

ENGINEERING
DataXpress

The EDI Translator Development System

The EDI Translator Development System is a commercial EDIF translator development environment. It provides all of the software modules, the support libraries, and the intermediate format required for any EDIF translator development project. Advanced features include the elimination of time consuming repeated scans of databases and files, elimination of all EDIF-dependent data sequencing requirements, command line argument support, and many others. Using EDI, the success of your translator development project is no longer threatened by the complexities of EDIF.

EDI provides all of the software modules common to every translator development project, so that you only need to develop the interface to your own data. EDI provides a procedural interface to its own persistent intermediate database, so that you may import and export data in any order which is most convenient. EDI also includes a full suite of EDIF utilities, to ensure the correctness of your final translator product and optimize your EDIF data.

Features

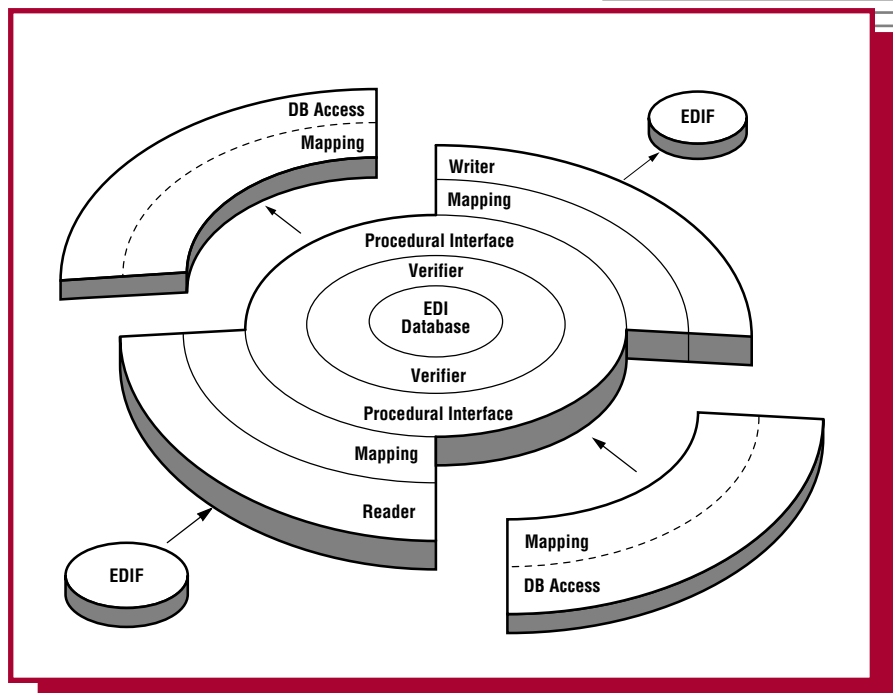
- Commercial quality EDIF translator development system.
- Significantly reduces translator development time and effort.
- Ensures accuracy to the EDIF 2 0 0 standard.
- Includes all necessary EDIF 2 0 0 translator modules and utilities.

Product Description

The EDI Translator Development System provides a predefined pathway into and out of EDIF 2 0 0. It brings open-system capabilities to a wide range of EDA tools and systems.

The “hub” of EDI is an intermediate data structure called the EDI database. The EDI database allows permanent storage of EDA data. Using a generic database medium reduces the repetitive work involved in translator development. Data can then be piped in and out of this hub through any number of reader and writer “spokes”. Meanwhile, intricate error checks are performed by the powerful EDI verifier.

Full lexical, syntactic, and semantic checks are performed for compatibility with the EDIF 2 0 0 standard. In addition, a procedural interface allows users to create their own higher level translation procedures.



The EDI Translator Development System is also unique in that it removes any sequential data retrieval or export restrictions. For example, while the translator is processing nets, a completely different object type such as logic modelling data may be accessed.

Specifications

EDIF Reader:

- Efficiently parses all EDIF Levels and Keyword Levels.
- 100% accurate lexical and syntactical checking.
- Advanced error recovery mechanism.
- Very fast parser.

EDIF Writer:

- Writes all EDIF Syntax Levels correctly.
- Automatically creates Keyword Aliases.
- Utilizes EDI syntax and semantic verifier to ensure compatibility with EDIF 2.0.0.

EDI Database:

- Size limited only by disk storage.
- Closely follows EDIF data format.
- Data can be entered and retrieved in any order.
- Contains Data Integrity functions to ensure correctness.
- Establishes relational links between object definitions and references for fast retrieval.
- Creates EDIF "rename" constructs automatically.
- Automatic data sequencing in EDIF "define-before-use" order.
- Tracks all EDIF name classes and scopes.
- Checks for illegal data referencing cycles.
- Permanent storage of EDA data processed and written into the database in parallel. This gives users complete freedom to process data.

Similarly, different object types may be processed in the most efficient order for their translation requirements. EDI may be used to generate data translators for netlists, schematics, IC layout, PCB layout, simulation, timing data, and more.

Procedural Interface:

- Simple yet powerful: just 5 retrieval and 8 creation routines.
- Supports recursion for compact mapping module design.
- Supplemental Function Library supports data mapping.
- Command-line argument support.
- Create or retrieve multiple data objects in parallel and in any order.
- Reduces any amount of data to one "handle" reference.
- Isolates users from complexities of EDIF.

Data Mapping:

- Eliminates the need to track name conversions.
- Eliminates the need to build reference tree or perform topological sorts.
- Eliminates the need for large temporary data structures, linked lists, trees, etc.
- Eliminates the need to repeatedly scan data bases or files.

EDI Verifier:

- Checks to ensure data adheres to the EDIF data model.
- Checks for and corrects EDIF "define-before-use" order.
- Checks all object references against object definitions.
- Checks all view type restrictions.
- Checks all major EDIF semantic rules.
- Checks all data translated through the EDI database.

Integrating
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Data



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