

Electronic Design for Windows  
**EDWINXP**



# Conversion Manager

***VISIONICS***

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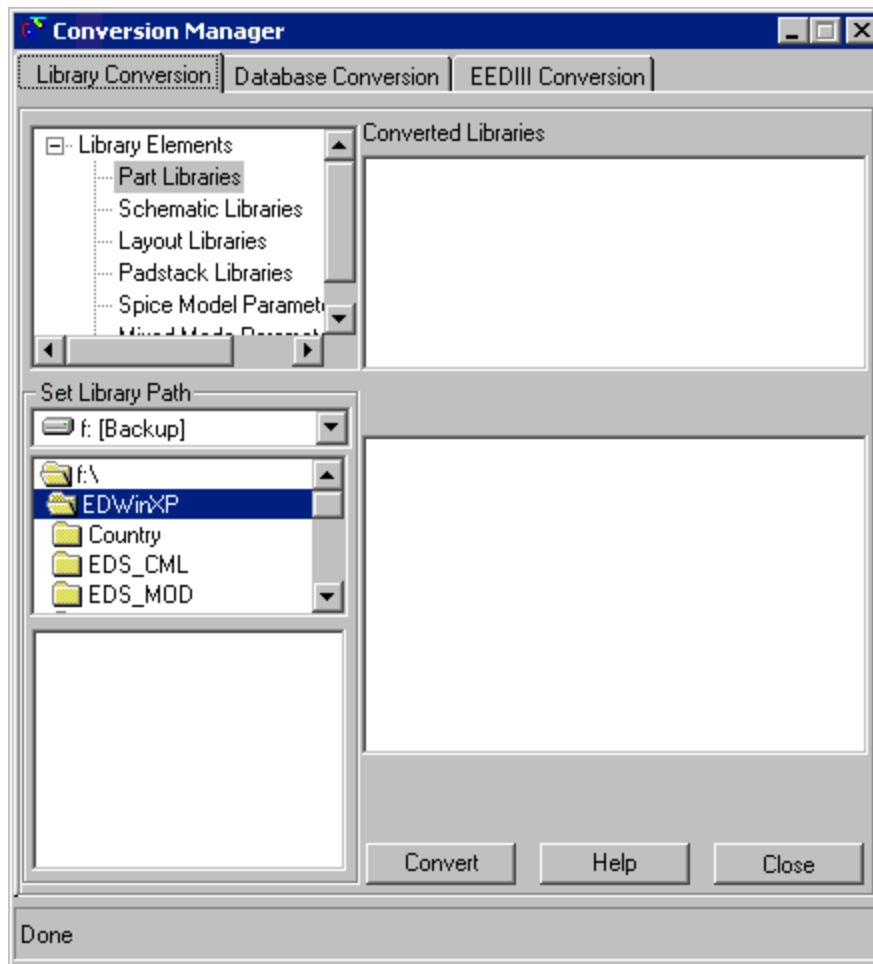
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## Conversion Manager

Conversion Manager converts the libraries, databases of EDWin 16-bit compatible to EDWin XP i.e. the 16 bit databases and libraries of EDWin can be converted into project database and Libraries compatible for EDWinXP. As the extensions are changed, the extensions of databases and libraries of EDWinXP also are updated. Also EEDIII Conversion may be also done using this utility. EDWin XP provides all libraries that are available with EDWin 16-bit with additional information.



### Invoking Conversion Manager

- Select Conversion Manager from the tasklist or task toolbar of the Project Explorer.

- Select Conversion Manager from the floating menu that appears on right clicking the System.

The Conversion Manager appears as shown in above figure.

## Import older libraries and databases (projects)

### Using EDWin 16 libraries and databases

All EDWin 16-bit databases and libraries should be converted to EDWinXP format using Conversion Manager (exactly as in EDWin 32). A library element in EDWinXP format contains additional fields for storing cross-references and in case of parts even thermal parameters these cross-references are not needed for proper functioning of the system but are useful for searching and browsing. Since this information cannot be reconstructed automatically during conversion, a special program called *Field Editor* has been provided. Certain cross references required for proper functioning of Library Browser and Library Explorer is updated automatically when library file is passed through Field Editor. For example: in EDWin 16 thermal parameters were kept in separate files (.DAT/ .TAL). Now all this data is stored within the respective Parts. Field Editor also enables to add other necessary information (manufacturer name, type etc) in manual edit mode.

In EDWinXP, when you try to save old DEVICES or PARTS taken from old DATABASES, it is required that you have to save the corresponding symbols and packages used by the Parts into User Libraries (and of course subsequently included those files into the Search Sequence).

### Using EDWin 32 Libraries and databases.

All EDWin 32 libraries and databases are upward compatible and for usage with EDWinXP need not be converted but they need to be updated in Field Editor.

#### **CAUTION:**

*Any attempt (even for browsing using Library Explorer or Browser) to access EDWin32 libraries from EDWin XP/2000 environment causes permanent change of format. EDWin32 libraries and databases once used with EDWin XP/2000 cannot be used with EDWin32. Please always use separate copies of library and database files for EDWin 32 and EDWinXP/2000. The paths for library and database files of EDWin 32 and EDWinXP/2000 must not be same.*

## Library Conversion

To convert the Libraries of EDWin 16-bit to EDWinXP Libraries

- Select the **Library Conversion** tab.
- Set the EDWin Library path for conversion. The Library Elements will be listed in the window.
- To convert the Libraries, click on the corresponding Library Elements. Libraries with their extensions will be displayed in the box below.
- From the list select the Library Element for conversion. The items in that particular Library will be listed in the box beside.
- Click on the **Convert** button
- Set path to save the Library .The file name with the modified extension is displayed in the box below.
- Click button to save the Library Element. In Conversion Manager window the path with the Library name will be displayed in the Save As dialog box which appears.

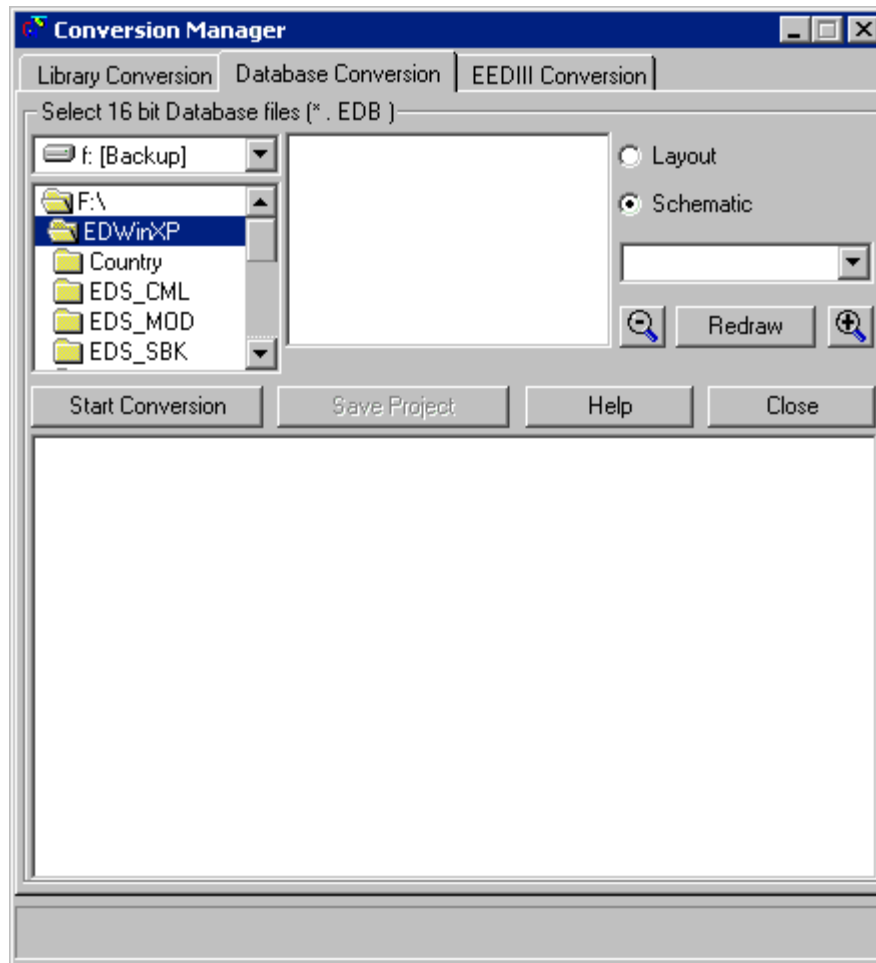
**Note:** *The libraries of EDWin 32-bit need to be updated in Field Editor before use in EDWinXP. Always maintain separate sets of libraries for EDWin32 and EDWinXP. Use of EDWin32 libraries in EDWinXP will render them useless in EDWin32.*

## Database to Project database Conversion

To convert the databases of EDWin 16-bit to EDWinXP

- Select the Database Conversion tab.
- Set the path for the database to be converted. The list of databases will be displayed in the box beside. From the list select (by double clicking) the database to be converted. The database gets displayed in the main window. The Schematic or Layout representation may be viewed by enabling the corresponding option buttons.
- To start the conversions click the **Start Conversion** button. When conversion to EDWinXP is complete a confirmation box pops up.
- Click **Yes** to save the database.
- A Save As dialog pops up. Select the path and click the save button.

**Note:** While converting database form EDWin 16-bit to EDWin XP, Simulation parameters set in EDWin 16-bit are lost. These information has to be re-entered either using Field Editor (thermal parameters) or using respective modules.



### **EEDIII to ASCII Project Conversion**

This routine converts EE Designer III (ver 2.4 or later) to the latest version format. Conversion may be executed by importing EE Designer ASCII databases. Due to differences in structure and contents between EED and system databases certain restrictions apply.

## EEDIII Conversion

This option helps to convert EEDIII Libraries to special intermediary file, which are in ASCII EDWinXP libraries. Select the **EEDIII Conversion** tab. Any Library type (Part/ Symbol/ Package Libraries) may be chosen by enabling the option buttons. The extensions for files will be \*.TDV/ \*.TSS/ \*.TSL for Part/ Symbol/ Package Libraries. The EEDIII files are selected by selecting the file from the input file box. In output Library, the path is selected to save the conversion. Click to **Convert** the selected file to EDWinXP Libraries. To exit this window click CLOSE.

For conversion of EEDIII database to EDWin XP/2000 ASCII database Import facility is provided in EDWin XP Conversion Manager window. For conversion of EDWinXP Database to EEDIII ASCII Export facility is provided.

## EDWinXP/2000 – Export EEDIII ASCII Database

### EED3 ASCII Database Conversion

EED3 ASCII Database Conversion is a utility that converts schematic diagram and/ or PCB layout design of a selected project to ASCII files in a format acceptable to EE Designer. The basic difference between the database concepts of the two E-CAD systems is that though the circuit database in EE Designer may be integrated by front and back annotation, it is contained in two disk files - one for schematic diagram and one for PCB layout of the circuit. Each part may be stored and loaded from respective ASCII files with the file name extension .ASC for schematic diagram and .ALA for PCB layout.

### Starting EED3 ASCII Database Conversion

This module may be invoked from Project Explorer in the following ways.

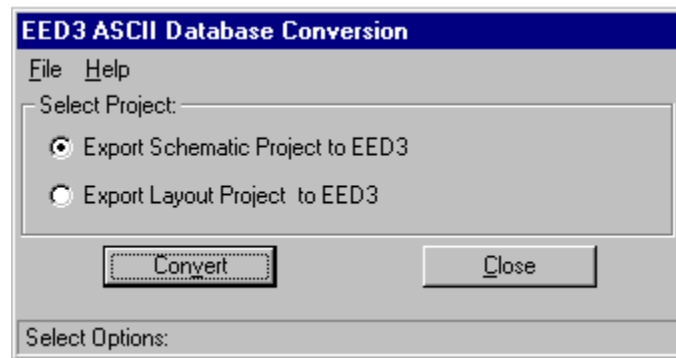
Right click **System** task in Project Explorer and select **Conversion Manager** from the list. Select the third tab **EEDIII conversion** and click on the **EXPORT** button.

or

Select Conversion **Manager** from the tasklist or from the task toolbar. Select the third tab **EEDIII conversion** and click on the **EXPORT** button.

**Note:** By default, system does not display the task toolbar. It may be enabled from View menu in the Project Explorer.

The EED3 ASCII Database Conversion window appears as shown below



Due to differences in database structure and inherent features with EE Designer, several restrictions apply for conversion.

### **Export Schematic Project to EED3**

#### Purpose

This option allows to convert the Schematic diagram of the selected Project to ASCII files in a format acceptable to EE Designer.

#### Operation

Selecting this option, click **Convert** tab to pop up an EED3 - ASCII Database File Name: window where the name of the ASCII file to which the database is to be converted is entered. By default it displays the database name with the extension .ASC. Click OK to execute the conversion. When the conversion is completed, the message bar displays the message Conversion completed OK.

### **Note**

#### 1. Simulation parameters:

Since the EED simulators are very different, the simulation parameters are stripped from converted symbols.

## 2. Line sizes:

*Line sizes of graphic items and texts in symbols, design notes and page notes are not recognized in EED schematic diagrams for entities other than bus segments.*

## **Export Layout Project to EED3**

### Purpose

This option allows converting PCB Layout of the selected Project to ASCII files in a format acceptable to EE Designer.

### Operation

Selecting this option, click **Convert** tab to pop up a Conversion Setup window. Before conversion, all trace layers used in the project must be mapped to layers of EED. The list of all the layers of EED is displayed in the window. Click on the required EED layer from the list and then in the column under EED Layers: next to the project layer to be mapped to the selected EED layer. There is also an option to convert the arc segments to lines. After the mapping is completed, click ACCEPT to pop up an EED3 - ASCII Database File Name window where the name of the ASCII file to which the database is to be converted is entered. By default it displays the database name with the extension .ALA. Click OK to execute the conversion. When the conversion is completed, the message bar displays the message Conversion completed OK.

### **Note**

*There may be some limitations when converting the PCB layout of the Project to EED3 format:*

#### *1. Layer mapping:*

*EED recognizes only 12 layers while the project may have 30. Therefore, before conversion all trace layers used in the project must be mapped to layers of EED. Traces placed on unmapped layers will appear on the COMP. PRINT layer in EED.*

#### *2. Line sizes:*

*Line sizes for graphic items placed on COMP. PRINT and SOLD. PRINT layers are converted to .001". For items placed on the trace layers, line width should not exceed .255". Same applies to the width of trace segments.*

### 3. Padstack conversion:

*Padstacks for round and square pads (pin mounted devices) will be properly converted if the size does not exceed .255". Same applies to hole diameters. Arcs and circles in padstacks for SMD pads will be ignored.*

### 4. Copper planes:

*Copper plane items may be assigned to a maximum of 8 different nets. Circles are ignored.*

### 5. Converting parts:

*To output part description in formats acceptable to EED, the system needs to access package(s) referenced by the part. If such package(s) are not available in the local library, the corresponding part will not be converted.*

## **Conversion of Database to EEDIII**

### Purpose:

This button is used to execute the conversion of project to EED3 ASCII database file.

### Operation:

Select one of the options depending on whether the schematic or layout is to be converted and click **Convert** tab. In the case of layout, this pops up a Conversion Setup window that allows to map all trace layers used in the project to layers of EED. The list of all the layers of EED is displayed in the window. Click on the required EED layer from the list and then in the column under EED Layers: next to the layer in the project that is to be mapped to the selected EED layer. There is also an option to convert the arc segments to lines. After the mapping is completed, click to pop up an EED3 - ASCII Database File Name: window where the name of the ASCII file to which the database is to be converted, is entered. By default it displays the database name with the extension .ALA. In the case of Schematic, clicking **Convert** tab pops up an EED3 - ASCII Database File Name window where the name of the ASCII file to which the database is to be converted is entered. By default, it displays the database name with the extension .ASC. Click OK to execute the conversion. When the conversion is completed, the message bar displays the message Conversion completed OK .

## **General Restrictions**

### **EE Designer version:**

Converted databases will be accepted only by EED3 version 2.4 or higher.

#### Memory:

The EE Designer database is much smaller. This may cause failure when loading ASCII files containing very large databases.

#### Rotations:

EE Designer does not recognize rotation angles other than 0°, 90°, 180° and 270° for texts and components. Other rotation angles are approximated to the closest multiple of 90°. Rotated rectangle is converted to four lines.

#### Solid (filled) rectangles/ circles:

Solid rectangles are not used in EED schematic diagrams. Same applies to rectangles assigned to COMP. PRINT and SOLD. PRINT layers in PCB layout. All rectangles placed on trace layers will appear as solid in EED PCB layout. Filled circles are not recognized by EED.

#### Triangles:

Triangles are not recognized by EED and are therefore converted to three lines.

#### Text sizes:

EED recognizes only seven different text size codes. Only sizes equal to the first seven in the text size table will be properly converted. Texts with other sizes will be assigned to text size code 1.

#### Names:

The length of symbol, part, package and net names should not exceed 8 characters. All names will be truncated to this length. This may cause unpredictable results in EED.

## EEDIII to EDWinXP/2000 ASCII Database Conversion

This routine converts EE Designer III (ver 2.4 or later) to the latest version format. Conversion may be executed by importing EE Designer ASCII databases. Due to differences in structure and contents between EED and system databases certain restrictions apply.

### Starting EEDIII to ASCII Project Conversion

This module may be invoked from Project Explorer in the following ways.

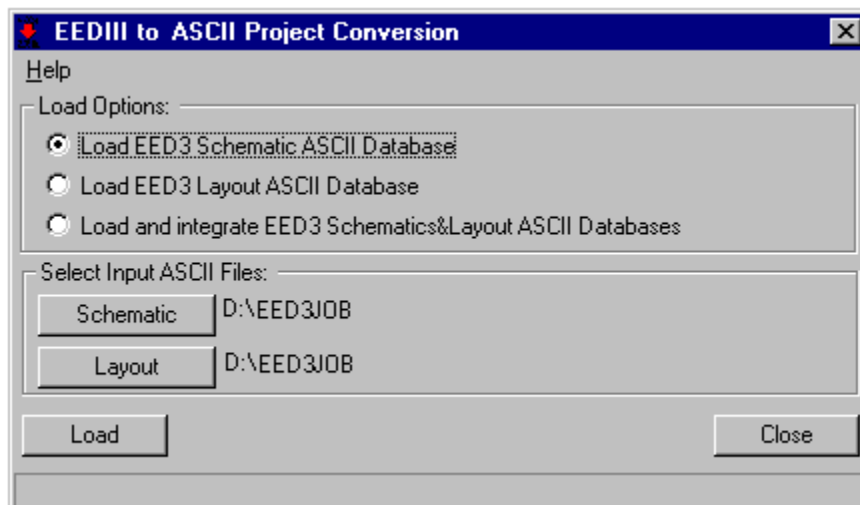
Right click System and select Conversion Manager from the list. Now select the third tab EEDIII conversion and click on Import.

**OR**

Select Conversion Manager from the tasklist or from the task toolbar. Now select the third tab EEDIII conversion and click on Import.

**Note:** By default, system does not display the task toolbar. It may be enabled from View menu in the Project Explorer.

The EEDIII TO ASCII Project Conversion window appears as shown below.



**Load EED3 Schematic ASCII Database**

Purpose:

This option helps to Import schematic ASCII database.

Operation:

Select this option from EEDIII to ASCII Project Conversion window and click Schematic. A dialog box pops up from where the file to be loaded can be selected.

\* Restrictions:

No packages are created during this conversion. If symbols have been created as parts in EED then front annotation through automatic or manual packaging is possible.

**Load EED3 Layout ASCII Database**

Purpose:

This option helps to load the layout ASCII database.

Operation:

Select this option from EEDIII to ASCII Project Conversion window and click Layout. A dialog box pops up from where the file to be loaded can be selected.

\* Restriction:

The schematic part of system database will not be created. Parts found in ASCII file are converted enabling recreation of schematic part of database later, provided the necessary symbols were previously converted from EED part library to system library format.

**Load and integrate EED3 Schematic & Layout ASCII Databases**

Purpose:

This option helps to Import and integrate schematic and layout databases.

Operation:

Select this option from EEDIII to ASCII Project Conversion window and click Load.

\* Restriction:

Both EED databases must be properly front and back annotated in EED before saving them as ASCII files. Discrepancies in netlist may cause importing routine to abort conversion.

This routine deletes currently loaded system database upon start. Hence it must be ensured that the database is saved before running the routine.

### **Select Schematic**

Select this button to load the EED3 Schematic ASCII database to be converted. A window Select EED3 Schematic ASCII Database to Load pops up. Select the required file(\*.asc file) and click O.K.

### **Select Layout**

Select this button to load the EED3 Layout ASCII database to be converted. A window Select EED3 Layout ASCII Database to Load pops up. Select the required file (\*.ala file) and click O.K.

### **Load Symbols and Packages from EEDIII ASCII Database**

Allows to load the symbols and packages of the selected ASCII files. When invoked, system reads the selected ASCII file and prompts for saving to a file \*.EPB. Two more buttons are made visible at this juncture. **Save** button to save the database and **View** button to view the converted EED3 database.