

ENGINEERING
DataXpress

DXL100 (ECS) Cohesion Designer Schematic Translator

The DXL100™ ECS 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 step in the design process to another. This usually involves going from one EDA vendor's tools to another's. These tools are fundamentally different in terms of function and data formats.

Engineering DataXpress works closely with the various EDA vendors to obtain proprietary information about their database formats and structures. This information is then used to develop optimized data links into and out of their proprietary databases.

The DXL100 Schematic Translator allows Cohesion Designer Engineering Capture System (ECS) users to translate their schematic design data to and from the Engineering DataXpress database called EDI. The EDI database acts as an integration hub for the direct transfer of data between Cohesion Designer and other EDA vendors.

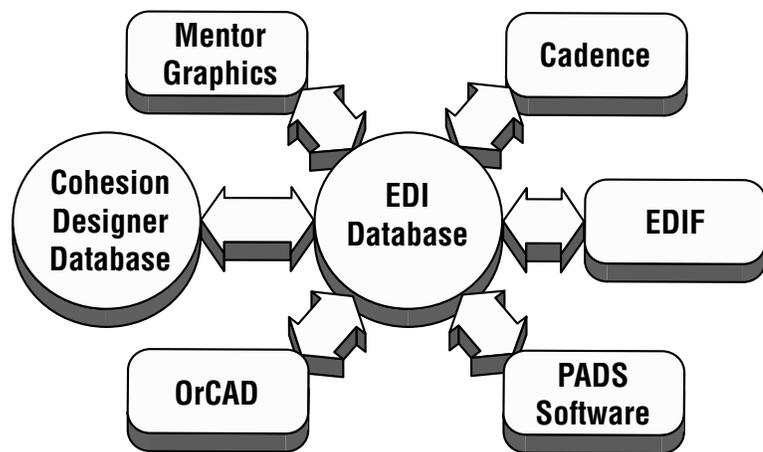
Features

- Bidirectional translation of ECS schematic sheets and symbols.
- Provides 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 ECS sheets, symbols, and in EDIF cells.

In addition, it is possible to output ECS data from the EDI database as an EDIF data file. EDIF schematic files can also be read into the EDI database and translated into the ECS database.

Schematics and cell 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 portions may be selected in various ways. Also, when reading an EDIF file, schematics are allowed to reference symbols which are defined externally. Options for the Translator are specified in a set of commands located in a configuration file.

The DXL100 Schematic Translator is fully supported by Engineering DataXpress, a worldwide leader in data translation technology. This ensures that the translator will continue to be enhanced with new features and options and will remain current with each new release of the Cohesion Designer ECS software.



DataXpress Integrator

Product Description

The DXL100 Schematic Translator transfers schematic information both into and out of a Cohesion Designer Engineering Capture System (ECS) database. All data into and out of ECS pass through the EDI database. It 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 DXL100 translator is comprised of two modules. The ecs2edi module takes as its input schematics and symbols created with ECS and creates as its output either an EDI database or an EDIF file describing the schematics. Any schematic design data contained in the ECS files can be translated into an EDIF file. The edi2ecs module takes an EDIF input file or EDI database, and creates ECS schematics. The schematics can then be edited with ECS. The reader can read and translate any correct EDIF level 0 schematic representation into structures which can be depicted in ECS.

ECS specific entities such as connectivity, objects, properties, and graphics are all translated to or from 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, the mapping of EDIF properties, parameters, and attributes to ECS attributes and vice versa, and the specification of additional ECS attribute information such as units, e.g., time in nanoseconds, and data type, i. e., strings or real numbers. It is also 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, etc.
- Scaling of schematics and symbols.
- Conversion of bus/net naming conventions and ripper cell connectivity.
- Conversion of property and attribute names and values.
- How ECS properties and attributes map to EDIF attributes.
- What data type, i. e., string, integer, etc., a property should be translated into.

Supported Platforms

- Sun Solaris 2.6+.
- PC Windows NT/2000/XP.

Software Requirements

- Cohesion Designer (ECS) software release 5.x or later.

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