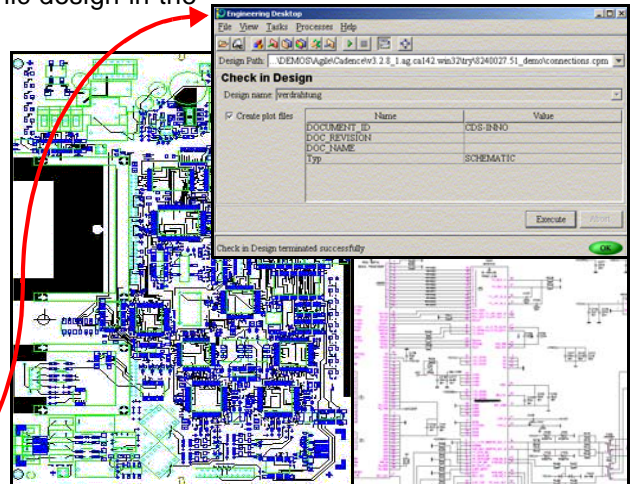


Mentor Expedition® with Product Lifecycle Management

You have invested all this knowledge into your electronic design in the Expedition and Capture systems. 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...

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 an Integrate function from the Integrate Java® IUI. The integration establishes the communication between your Expedition design tools and the PLM system.

Synchronize Metadata

Build the data model of the electronic product automatically in PLM. In the same process, deposit metadata like part number and version from PLM once per project into the CR5000 design structure.

Metadata	Metadata in Table Field	Field Type
Document No.	T_DOC_DAT.DOCUMENT_ID	S80
Revision	T_DOC_DAT.DOC_VERSION	S10
Version	T_DOC_DAT.DOC_REVISION	S10
Customer	T_DOC_DAT.SEC_CUSTOMER	S20

Check-in

Update drawing frame properties in schematics and text strings in PCB drawings with metadata. Check an innovation container with your design into PLM for ECO. Check-in schematic plots in the PDF or TIFF formats.



Redesign

Resolve the design for ECO or re-use from an innovation container in PLM into the Cadence Design environment for immediate use, with optional reservation of the design in PLM.

Get

Reuse a design or part of it in 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. The BOM includes relation attributes like reference designator, x, y, rot, and side.

1209301	340	1	R4	4.445	18.491	180
1209315	350	1	R5	5.985	15.216	180
1209347	360	1	R6	13.395	2.867	180
10721715	370	1	R14	4.985	40.640	90

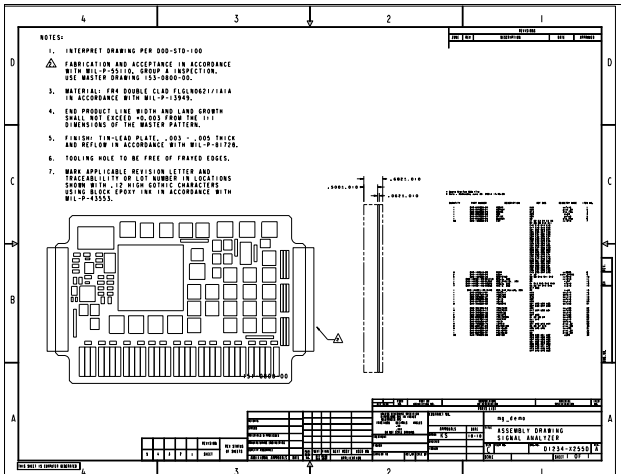
Support of your company's BOM structure including variant Bill-of-Materials from the Cadence design.

Board Fabrication

Based on configurable Allegro Views, build and check-in a versioned container of Gerber and Excellon data for the manufacture of the bare PCB or panel. The data then might be accessed via a password-protected PLM web client by your PCB manufacturer.

Board Assembly

Deposit versioned data for the variant assembly of the board in PLM such as top and bottom assembly plots which are automatically created from symbols and Allegro View files.



Publish Parts

Capture classified electronic component descriptions in PLM including the release state and then synchronize the items with the part descriptions in the Cadence system in the part's *ptf* file.

bom_back

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

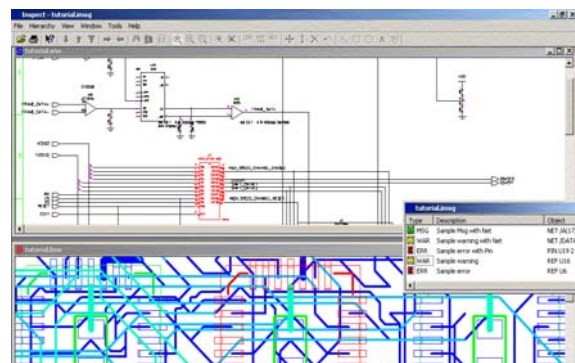
Adaptability

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.

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, multilevel definition of sequence of parts, creation of manufacturing BOMs which optionally include assembly line management data.
- **meta4plot**: update of metadata in drawing frames of plots triggered by a state change in PLM. E.g.: authorized, date and released, date.
- **Publish Parts**: electronic item synchronization from PLM into physical part table files with optional display of associated data sheets. Optional function **Import Parts** to create preliminary classified electronic items in PLM from a local Cadence library.
- Support of Workflow, History, designer-group based access control, data reservation, ECO process and concurrent engineering.
- Interdepartmental cooperation synchronized in PLM with mechanical design data, programmable logic association, electrical and harness design data, 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 organizations.
- Monitor the design progress by grading the design process for cost, MTBF, or multi-suppliers.