section "CIP Shows Blank Screen in Capture".

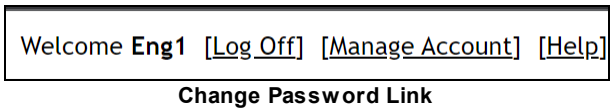
All CIP user roles allow you to search and view parts within CIP. The CIS DB Search and Distributor Search can be used to perform searches. The ability to edit or delete a part is based on the role assigned to you by the Administrator.



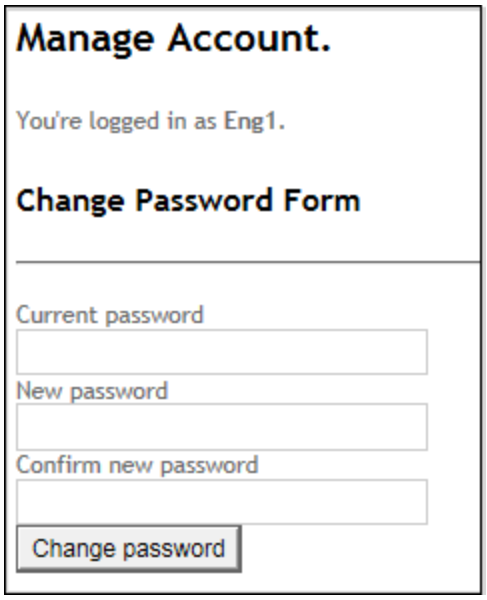
Search for Parts

4.2 Changing your password

You can change your CIP password by clicking the **Manage Account** link that is located in the upper right-hand corner of the CIP page. When Ultra Librarian model download is enabled, you may enter your Ultra Librarian Username and password. Users logging in with a Windows account will be unable to change the password from CIP, but may enter Username and password for Ultra Librarian. When Ultra Librarian model download is disabled, Ultra Librarian log in is not shown.



Change Password Link

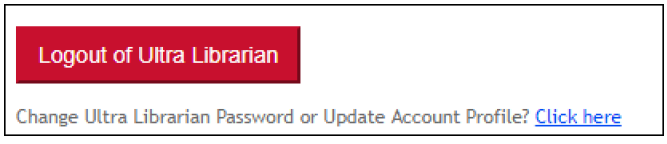


Change Password

Enter your Ultra Librarian username and password to download ECAD models available through Ultra Librarian. If you do not have a login, click on the **Click here** link next to *New User or Forgot Password?* to register for an account. A new browser window opens to the Ultra Librarian site to register for a new account.

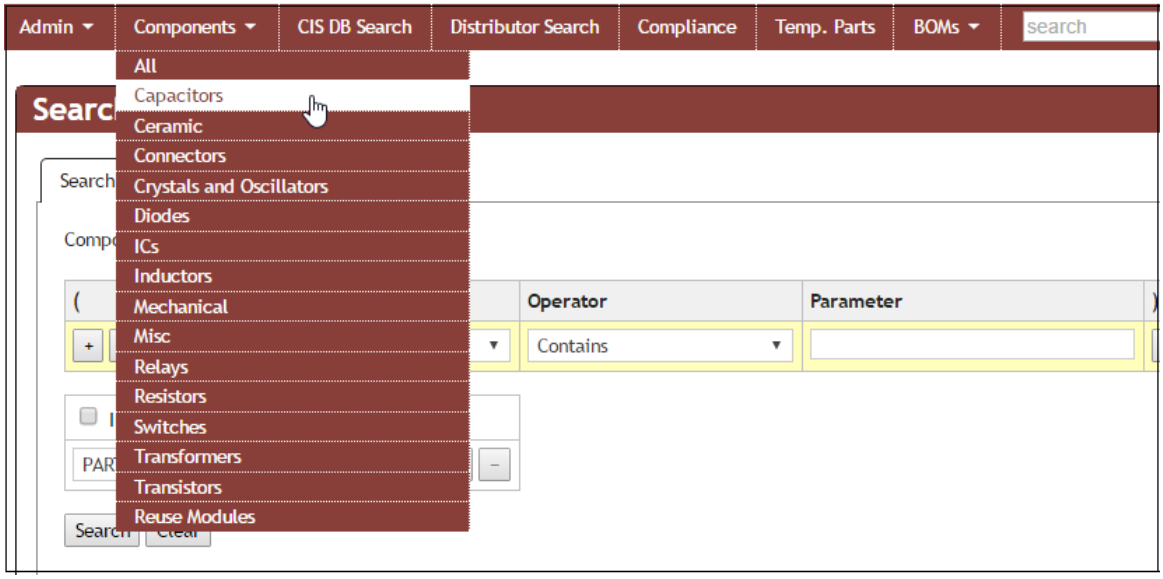
Enter Ultra Librarian Username and Password

If you are logged in and need to change your account settings or password, click the **Click here** link to Change Ultra Librarian Password or Update Ultra Librarian Account Profile. A browser window opens to the Ultra Librarian site. If you wish to log out, click on the **Logout of Ultra Librarian** button.



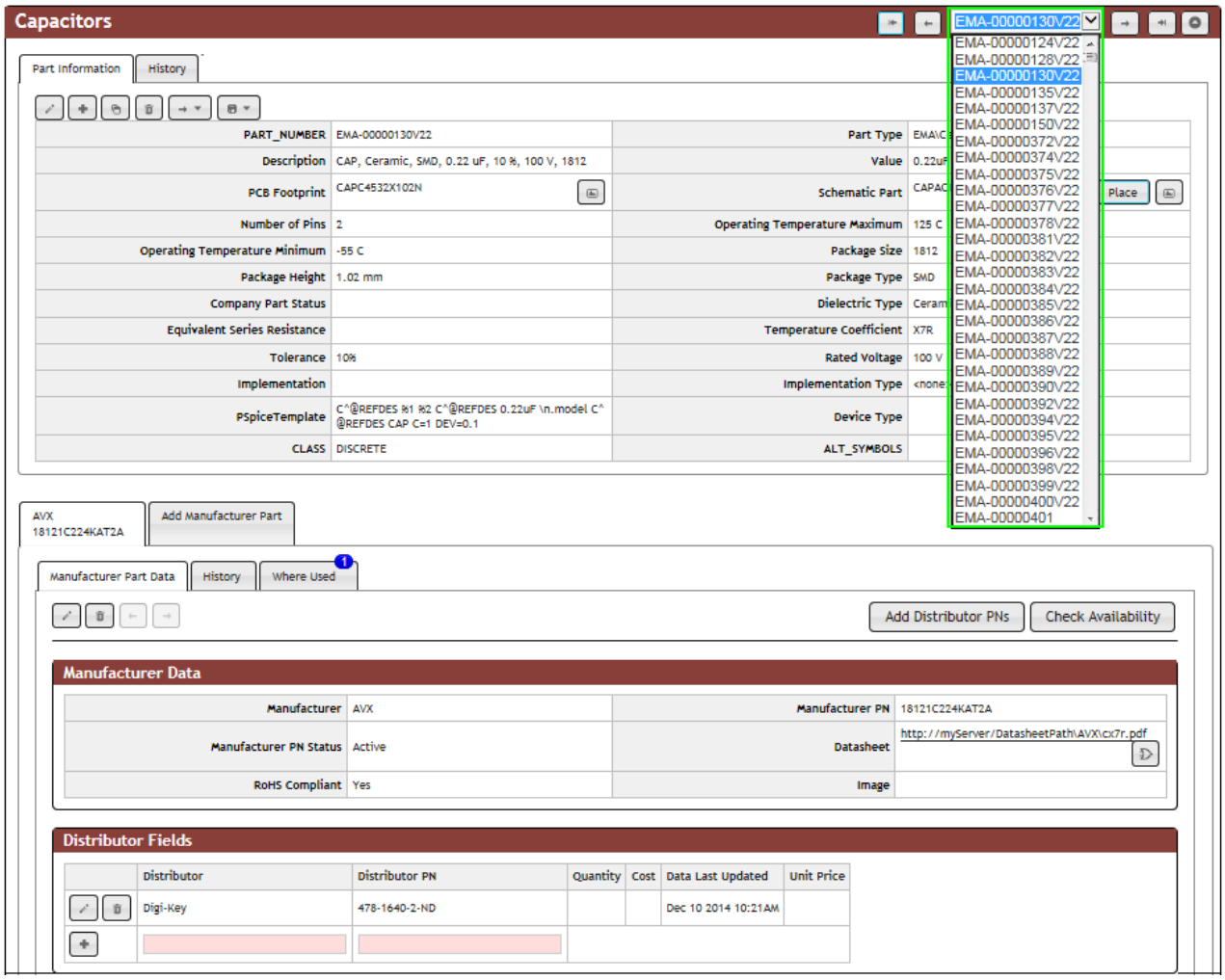
4.3 Components

The Components pull-down menu is one of several method to search for parts. This method enables you to choose a specific component view of parts, or All parts. For example, if the Capacitors view is chosen from the Components list, the result will show the Part Information page for the first capacitor from the Capacitors view in the database. Once a Components view is selected from the list, the parts pull down list will show only parts in the selected view (in this case, capacitors). You will see the part information page consisting of part attribute data in the component form as well as the manufacturer and distributor data.



Hover over Components to see the List of Part Tables, including All Tables

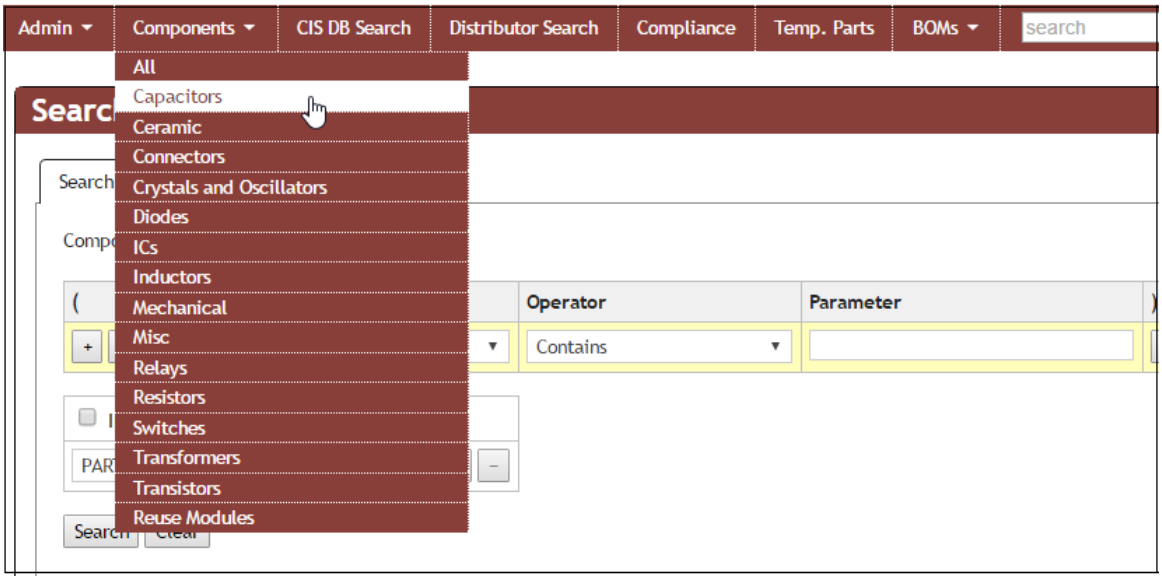
You can navigate through the part list by clicking the Previous and Next buttons that are located to the left and right of the part number. You can also click or to select the First or Last part in the current list. Click to toggle the sort order from ascending to descending, or to go from descending to ascending order.



List of Parts in a Given Table

4.3.1 Creating/Modifying Parts

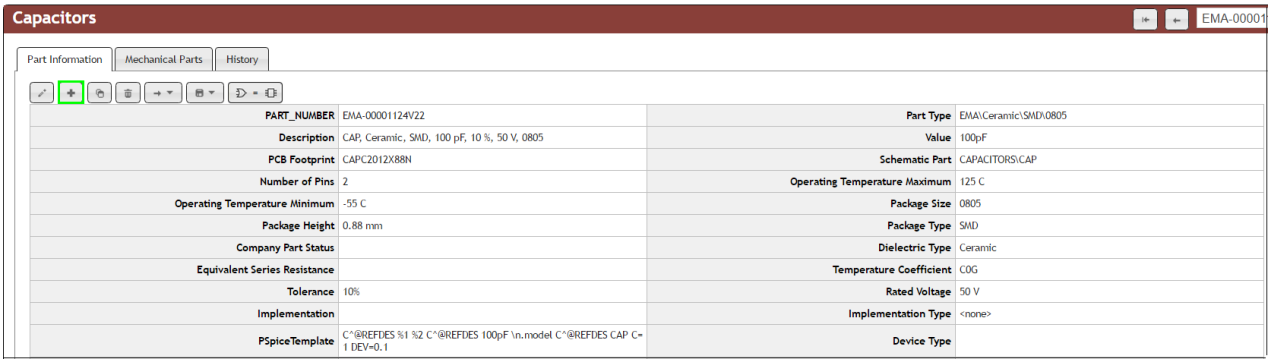
Before a part can be created or modified you must select the Components menu item to open the Part Information page.



Select Table To Add or Modify Parts

4.3.1.1 New Part Creation

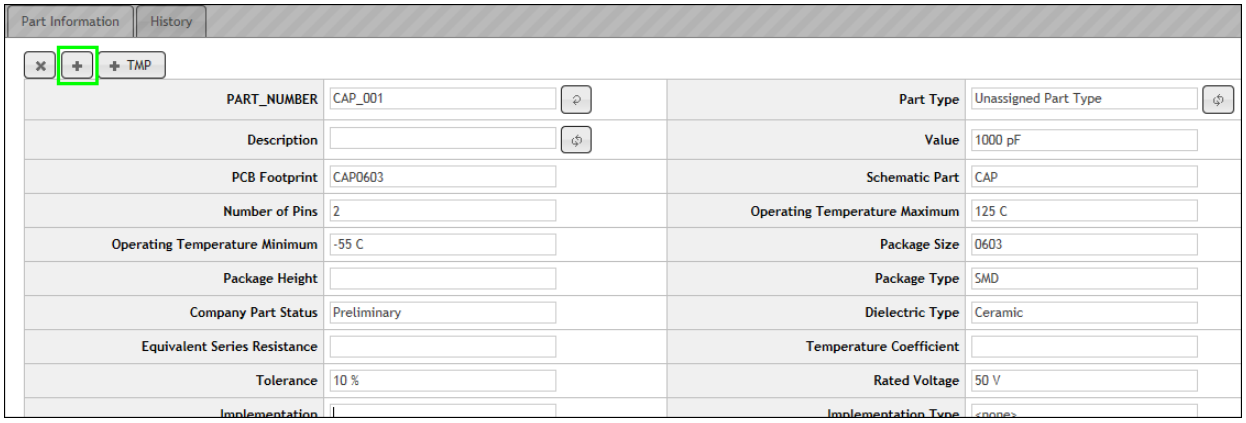
New parts can be added by clicking the **New** button from any Part Information page of a part detail. The New button is only available to users who are granted permission to add a new part.



New Part Creation

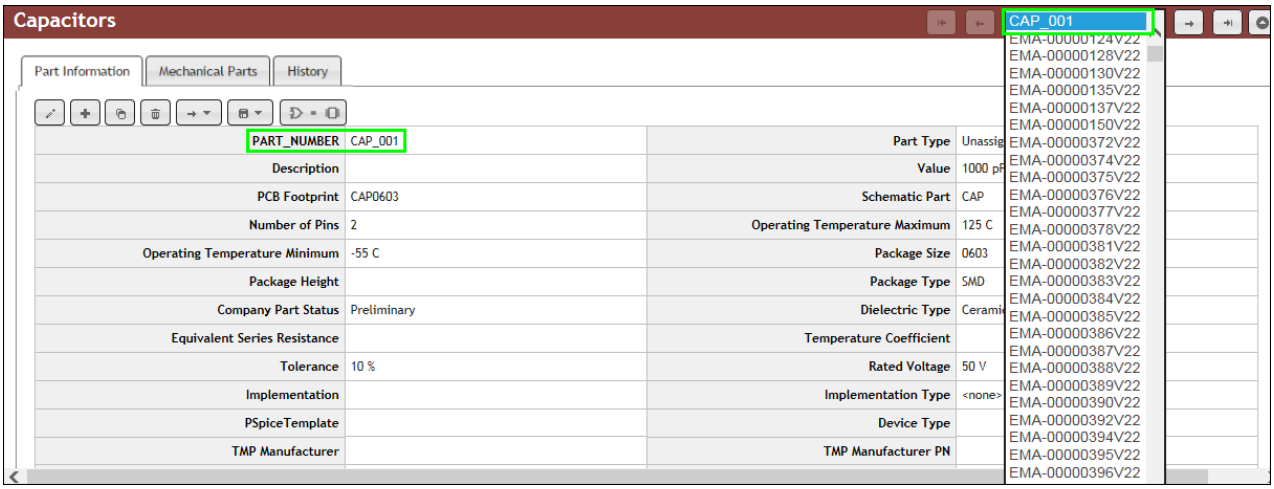
A new part entry form opens when you click the **New** button. Part data can be added from this page as well as a formal company Part Number. Click the **Add** button (same graphic as the New button from previous figure) to generate the new part with all entered information. If a default value has been configured for a field, the new part entry form will show the default values for the configured fields. Refer to Customizable Fields section of this guide for instructions on how to configure default values.

Note: The **Add** button is only visible when you are granted permission to add a formal part number.



Add New Part

The New Part results will appear in the drop-down list of parts in the Components area. Additionally, the part also becomes available to CIS users who are connected to the CIP database.



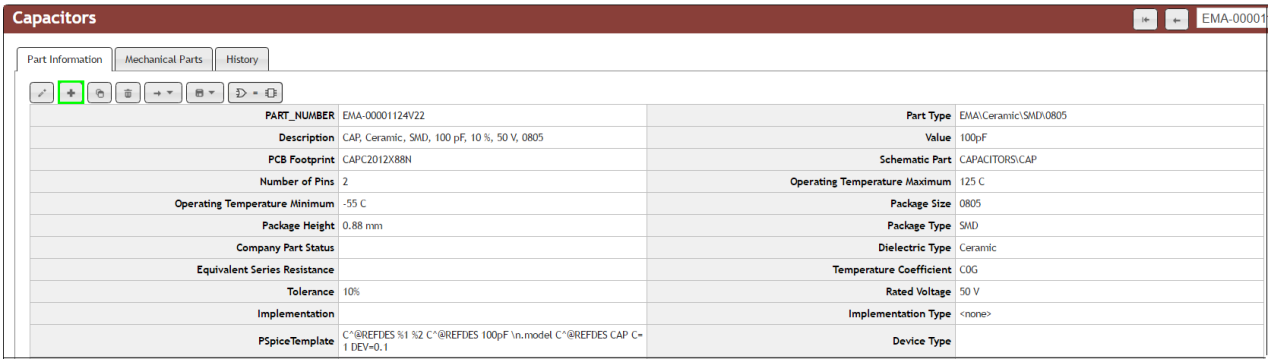
Drop Down List of Part Numbers

4.3.1.2 Creating New Part with Next Available TMP Part Number

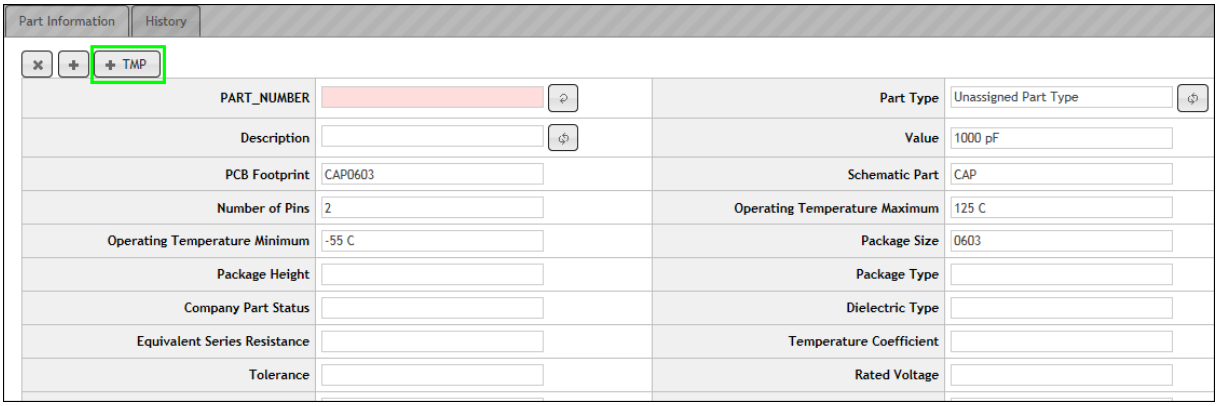
If a formal part number is unavailable at the time you enter your part, you may create the part as a TMP part and change the TMP part number to the formal number at a later time.

Note: The 

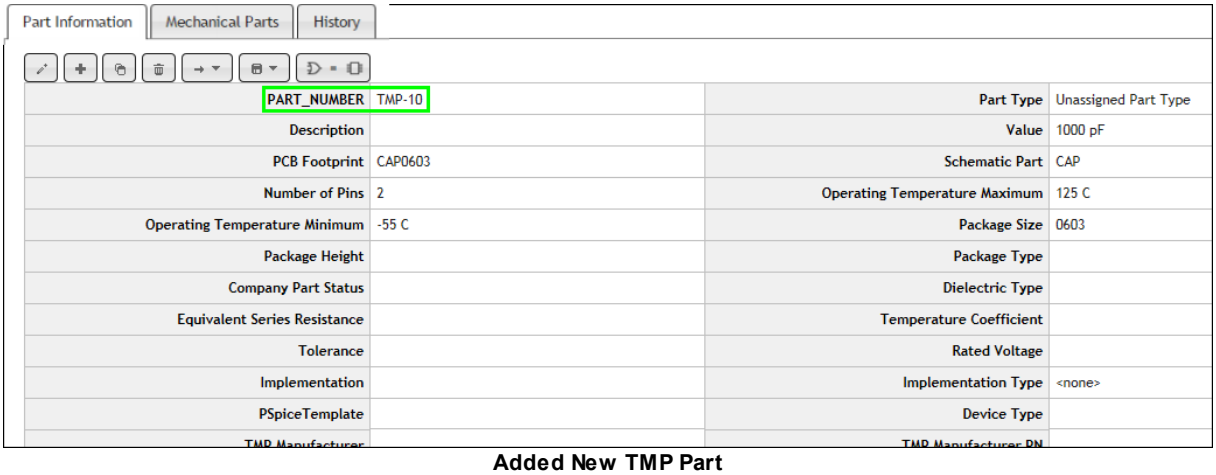
button is only visible when you are assigned permission to add a TMP part.



New Part Creation



Add New TMP Part

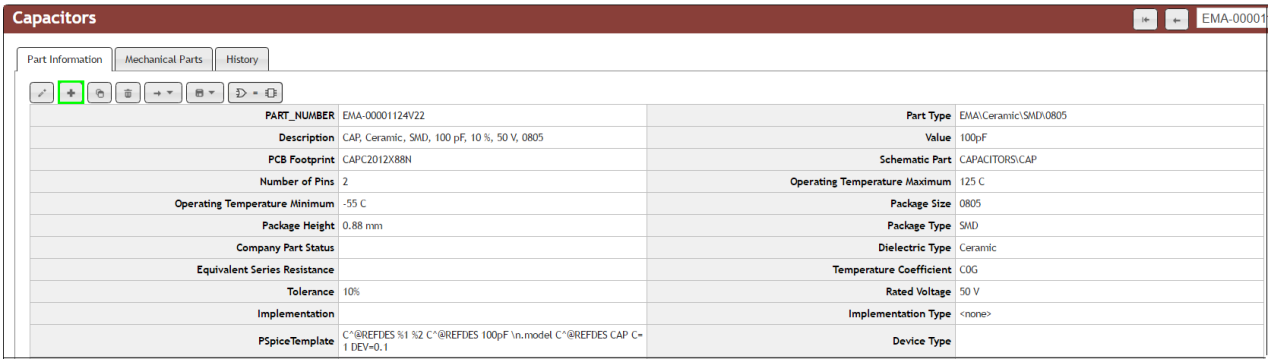


Added New TMP Part

4.3.1.3 Creating New Part with Next Auto-Increment Part Number

To create a formal Part Number using the Auto-Increment Part Number feature, click on the **New** button to bring up a blank new part form.

Note: The New button is only visible when you are granted permission to add formal or TMP parts.

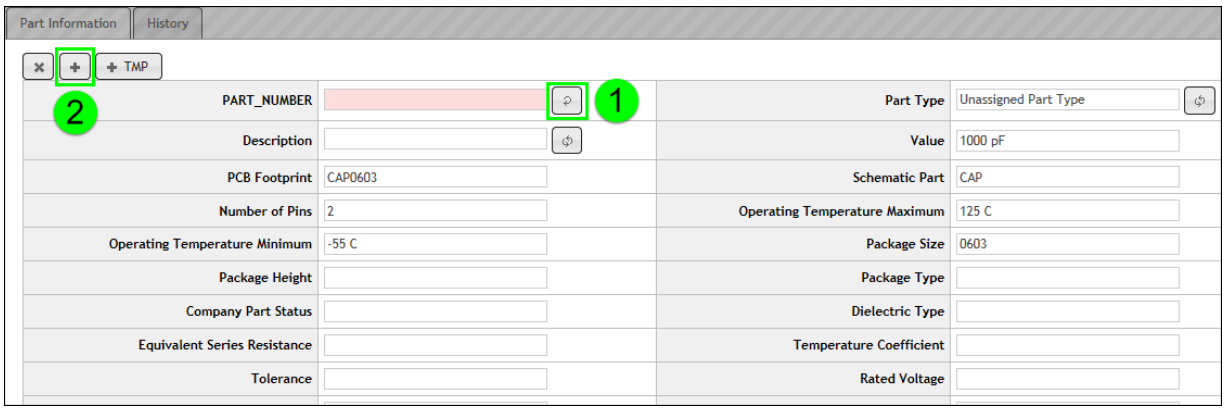


New Part Creation

Enter data into the new form and then select the **Next PN** button to obtain the next part number in the sequence.

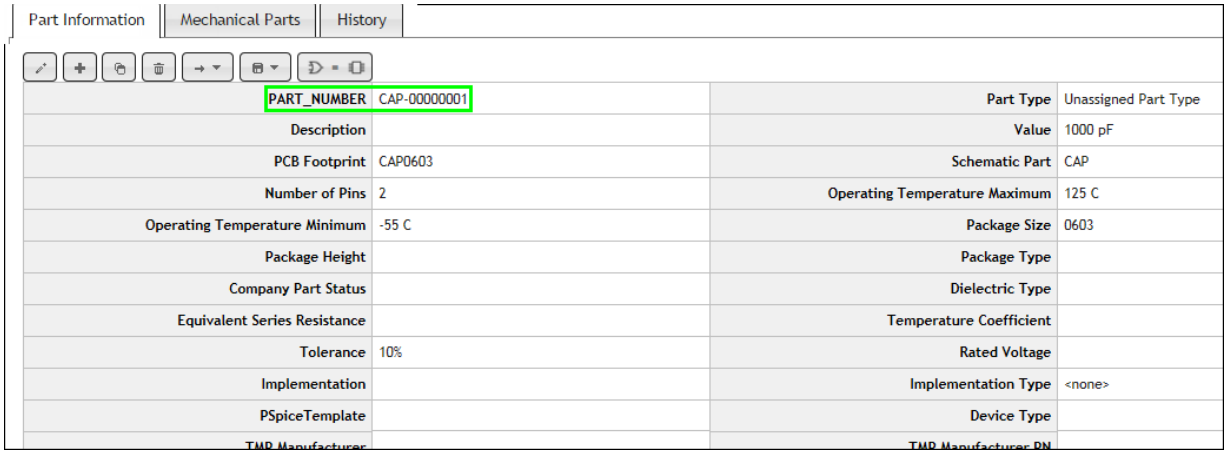
Select the **Add** button to add the part.

Note: The New button in this screen is only visible when you are granted permission to add a formal part.



Add New Part with Next Available PN

The example below shows the first auto-increment part number with a prefix of CAP-, followed by eight digits for the sequence number.

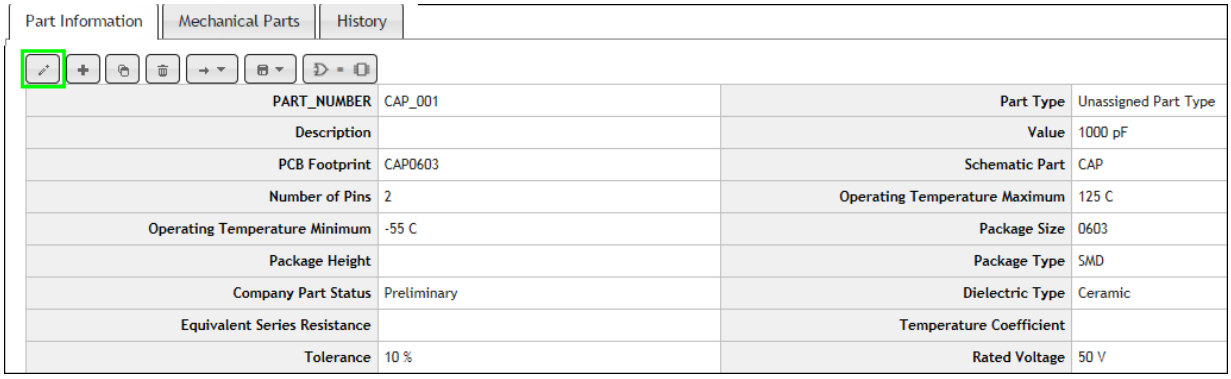


Added New Part with Next Available PN

4.3.1.4 Modifying an Existing Part

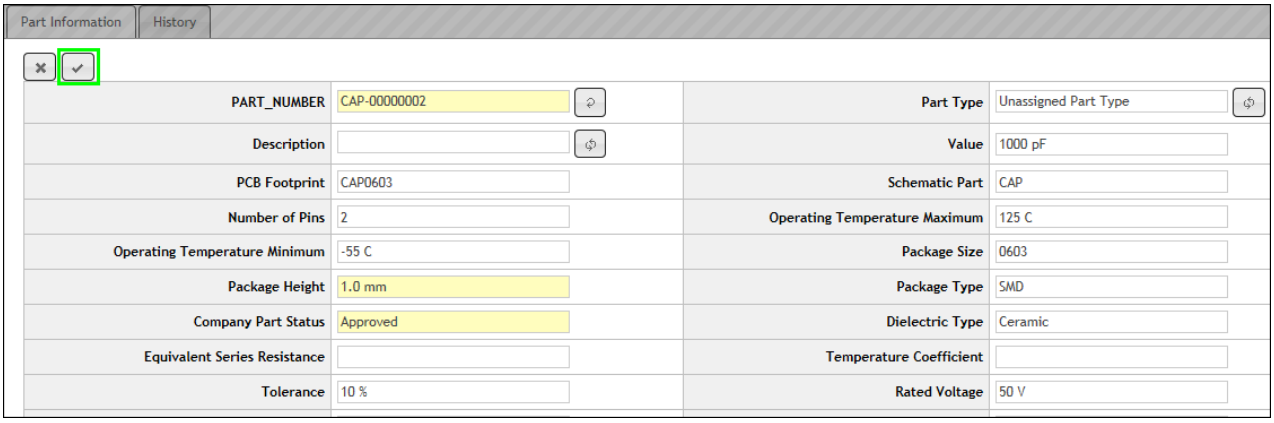
Parts can be modified from the Part Information page by selecting the **Edit** button . Part data can also be modified using the Distributor Search to overwrite component data. The mapped distributor field data from the distributor search results can update a part already in CIP.

Note: The Edit button is only visible when you are granted permission to modify a part.



Modify an Existing Part

Once the Part Information opens, modify the desired data and click the **Update** button to save the change. Temp parts can be modified in the same way. Converting a TMP Part to a formal part can be done by modifying the PART_NUMBER field.



Save Changes to Existing Part

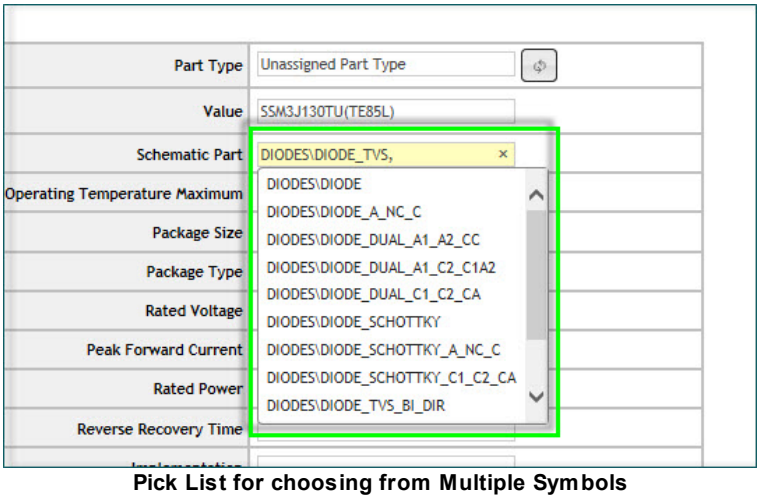
Note: When you modify part attributes or properties, all instances of that part update. If you do not want to update all instances, you need to create and reference a new part or part number.

Updating Schematic Part

There are two ways to update the schematic part with additional symbols. You may type your symbol name or select the **Add** button. Type a comma to separate multiple symbols. The **Add** button is available when CIP is opened in Capture CIS.

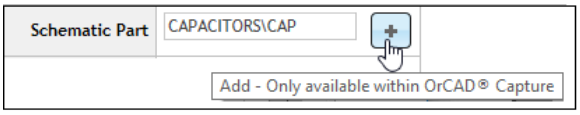
To update a schematic symbol while in the edit form

- When you start typing your symbol name, the list of all symbol used in the database will show. You may select from the list or continue to type the symbol name. Each time you type a comma, the list appears again for your selection.



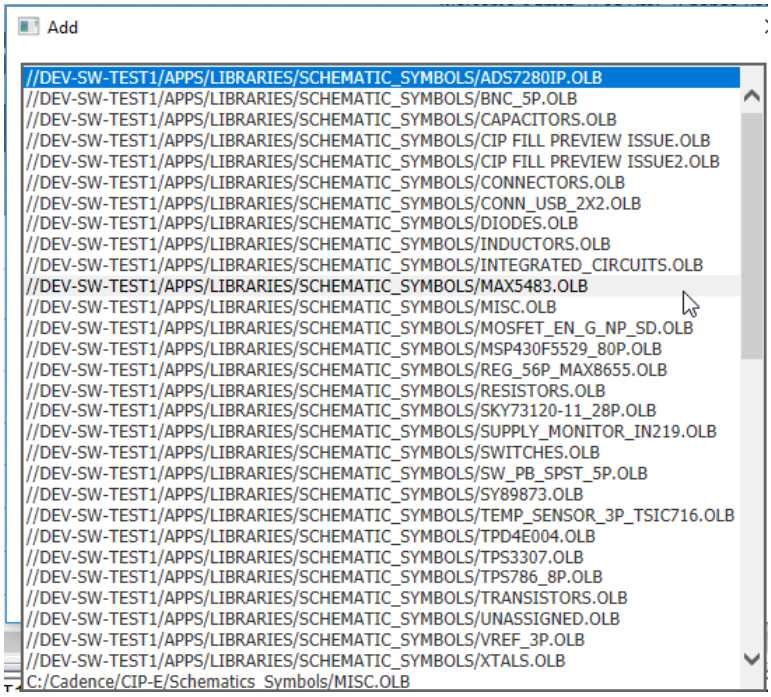
Pick List for choosing from Multiple Symbols

- If you want to select the symbol from one of the libraries configured in your Capture.ini file, click the **Add** button that is located to the right of the Schematic Part field.



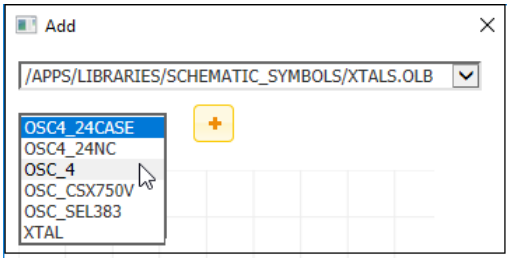
Note: The Add button is only available when you open CIP from OrCAD Capture. When you click the **Add** button, a preview window opens with a list of OLB libraries.

1. Select a OLB library from the list.



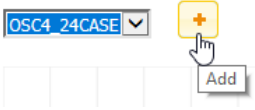
Selection List of OLB Library Symbols

The name of the first symbol in the library populates the Symbol field. However, if the symbol library you select includes more than one symbol, a drop list becomes available so you can select an alternate symbol.



Select an Alternate Symbol from OLB Library

2. Click the **Add** button to populate the field with the name of the symbol you selected. This process may be repeated for multiple symbols.

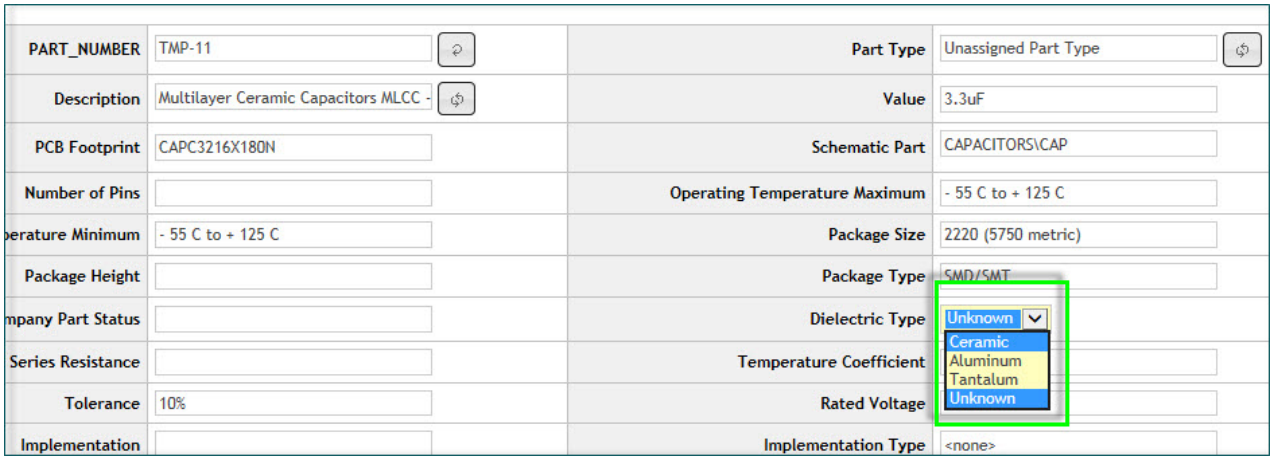


Updating PCB footprint

When you start typing your PCB footprint name, the list of all footprints used by other parts in the same component will show. You may select from the list or continue to type the footprint name. Each time you type a comma, the list appears again for your selection.

Pick lists

If pick lists are configured for fields, you can choose the desired value from the list. For example, if the Dielectric Type field is set up to offer a pick list of the values: Ceramic, Aluminum, Tantalum, or Unknown, then you can access the list and choose one of those values. If a field is changed from text to a pick list and your data does not match one of the items in the pick list, modifying the part will automatically change the field data to one of the values in the list. Only persons with administrative privileges can configure pick lists in customizable fields. Refer to Customizable Fields section of this guide for instructions on how to configure pick lists.



Choosing a Value from a Pick List

4.3.1.5 Moving a Part to a Different View

When you want to move a single part from one component view to different view, you can open the part page in CIP, click the **Move** button and select the Component View from the drop-down menu. If you use the Move button to move a part to another component view that is to the same table, the part history remains intact. However, if you use the Move button to move a single part to the component view of a different table, the part history will be lost.

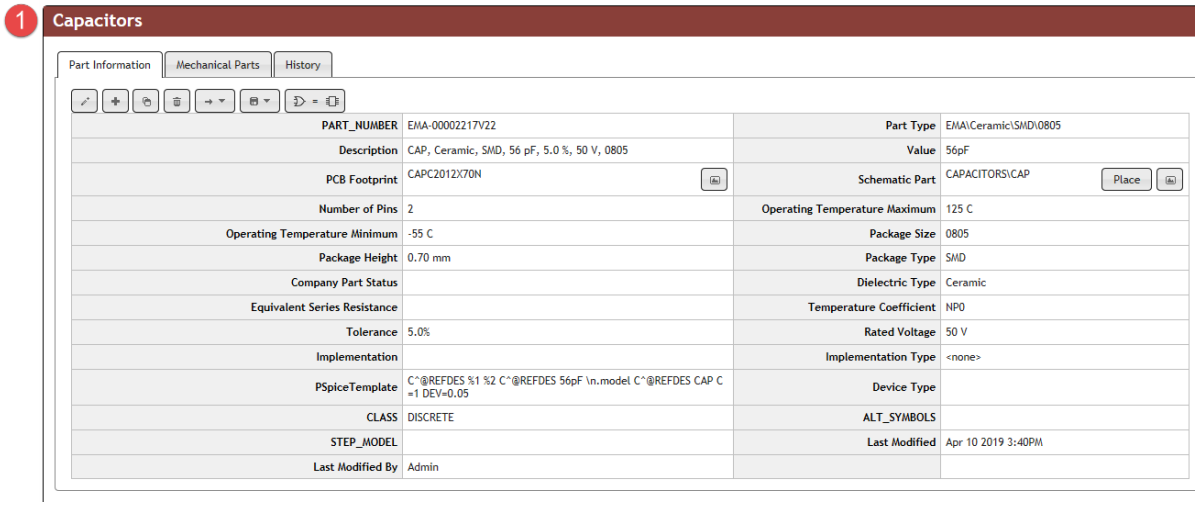
You can easily move a group of parts from one view to another by using the Component View Mover tool. However, the originating and target views must be within the same table. The **Move** button is only visible when you are granted permission to delete and create parts.

Note: Fields can only be transferred to a new view when the field names of the two views match. The values of fields that have a different field name are lost in the new view.

To move a part to an alternate view

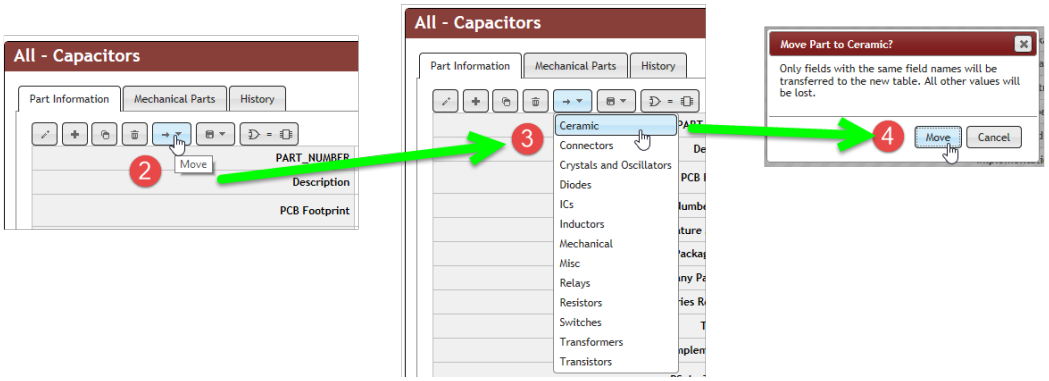
1. Open the part. The name of the view associated to the part displays in the part header.

The example below shows PART_NUMBER 00002217V22 in the Capacitors view.



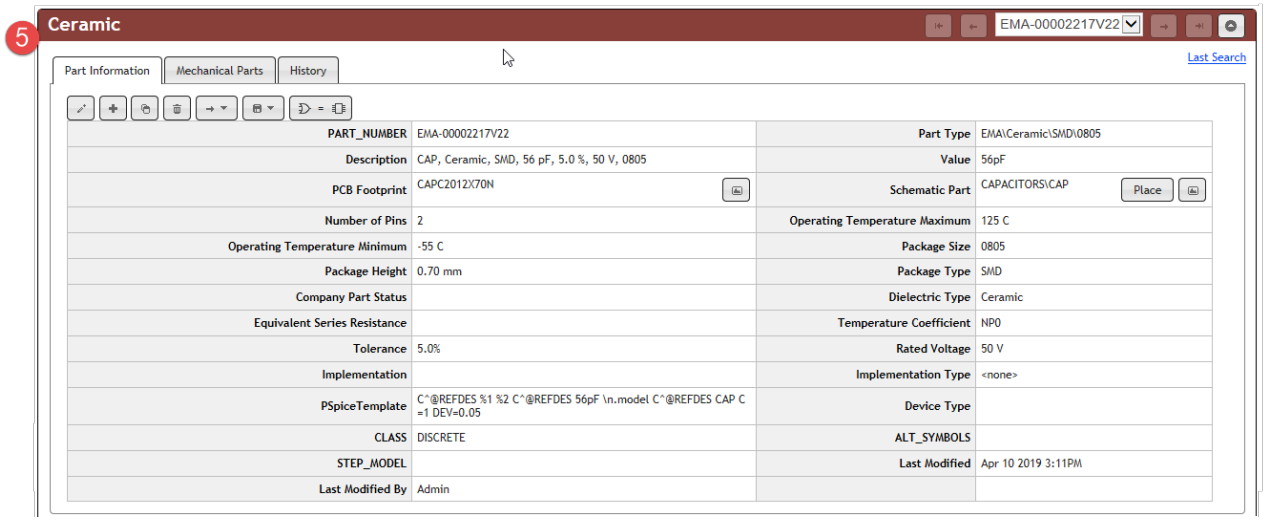
2. Click the Move button.
3. Select the alternate name of the view you want to associate to the part from the drop-list menu.

   The example that follows shows the selection of the Ceramic view, which is a user-defined view as setup in the **Admin** > **Configuration** > **Component Views** page.



   Note: When moving parts to a view that is associated to a different table, history records of all prior changes will be lost. This information is also stated in the warning for this case.

4. Verify the view header to confirm the view you selected is associated to the part.

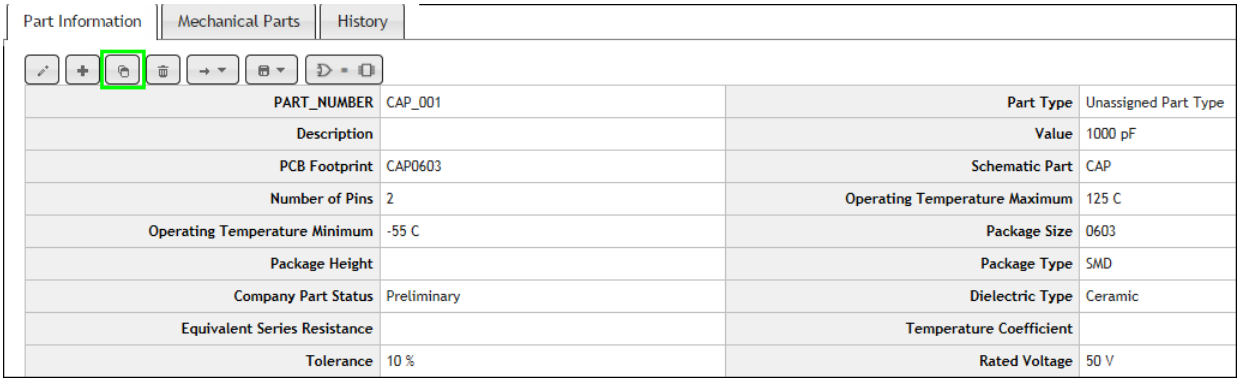


Part view displays in header

4.3.1.6 Copying an Existing Part

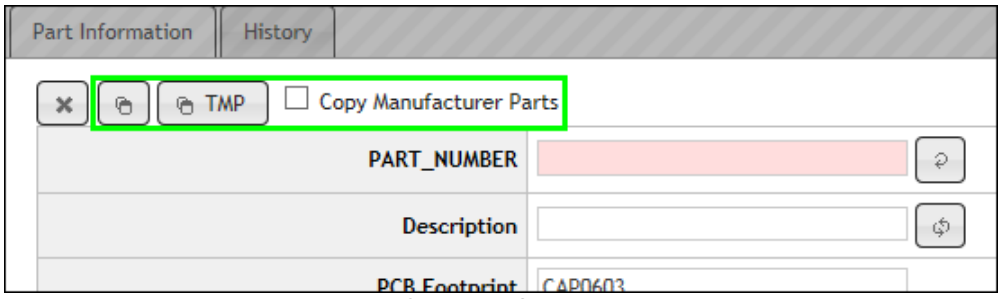
The Copy button allows users to create a copy of any existing Formal or Temp part. The Copy feature also provides an optional checkbox to copy the Manufacturer Parts associated with the Formal or Temp part. Before completing the copy, users are able to modify the field values as desired.

To copy an existing part, find the part you want to copy. From the Part Information section, click the **Copy** button 
.



Copy Part

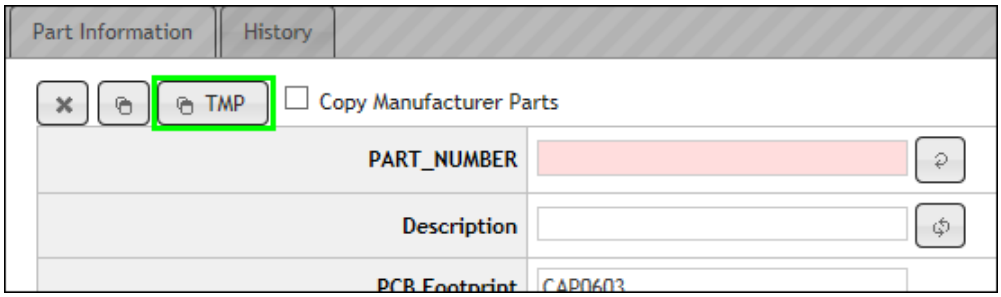
After clicking the **Copy** button, users are able to change field values and choose whether or not to copy the associated Manufacturer Parts (using the checkbox).



Copy Part Options

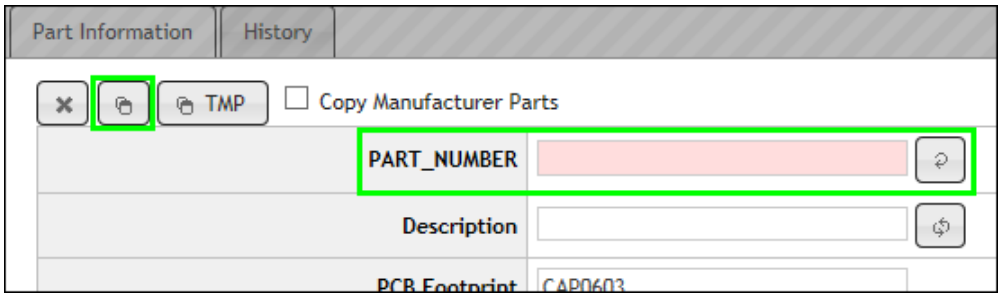
To copy a part as a temporary part, click the **Copy as TMP** button 

. This will copy the part and its field values. If **Copy Manufacturer Parts** is checked, associated Manufacturer Parts will be copied as well. CIP will assign the next available TMP PN to the copied part.



Copy Part as TMP PN

To copy a part with the Given PN (i.e. the value in the PART_NUMBER field), populate the PART_NUMBER field manually or click  to generate the next available number. When ready to complete the copy, click  to Copy with the Given PN. If the PART_NUMBER is left blank, an error message displays when you click the **Copy** button that states a PART_NUMBER is a required field.



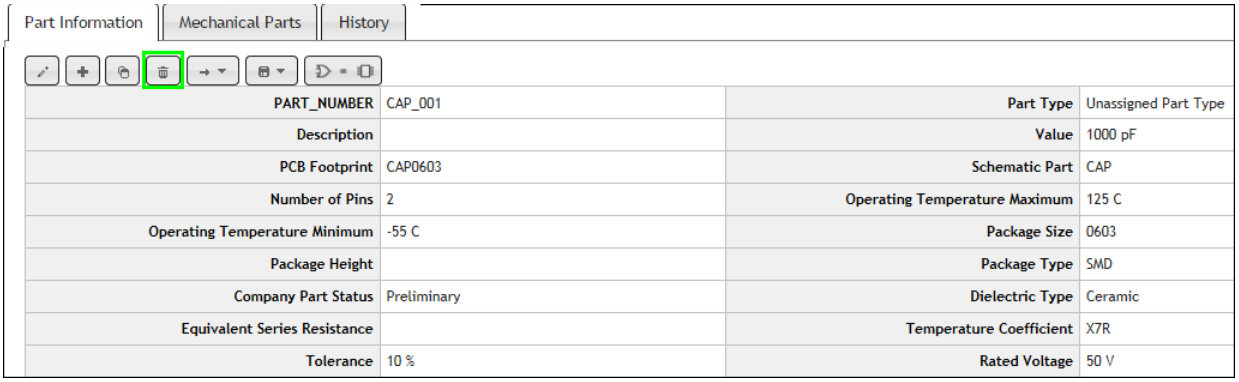
Copy Part as Given PN

4.3.1.7 Deleting a Part

If you have a part you wish to delete, click the **Delete Part** button  on the Part Information section for the specific part. A confirmation window prompts you to confirm the Delete operation or Cancel. Exercise caution when

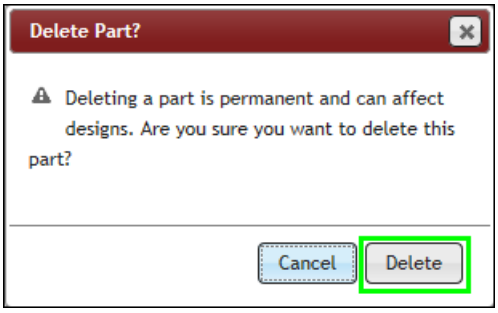
deleting a part as it may be used in multiple legacy designs. Deleting the part can ultimately affect the usage of those designs.

Note: the Delete button is only visible if you are granted permission to delete parts.



Delete Part

Click **Delete** to confirm part deletion or Cancel to keep the part.



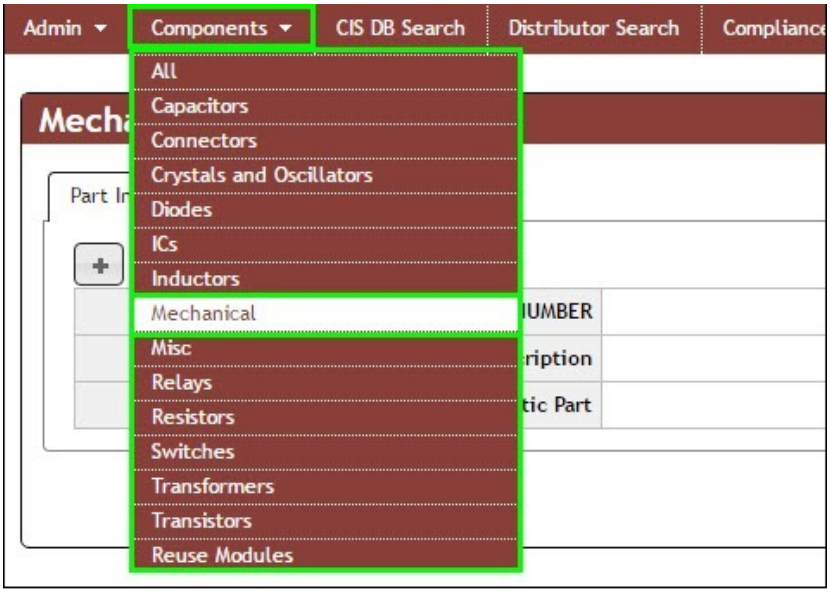
Delete Part Confirmation

4.3.1.8 Adding Mechanical Parts to a Component

Mechanical Parts can be associated to existing parts in CIP. The associated Mechanical Parts can be included in Capture CIS BOMs or CIP BOMs without the need to have parts placed on designs. This includes parts such as screws and washers.

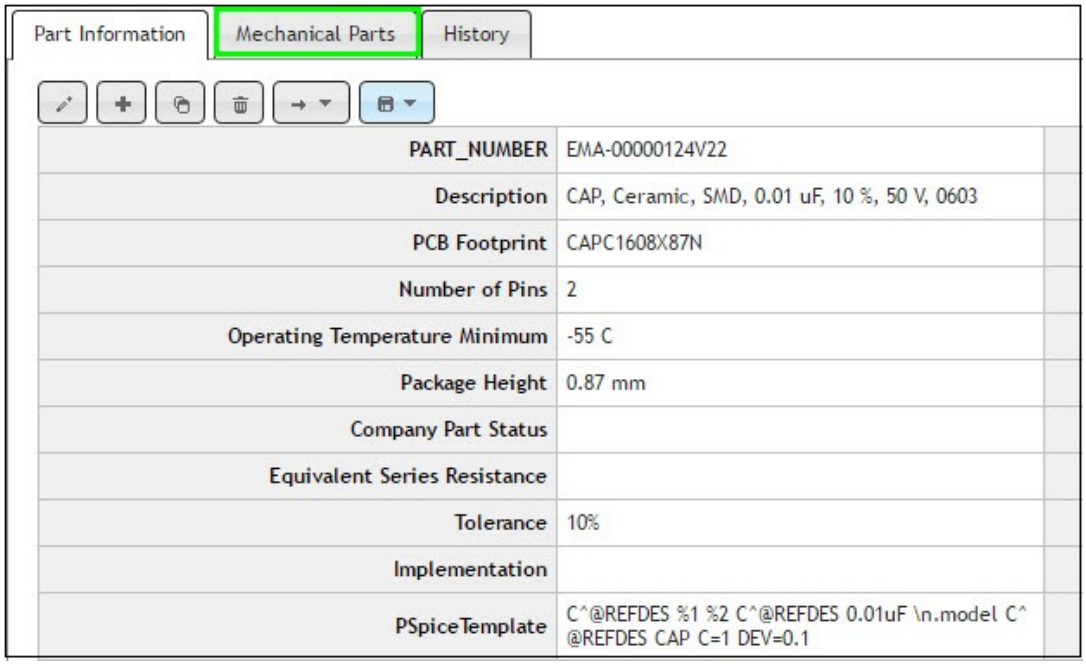
Note: To include mechanical parts when generating BOMs in Capture CIS, be sure to select the Output Mechanical Part Data checkbox in the Reports > CIS Bill of Materials pop-up.

Mechanical parts are created the same way as any other New Part. To create a new mechanical part, select the **Components > Mechanical** menu items as shown in the graphic figure below.



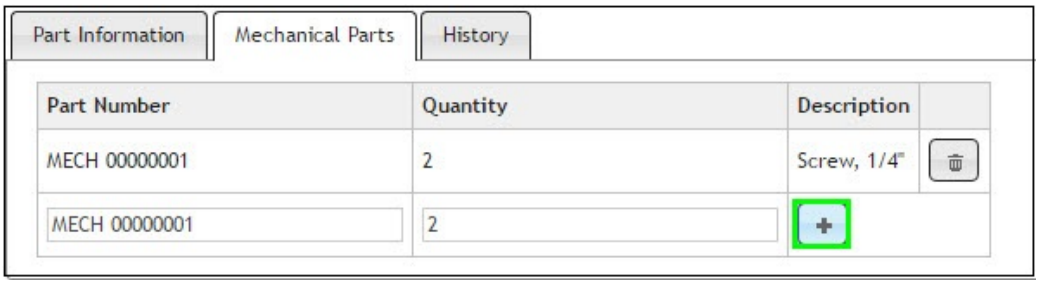
Select Mechanical

To add mechanical parts to an existing part, click the **Mechanical Parts** tab while viewing the intended part.



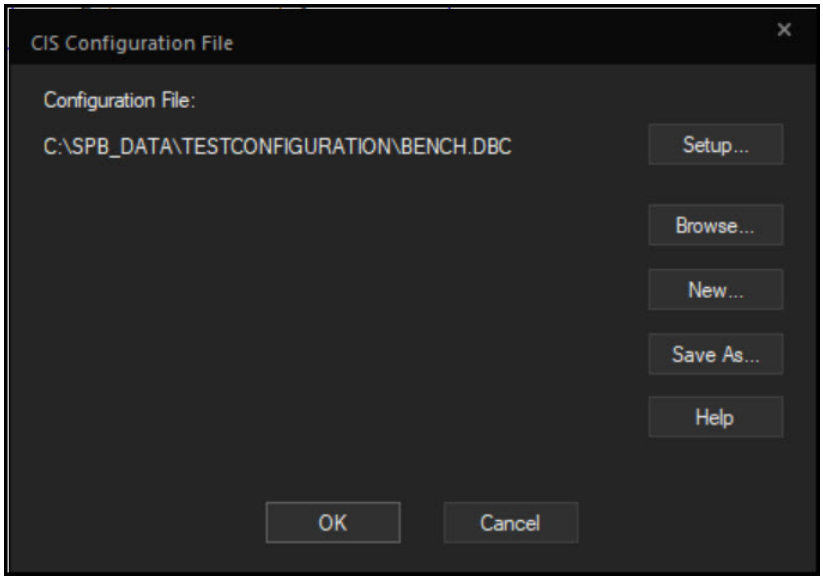
Select Mechanical Parts Tab

Enter the part number and quantity of the mechanical part to be added and click the **Add** button . The Description appears when mechanical part is added. Repeat this process for any additional mechanical parts.



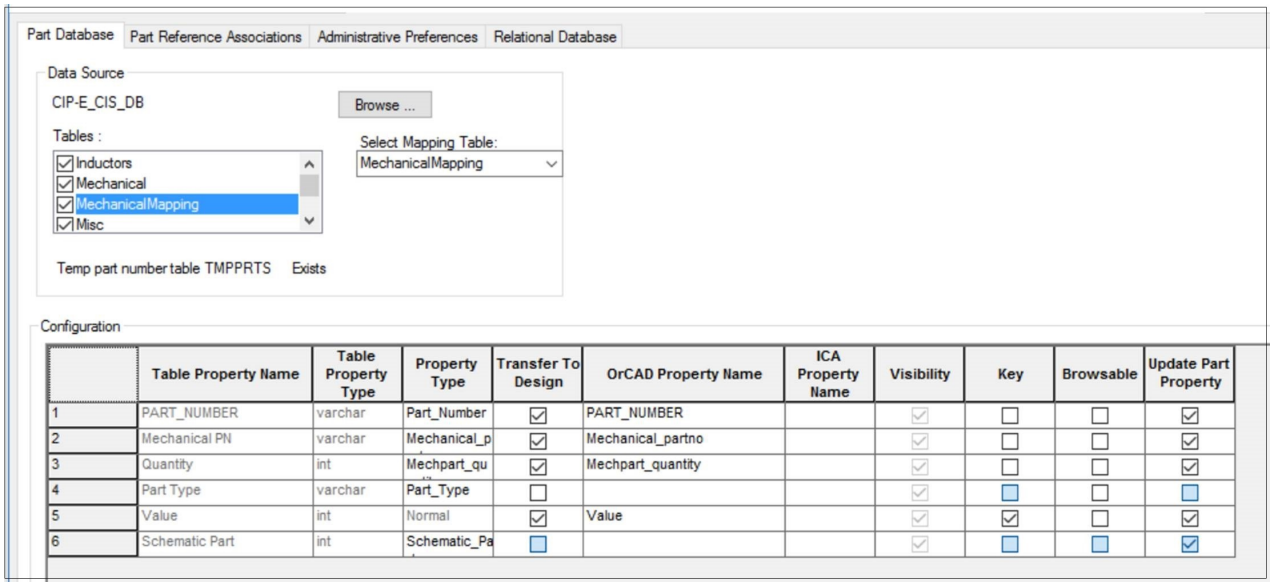
Add Mechanical Part

If you are creating your own .DBC file, rather than using the default, be sure to configure the MechanicalMapping. Use the CIS Configuration wizard in Capture CIS to create new .DBC file. While in Capture CIS, select menu item **Options > CIS Configuration**. Review the Appendix for instructions that explain how to update the CIP/CIS .DBC file.



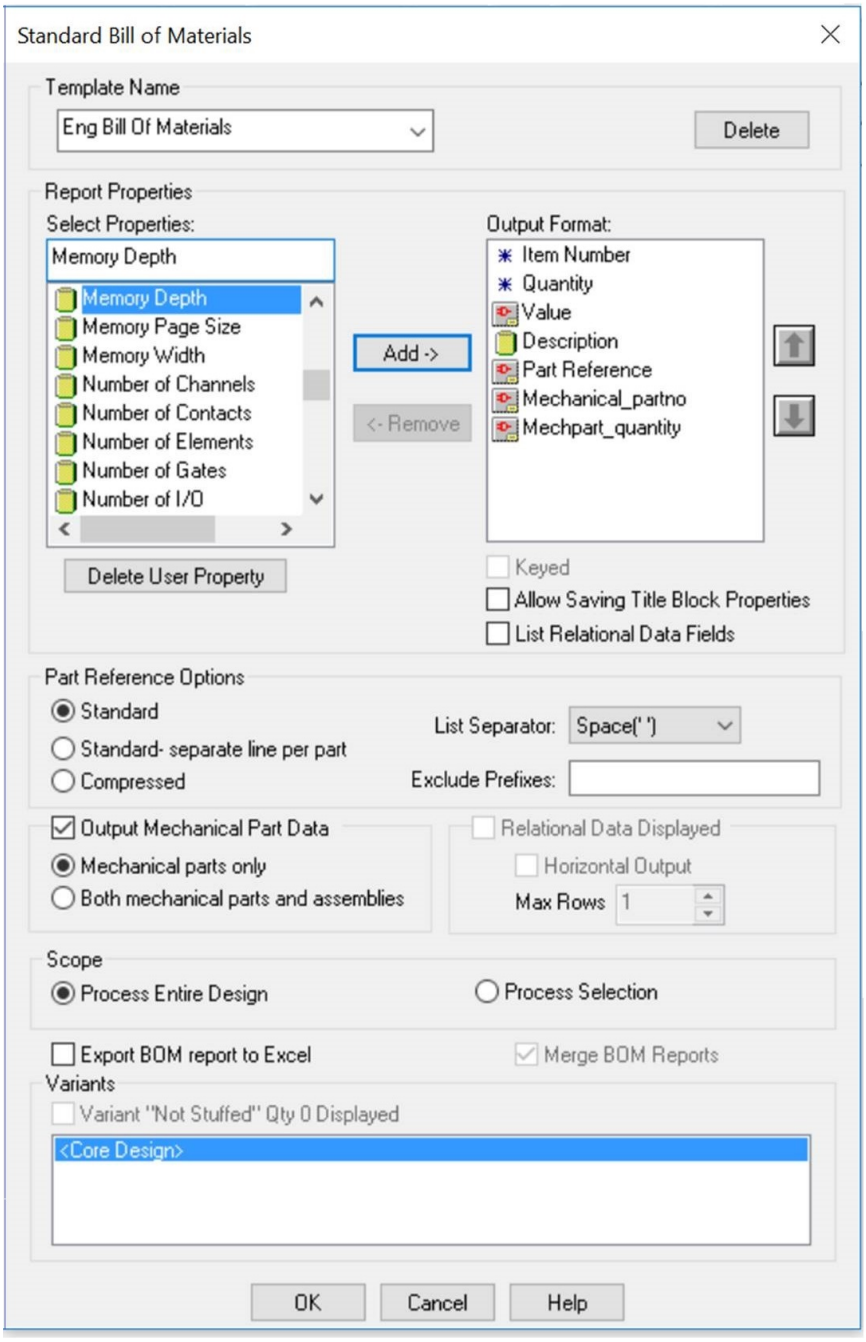
Configure .DBC file in Capture CIS

A table for MechanicalMapping must be enabled as shown in the graphic figures below.



Enable MechanicalMapping Table

When creating a CIS BOM, be sure to add Mechanical_partno and Mechpart_quantity to your BOM output and select **Output Mechanical Part Data**, so that Mechanical Parts is included when BOMs are generated.

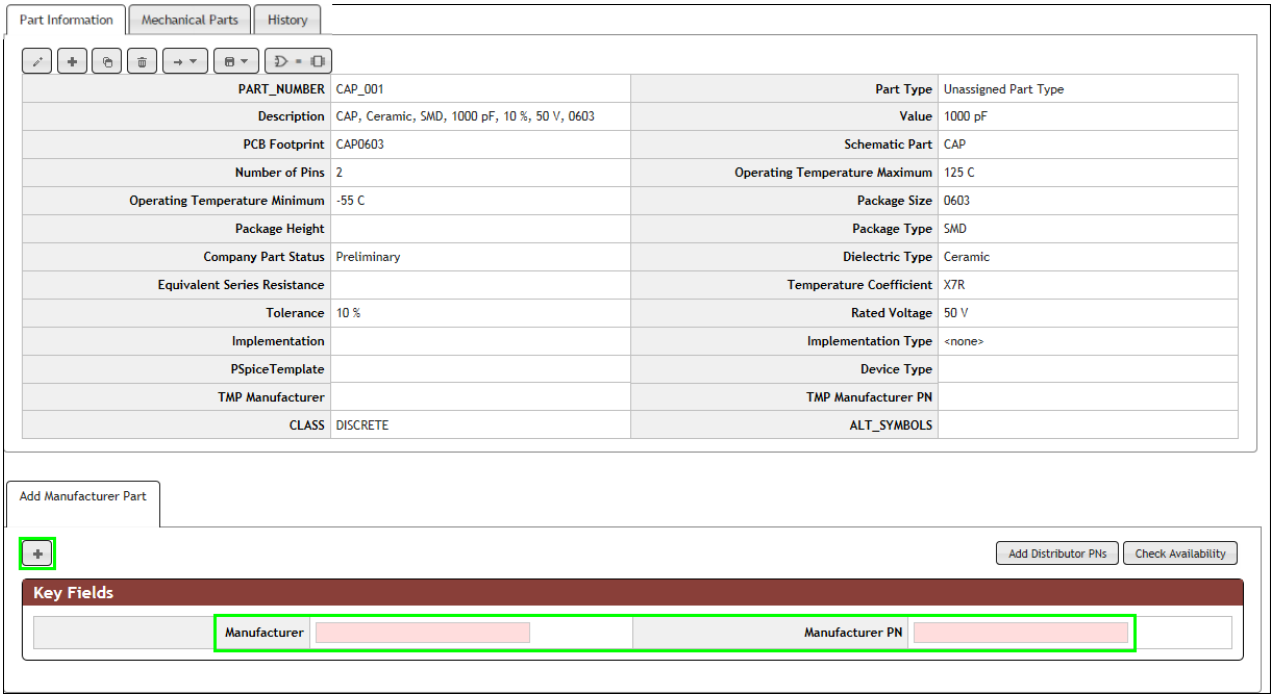


Add Mechanical_partno and Mechpart_quantity to BOM Output

4.3.1.9 Adding a Manufacturer Part Number

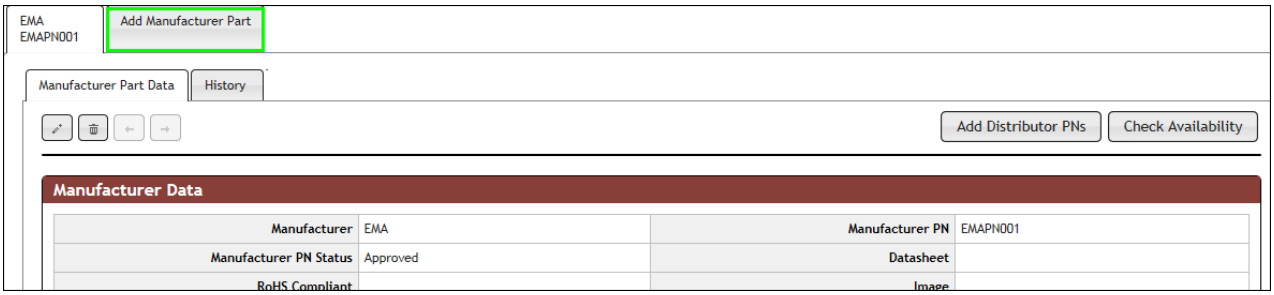
Multiple manufacturers can be attached to a part and viewed in the Manufacturing Part Data area of the Part Information page. You can also add new manufacturer part data by selecting the **Add Manufacturer Part** tab.

Note: The **Add** button is only visible if you are granted permission to add a Manufacturer Part.



Add Manufacturer PN

When the Manufacturer Part Data page opens, enter the appropriate data into the fields and click the **Add** button to implement the change.

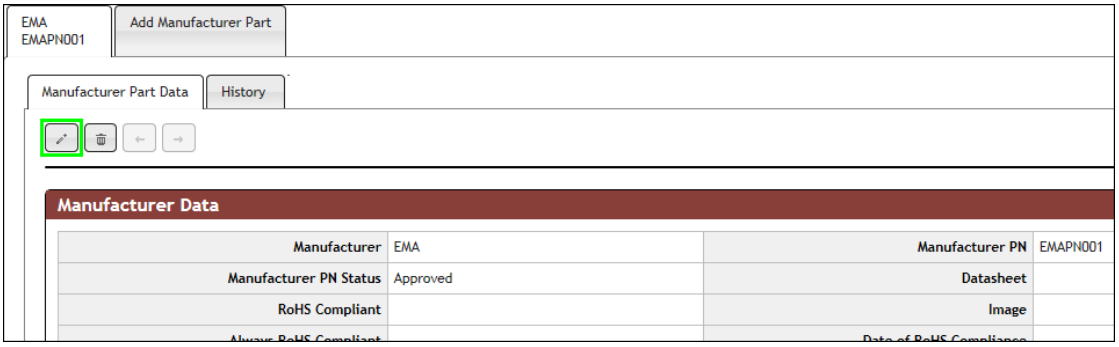


Add Additional Manufacturer PN

4.3.1.10 Modifying an Existing Manufacturer Part Number

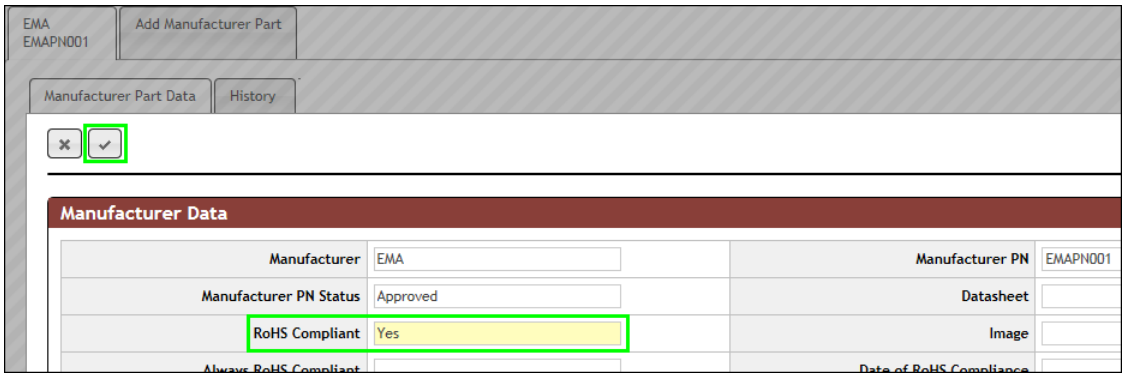
You can edit Manufacturer Part information that is associated to a company by clicking the **Edit** button  located in the Manufacturer Part Data section below the Part Information page of a given company part.

Note: The Edit button is only visible when you are granted permission to modify the Manufacturer Part Data.



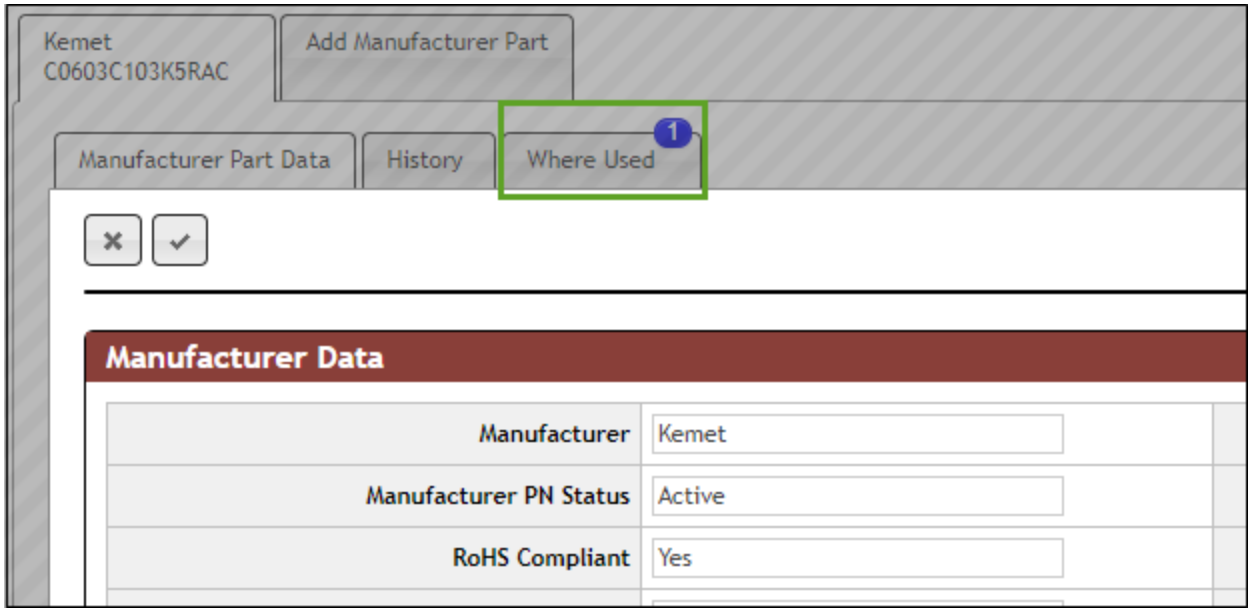
Modify an Existing Manufacturer Part

Once the Manufacturer Data edit page opens, modify the desired information and click the **Update** button  to save your changes.



Save Changes to Existing Manufacturer Part

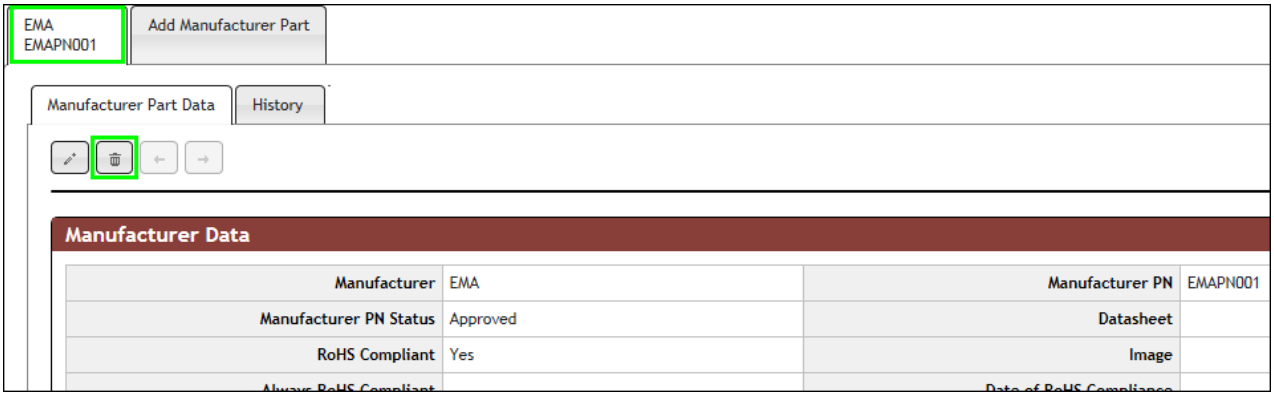
When a manufacturer part is used in multiple company part numbers, any update to attributes such as the manufacture name, part number, status etc. is reflected in each instance of the manufacturer part. For example, if a manufacturer part is used in two company parts, changing the manufacturer part number can be seen in both company parts. You can verify where each instance is updated through the Where Used tab shown in the image below.



4.3.1.11 Deleting a Manufacturer Part Number

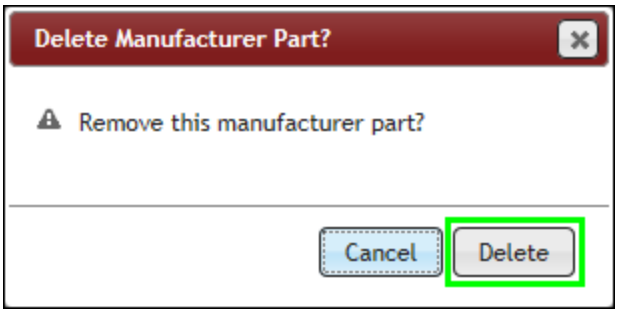
To delete a specified manufacturer part from a specific company part, select the desired manufacturer tab from the Manufacturer Part Data page and click the Delete button .

Note: The **Delete** button only displays when the user is assigned permission to delete the Manufacturer Part.



Delete Manufacturer Part

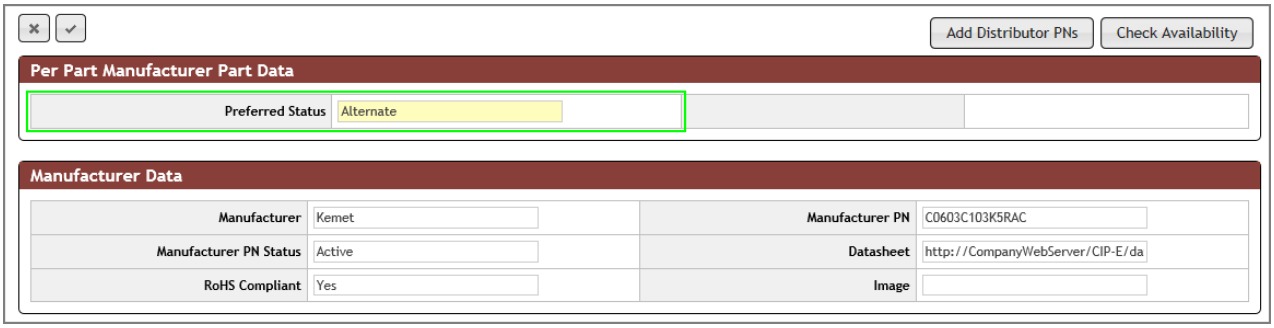
Click **Delete** to confirm manufacturer part deletion or **Cancel** to keep the part.



Delete Manufacturer Part Confirmation

4.3.1.12 Modifying Per Part Manufacturer Part Data

When CIP is configured to display the Component Manufacturer Part field, you can modify the Per Part Manufacturer Part Data. Fields in this section identify unique properties between the selected company and the manufacturer part.



Modify the Per Part Manufacturer Part Data

4.3.1.13 Add, Modify and Delete Distributor Part

Each manufacturer part number can have any number of distributor part numbers associated to it.

Distributor parts can be added using one of the following methods:

- Use Distributor Search to automatically add a TMP part or update an existing part
- Add the part directly from the part entry page
- Use the **Add Distributor PNs** or **Add Silicon Expert PNs** button to automatically add the part when viewing a Manufacturer Part

Distributor Part information may be modified with one of the following methods:

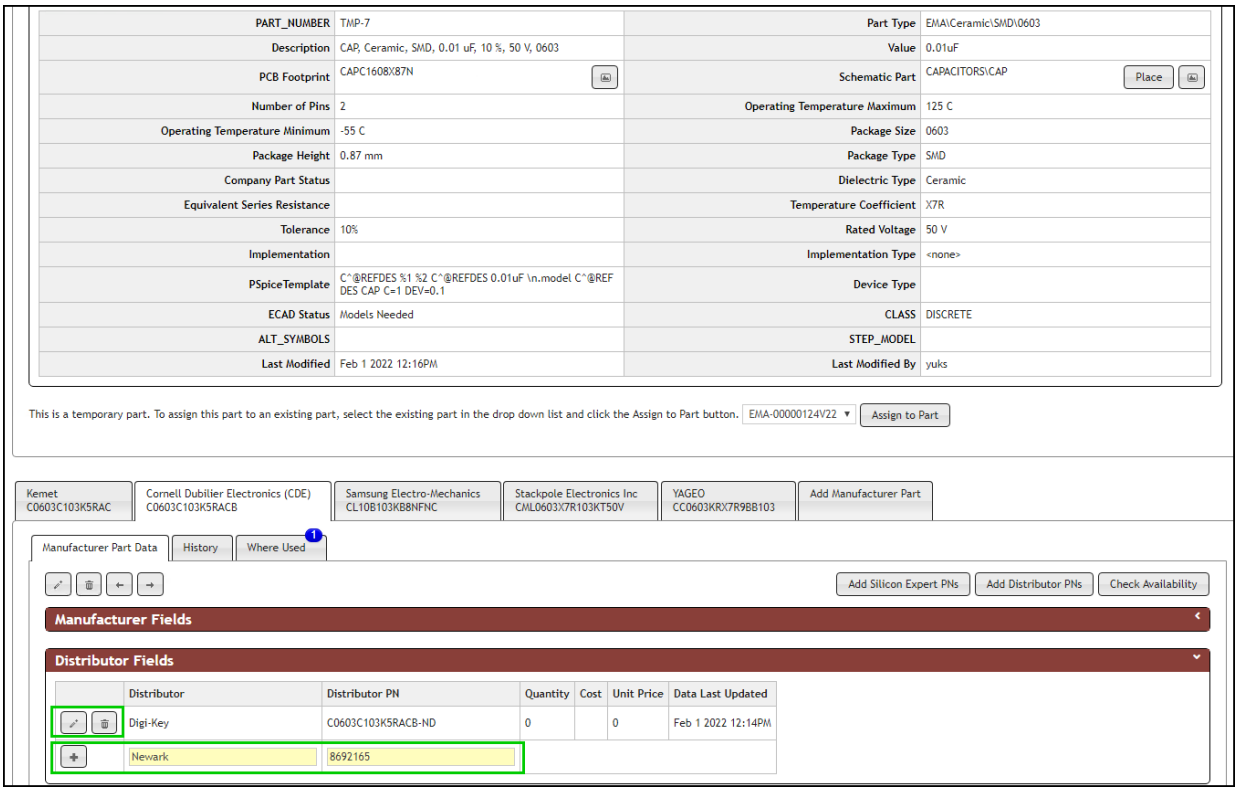
- Use Distributor Search to automatically update an existing part or Distributor Sync
- Modify the part directly from the part entry page

Distributor parts are deleted directly from the part entry page.

To modify the fields associated to a distributor part, select the part and scroll down to the distributor information of the Part Information form.

Add Distributor Part Manually

To manually add a distributor, enter the distributor name and distributor PN and then select the **Add** button.



Manually Add a Distributor

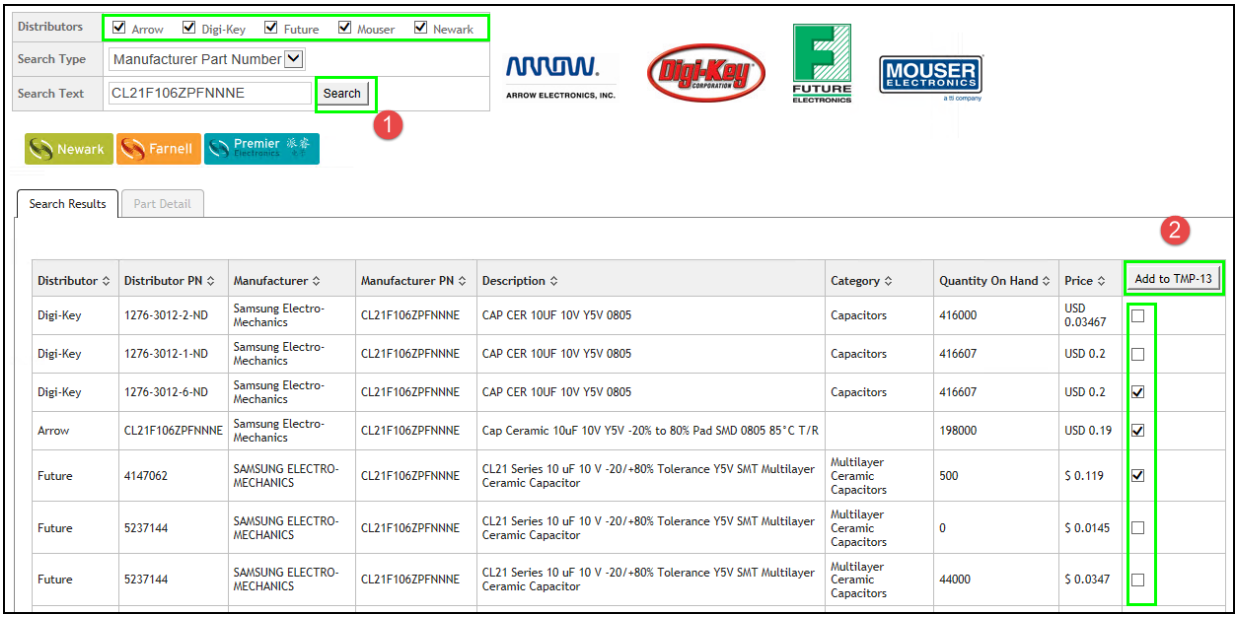
Add multiple Distributor Parts

To add multiple distributor part numbers, select the desired Manufacturer Part tab and click the **Add Distributor PNs** button. If you have an active subscription for the CIP Compliance module, an **Add Silicon Expert PNs** button is available. Selecting the **Add Silicon Expert PNs** button takes you through the same steps as described in this section.

The Distributor Search or Compliance page opens with the search criteria auto-configured using Search by Manufacturer Part Number with the manufacturer part number in view.

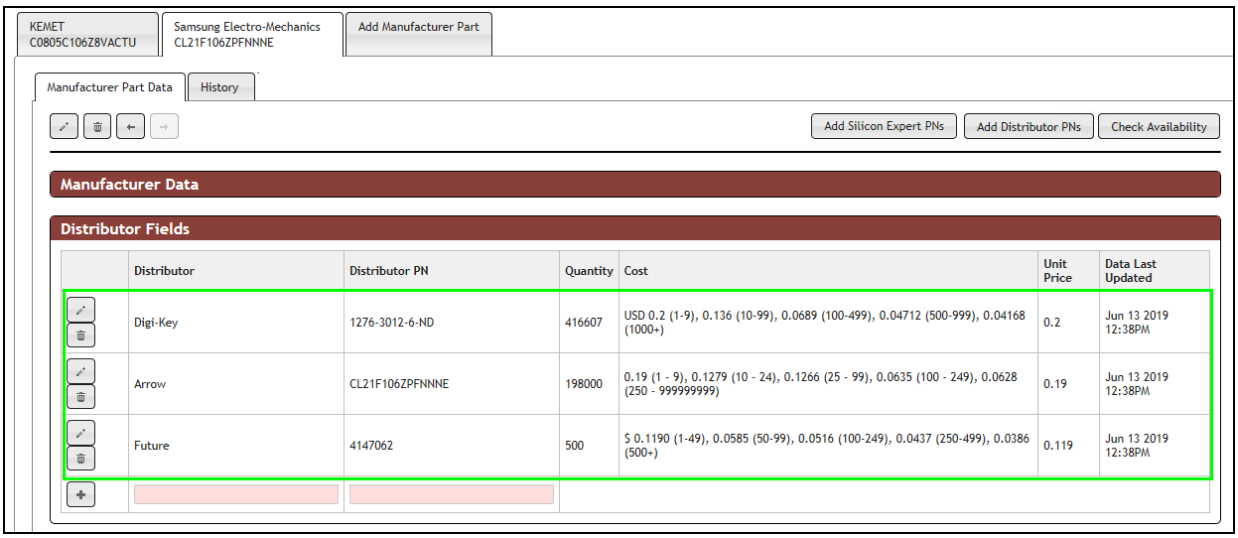
1) Select distributors to include in the search from the distributor search page. Then select the **Search** button.

2) Select the distributor parts after the search results appear. Then select **Add to** Part Number button.



Add Multiple Distributor Parts

The selected distributor part numbers will be added.



Added Distributor Parts

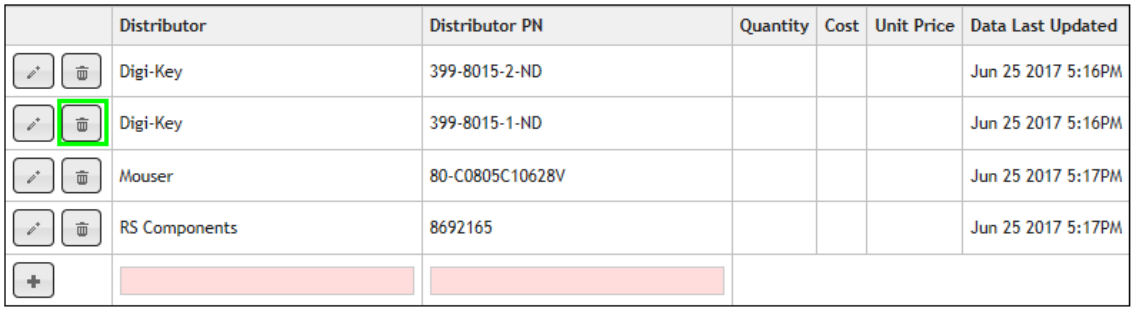
Edit Distributor Part manually

To manually edit a distributor part, select the **Edit** button of the distributor part you want to edit. The form updates to allow you to make modifications. After you complete your updates, click the **Save**, button to save your edits. Or to discard your updates, click the **Cancel**, button.

Save or Cancel Modifications/Edits to a Distributor Part

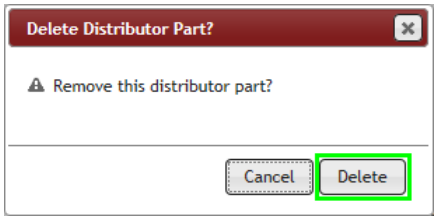
Delete Distributor Part

To delete a distributor part, select the **Delete**, button of the distributor part you want to delete.



Delete Distributor Part

Click **Delete** to confirm distributor part deletion or **Cancel** to keep the part.



Delete Confirmation

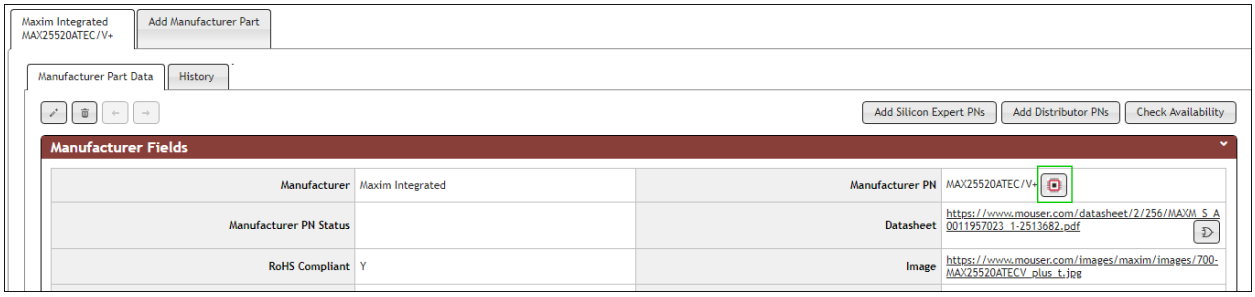
Note: When an Arrow part number is added to CIP using a distributor search, a unique string that is used to retrieve quantity and price data is also added. When the Arrow part number is manually added or modified, the unique reference string becomes unavailable. Consequently, the Arrow part is unable to update during a distributor sync.

4.3.1.14 Add ECAD Model from Ultra Librarian

You are unable to place parts that do not have a Schematic Part. You may create a Schematic Part manually, using OrCAD Library Builder or download from Ultra Librarian. When **Download of Ultra Librarian Models** is enabled, you are able to download symbol and footprint models from Ultra Librarian.

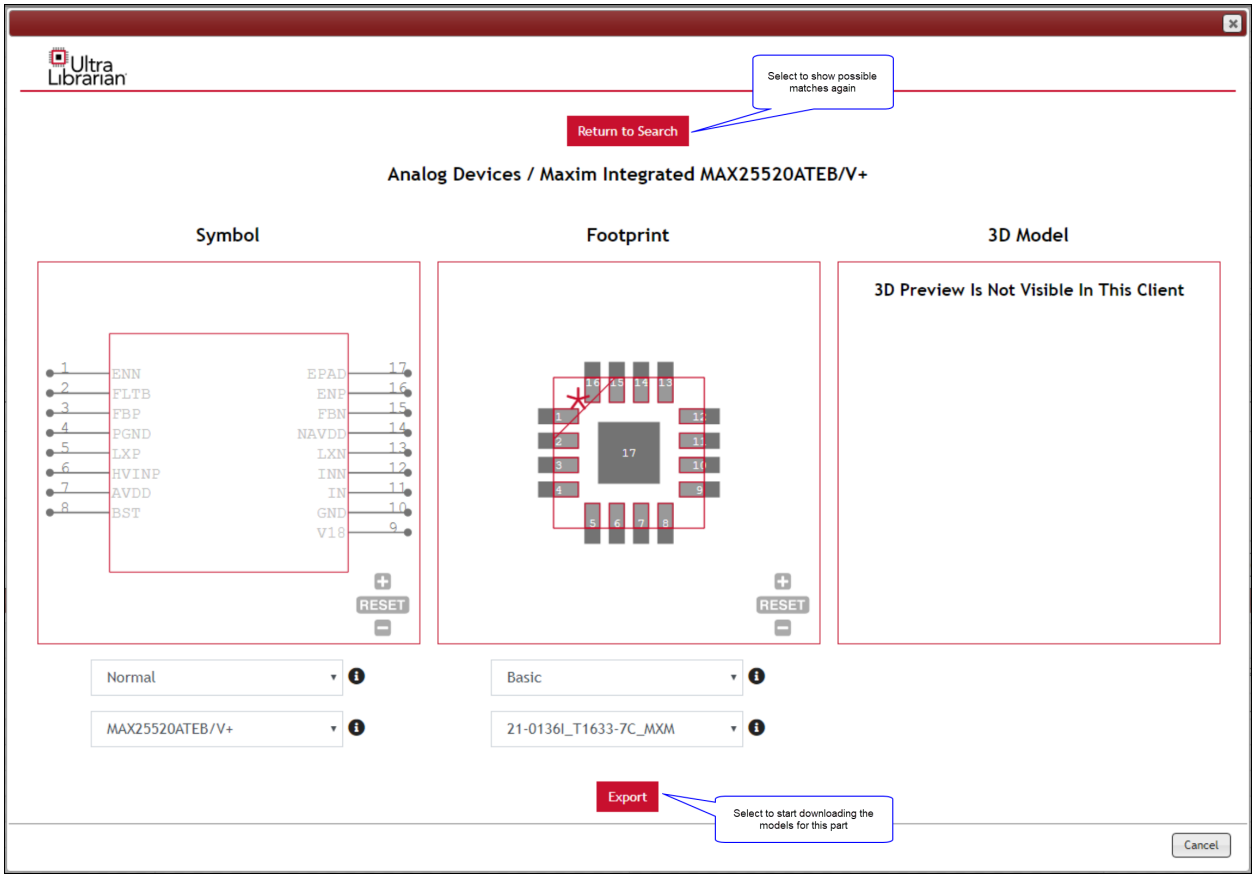
To download ECAD Models from Ultra Librarian:

1. Using the CIP client running inside Capture, select the manufacturer part section of part you wish to download.

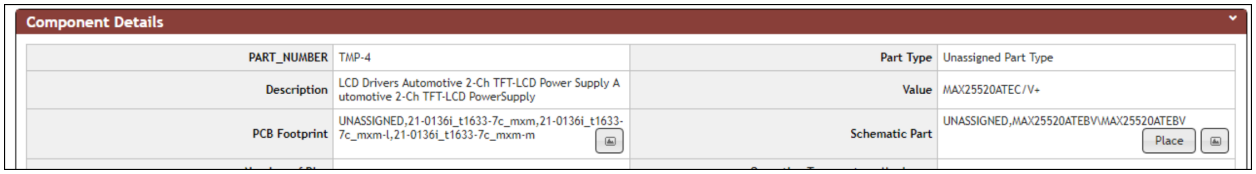


2. Click on the Ultra Librarian symbol next to the manufacturer part number.
3. A pop up shows with possible part matches with ECAD models.

4. Select **Preview** button to view the ECAD Models for each part.



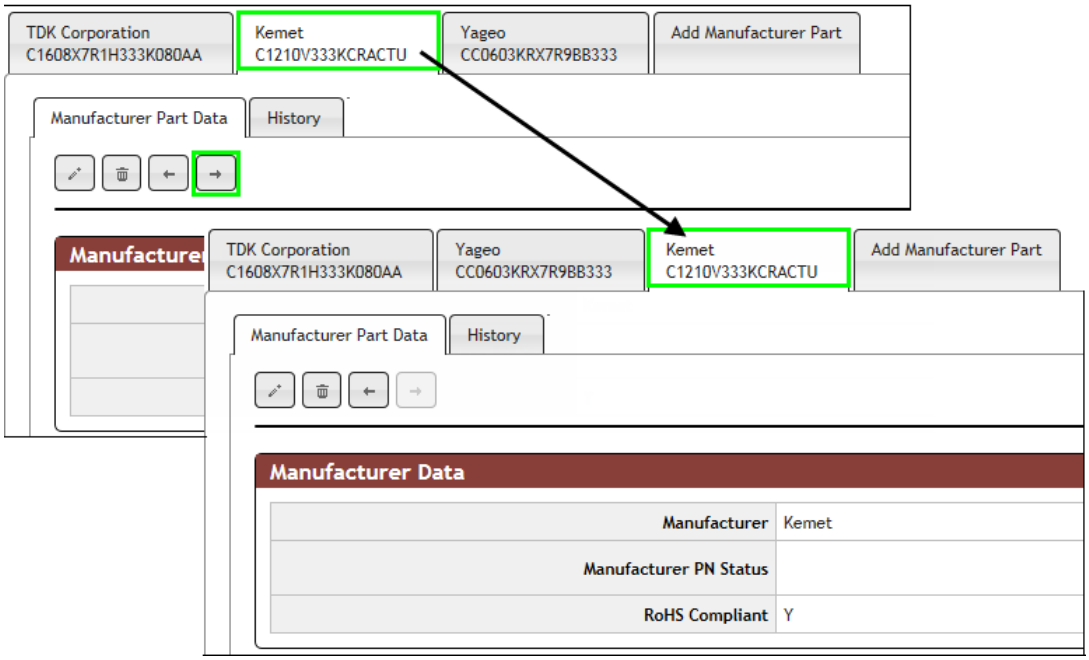
5. If this model does not match what you need, click the **Return to Search** button to continue previewing the next part.
6. When you've found a match, click the **Export** button to start download. If Common Directories have been configured, the download will start immediately. If no common directories are configured, a dialog for Download Ultra Librarian Symbol to local directories appears. Select locations for your download files and export.
7. When download is completed, the part is updated with the new symbol and PCB Footprint name appended as shown in the following example.



4.3.1.15 Change Order of Manufacturer Parts

By default, the tab display of manufacturer parts is presented alphabetically. To change the tab order, select the Manufacturer Part you want to re-order and click the **Move Left** ← or **Move Right** → button. The new tab order updates as the page refreshes. The Move Right button → becomes disabled when a manufacturer part is in the far

right position. Similarly, the Move Left button, becomes disabled when Manufacturer Part is in the left-most position.

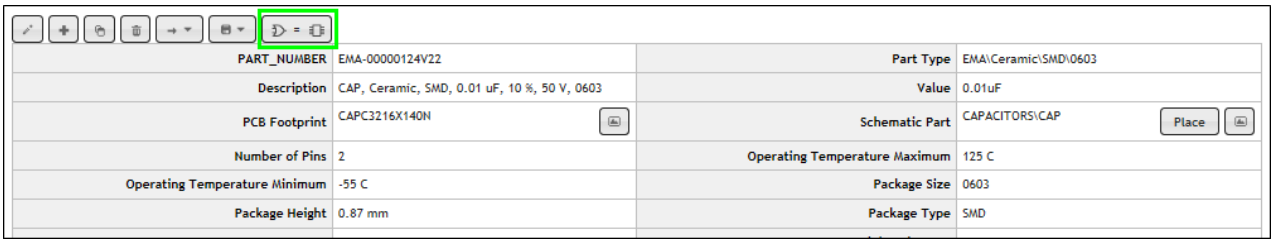


Click Move Right (or Left) Button to Change Manufacturer Part Tab Order

4.3.2 Comparing a Schematic Part and PCB Footprint

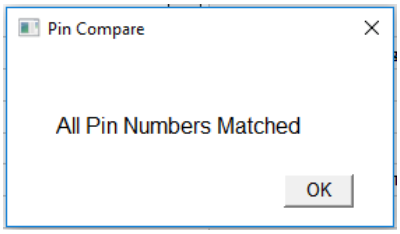
You can use CIP to compare Capture symbols and PCB footprints of a part from Capture.

To compare a Capture symbol and PCB footprint, open the desired part from Capture. Click the Compare button to open a side-by-side view of the schematic part and PCB footprint.



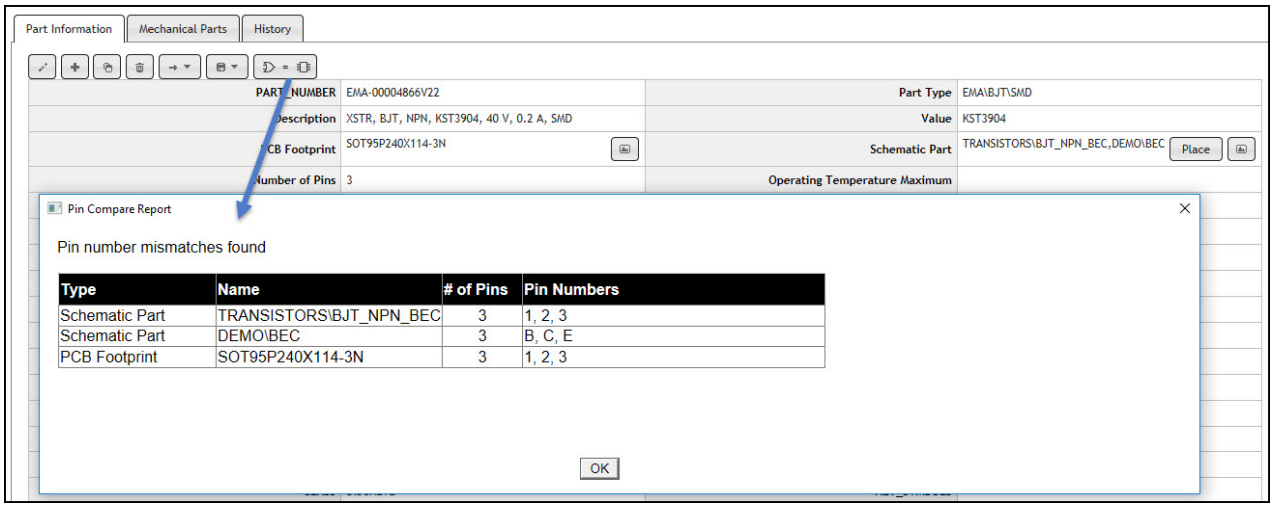
CIP Compare Button to Compare Footprint and Symbol Pins

Allegro PCB Editor opens each PCB footprint associated with the part and extracts the pin count and pin numbers for each footprint. The pin numbers and count from each footprint is compared to the pin numbers and count for the Schematic Part. When all pin numbers and counts match, the following pop up message opens.



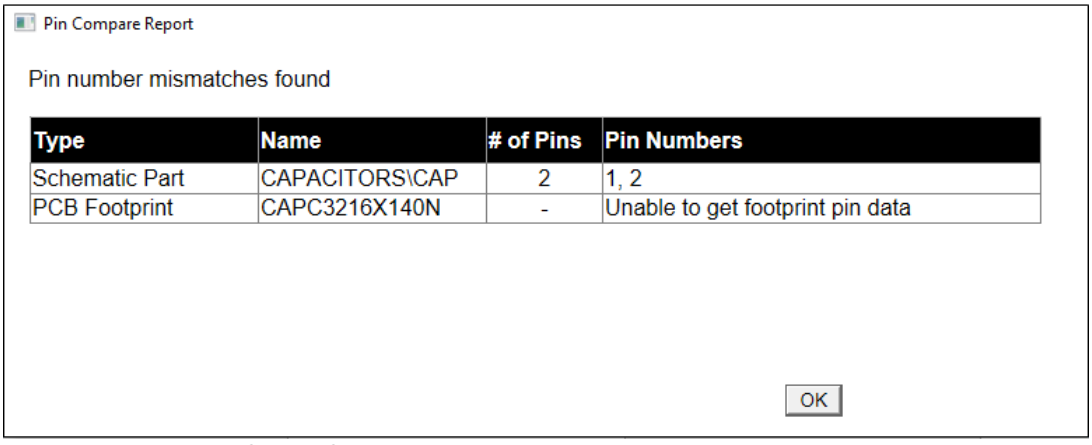
Pin Compare Successfully Completed

If discrepancies are found, the pin numbers and counts for each part are documented in the Pin Compare Report, as shown in the following figure.



Pin Compare Report

If a PCB Editor license is unavailable at the time, the Pin Compare Report informs you the system was unable to get footprint pin data.



CIP Pin Compare Report with Unavailable Footprint Data

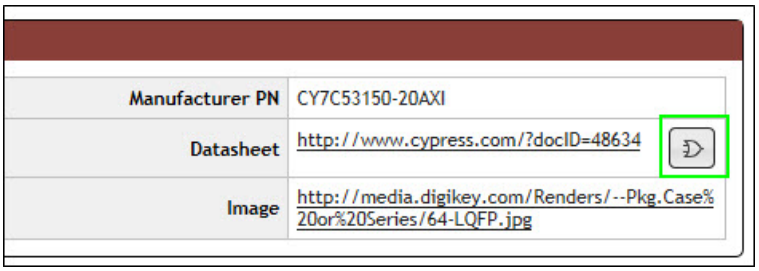
Note: Mechanical pins are excluded in the comparison.

4.3.3 Launching Library Builder to Create Schematic Part and PCB Footprint

You can launch Library Builder from CIP to create Capture symbols and PCB footprints. This capability is available when you configure Library Builder in the CIP Client Settings while running Capture. Creation of System Capture symbol is not available when using OrCAD Library Builder.

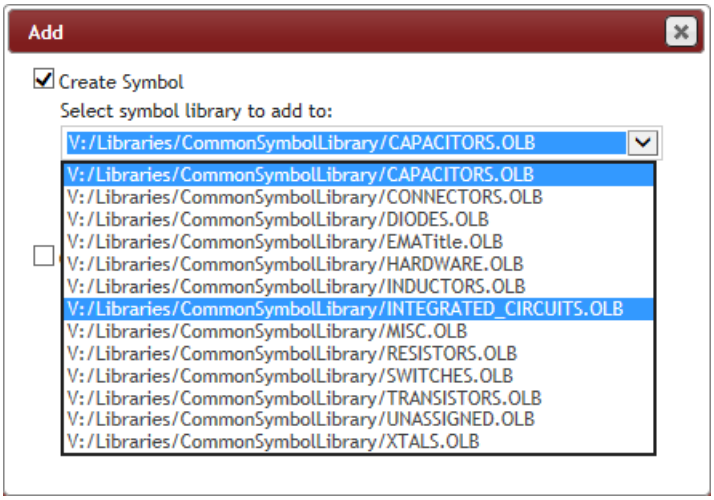
To use this feature, open CIP from Capture. Then open a part that has a manufacturer PN and Datasheet link associated to it. If Library Builder is properly configured, the Symbol button displays next to the manufacturer PN's Datasheet link.

Click the **Symbol** button which opens a new pop up window.



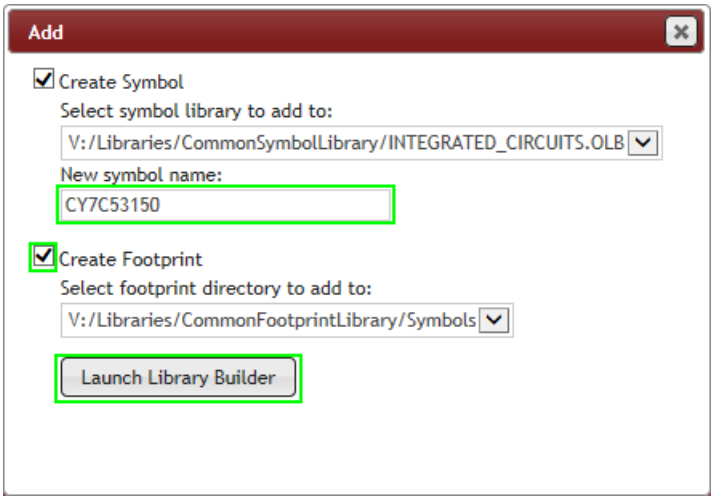
Click the Symbol Button

Select the checkboxes next to Create Symbol and/or Create Footprint depending on which you want to create. Then, click the drop arrow and browse to a Capture .OLB library for archiving the new symbol.



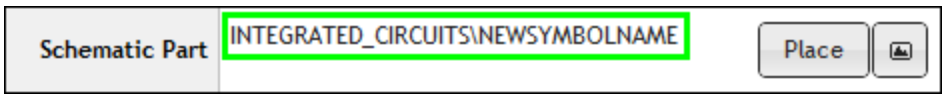
Select .OLB Library Name Location for New Symbol

Enter a new symbol name into the input field. If creating a footprint as well, select the path to the desired footprint location. The paths/libraries list is read from the Capture user's CAPTURE.INI file. Then click the Launch Library Builder button. Library Builder opens. Take the appropriate steps to create the new symbol and/or footprint. Create and export each of the selected items.



Enter New Symbol Name, then click Launch Library Builder

After you create and export your items, Library Builder closes and the Schematic Part field populates with the <SelectedLibraryName>\<NewSymbolName>. The PCB Footprint field populates with the footprint name of the created footprint. The symbol is ready to be previewed and/or placed.



Schematic Part has been populated and the symbol can now be previewed/placed.

Note: CIP may log you out when creation of a symbol or footprint takes too long. When this happens, you will need to log into CIP to complete the part update with the symbol and footprint names.

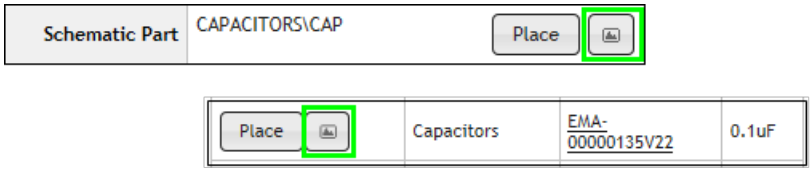
4.3.4 Previewing and Placing a Schematic Part

When you open CIP from OrCAD Capture, you can preview a part before placing or place directly onto a schematic. You must have a schematic design and page opened in Capture before placing a part. The preview screen uses the same theme as your settings for Capture CIS.

Note: Preview of a part before placing is not available in System Capture. In System Capture, you are able to place a formal part from the Component details page. Placing of TMP parts is not available from System Capture. Only 1 System Capture Part is allowed per part. The place button will place the symbol.

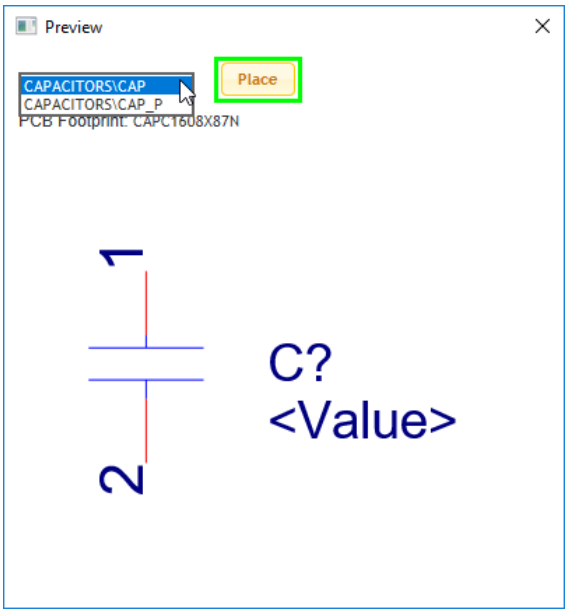
You may preview or place a part when the **Preview** or **Place** buttons are available. These buttons additionally appear in various views in OrCAD Capture.

To place a schematic part, click the **Place** button to place the symbol on the active schematic page. You may preview the symbol before placing it by selecting the **Preview** button .



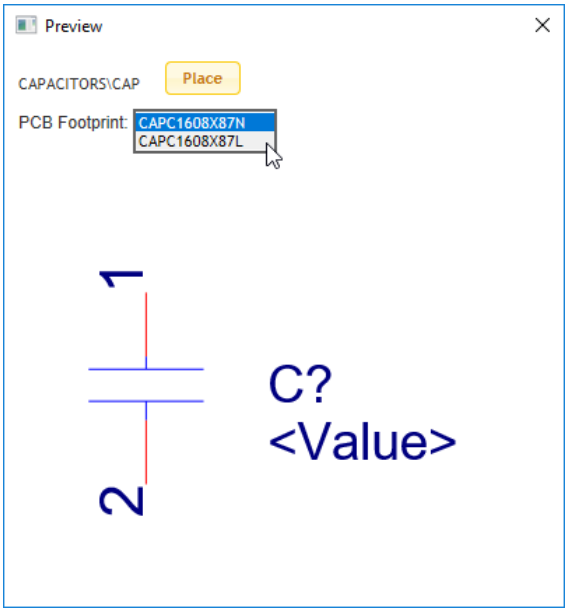
Examples of Click Part Preview Button

Selecting the **Place** button when there are multiple symbols (e.g. CAPACITORS\CAP, CAPACITORS\CAP_P...) will automatically place the first symbol in the list. To place other symbols, preview the symbol first by clicking the **Preview** button next to the **Place** button. The symbol preview window opens with a drop-down list of symbols. Select the symbol from the drop-down list you wish to use as shown in the image below. Click the **Place** button to place the part on the active schematic page. Properties defined in your configured DBC file will be included with the placed part on the schematic page. If the Manufacturer and Manufacturer PN properties are configured for transfer to design, the manufacturer part in the left most tab will be included with the placed part. To transfer a different manufacturer part to the design, review section on Change Order of Manufacturer Parts.



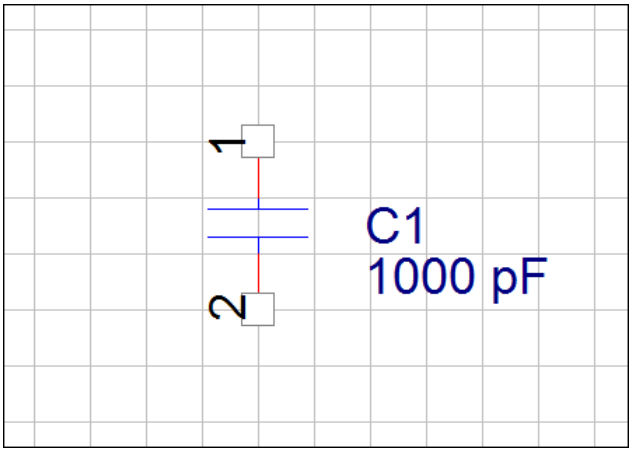
Preview Alternate Parts using the dropdown

When you have more than one footprint for a part, by default the first footprint in the list is assigned to the part when you click the **Place** button. If you want to assign a different footprint to the part, click the **Preview** button to preview the Schematic Part. In the preview window, select the desired **PCB Footprint** from the drop-down list as shown in the image below. Click the **Place** button to place onto active schematic page.



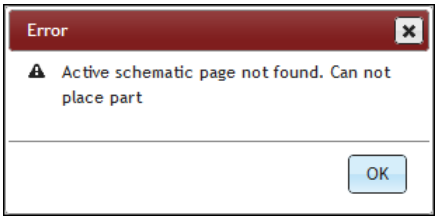
Select Alternate Footprint for Part Before Placing

Your successfully placed symbol will contain your selected PCB footprint.



Part Placed Successfully

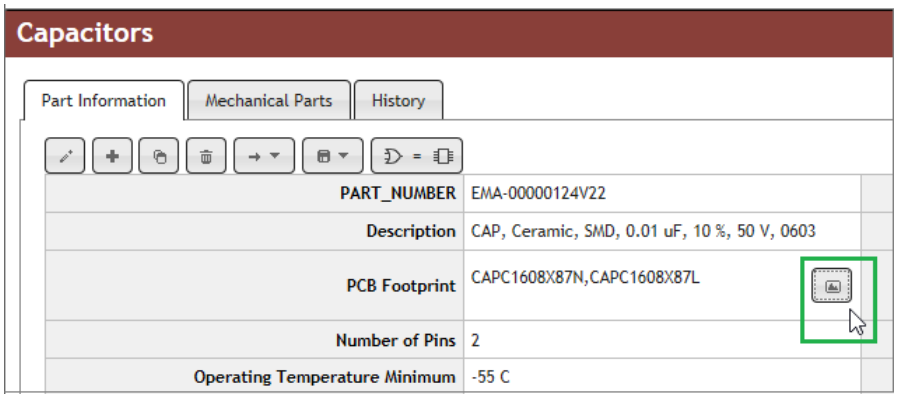
If the following error message opens when you click the Place button, open a schematic page and try to place the part again.



Error when Active Schematic Not Found

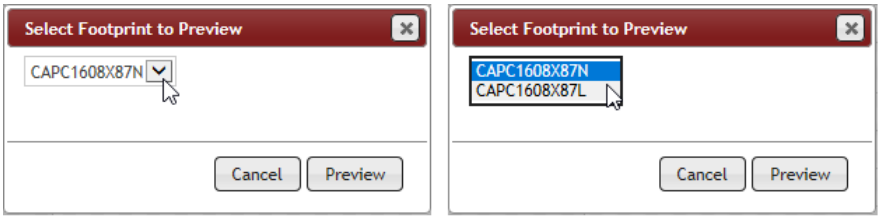
4.3.5 Previewing a PCB Footprint

When you open CIP from Capture you can view PCB Footprints from CIP. To preview a PCB footprint, open CIP from Capture. Open the desired part and click the **Preview** button to the right of the PCB Footprint field.



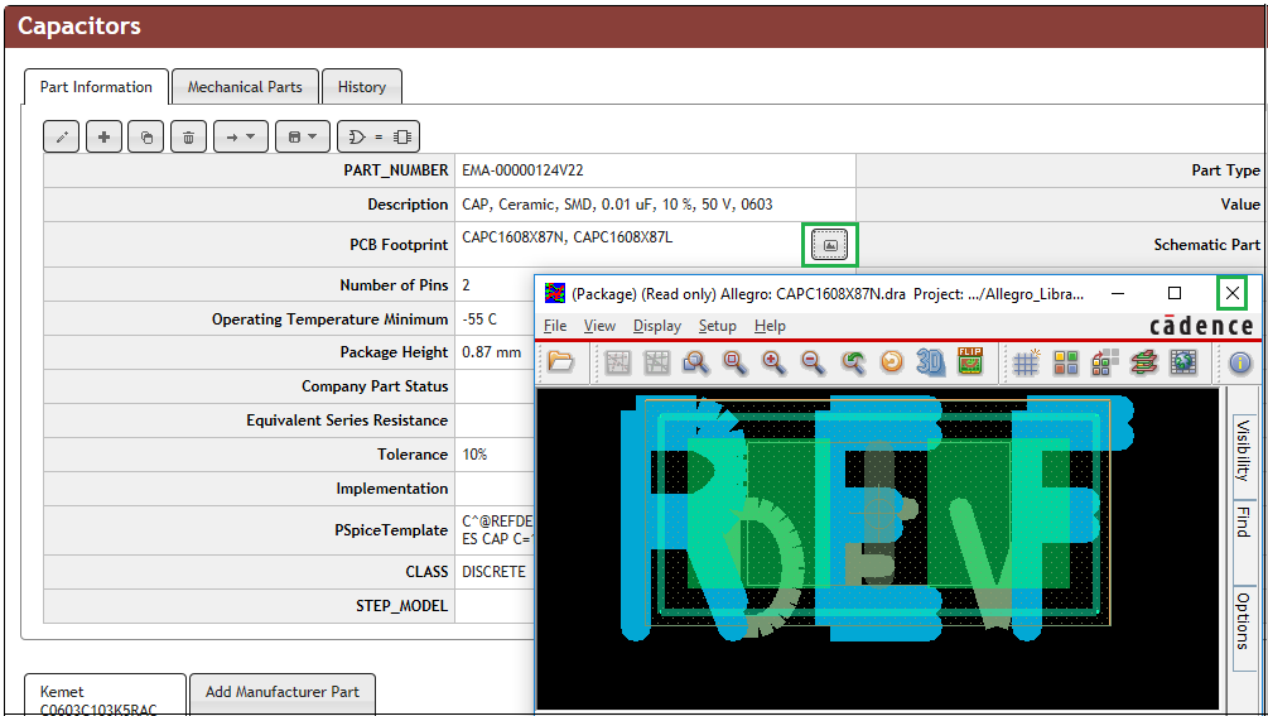
Preview Footprint Button

When your part has more than one footprint, you can select the footprint you want to preview from a drop-down list. When you select the **Preview** button, the viewer configured in your CIP Settings will open the selected footprint.



Select Alternate Footprint to Preview

You will receive alerts if a footprint viewer is not configured or if you do not have [Allegro Footprint] configured in your Capture.ini file. See the CIP Client Installation Guide, topic "Updating the CAPTURE.INI File on a Local Client Machine," for instructions that explain how to edit your Capture.ini file.

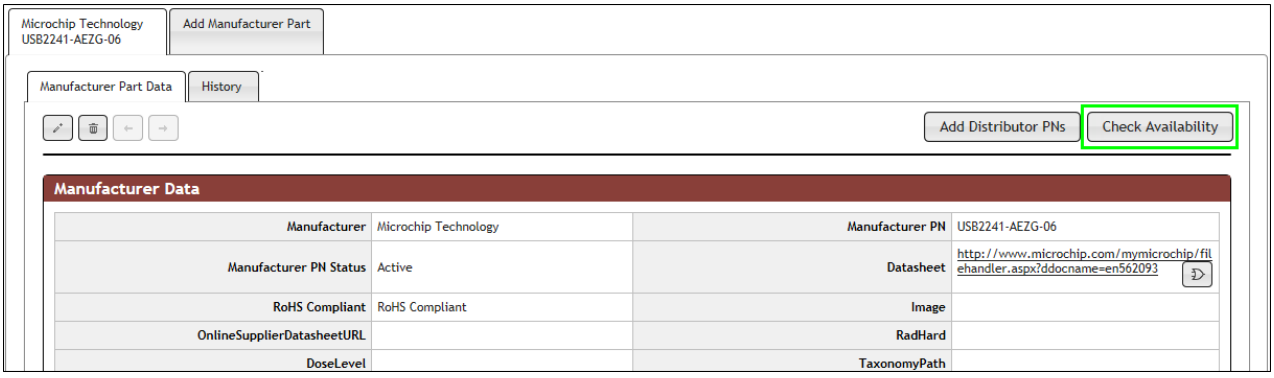


Preview PCB Footprint

4.3.6 Checking Availability of a Manufacturer Part

You can use CIP to search web distributors for the availability and pricing of the manufacturer part you are viewing. To initiate this search, open the Component Information page and scroll down to the Manufacturer Part tab and click the **Check Availability** button.

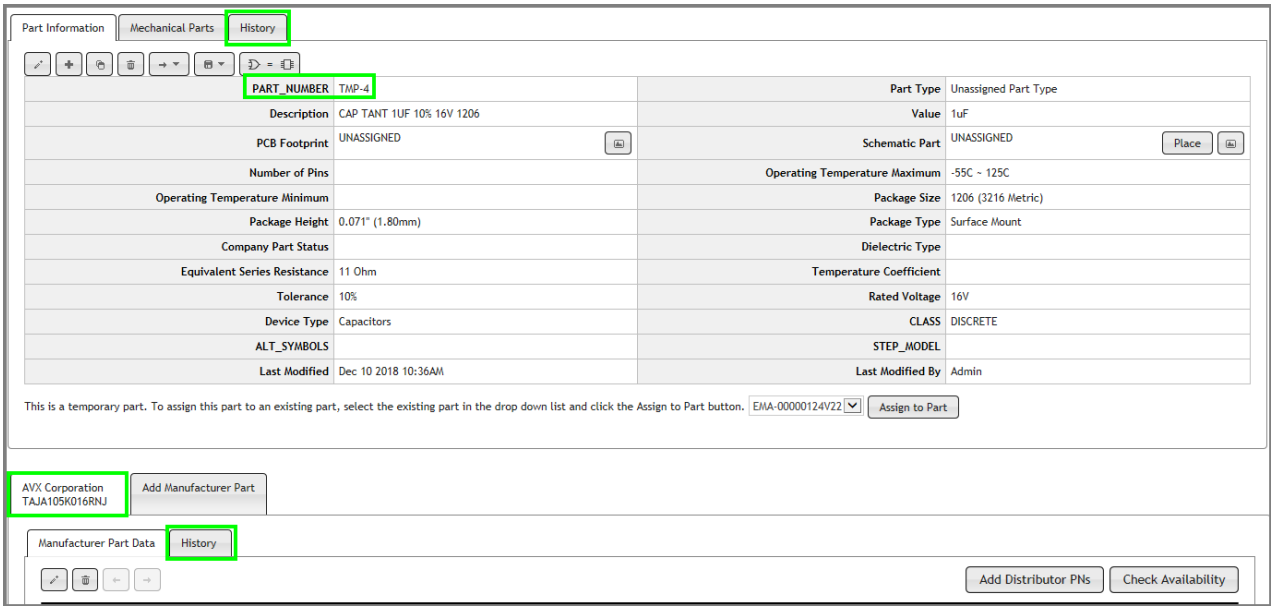
The search is launched without impacting part information in your database. Anyone can conduct this search.



The results of your search display in a separate browser window.

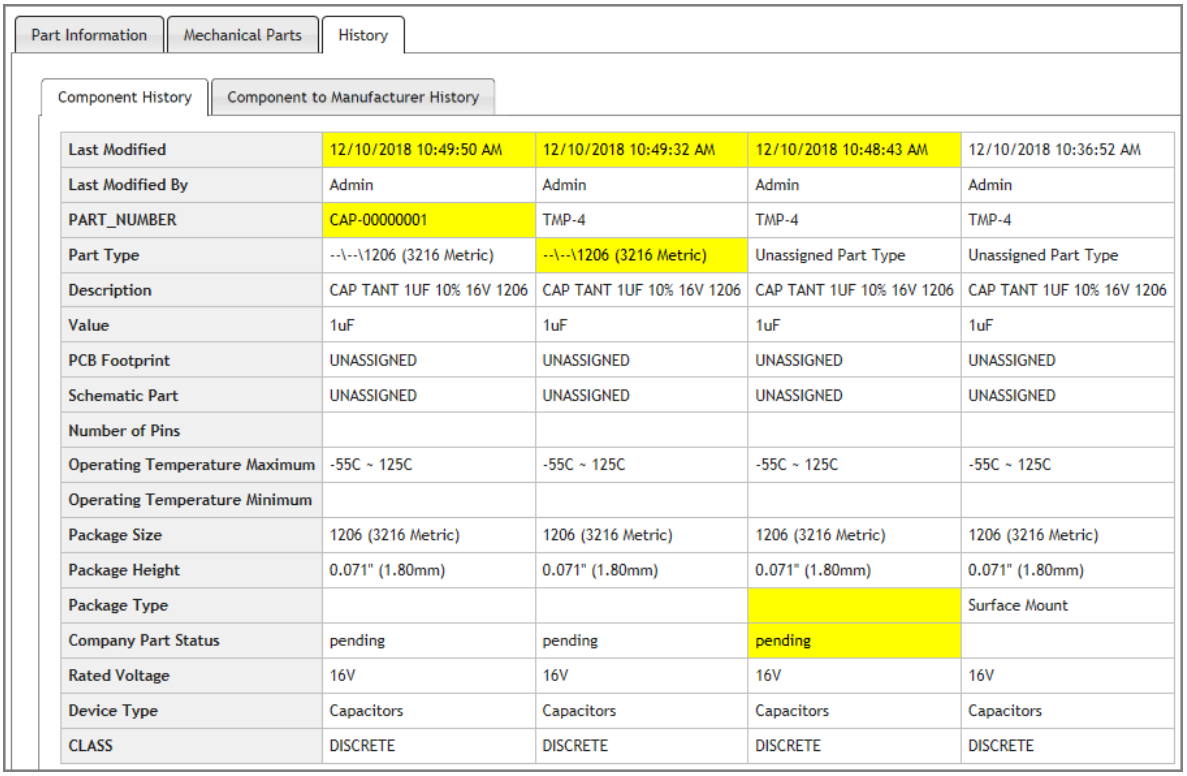
4.3.7 Part History

CIP stores Component History, history of Component to Manufacturer parts, and Manufacturer Part History. To view the history of a part, click the **History** tab for either the company part or a manufacturer part.



History for Part and Manufacturer Part

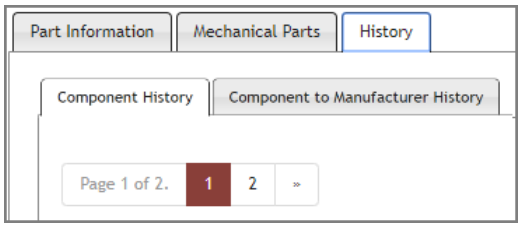
The history of a company part may be viewed from either the "Component History" or "Component to Manufacturer History" tabs. As shown in the graphic figure that follows, historical changes for component history and manufacturer part history are highlighted in yellow. The fields of a component table that are disabled from Track History (Admin > Configuration > Component table) are excluded from the history view. The graphic below, for example, shows the exclusion of the fields: Implementation, Implementation Type, and PSpice Template. In this example, the Track History property for these fields are disabled from the Admin > Configuration > CIP_Capacitor table. Properties values that are modified are presented in yellow.



Last Modified	12/10/2018 10:49:50 AM	12/10/2018 10:49:32 AM	12/10/2018 10:48:43 AM	12/10/2018 10:36:52 AM
Last Modified By	Admin	Admin	Admin	Admin
PART_NUMBER	CAP-00000001	TMP-4	TMP-4	TMP-4
Part Type	--\--\1206 (3216 Metric)	--\--\1206 (3216 Metric)	Unassigned Part Type	Unassigned Part Type
Description	CAP TANT 1UF 10% 16V 1206	CAP TANT 1UF 10% 16V 1206	CAP TANT 1UF 10% 16V 1206	CAP TANT 1UF 10% 16V 1206
Value	1uF	1uF	1uF	1uF
PCB Footprint	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED
Schematic Part	UNASSIGNED	UNASSIGNED	UNASSIGNED	UNASSIGNED
Number of Pins				
Operating Temperature Maximum	-55C ~ 125C	-55C ~ 125C	-55C ~ 125C	-55C ~ 125C
Operating Temperature Minimum				
Package Size	1206 (3216 Metric)	1206 (3216 Metric)	1206 (3216 Metric)	1206 (3216 Metric)
Package Height	0.071" (1.80mm)	0.071" (1.80mm)	0.071" (1.80mm)	0.071" (1.80mm)
Package Type				Surface Mount
Company Part Status	pending	pending	pending	
Rated Voltage	16V	16V	16V	16V
Device Type	Capacitors	Capacitors	Capacitors	Capacitors
CLASS	DISCRETE	DISCRETE	DISCRETE	DISCRETE

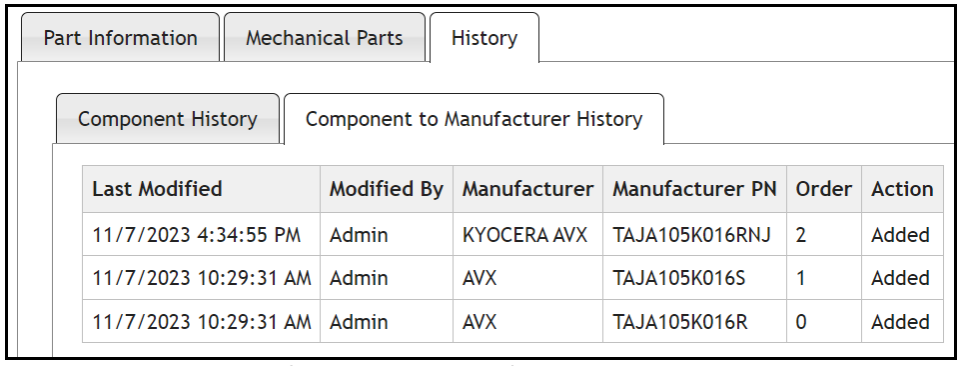
Component History

When the number of modifications are greater than 25 records, modifications are presented in multiple pages.



Pages of Part History

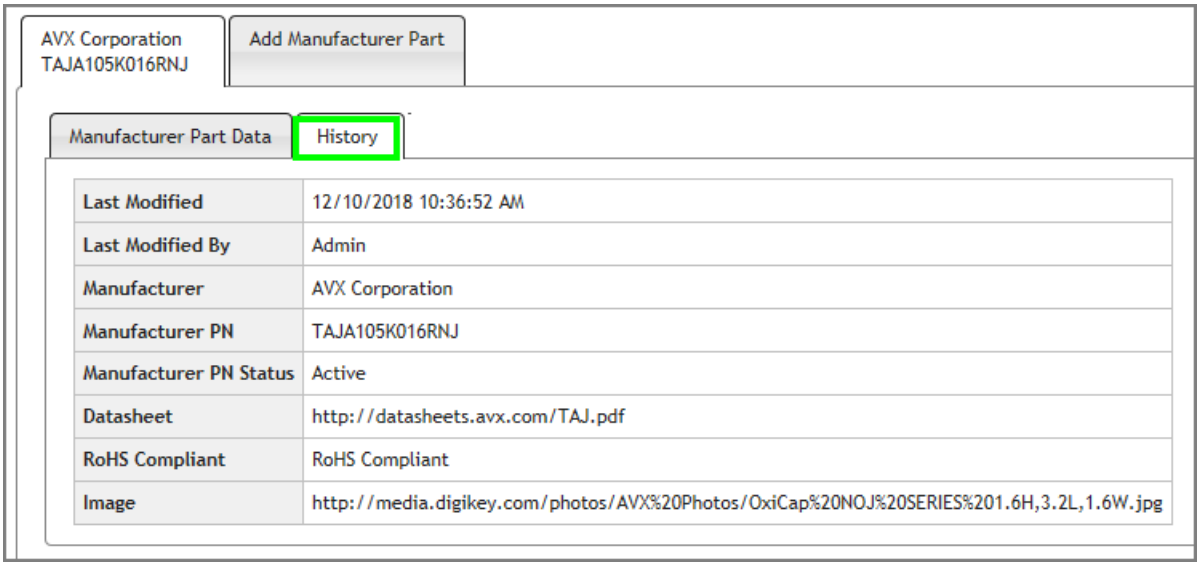
The screen image shown below shows the history of associations of manufacturer parts to the component. This history is accessed from the view of the company part's **History** > **Component to Manufacturer History**



Last Modified	Modified By	Manufacturer	Manufacturer PN	Order	Action
11/7/2023 4:34:55 PM	Admin	KYOCERA AVX	TAJA105K016RNJ	2	Added
11/7/2023 10:29:31 AM	Admin	AVX	TAJA105K016S	1	Added
11/7/2023 10:29:31 AM	Admin	AVX	TAJA105K016R	0	Added

Component to Manufacturer History

The **Manufacturer Part History** may be viewed in the manufacturer part's History tab that is located next to the **Manufacturer Part Data** tab.



Last Modified	12/10/2018 10:36:52 AM
Last Modified By	Admin
Manufacturer	AVX Corporation
Manufacturer PN	TAJA105K016RNJ
Manufacturer PN Status	Active
Datasheet	http://datasheets.avx.com/TAJ.pdf
RoHS Compliant	RoHS Compliant
Image	http://media.digikey.com/photos/AVX%20Photos/OxiCap%20NOJ%20SERIES%201.6H,3.2L,1.6W.jpg

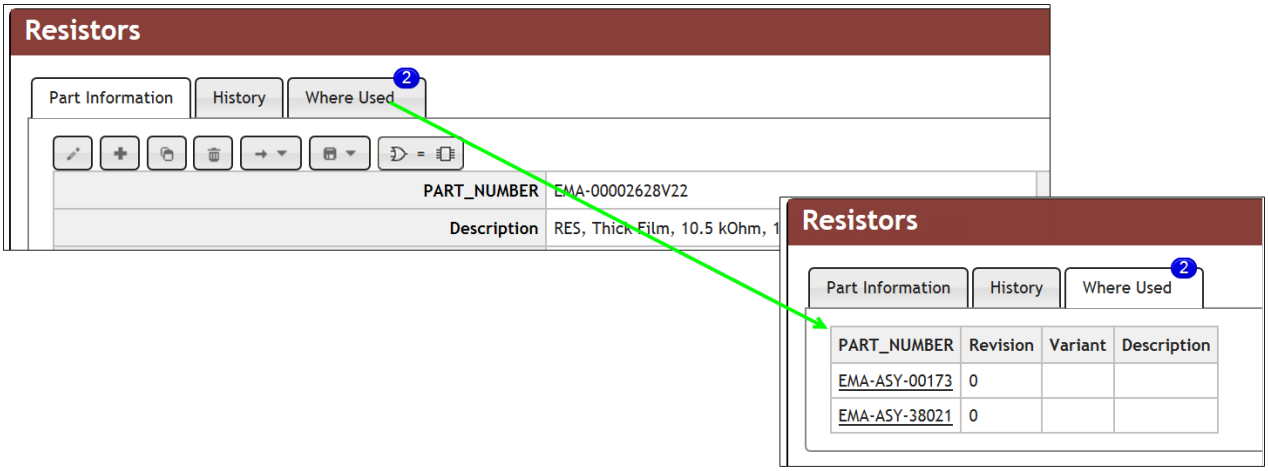
Manufacturer Part History

4.3.8 Where Used

You can find out where a component or a manufacturer part is used by selecting **Where Used** on a component page.

Component Where Used

Parts that are associated to BOMs are identified in the Where Used tab of the part data of the Part Information Page. As identified in the graphic below, the number of BOMs are shown in a blue circle. When you select the **Where Used** tab, the list of BOMs display. The **Where Used** tab only becomes visible when the part is associated to a BOM.

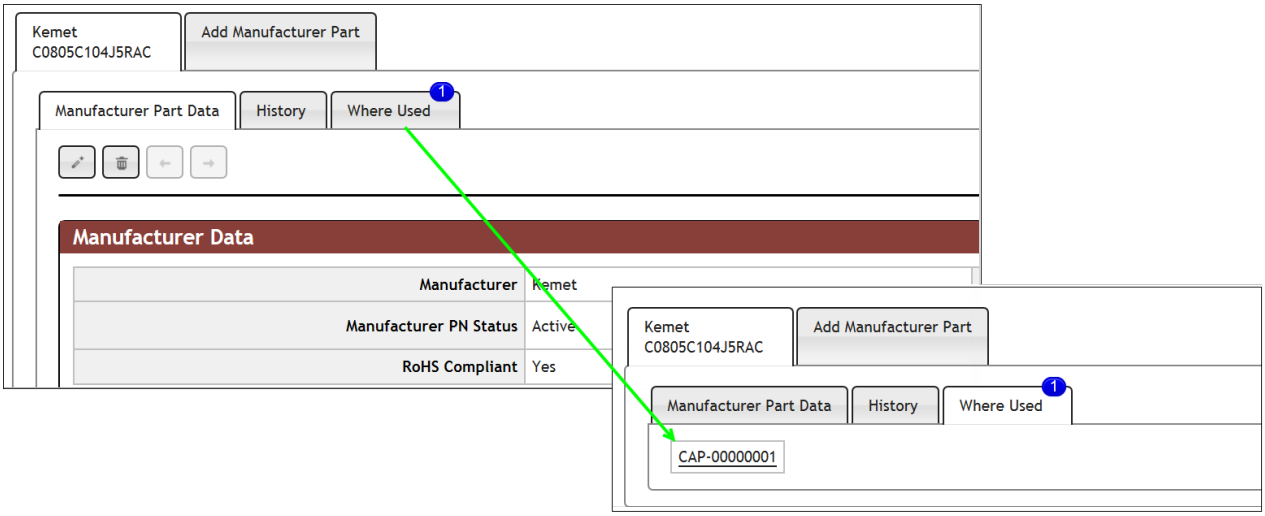


To view a BOM, select the link for the BOM.

Manufacturer Part Where Used

Manufacturer parts that are associated to multiple component part numbers are identified in the **Where Used** tab under the Manufacturer Data section of the Part Information Page. As shown in the graphic below, the number of additional part numbers are shown in blue circle. When you select the Where Used tab, the list of part numbers display.

The **Where Used** tab only displays when the manufacturer part is associated with another part.



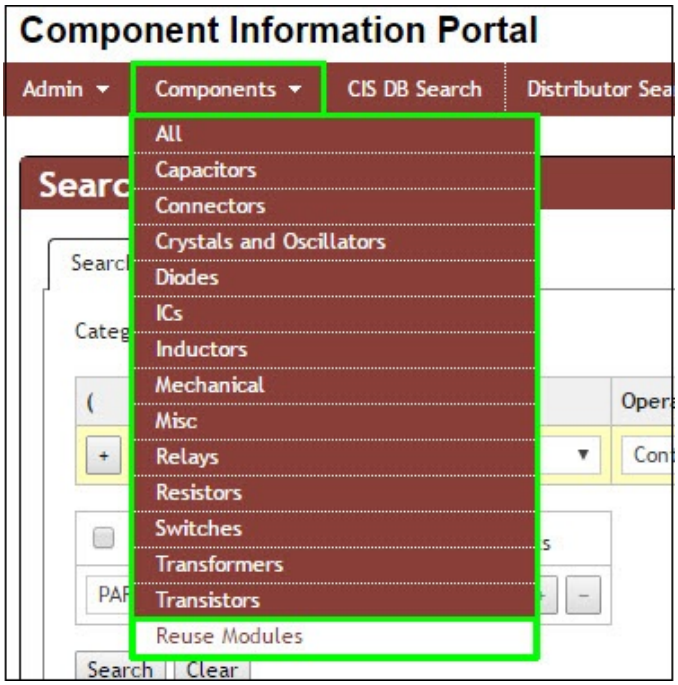
4.4 Creating Reuse Modules

Reuse Modules enable you to save design and part information for reuse in a subsequent design. This reduces work when a portion of a design is duplicated across multiple designs. Additionally, BOMs that are created for designs that use the Reuse Modules feature, may include the Reuse Module's respective parts and labels.

The following instructions describe how to create and place Reuse Modules.

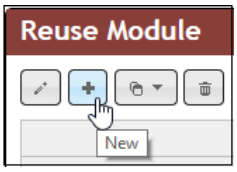
To create a Reuse Module from the Component menu

1. Open the design you want to use from Capture CIS.
2. With the design open, select the **Components > Reuse Modules** menu items.



Select Reuse Modules

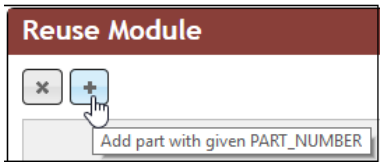
3. Click the **Reuse Module > New** button to open a new blank Reuse Module creation form.



Open Blank Form

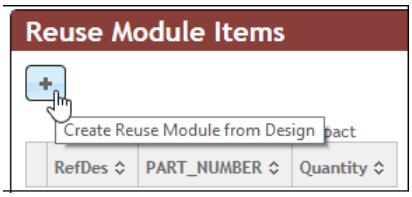
4. Enter information into the blank Reuse Module form. Required information includes a minimum of Part Number and Revision. It is also recommended you enter a Description.

5. Click the **Add** button to assign the part number you entered into the form to your new reuse module.



Assign Part_Number

6. To add the design and parts to your Reuse Module Part Number, in the Reuse Module Items section of your screen, click the **Create Reuse Module From Design** button.



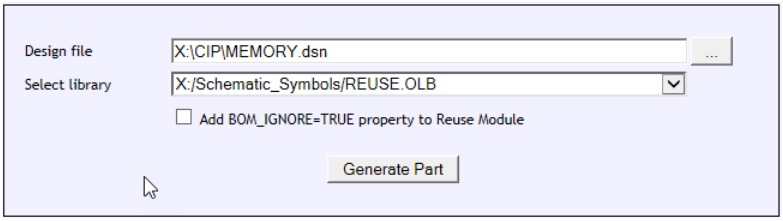
Create Reuse Module from Open Design

The Reuse Module pop up dialog box opens.

7. Select the open design from which you want to create the Reuse Module.

   Your selection populates the **Design file** field. You must annotate your design to ensure there are no duplicate reference designators before creating the Reuse Module in CIP.

8. Select the library to add your reuse design symbol by using the **Select Library** drop-arrow and browse to select a library location.

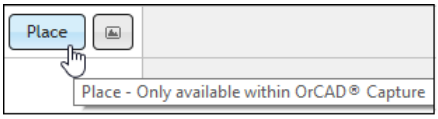


Select Your Source Design

9. Select the **Add BOM_IGNORE=TRUE property to Reuse module** checkbox if you want to add the property BOM_IGNORE=TRUE to the created Reuse Module. CIS Part Manager excludes Reuse Modules that have the property BOM_IGNORE=TRUE.
10. Click the **Generate Part** button to create your new Reuse Module.

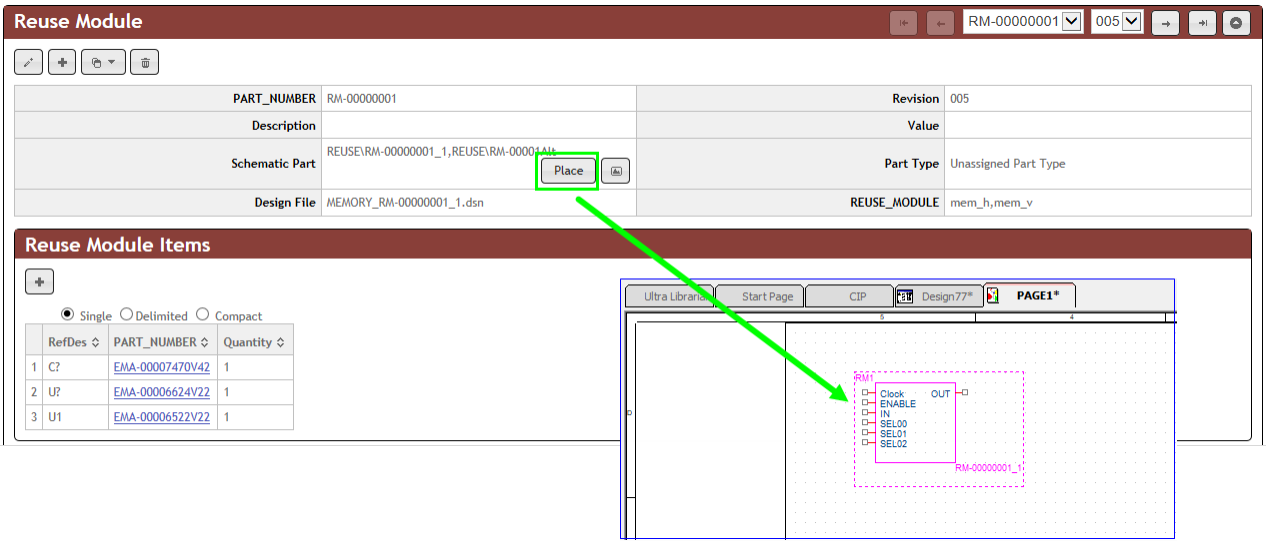
To Place a Reuse Module

You can place your Reuse Module into an open design by clicking the **Place** button  that is available from the **Component > Reuse Module** page. This feature is only available when you open CIP from Capture CIS.



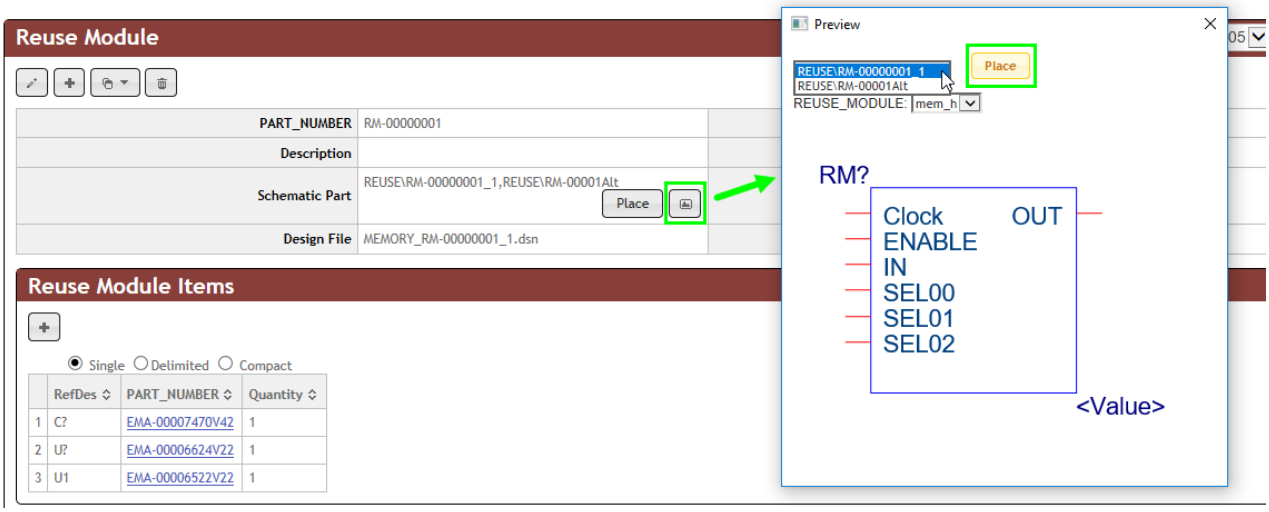
Place Reuse Module

When you are finished placing, press the **Esc** key on your keyboard to stop placement.



Place Your Reuse Module into Your Schematic Design

When you have multiple reuse modules and click the **Place** button  the first item in the list attaches to your cursor for design placement. If you want to select an alternate reuse design, click the **Preview** button  and choose the module you want to place from the REUSE_MODULE drop list as shown in the example below.



Preview and Select an Alternate Reuse Module for Placement

4.5 CIS DB Search

Searching for parts from CIP can be done through the CIS DB Search menu or a keyword search.

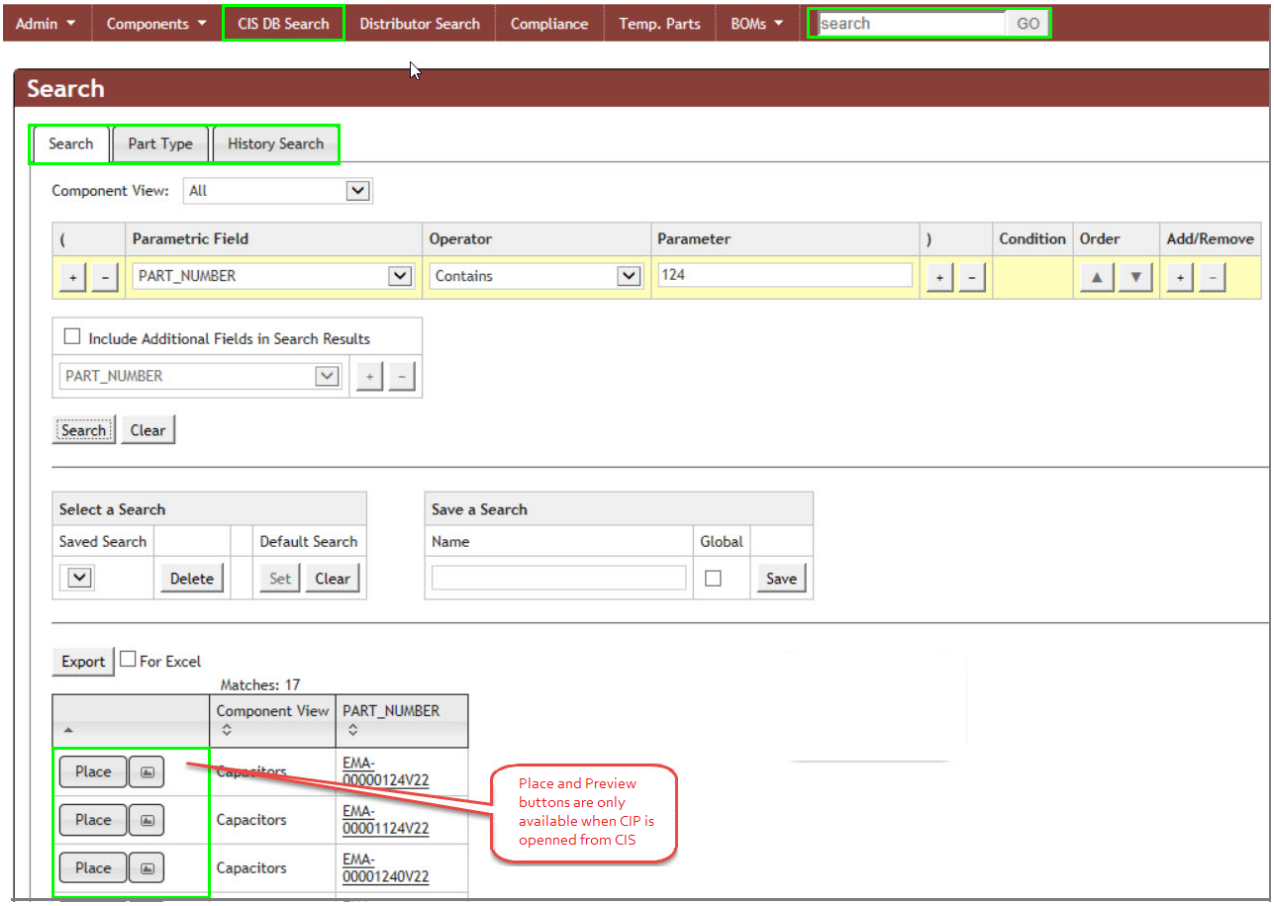
In CIS DB Search there are three types of part searches you can conduct:

- Search
- Part Type
- History Search

Each search type is accessible through a tab. The ***Search*** tab allows users to conduct a search that is based on criteria they define. The ***Part Type*** tab uses the same Part Type tree structure as the Capture CIS Explorer window. The ***History Search*** tab allows users to conduct a search by the date parts were added, deleted or modified.

When performing the search from Capture, the preview and place buttons are located next to each part number included in the search results.

Note: Preview and place buttons are not available in search results when CIP is opened in System Capture.



CIS DB Search

4.5.1 Keyword Search

The quick/keyword search is available along the top bar. Regardless of what screen you are in you can type a string into the Search input field and click the GO button. CIP returns the results parts that best match any part of or the entire string. This functionality allows you to enter parametric data into the search string that may not be in an exact order in your database. Top 100 matches will appear in the search results. Exact part number search will only return one result. This new keyword search functionality was added to CIP, version 17.2.20.

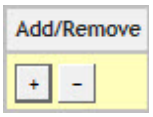
Keyword Search in the Top Bar in CIP

If you prefer the original search functionality, you may disable full search from the Admin > Configuration. When full text search is disabled, the quick/keyword search queries the PART_NUMBER, Part Type, Description, Value, PCB Footprint, and Schematic Part fields to match the search string entered by the user.

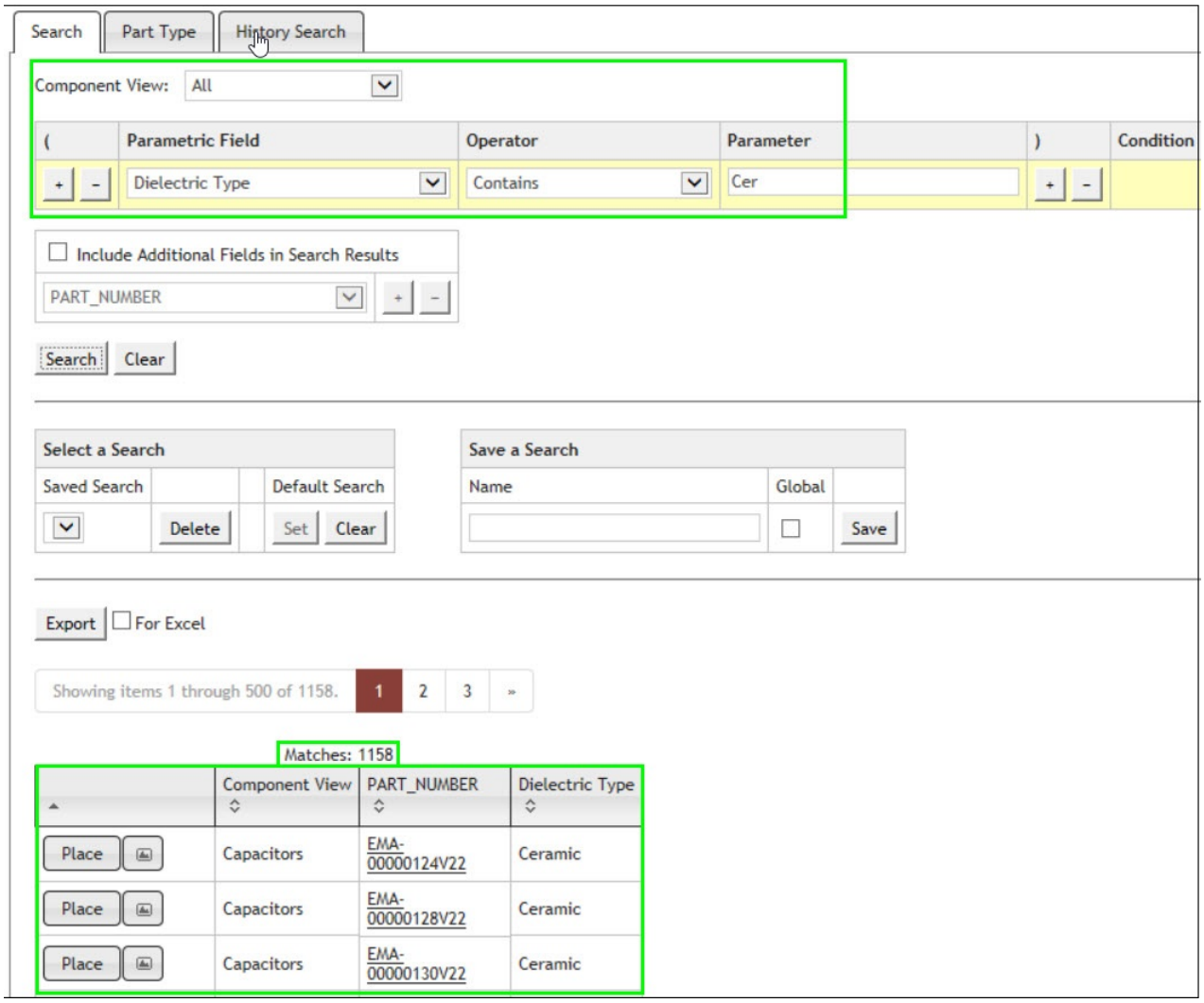
4.5.2 Defining Search Criteria

The CIS DB Search tab enables you to perform simple searches (such as specifying that a field contains data that meets certain criteria). You can also perform complex searches by adding parenthesis. This enables you to be more specific regarding the criteria of the search.

Search results display in the lower left Search Results area. Search results are displayed 500 at a time. You can cycle through the pages of results using the buttons at the top and bottom of the search results area.

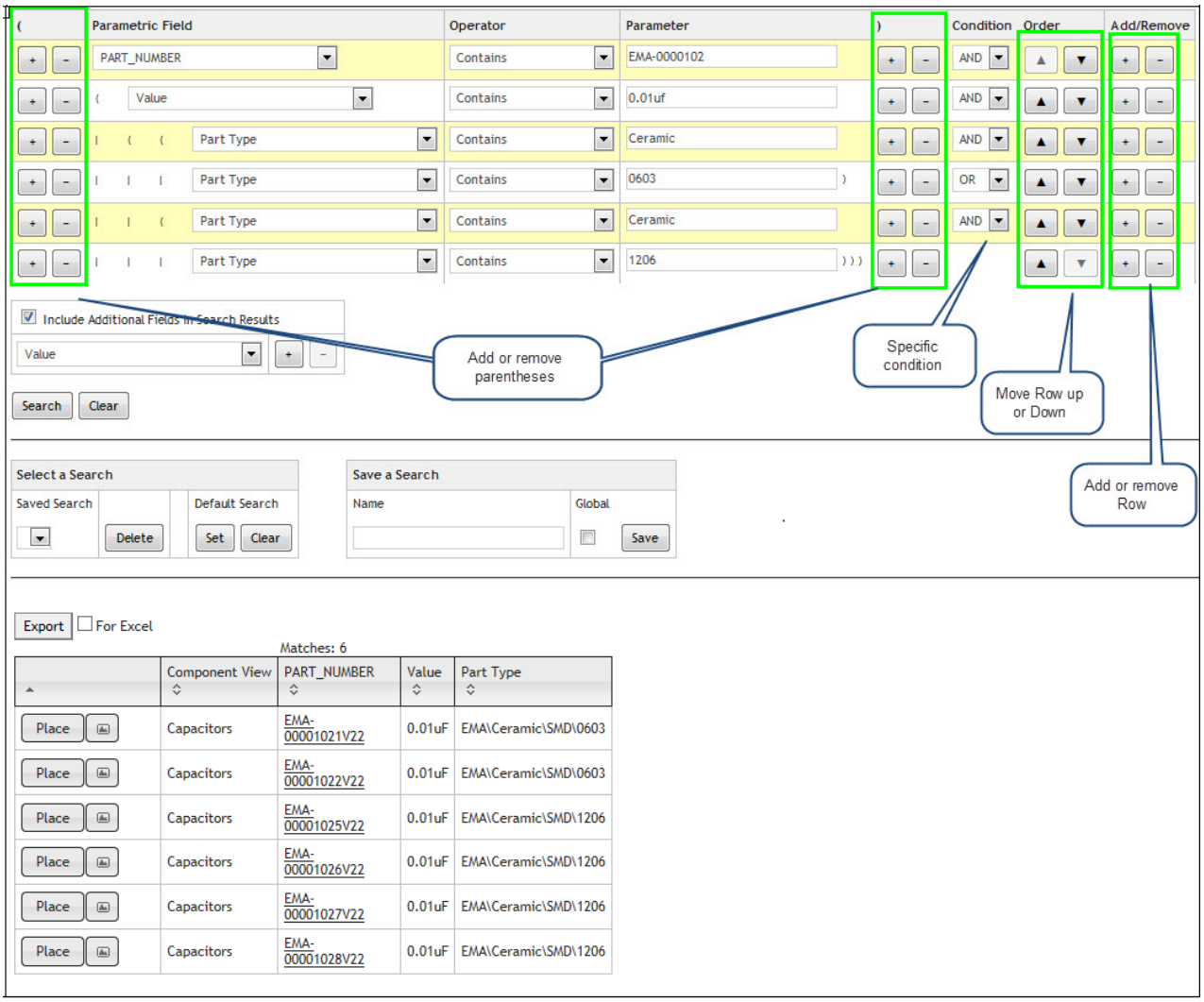
For the simple search single level logic, criteria can be expanded using the **Add Row** button. 

Thus you can add multiple search criteria.



Search Criteria and Results

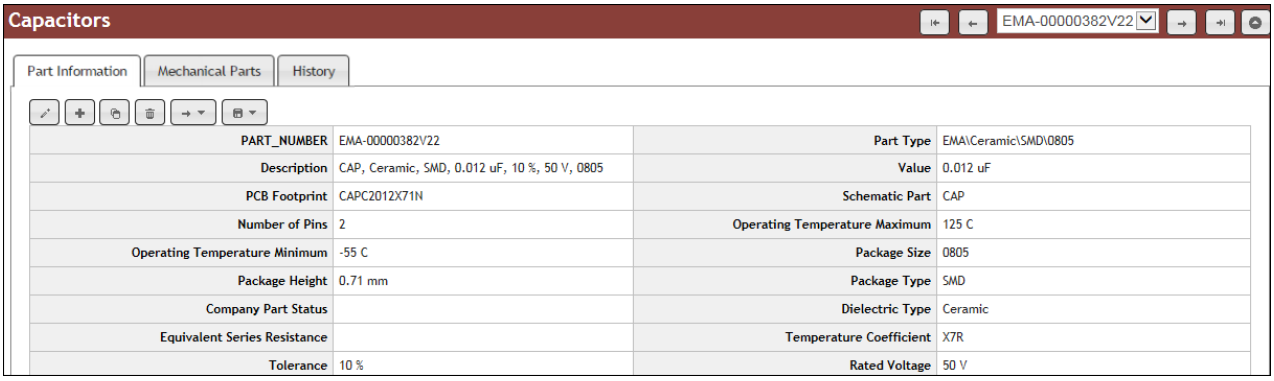
You can conduct a complex search using as many levels of logic as you need to find a specific part. You can add parentheses to specify the behavior and search order of operations in your search. The figure below provides an example. In this example, you remember a partial part number, the value, and that it is one of two sizes. You can specify a query where all parts that meet this criteria are displayed.



Controlling Search Order and Behavior

See section topic, Previewing and Placing a Schematic Part to place a part retrieved from your search.

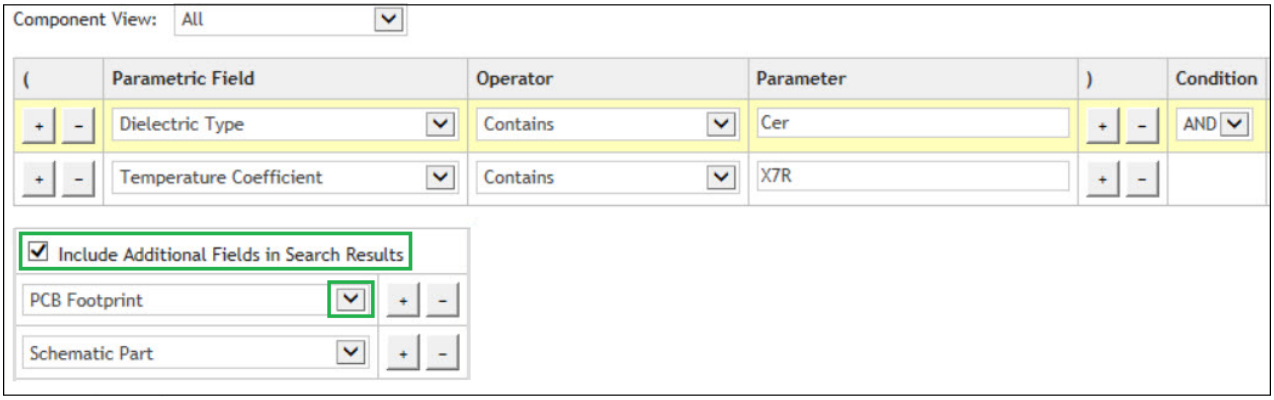
Only configured views are available in the Search Pull-down list. You may select an individual view or "All" views. This method of searching helps when you search for a specific part type, such as a capacitor or a resistor. Selecting one of the parts in the Search Results area opens the parametric data for that part in a separate form.



Selected Part from Search Results

4.5.3 Including Additional Fields in Search Results

If you check the option, **Include Additional Fields in Search Results**, you are able to specify additional search fields from the pull-down menu. This helps you obtain data from other fields whether data populates the field.

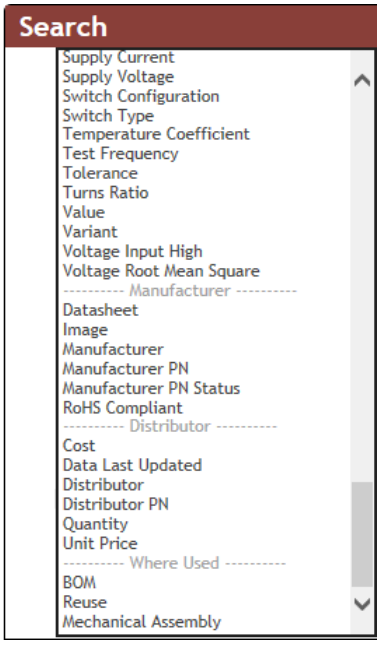


Include Additional Fields in Search

To include additional fields in your search results

1. Check the checkbox **Include Additional Fields in Search Results** and click the field drop arrow. See the image above where green highlighting outlines this checkbox.

   The pop up selection list that opens is organized by the groups: Component/BOM; Manufacturer; Distributor; and Where Used.



Pop Up Selection List of Additional Fields

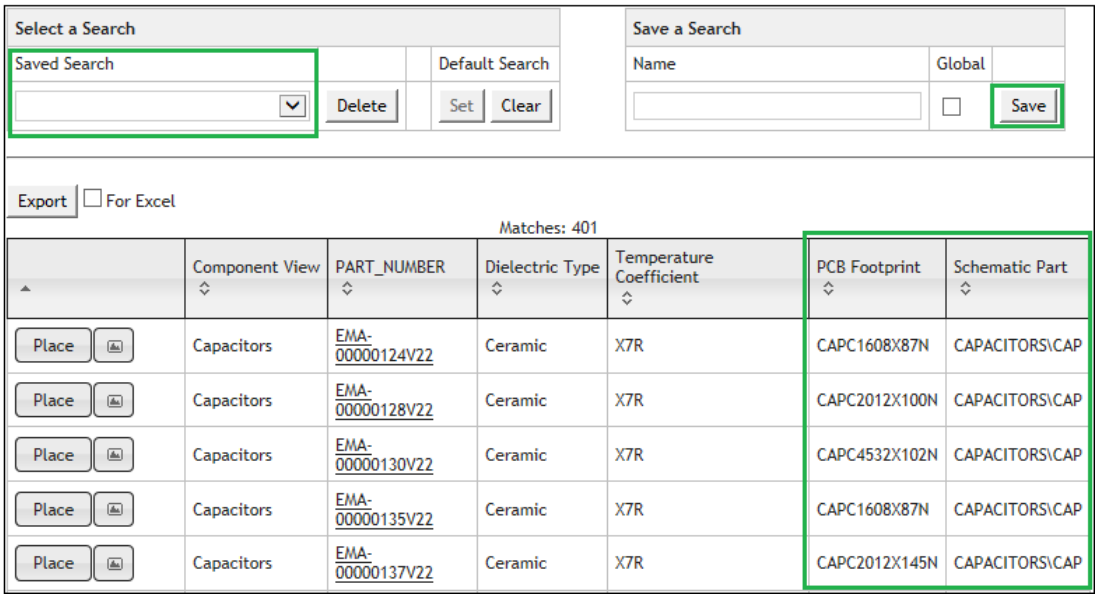
2. Use your left mouse to select the additional field you want to include. Your selection populates the field input.

3. If desired you may click the **Add** + or **Remove** − button to add or remove an additional field included with your search results.

4. Click the **Search** button Search to execute your search.

   Results are returned in the Search Results area that is located in the lower part of the screen. You can be re-order your search results by clicking a field name at the top of a field column. Click the field name again to toggle the column order between ascending and descending order.

Note: When you select either the BOM, Reuse, or Mechanical Assembly field from the Where Used category, a comma separated list of the corresponding items is included in the search results.



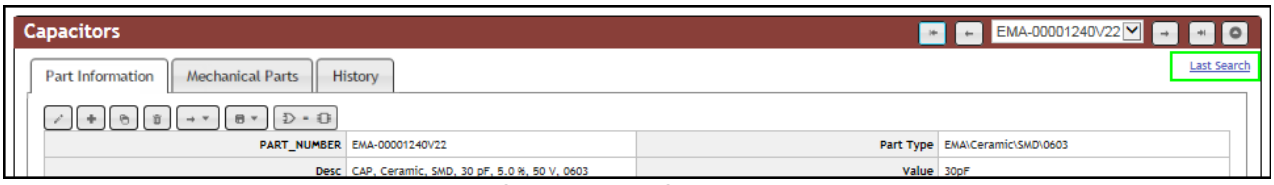
Search Results Including Additional Fields

The above image shows an example of search results retrieved when additional fields were included in the search. This image shows the PCB Footprint and Schematic Part fields that were selected from the Add Additional Fields selection menu.

If desired, you may save the search criteria.

4.5.4 Viewing Last Search

When you view the details of your search results, you can easily return to your last search by clicking the last search link.



Last Search Link in Search Results

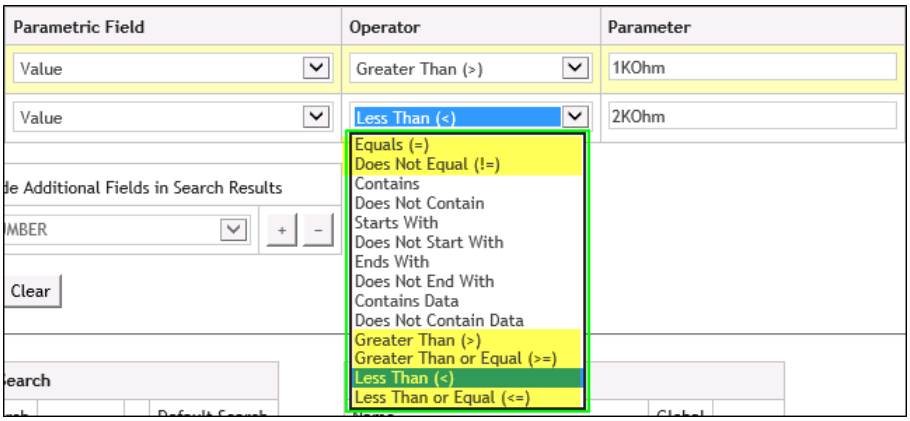
4.5.5 Smart Value Search

The value field used in Capture can represent the part number or an actual value of a discrete component. When you search for values in discrete components views (i.e. capacitors, resistors, inductors and crystals and oscillators), you can conduct a search using numeric criteria that includes the following:

- Equal
- Not Equal
- Greater Than

- Greater Than or Equal
- Less Than
- Less Than or Equal

Note: If you do not see these options, consult your database administrator about installing the Smart Value CLR option to the database. The Smart Value CLR feature is not supported by AWS RDS server. If your database is installed on AWS RDS, this functionality will not work.



Defining Numeric Criteria to Filter Search Results

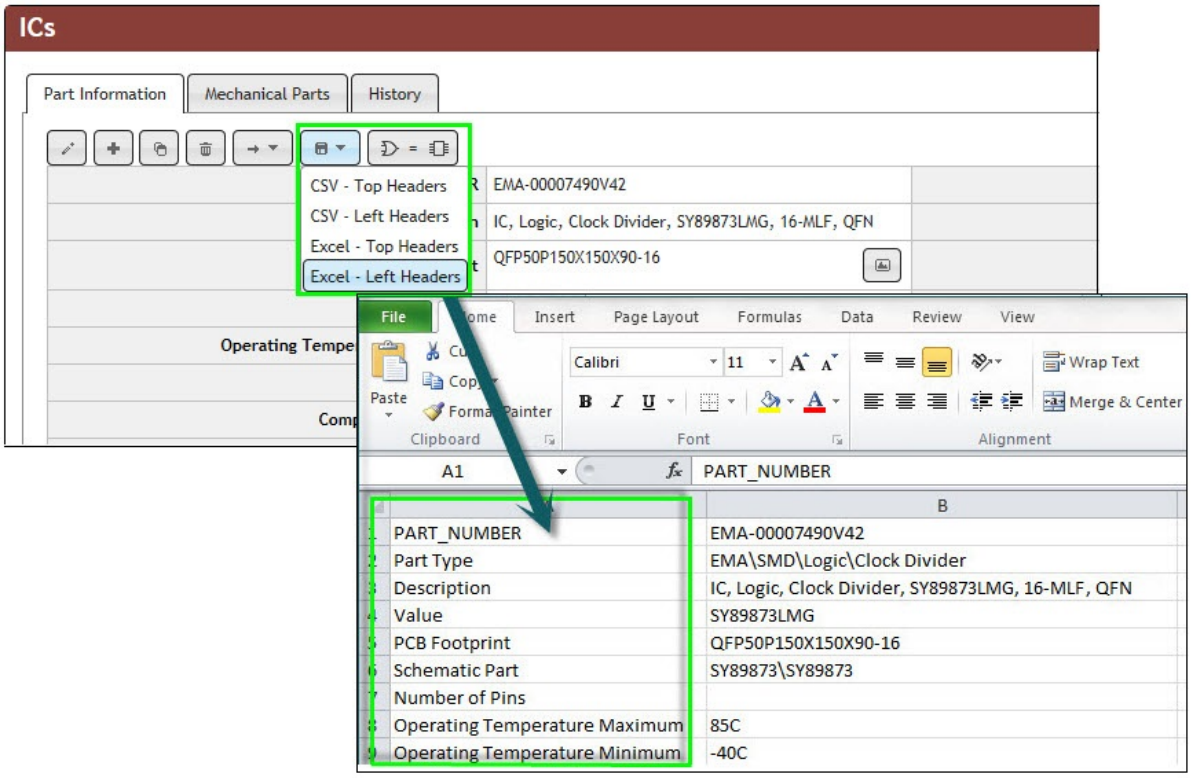
When using one of these criteria, the search algorithm automatically applies the following SI units:

p	pico
n	nano
u	micro
m	milli
K	Kilo
M	Mega

4.5.6 Exporting Part Data to Excel

Once you locate a desired part you can export the part record data to an Excel or CSV formatted file. For each format, you can select to have the Field names appear on the top or on the left, depending on how you want to use the exported data. For example, if you choose the **Export** button  and select Excel - Left Headers, the resulting Excel formatting has the Field Headers in the left column as shown in the following figure. Relevant data values appear in the cells to the right of the field headers.

Note: Export functionality is not available when using the System Capture plugin.

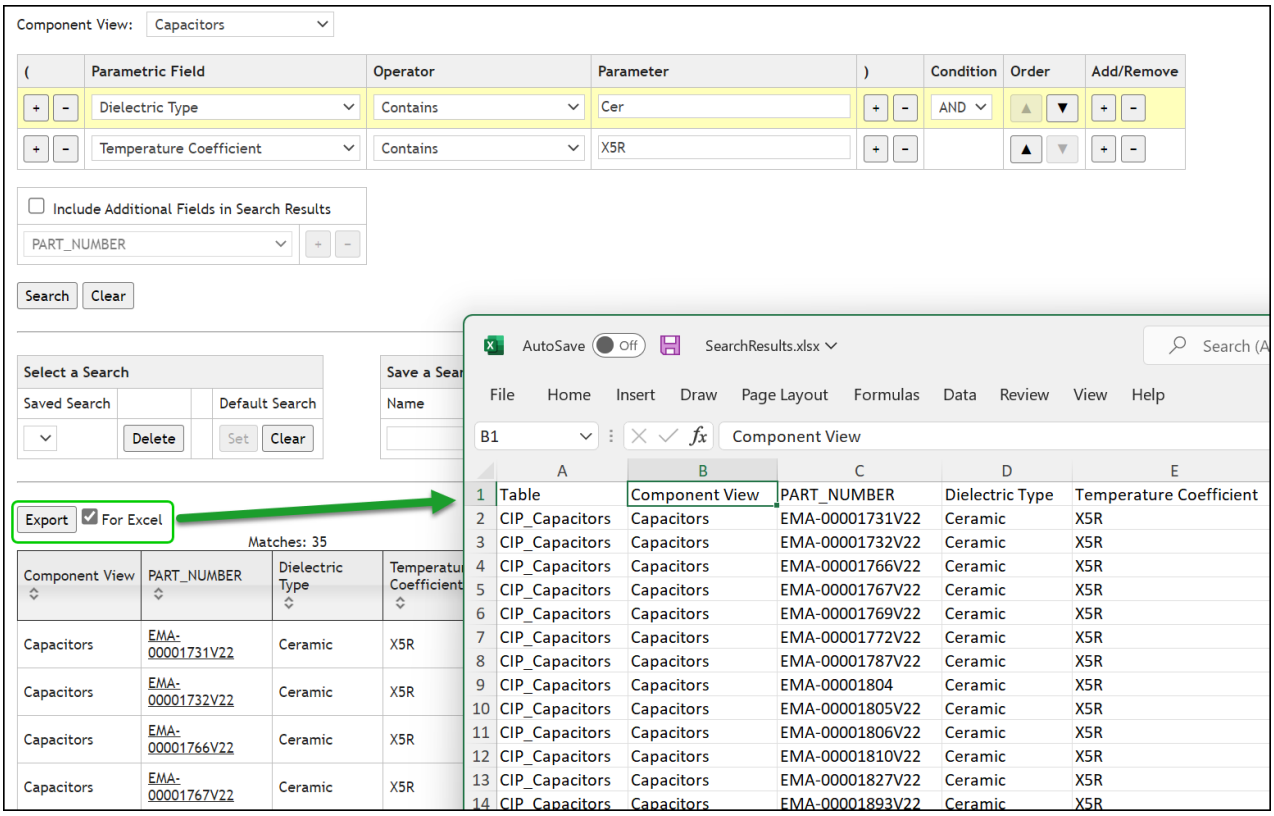


Export Part Data to Excel

4.5.7 Exporting Search Results

If desired, the Search Results can also be exported to an Excel or CSV formatted file. For Excel format, select the checkbox labeled **For Excel**. A sample is shown below.

Note: Export functionality is not available when using the System Capture plugin.



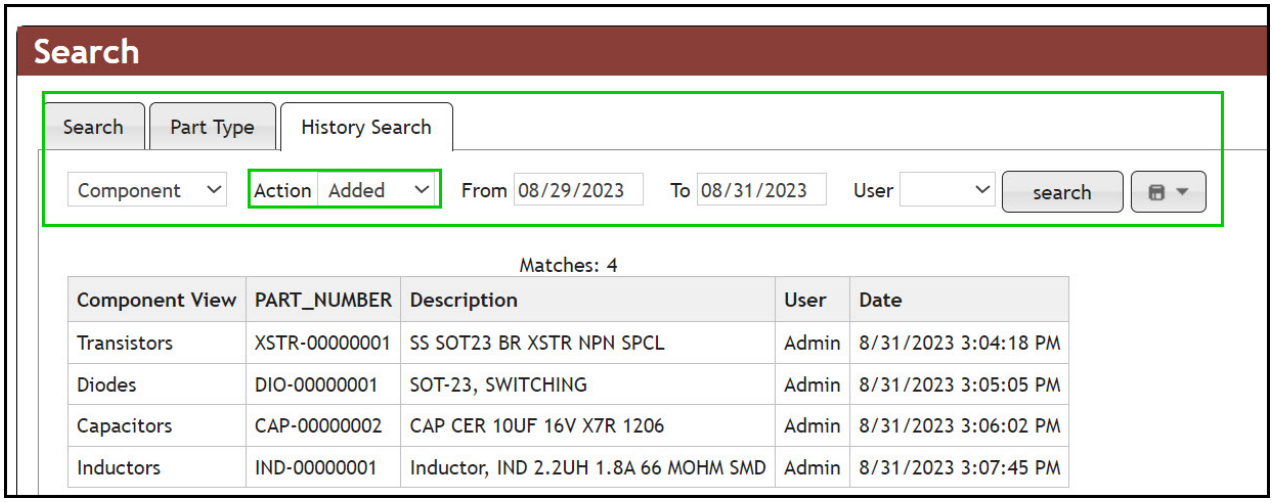
Export Search Results to Excel

4.5.8 Using the History Search

Using the History Search feature enables you to specify a date range to determine which parts have been added, modified, or deleted, and by whom. History search may be performed across component views or on manufacturer parts.

Component History Search

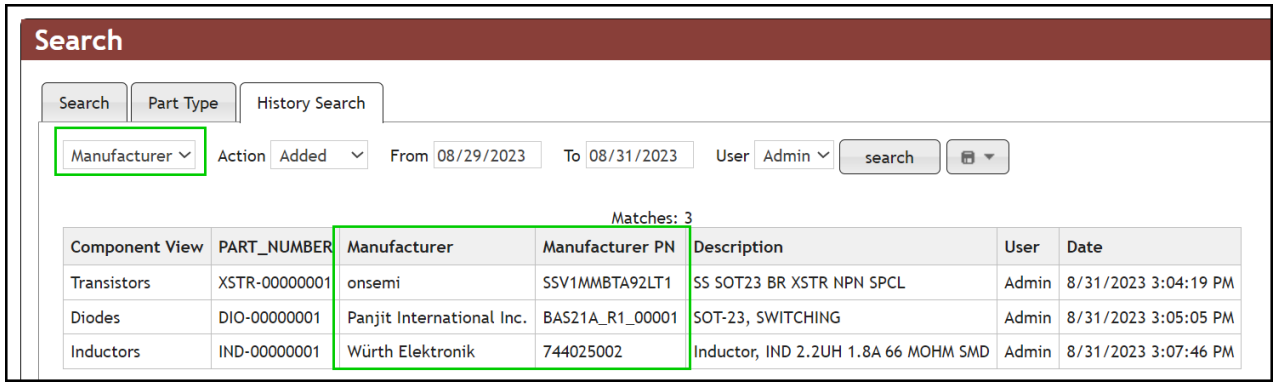
The component History Search searches only the data across the component views and displays the component part number and description of parts that meet the specified criteria. To search for a component history, select the Component before specifying your date range and action criteria. Changes to Manufacturer parts associated to a component are excluded from the search.



Search by History and Date Range

Manufacturer History Search

The Manufacturer History Search searches the data in the manufacturer parts and displays the manufacturer and manufacturer part number along with component information. To conduct a Manufacturer History Search, select the Manufacturer before you specify your date range and action criteria.



Search by History and Date Range For Manufacturer

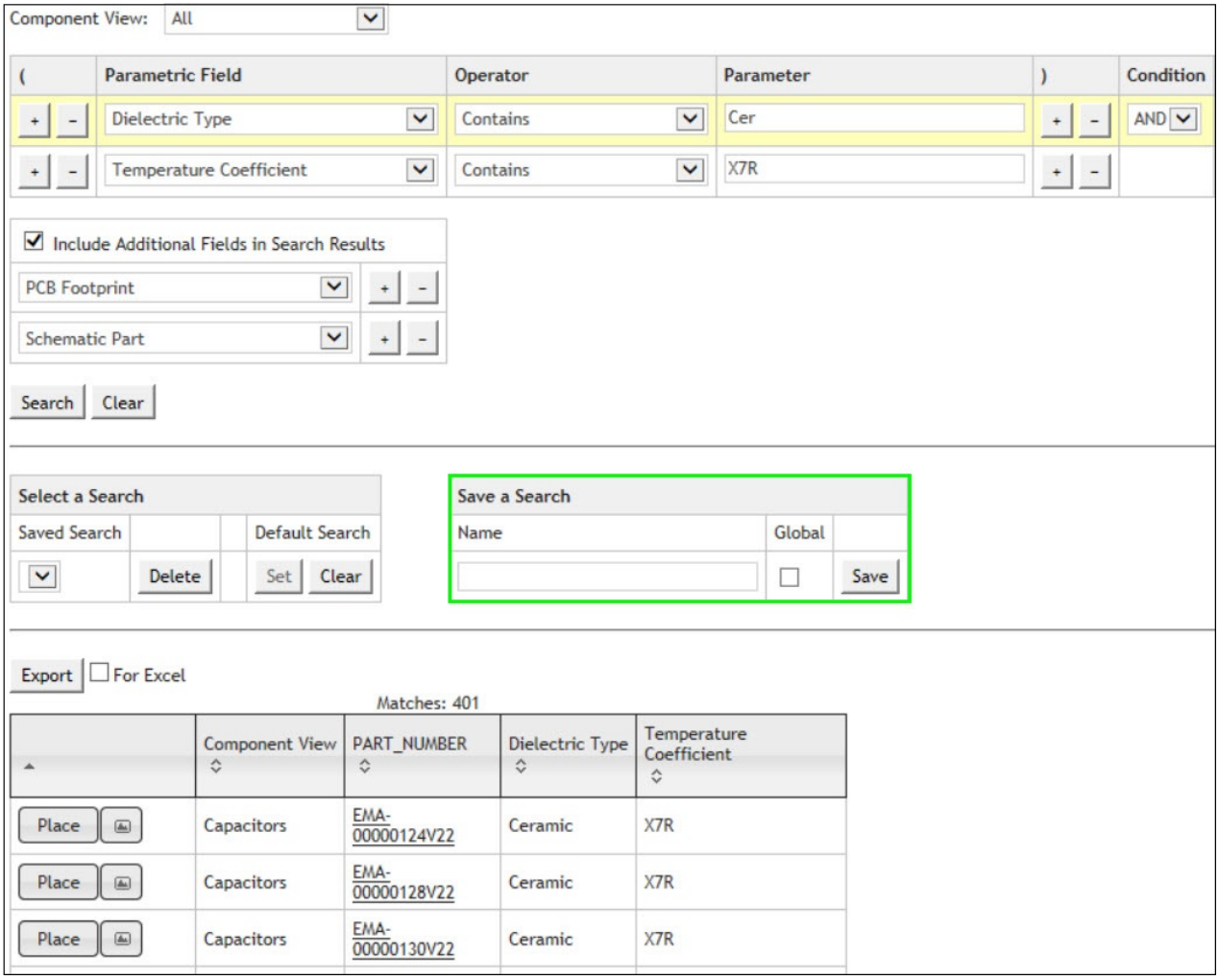
Export History Search Results

The list of parts shown in the search results may be export to CSV or Export by clicking the Export button and selecting the option for your export.

Note: Export functionality is not available when using the System Capture plugin.

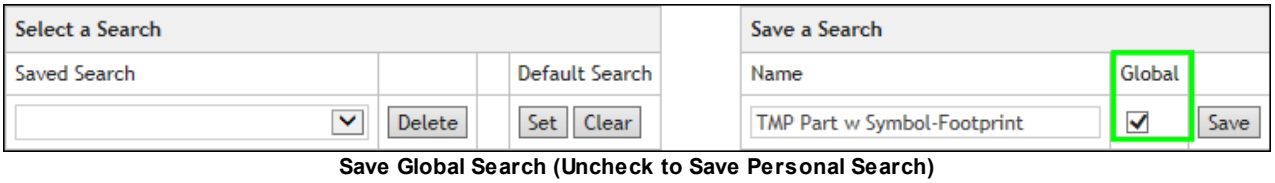
4.5.9 Saving Search Criteria

Search criteria can be saved for later use. The criteria and field settings you can save can be specified as either personal or global search criteria. Personal search criteria are only available to the user that saved the search. Global searches can be used by all users. You must first define a search before you can save it. After you defined a search, enter a name to save the search with and click the Save button. If you need to change the criteria of a saved search, you can change the search definition and click the Save button again.



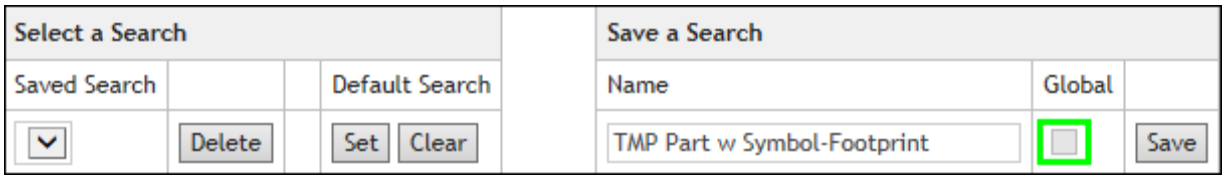
Saving Search Criteria

To save a personal search, enter the desired search name and click **Save**. To save a global search, enter the desired search name, select the **Global** checkbox, and click **Save**.



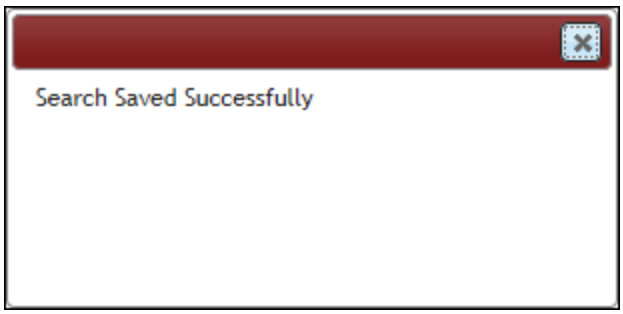
Save Global Search (Uncheck to Save Personal Search)

*__NOTE__: Users without permission to create Global searches see a grayed-out Global checkbox that is unavailable.



Save Searches for User Without Global Save Permissions

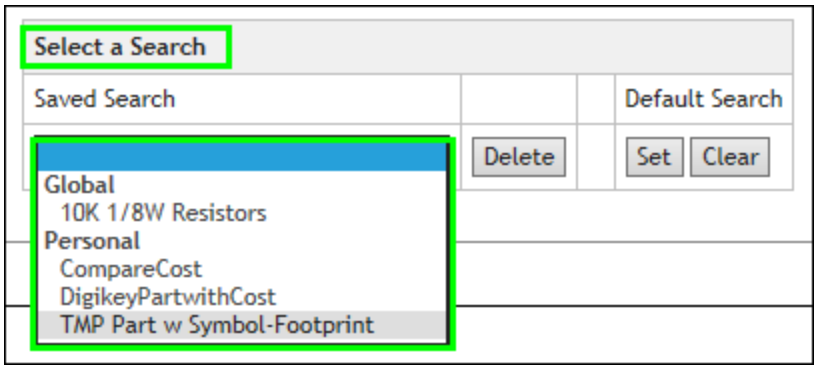
After saving a search, a pop-up window confirms that your "Search Saved Successfully." Click the **X** button to close the window.



Search Saved Successfully (Click X to Close)

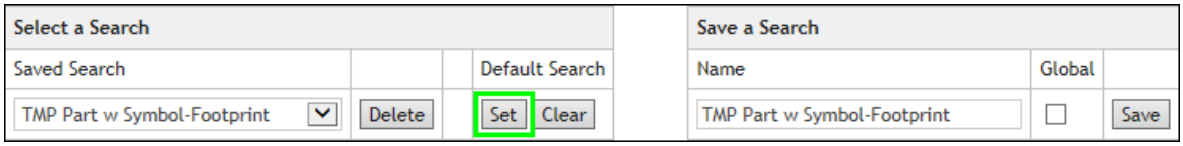
To select a previously defined search, select the name of the saved search from the pull-down window. The searches are grouped by Global and Personal searches.

Note: If the display name of the Saved Search changes, update the template.



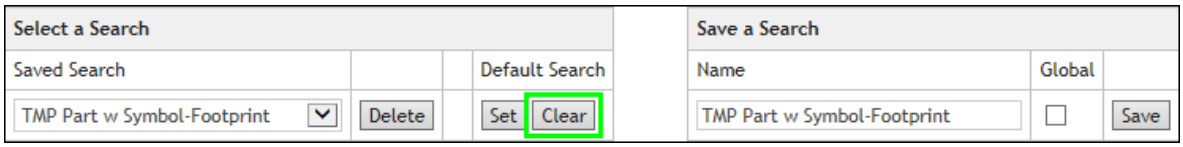
Selecting a Saved Search

If you want to have CIS DB Search select a specific saved search when you navigate to the CIS DB Search page, after selecting the saved search, click the **Set** button under Default Search.



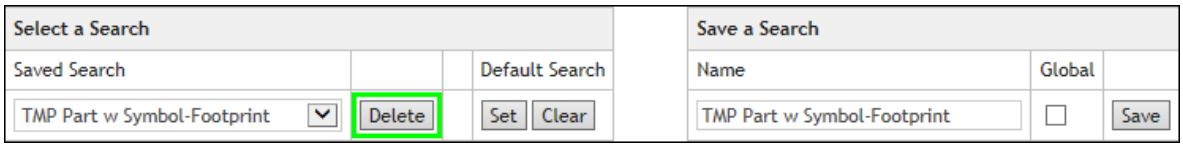
Setting a Search as Default

If a search is no longer needed as your default, you can clear the default.



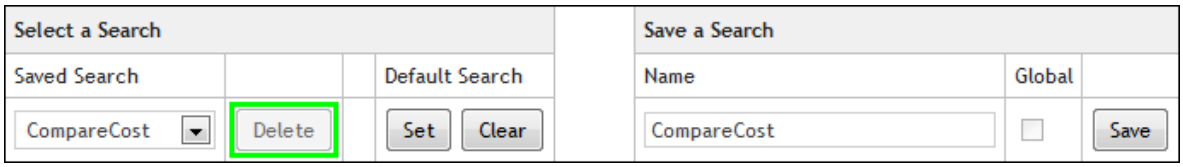
Clearing a Default Search

If a search is no longer required, you can delete the search from your list by first bringing it up and then clicking the **Delete** button.



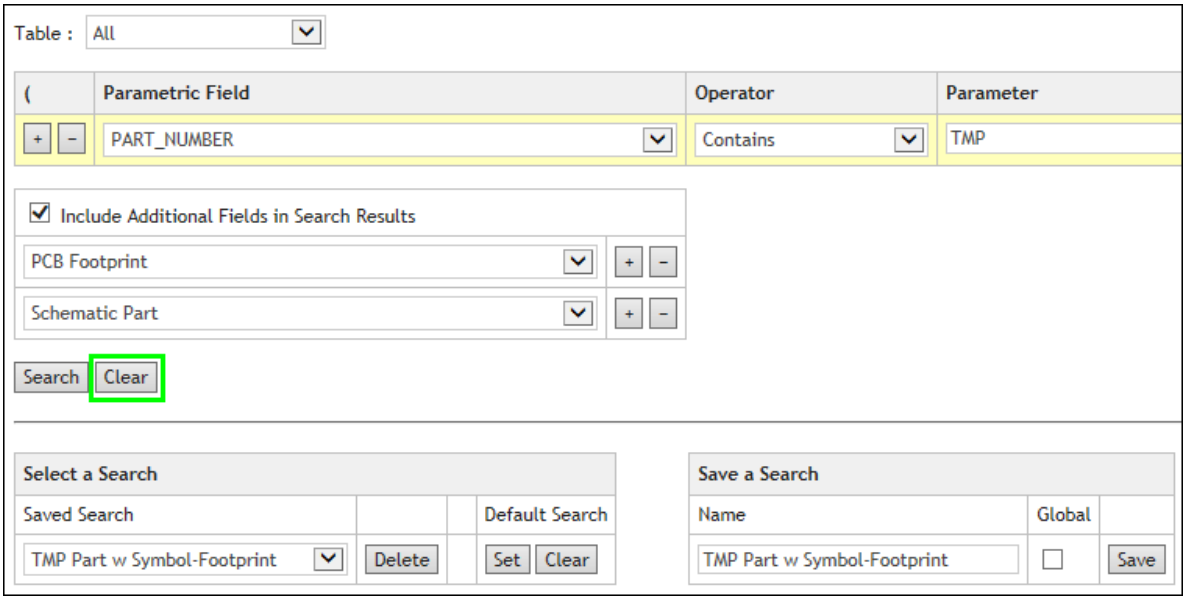
Deleting a Saved Search

Global Saved searches can only be deleted by users with permissions to create global searches. Users without appropriate permission can open the search but are unable to delete it.



Global Delete Not Available without Permissions

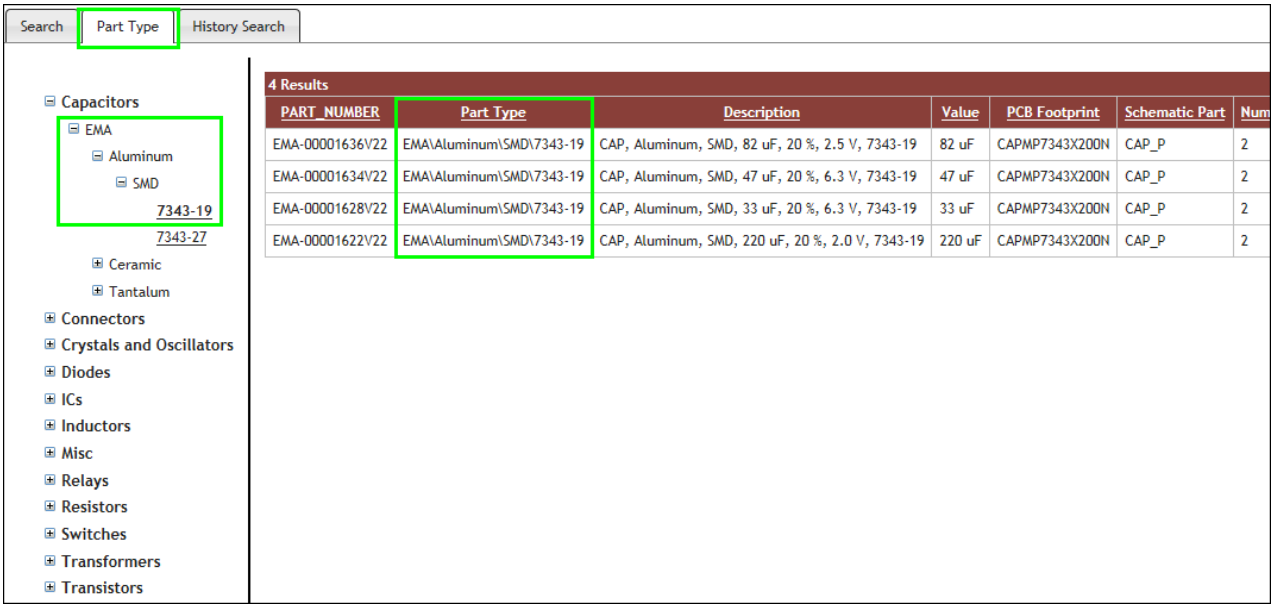
To clear the search criteria after it is defined, click the **Clear** button.



Clearing Search Criteria

4.5.10 Using Part Type Search

The Part Type tab within CIS DB Search enables users to find and view parts by Configured Views and Part Type. This method is similar to the CIS Explorer window in Capture CIS. Click the plus sign ⊞ to expand levels. Similarly, click the minus sign ⊟ to collapse levels.



Part Type Search

4.6 Distributor Search

The Distributor Search menu item enables users to directly search for parts from DigiKey, Newark, Future, Mouser, and Arrow. Knowing these parts are immediately available can significantly reduce lag times and produce shorter time-to-market.

You can use the Distributor Search menu item to do the following:

1. Search for availability and cost of parts
2. Create a TMP part with the distributor part number
3. Update and existing part with the distributor part number

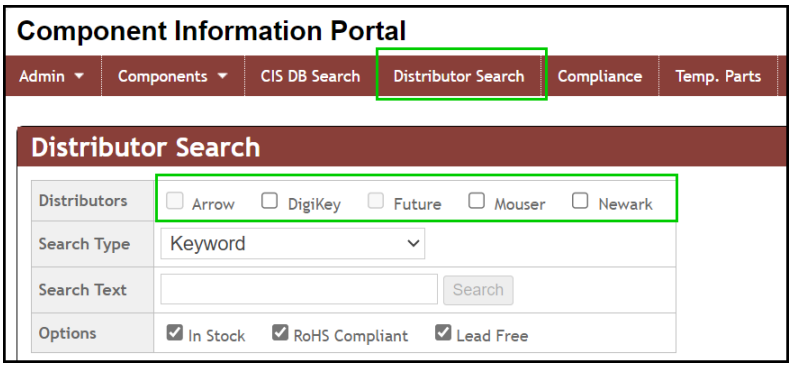
4.6.1 Searching for a Distributor Part

After you open the **Distributor Search** tab, you can select distributor(s) that will be used to conduct the search. You can search for: DigiKey, Newark, Future, Mouser, or Arrow. (**Note**: If your country is set differently from the base product, the Newark distributor may appear as Premier or Farnell, depending on the country). The Search Type allows you to conduct a search that is based on a Keyword or Manufacturer Part Number. When you select Search Type, only Distributors that support the search type are enabled for selection.

Note: The Arrow and Future search only supports search strings that are entered for a manufacturer part number. The "Arrow" and "Future" selection check box is unavailable for a keyword search.

You may select additional Options to narrow your search results. Once all search parameters are specified, click the **Search** button. You may search in one or more distributor databases. When searching across multiple distributors, the results are limited to 25 records from each distributor.

Note: Different search algorithms used by each distributor site may result in different search results. Please keep this in mind when performing searches and viewing results, especially when searching across multiple distributors.



Select Distributor(s)

4.6.1.1 By Manufacturer Part Number

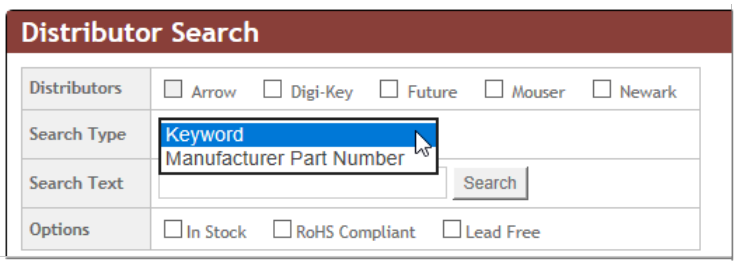
You can search by Manufacturer Part Number by selecting the drop-down option from the Search Type list. You can search multiple distributors at the same time. Enter the Manufacturer Part Number and click the **Search** button to obtain results.

Search Multiple Distributors by Manufacturer Part Number

Note: The search algorithm for each distributor site is controlled by the distributor. Future may not return search results when you enter a string that contains a comma.

4.6.1.2 By Keyword

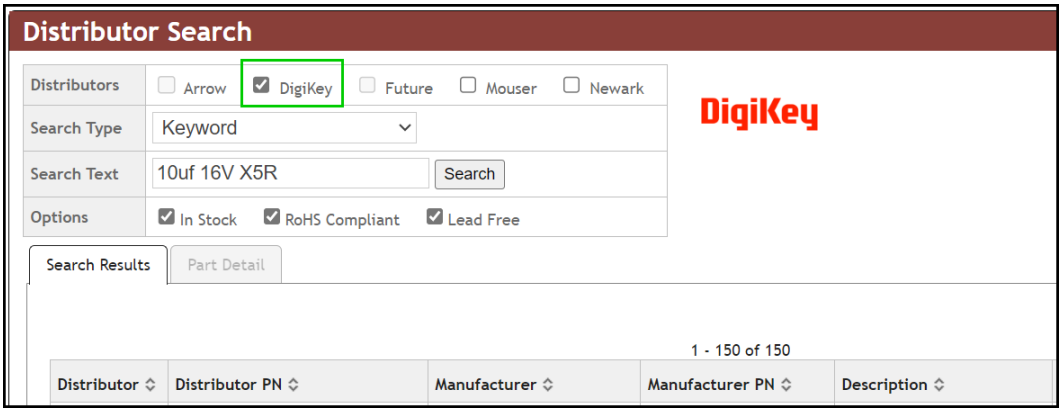
You may also perform a keyword search by distributor by selecting **Keyword** from the Search Type drop-list.



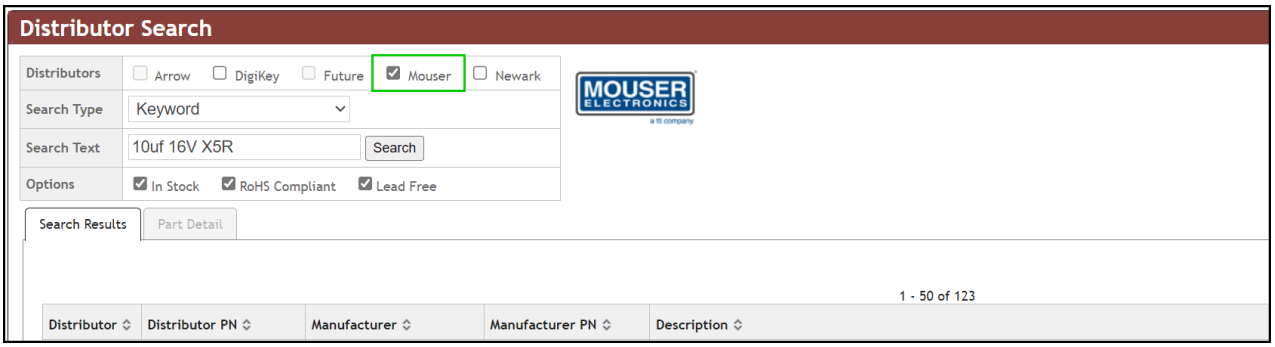
Keyword Search

To simultaneously search for parts from multiple distributors, type a keyword into the **Search Text** field and click the **Search** button. Search results display in the lower part of the page. The "Arrow" and "Future" selections check boxes are unavailable for keyword searches.

"In Stock", "RoHS Compliant" and "Lead Free" filter options are available when you select either DigiKey, Mouser, or Newark using Keyword Search.



Digi-Key Keyword Search



Mouser Keyword Search

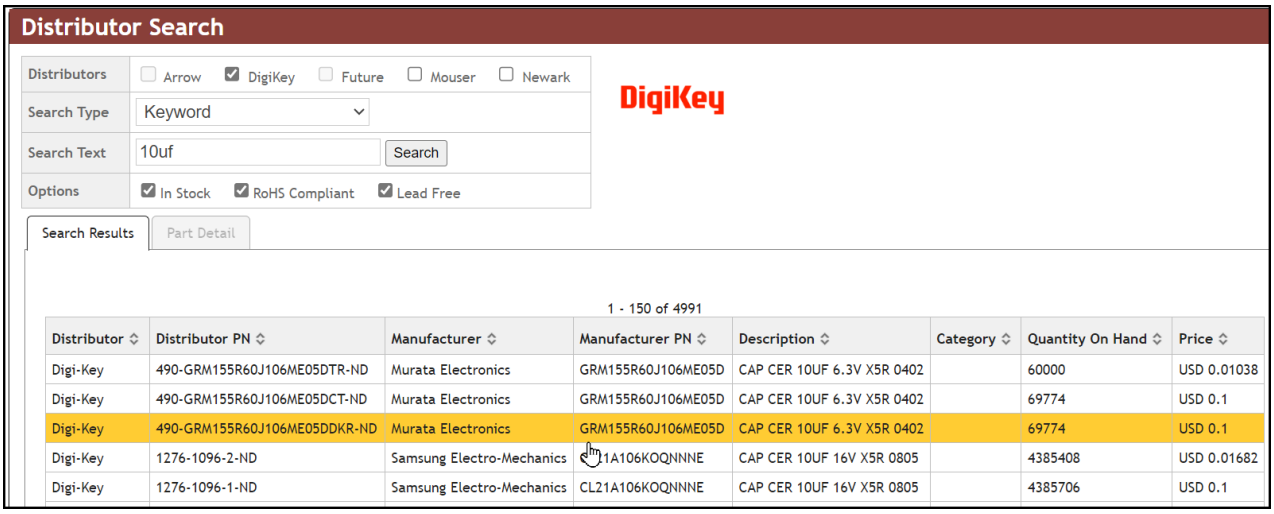
Newark Keyword Search

4.6.1.3 Search Results and Part Detail

The results returned from a distributor search may be extensive since the search queries the distributor's database of parts to match the requested criteria. The fields returned in the search results are: Distributor (DigiKey, Newark, Future, Mouser, or Arrow), Distributor PN, Manufacturer, Manufacturer PN, Description, Category, Quantity On Hand, and (Unit) Price. To determine the complete price breakpoint of a part, you need to select the part and view its Part Detail page.

Search results may be re-ordered by clicking a column heading (Distributor, Distributor PN, etc.). The order of the displayed results can be re-sorted by the column selected. Re-selecting the same column reverses the order of displayed results.

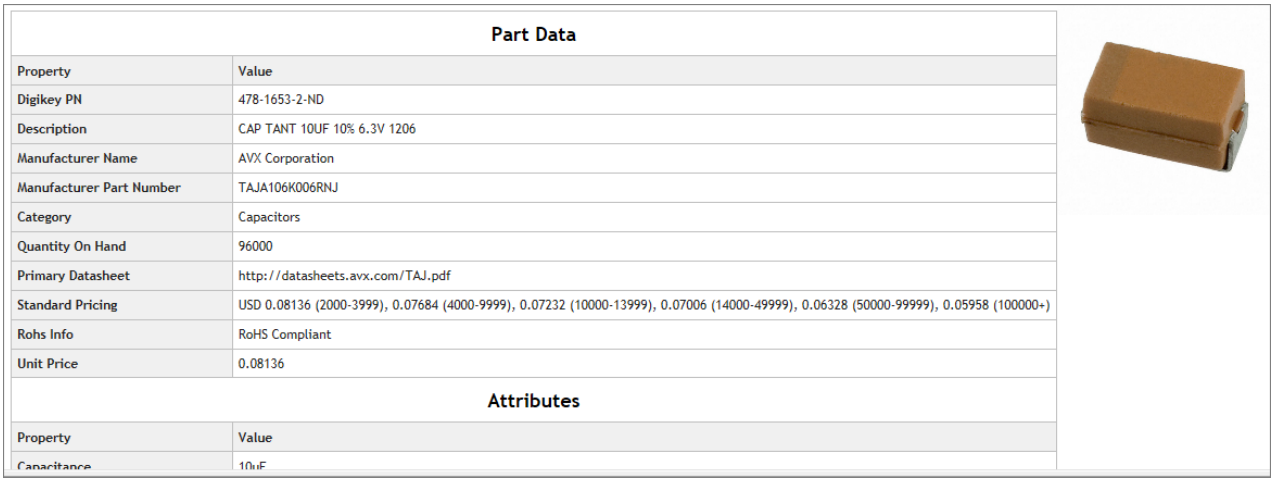
Note: The search algorithm for each distributor site is controlled by the distributor. Consequently, each distributor search responds differently to the search string provided. The Manufacturer Name may be inconsistent across all distributors.



Distributor	Distributor PN	Manufacturer	Manufacturer PN	Description	Category	Quantity On Hand	Price
Digi-Key	490-GRM155R60J106ME05DTR-ND	Murata Electronics	GRM155R60J106ME05D	CAP CER 10UF 6.3V X5R 0402		60000	USD 0.01038
Digi-Key	490-GRM155R60J106ME05DCT-ND	Murata Electronics	GRM155R60J106ME05D	CAP CER 10UF 6.3V X5R 0402		69774	USD 0.1
Digi-Key	490-GRM155R60J106ME05DDKR-ND	Murata Electronics	GRM155R60J106ME05D	CAP CER 10UF 6.3V X5R 0402		69774	USD 0.1
Digi-Key	1276-1096-2-ND	Samsung Electro-Mechanics	CL21A106KOQNNNE	CAP CER 10UF 16V X5R 0805		4385408	USD 0.01682
Digi-Key	1276-1096-1-ND	Samsung Electro-Mechanics	CL21A106KOQNNNE	CAP CER 10UF 16V X5R 0805		4385706	USD 0.1

Sample Distributor Search Results

Moving the mouse pointer over a part that is listed in the search results highlights the part. Highlight and click a part to show Distributor Part Data, Attributes and an image of the actual part (if available). Each distributor provides attribute data in its own format.



Part Data

Property	Value
Digikey PN	478-1653-2-ND
Description	CAP TANT 10UF 10% 6.3V 1206
Manufacturer Name	AVX Corporation
Manufacturer Part Number	TAJA106K006RNJ
Category	Capacitors
Quantity On Hand	96000
Primary Datasheet	http://datasheets.avx.com/TAJ.pdf
Standard Pricing	USD 0.08136 (2000-3999), 0.07684 (4000-9999), 0.07232 (10000-13999), 0.07006 (14000-49999), 0.06328 (50000-99999), 0.05958 (100000+)
Rohs Info	RoHS Compliant
Unit Price	0.08136

Attributes

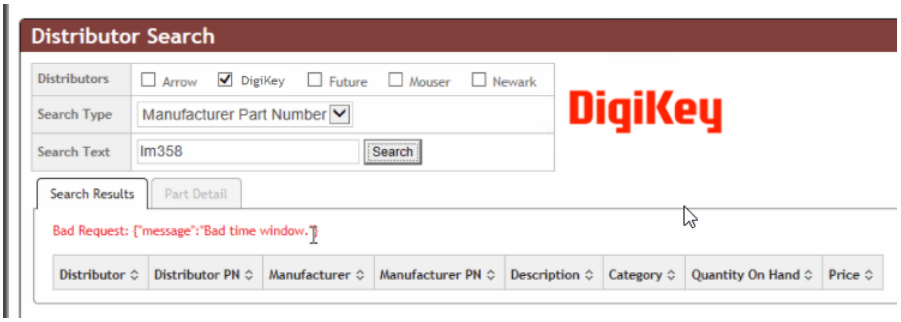
Property	Value
Capacitance	10uF

Sample Part Data and Attributes

4.6.1.4 Warnings and Errors

Changes to distributor APIs or part data may show warnings that result from distributor searches. Sample errors are shown in this section.

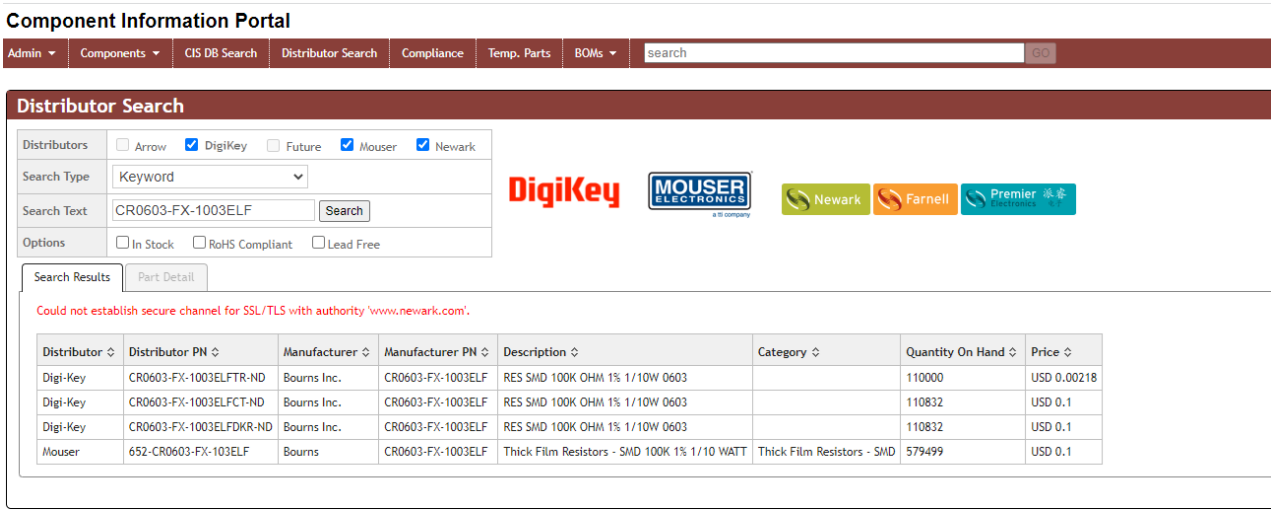
Bad Request: Bad time window



Cause: When the CIP web application server time is more than 5 minutes off from the actual time for the time zone of the server, Digikey search will respond with the message of bad time window.

Solution: To fix the problem ensure that the time on the CIP web application server is set correctly. You may need to contact your IT administrator to fix get this resolved.

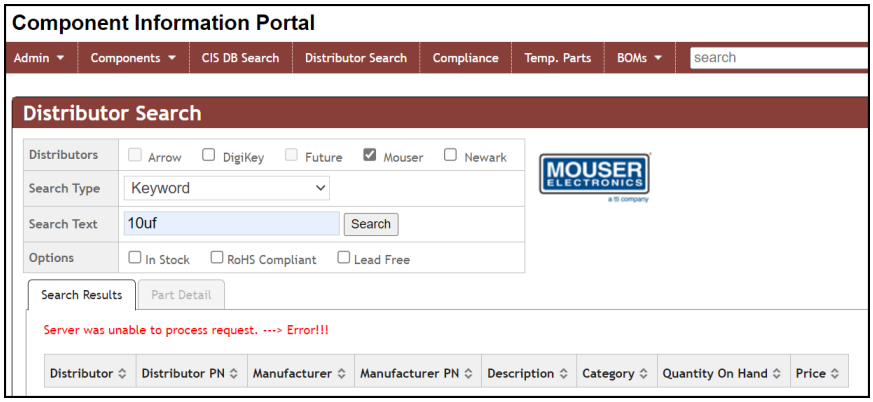
Could not establish secure channel for SSL/TLS with authority 'www.newark.com'



Cause: The cipher suites used by the Newark API are unsupported by Windows Server 2012 R2/Windows 8.1. CIP web application server installed on one of these operating systems can no longer use Newark's distributor search.

Solution: Migrate CIP web application server to different Windows Server.

Server was unable to process request. ---> Error!!!



Cause: When search string is fewer characters than expected by the Mouser distributor or entered in a way that is not acceptable. Mouser server results an error.

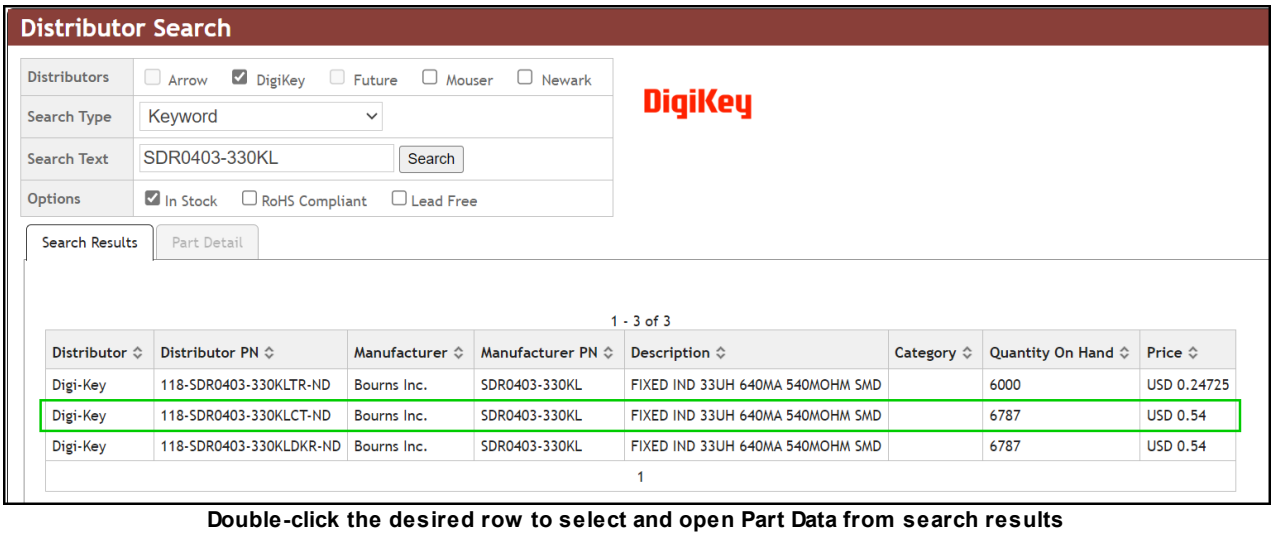
Solution: To fix, change you search string.

4.6.2 Creating a New TMP Part and Distributor Part

The CIP Distributor Search is an efficient way to add valid, orderable parts to your database. You may add one distributor part from the distributor search page. To add multiple distributor parts, however, you need to open the component page. When adding a part while using the Client plugin, you may preview and download ECAD Models from Ultra Librarian.

To create and add a TMP part to your database

1. Complete a Distributor Search and select the part you want to add to your database.

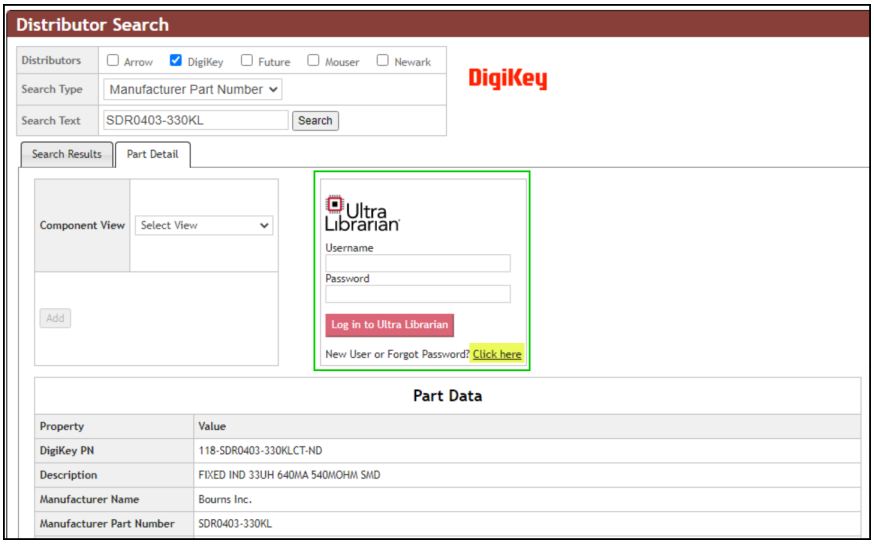


Double-click the desired row to select and open Part Data from search results

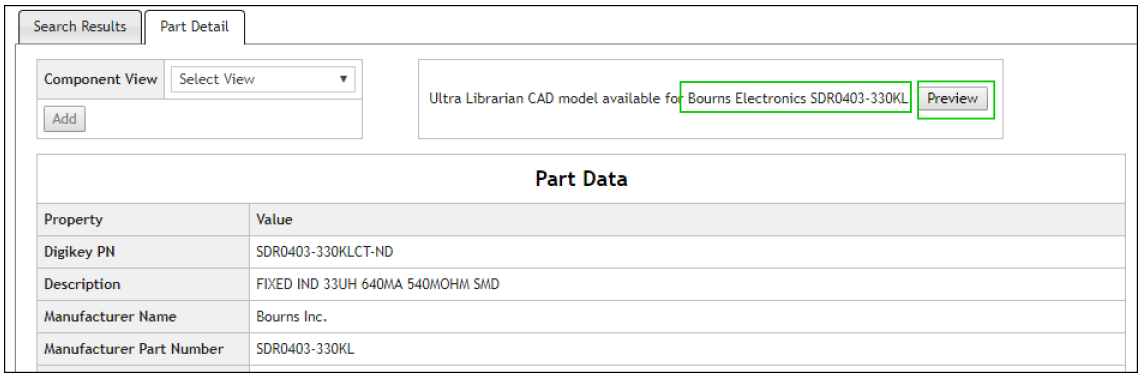
The Part Data information opens after you select a component for viewing.

2. When **Ultra Librarian download** is enabled and CIP is opened in Capture, you will need to log in before you can preview or download ECAD models. If you don't have an account, you can register by selecting the **Click**

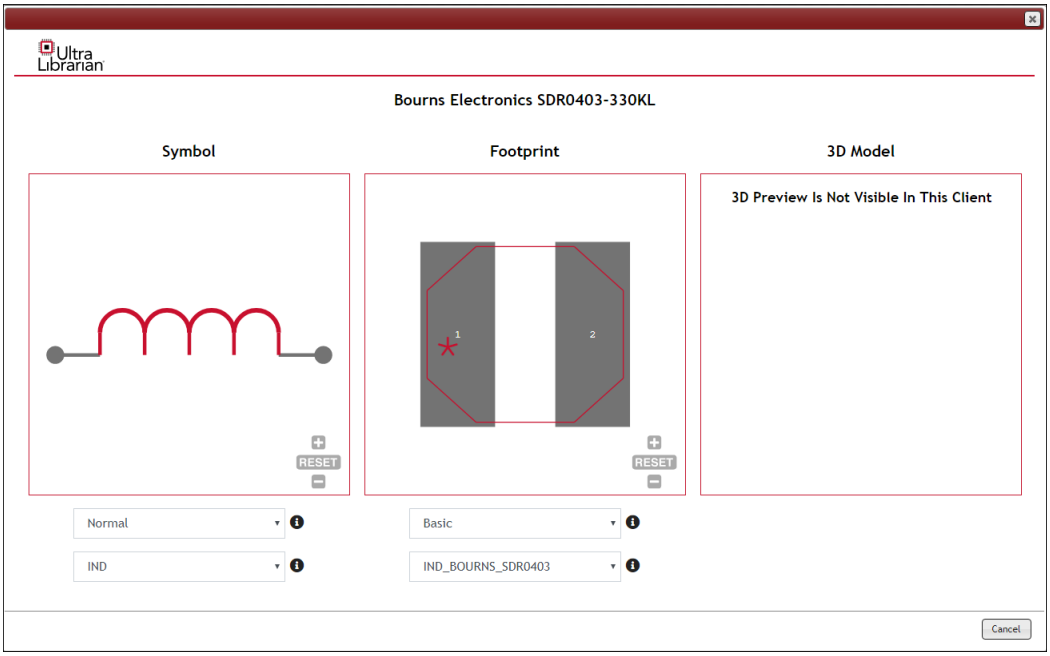
here link. The **Ultra Librarian** information is not shown when CIP is open from a standard browser or when Ultra Librarian download is disabled.



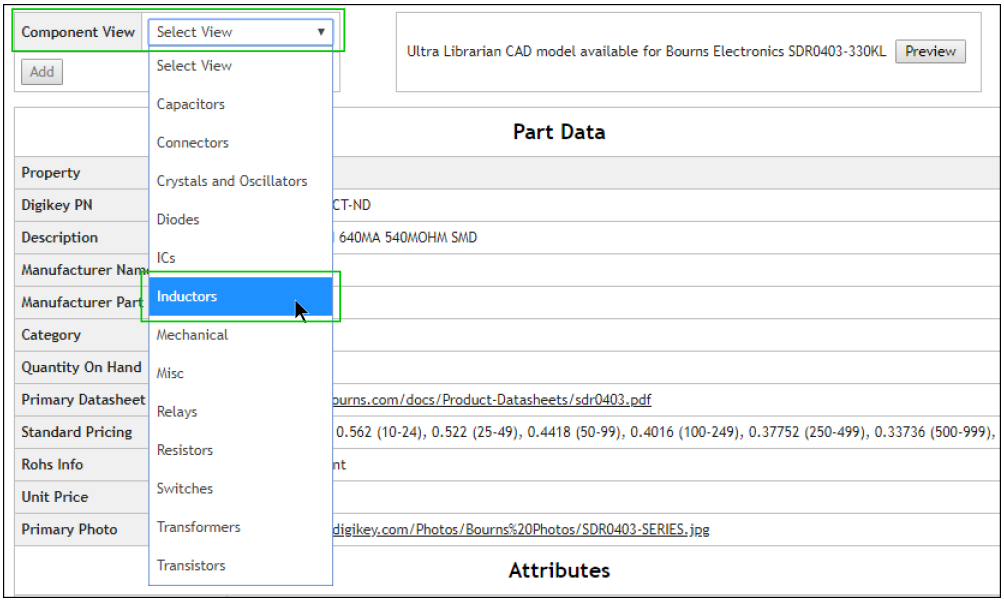
3. If you are logged in, availability of ECAD models from Ultra Librarian shows. When an exact match is available, the part number and **Preview** button shows. When an exact match is not available, a list of close match parts are shown. You may review and select close match parts to select a model to use with your TMP part.



4. Click the **Preview** button to review the ECAD Models for the part identified. Click **Cancel** to close the preview.



5. Choose an appropriate Component View to add the TMP part. The example that follows shows the selection of the Component View: Inductors.

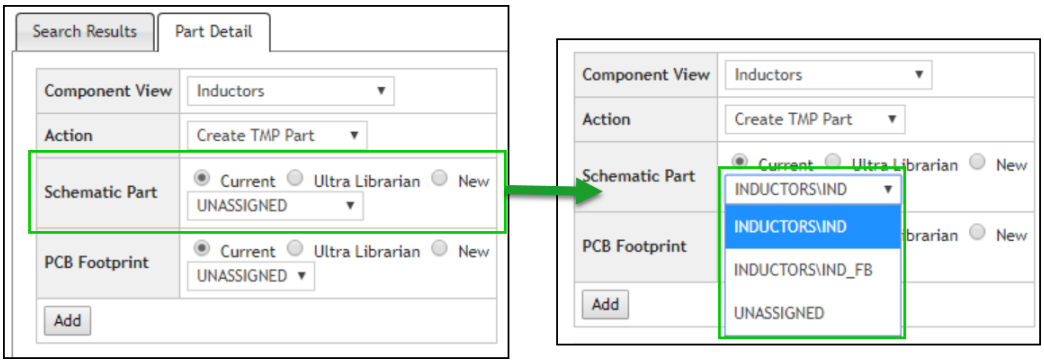


6. You have the option to create or update a TMP part. To add a TMP part, leave the value for the Action field shown in the previous image as **Create TMP Part.** This is the default action.

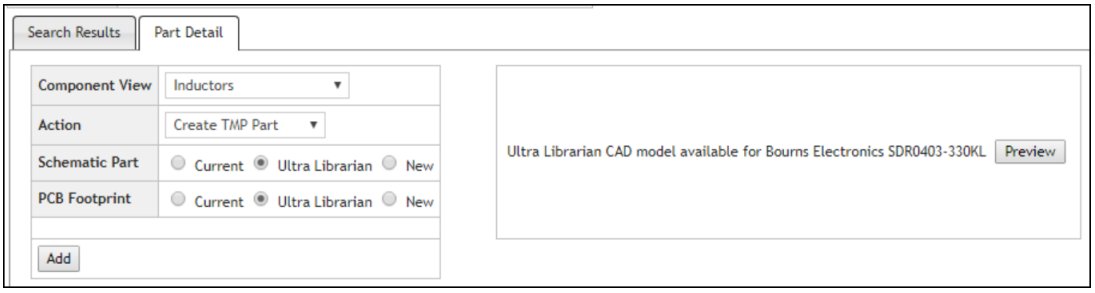
7. If you have a Schematic Part symbol and PCB Footprint available, you may map to a Schematic Part and PCB Footprint before your TMP is created. The process for mapping a Schematic Part and PCB Footprint is the same.

   - Choose the **Current** radio option to select an existing Schematic Part from the pick list.

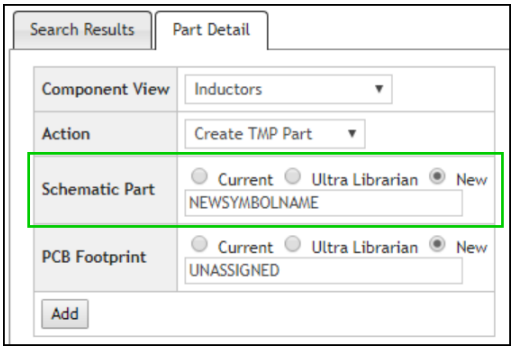
- Choose **Ultra Librarian** radio option to download and use the Schematic Symbol and/or PCB footprint corresponding to the selected part from Ultra Librarian. (This option is shown only when Download of Ultra Librarian models option is enabled and you are using the CIP client inside Capture.) You will need to specify a local download location if no common directory has been configured.
- Or choose the **New** radio option and enter a new Schematic Part name into the field.



Select an Existing Schematic Part



Select Ultra Librarian to download Symbol and Footprint from Ultra Librarian

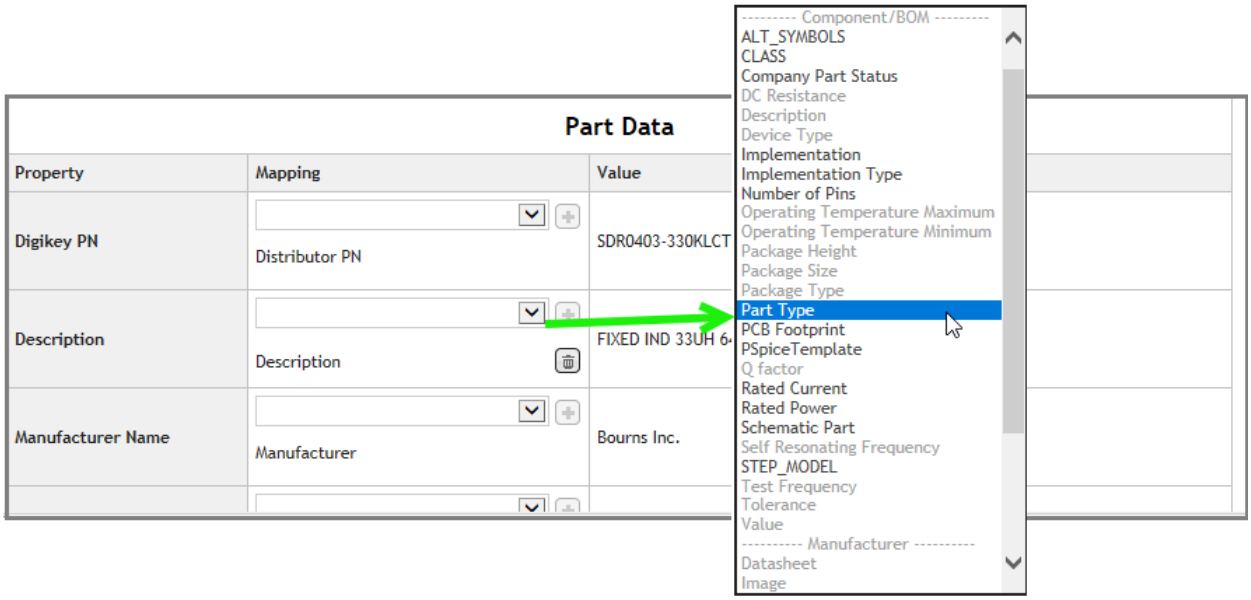


Or Enter New Schematic Part Name

If you want to change the property mapping from the suggested built in mapping, or if you want to map a Distributor property to more than one CIP property, you may change the mapping configuration before creating your TMP part.

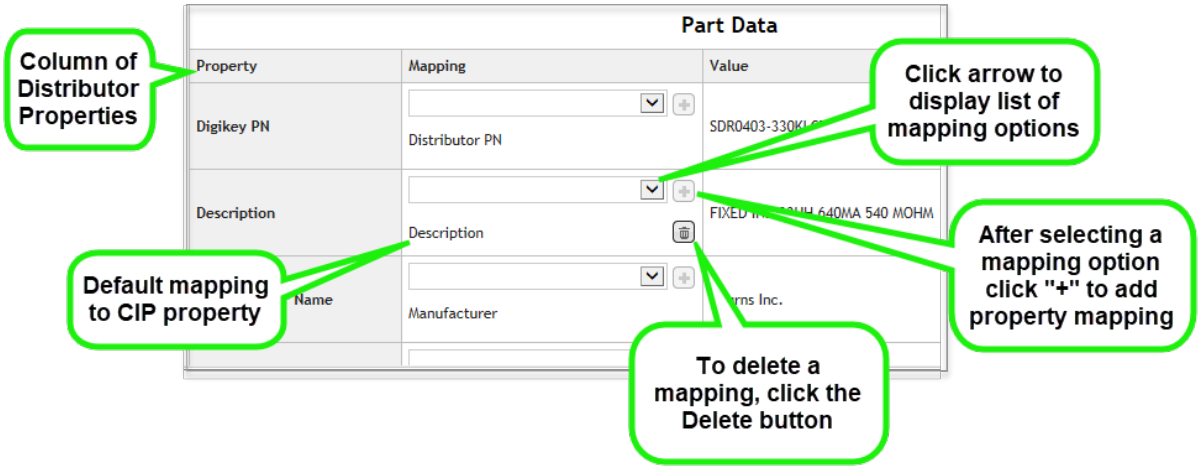
8. To map a distributor property, select a CIP field from one of the Property drop down lists in the corresponding mapping column.

The example below shows the distributor property "Description" being mapped to the CIP property, "Part Type" that is available from the drop-list menu.



Example of Mapping Distributor Property "Description" to "Part Type"

To map multiple CIP properties to a distributor property, you can select the additional property from the Property drop list and click the "+" button. Your selection is then listed below the property selection field. To delete a property mapping, click the Delete button that is adjacent to that property.



Note: You can only map to CIP fields that your Admin has granted you permission to edit. For example, if your Admin has not granted you permission to edit the Description field, you will not find the Description field.

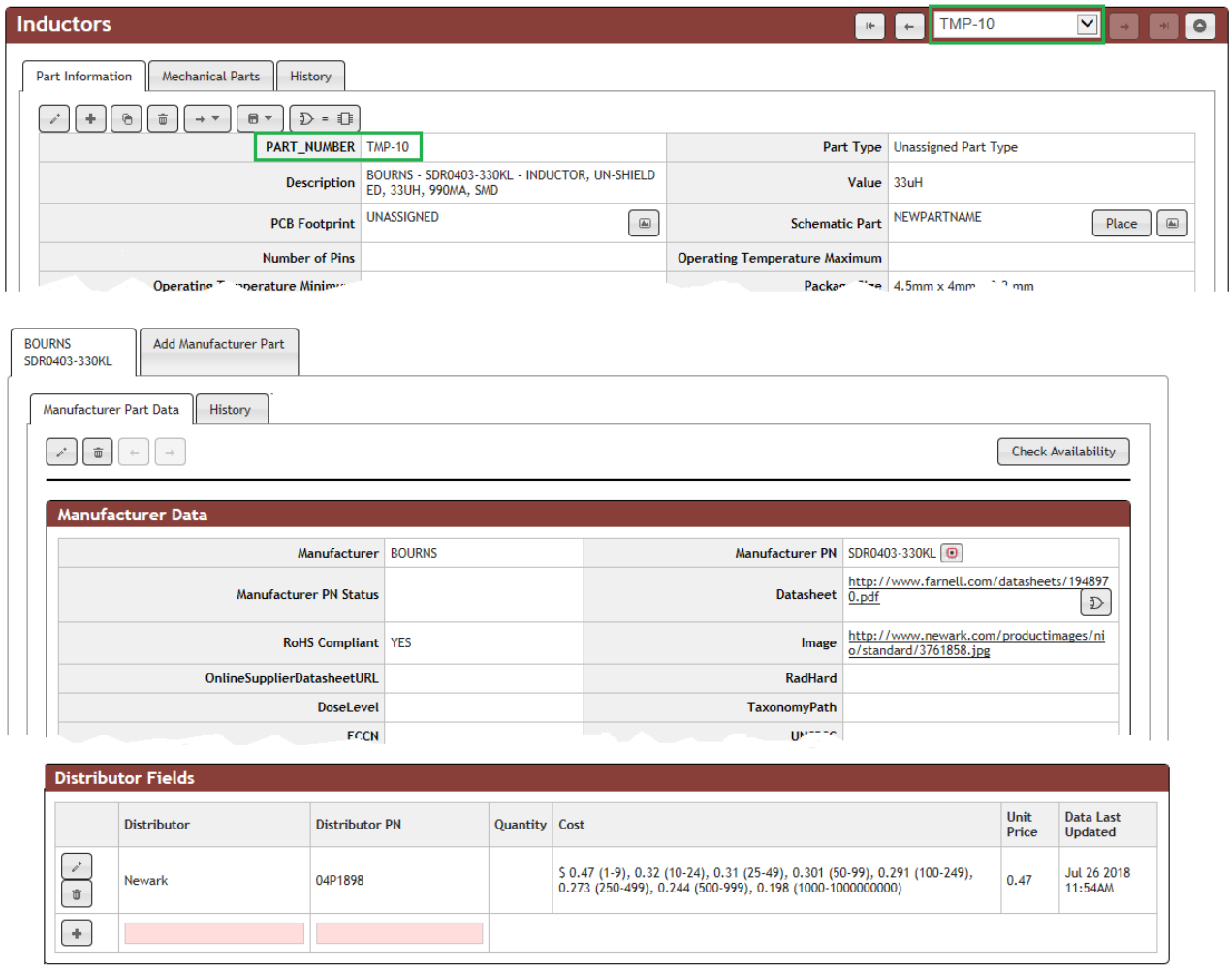
5. After you complete your mapping, click the **Add** button  to generate the new TMP Part. When adding a manufacturer part that matches a part already in the CIP database, a warning will appear with additionally options. If the creation with the selected manufacturer part is in error, click Cancel. An error may display in System Capture when attempting to download models from Ultra Librarian.

   Note: The Add button  is only visible after your Admin grants you the "Add TMP Parts" permission.

   Once the new part is created, the TMP-XX part number is added in the PART_NUMBER field, along with the other parametric data for the new part.

   During the transfer of distributor data to CIP part data, CIP converts or removes the following symbols/characters from distributor values before transferring data to the CIP database.

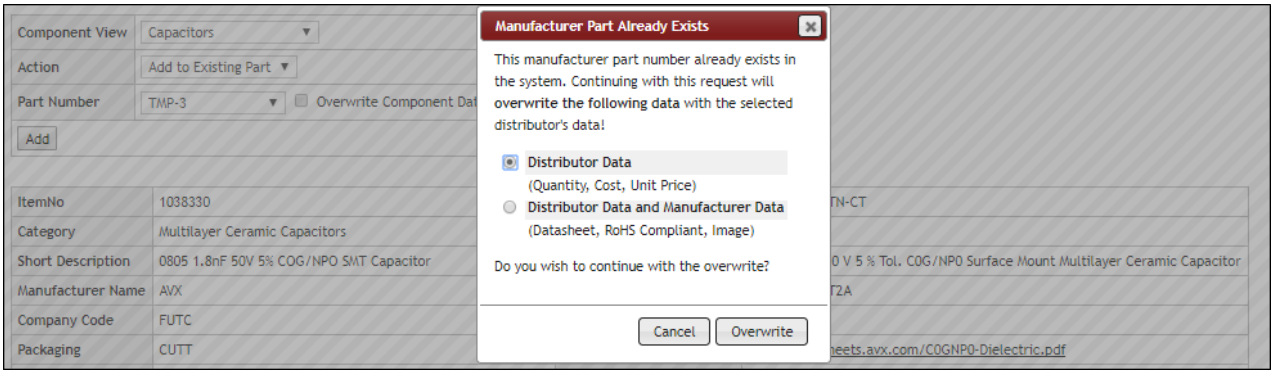
   - µ - This Greek letter is converted to "u"
   - Ω - This Greek letter is converted to "Ohm"
   - ± - This character is removed
   - ° - This character is removed
   - ~ - This character is removed
   - Spaces in the value and tolerance fields for Capacitors, Resistors, and Inductors are automatically removed from the distributor property values during transfer to the CIP database.



TMP Part Created

Manufacturer Part Already Exists

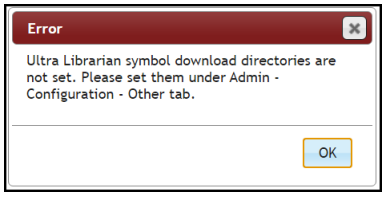
When you add an existing manufacturer part, whether to a new or existing part, the prompt shown in the image below appears. This prompt allows you to Update/Overwrite the Distributor Data, Update/Overwrite Distributor Data and Common Manufacturer Data, or Cancel the operation. The prompt identifies which fields will be updated when you click the Overwrite button. If the Manufacturer Part Already Exists dialog box opens, select the radio option that indicates the fields you want to overwrite and then click the Overwrite button to complete your action. If you selected a duplicate manufacturer part by accident, select **Cancel**.



Update/Overwrite Prompt - Distributor Data

TMP Part Creation Error in System Capture

When Ultra Librarian download is enabled but the common download location is not fully configured, an error generates during creation a TMP part with the Ultra Librarian option.



4.6.3 Adding a Distributor Part to an Existing TMP or Formal Part

In addition to having the ability to create new TMP parts, the CIP Distributor Search also allows you to add distributor and manufacturer data to an existing TMP or formal part. You also have the option to update part data when adding to an existing part. Updating part data overwrites your changes as well. To add multiple distributor parts, you will need to open the component page.

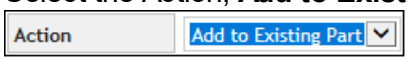
The **Add to Existing Part** feature allows (specified) users to:

- Add New Manufacturer Parts, including Distributor Data (Dist. PN, Cost, Quantity), to Existing TMP or Formal Parts
- Update/Overwrite Distributor Data (Dist. PN, Cost, Quantity) of a Manufacturer Part that is associated with an Existing TMP or Formal Part
- Update/Overwrite Distributor Data (Dist. PN, Cost, Quantity) and Common Manufacturer Data (Datasheet, RoHS Compliant, Image) of a Manufacturer Part that is associated with an Existing TMP or Formal Part
- Update/Overwrite Part Data

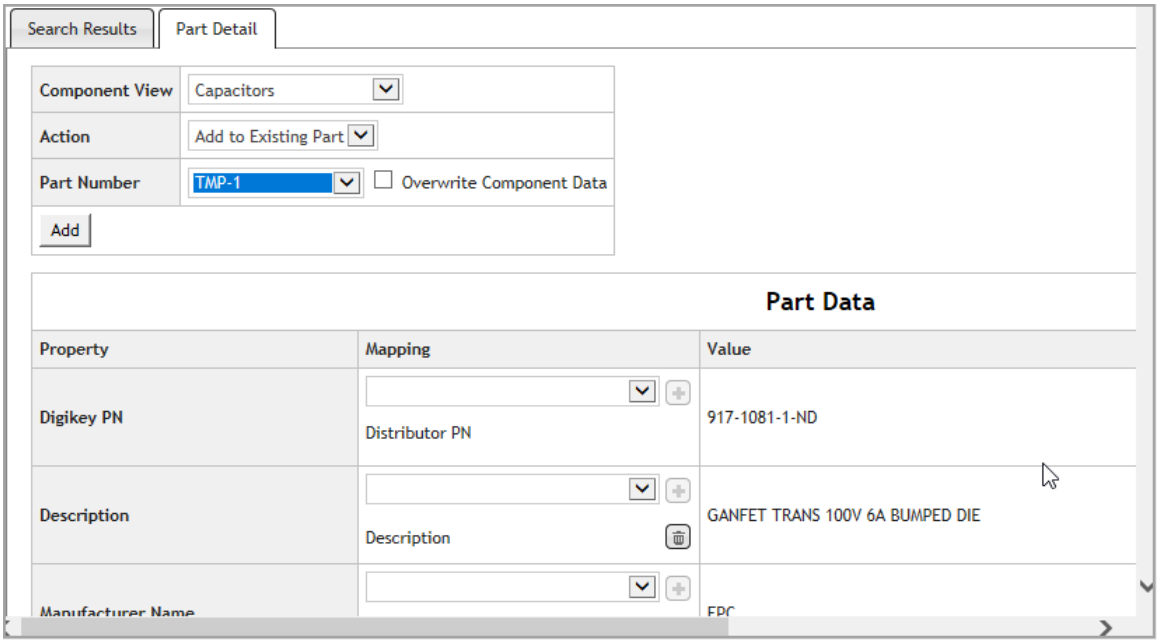
To add or update distributor and manufacturer data of an existing TMP or formal part

1. Complete a Distributor Search. Select the part you want to add to your database and select the Component View for the part. The display updates showing options and a mapping column.

2. Select the Action, **Add to Existing Part**, from the drop menu.



Mapping of Schematic Part and PCB Footprint options are unavailable for **Add to Existing Part**. See example in figure below.



Select a Component View

3. Select a Part Number of an existing TMP or formal part from the drop list. The part number you select will be used to merge your selection with the part you selected from the search results. If you do have permission to update formal parts, the list of part number for update includes only TMP parts.

4. You have the option to overwrite existing component data. If you want to overwrite component data, you may update the distributor property mapping before adding your changes. To update existing component data, place a check in the checkbox for **Overwrite Component Data**. If you do not want to change the component data, leave the checkbox blank.

5. Click the **Add** button. 

When adding a manufacturer part that matches a part already in the CIP database, a warning will appear with additionally options. Review options for adding a manufacturer part that already exists to complete your action.

Note: The **Add** button is only visible to users who are granted permission to “Add TMP Parts”.

6. After completion, the part information appears with your updates.

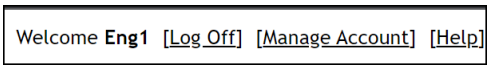
4.7 Ultra Librarian ECAD Model Download

ECAD Models may be downloaded from Ultra Librarian when enabled in CIP Admin. This setting is enabled by default and may be disabled by an Admin.

ECAD model download locations may be configured for a common directory. When no common directory is configured, each user may specify local directories when the models are downloaded.

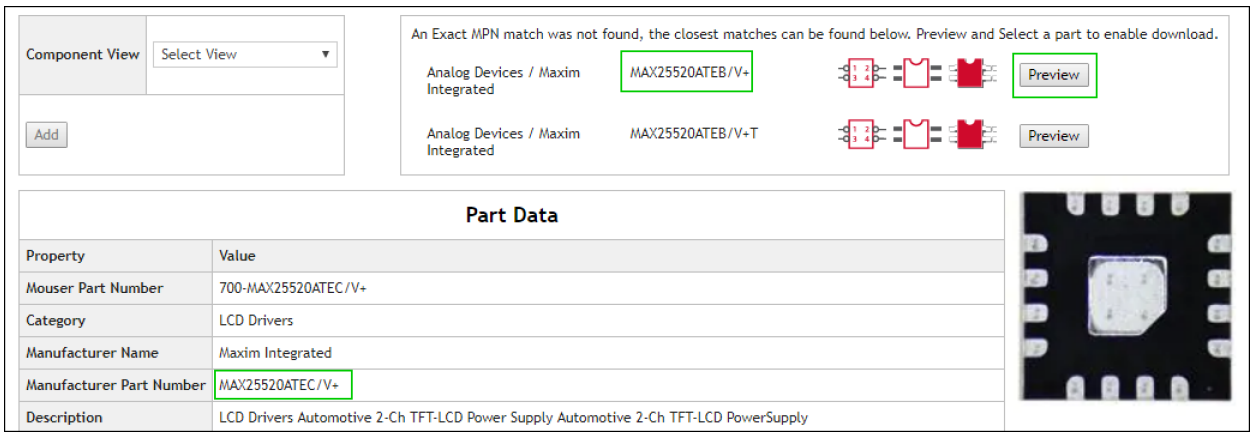
Models may be downloaded when creating a TMP part from Distributor Search or from viewing a component. When an exact match is not found, close matches will be proposed for your review. Only the selected model will be downloaded.

You must have a valid Ultra Librarian account and be logged to preview, download or request models. You may enter your Ultra Librarian username by clicking the [**Manage Account**] link at the upper right hand corner of the CIP page.

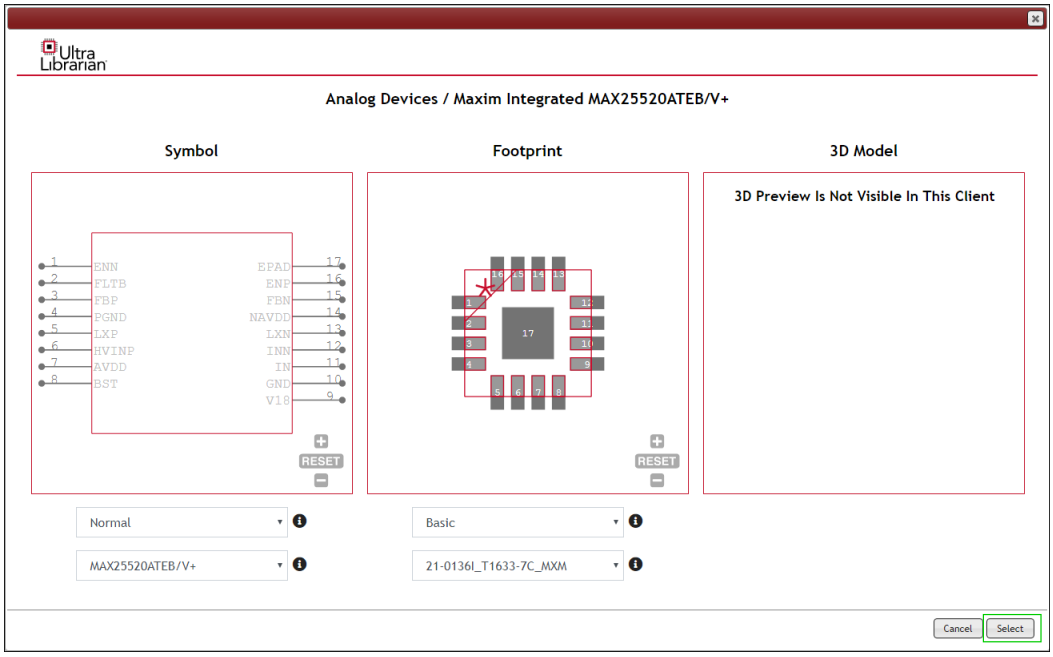


Selecting ECAD Models for Close Match Parts

1. While selecting a part in Distributor Search to create as a TMP part, you may see that an exact match of the your part number was not found. However, several close match parts were found that have ECAD models from Ultra Librarian.

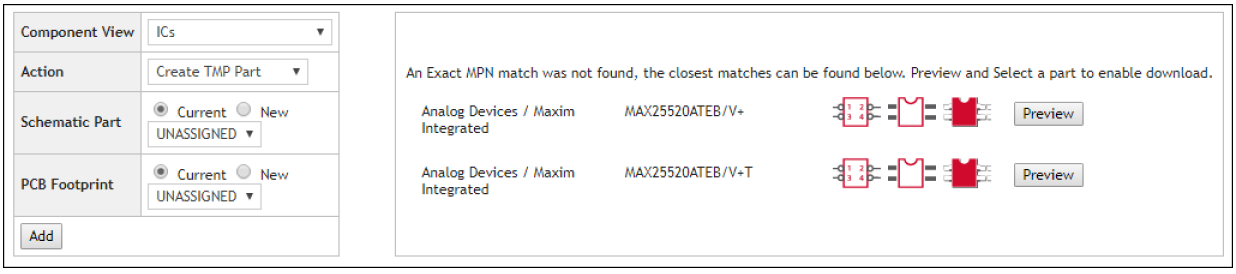


2. You should review models for each part to determine if any of the ECAD models for the close match part can be used. Select the **Preview** button for each. If you see that the model can be used, click the **Select** button.

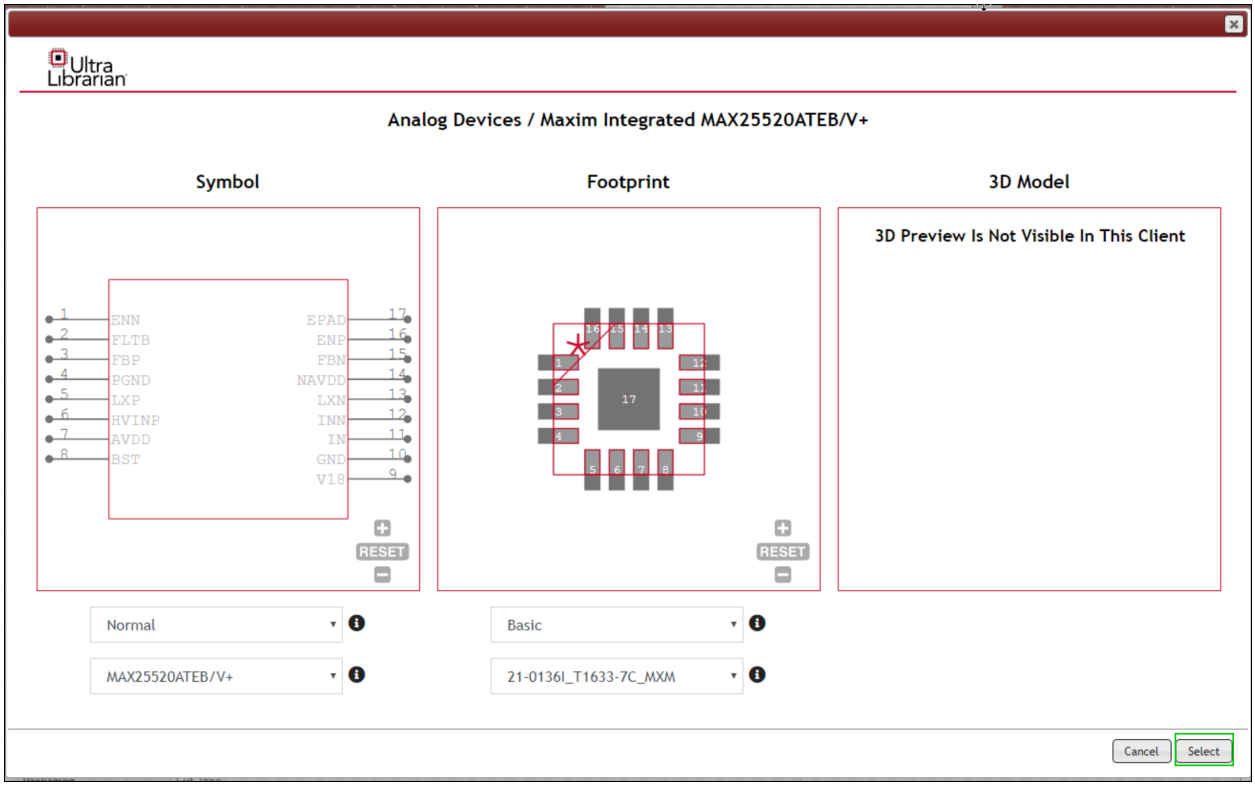


3. The selected model will be downloaded when you create your TMP part. To select a different model, select the **Clear Selection** button

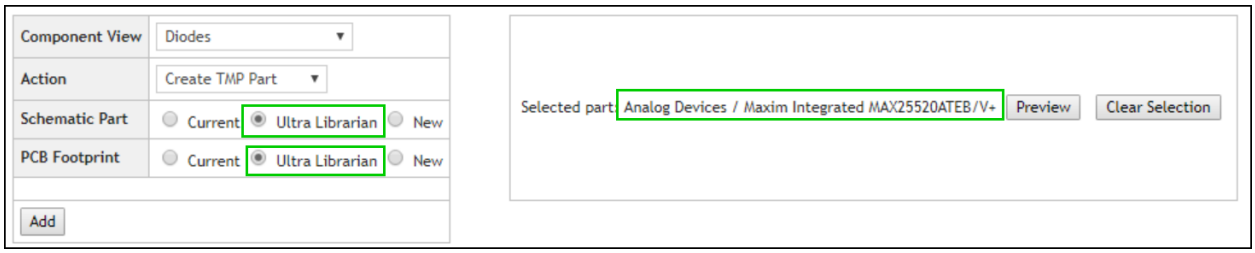
4. All close match parts show again after you clear selection. No models can be downloaded when no selection are made.



5. Click **Preview** and click **Select** to select the part you want to download. Click **Cancel** to preview and select a different part.



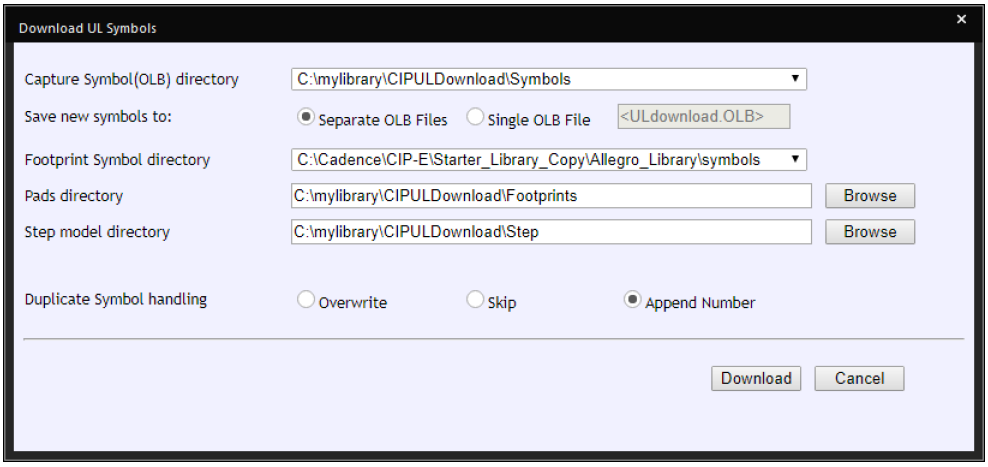
6. After you select a part and select the Ultra Librarian option for Schematic Part and PCB Footprint, click **Add** to add the TMP part and download the model for the selected part.



7. If common libraries are configured in CIP, the models will be downloaded automatically and the Schematic Part and PCB Footprint will show in the created TMP part. Additionally, the directory for symbol and footprint in the common library configuration, if not already in your Capture.ini, will be inserted into the Capture.ini file to enable preview of the downloaded part. If common libraries are not configured, you will need to select local directories for download.

Selecting Local Directories

1. After selecting **Add with the Ultra Librarian option selected**, and no common libraries are configured, a dialog will appear with options for download. This shows each time you download models.



2. Enter the directory paths for each type of ECAD models that will be downloaded. The list in the drop-down list for *Capture Symbol(OLB) directory* and *Footprint Symbol directory* are directories from your Capture.ini file.

4. Select the radio button for **Single OLB File** if you want all symbol to go into the same OLB file. You required to enter the OLB file name with this selection.

5. Configure options for the handling of models that have the same name. Symbols are generally named with the Manufacturer Part Number. When a part is downloaded from 2 different manufacturers, the symbol name may be the same. When you download models that have the same part number or downloaded footprint, padstack or step files name are the same, the configured rule will be applied.

   a. Overwrite - Schematic symbol names, footprint, pad or step filenames found in the configured location will be overwritten with the same name.

   b. Skip - Schematic symbol names, footprint, pad or step filenames found in the configured location will be preserved.

   c. Append Number - Schematic symbol names, footprint, pad or step filenames found in the configured location will be saved to a new name with _1, _2, etc appended.

6. Click **Download** to complete your directory options and start the download process.

7. The part is updated with the model names.

4.8 Temp. Parts

The Temp. Parts page helps you manage temporary parts (TMP-XX parts). Select the Temp. Parts menu to open all the temporary parts created and not processed yet. Users can optionally display processed Temp Parts as well. (Refer to Including Assigned Parts).

Creating and Viewing Temp Parts

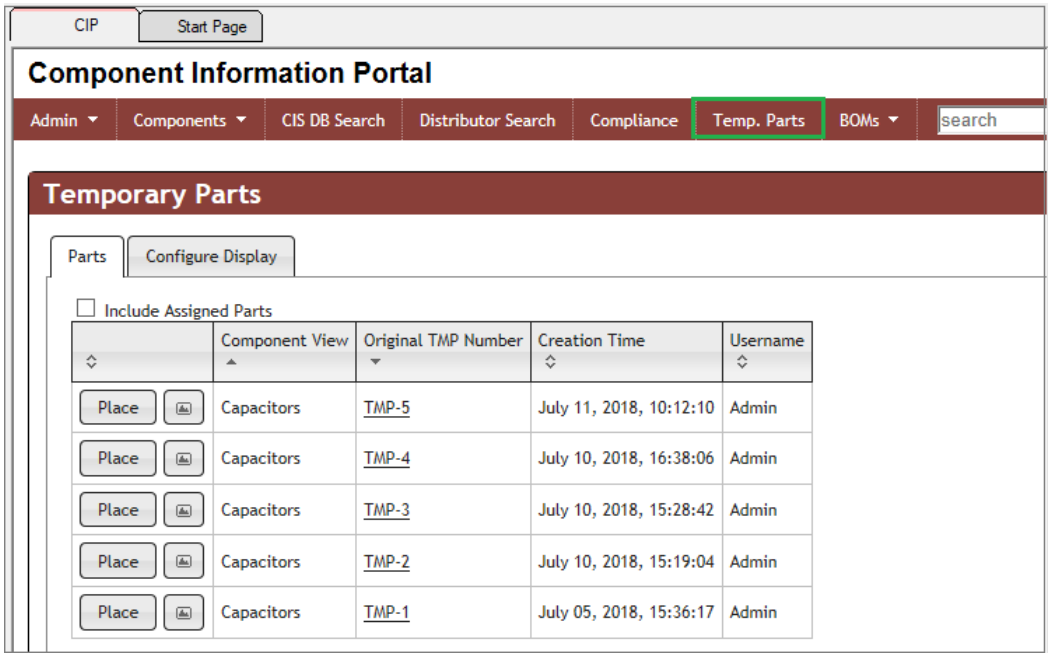
Temp Parts can be created using several methods.

- Using the Distributor Search feature as described in the previous section.

- Using the New > Add as TMP feature to create a new Temp Part.
- Using the Copy > Copy as TMP feature to create a new Temp Part from an existing Formal or Temp Part.
- Deriving a database part in Capture CIS, from the Schematic Design or CIS Explorer window. Refer to the OrCAD Capture CIS User Guide for additional information.

Regardless of the creation method used, the Temp Part created is automatically assigned the next available temporary part number (in the form of TMP-XX). This number will be reflected on the Temp. Parts list. Additionally, CIS users are able to view and place the Temp Parts on their schematic designs. Once they are converted to formal parts, CIS users can update their schematics using the Part Manager.

Note: Preview and place buttons are not available in Temp Parts page when CIP is opened in System Capture.



Temp. Parts List

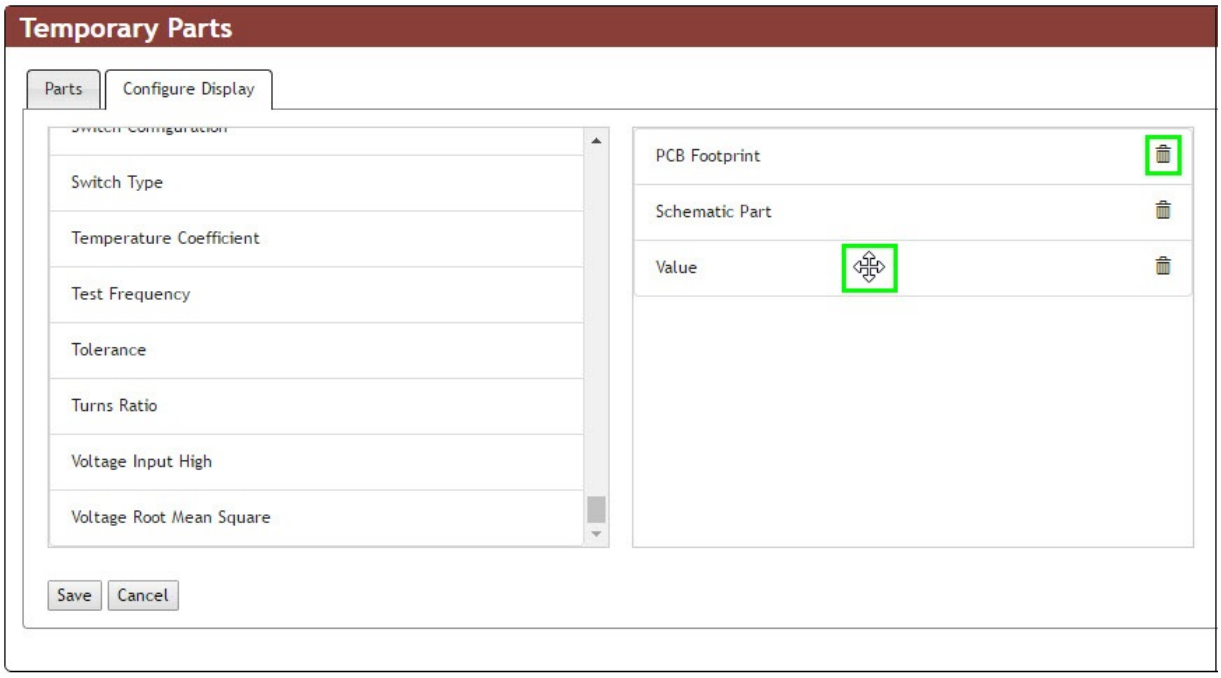
CIP allows users to display additional parametric fields in the Temp. Parts list. Display fields are stored on a per-user basis, since different users may wish to see different fields in their Temp. Part list.

To customize the user display of parametric fields in the Temp. Part list

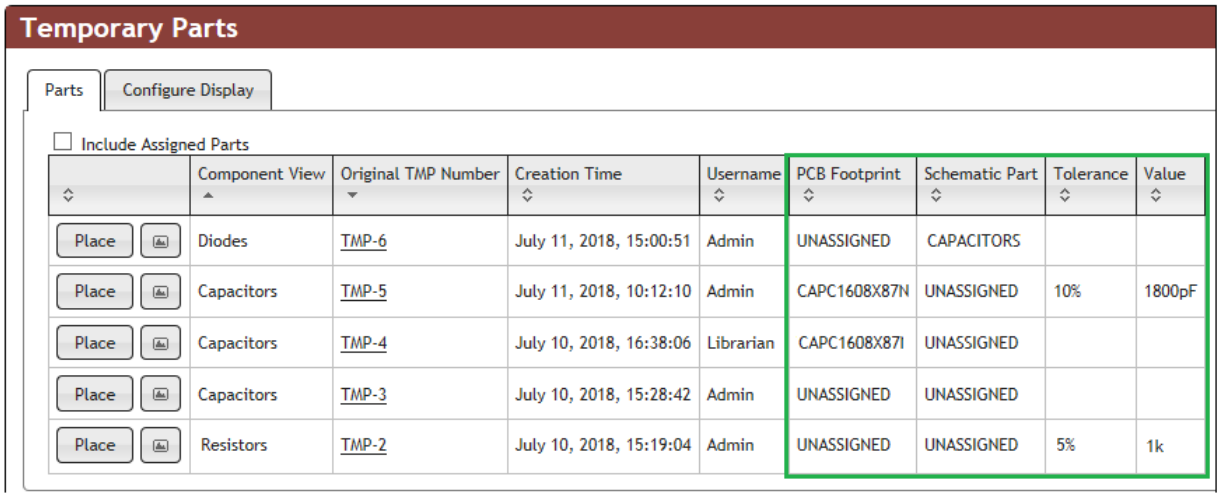
1. Open the **Temp. Parts > Configure Display** tab.
2. Click a parametric field(s) listed in the left column to add it to the display fields on the right. Fields listed in the right column will be included in the Temp. Parts View.
3. Click the **Trash** button to the right of a fields in the right column to remove it from the list of included display fields.

4. Re-order fields, if desired, by clicking and dragging any item up or down the list.

5. Click **Save** and the Temp. Parts list updates the field list and associated data.



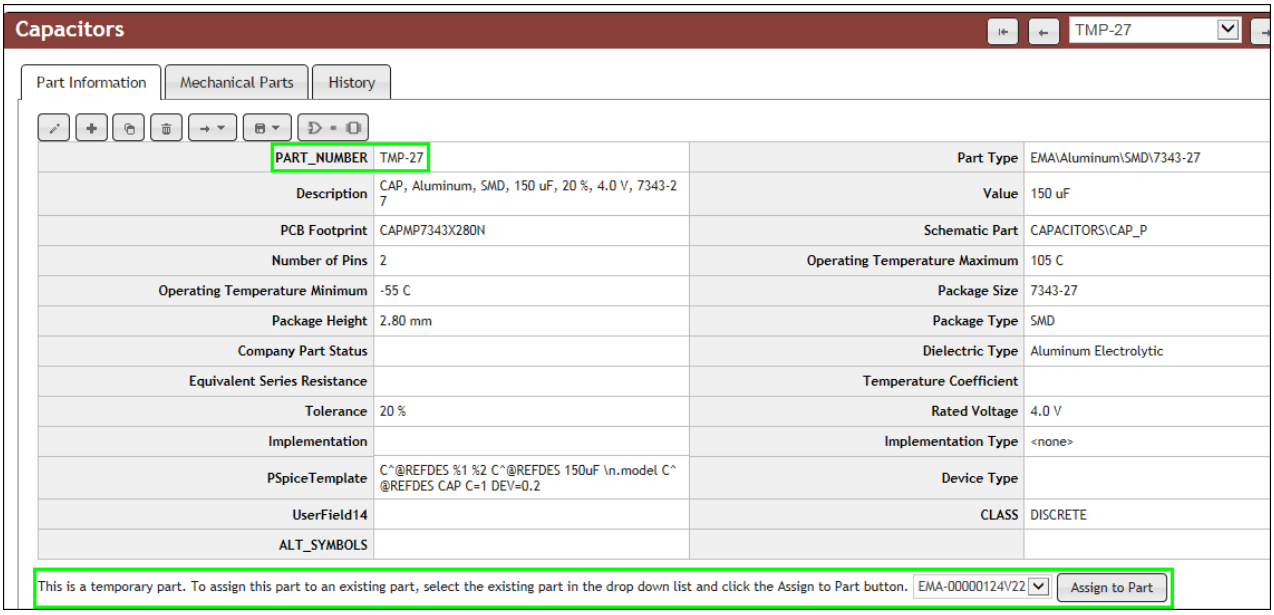
Temp. Parts - Configure Display - Add PCB Footprint, Schematic Part, Value, and Tolerance



Temp Parts List – Additional Fields

Assigning a Temp Part to an Existing Part

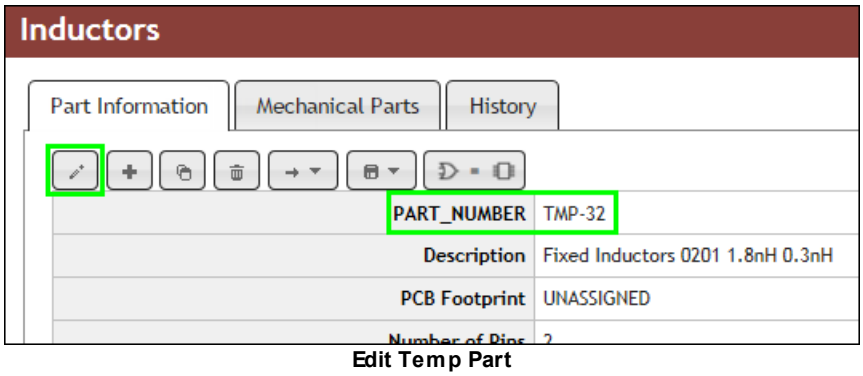
If a Temp Part was generated in error and you find that a it is a duplicate of an existing part, the Temp Part can be assigned to the existing part by selecting the part to be assigned and clicking on the Assign to Part button. The Temp Part information will be removed and only the existing part information will be retained.



Assign Temp. Part to an Existing Part

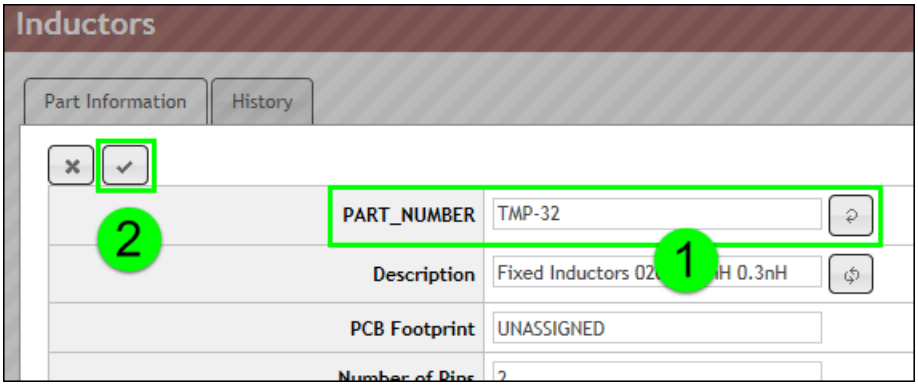
Changing a Temp Part to a Formal Part

For Temp Parts that are valid and should be added to the database formally, the Temp Part number will need to be changed. Changing a Temp Part number to a formal part number can be done by selecting the Edit button  inside the Part Information page. Part updates are reflected in both CIP and CIS, as they share a common parts database.

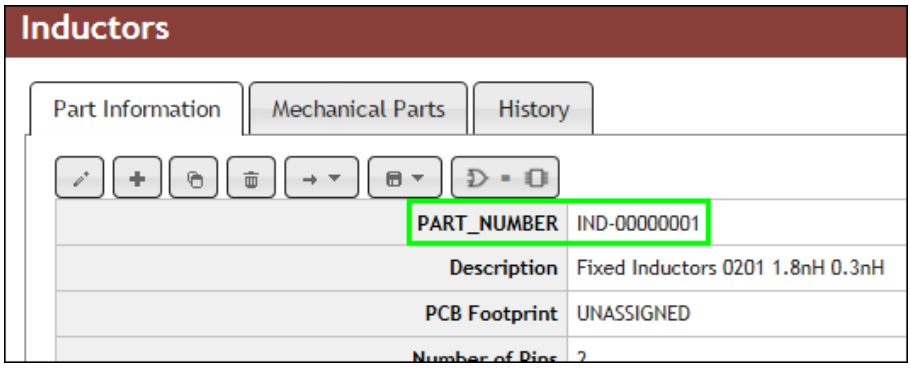


Edit Temp Part

Manually input the desired PART_NUMBER or click the auto-generate button to pull the next available number for the current part's View (Inductors in this case). Update any additional fields, if desired. Click the Save button to save the change(s). The TMP-XX part is now a formal part.



Manually Input or Auto-Generate Formal PN, then Save

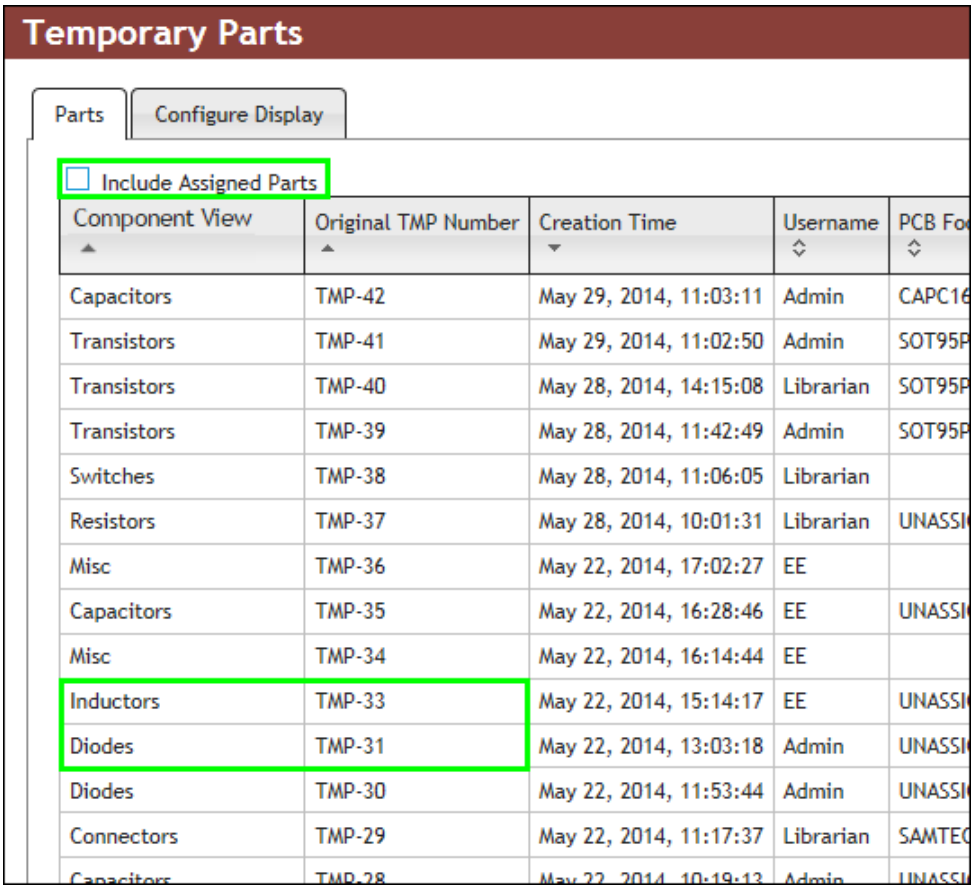


Formal Part Number

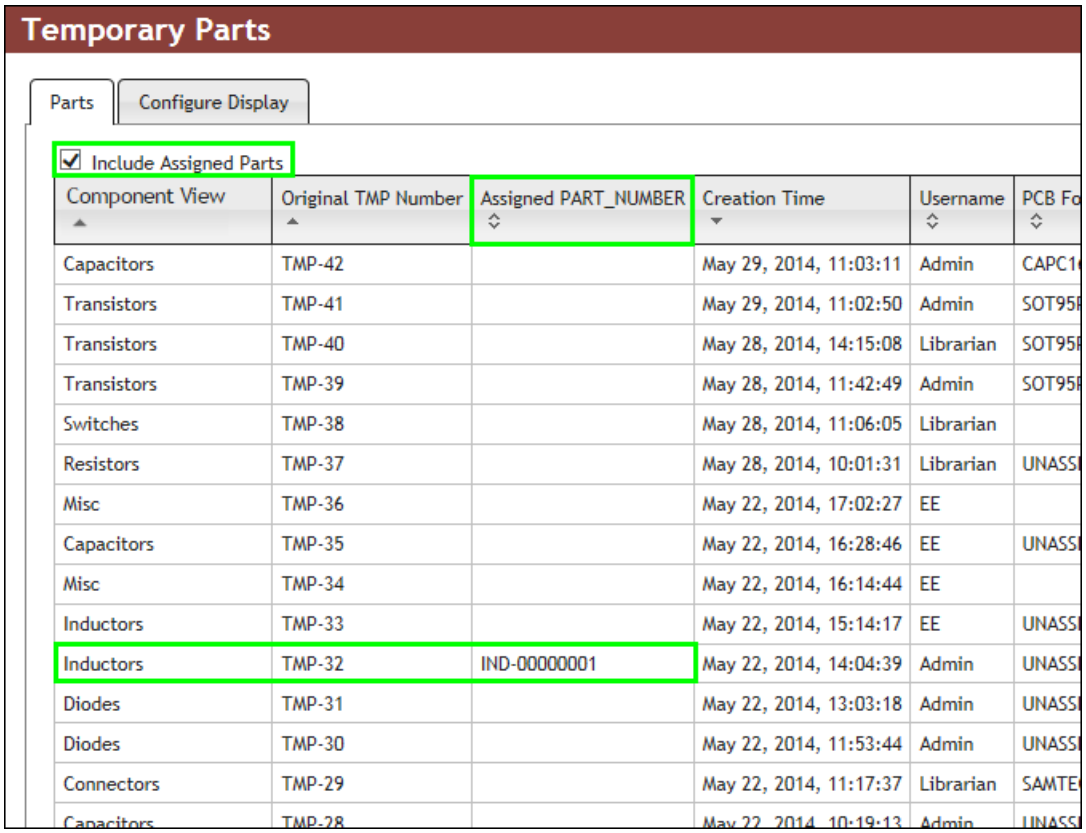
Including Assigned Parts

Converted Temp Parts may not be shown in the Temp Parts list if you aren't displaying Assigned Parts. To view Assigned Parts, click the Include Assigned Parts checkbox. This option allows users to view converted Temp Parts that are now Formal Parts. When a Part Number is assigned to a TMP part, a change to the Part Number of the Original TMP Number is also updated.

*__Note__: This setting is stored on a per-user basis.



Unchecked Include Assigned Parts - IND-00000001 (Formerly TMP-32) Not Shown



Checked Include Assigned Parts - IND-00000001 (Formerly TMP-32) Shown

4.9 Compliance

Compliance Information Powered by Silicon Expert provides up-to-date compliance information for parts. The information provided includes such information as inventory risk, life cycle risk, and conflict mineral status. To access Compliance, click **Compliance** from the CIP menu bar.

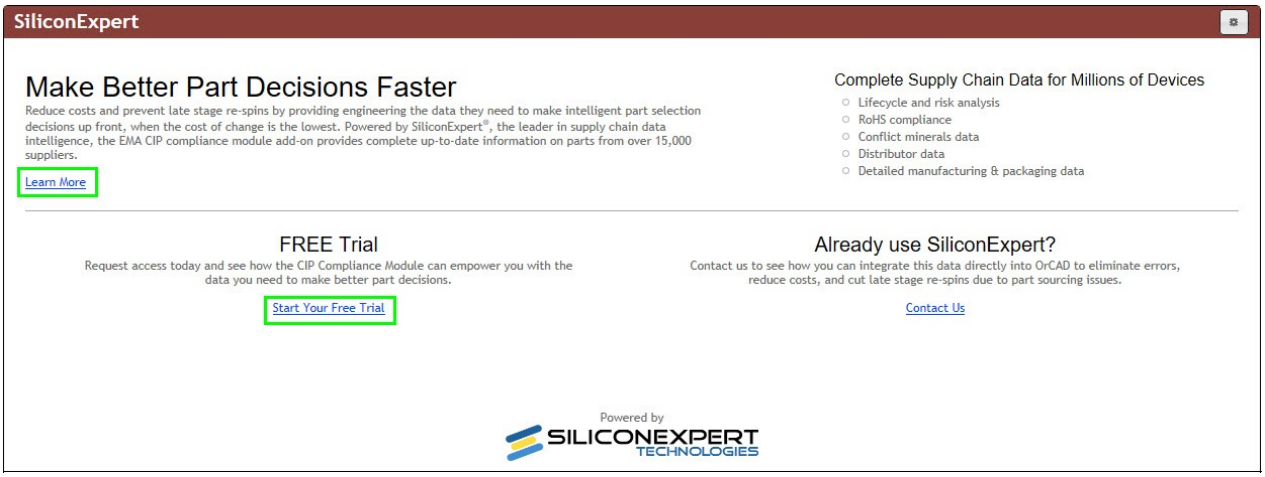
Access to Compliance Information Powered by Silicon Expert

You will be able to do the following from the Compliance page:

- Search Silicon Expert database of parts and add TMP parts based on your search.
- Perform on demand sync or scheduled sync of compliance data.
- View compliance summary of part in CIP.

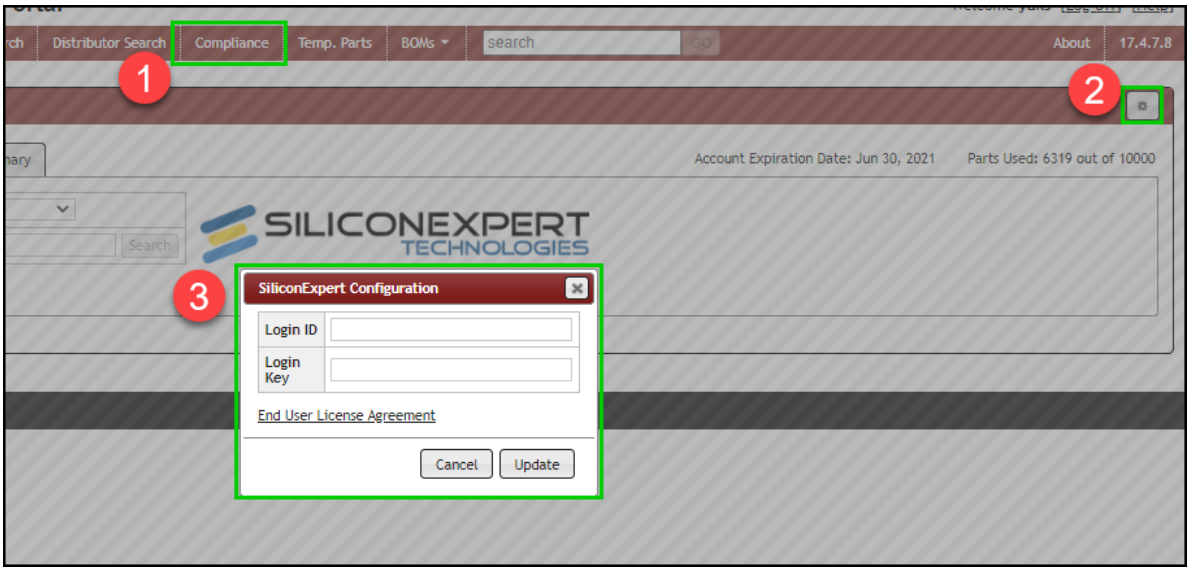
A CIP Compliance Module or Silicon Expert API account is required to use the Compliance features. If the following screen appears and you do not already have an aforementioned account, click **Learn More** to learn more about Compliance Information Powered by Silicon Expert, or click **Start Your Free Trial** to request a Silicon Expert evaluation account.

Note: If the links do not appear, be sure that you are connected to the Internet.



Learn More or Start Free Trial for a Silicon Expert Account

Once you have a CIP Compliance Module or Silicon Expert API account, you can click the Configuration  button located in the upper-right corner of the Compliance page to display the log in window. Enter your account credentials and click **Update** to log in. To view the Silicon Expert API usage license agreement, click on the **End User License Agreement** link.



SiliconExpert Login

Note: If Silicon Expert adds new API fields after your account was created, you may need to request that Silicon Expert refresh your API account so the new fields are available. In such cases, you will also need to click the Configuration button and log in again.

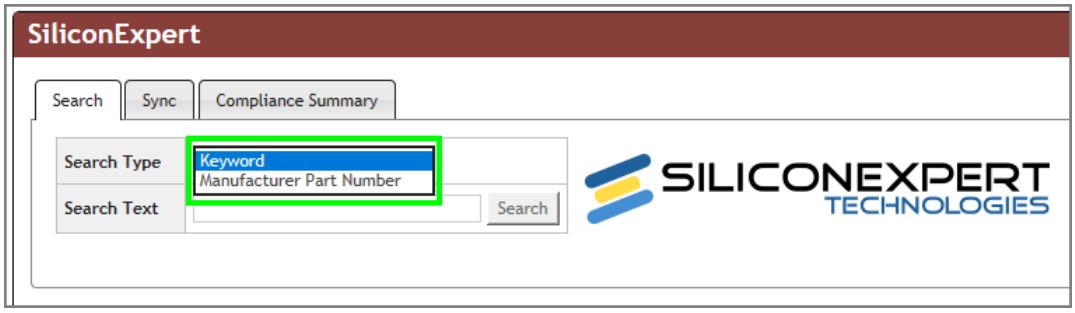
4.9.1 Search

User controls within the **Search** tab, enable you to:

1. Search for parts by Keyword, or Manufacturer Part Number.
2. Examine part details.
3. Save the Manufacturer PN with Silicon Expert Compliance Info to a New TMP Part or Add to Existing Part.

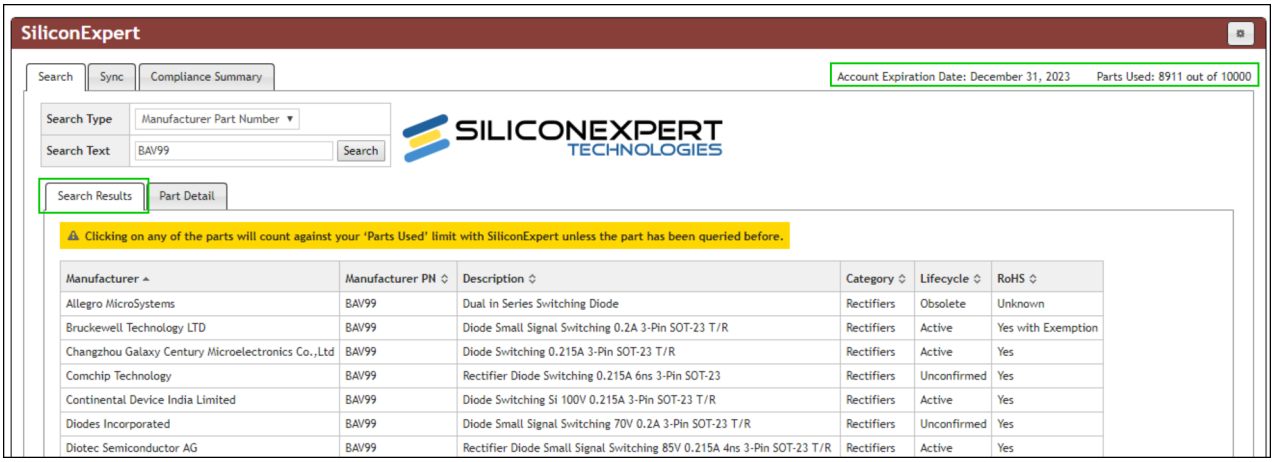
Search

To initiate a search, click the **Search Type** drop-list and select an option. Enter a search term in the **Search Text** field and click the **Search** button.



Silicon Expert Search Type Drop Menu

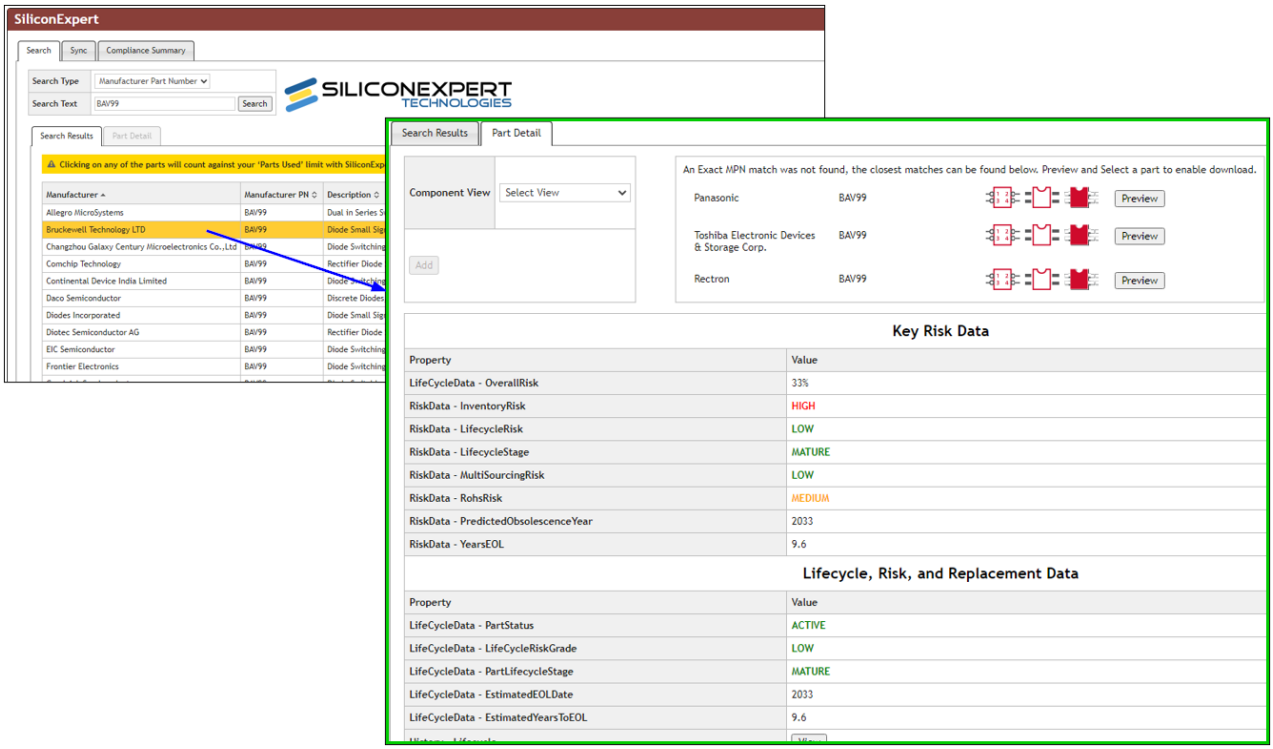
The number of parts for which you can retrieve compliance information is determined by the terms of your Compliance Module or Silicon Expert API subscription. To determine how many parts you have remaining, refer to the account information section in the upper right corner of the Silicon Expert window. The number of "Parts Used" identifies the number of parts for which you have viewed part detail information. The parts listed in the Search Results tab (shown below) do not affect the number of parts used. Each time you select a new part to view, that view is added to the number of parts used. The screen image below highlights this tally in the upper-right corner of the screen.



Silicon Expert Parts Used Count

Examine Part Detail

Once you find a part you want to view, you may click it to display the Part Detail.



Highlight part and click to open Part Details

The field data in the Silicon Expert **Part Detail** tab is presented in the sections below. The exact Properties/Fields will vary per specific Manufacturer PN and your company's CIP Compliance Module or Silicon Expert API subscription.

- **Key Risk Data** - This section includes a part's key risk data to help quickly decide if you want to add a part to CIP.

- **Lifecycle, Risk, and Replacement Data** - This section includes a part's lifecycle (status, grade, EOL info, etc.), risk, replacement (sources, reason, grade, etc.), counterfeit, and PCN (date, type, source, EOL info, etc.) data.
- **Summary and Manufacturing Data** - This section includes a part's summary (AEC/automotive, military spec, datasheet, taxonomy, etc.), product image, and manufacturing (MSL, finish/plating, reflow, etc.) data.
- **Compliance, Environmental, and Regulatory Data** - This section includes a part's compliance/environmental (Reach, China RoHS, RoHS, WEEE, chemicals, conflict minerals, etc.) and qualification (agency, CECC, energy, ESD, ESCC, reliability, etc.) data.
- **Package Data** - This section includes a part's packaging (body/case, dimensions, description, pin count, etc.) data.
- **Attributes** - This section contains all part fields that are not included in one of the field groups above.

The following Silicon Expert fields will have colored text based on their specific values as shown below. Field values not matching those below will be shown in black, which is the default. These text colors will appear when viewing the Part Detail page of the Silicon Expert search, as well as when viewing the Manufacturer PN in CIP.

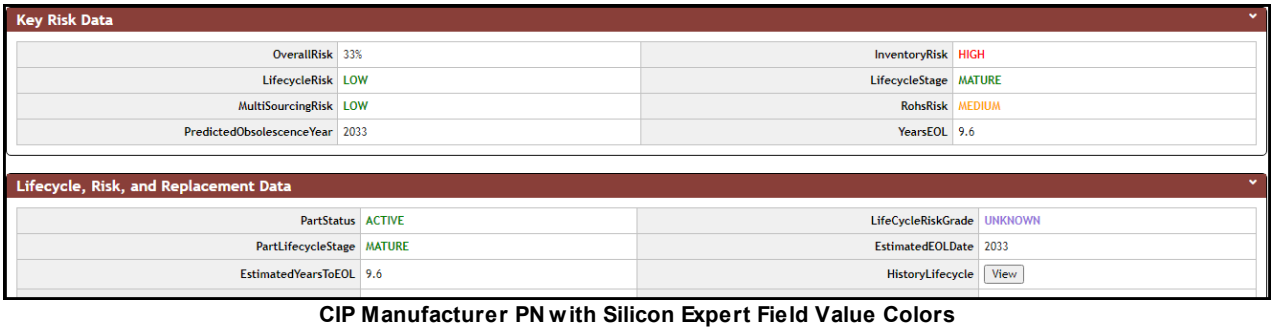
InventoryRisk	LifecycleRisk	LifeCycleRiskGrade	MultiSourcingRisk	RohsRisk
High	High	High	High	High
High Risk	High Risk	High Risk	High Risk	High Risk
Medium	Medium	Medium	Medium	Medium
Medium Risk	Medium Risk	Medium Risk	Medium Risk	Medium Risk
Low	Low	Low	Low	Low
Low Risk	Low Risk	Low Risk	Low Risk	Low Risk
Unknown	Unknown	Unknown	Unknown	Unknown

LifecycleStage	PartLifecycleStage
Obsolete	Obsolete
Phase Out	Phase Out
Decline	Decline
Mature	Mature
Unknown	Unknown

PartStatus
Obsolete
LTB
NRND
Active
Unknown
Unconfirmed
Acquired

Silicon Expert Field Colors

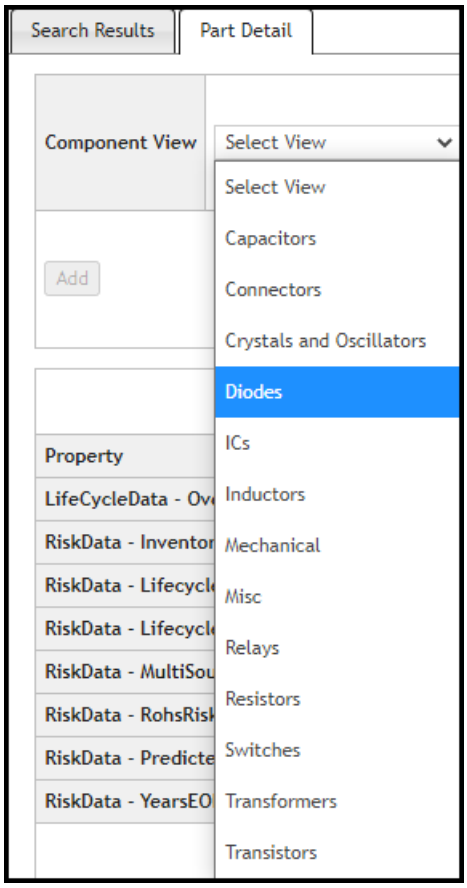
Below is an example from a CIP Manufacturer PN containing some of the values that use colored text. In this example, the Manufacturer PN fields have also been configured into groups and reordered using Reorder View Fields.



CIP Manufacturer PN with Silicon Expert Field Value Colors

When **Ultra Librarian download** is enabled, you will need to log in before you can preview or download ECAD models. If you don't have an account, you can register by selecting the **Click here** link. The **Ultra Librarian** information is not shown when CIP is open from a standard browser. Ultra Librarian models may be downloaded along with the creation of a TMP part the same way as creating a New TMP Part from Distributor Search.

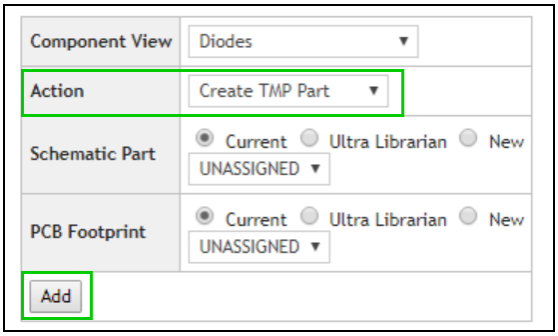
Compliance information may be transferred to the CIP database by adding the information to New TMP Part or Existing TMP or Formal Part. To add compliance data, first select a **Component View**.



Select a Component View

Create TMP Part

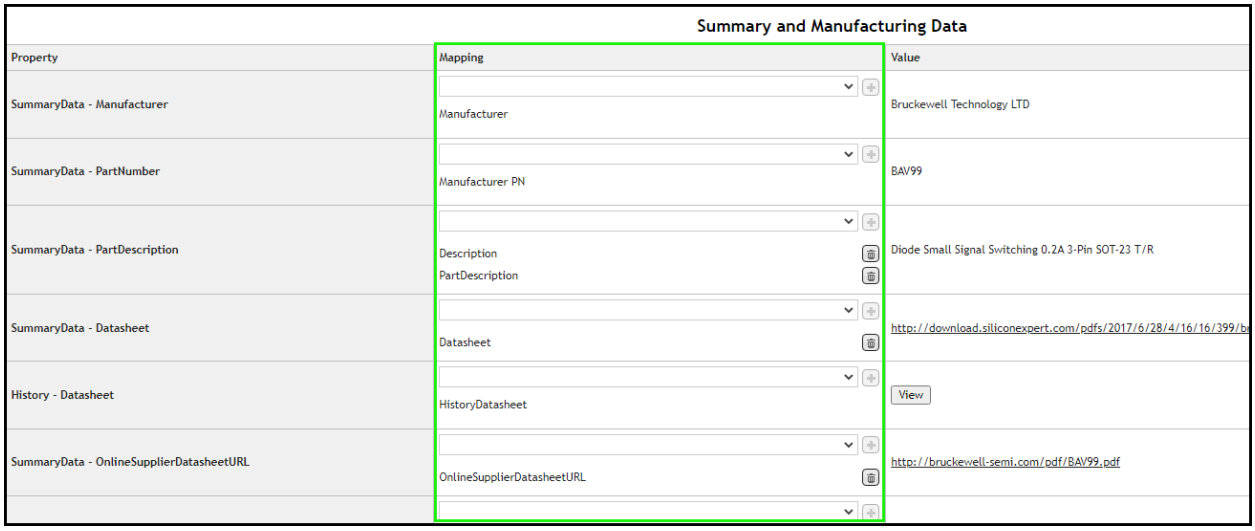
Options available when adding a Temp Part from the Compliance page are similar to those presented when creating a new TMP Part from Distributor Search. To add compliance information to a New Temp Part, use the Action **Create TMP Part**. Then click the **Add** button. All Silicon Expert properties mapped to CIP fields are transferred to the configured CIP part.



Action: Create TMP Part

When you select a Component View for your new TMP part, a **Mapping** column appears between the Silicon Expert **Property** and **Value** columns of each field group/section. The Mapping column is shown in the image below. After you review the SE properties associated with your new TMP part, you may select a CIP field to map to a given SE Property to transfer its Value during TMP part creation. Each time you select a new CIP field to be mapped, you must click the **Add** button to apply the mapping. You can delete a property mapping by clicking the **Delete** button located to the right of the CIP field name in the Mapping column.

Note: After a CIP field is mapped to an SE Property, it is removed from the drop-down list shown in the Mapping column. Each property has its own drop-down list that lists all CIP fields that are available to be mapped. A CIP field can only be mapped to one SE Property, but you may map the same SE Property to multiple CIP fields.



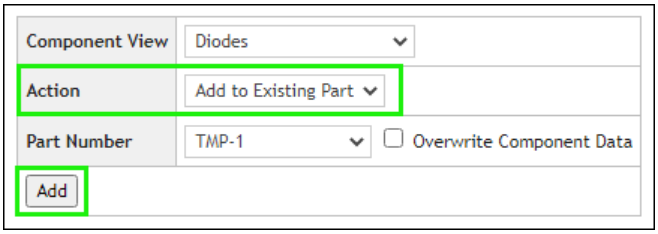
Mapping Column Becomes Visible After the Component View is Selected

Note: You are only able to map CIP fields that your CIP Admin has granted you permission to edit. For example, if your Admin has not granted you permission to edit the Description field, you will not be able to map it to an SE Field..

Add to Existing Part

Options available when adding to an Existing Part (Formal or TMP) from the Compliance page are similar to those presented when Adding a Distributor Part to an Existing TMP or Formal Part. To add compliance information to an Existing TMP or Formal Part, select the Action **Add to Existing Part**. You have the option to overwrite existing

component data. If you want to overwrite component data, you may update the distributor property mapping before adding your changes. To update existing component data, place a check in the checkbox for **Overwrite Component Data**. If you do not want to change the component data, leave the checkbox blank. Click the **Add** button to transfer the compliance information to the existing part.



Action: Add to Existing Part

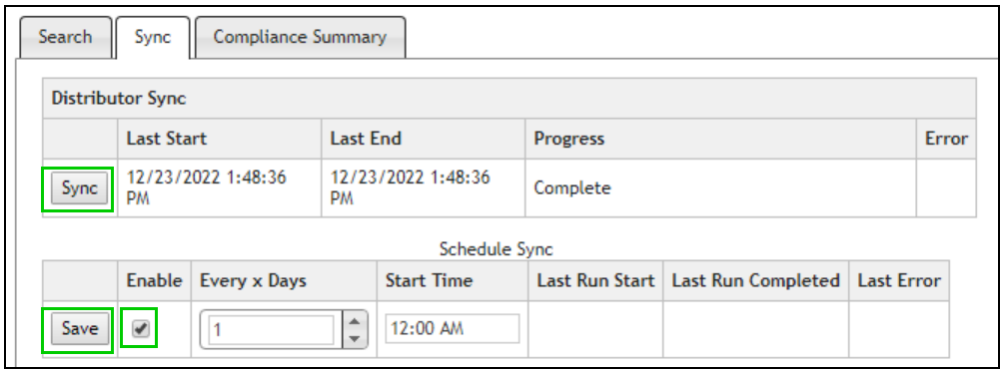
4.9.2 Sync

The Sync tab may be used to manually synchronize compliance data, or to schedule automatic, recurring synchronization. The Sync tab is available to users with the permission to Sync Compliance data. All valid part numbers will be synchronized.

To manually synchronize compliance data, click the **Sync** button.

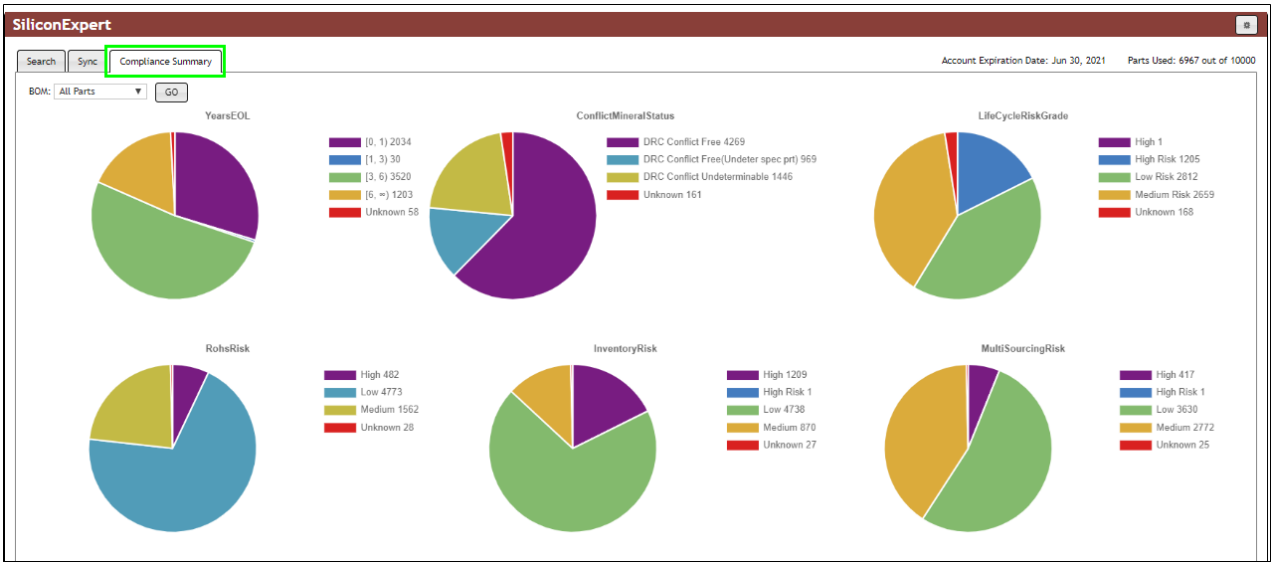
To schedule automatic synchronization, select the **Enable** checkbox, then enter how often (in number of days) you want to synchronize compliance data in the **Every x Days** field, and select a **Start Time** for when you would like to start synchronization. Click **Save** to save your scheduled synchronization.

To disable automatic synchronization, uncheck **Enable** and click **Save**.



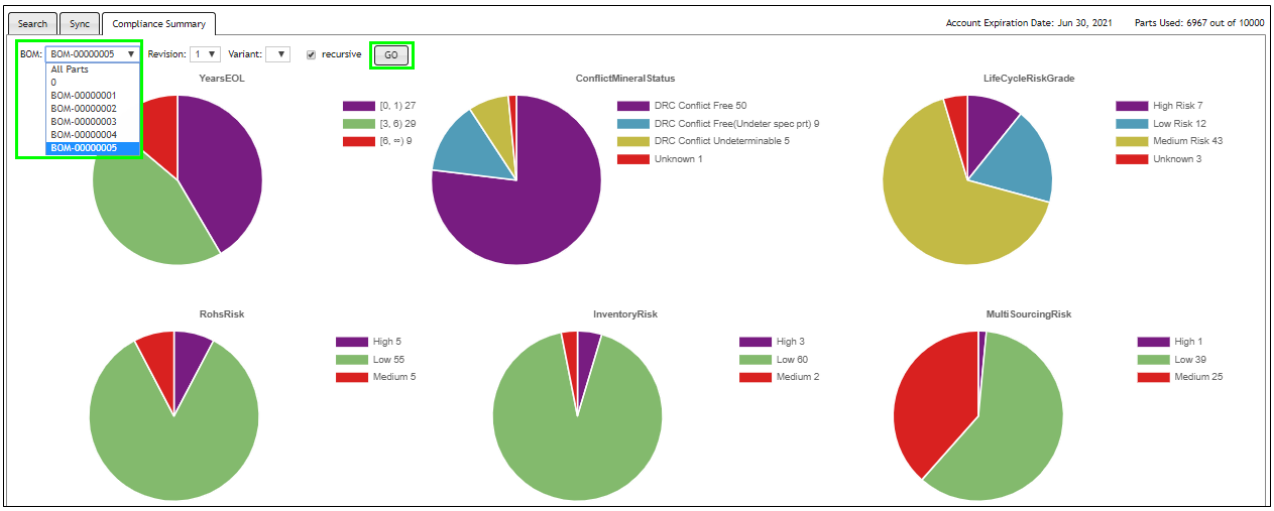
4.9.3 Summary

The **Compliance Summary** tab provides a summary risk analysis of parts in your CIP database or by part in an imported BOM. Charts in the Compliance Summary enable you to review risk by type and quantity of parts that need research. Select the **Compliance Summary** tab to view risk information across all parts in CIP.



Compliance Summary with Risk Information for All Parts

To view the summary chart corresponding to a specific BOM, select the BOM using the pull-down. Then select the Revision and Variant and click **GO**.



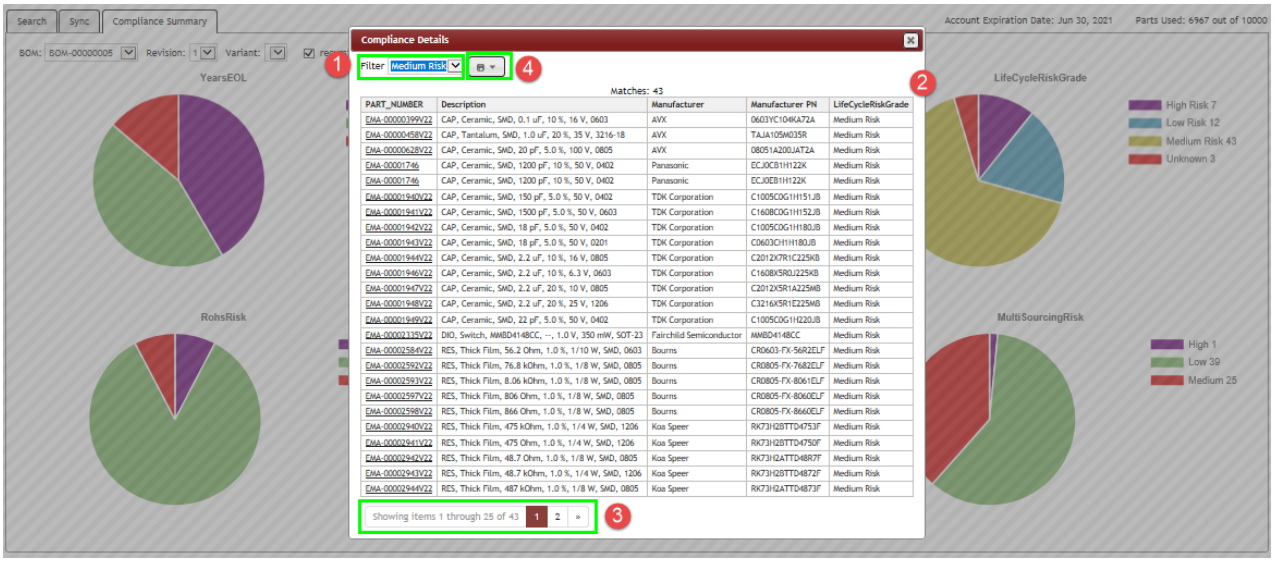
Click on a segment of a given pie chart to view its list of corresponding parts for the selected BOM-Revision-Variant.

The Compliance Details window will appear, showing the following information:

1) Filter: This defaults to the value of the pie segment that was clicked. The list contains all the values of the selected risk field. To view a different pie segment value, select its value from the filter list and the results will load automatically.
2) List of manufacturer parts in the selected BOM-Revision-Variant that contain the filtered value.

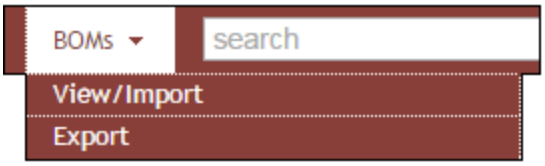
3) Shows the selected page (when applicable) and total count that matches the filtered criteria.
4) Export option to export the list to a CSV or Excel file.

Note: Export functionality is not available when using the System Capture plugin.



4.10 BOMs

The BOMs menu provides links to BOM form fields and controls that allow you to view, import, and export BOMs. This enables you to search for functionality or export additional fields to augment CIS BOM information.



BOM Menu Options

You can perform the following operations when you select the **BOMs** > **View/Import** menu:

- Create a New BOM
- Create/Copy to a New Revision
- Import Parts into A BOM
- Delete a BOM Revision/Variant

You can perform the following operations when you select the **BOMs** > **Export** menu:

- Select and Export Existing BOM

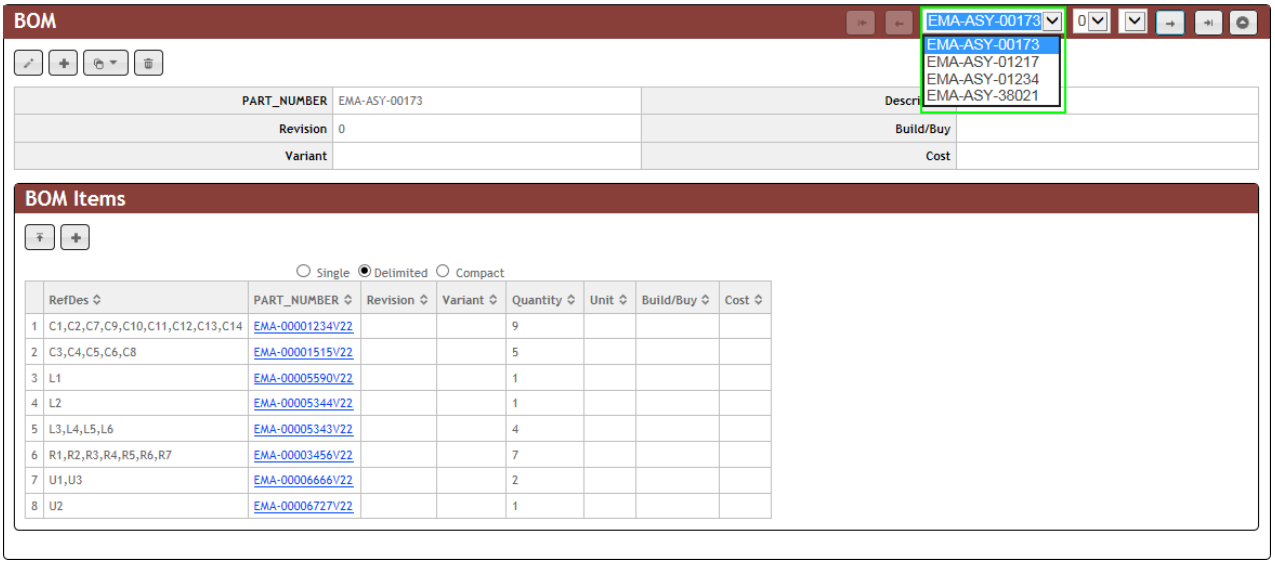
- Create a Capture CIS BOM
- Upload and Export a Parts List
- Generate a Template for BOM Export

Note: Export functionality is not available when using the System Capture plugin.

4.10.1 BOM View/Import

The **BOMs > View/Import** menu allows you to select and view a BOM, create BOM part numbers, and import a parts list to add to a BOM. You can either import part data from a CSV text file or import part data directly from a design. Once your BOM is created, you can modify, copy, or delete the BOM.

When you select **BOMs > View/Import**, the BOM Information page opens displaying data of the first BOM in the lower part of the screen. To view a different BOM, make a selection from the drop list that is located in the top right part of the page. As you select a BOM from the drop list, the BOM list of items updates to match your selection.



Additional operations you can perform when you select the **BOMs** > **View Import** menu include:

- Create a New BOM
- Create/Copy to a New Revision

- Import Parts into A BOM
- Delete a BOM Revision/Variant

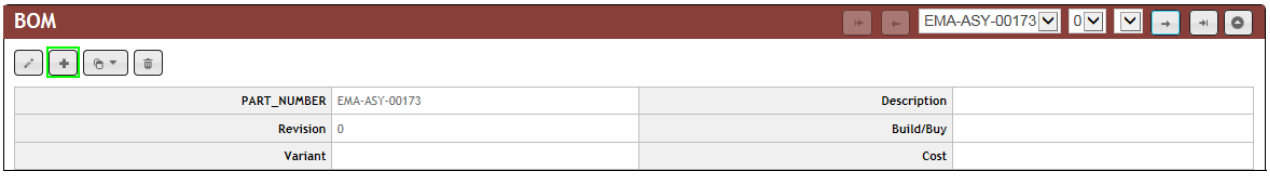
4.10.1.1 Create a New BOM

You can add a new BOM from the **BOMs > View/Import,** BOM Information page.

To create a new BOM

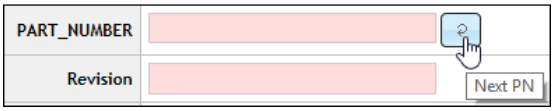
1. Click the **New** button.

   Note: The New BOM button is only available to users who are granted permission to add a new BOM.



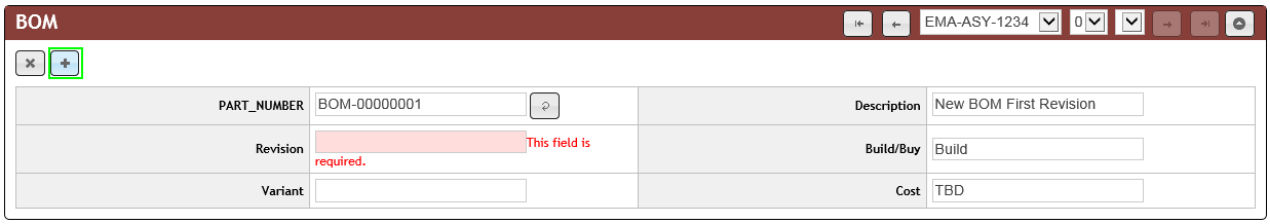
New BOM Creation

A new blank BOM entry form opens. The cell shading in the new form that opens indicates required field information that must be entered before the new BOM can be saved. The PART_NUMBER and Revision fields are required fields.



Auto Number Next PN

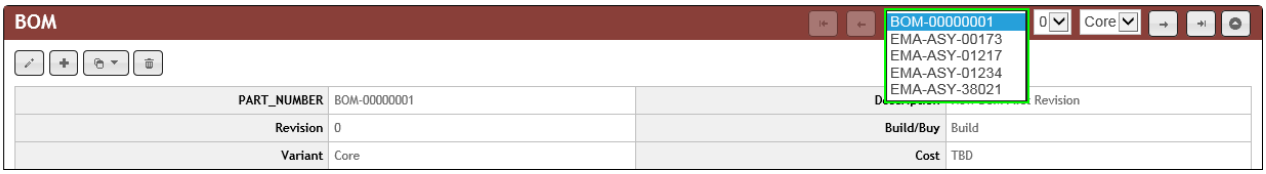
2. Manually enter a BOM PN or click the **Auto-number** button to insert an automatically generated part number for your BOM.
3. Manually enter a revision number. This is required field entry.
4. You may optionally enter a variant value if your new BOM has a variant. The variant value entered, however, must match a CIS variant. Leave this field blank if a CIS variant is not used.



Add New BOM

5. Click the button to save the new BOM with all entered information.

   As shown in the image below, access to your new BOM, as well as other BOMs, is available from the drop-down list located in the upper right corner of the screen. If desired, you can select a BOM from the drop-list and click the **Edit** button to either enter addition field information or edit an existing value. Click the save button to save your modifications.



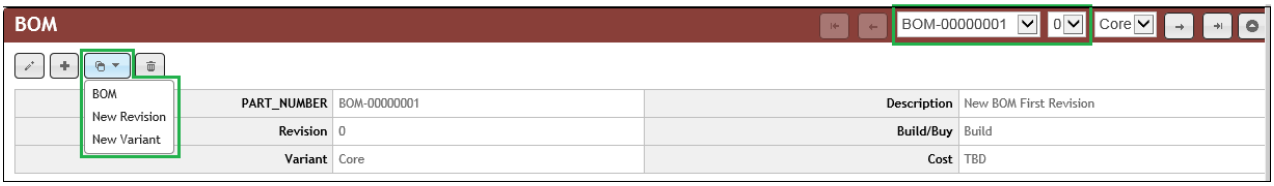
Added New BOM

4.10.1.2 Create/Copy to a New Revision

You can use **Copy to New Revision** to create a new variant or revision for the BOM. BOM attribute data is copied to a new revision or variant without copying the BOM items.

To copy a BOM and create a revision

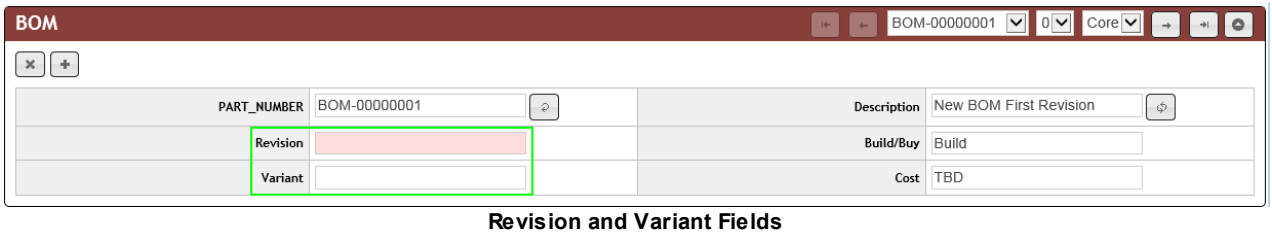
1. Select the BOM you wish to copy from the drop-list located in the upper right part of the screen.



Copy BOM Button

2. Select the **Copy BOM** button and option for the copy.

   If you select **New Revision**, the BOM form will appear with all fields copied except for Revision and Variant. If you want to copy to a new Variant, the variant will be the only field that needs to be filled in.



Revision and Variant Fields

After the copy is done, the BOM revision or variant is ready for import.

4.10.1.3 Import Parts into a BOM

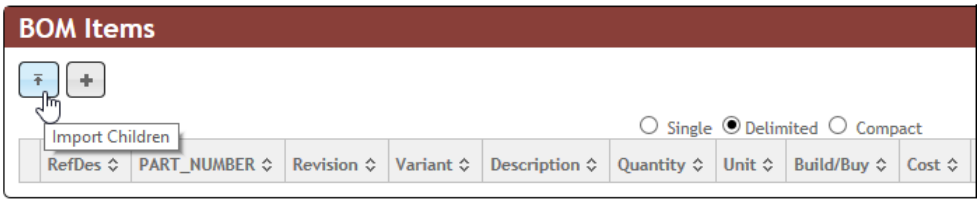
Parts are imported into a BOM from the **BOMs > View/Import > BOM Items** section of the BOM Information page. You can import parts from either a .CSV formatted file using the **Import Children** button or import parts directly from an open Capture design using the button.

Note: A BOM revision and variant must be created as described in the topic, Creating a New BOM before you begin the import process. The list of parts may be a Capture CIS BOM.

When importing from a CSV file, the parts list only imports part data into the open BOM revision/variant. Parts for each variant are imported separately. When you import parts from a design file, the core design and its variants are imported to the corresponding BOM revision and variant.

To import a BOM from a CSV file

1. Select **BOMs > View/Import** and select a BOM from the BOM PN drop list.
2. Click the **Import Children** button, located in the BOM Items section of your screen.



Import Children Button

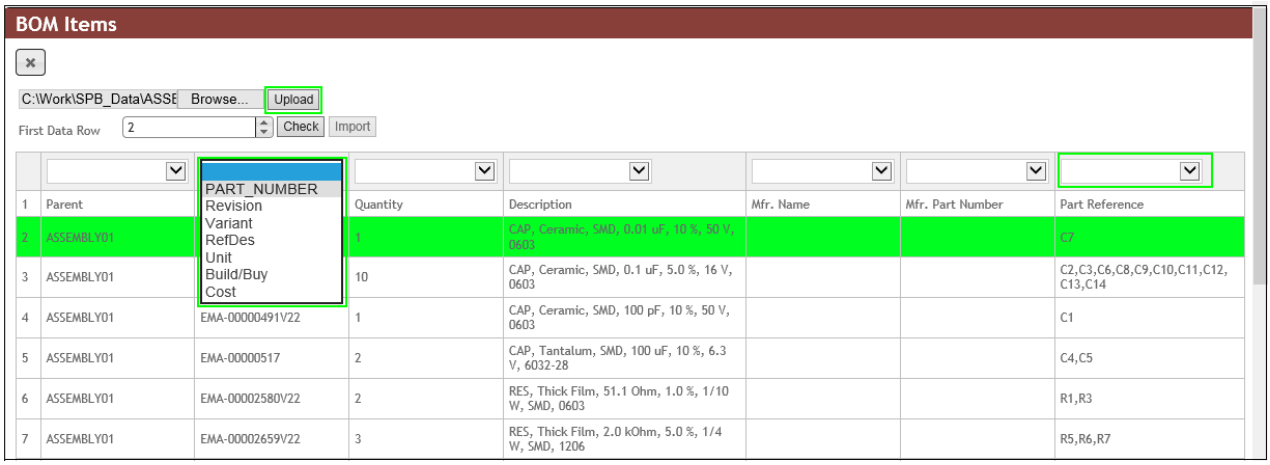
3. Click the **Browse** button. Navigate to the .CSV file that contains your part list. Select the .CSV file and click the **Open > Upload** buttons.

   Note: The selected BOM must be formatted as a .CSV file. Additionally, all part numbers in the BOM must be in CIP prior to import.

Browse to Select .CSV File

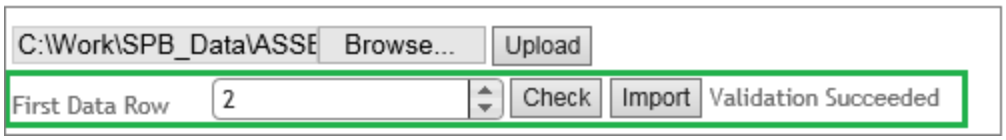
   After the BOM uploads, a list of parts included in your BOM displays in the BOM Items area. Notice the blank fields that display above each column header.

4. Click the drop arrow for the Part_Number (PART_NUMBER) and Reference designator (RefDes) columns and map the BOM fields to your CIP database. If the BOM part list you are importing contains a child BOM (or sub-assembly), you also need to map the Revision and Variant columns. Map any other column fields you want to import.



Map Part Table Columns and Select First Row of Data Part Table

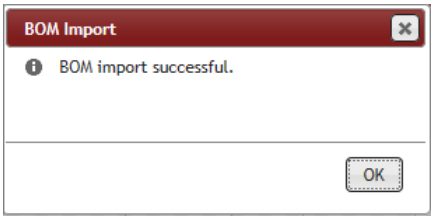
5. Select the first row of the data table and click the **Check** button to validate table rows/columns are mapped correctly. This validation check ensures part numbers in the BOM list are also in CIP.



Check BOM Part Mapping

Note: You are unable to import a BOM that has a part that is not already in CIP. Be sure to remove DoNotStuff (qty 0) parts from BOM variants prior to upload.

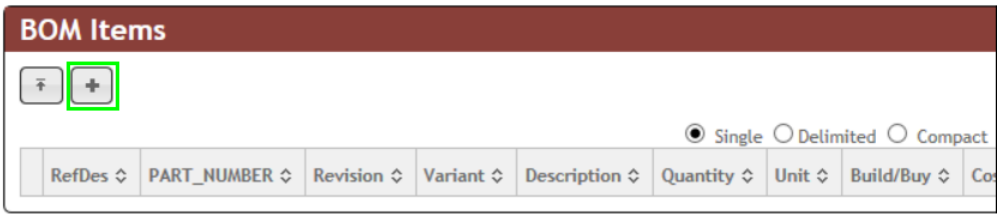
6. After the validation succeeds, click the **Import** button. A confirmation message displays to let you know the import was successful.



Import Success

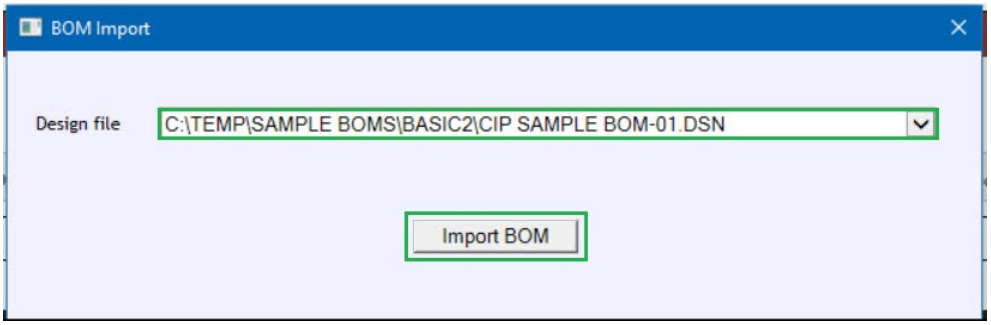
To import a BOM from a design file

1. Open the design in Capture CIS and launch CIP.
2. Select the **BOMs > View/Import > Import From Design** button, that is located in the BOM Items section as shown in the screen image below.



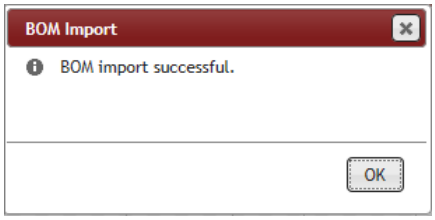
Import From Design Button

3. Select the design from the **Design file** drop-down list. Then click the **Import BOM** button. The BOM in CIP updates with the new set of parts from the design.



Importing BOM Parts List from Design File

A confirmation message displays to let you know the import was successful.



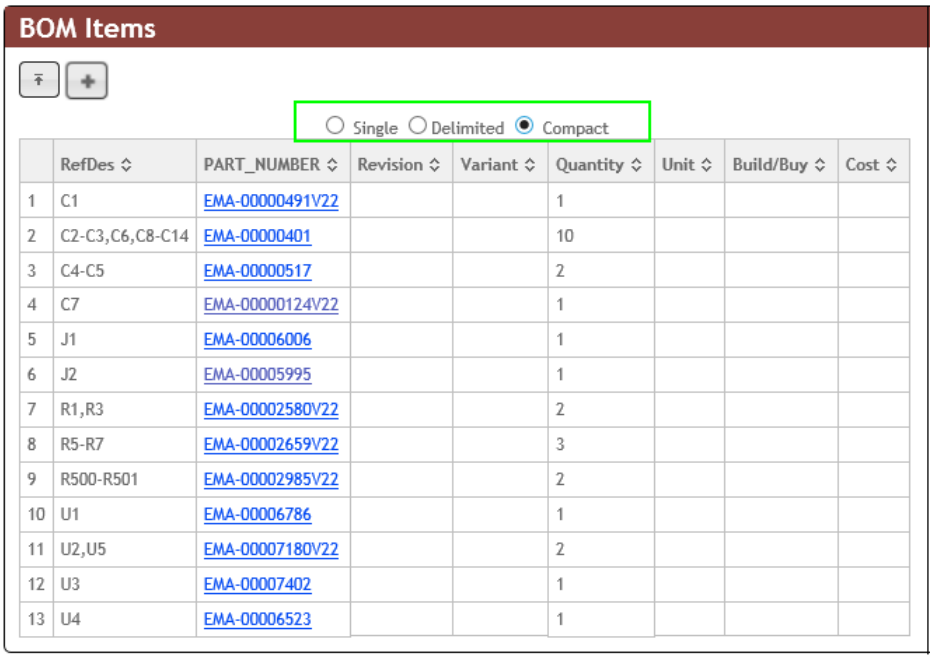
Import Success

Note: When importing designs with variants, your design file must be opened within Capture CIS. All variants within the design file must match the variant names in CIP for Import From Design to automatically import parts for core design and variants.

After import, you can view the BOM parts using one of three options: single, delimited or compact.

- ***Single*** - Each reference designator is shown on a single line.
- ***Delimited*** - Each part number is shown on a single line where reference designators are shown as a comma separated list.

- ***Compact*** - Each part number is shown on a single line where reference designators are shown as ranges or a comma separated list.



	RefDes	PART_NUMBER	Revision	Variant	Quantity	Unit	Build/Buy	Cost
1	C1	EMA-00000491V22			1			
2	C2-C3,C6,C8-C14	EMA-00000401			10			
3	C4-C5	EMA-00000517			2			
4	C7	EMA-00000124V22			1			
5	J1	EMA-00006006			1			
6	J2	EMA-00005995			1			
7	R1,R3	EMA-00002580V22			2			
8	R5-R7	EMA-00002659V22			3			
9	R500-R501	EMA-00002985V22			2			
10	U1	EMA-00006786			1			
11	U2,U5	EMA-00007180V22			2			
12	U3	EMA-00007402			1			
13	U4	EMA-00006523			1			

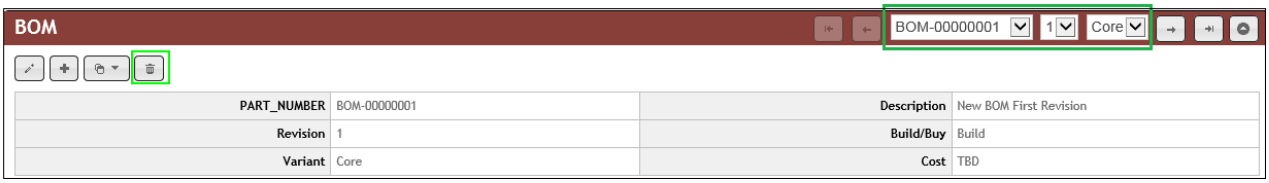
Compact Part Formatting

Part attributes (e.g. description, schematic part, PCB footprint, etc) cannot be altered or added using the BOM import function, as they are tied to part numbers themselves.

4.10.1.4 Delete a BOM Revision/Variant

To delete a BOM revision variant

1. Open the BOM revision/variant you want to delete by selecting **BOMs > View/Import** and selecting the BOM name from the drop list located in the upper right corner of your screen.
2. Select the **Delete** button of the BOM you wish to delete.

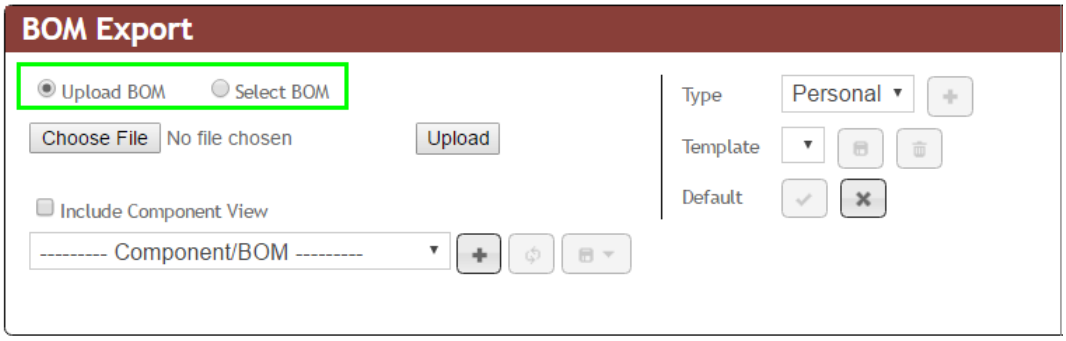


BOM Delete Button

The BOM revision/variant you selected is deleted from CIP.

4.10.2 BOM Export

The BOM Export feature allows you to upload and export a CIS Bill of Materials (BOM) through use of the **BOMs > BOM Export > Upload BOM** radio option. The BOM Export feature also allows you to select and export an existing CIP BOM through use of the **BOMs > BOM Export > Select BOM** ration option. You can add additional fields and export the parts list to a comma separated .CSV file. You can also add multiple manufacturers that are linked to a single company part number.



CIP Export Radio Options

You can perform the following operations when you select the **BOMs** > **Export** menu:

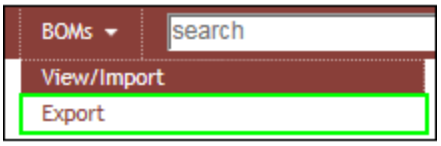
- Select and Export Existing BOM
- Create a Capture CIS BOM
- Upload and Export a Parts List
- Generate a Template for BOM Export

Note: Export functionality is not available when using the System Capture plugin.

4.10.2.1 Select and Export Existing BOM

To select and export an existing BOM

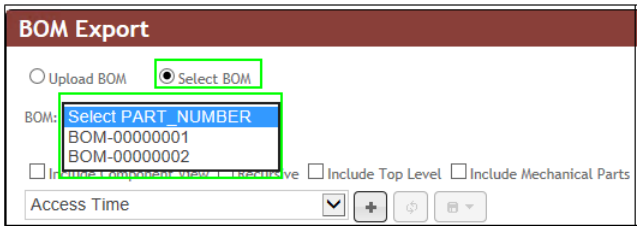
1. Select **BOMs** > **Export.**



BOM Export Menu

Note: Export functionality is not available when using the System Capture plugin.

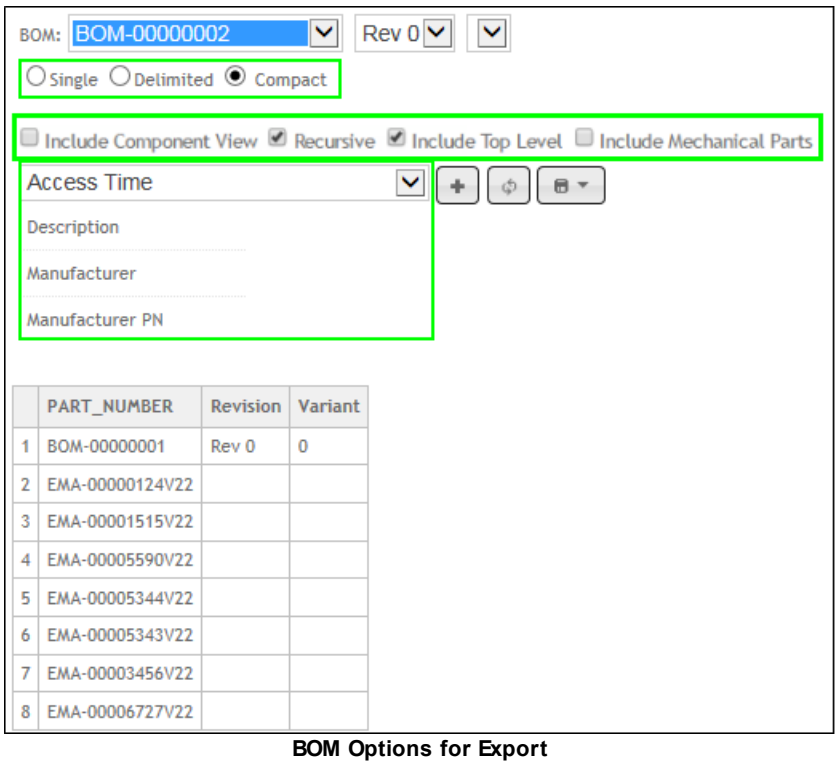
2. Choose the **Select BOM** radio option and click the BOM drop-list to select the BOM file you want to upload and export from the drop-down list.



BOM Selection Drop List

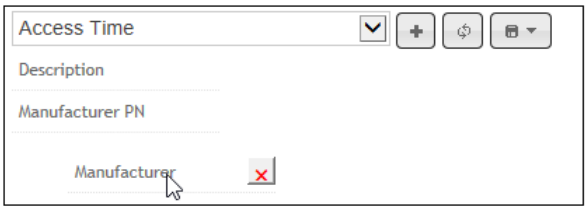
Note: After you select an existing BOM for export, you can add additional CIP database fields to the BOM as described in step #8 that follows.

3. Select the format for the parts of the BOM you would like to export. Options include Single, Delimited or Compact.
4. If desired, select the **Include Component View** checkbox to add the CIP view name to each part (e.g. Capacitors, Connectors, etc.).



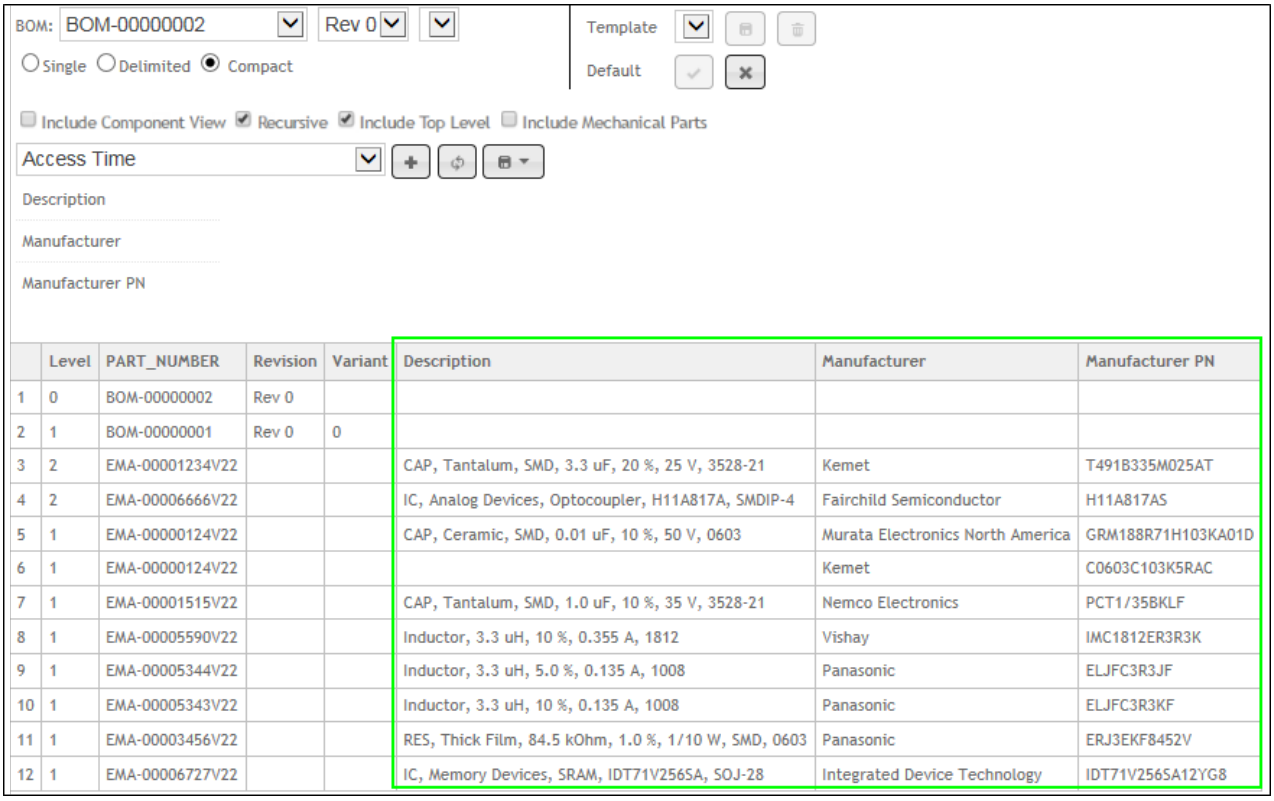
BOM Options for Export

5. If you have a child BOM in your BOM, you may select the **Recursive** checkbox to expand the list of parts in the child BOM.
6. If you want to include the BOM number in the export, check the **Include Top Level** checkbox.
7. If you want to include Mechanical Parts in the export, check the **Include Mechanical Parts** checkbox.
8. Select database fields from the drop-down list to add fields to the BOM you are exporting. After you select a field, click the **Add** button to add the field name to the list of additional fields located immediately below the selection field. When you are finished adding fields, click the **Update** button.
9. To change the order of fields you want to add, select the field name, drag and drop it to a new position. To remove a field hover over the field name and click the red X, .



Re-order Fields Added to BOM Export

An example of an updated BOM is shown in the sample screen image below. Notice how the Description, Manufacturer, and Manufacturer PN fields are now visible in the parts list. The new parts list also shows multiple Manufacturer PNs that are associated with single company part numbers. When the **Recursive** and Include **Top Level** checkboxes are selected, the list also shows Level 0 (the parent BOM number) and Level 2 (parts within the child BOM).



	Level	PART_NUMBER	Revision	Variant	Description	Manufacturer	Manufacturer PN
1	0	BOM-00000002	Rev 0				
2	1	BOM-00000001	Rev 0	0			
3	2	EMA-00001234V22			CAP, Tantalum, SMD, 3.3 uF, 20 %, 25 V, 3528-21	Kemet	T491B335M025AT
4	2	EMA-00006666V22			IC, Analog Devices, Optocoupler, H11A817A, SMDIP-4	Fairchild Semiconductor	H11A817AS
5	1	EMA-00000124V22			CAP, Ceramic, SMD, 0.01 uF, 10 %, 50 V, 0603	Murata Electronics North America	GRM188R71H103KA01D
6	1	EMA-00000124V22				Kemet	C0603C103K5RAC
7	1	EMA-00001515V22			CAP, Tantalum, SMD, 1.0 uF, 10 %, 35 V, 3528-21	Nemco Electronics	PCT1/35BKLF
8	1	EMA-00005590V22			Inductor, 3.3 uH, 10 %, 0.355 A, 1812	Vishay	IMC1812ER3R3K
9	1	EMA-00005344V22			Inductor, 3.3 uH, 5.0 %, 0.135 A, 1008	Panasonic	ELJFC3R3JF
10	1	EMA-00005343V22			Inductor, 3.3 uH, 10 %, 0.135 A, 1008	Panasonic	ELJFC3R3KF
11	1	EMA-00003456V22			RES, Thick Film, 84.5 kOhm, 1.0 %, 1/10 W, SMD, 0603	Panasonic	ERJ3EKF8452V
12	1	EMA-00006727V22			IC, Memory Devices, SRAM, IDT71V256SA, SOJ-28	Integrated Device Technology	IDT71V256SA12YG8

Added Parametric Data Fields

When your export is successfully completed, your browser displays a confirmation message.

4.10.2.2 Create a Capture CIS BOM

CIP supports any .CSV parts list, including (but not limited to) Capture CIS BOMs.

After you create a schematic design, you can generate a CIS BOM to upload in CIP before you export.

To create a CIS BOM

1. Open/create your design in CIS.
2. Select it (e.g. .\cis.dsn) and select **Reports > CIS Bill of Materials > Standard**.

   The Standard Bill of Materials window opens.
3. Change the Template Name to **BOM Template.** This enables you to reuse the template at a later time.
4. Select **Part Number** from the Output Format list, then click **Remove**.

5. Scroll through the Report Properties and select **PART_NUMBER**, then click **Add** to move it to the Output Format list.
6. Do not check **Allow Saving Title Block Properties**.
7. In the Part Reference Options, leave the default as Standard output.
8. Check **Export BOM report to Excel**.
9. Click **OK** to view the BOM.
10. Review the Standard Output.
11. Click **File** > **Save As**. Name the BOM and choose to Save it as a .CSV file.

Please refer to the Cadence OrCAD Capture CIS User's Guide (Open CIS, click Help > OrCAD Capture CIS Help > CIS Help) for more information regarding the creation of a Standard CIS Bill of Materials.

4.10.2.3 Upload and Export Parts List

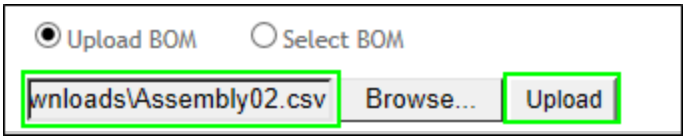
Uploading a parts list is a quick and simple process. To upload a parts list, you must first create a CIS BOM from Capture CIS (or other parts list) and save it as a (.CSV) file.

To upload a parts list

1. Open CIP and select the **BOMs > Export** menu.
2. Select the **Upload BOM** radio button if it is not already selected. Click the **Browse** button and navigate to the parts list. Select the file and click the **Open** button.

Browsing to a .CSV File

3. Notice the path and filename of the BOM you selected is now visible in the input field. Click the **Upload** button.

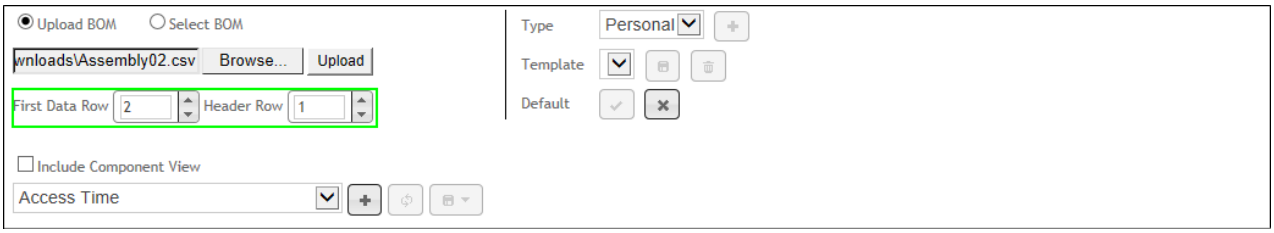


Uploading a (.CSV) Parts List

The part list opens.

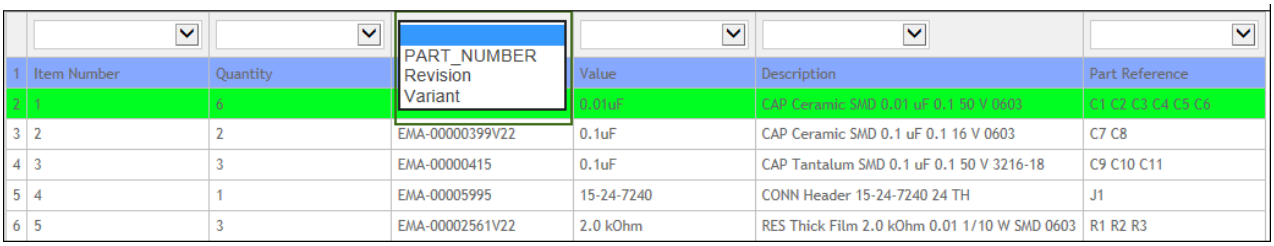
4. Enter the row numbers for the first BOM child item (First Data Row) and Header Row as shown in the screen image below.

   When the row numbers of the First Data Row and Header Row are entered, the header row becomes highlighted in a light shade of blue and the first row of data becomes highlighted in green (shown below).



Identify First Data Row and Header Row

5. Notice the blank fields above each column, (see screen image below). Click the drop arrow for the Part Number column and select PART_NUMBER from the list to map CIS and CIP parts. If your parts list contains a child BOM (or sub-assembly) you may also map the Revision and Variant columns to associate the child BOM.



	Item Number	Quantity		Value	Description	Part Reference
2	1	6		0.01uF	CAP Ceramic SMD 0.01 uF 0.1 50 V 0603	C1 C2 C3 C4 C5 C6
3	2	2	EMA-00000399V22	0.1uF	CAP Ceramic SMD 0.1 uF 0.1 16 V 0603	C7 C8
4	3	3	EMA-00000415	0.1uF	CAP Tantalum SMD 0.1 uF 0.1 50 V 3216-18	C9 C10 C11
5	4	1	EMA-00005995	15-24-7240	CONN Header 15-24-7240 24 TH	J1
6	5	3	EMA-00002561V22	2.0 kOhm	RES Thick Film 2.0 kOhm 0.01 1/10 W SMD 0603	R1 R2 R3

Mapping the BOM PART_NUMBER Column

6. Continue with the export by adding additional fields you want to include with your export.

Adding Fields to a Parts List and Exporting

After you upload a parts list, you can add additional CIP database fields to the list before you complete the export by completing the steps that follow.

1. Verify the Header and Part Number fields are set up properly.

2. If desired, check the **Include Component View** checkbox to add the CIP view name to each part (e.g. Capacitors, Connectors, etc.).

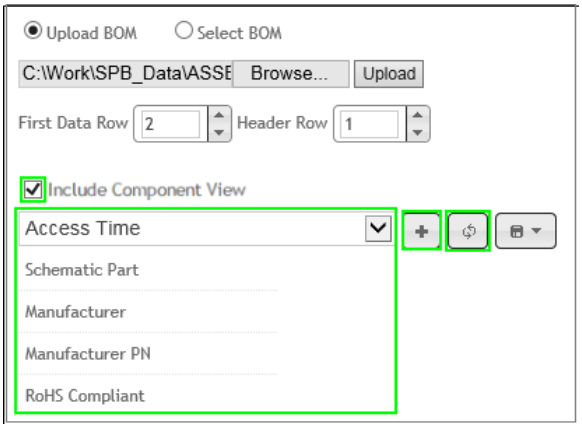
   Note: the view name is only available when the part in the list exists in CIP.

3. Check the **Include Mechanical Part Data** checkbox, if you want to include the quantity of mechanical parts used. **Note**: This option is only available for imported or uploaded BOMs.

4. Select database fields from the drop-down list (highlighted in green box in the image below) to include additional fields for export.

   Note: Items in the list of additional fields you can add are organized alphabetically by the groups Component/BOM, Component Manufacturer, Manufacturer, and Distributor.

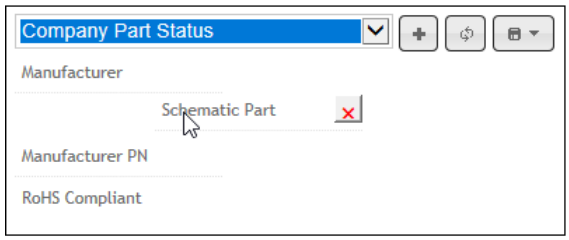
5. After selecting a field, click the **Add** button. As each additional field is added it is included in the list that is located below the drop-down list. The image below, for example, lists the additional fields, Schematic Part, Manufacturer, Manufacturer PN, and RoHS Compliant.



Add Part Table and Additional BOM Fields

6. Continue to add more fields as needed. When finished adding fields, click the **Update** button.

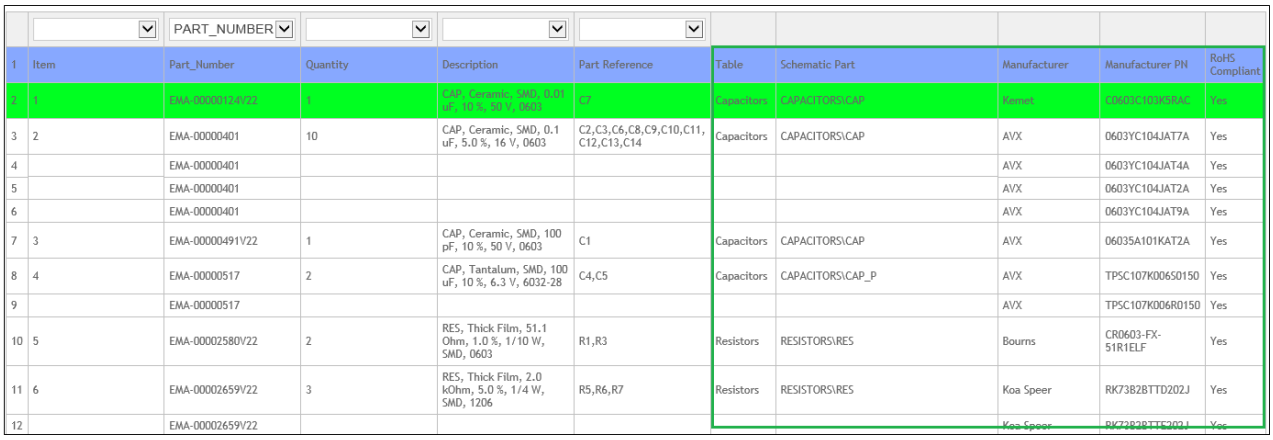
   The screen image below provides an example of the additional fields added: Schematic Part, Manufacturer, Manufacturer PN, and RoHS Compliant.



Select and Drag to Re-order Fields Added

7. To change the order of fields you are adding, select a field name and drag/drop it to a new position. To remove a field, hover over the field name and click the red X.

An example of an updated BOM is shown below. Notice how the green highlighted box outline shows the Table, Schematic Part, Manufacturer, Manufacturer PN and RoHS Compliant fields that are now visible in the parts list. This table also shows multiple Manufacturer PNs that are associated with single company part numbers.

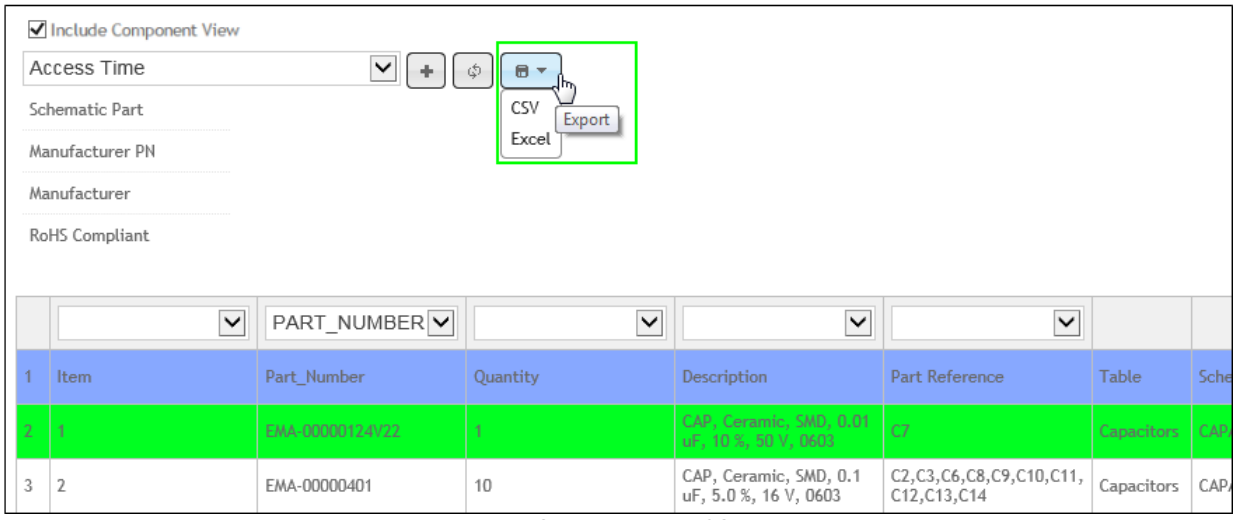


		PART_NUMBER								
1	Item	Part_Number	Quantity	Description	Part Reference	Table	Schematic Part	Manufacturer	Manufacturer PN	RoHS Compliant
2	1	EMA-00000124V22	1	CAP, Ceramic, SMD, 0.01 uF, 10 %, 50 V, 0603	C7	Capacitors	CAPACITORS\CAP	Kemet	C0603C103K5RAC	Yes
3	2	EMA-00000401	10	CAP, Ceramic, SMD, 0.1 uF, 5.0 %, 16 V, 0603	C2,C3,C6,C8,C9,C10,C11, C12,C13,C14	Capacitors	CAPACITORS\CAP	AVX	0603YC104JAT7A	Yes
4		EMA-00000401						AVX	0603YC104JAT4A	Yes
5		EMA-00000401						AVX	0603YC104JAT2A	Yes
6		EMA-00000401						AVX	0603YC104JAT9A	Yes
7	3	EMA-00000491V22	1	CAP, Ceramic, SMD, 100 pF, 10 %, 50 V, 0603	C1	Capacitors	CAPACITORS\CAP	AVX	06035A101KAT2A	Yes
8	4	EMA-00000517	2	CAP, Tantalum, SMD, 100 uF, 10 %, 6.3 V, 6032-28	C4,C5	Capacitors	CAPACITORS\CAP_P	AVX	TPSC107K006S0150	Yes
9		EMA-00000517						AVX	TPSC107K006R0150	Yes
10	5	EMA-00002580V22	2	RES, Thick Film, 51.1 Ohm, 1.0 %, 1/10 W, SMD, 0603	R1,R3	Resistors	RESISTORS\RES	Bourns	CR0603-FX-51R1ELF	Yes
11	6	EMA-00002659V22	3	RES, Thick Film, 2.0 kOhm, 5.0 %, 1/4 W, SMD, 1206	R5,R6,R7	Resistors	RESISTORS\RES	Koa Speer	RK73B2BTTD202J	Yes
12		EMA-00002659V22						Koa Speer	RK73B2BTTE202J	Yes

Added Parametric Data Fields

8. Once you have added the desired fields to the BOM, click the **Export** button and choose whether you want the file format to be Excel or CSV.
   - If you choose the CSV format you are prompted to Save or Open the new (.CSV) file.
   - If you choose **Open**, the file opens directly in your browser window.
   - If you choose **Save** you are prompted to select a location to save the (.CSV) file.

Note: Export functionality is not available when using the System Capture plugin.



Export BOM as Excel or CSV File

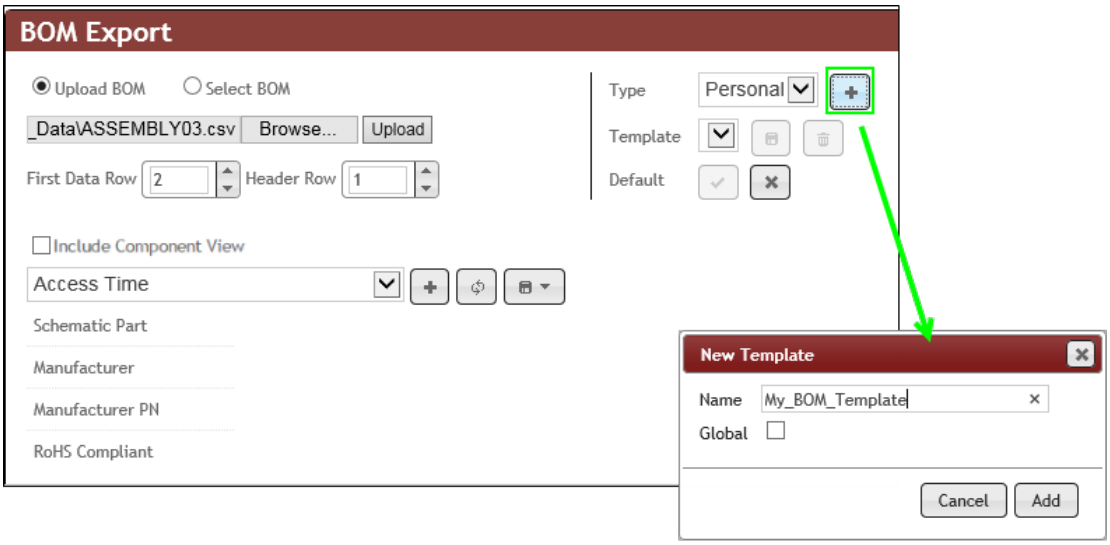
4.10.2.4 Generate a Template for BOM Export

If you have a BOM template that you use to create your BOM, you can generate a BOM Export template. You can save this template as either a global or a personal template. After your template is saved, you can re-use it without reformatting your uploaded file.

After you have gone through the steps of uploading a parts list you can save the configurations to a template as described in the steps that follow.

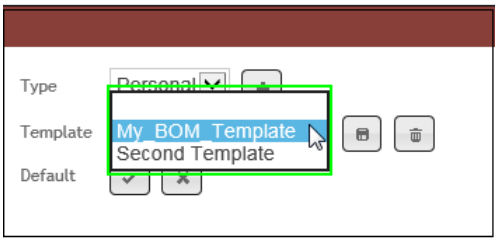
To save configurations to a template

1. Select the **Create New Template** button to open the New Template pop up.
2. Enter a name for the template for which you are saving the configuration.
3. If the template is to be used by other users, select the **Global** check box. Then click the **Add** button.



Using an Advanced Export Template

The saved template is included in the Template drop-down list. You may also make any template the default by selecting a template and clicking the **Set Selected Template as Default** button. The default template loads automatically each time you open BOM Export. Click the **Clear Default Template** button to clear the default setting. If you make a change to the template, you may save the changed template by clicking the **Save Changes to Selected Template** button. Click on the **Delete Selected Template** button to delete the selected template.



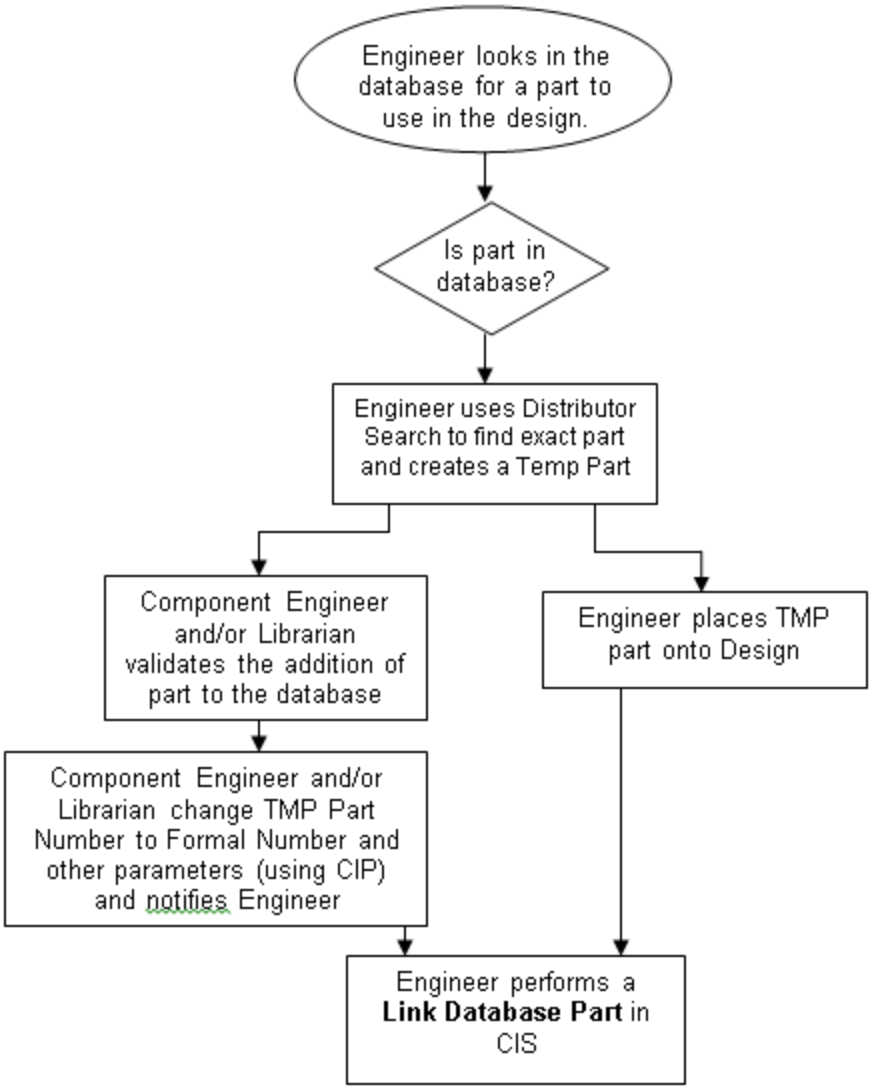
Save Changes to Selected Template

4.11 Sample New Part Process Using CIP

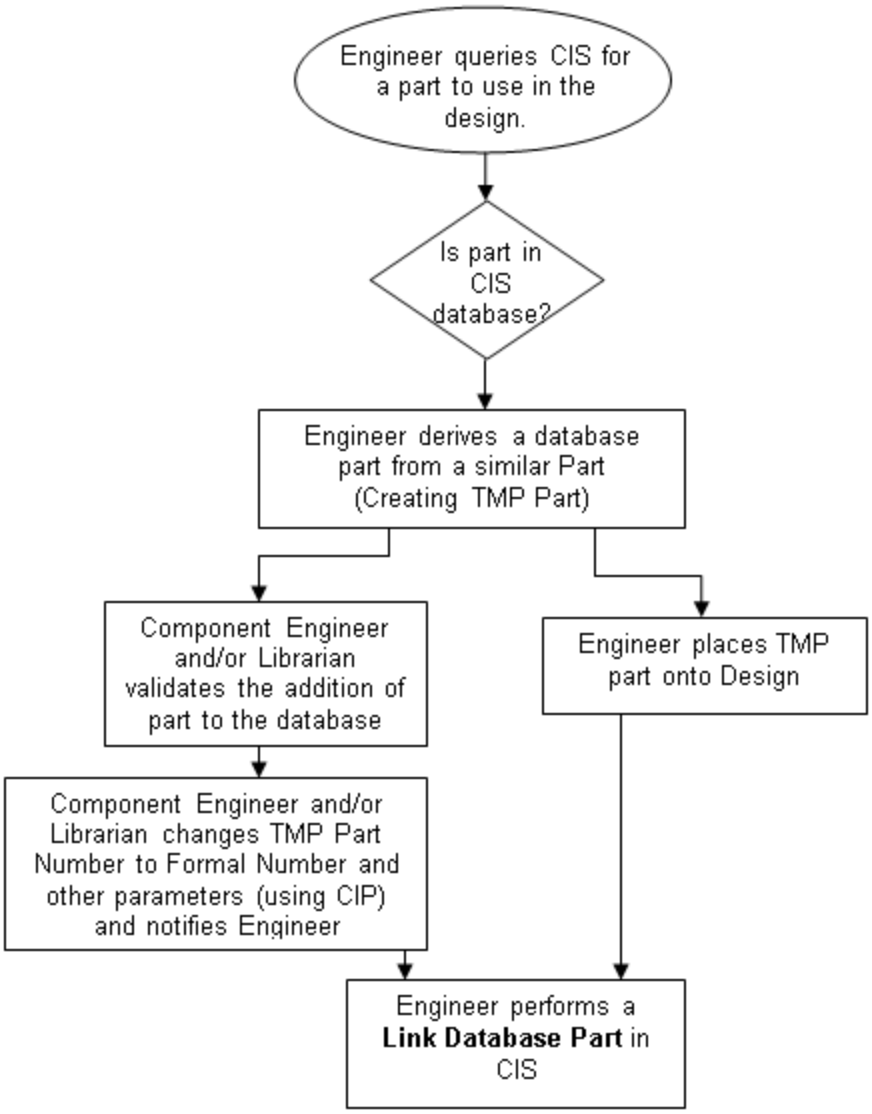
A typical part process includes the following steps, with exceptions or variations depending on a company's part building methodology.

1. Engineer creates temporary part in CIS; CIS assigns part a TMP part number
2. Engineer notifies Librarian of newly created part
3. Librarian checks the part and assigns it a formal company part number if part doesn't already exist.
4. Librarian enters the formal part number into the CIS database using CIP
5. Librarian notifies the engineer of the formal part number
6. Engineer performs a Link Database Part within the CIS design to update the TMP part to the formally accepted part number

Note: If the part already exists, the librarian will map the temporary part to the existing part number.



Sample Flow with New TMP Part



Sample Flow with Derive Part

4.12 Help and Support

The CIP User Guide is available to any user logged into CIP. The CIP User Guide is a .PDF document that can be saved locally on the user's machine after it has been opened.

To access the guide

- Click the [**Help]** link in the upper right-hand corner of the CIP screen, next to the **[Change Password]** link. Refer to the figure below.

[Help] Link to Access the CIP User Guide

4.13 Technical Support

Contact your local channel partner with questions on technical support.

5 Appendix: Part Type and Description Standards

Information provided in Appendix: Part Type Standard and Description Standards lists the default build rules that are created in each component table of the CIS database. Companies who have purchased CIP may adopt these as their own company standards for Description and Part Type. Instructions that explain how to modify the build rules are provided in the Block Type sections Editing a Rule and Using a Rule.

Text enclosed within the “<” and “>” symbols indicates the field value used to populate the Part Type or Description string.

5.1 Part Type Standard

The Part Type delimiter shall be the backslash “\” character. For fields that do not consist of a value (i.e. empty fields), “--” shall be used.

Each of the 12 CIP tables has a default Part Type standard. Default Part Type standards and examples are shown below.

Capacitors:

<Dielectric Type>\<Package Type>\<Package Size>

Example:

Ceramic\SMD\1206
Ceramic\TH\5.1x3.2x1.0 mm
Tantalum\SMD\2012-15

Connectors:

<Device Type>\<Package Type>

Example:

Header\TH

Crystals and Oscillators:

<Device Type>\<Package Type>

Example:

OSC\SMD
XTAL\SMD

Diodes:

<Device Type>\<Package Type>

Example:

LED\SMD
Schottky\SMD
Zener\SMD

ICs:

<Package Type>\<Device Type>\<Function>

Example:

SMD\Analog Devices\Optocoupler
SMD\Converter\DC-DC Converter
TH\Logic\Flip Flop

Inductors:

<Device Type>\<Package Type>

Example:

Ferrite Bead\SMD

Misc:

<Device Type>\<Package Type>

Example:

Testpoint\TH

Relays:

<Package Type>

Example:

TH
SMD

Resistors:

<Package Type>\<Material>\<Package Size>

Example:

SMD\Thick Film\0402
SMD\Thin Film\0805

Switches:

<Switch Type>\<Package Type>\<Switch Configuration>

Example:

Light Touch\SMD\SPST

Transformers:

<Package Type>

Example:

SMD
TH

Transistors:

<Device Type>\<Package Type>

Example:

BJT\SMD
Darlington\TH

5.2 Description Standards

The Description delimiter shall be the comma-space ", " string. For fields that do not consist of a value (i.e. empty fields), "--" shall be used.

Each of the 12 CIP tables has a default Description standard. Default Description standards and examples are provided below.

Capacitors:

CAP, <Dielectric Type>, <Package Type>, <Value>, <Tolerance>, <Rated Voltage>, <Package Size>

Example: CAP, Ceramic, SMD, 6800 pF, 10 %, 10 V, 0201

Connectors:

CONN, <Device Type>, <Value>, <Number of Pins>, <Package Type>

Example: CONN, Header, 15-24-7240, 24, TH

Crystals and Oscillators:

<Device Type>, <Package Type>, <Value>, <Frequency Tolerance>

Example: OSC, SMD, 13.5 MHz, +/- 100ppm

Diodes:

DIO, <Device Type>, <Value>, <Rated Current>, <Rated Voltage>, <Rated Power>, <Package Size>

Example: DIO, Zener, BZT52C3V3, --, 3.3 V, 500 mW, SOD-123

ICs:

IC, <Device Type>, <Function>, <Value>, <Package Size>

Example: IC, Memory Devices, PROM, XC18V01, SOIC-20

Inductors:

<Device Type>, <Value>, <Tolerance>, <Rated Current>, <Package Size>

Example: Inductor, 220 nH, 5.0 %, 0.3 A, 0603
Ferrite Bead, 120 Ohm, 25 %, 0.2 A, 0603

Misc:

MISC, <Device Type>, <Value>, <Package Type>, <Package Size>

Example: MISC, Testpoint, 5000 Red, TH, 2.5x2.5x4.6 mm

Relays:

RELAY, <Value>, <Coil Resistance>, <Coil Voltage Maximum>, <Contact Current>, <Package Type>

Example: Relay, G5LA-14, 69 Ohm, 5 VDC, 5 A, TH

Resistors:

RES, <Material>, <Value>, <Tolerance>, <Rated Power>, <Package Type>, <Package Size>

Example: RES, Thick Film, 240 kOhm, 5.0 %, 1/16 W, SMD, 0402

Switches:

SW, <Switch Type>, <Value>, <Switch Configuration>, <Number of Pins>, < Package Type>

Example: SW, Light Touch, EVQPH, SPST, 4, SMD

Transformers:

XFMR, <Value>, <Primary Voltage>, <Secondary Voltage>, <Frequency>, <Package Type>

Example: XMFR, 3FS-310, 115 V, 5/10 V, 50/60 Hz, TH

Transistors:

XSTR, <Device Type>, <Polarity>, <Value>, <Rated Voltage>, <Rated Current>, <Package Type>

Example: XSTR, BJT, NPN, KSH29C, 100 V, 1.0 A, SMD

6 Appendix: Configuring the CIS .DBC File

The CIP database is used by both the CIP web application and Capture CIS. When configuration settings are modified (as described in sections Customize CIP Fields or Component Views) Capture CIS is unaware of the changes. Settings in the CIS .DBC file tell Capture CIS how to interpret data found in the database and how to properly control the display in CIS Explorer. When you create or update the DBC configuration file you must open the CIS configuration tool that is available in Capture CIS.

Five DBC configuration files are pre-installed with the CIP web application. Each provide a different set of information for CIS Explorer as defined below.

- CIP-E V7.7 CIS DB.DBC

  This DBC file is configured with out-of-the-box settings for CIP that includes distributor part information in the manufacturer display. Each distributor part information is shown on a separate line along with the corresponding manufacturer part information. If any of the user fields or other fields have an alias to another name, you will need to update the DBC file using CIS configuration option in Capture CIS.

- CIP-E V7.7 CIS DB_NODISTRIB.DBC

  This DBC file is configured with out-of-the-box settings for CIP that does not include distributor part information in the manufacturer display.

- CIP-E V7.7 CIS DB_WITHCOMPLIANCE.DBC

  This DBC file is configured with out-of-the-box settings for CIP with Compliance Module log in enabled. The DBC file configuration includes distributor part information in the manufacturer display.

- CIP-E V7.7 CIS DB_NORELATIONAL.DBC

  This DBC file is configured with out-of-the-box settings for CIP without any relational table settings.

- CIP-E V7.7 CIS DB_WITHCOMPLIANCE_NOSILICONEXPERTPNS.DBC

  This DBC file is configured with out-of-the-box settings for CIP with Compliance Module log in enabled with all distributor part information but without Silicon Expert Part Number. Use this DBC file if you want to include distributor part numbers in a BOM but do not wish to include Silicon Expert part numbers.

The CIS .DBC configuration file is generally shared by all CIS Users. Only one .DBC file needs to be modified and placed in a network location to provide read-only access for all CIS users. Consult with your project leader or librarian before modifying the .DBC file.

This Appendix includes three sub-sections that explain how to update the DBC file and create a new file using the CIS configuration tool.

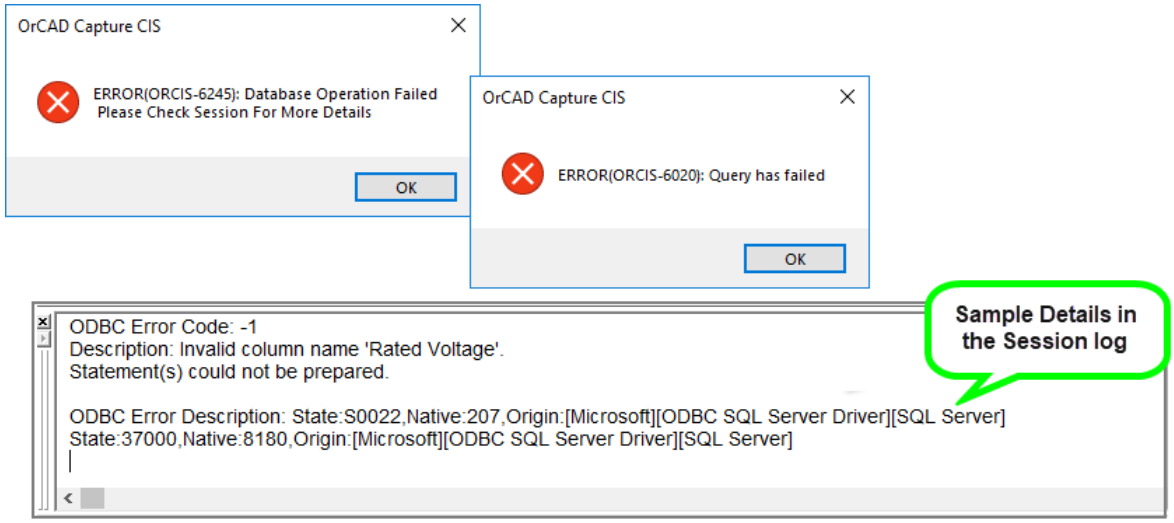
- Refresh DBC file
- Update DBC file
- Create DBC file using CIS Configuration Wizard

Refresh DBC file

When changes to fields are minor and affect fields in component views, a simple refresh of the DBC file is required. The configuration of the CIP/CIS .DBC file may need to be refreshed or updated after the following situations occur:

- The display name of an enabled field changes as described in Customize Component Fields.
- One or more new fields are added as described in Customize Component Fields or Component Views

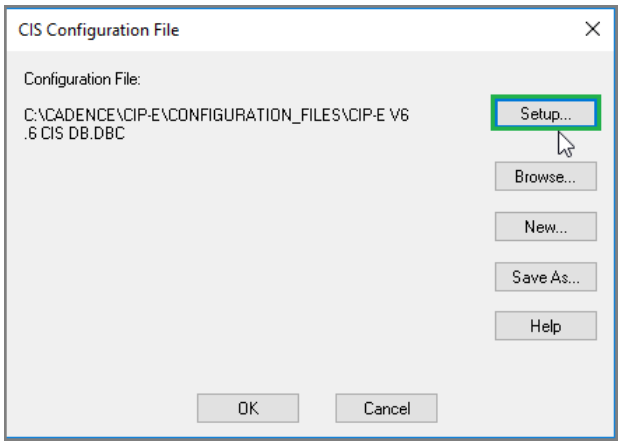
When component fields are modified without updating the DBC file, CIS users may see SQL errors in their Session log as shown in following image.



Error message in the Capture CIS > Windows > Session log

To refresh the DBC:

1. Open Cadence OrCAD Capture CIS and select **Options > CIS Configuration**.
2. Select the **Setup** button. Then select **OK.** When setup opens select **OK** to save the settings.



CIS Configuration Setup

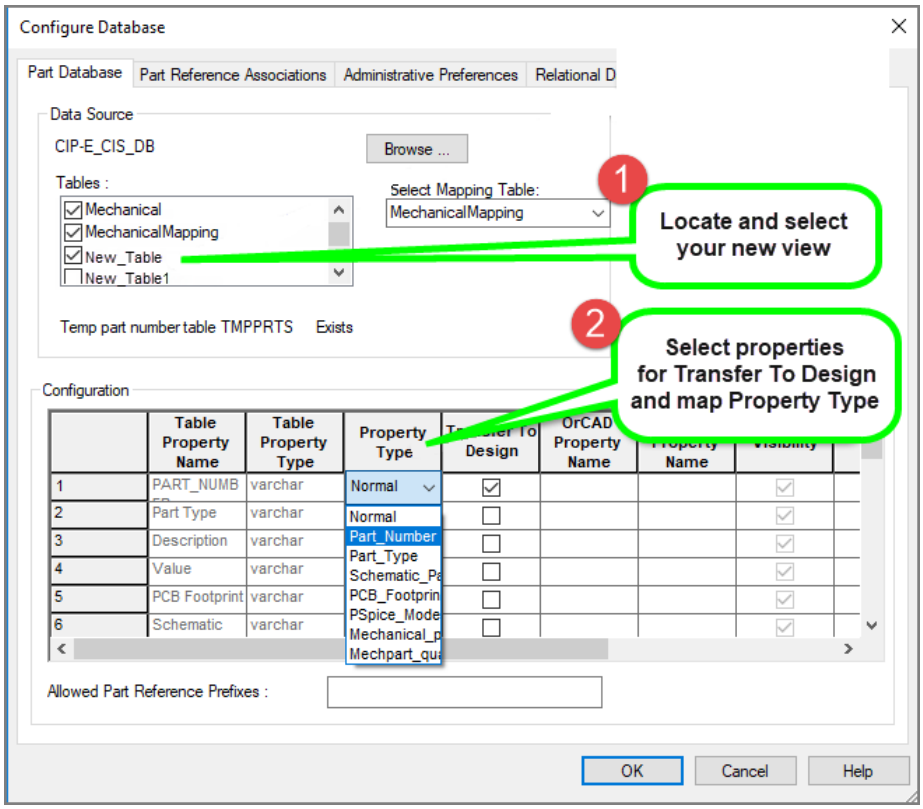
Update DBC file

When changes to fields are more significant, e.g. addition or change of a view, a simple refresh of the DBC file is insufficient to resolve errors identified in the Session log.

To update the DBC:

1. Open Cadence OrCAD Capture CIS and select **Options > CIS Configuration.**

2. Select the **Setup** button. The **Configure Database** window appears.



Configure Database Configuration file

3. Locate the View or Table you want to add and select the check box to enable it for configuration. Views and table that are shown depends on permissions set in your SQL database. You may see table names prepended with "CIP_". These are used by CIP web application. DO NOT select any of these tables.

4. Review the list of properties and configure the fields you want to Transfer To Design. Make sure you map the Property Type for the following fields:

   - Part_Number
   - Part_Type
   - Schematic Part
   - PCB_Footprint

5. You may make other changes to match your company Schematic guidelines. Refer to the Cadence OrCAD Capture CIS User's Guide (Open CIS, click Help > OrCAD Capture CIS Help) for more information regarding Creating a Configuration File.

6. When you complete all your changes, click **OK** to save the changes and then **OK** to exit the tool.

Create DBC file using CIS Configuration Wizard

A new configuration of the CIP/CIS .DBC file that may be required is dependent on the type of modification. CIS Configuration tools in Capture will not refresh changes made to the relational table, which includes manufacturer and distributor fields.

Changes to the manufacturer fields using Customize Manufacturer Part Fields or Customize Component Manufacturer Part Fields will require new DBC file. You may be able to remove the relational table settings and re-add them. If not, you can use the CIS Configuration Wizard to create a new DBC file.

Capture CIS utilizes the ODBC data source through its own database configuration (DBC) to access the database. The CIP Client installer automatically adds a data source name of CIP-E_CIS_DB.

CIS has a built-in wizard for creating DBC files. To ensure CIS can access both Table and Views in your database, make sure that you have “TABLES OPTION=TABLE,VIEW” included in the [Part Management] block of your Capture.ini file.

To create a new DBC file:

1. Read the entire procedure below before going through it so your database is configured correctly before you begin the steps.
2. Open Capture CIS.
3. Under **Options** > **CIS Configuration**…, click the **New…** button and then **Next**.
4. Select the appropriate Data Source (this list is pulled from your systems ODBC data sources, so if you don’t see one for your database, you need to add an ODBC data source first). The default ODBC data source to use is **CIP-E_CIS_DB**. Then click **Next**.
5. At **Database Configuration: Step 2** display, map the tables into which you want to place parts. from in CIS. Click **Next**.

   Note: The list that displays shows all tables in the SQL database. Select only view names that are already configured in CIP.
6. At **Database Configuration: Step 3 (1 of n)** display, you will repeat for each table you map in (5) (previous step). Select the appropriate table column to map **Part_Number** and **Value** to. Click **Next**.
7. At **Database Configuration: Step 4 (1 of n)** display, you will repeat for each table you map in (5). Select the appropriate table column to map **Part_Type** and **Schematic_Part** to. Click **Next**.
8. At **Database Configuration: Step 5 (1 of n)** display, you will repeat for each table you map in (5). Select the appropriate table column to map **PCB_Footprint** (optional) and **PSpice_Model** (optional) if you plan to use these fields. Click **Next**.
9. At **Database Configuration: Step 6** display, select which part properties you want to transfer to the schematic page when you place the part. Click **Next**.

10. At **Database Configuration: Step 7** display, click **Next.** If you want to use the ICA (Internet Component Assistant – aka ActiveParts) you must check the box for ICA Properties and select the fields to map to your database tables *(typically all of them)*
11. At **Database Configuration: Step *8*** display, select the browsable properties (items which will be linked to external documents, like URLs or datasheets). Click **Next**.
12. At **Database Configuration: Step *9*** display, select the visibility of the items you previously set to transfer to the design. Click **Next**.
13. At **Database Configuration: Step 10** display, select the keyed properties (normally only Value)
14. Click **Finish**. You will now be configured with the new .DBC file. You may continue to make changes to the DBC file before saving.
15. To add relational table (manufacturing information), select the **Relational Database** tab.
16. For each Primary Table Name configured, select **Part_Number** as the Primary Key then select either **CIS Manufacturer Parts** or **CIS Manufacturer Parts No Distributor** (depending on whether you want to show distributor information) for the Relational Table.
17. Click **OK** to save and then **OK** to exit.

7 Appendix: Warnings and Errors

There are several types of warnings and errors that CIP may present to a user after taking an action. Warnings generally alert the user of a potential issue, but allow the operation to continue if desired. Errors indicate there was an issue that prevented the operation from completing successfully. Most of these warnings and errors fall under the topics below.

7.1 Transaction or Execution Timeout

Timeout or Transaction errors may be generated by the CIP web application when your CIP has a large number of views, fields, part numbers, etc., that may cause operations to take an extended period of time to complete. If you experience execution or transaction timeout errors such as the ones shown in the examples below, you will need to increase your CIP timeout settings to avoid such errors in the future. The default timeout is ~1 minute. Increasing the timeout will require a person (most likely IT personnel) who has permission to modify the CIP Web Application's web.config that is located on the web server.

Add the following three lines into your web.config file, after the `</appSettings>` section:

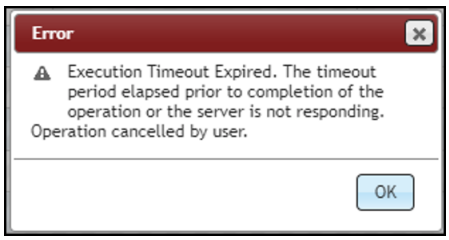
```
<system.transactions>
      <defaultSettings timeout="00:10:00"/>
</system.transactions>
```

The lines above will change the timeout to 10 minutes and give long-running transactions more time to complete. You may need to tweak this setting depending on your environment, as the time required to complete different operations may vary.

Possible error messages are shown in this section.

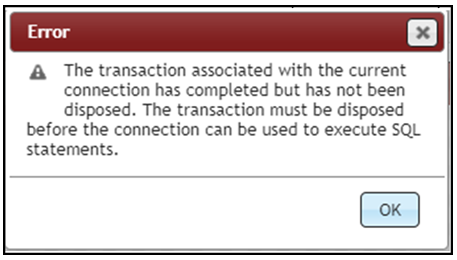
Execution Timeout Expired. The timeout period elapsed prior to completion of the operation or the server is not responding. Operation cancelled by user.

The following error occurs when you try to modify a field for all views and a large number of views exist in your CIP. The number of views that could cause this problem depends on multiple factors, including the hardware resources allocated to your SQL Server.



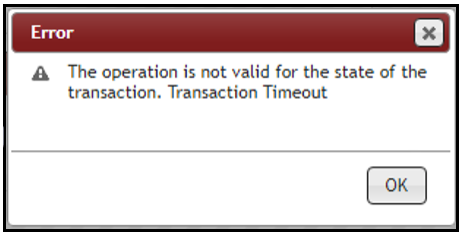
The transaction associated with the current connection has completed but has not been disposed. The transaction must be disposed before the connection can be used to execute SQL statements

The following error occurs when the number of parts you are attempting to import is large. The number of parts that could cause this problem depends on multiple factors, including the hardware resources allocated to your SQL Server..



The operation is not valid for the state of the transaction. Transaction Timeout

The following error occurs when the number of parts and variants you are attempting to import is large. The number of parts that could cause this problem depends on multiple factors, including the hardware resources allocated to your SQL Server..



7.2 CIP Scheduler Service not running

The CIP Scheduler Service will run all URLs that are configured on the server. For example, if you use the URL http://localhost/cip-e and schedule a sync, then change the synchronization task by using a URL like https://servername/cip-e, both URLs will be saved. To remove the extra scheduled sync, you can log in with the original URL and disable synchronization.

To investigate the rest of the possible issues will require a person (most likely an IT personnel) who has permission to logs or directories located on the web server.

If you are not sure if the scheduled sync is working properly, please check and correct any of the following issues:

Possible Issue 1:

The CIP web application must be accessed through HTTPS, but the HTTPS certificate is not considered valid by the server. (For example, when you go to https://servername/cip-e while on the server, you get a warning about the certificate, and must click continue to proceed).

Solution: Install and use a valid certificate for the CIP web application, or do not force HTTPS access.

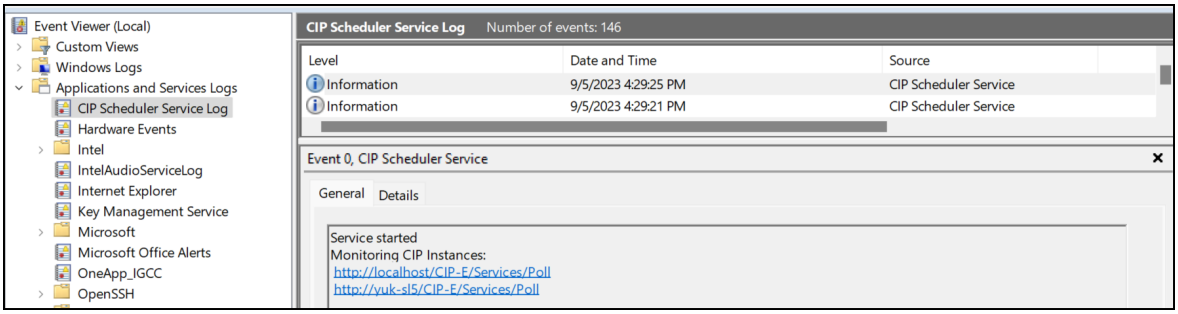
Possible Issue 2:

The URL that was used to schedule the sync is not the same as the URL normally used to access the CIP web application. This could happen if the web application was moved to a new server, or if modifications were made from multiple URLs.

Solution 1: If possible, navigate to the original URL, disable the scheduled sync, and save. Then navigate to the new URL, enable the sync, and save.

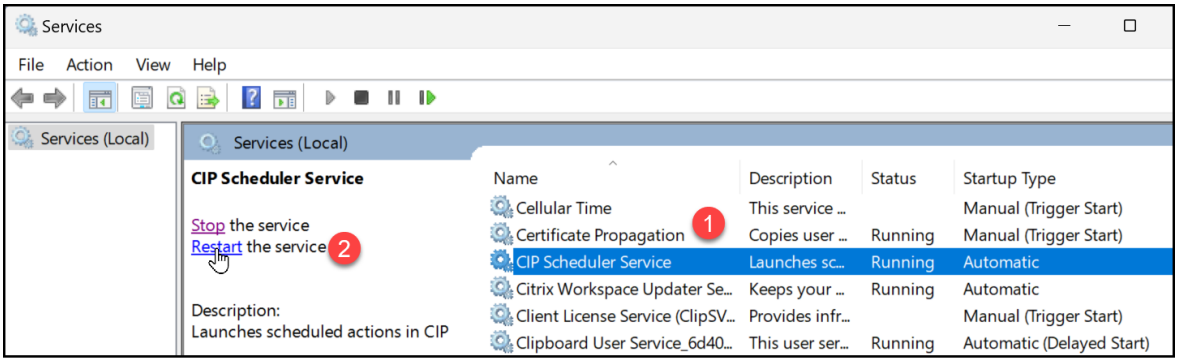
Solution 2: Follow the step below to determine any URLs configured.

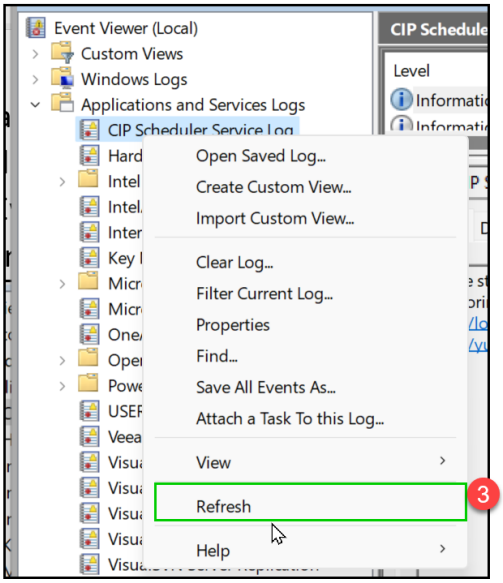
1. You will need to connect to the CIP server and view its event log.
2. Open Event Viewer > Applications and Services Logs > CIP Scheduler Service Log
3. See sample screenshot.



4. You may need to scroll down and select a different line to find the log that shows that service started.

5. If you cannot find it, you can do the following to trigger a refresh. (1) bring up Services, select CIP Scheduler Service, (2) click Restart and then (3) go to Event Viewer select Refresh. (See screenshot below)





6. If there are multiple URLs in the list, navigate to CIP using each base URL and disable the scheduled synchronization there.

7. If navigation to the undesired URL(s) is no longer possible, all URLs can be cleared out.

   a. Navigate to C: \Windows\SysWOW64\config\systemprofile\AppData\Local\EMA_Design_Automation, _In**.** This folder cannot be accessed without direct permission or administrative privileges. if attempting to navigate there directly results in a “folder not found” error, grant your username explicit permissions to the folder or access it using an elevated process (i.e. command prompt run as Administrator)

   b. Delete all folders contained in the EMA_Design_Automation,_In folder.

8. Navigate to the correct CIP URL and schedule the sync.

8 Appendix: Tutorial for Importing CSV Parts

This Appendix includes a tutorial that is comprised of four modules that supplement the sections, Bulk Operations of CIP Administration, and Import. Sample parts from this tutorial may be deleted by following information in the **Admin > Bulk Operations > Bulk Delete**.

As you follow the instructions presented in this tutorial you need to access the exercise files: "Capacitors.csv" and "SampleParts.csv". The files may be downloaded from this section of the web help. The file "Capacitors.csv" supports the Modules 1 and 2, while "SampleParts.csv" supports Modules 3 and 4. Each module assumes you have successfully completed the steps of the previous module.

- Module 1: Configuring and mapping an import file
- Module 2: Importing capacitors into CIP
- Module 3: Adding parts to CIP without updating existing parts
- Module 4: Updating existing CIP parts

8.1 Module 1: Configuring and Mapping an Import File

When you complete the steps in Module 1 you will be able to configure and map fields of a CSV import file to CIP.

To configure and map an import file:

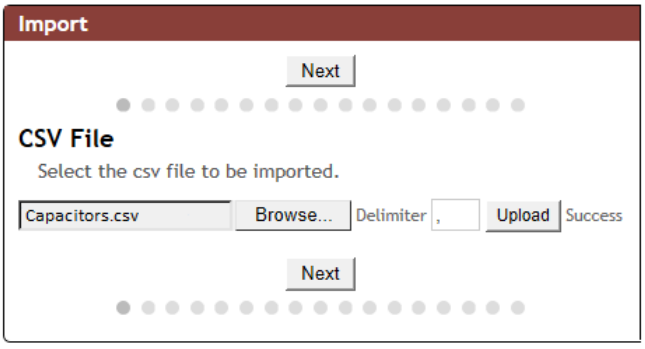
Step 1: If you are able to back up you database, do so now.

Step 2: Select **Admin > Bulk Operations > Import**.

Step 3: Click the **Configuration** button, then click the **Choose File** or **Browse** button (depending on your browser) to select the **Capacitors.csv** file.

Step 4: Verify a comma is entered as the **Delimiter**.

Step 5: Click the **Upload** button and wait a moment for the upload process to complete. The word "Success" appears to the right of the Upload button when the file is successfully uploaded.

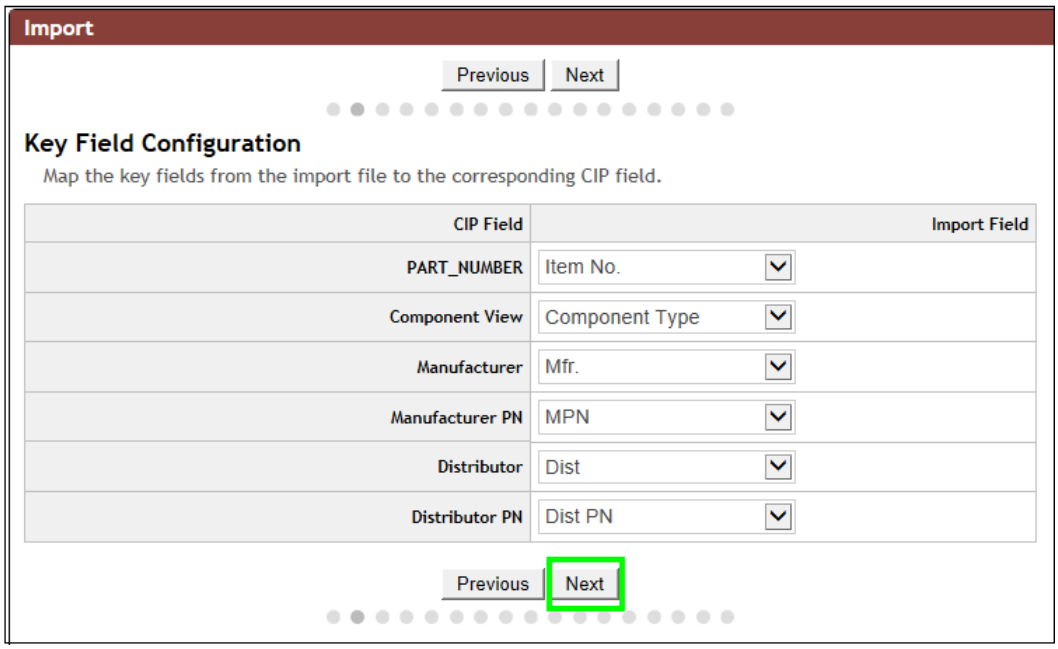


Successful upload of CSV file

Step 6: Click **Next** to progress to the Key Field Configuration screen. Map the fields of the Capacitors.csv file as follows:

- PART_NUMBER – map to Item No. field
- Component View – map to Component Type field
- Manufacturer – map to Mfr. field
- Manufacturer PN – map to MPN field
- Distributor – map to Dist field
- Distributor PN – map to Dist PN field

Click the **Next** button to progress to the Capacitors Field Mappings window.

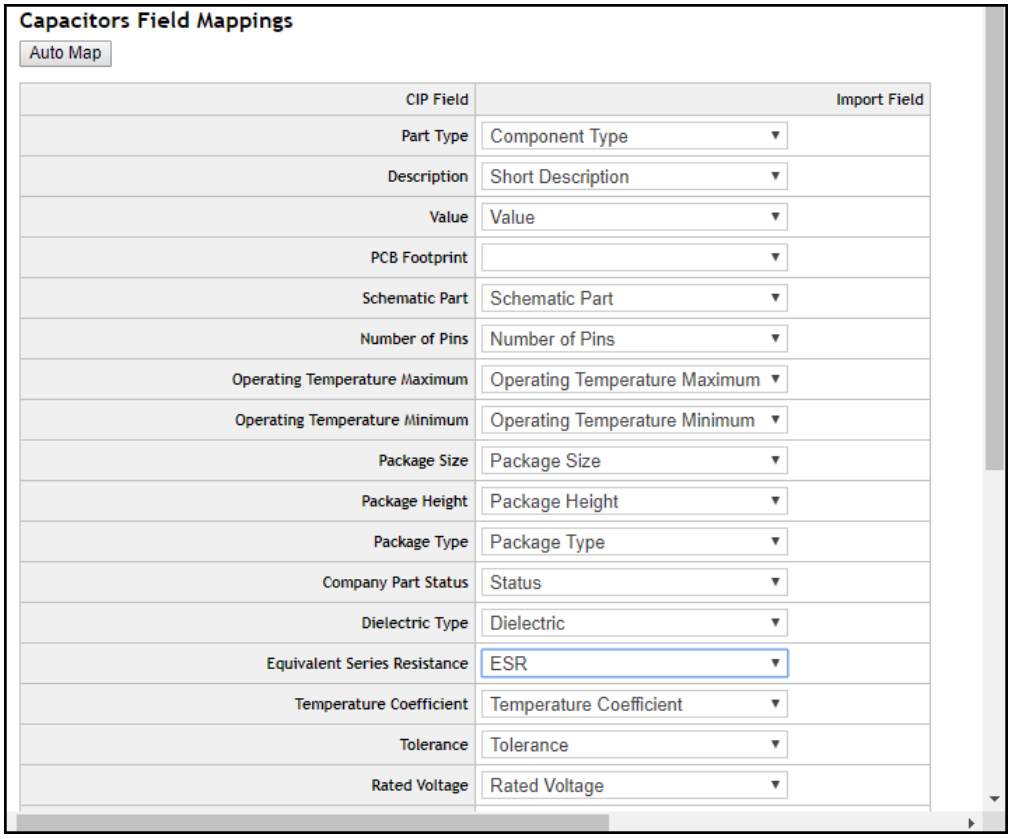


Step 7: Click the **Auto Map** button. If a warning pops up asking you to verify whether you want to overwrite existing data, click **Overwrite**. Notice how the CSV fields that have the same names as CIP fields automatically map.

Step 8: Manually map the following remaining fields in the Capacitors Field Mappings window that were excluded from the auto-mapping:

- Part Type – map to Component Type
- Description – map to Short Description
- Company Part Status – map to Status
- Dielectric Type – map to Dielectric
- Equivalent Series Resistance – map to ESR

Leave the remaining fields blank.



Auto Map and Manual Mapping of Capacitors Field Mappings

Step 9: Click the **Next** button multiple times until you open the Manufacturer Field Mappings. If you go beyond the Manufacturer Field Mappings screen, click **Previous** to return to that screen.

Step 10: Select **Mfr Status** for the field Manufacturer PN Status. Click **Next** and then click **Save**.

You have now successfully completed the configuration of capacitors field mappings. You are ready to progress to Module 2.

8.2 Module 2: Importing Capacitors into CIP

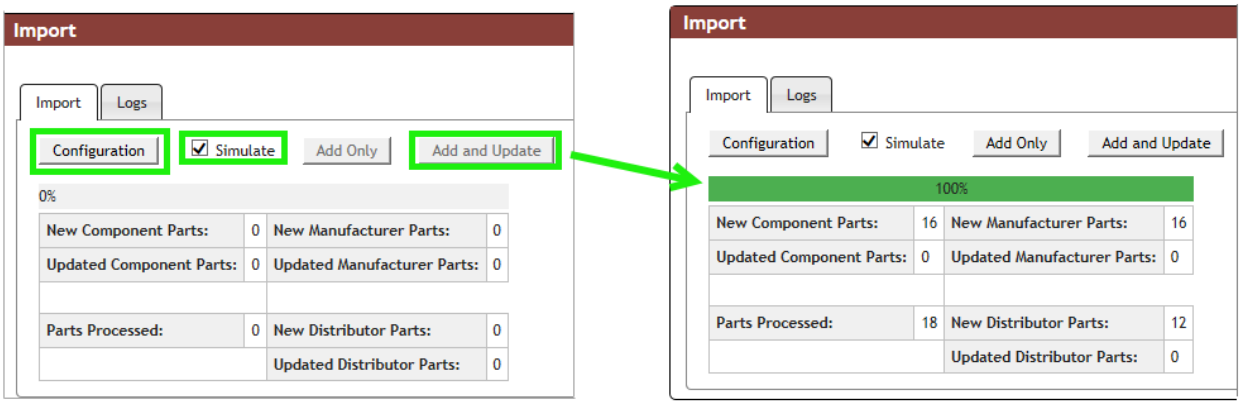
When you complete the steps in Module 2 you will be able to:

- Simulate how CIP will be impacted before you import parts
- Understand the different uses of the **Add Only** and **Add and Update** buttons
- Add capacitors to CIP

Instructions presented in this module assume you have successfully completed all steps in Module 1. If you have not created a backup of your CIP database during Module 1, backup your database now. This module begins with the CIP Import screen.

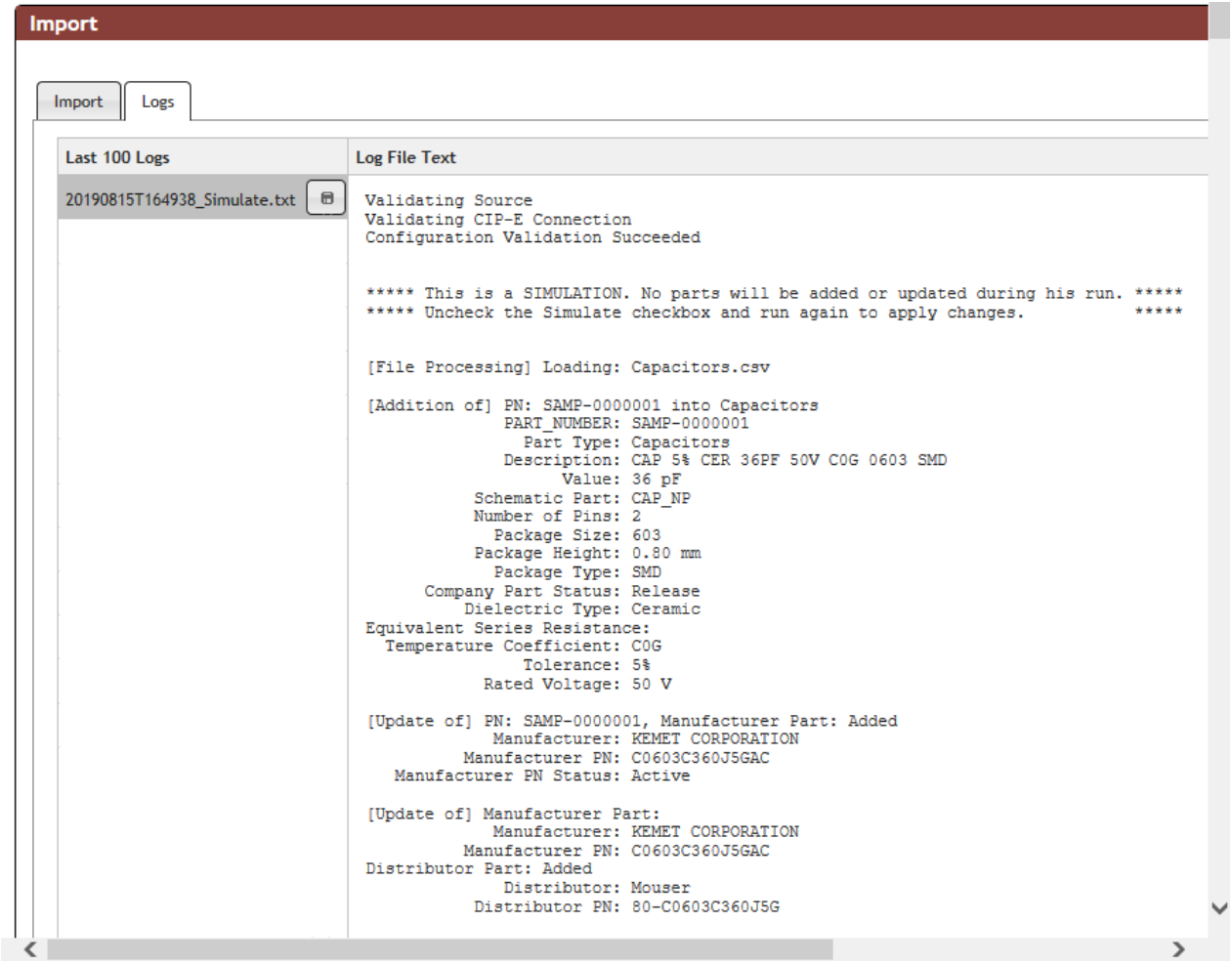
To import parts into the Capacitors View

Step 1: Select the **Simulate** check box if it is not already selected and click the **Add and Update** button. The green status bar indicates when the CIP simulation is complete. The results of the import simulation are summarized below the green status bar.



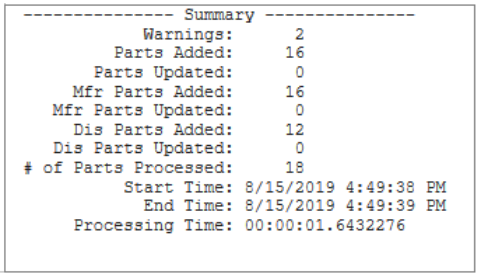
Simulate how the import will impact CIP database before you import parts

Step 2: Select the **Logs** tab and click the log file name to open and view the log. The naming convention of this file is <YYYYMMDD>T<HHMMSS>_Simulate.txt. You can recognize the correct log by the date and time. The most recent log is located at the top of the list.



Results of the Simulate Import are reported in the Log file

Step 3: Notice the summary at the end of the log that identifies 18 parts processed, 16 parts added, 16 Mfr parts added, and 12 distributor parts added. Two warnings are issued that say two parts have Cap is not recognized as a Part Type Category and Component View. Although the Capacitors.csv file includes 18 parts you want to import, CIP is only able to import 16 parts.



Log Summary at end of log

The details of the warnings explain why the two files are excluded from the import: "No mapping found for category 'Cap.' "

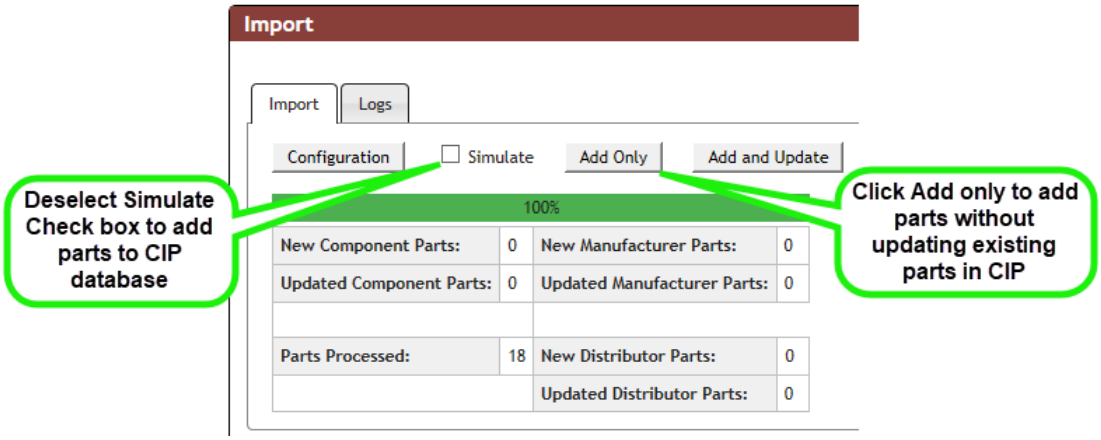
```
[Part Processing] Warning: Part Number 'SAMP-0000017' could not be processed. No mapping found for category 'Cap
'.
[Part Processing] Warning: Part Number 'SAMP-0000018' could not be processed. No mapping found for category 'Cap
'.
```

Log warnings explain why CIP is unable to process parts

Step 4: Open the **Capacitors.csv** file in Notepad, Excel, or other txt editor. Find the two parts with the Component Type: **'Cap**.' Change 'Cap' to **'Capacitors**' and save the file. If you opened the file in Excel, notice the Package Sizes that were originally 0603 were altered to 603 when the file was saved.

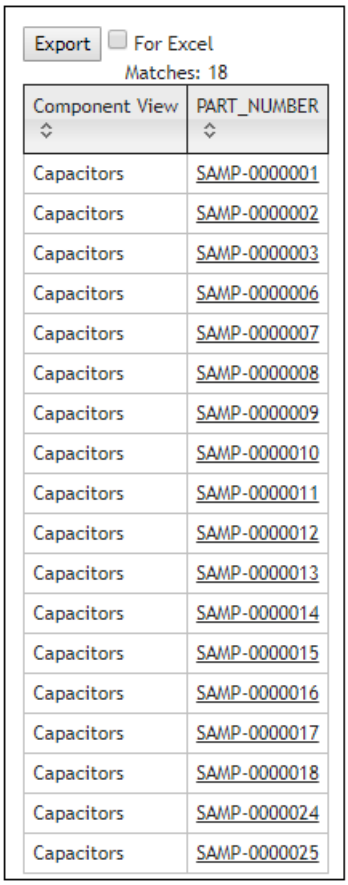
Step 5: Return to the CIP Import screen and Import tab. Click the **Configuration** button. Select and re-upload the updated Capacitors.csv file. Using the **Next** button page through the Import screens to verify the configuration mappings are still correct. Then click the **Save** button.

Step 6: Deselect the **Simulate** checkbox. Click the **Add Only** button. This time all 18 parts with 18 manufacturer parts and 12 distributor parts are added to the database.



18 new components added to CIP

Step 7: Open CIP from your browser and search for parts with PART_NUMBER containing SAMP. Notice the 18 parts are retrieved in the search results.



Export For Excel

Matches: 18

Component View	PART_NUMBER
Capacitors	SAMP-0000001
Capacitors	SAMP-0000002
Capacitors	SAMP-0000003
Capacitors	SAMP-0000006
Capacitors	SAMP-0000007
Capacitors	SAMP-0000008
Capacitors	SAMP-0000009
Capacitors	SAMP-0000010
Capacitors	SAMP-0000011
Capacitors	SAMP-0000012
Capacitors	SAMP-0000013
Capacitors	SAMP-0000014
Capacitors	SAMP-0000015
Capacitors	SAMP-0000016
Capacitors	SAMP-0000017
Capacitors	SAMP-0000018
Capacitors	SAMP-0000024
Capacitors	SAMP-0000025

Your search results confirm you have successfully added 18 parts to your CIP database. You are ready to progress to Module 3.

8.3 Module 3: Adding Parts to CIP without Updating Existing Parts

When you complete the steps in Module 3 you will be able to:

- Interpret data in the log before adding parts to CIP
- Add multiple types of parts to CIP without updating existing parts

To add new parts to all other CIP views without changing the Capacitors view

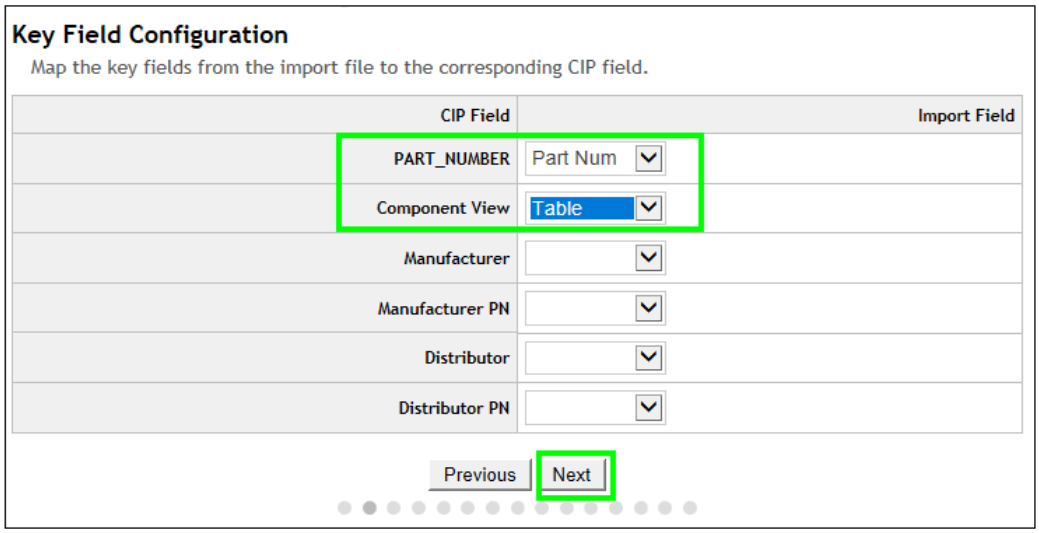
Step 1: Select the **Admin > Bulk Operations > Import** menu.

Step 2: At the **Import** tab, click **Configuration** button to open the Import CSV File window.

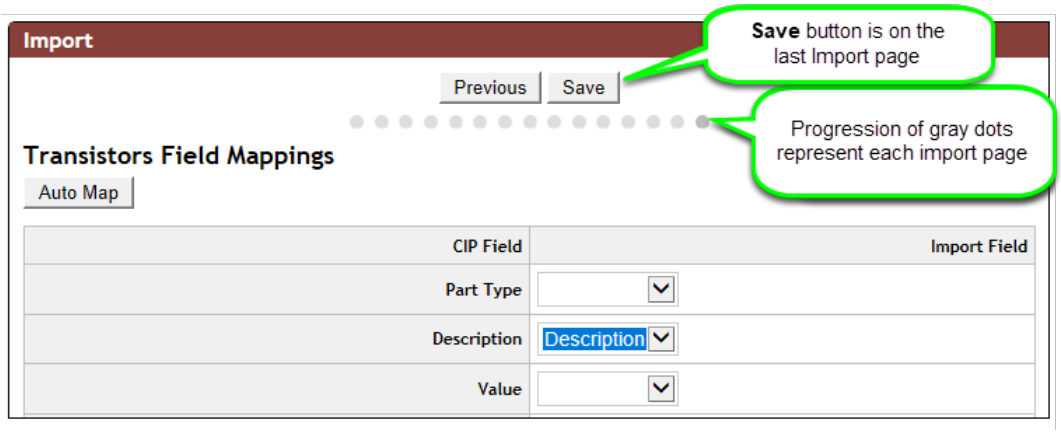
Step 3: Click the **Choose File** or **Browse** button (depending on your browser) to select the **SampleParts.csv** import file. Click **Upload** to upload the file and click **Next**.

Step 4: Map the following fields in the Key Field Configuration:

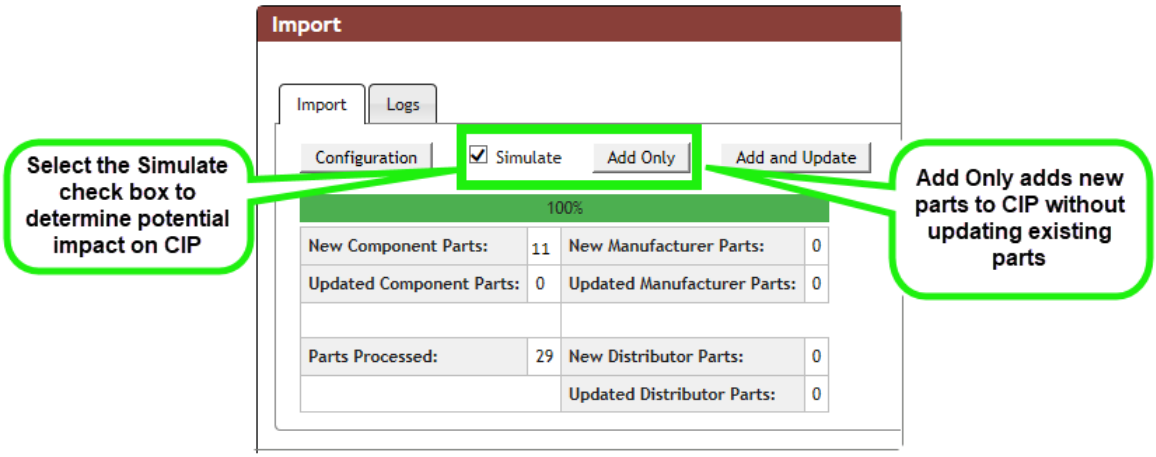
- PART_NUMBER – map to Part Num
- Component View – map to Table
- Leave Manufacturer Name and Manufacturer PN fields blank.
- Click **Next**.



Step 5: For each of the remaining Component Field Mapping screens, map Description to **Description**. Click **Save** when the last page displays.



Step 6: Verify the **Simulate** checkbox is selected. Click **Add Only**.



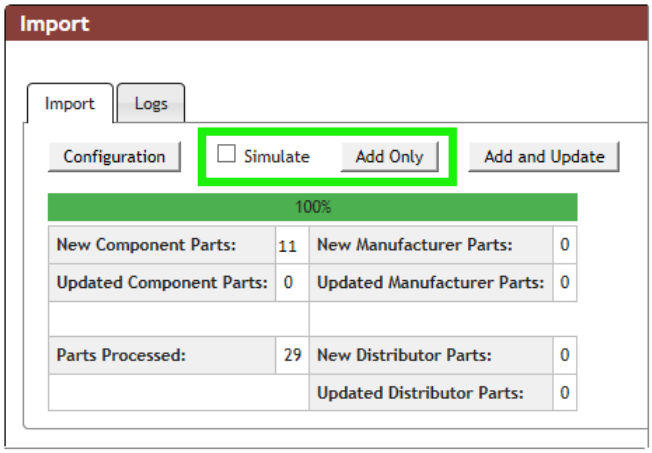
Notice the summary results of the analysis.

Step 7: Open the **Logs** tab and review the Simulate log file. Notice the log summary that is reporting 11 parts are added to the database and 29 parts were processed. Of the 29 parts processed, 18 parts were added during the completion of Module 2 and the remaining 11 parts of the 29 are new and added to CIP. Because the Simulate check box was selected, however, the log summary indicates the *potential* impact the import will have on CIP as the parts are not yet added to CIP.

```
--------------- Summary ---------------
            Warnings:      0
         Parts Added:     11
       Parts Updated:      0
    Mfr Parts Added:       0
   Mfr Parts Updated:      0
     Dis Parts Added:      0
   Dis Parts Updated:      0
# of Parts Processed:     29
          Start Time: 8/16/2019 8:58:16 AM
            End Time: 8/16/2019 8:58:17 AM
     Processing Time: 00:00:00.9374998
```

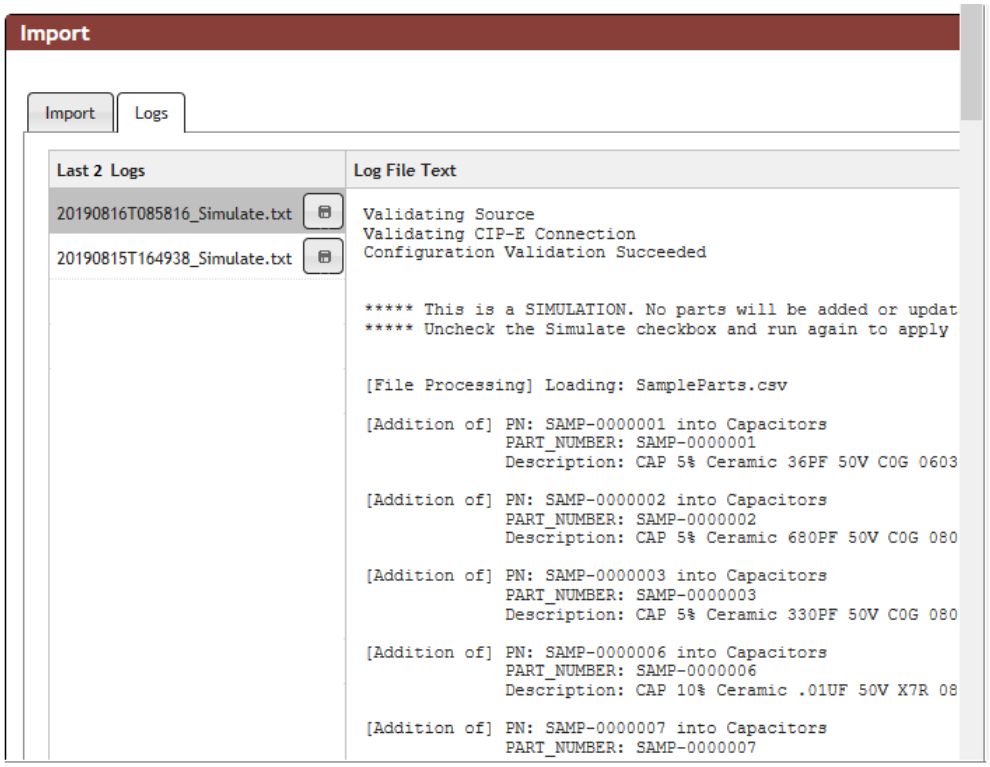
Analyze log summary

Step 8: Open the **Import** tab. Deselect the **Simulate** check box and click the **Add Only** button. When the Simulate check box is blank, the new components are in fact added to CIP.



Add new parts to CIP without updating existing parts

Step 9: When the **Add Only** process is 100% complete, return to the **Logs** tab and review the Import log.

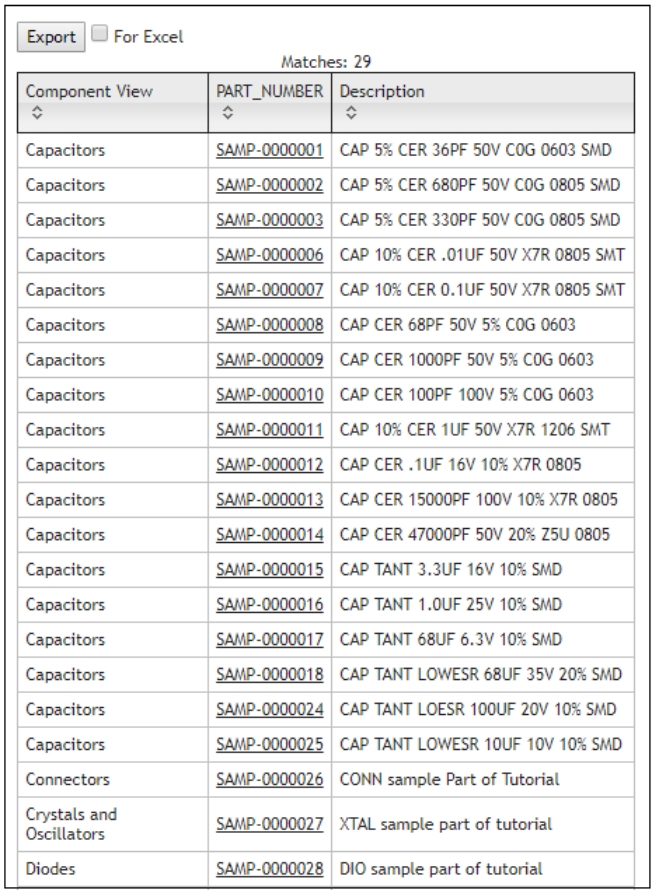


Import log identifies parts added

Step 10: Select **CIS DB Search** menu item.

Step 11: Conduct a search to retrieve PART_NUMBERS that contain SAMP and include the CIP field "Description" in the search results. Notice 29 parts are retrieved in the search results.

Review the record entries for the Description field. Compare the Description to the contents of the SampleParts.csv file. The descriptions of the first import file, Capacitors.csv, included the abbreviations CER and TANT while the second import file, SampleParts.csv spells out Ceramic and Tantalum. When you added the additional components to CIP as you completed the steps in Module 3 and imported parts from SampleParts.csv, you did not update the part descriptions since **Add Only** was selected.



Export For Excel

Matches: 29

Component View	PART_NUMBER	Description
Capacitors	SAMP-0000001	CAP 5% CER 36PF 50V C0G 0603 SMD
Capacitors	SAMP-0000002	CAP 5% CER 680PF 50V C0G 0805 SMD
Capacitors	SAMP-0000003	CAP 5% CER 330PF 50V C0G 0805 SMD
Capacitors	SAMP-0000006	CAP 10% CER .01UF 50V X7R 0805 SMT
Capacitors	SAMP-0000007	CAP 10% CER 0.1UF 50V X7R 0805 SMT
Capacitors	SAMP-0000008	CAP CER 68PF 50V 5% C0G 0603
Capacitors	SAMP-0000009	CAP CER 1000PF 50V 5% C0G 0603
Capacitors	SAMP-0000010	CAP CER 100PF 100V 5% C0G 0603
Capacitors	SAMP-0000011	CAP 10% CER 1UF 50V X7R 1206 SMT
Capacitors	SAMP-0000012	CAP CER .1UF 16V 10% X7R 0805
Capacitors	SAMP-0000013	CAP CER 15000PF 100V 10% X7R 0805
Capacitors	SAMP-0000014	CAP CER 47000PF 50V 20% Z5U 0805
Capacitors	SAMP-0000015	CAP TANT 3.3UF 16V 10% SMD
Capacitors	SAMP-0000016	CAP TANT 1.0UF 25V 10% SMD
Capacitors	SAMP-0000017	CAP TANT 68UF 6.3V 10% SMD
Capacitors	SAMP-0000018	CAP TANT LOWESR 68UF 35V 20% SMD
Capacitors	SAMP-0000024	CAP TANT LOESR 100UF 20V 10% SMD
Capacitors	SAMP-0000025	CAP TANT LOWESR 10UF 10V 10% SMD
Connectors	SAMP-0000026	CONN sample Part of Tutorial
Crystals and Oscillators	SAMP-0000027	XTAL sample part of tutorial
Diodes	SAMP-0000028	DIO sample part of tutorial

CIP search results verify parts added without updating existing part properties

You are ready to progress to Module 4: Updating Existing CIP Parts.

8.4 Module 4: Updating Existing CIP Parts

When you complete the steps in Module 4 you will be able to:

- Understand the full Import functionality
- Add new parts to CIP and update existing parts

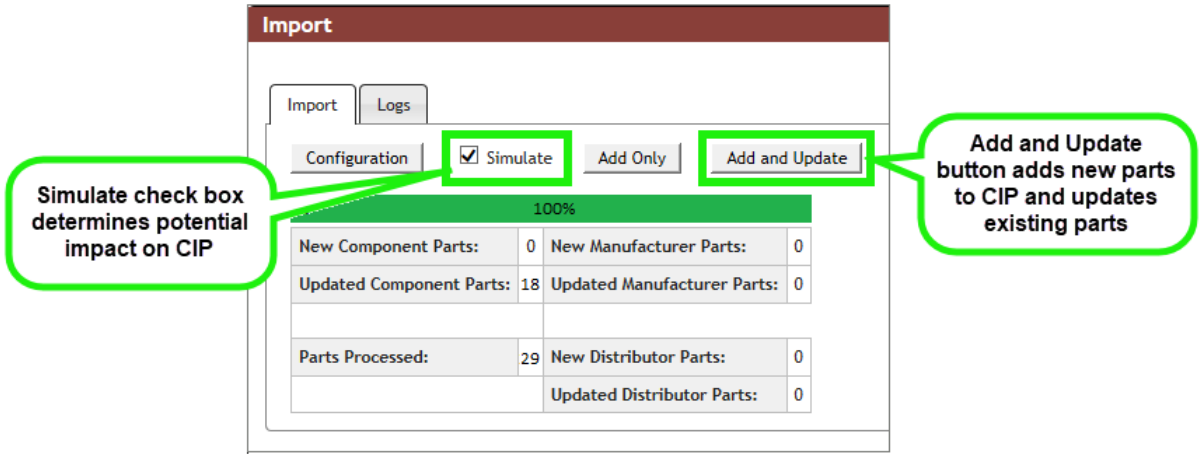
To update Capacitors

Step 1: Select the **Admin > Bulk Operations > Import** menu. At the **Import** tab, click **Configuration** button to open the Import CSV File window.

Step 2: Browse to choose the import file, **SampleParts.csv**. Click **Upload** to upload the file and click **Next**.

Step 3: Using the **Next** button, navigate through each Import screen to verify the mapping configuration you saved in Module 3. When the last window opens, (Transistors Field Mappings), **Save** the configuration.

Step 4: Select the **Simulate** check box and click the **Add and Update** button. The green status bar indicates the completion of the analysis.



Step 5: Review the Simulate Log. Notice there are 18 capacitors updated and no new parts.

Step 6: Conduct a search for parts that have "SAMP" in the part name. Include the "Description" field in the search results. Notice the description in the search results. The abbreviations CER and TANT indicate the Description field is not yet updated, since Simulate Option was used.

Export For Excel

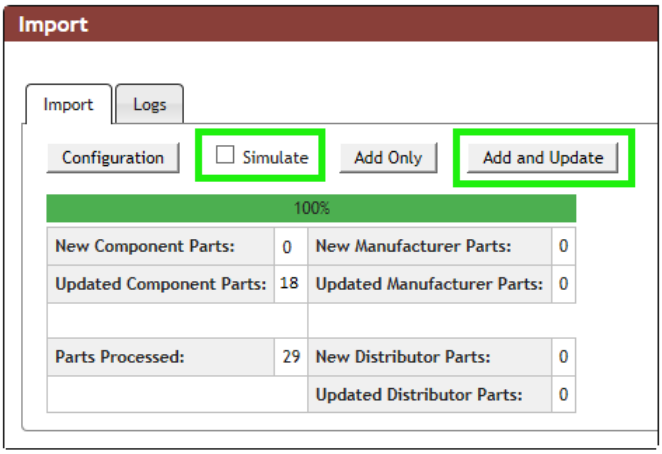
Matches: 29

Component View	PART_NUMBER	Description
Capacitors	SAMP-0000001	CAP 5% CER 36PF 50V C0G 0603 SMD
Capacitors	SAMP-0000002	CAP 5% CER 680PF 50V C0G 0805 SMD
Capacitors	SAMP-0000003	CAP 5% CER 330PF 50V C0G 0805 SMD
Capacitors	SAMP-0000006	CAP 10% CER .01UF 50V X7R 0805 SMT
Capacitors	SAMP-0000007	CAP 10% CER 0.1UF 50V X7R 0805 SMT
Capacitors	SAMP-0000008	CAP CER 68PF 50V 5% C0G 0603
Capacitors	SAMP-0000009	CAP CER 1000PF 50V 5% C0G 0603
Capacitors	SAMP-0000010	CAP CER 100PF 100V 5% C0G 0603
Capacitors	SAMP-0000011	CAP 10% CER 1UF 50V X7R 1206 SMT
Capacitors	SAMP-0000012	CAP CER .1UF 16V 10% X7R 0805
Capacitors	SAMP-0000013	CAP CER 15000PF 100V 10% X7R 0805
Capacitors	SAMP-0000014	CAP CER 47000PF 50V 20% Z5U 0805
Capacitors	SAMP-0000015	CAP TANT 3.3UF 16V 10% SMD
Capacitors	SAMP-0000016	CAP TANT 1.0UF 25V 10% SMD
Capacitors	SAMP-0000017	CAP TANT 68UF 6.3V 10% SMD
Capacitors	SAMP-0000018	CAP TANT LOWESR 68UF 35V 20% SMD
Capacitors	SAMP-0000024	CAP TANT LOESR 100UF 20V 10% SMD
Capacitors	SAMP-0000025	CAP TANT LOWESR 10UF 10V 10% SMD
Connectors	SAMP-0000026	CONN sample Part of Tutorial
Crystals and Oscillators	SAMP-0000027	XTAL sample part of tutorial
Diodes	SAMP-0000028	DIO sample part of tutorial

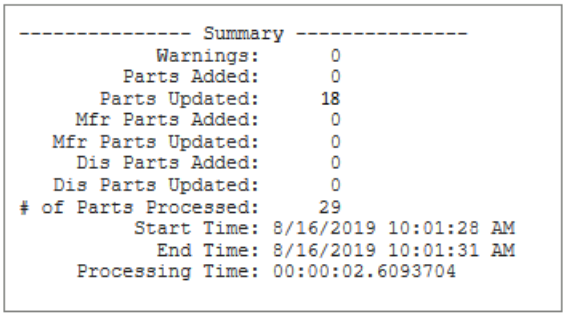
CIP search results

Step 7: Return to the CIP Import tab and click the **Configuration** button. Choose and upload the file **SampleParts.csv**. Then click **Next** to verify the configuration mappings of each screen. When you complete the last screen **Save** the mappings.

Step 8: Deselect the **Simulate** check box and click the **Add and Update** button to actually update existing CIP parts.

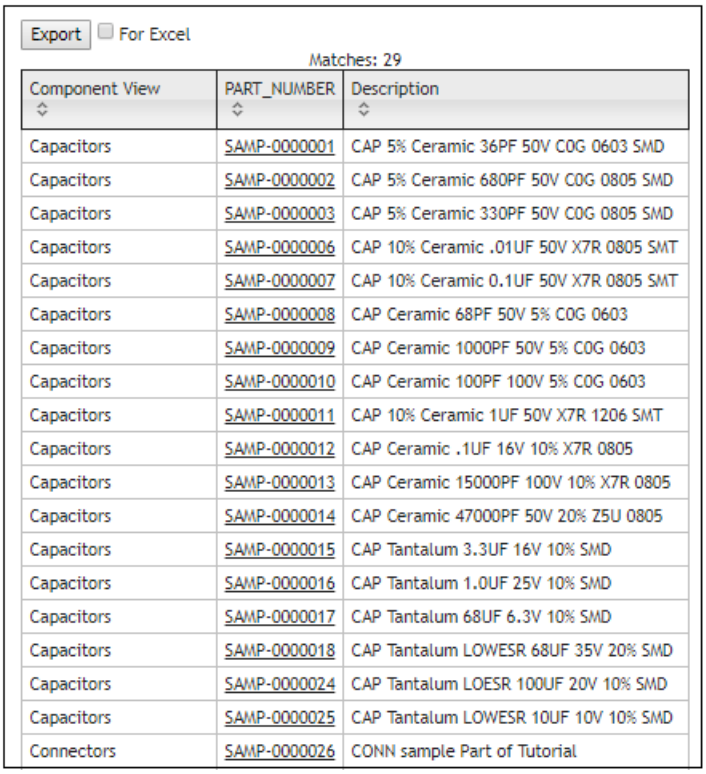


Step 9: Review the Import Log and notice there are 18 parts updated.



Step 10: Conduct a database search for parts that contain SAMP in the PART_NUMBER. Include the **Description** in the search results.

Review the 29 parts in the search results. Notice the Descriptions field. CER is updated to Ceramic and TANT is updated to Tantalum.



Export For Excel

Matches: 29

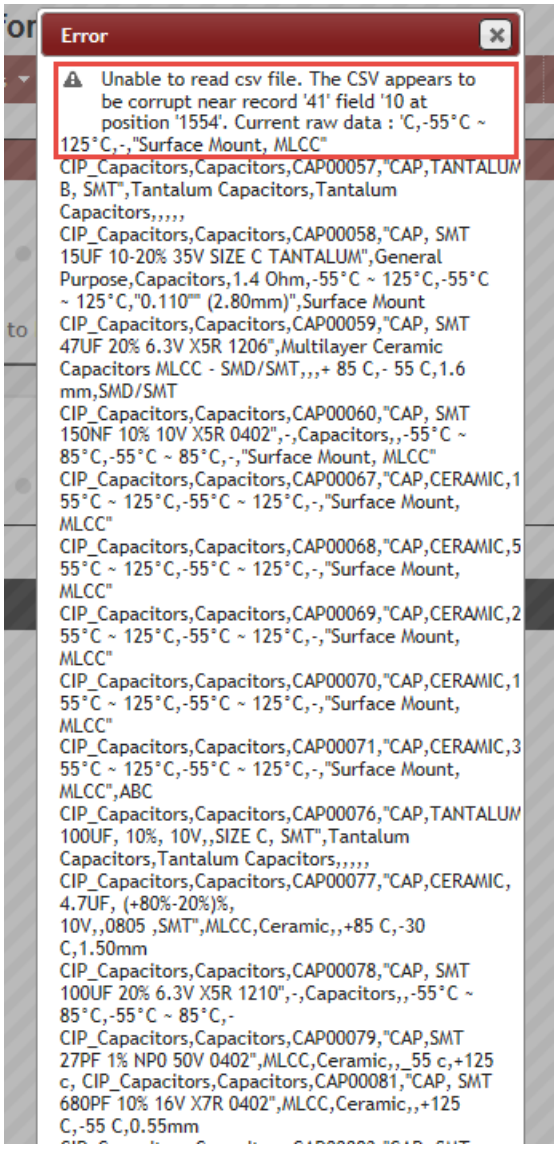
Component View	PART_NUMBER	Description
Capacitors	SAMP-0000001	CAP 5% Ceramic 36PF 50V C0G 0603 SMD
Capacitors	SAMP-0000002	CAP 5% Ceramic 680PF 50V C0G 0805 SMD
Capacitors	SAMP-0000003	CAP 5% Ceramic 330PF 50V C0G 0805 SMD
Capacitors	SAMP-0000006	CAP 10% Ceramic .01UF 50V X7R 0805 SMT
Capacitors	SAMP-0000007	CAP 10% Ceramic 0.1UF 50V X7R 0805 SMT
Capacitors	SAMP-0000008	CAP Ceramic 68PF 50V 5% C0G 0603
Capacitors	SAMP-0000009	CAP Ceramic 1000PF 50V 5% C0G 0603
Capacitors	SAMP-0000010	CAP Ceramic 100PF 100V 5% C0G 0603
Capacitors	SAMP-0000011	CAP 10% Ceramic 1UF 50V X7R 1206 SMT
Capacitors	SAMP-0000012	CAP Ceramic .1UF 16V 10% X7R 0805
Capacitors	SAMP-0000013	CAP Ceramic 15000PF 100V 10% X7R 0805
Capacitors	SAMP-0000014	CAP Ceramic 47000PF 50V 20% Z5U 0805
Capacitors	SAMP-0000015	CAP Tantalum 3.3UF 16V 10% SMD
Capacitors	SAMP-0000016	CAP Tantalum 1.0UF 25V 10% SMD
Capacitors	SAMP-0000017	CAP Tantalum 68UF 6.3V 10% SMD
Capacitors	SAMP-0000018	CAP Tantalum LOWESR 68UF 35V 20% SMD
Capacitors	SAMP-0000024	CAP Tantalum LOESR 100UF 20V 10% SMD
Capacitors	SAMP-0000025	CAP Tantalum LOWESR 10UF 10V 10% SMD
Connectors	SAMP-0000026	CONN sample Part of Tutorial

In addition to adding new parts to CIP, Module 4 has demonstrated how the **Add and Update** button can be used to update the properties of existing parts. The search results shown in the above image show the updated content of the capacitors Description property.

8.5 Troubleshooting Import Files

This troubleshooting section describes several of the most common issues that may occur with the import file.

1) **Problem**: You are receiving an error message that starts with "Unable to read csv file. The CSV appears to be corrupt near record..."

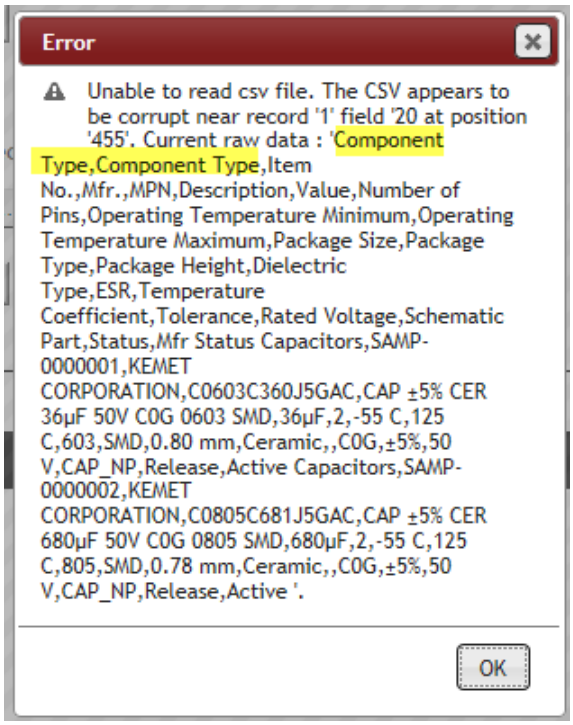


Error "Unable to read csv file"

Cause: Your .CSV file is corrupt. This happens when you manually edit a .CSV file and accidentally delete a comma. An import file also becomes corrupt when a comma separated field value is not enclosed in quotation marks. This error may also occur when you use Excel to create a .CSV file. Excel creates the output file in block. When there are many consecutive lines of data with nulls in the last few columns, Excel may fail to pad the lines with the appropriate number of commas.

Resolution: If you are using Excel, move a column of data that has cell values for all or most rows to the far right column. If you did not use Excel, use the line number display to help target the problem.

2) **Problem**: You are receiving an error that begins with the statement, "Unable to read .csv file."



Cause: Your .CSV file either has duplicate field names (column headings) or additional columns may have been inserted by Excel without a field name. The highlighted text in the sample above shows that "Component Type" is the header for 2 columns.

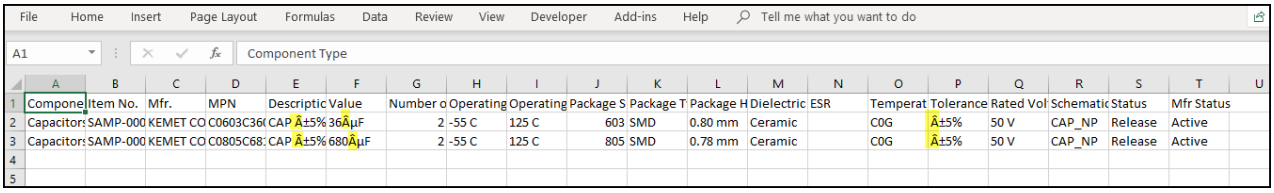
Resolution: If you are using Excel, make sure all columns of data have a unique column heading. If you see each column heading is unique, delete any column without data.

3) **Problem**: After running Simulate, the total number of parts are identified without reference to updated parts.

Cause: Any number of reasons may cause this. Possible causes include: incorrect mappings or rerunning an import file previously imported.

Resolution: Review the log file to determine why the CIP Import is unable to identify changes. Also thoroughly check your configuration. After correcting the problem, restart the Simulate process again.

4) **Encoding Warnings**: Encoding warnings are shown in log file but you do not see them in your import file.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Compone	Item No.	Mfr.	MPN	Descriptic	Value	Number o	Operating	Operating	Package S	Package T	Package H	Dielectric	ESR	Temperat	Tolerance	Rated Vol	Schematic	Status	Mfr Status
2	Capacitors	SAMP-000	KEMET CO	C0603C36(	CAP Ã±5%	36ÃµF	2	-55 C	125 C	603	SMD	0.80 mm	Ceramic		C0G	Ã±5%	50 V	CAP_NP	Release	Active
3	Capacitors	SAMP-000	KEMET CO	C0805C68:	CAP Ã±5%	680ÃµF	2	-55 C	125 C	805	SMD	0.78 mm	Ceramic		C0G	Ã±5%	50 V	CAP_NP	Release	Active
4																				
5																				

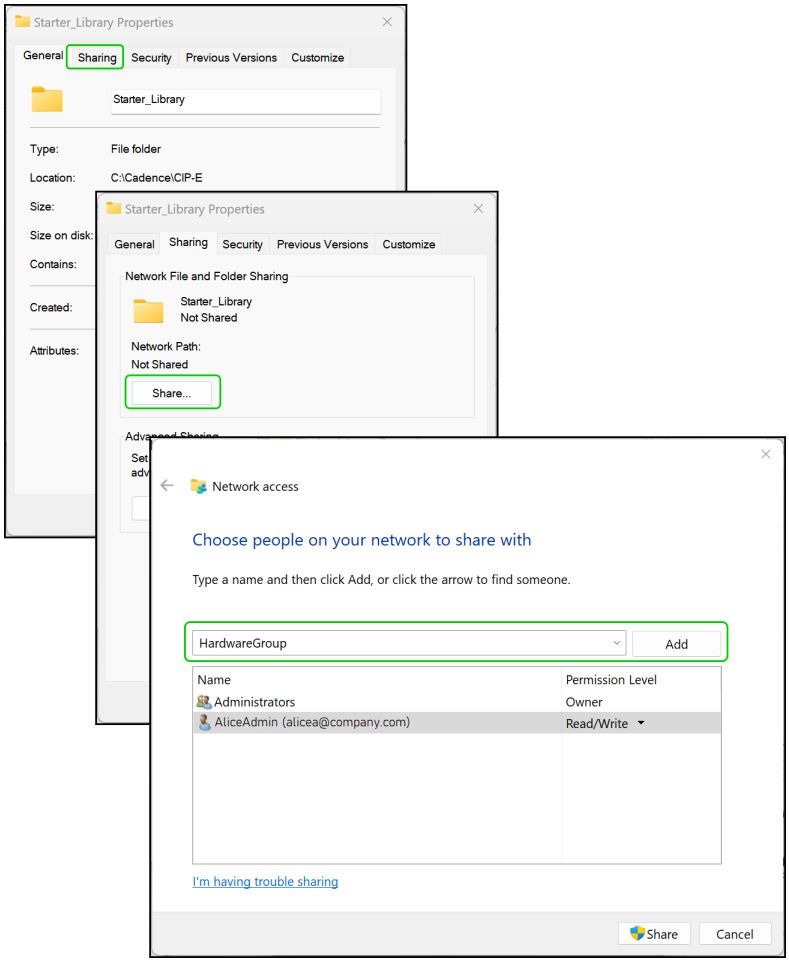
Cause: Opening and saving files that are exported by an application may cause the file encoding to change from UTF-8 to ANSI. Excel may be unable to detect the encoding of the original file.

Resolution: If you open a file from Excel that has non-ASCII characters and the characters look odd, close the file without saving. The best way to open this type of file using Excel is to rename the file to .txt. Open the .txt using UTF-8 encoding and then export the file to UTF-8 encoding format.

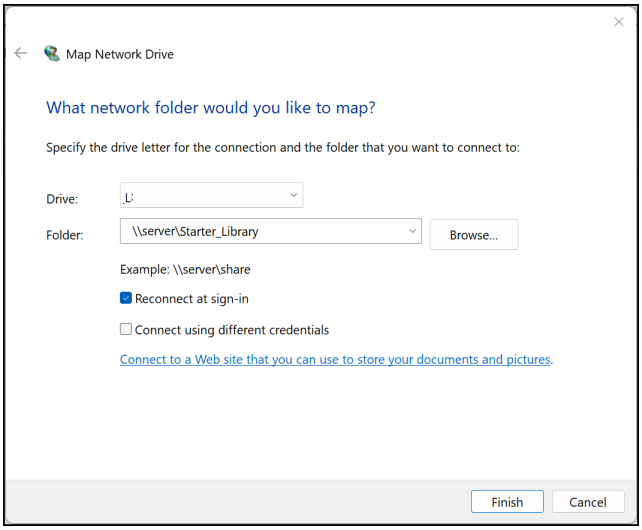
9 Appendix: Sample CDS_SITE Setup for System Capture

CDS_SITE is a location that contains common System Capture project settings and library information. The Starter Library that comes with the CIP Web Server installation provides the folder structure and corresponding sample site.cpm and cds.lib files which enables you to get started quickly. This appendix provides a step by step guide to setup up your CDS_SITE and place parts from CIP to your System Capture schematic.

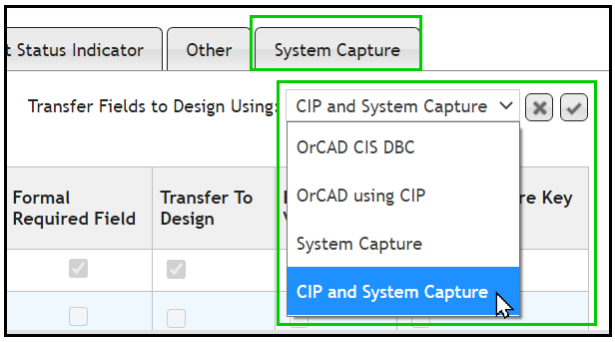
1. Verify that the System Capture Starter Library Option has been installed with the CIP Web Server. If your CIP web server is an upgrade, you will need to uninstall the existing server and run the installer again to see the System Capture Library Option.
2. Create a share to your installed Starter_Library location. This may require a person (most likely IT personnel) who has permission to perform this task on the web server. You may copy the Starter_Library to another file server to ensure an accidental uninstall or upgrade doesn't change files that you want to keep or alter.



3. Map a drive to this share and have all users who need access to System Capture libraries create the same map drive letter to this share. To verify this step, navigate to the \syscap\Libraries subfolder (e.g. L:\syscap\Libraries) and look for the file **Starter_Lib.csv**. This file contains the starter library parts and corresponding System Capture Model names.

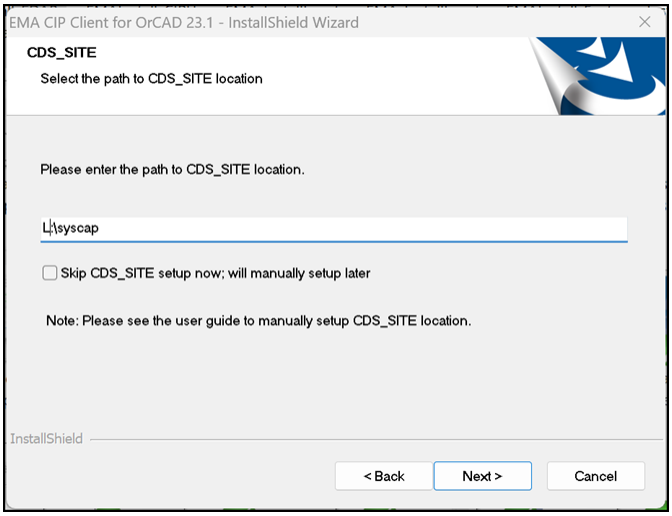


4. Navigate to CIP using a standard browser and configure CIP to have System Capture enabled for transfer fields to design using **Admin** > **Configuration** > **Customizable Fields.** Set the Transfer Fields to Design Using option to **System Capture**. Review the Configure Transfer Fields to Design section for detail information of options.

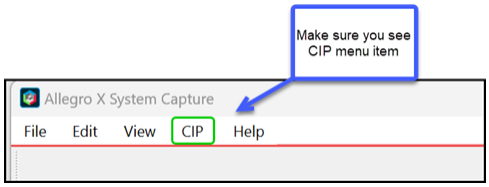


5. Import the Starter Library parts and parametric information. The System Capture Starter Library parts list (Starter_Lib.csv) will be in syscap\Libraries subdirectory of your map drive. If you are not familiar with the CIP bulk import functionality, you may run through the steps in the Tutorial for Importing CSV Parts.

6. Install the CIP Client making sure to include the System Capture Client feature selection during install. If you are upgrading the CIP Client, you will need to uninstall the existing version and run the installer again to see the System Capture option. During install, at the CDS_SITE dialog, enter the mapped drive information (e.g. L:\syscap).



7. After you have completed your installation following the CIP client install guide, bring up System Capture 23.1 and make sure you see the CIP menu.



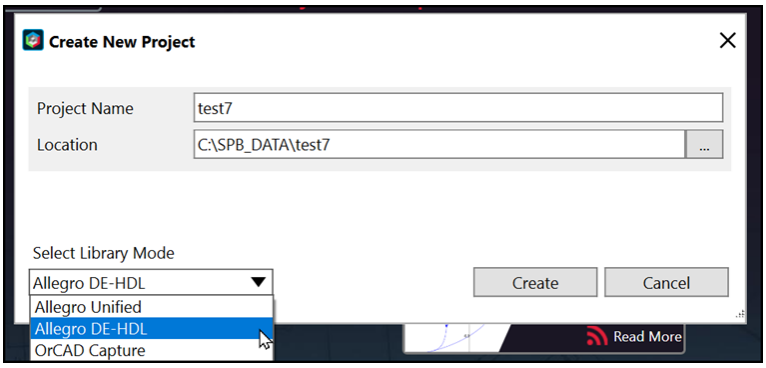
8. Select **CIP** > **Open CIP** and log in.

9. Navigate to **Admin** > **Configuration** > **System Capture** to complete System Capture setup and create PTF file. You will need to configure the location of your PTF file. Enter $CDS_SITE/Libraries/SysCapModel if using the starter library. You can set up substitution rules now if you would like.

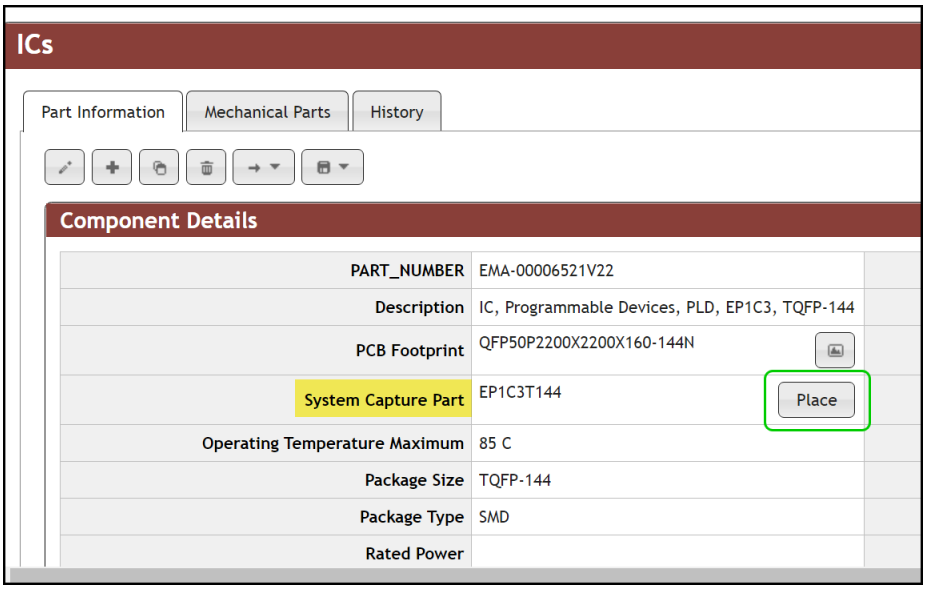
10. Click the **Generate** button to create the PTF. This will take some time. A CMD window will launch to create an index for System Capture. DO NOT close this window. It will close itself when complete.

11. Now you are ready to create a new Project.

12. Select **File** > **New** > **Project** to create a new DE-HDL project, making sure the project selection is DE-HDL.

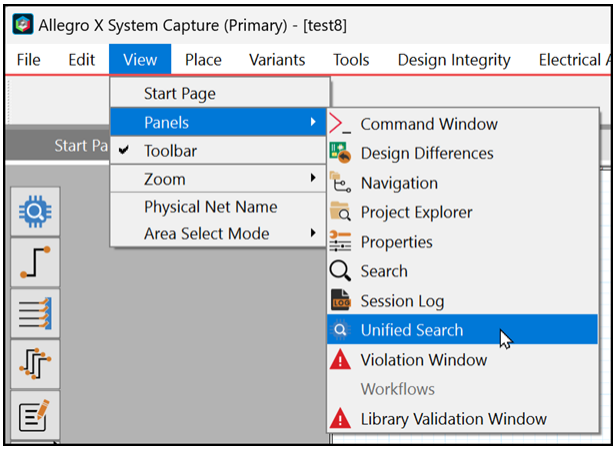


13. Switch to the **CIP** tab in System Capture and search for a part, and click the **Place** button next to the System Capture Part field. Placement of TMP parts are disallowed.



14. Click on the part after place to view attribute added when place.

15. To see part list of parts in System Capture, select **View** > **Unified Search** to bring up the Unified Search tab.



16. You can skip log in if you don't have log in information.

17. After the Unified Search tab is open, enter "*EMA*" in the search string to see the parts import from the starter library.