EDABuilder

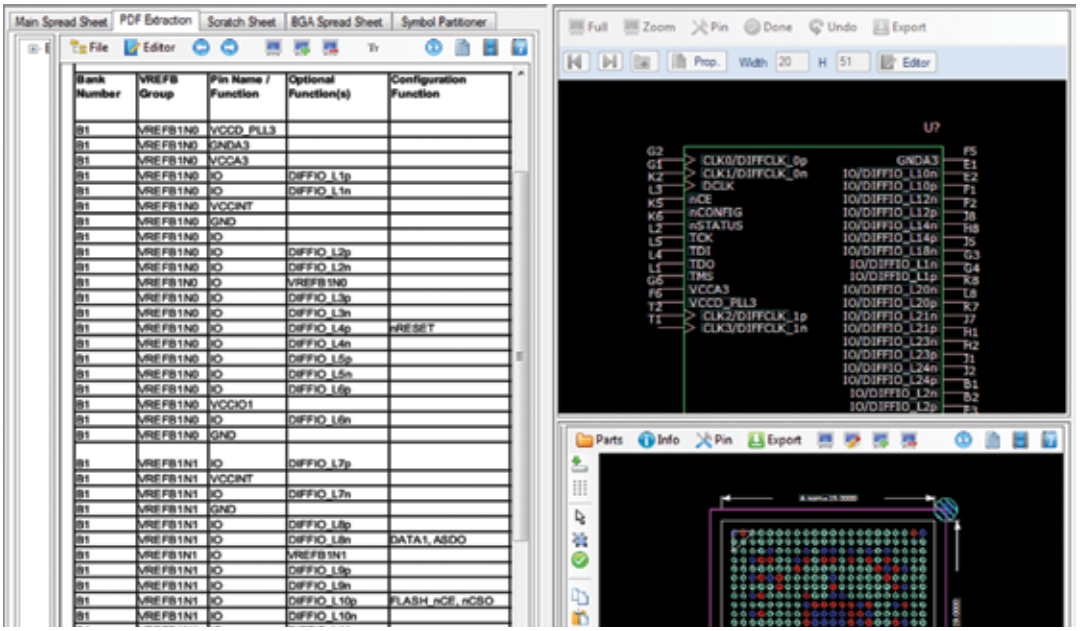
Automated Symbol and PCB Footprint Generation

Libraries

EDABuilder Main Benefits

- Save hours, if not days, creating first-time-correct symbols and footprints
- Extract complex tables over multiple PDF pages in minutes
- Automatically build PCB Footprint/Land Patterns to IPC-7351 standards
- Remove repetitive manual entry processes
- Quickly format and prepare data with purpose built spreadsheets
- Efficiently manage high pin count devices
- Eliminate library part errors with comprehensive checking and verification tools
- Easily define corporate standards and templates to ensure consistency
- Promote ECAD/MCAD collaboration with automated 3D model development

EDABuilder™ contains the most advanced PDF datasheet extraction, schematic symbol automation, and PCB footprint/land pattern automation to eliminate manual processes and create component libraries in a fraction of the time.



EDABuilder allows for easy extraction of PDF datasheets including diagrams. Data can be quickly organized to create schematic symbols.

Symbols and footprints are the building blocks of PCB design. For many designers, building these device models means a significant time investment due to error prone repetitive manual entry. Manual processes are becoming unfeasible and impractical now that some individual components can contain 2,000 pins or more. To solve this problem EMA offers EDABuilder, a highly automated tool for component library population.

Accelerate your Workflow

EDABuilder reduces symbol and footprint creation processes, that previously required hours or days, to minutes. Purpose built tools provide a single environment for extracting PDF data, managing and formatting pins, generating symbols, creating footprints, and validating outputs. Automation is applied throughout the library creation process and the result is a dramatically accelerated workflow that delivers consistent, repeatable results.

Correct by Construction

EDABuilder ensures your libraries are built correctly the first time by automating error prone tasks and providing a complete set of error checking and reporting utilities. Eliminating manual processes significantly increases accuracy by reducing human error. Integration between symbol and footprint tools allows for checks to ensure that the symbol and footprint match. Errors or inconsistencies are immediately identified, saving time and reducing costly rework. Templates can be created and applied to the library creation process, making it easy to ensure all symbols and footprints developed adhere to common standards.

Symbol Creation

The Symbol generation capabilities of EDABuilder allow users to extract datasheet specifications, format and check the data, and export to their schematic tool. Symbol creation time savings begins with advanced datasheet extraction.

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EDABuilder Key Features

- Unique PDF extraction technology for capturing and converting data quickly and efficiently
- Import BGA maps, SOIC diagrams, and other data formats directly from the PDF
- Automatically assign pins to symbols or interactively drag and drop pins to desired locations
- Create Unique Pin Names Tool eliminates duplicate pin names
- Intelligently fracture large symbols by user–defined characteristics
- Calculator driven footprint/land pattern generation
- Choose from rectangular, oblong, D-shape, and custom pad shapes, with editing to handle unique package specifications
- Intuitive GUI displays pads, leads, dimensioning, and more
- Cross–probe between the symbol and footprint

For More Information

For sales and pricing information contact EMA Design Automation, a Cadence Channel Partner.

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EDABuilder provides designers with the capabilities required to quickly create part information for PCB schematics and layouts. It virtually eliminates errors caused by manual processes, improving design and reducing rework.

The tool transforms a historically difficult, repetitive, and error prone task into an automated process that quickly converts PDF data into a useable format. It also imports BGA maps, SOIC diagrams, QFP packages, and other visual data; a useful capability that is not available in most extraction tools.

Symbol formatting and checking is efficiently managed with tools for quickly inputting column assignments, removing unwanted data, and defining partitions. Users are no longer required to partition the symbol set prior to the building of the symbols. Designers can make assignments of pins to interface groups, and assign pins at a higher level of abstraction. Also, reports can then be run to check accuracy and completeness before generating the symbol for your host CAD tool.

Footprint Creation

PCB Footprint generation within EDABuilder allows users to input dimensions directly from the datasheet. Utilizing the information provided by the manufacturer, without needing to perform calculations or estimations, increases efficiency and accuracy. These footprints can use the IPC-7351 specification or custom user settings. A comprehensive list of component packages is available, including BGA, CHIP, CHIPARRAY, DIP, LCC, LGA, PLCC, QFN, QFP, SOJ, and SOP.

EDABuilder provides the ultimate placement control and editing of pads. Designers can select from D-shape, oblong, rectangular, or custom pad shapes, including rounding and chamfering specifications. Padstacks are user configurable and can be assigned to unique locations, including specific corner pads or row and column locations. Users operate from a comprehensive GUI that allows them to see pad shape and placement, leads, dimensions, and more. This helps users see the exact effects of changing parameters.

3D Model Generation

Ensuring proper fit and clearance is an important part of the design process. However, acquiring realistic 3D models to perform accurate fit analysis can be a significant challenge. EDABuilder solves this problem with its 3D model generator. The dynamically generated 3D models are based on the exact dimensions of your footprints allowing for fast and accurate 3D analysis in either the ECAD or MCAD design environments.

Learn More

For additional information about EDABuilder please visit www.ema-eda.com/edabuilder. To request a trial version of the software please contact info@ema-eda.com.

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