E N G I N E E R I N G
DataXpress

DXL1700 OrCAD Capture Schematic Translator

The DXL1700 OrCAD® Capture for Windows/ EDIF schematic translator is one of a series of optimized data links that is part of the DataXpress Integrator product line. The DataXpress Integrator was developed as a solution to the problem of moving design data from one EDA vendor's tools to another's.

The DXL1700 schematic translator allows OrCAD Capture users to translate their schematic design data to/from the Engineering DataXpress database called EDI. Data from the EDI database can then be output as an EDIF data file. An EDIF data file is a human readable ASCII text file. EDIF schematic files can also be read into the EDI database and translated into the OrCAD Capture database.
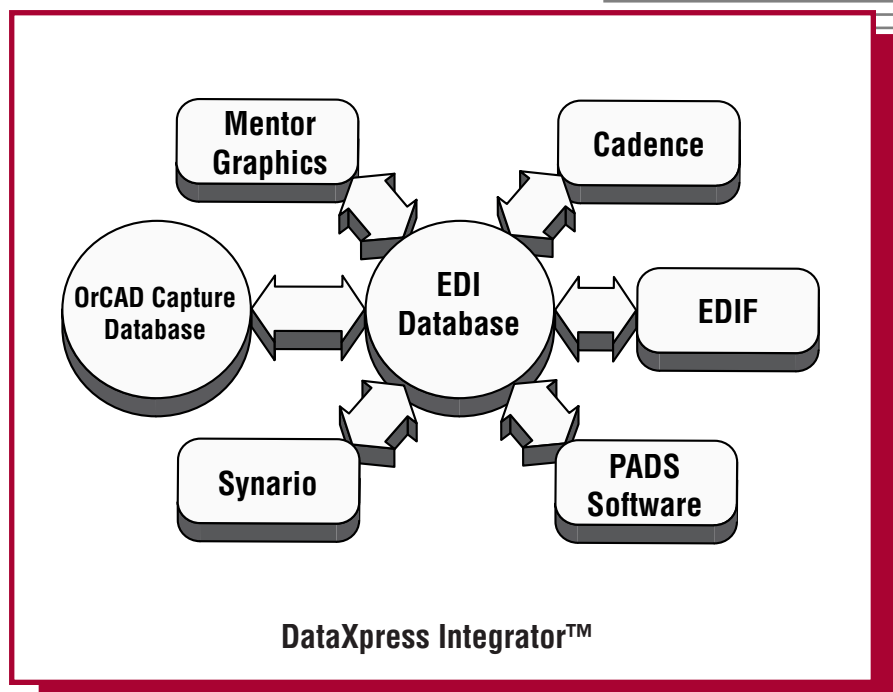
The DXL1700 can also be combined with other Engineering DataXpress translators to facilitate direct database translation between OrCAD Capture and the other EDA vendors that we currently support. The list of EDA vendors for which we offer translators includes Mentor Graphics for both V7 and V8, Cadence Design Systems, Data I/O, PADS Software and others.

Schematics and symbol libraries can be transferred independently, or a schematic and its library of subcomponents can be transferred at the same time. The full design hierarchy can be transferred or it can be limited in various ways. Also, when reading an EDIF file, schematics are allowed to reference symbols which are defined externally. Options and commands for the translator are specified on the command line, in a configuration file or dialog window.

The DXL1700 schematic translator is fully supported by Engineering DataXpress, a world-wide leader in data translation technology. This ensures that the translator will continue to be enhanced with new features and options. It will also remain current with each new release of OrCAD Capture software.

Features

■ Complete translation of OrCAD schematic sheets and symbols including graphics and connectivity information to/from EDIF.

■ Provides direct access to other EDA vendors from the DataXpress EDI Database.

■ Handles mapping of names, properties, etc., under user control.

■ Translates most EDIF Level 0 constructs.

■ Handles hierarchy in OrCAD Capture sheets, symbols, and in EDIF cells.

DataXpress Integrator™

Product Description

The DXL1700 schematic translator transfers schematic information both into and out of the OrCAD Capture database through the EDI database. Data can then be transferred either directly to other EDA vendors who are also linked to the EDI database or to any EDA vendor that has an EDIF schematic interface.

The DXL1700 translator is comprised of two modules. The cap2edi module takes as its input schematics and symbols created with Capture and creates as its output either an EDI database or an EDIF file describing the schematics. Any schematic design data contained in the Capture files can be translated into an EDIF file.

The edi2cap module takes an EDIF output file or EDI database and creates Capture schematics and/or symbols which can then be edited with OrCAD Capture. The reader can read and translate any correct EDIF level 0 schematic representation into Capture construct.

Capture specific entities such as connectivity, objects, properties, and graphics are all translated to the equivalent EDI database representations. The translator uses configuration files to allow the user to control different aspects of the data transfer. For example, the translation of object names to conform to user specified naming conventions or name maps, and the mapping of Capture properties or fields, to EDIF properties. It also handles the mapping of Capture complemented names into various other name formats. The user can also specify additional Capture information such as units, e.g., time in nanoseconds, and data type, i. e., strings or real numbers. In addition, it is possible to specify the following: the actual part of the design or symbol library to translate, the convention for changing net/bus names, and the handling of connectivity established by EDIF rippers, busses, and off-page connectors.

The following are some of the user options which can be specified:

- Selection of the symbols and cells in libraries and design hierarchies to be translated.

- Translation of the names of objects such as libraries, cells, nets, properties, fields, etc..

- Conversion of bus/net naming conventions and ripper cell connectivity.

- Conversion of property and field names and values.

- How OrCAD Capture properties and fields map to EDIF properties and attributes.

- What data type, i.e., string, integer, etc., a property should be translated into.

- Grouping of pages into EDIF views.

Supported Platforms

- PC Windows 95/95.

- PC Windows NT.

Software Requirements

- OrCAD Capture for Windows software release 7.11 or later.

- EDIF Version 2 0 0.

Integrating Engineering Data

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E N G I N E E R I N G
DataXpress

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