

CIP Importer

User Guide and Tutorial

Table of Contents

Introduction.....	4
Warning	4
CIP Importer Usage.....	5
Starting CIP Importer.....	5
Use only the CIP Importer that is installed with CIP-E.....	5
Configuring CIP Importer.....	5
Adding and Updating Data	13
Import Files	14
Import File Format.....	14
Import File Data.....	14
Log files	16
CIP Importer Tutorial.....	19
Module 1 - Configuring and mapping an import file.....	19
Module 2 - Importing Parts into the Capacitors Table	20
Module 3 - Adding new parts to all other tables without changes to Capacitors	21
Module 4 - Updating Capacitors.....	21
Troubleshooting Import Files	23
Technical Support.....	28

List of Figures

Figure 1: Initial CIP Importer Screen	5
Figure 2: Enter Location of Import file.....	6
Figure 3: CIP Database Connection Method	7
Figure 4: Windows Authentication to Connect to CIP_E.....	8
Figure 5: SQL User to Connect to CIP_E.....	8
Figure 6: Connection Failed to CIP_E database	9
Figure 7: Sample Key Field Configuration screen	9
Figure 8: Sample Component Field Mapping.....	10
Figure 9: Sample Manufacturer Field Mapping.....	11
Figure 10: Sample Distributor Field Mapping.....	12
Figure 11: Add or Import of Data	13
Figure 12: Sample Log file	16
Figure 13: Sample Encoding Warning for Unsupported Characters	18

Introduction

CIP Importer is an application that imports and updates data from a Comma Separate Value (CSV) file into the CIP/CIS database. Before bringing updated data into your database, you need to configure the mapping between the CSV and the CIP/CIS database. After mapping this configuration, you can analyze the impact new part data will have on your database. You can then decide whether you want to complete the procedure to import or add part information to your database. You can review your log before updating your database. Each run of the CIP Importer program creates a log file in a Logs directory within the installed location.

The CIP Importer is designed to work with a specific version of CIP. The About link in CIP Importer provides this compatibility information.

Warning

CIP Importer imports and updates the CIP/CIS database based on your input file and your configuration. Once you have updated your database, you are unable to undo the update. If you are unsure of the changes you want to apply, be sure to back-up your files before you begin. This enables you to restore data from a backup if you need to recover your original data.

When you perform the exercises in this tutorial, you will be adding parts to your database. Backup your database before you begin the exercises, so you will be able to restore your original files from your back-up.

CIP Importer Usage

Starting CIP Importer

The CIP Importer Application is invoked by double clicking the executable name.

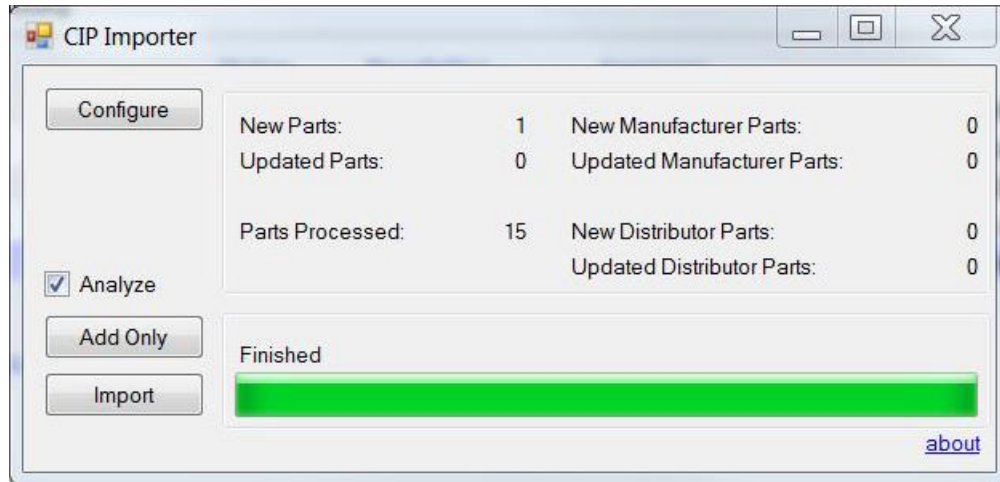


Figure 1: Initial CIP Importer Screen

Use only the CIP Importer that is installed with CIP-E.

Configuring CIP Importer

1. Click **Configure** to launch the worksheet Wizard. As you enter input into the screens of the wizard, you configure how part data in your CSV database is mapped and imported into CIP/CIS database. You need to reconfigure CIP Importer each time you run it.

It is very important to check each configuration screen each time you use the CIP Importer. The configuration settings may change since it is dependent upon the content of import files.

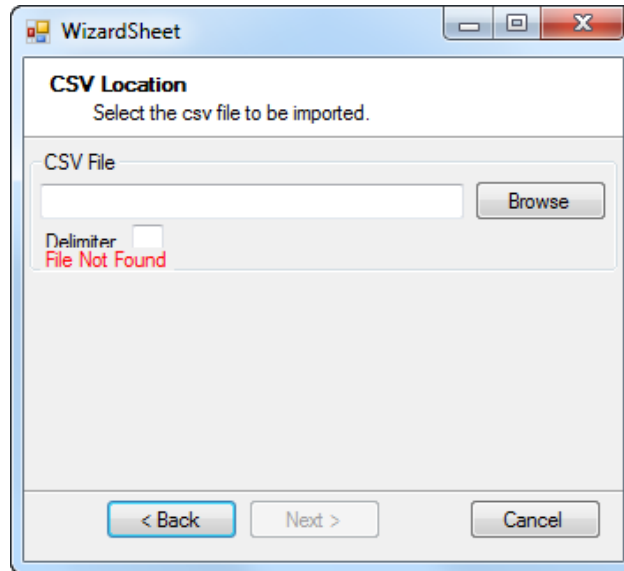


Figure 2: Enter Location of Import file

2. Click the **Browse** button and navigate to the CSV file you want to import.

Sample files have been included. If your system is setup to use a delimiter that differs from the one used in the sample files, enter that delimiter into the Delimiter input field of the CVS Location screen.

The Next button activates when the import CSV file is well formed.

3. Click **Next** to continue.

If you received an error after selecting your file, refer to section on Troubleshooting Import Files.

The **CIP Database Connection** screen opens. The input fields of this screen permit you to connect to your CIP database using either Windows or SQL Authentication.

4. Choose an option to specify whether your connection to the CIP database is authenticated through Windows or SQL Authentication.

Note: The **CIP_E_CIS_User** account does not have full access to the CIP_E database. Access to the SQL server and corporate databases are typically controlled through their company IT or DBA. Users who need to import data should contact their IT or DBA for access. Consult with you SQL database administrator to determine your preferred form of authentication.

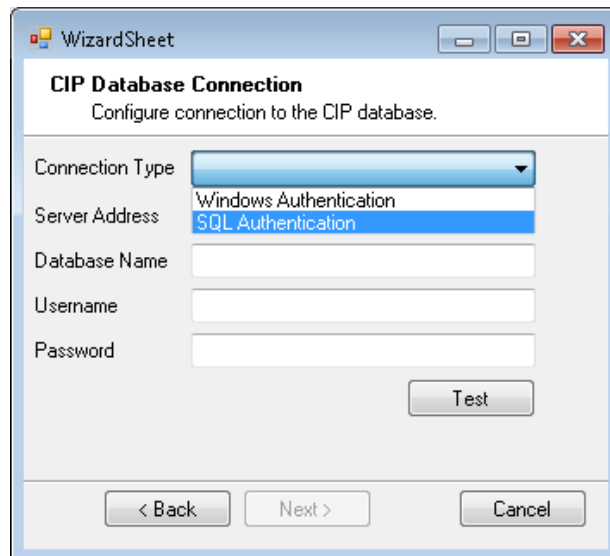
The image shows a Windows-style dialog box titled "WizardSheet" with a subtitle "CIP Database Connection". Below the subtitle is the instruction "Configure connection to the CIP database." The dialog contains several input fields: "Connection Type" is a dropdown menu with "Windows Authentication" and "SQL Authentication" options, where "SQL Authentication" is currently selected and highlighted in blue; "Server Address", "Database Name", "Username", and "Password" are all empty text boxes. A "Test" button is located to the right of the "Password" field. At the bottom of the dialog are three buttons: "< Back", "Next >", and "Cancel".

Figure 3: CIP Database Connection Method

While SQL Authentication requires the entry of the username and password of a user who has permission to update the database, entry of your username or password is unnecessary with Windows Authentication.

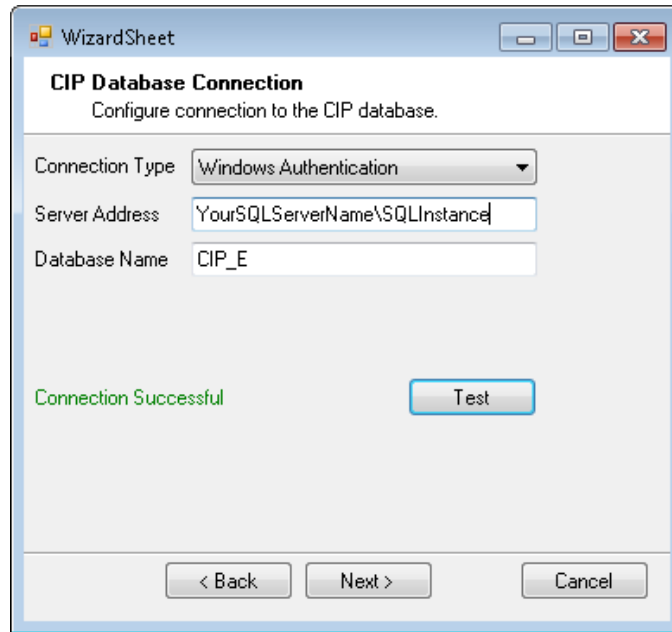


Figure 4: Windows Authentication to Connect to CIP_E

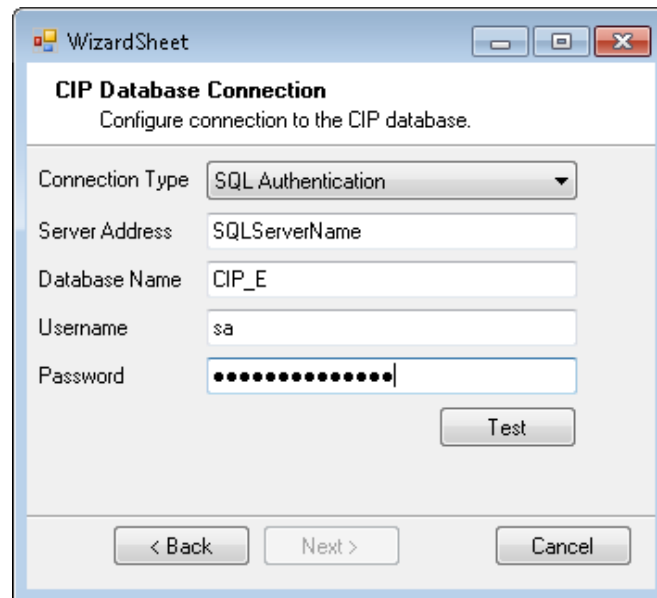


Figure 5: SQL User to Connect to CIP_E

5. Click **Test** to test the connection to the database. Once you receive a Connection Successful message, click **Next**.

If you receive an error message similar to the one shown in the graphic that follows, verify the accuracy of your database server, instance names, and user permissions for updating the database.



Figure 6: Connection Failed to CIP_E database

The **Key Field Configuration** window opens.

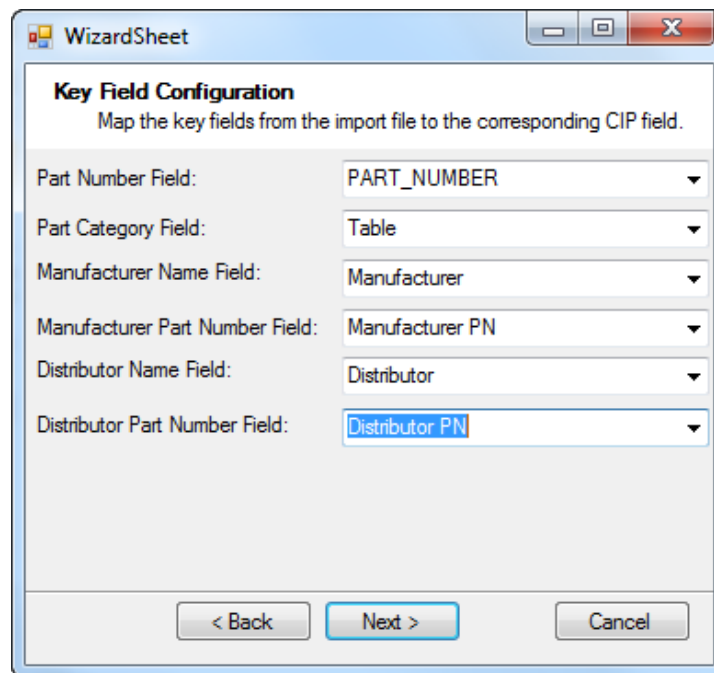


Figure 7: Sample Key Field Configuration screen

6. Enter the field names of the CSV file that correspond to the following:

- **Part Number** – This is the company part number field. This field is a required field and must be filled-in.
- **Part Category Field** – 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 Name Field** – This is the field in your CSV file that identifies the name of the manufacturer. This is an optional field. If the Manufacturer Part

- Number field is filled-in, then this field must also be completed before you proceed to the next configuration step.
- **Manufacturer Part Number Field** - This is the field in your CSV file that identifies the name of the manufacturer part number. This is an optional field. If the Manufacturer Name field is filled-in, then this field must also be populated before you proceed to the next configuration step.
7. Click **Next** to open the **Component Fields Mappings** window. Values shown in the following figure corresponds to column headings in the sample CSV, sample.csv.

The screenshot shows a window titled "WizardSheet" with a tab labeled "Component Field Mappings". Inside, there is a section for "Capacitors" with a "Mappings:" label. Below this is a table with two columns: "CIP Field" and "Import Field". The table lists various capacitor attributes and their corresponding import field names. At the bottom of the window are three buttons: "< Back", "Next >", and "Cancel".

CIP Field	Import Field
Part Type	
Description	Description
Value	Value
PCB Footprint	
Schematic Part	Schematic Part
Number of Pins	Number of Pins
Operating Temperature Maximum	Oper. Temp Max
Operating Temperature Minimum	Oper. Temp Min
Package Size	package Size
Package Height	package Height
Package Type	package Type
Company Part Status	Status
Dielectric Type	Dielectric
Equivalent Series Resistance	ESR
Temperature Coefficient	Temp Coef
Tolerance	Tolerance
Rated Voltage	Rated Voltage
Implementation	

Figure 8: Sample Component Field Mapping

8. Enter field names into the Import Field column to map all fields to be transferred into the database.

This window may be resized for easier readability. You will need to go through this for each category table in the CIP/CIS database.

Userfields that are configured to another name using CIP-E Administrator, display the configured name in the mapping screens. However, log files identify user fields as UserfieldXX.

Note: Check all table configurations each time you use the CIP Importer. Changes to the import file impact your configuration.

The last table in the WizardSheet is the Transistors table. The next screen to open after the Transistor table is the **Manufacturer Field Mappings** screen.

9. Enter values into the Manufacturer Fields Mappings input fields of the Import Field column. These fields are associated to manufacturer part data. However, this window is unable to open if the manufacturing fields in the Key Field Configuration screen are blank. If you are not entering manufacturing part data, you are unable to complete this step.

CIP Field	Import Field
Manufacturer PN Status	Mfr Status
Datasheet	
RoHS Compliant	
Image	
Always RoHS Compliant	
Date of RoHS Compliance	
Substitute RoHS Compliant PN	

Figure 9: Sample Manufacturer Field Mapping

If you filled in the fields for Distributor during the **Key Field Configuration** shown in Figure 7: Sample Key Field Configuration screen, then the Distributor Field Mappings screen opens.

10. Map fields associated to the distributor part data into the Distributor Field Mappings screen.

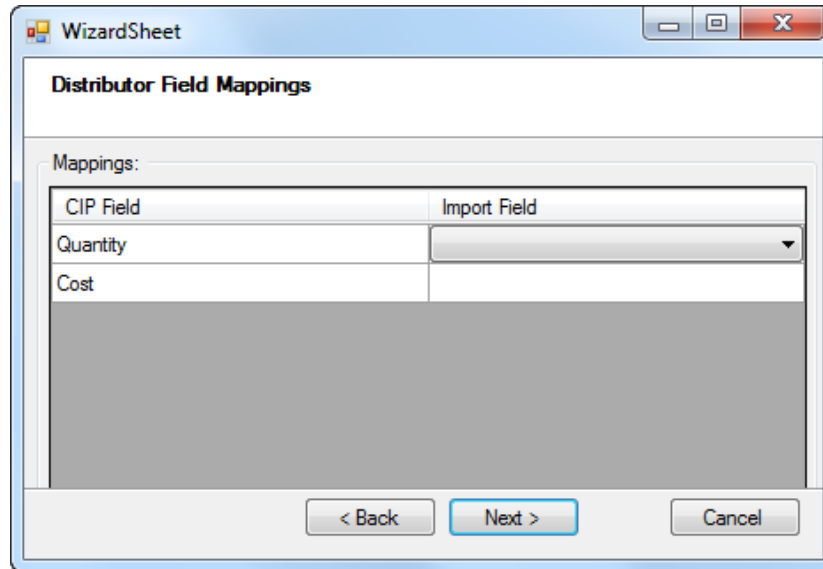


Figure 10: Sample Distributor Field Mapping

11. After you complete mapping the distributor fields, click **Next**. The Configuration Complete window opens. Click **Finish** to complete the process.

Adding and Updating Data

The CIP Importer window reopens and includes the options to **Add Only** or **Import**. With each of these options, you may run them in **Analyze** mode. The difference between **Add Only** and **Import** is that **Add Only** does not modify existing data.

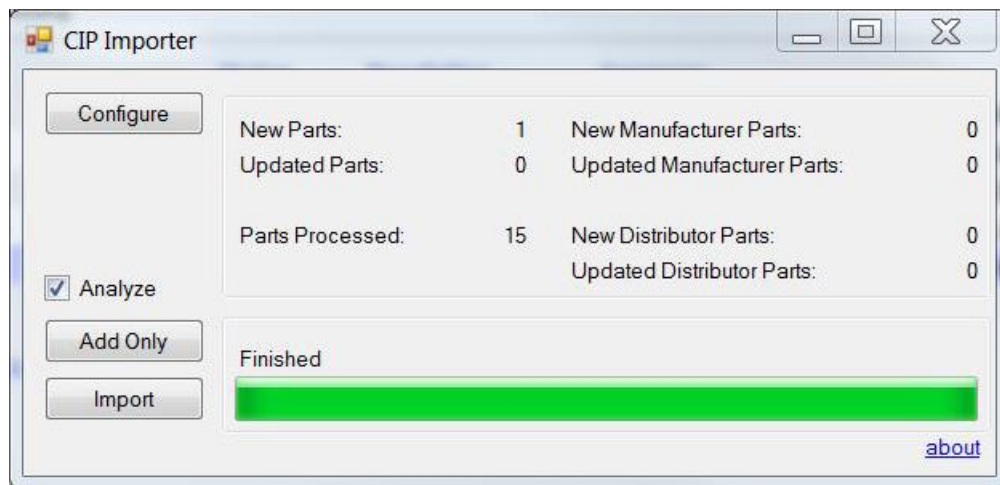


Figure 11: Add or Import of Data

The **Add Only** button only adds the new parts and new manufacturer parts. Parts that already exist in the database remain unaltered. For example, if the database contains PN0001 and the import file also has PN0001, regardless of whether the change is in the part data or manufacturer, running **Add Only** will not update PN0001 in anyway. A log file with a date-time code along with the text “Import” will be created to show what has been changed in the database.

The **Import** button adds new parts and updates attributes associated to parts already in the database. Deletions do not occur in the CIP Importer. A log file with a date-time code along with the text “Import” is created to show what has been changed in the database.

The **Analyze** check box enables you to verify the actions that will be performed using **Add Only** or **Import** before actual database updates are made. When the **Analyze** check box is selected, each time you perform an Add or Import, data in the CSV import file is compared to the CIS/CIP database. At the end of each analysis, a log file is created. No updates to the database are made when the **Analyze** checkbox is selected. The log file shows all the potential changes that would be made to the database along with a summary. The summary contains the number of new parts that would be added, the number of existing parts that would be updated, the number of new manufacturer parts that would be added, the number of existing manufacturer parts that would be updated,

the number of new distributor parts that would be added, the number of existing distributor parts that would be updated and the total number of parts analyzed.

The log file automatically opens once the **Add Only** or **Import** has run to completion. The Analysis log has “Analyze” in the file name.

Import Files

Import File Format

The import files 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 names 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 part number or part category are not be imported. Manufacturer, Manufacturer PN, Distributor and Distributor PN are optional columns.

Import File Data

Required Values

The PART NUMBER can be in any format. However, values for the part category field must match the CIP-E table names with the same case as shown in the following list.

- Capacitors
- Connectors
- Crystals and Oscillators
- Diodes
- ICs
- Inductors
- Misc
- Relays
- Resistors
- Switches
- Transformers
- Transistors

Duplicate Parts

If a part is duplicated in the import file but with different values in each occurrence, only one set of the data is imported. If the duplicate part has different manufacture or manufacturer part number, each manufacturer part is added. For the example in Table 1, part PN0001 will be added to the database once, with 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

Table 1: Sample Import Data with Duplicate Part Number

If a part in the import file is a duplicate of a part in the database but has a Part Category that is different from the part in the database, a warning will be added to the log file and the part will not be updated.

Different Manufacturer Name or Part Number from database

If a manufacturer part exists in the database when you run an import but has a manufacturer name that is slightly different from the import file, the manufacturer part will be added instead of being updated. For example, if you already have PN0001 as shown in Table 1 and your import file has the information for this part as described in Table 2. After an **Import**, PN0001 will have 3 manufacturer parts, Vishay, AVX, and AVX Corporation.

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

Table 2: Sample Import Data with Change in Manufacturer Name

Warning about using Excel

If you use Excel to create or edit your .csv file before the actual import, you should open the file using another editor such as notepad to check the data. Although you are saving as .CSV, Excel sometimes alters the data format. For example, text with leading zeros (e.g. 0603, 0805) may lose the first zero in the .CSV file. If the last column(s) of the Excel file has null for data for more than 25 rows, Excel will not insert the correct number of commas as placeholders.

Log files

A Logs directory will be created the first time that you click **Add Only** or **Import**. Two types of log files can be generated. The filename will consist of the date, separated by a “T” with the time following it and then followed by Analyze or Import. For example, it will be either

YYYYMMDDTHHMMSS_Analyze.txt
or YYYYMMDDTHHMMSS_Import.txt.

YYYYMMDDTHHMMSS_Analyze.txt is generated each time you run **Add Only** or **Import** with Analyze check box selected.

YYYYMMDDTHHMMSS_Import.txt is generated each time you run without the Analyze check box selected.

The log files record information for potential or actual changes and list warnings and errors. The difference between potential and actual changes is in the file in which the information is stored. Warnings are generated for parts not processed due to the part not meeting configurations define for the import processes. Errors are generated when processing is unable to start either due to data in the import file or configuration. No information is logged for parts that lack a Part Number.

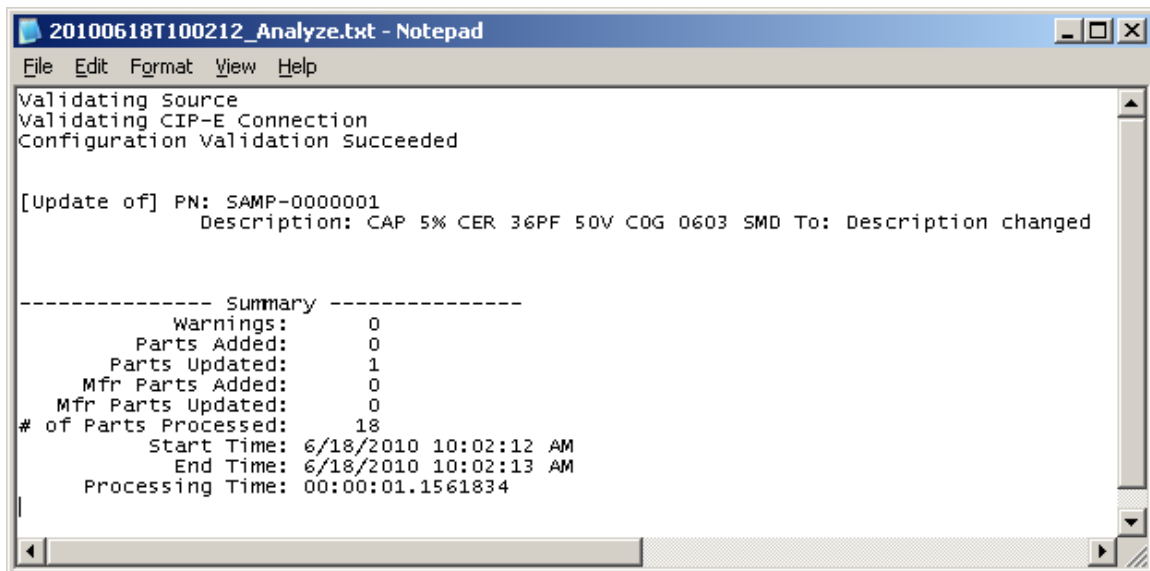


Figure 12: Sample Log file

At the bottom of each log file, a summary is provided with the number of parts affected by the import. Figure 12 shows a sample log file with the summary.

Appearance of UserfieldXX in Log files

For data import that has been mapped to Userfields, configured with another field name, the log will show the field as UserfieldXX.

Sample Error

The following is a sample error message. This error indicates that the CIP-E is not a compatible version for the CIP Importer.

```
Validating Source
Validating CIP-E Connection
This software version is not compatible with the configured CIP-E
database version.

***** ERROR OCURRED *****
Configuration is not valid
```

Sample Warning

The following log file shows two warnings. Categories must be named the same as the CIP Tables as described in the section on *Required Values* on page 14.

```
Validating Source
Validating CIP-E Connection
Configuration Validation Succeeded

[Update of] PN: SAMP-0000001
      Description: CAP 5% CER 36PF 50V COG 0603 SMD To:
Description change

[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:   0
      Parts Updated: 1
      Mfr Parts Added: 0
      Mfr Parts Updated: 0
# of Parts Processed: 18
      Start Time: 6/18/2010 9:52:33 AM
      End Time: 6/18/2010 9:52:35 AM
      Processing Time: 00:00:01.6875432
```

CIP Importer User Guide and Tutorial

For cases where the .CSV file contains unsupported characters in the part number, manufacturer or distributor part number, CIP Importer will report an encoding warning. Any part number containing unsupported characters will not be processed. The warnings will be totaled in the summary.

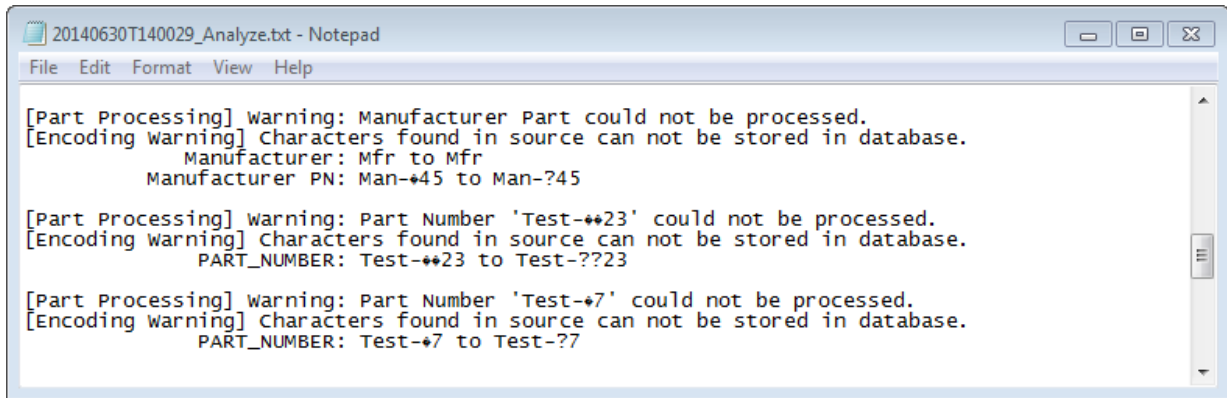


Figure 13: Sample Encoding Warning for Unsupported Characters

CIP Importer Tutorial

This tutorial leads you through basic data import into CIP-E using sample import files. The tutorial contains the following modules:

- | | |
|----------|--|
| Module 1 | Configuring and mapping an import file |
| Module 2 | Importing Parts into the Capacitors Table |
| Module 3 | Adding new parts to all other tables without changes to Capacitors |
| Module 4 | Updating Capacitors |

Module 1 - Configuring and mapping an import file

- Step 1: Create a backup of your database.
- Step 2: Run the CIP Importer by selection the following menu items: Start > All Programs > EMA > CIP Importer > CIP Importer. The CIP Importer window opens.
- Step 3: Click the **Configure** button to start mapping fields in the import file to the database.
- Step 4: At the WizardSheet window for **CSV Location**, click the **Browse** button. From the **Select csv to import** window, navigate to the location of the capacitors.csv file that came with the installation zip file. Click **Open**. The **Next** button becomes enabled. Click **Next**.
- Step 5: At the WizardSheet window for **CIP Database Connection**, click the **Test** button. After a successful test, the **Next** button becomes enabled. Click **Next**.
- Step 6: At the top pull-down of the WizardSheet window for **Key Field Configuration**, select the following:
- Select *Item No.* for the Part Number Field
 - Select *Component Type* for the Part Category Field
 - Select *Mfr* for the Manufacturer Name Field
 - Select *MPN* for the Manufacturer Part Number Field
 - Select *Dist* for Distributor Name Field
 - Select *Dist PN* for Distributor Part Number Field
- Step 7: Click **Next** after making the six selections. At the WizardSheet, **Component Field Mappings** for Capacitors, map the following fields:

CIP Importer User Guide and Tutorial

- Description - select *Short Description*
- Value – select *Value*
- Schematic Part – select *Schematic Part*
- Number of Pins – select *No. of Pins*
- Operating Temperature Maximum – select *TempMax*
- Operating Temperature Minimum – select *TempMin*
- Package Size – select *pSize*
- Package Height – select *pHeight*
- Package Type – select *pType*
- Company Part Status – select *Status*
- Dielectric Type – select *Dielectric*
- Equivalent Series Resistance – select *ESR*
- Temperature Coefficient – select *TempCoef*
- Tolerance – select *Tolerance*
- Rated Voltage – select *Rated Voltage*

Step 8: After completing the mappings in step 7, click **Next** several times until you reach the mapping for **Manufacturer Field Mappings**. If you go beyond the *Manufacturer Field Mappings* screen, click **Back** to get back to that screen. At this point, for Manufacturer PN Status, select *Mfr Status*. Click **Next** and then click **Next** and **Finish**.

You have now completed the configuration for capacitors importation.

Module 2 - Importing Parts into the Capacitors Table

Step 1: If you have not created a backup as part of the last module you should create a backup of your database now.

Step 2: Click the **Analyze** selection box to place a checkmark in the field and click the **Import** button. Once Analysis is completed, the log file will pop open. The summary will show that there are 18 parts in the import file but only 16 parts, 16 manufacturer parts and 11 Distributor Parts will get imported with 2 warnings for the 2 parts that have incorrect Categories.

Step 3: Close CIP Importer.

Step 4: Open up the capacitors.csv file with Notepad, find the two parts with the category of “Cap” and change “Cap” to “Capacitors”. Save the file. If you opened the file in Excel, you will notice that Package Sizes which were originally 0603 have all been altered to 603 when saved.

Step 5: Launch CIP Importer again. Click **Configure**. Since only two categories have been changed, you can continue to click **Next** until the **Analyze** checkbox is enabled. Select the **Analyze** checkbox and click the **Add Only** button. This time all 18 parts with 18 manufacturer parts and 12 distributor parts show as potential additions to the database.

CIP Importer User Guide and Tutorial

- Step 6: Inspect the log file to see that 18 parts, each with 1 manufacturer part, have been added.
- Step 7: Close CIP Importer
- Step 8: Open CIP-E from a browser. Search for parts with PART_NUMBER containing "SAMP". 18 parts should show in the search results.

Module 3 - Adding new parts to all other tables without changes to Capacitors

- Step 1: Launch CIP Importer.
- Step 2: Click **Configure** to select the import file and change mappings.
- Step 3: Select Sample2.csv import file this time and click **Next**. Click **Next** at the **CIP Database Connection** screen.
- Step 4: For the **Key Field Configuration**, map Part Num to Part Number Field and Table to Part Category Field. Leave Manufacturer Name and Manufacturer Part Number fields blank. Click **Next**.
- Step 5: For each of the **Component Field Mapping** screens, map Description to Description. Click **Finish**.
- Step 6: Select the **Analyze** checkbox.
- Step 7: For this module we will only add parts. Click **Add Only**. This time, the log file and summary will only show the 11 parts added to the database.
- Step 8: Close CIP Importer. Bring CIP-E up with a Browser. Search for parts contain SAMP in the PART_NUMBER and add description in the search result.
- Step 9: You will see 29 parts in the search results. The descriptions for the capacitors have not been changed.

Module 4 - Updating Capacitors

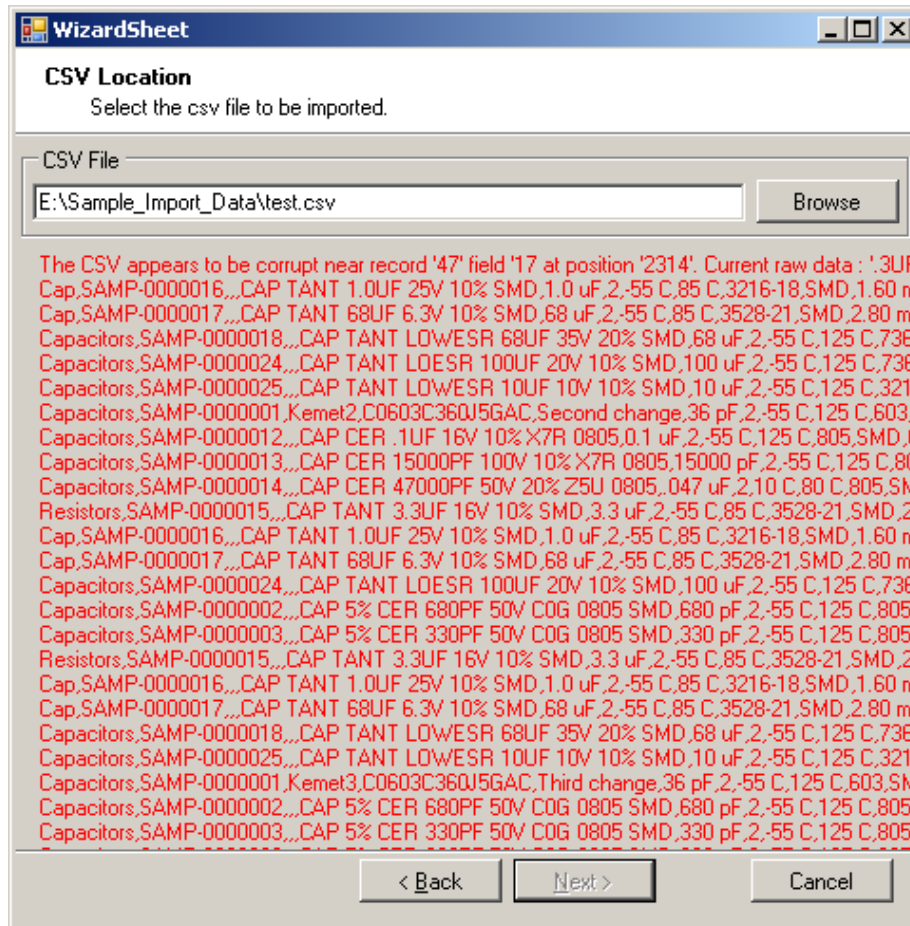
- Step 1: Launch CIP Importer again.
- Step 2: Click **Configure**. We will not be changing the import file or any configurations this time. Continue to click **Next** through to **Finish**.
- Step 3: Click **Finish**
- Step 4: Select the **Analyze** checkbox.

CIP Importer
User Guide and Tutorial

- Step 5: Click **Import**. The log will show 18 capacitors to be updated.
- Step 6: Close CIP Importer. Bring CIP-E up with a Browser. Search for parts contain SAMP in the PART_NUMBER and add description in the search result.
- Step 7: You will see 29 parts in the search results. The descriptions for the capacitors have been changed, CER has been changed to Ceramic and TANT has been changed to Tantalum.
- Step 8: You may restore the backup of the database to remove all changed made during the exercises in this tutorial.

Troubleshooting Import Files

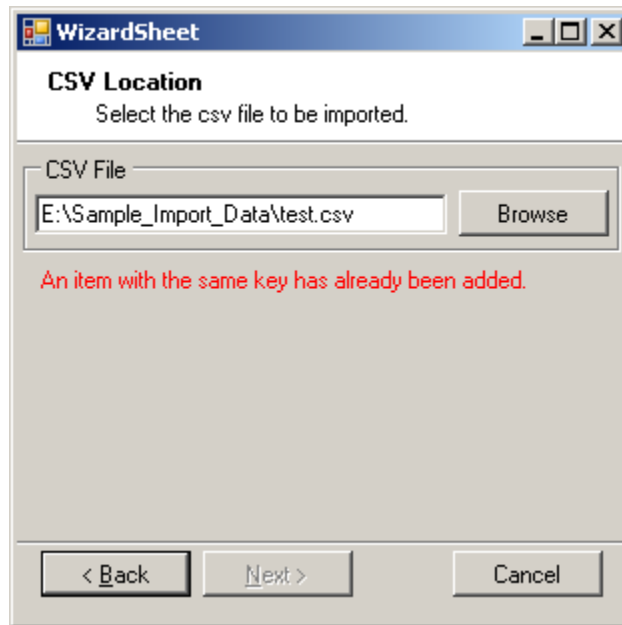
Problem: You are receiving an error message that starts with “The CSV appears to be corrupt near record...”



Cause: Your .CSV file has somehow been corrupted. This could happen if you manually edited a .CSV file and deleted a comma accidentally or fields with values that have commas were not put in quotes. Another way this can happen is 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 will not pad those line with the appropriate number of commas.

Resolution: If you are using Excel, you can move a column of data that has values mostly filled in to be the rightmost column. If you did not user Excel, use the line number display to help you narrow in on the problem.

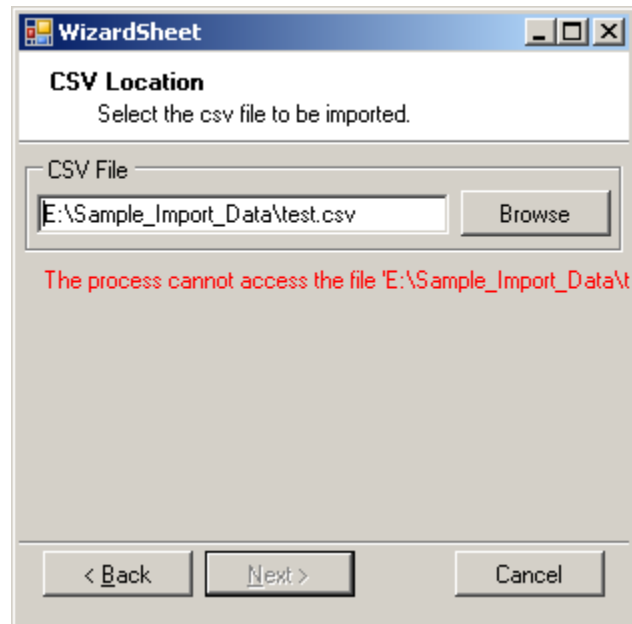
Problem: You are receiving an error stating that “An item with the same key has already been added”.



Cause: Your .CSV file either has duplicate fieldnames (column headings) or additional columns might have been inserted by Excel with no fieldnames.

Resolution: If you are using Excel, you will need to make sure that all columns of data have a unique column heading. If you see that each of the column heading is unique, you should delete all columns that look like that are not supposed to have data.

Problem: You are receiving an error starting with “The process cannot access the file ...”.

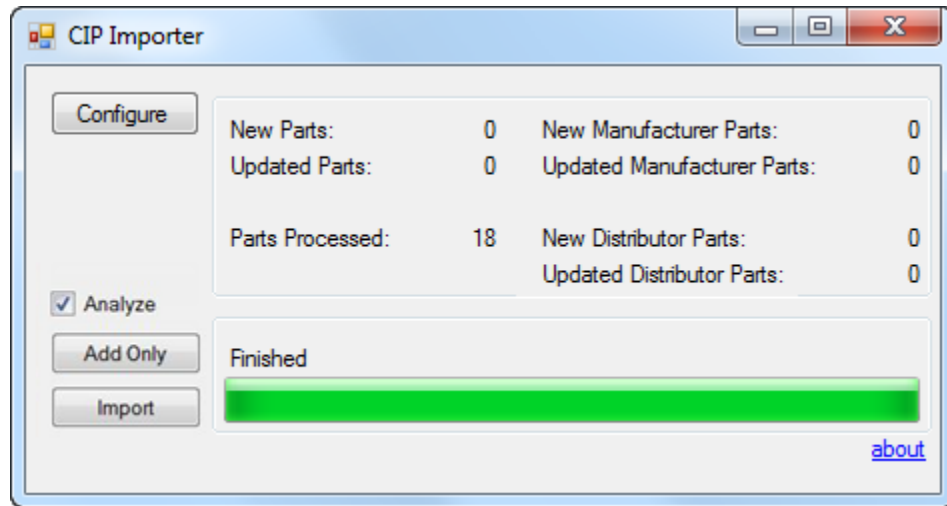


Cause: If you have the .CSV file opened with Excel when you click the **Configure** button, the file is locked by Excel.

Resolution: Save and close the file first before starting CIP Importer again.

CIP Importer User Guide and Tutorial

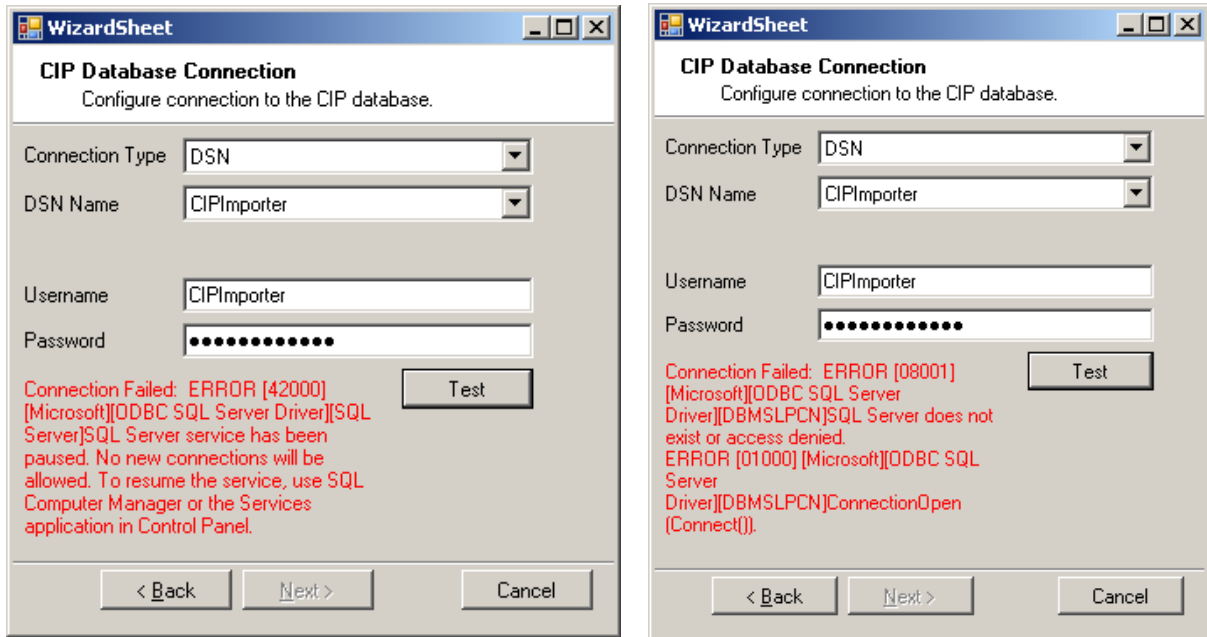
Problem: After running Analyze, it shows the total number of parts but no potential parts to be updated.



Cause: Any number of reasons can cause this. Possible causes are incorrect mappings or rerunning an import file that has been imported previously.

Resolution: You will need to review the log file to determine why CIP Importer is not finding any changes. You should also check your configuration thoroughly. After correcting the problem, you can restart the CIP Importer again.

Problem: When Testing the CIP connection, you received a Connection Failed error. Two examples of connection failures are shown.



Cause: You will need to resize the window to see the exact cause of the connection failure error. If the SQL server is paused or shut down temporary, then you will get this error.

Resolution: You can run **Test** again in case it is a temporary occurrence. If this is a persistent problem, you will need to contact your database administrator to why you are not able to access the database.

Technical Support

If you need to contact EMA with any questions or issues, you may send emails to:

Techsupport@ema-eda.com

Or call the Hotline at: 1-585-334-6001 option 5.