Integrate®
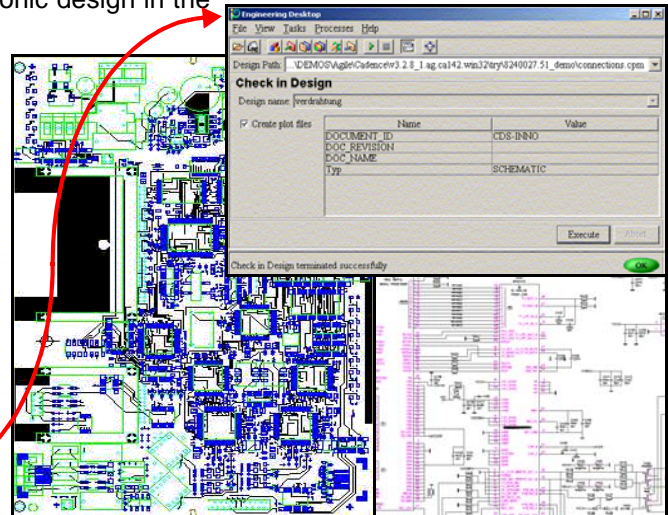
Mentor DX Designer® and Pads PCB®with Product Lifecycle Mangement

You have invested all this knowledge into your electronic design in the DXDesigner 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 DXDesigner design tools and the PLM system.
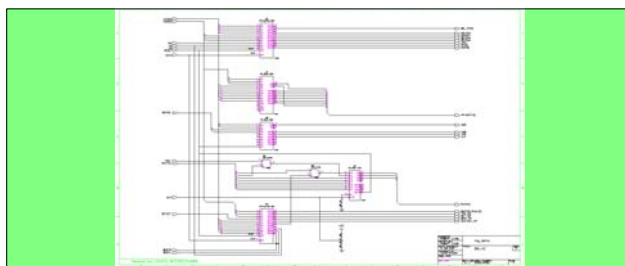
Synchronize Metadata

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 DXDesigner 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 schematic Bill-of-Materials data after Package into PLM for advance material disposition. The parts BOM in PLM includes reference designator attributes. Update the BOM in PLM after PCB Layout with position data like x, y, rot, side, and associated accessory parts like sockets, heatsinks and firmware

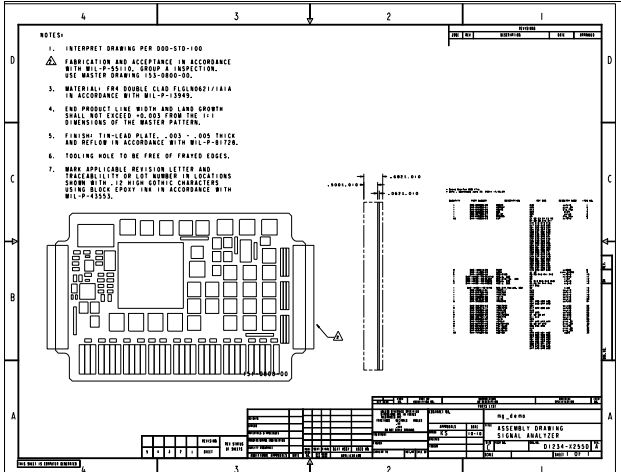Automatic support of your companie's BOM structure including variant Bill-of-Materials from the DXDesigner job.

Board Fabrication

Build and check in a versioned container of Gerber and Excellon data for the manufacture of the bare PCB. The data then might be accessed via a password-protected web client by your PCB manufacturer. Automatically create a drill drawing an IPC netlist, and mechanical CAD data. Optionally create panel data.

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Board Assembly

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

Create a source file with data for the assembly machines.

Publish Parts

Capture classified electronic component descriptions in PLM including the release state and then synchronize the items with the corresponding parts data base in DXDatabook. Include data sheets for viewing from the schematic editor. Create a reference list to see all designs which are affected by the parts changes.

bom_back

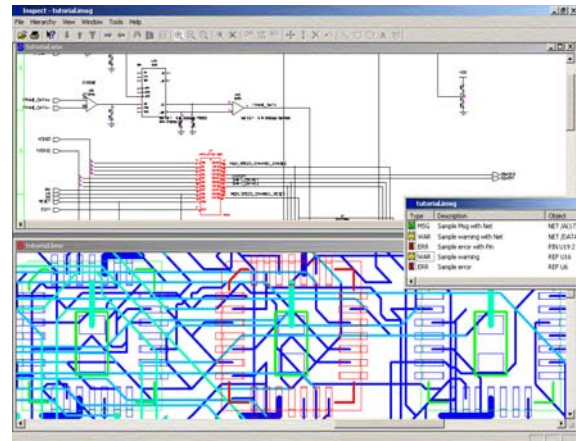Review and back annotate legal Bill-of-Material changes from PLM into the DXDesigner design.

Adaptable

There is a host of features which distinguish your company processes from other companie's, 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, multi_level definition of sequence of parts, and optional creation of manufacturing BOMs which 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 synchronisation 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 part and design re-use in distributed engineering organisations.

- Monitor the design progress by grading the design process for cost, MTBF, or multi-suppliers.