

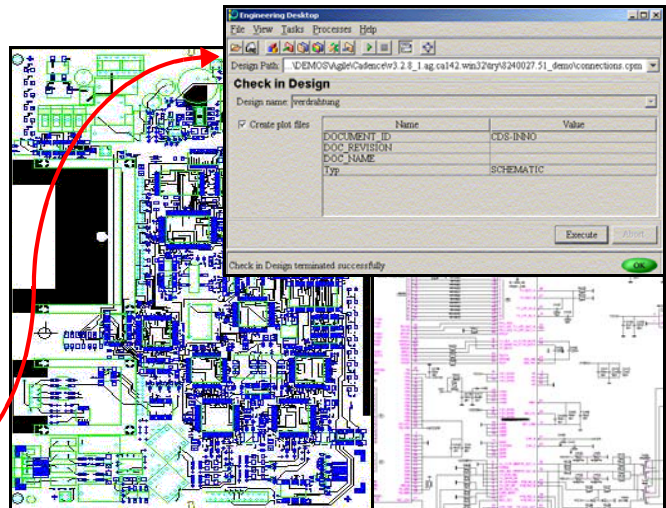
Mentor Pads® Designer with Product Lifecycle Management

You have invested all this knowledge into your Pads design. Now you want to...

- associate it with the versioned data of enclosure, software, documentation, harness, cabinet...
- forward data to other persons in manufacturing, service, qc, purchasing, test, materials control...
- share library and design data with other sites or ODMs.

You want this process to be automatic, painless, easy and quick and you want to focus on design, not on databases and processes in the company.

➔ You want Integrate

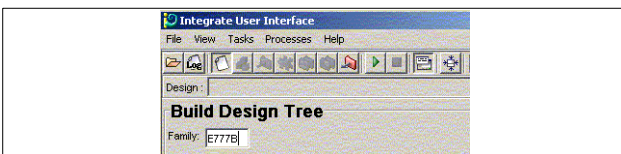


Operation

You operate the Integrate function from the Pads design environment. The integration establishes the communication between your Pads design tools and the PLM system.

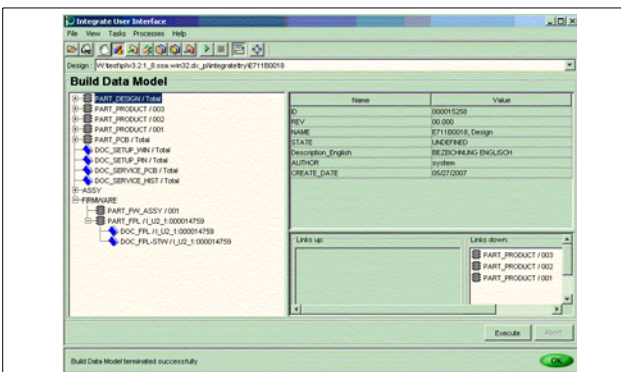
Build Design Tree

The module builds the design project with enhanced drawing header entries in the project area of the file system. Documents such as for test and board fabrication are also included.



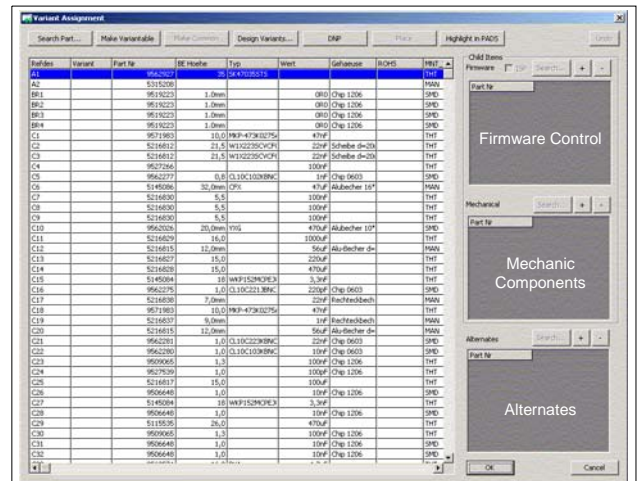
Build Data Model

Build the data model of the electronic product at design start. Enhance the data model with variants later.



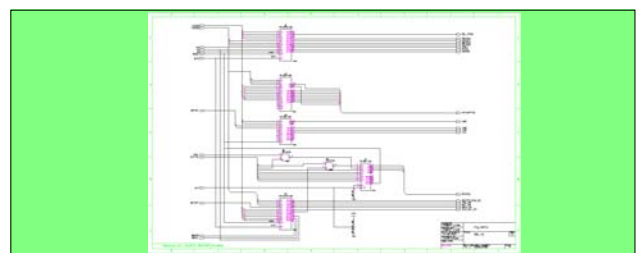
Variants

Control firmware variants, assembly variants, and mechanical accessories like heat sinks from the Pads schematic editor in the Variants dialog.



Check-in

Update drawing frame properties in schematics and text strings in PCB drawings with metadata. Check the plots, optional netlist and auxiliary files along with a design container into PLM for ECO.



Integrate

Redesign

Revision released design data in PLM, place them “in Work”, reserve them for this user, and resolve the data into the Pads design environment with refresh of metadata in the design.

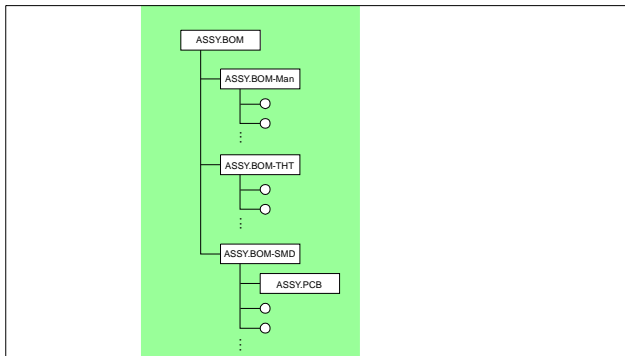
Get

Get any design version for re-use in a new design. **Get** prepares the setting of metadata for a new design.

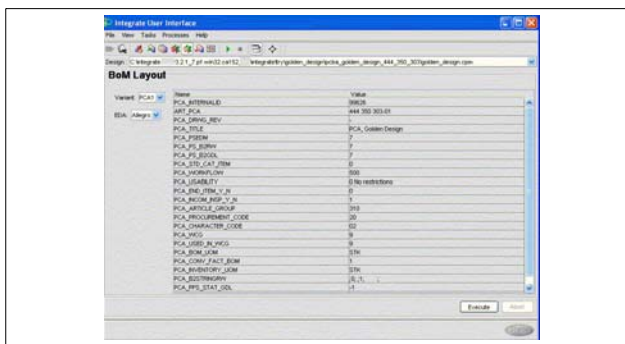
BOM

Extract preliminary Bill-of-Materials data after Package into PLM for advance material disposition. Update the BOM in PLM after PCB Layout with associated accessory parts like sockets, heatsinks and firmware. Support of your company’s BOM structure including variant Bill-of-Materials from the Pads design.

The BOM can be structured to Manual, THT, and SMD for the top and bottom assembly.



BOM can also create a spreadsheet with actual BOM data. The BOM data in PLM include placement, as well as firmware and mechanical part assignments. An advanced BOM for early material disposition is extracted from schematics.



BOM will honor the ERP system requirements.

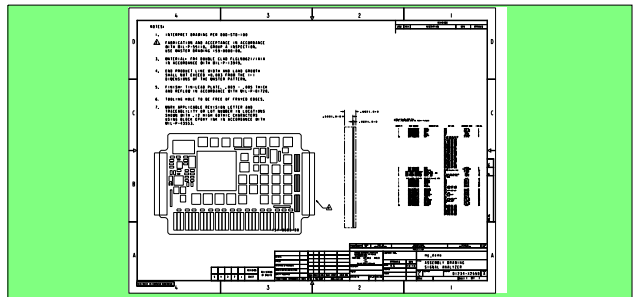
Board Fabrication

Build a versioned container of Gerber and Excellon data for the manufacture of the bare PCB or panel and push them into PLM. The data then might be accessed via a password-protected web client by your PCB manufacturer.

Build the measurement plot and the drill plot. Optionally build an ODB++ container and IEC 356A data. Optionally include panel data, **Board Fabrication** creates and pushes these data into PLM.

Board Assembly

Deposit versioned data for the assembly of the board in PLM such as top and bottom assembly plots.



Include variant schematics and CNC data for assembly machines.

Synchronize Parts

Capture classified electronic component descriptions in PLM including the release state and then synchronize the items with the part data base in the Pads system.

bom_back

Review and optionally back annotate legal Bill-of-Material changes from PLM into Pads Capture.

Adaptability

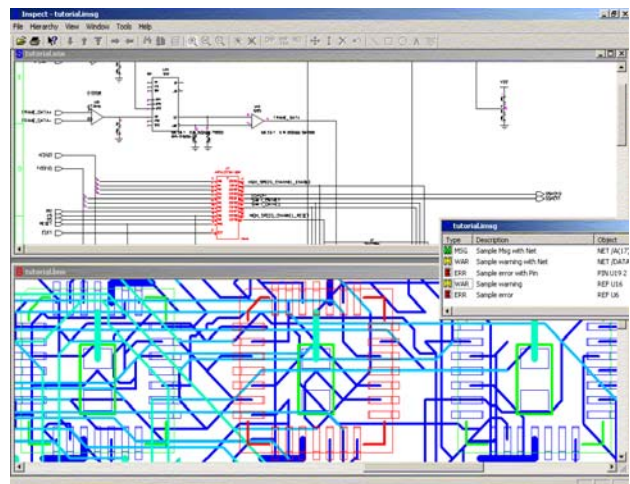
There is a host of features which distinguish your company processes from other companies, ranging from fundamental topics like part number format and BOM sorting sequence to the automatic extraction of variant assembly plots.

So Integrate modules have editable configuration files. These are adapted in the introduction phase to your companies’ processes.

Integrate

Spotlights on some Features

- Interactively selectable variant Bill-of-Materials, schematic plots and assembly plots.
- **BOM**: supporting accessory part association with in-circuit programs as pre-programmed devices, multi_level definition of sequence of parts, creation of manufacturing BOMs which include assembly line management data.
- Support of Workflow, History, designer-group based access control, data reservation, ECO process, library and design exchange with remote sites and external suppliers, and support of concurrent engineering.
- Interdepartmental cooperation synchronized in PLM with mechanical design data, programmable logic, electrical and harness design data, and software design.
- Optionally integrated operation with an advanced viewing and analysis tool for schematics and PCB data.



- Optional support of concurrent design in distributed engineering organisations.
- Monitor the design progress by grading the design process for cost, MTBF, or multi-suppliers.
- Build fabrication BOMs from PLM for your assembly line.
- Load code to program devices into manufacturing machines.
- Create optimized assembly control data for assembly machines.
- Support test fixture creation.
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