

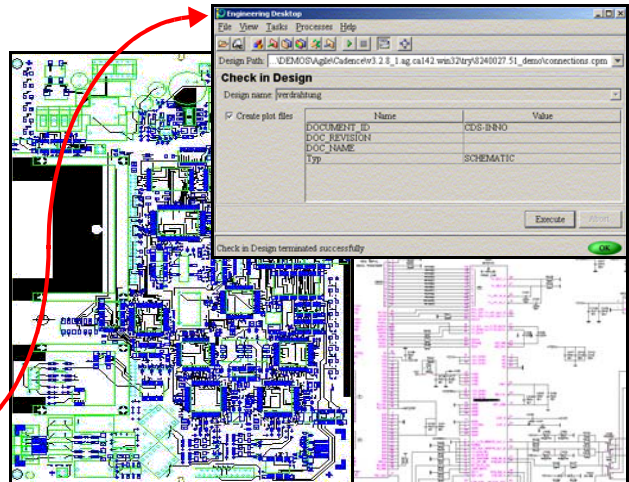
## Altium Designer® with Product Lifecycle Management

- You have invested all this knowledge into your Altium Designer or Protel PMX 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...

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 Integrate Java® IUI. The integration establishes the communication between your Altium Designer or Protel PMX design tools and the PLM system.

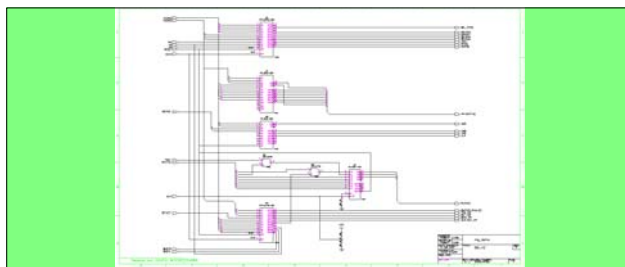
### Synchronize Metadata

Extract metadata like part number and version from PLM once into the Altium Designer or Protel PMX 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.



### Redesign

Resolve the design for ECO or re-use from an innovation container in PLM into the Altium Designer or Protel PMX 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.

1295301	340	1	R4	4.445	19.431	190
1295315	350	1	R5	5.985	15.216	190
1295347	360	1	R6	13.335	2.857	190
10731715	370	1	R14	4.985	40.640	90

Support of your company's BOM structure including variant Bill-of-Materials from the Altium Designer or Protel PMX design.

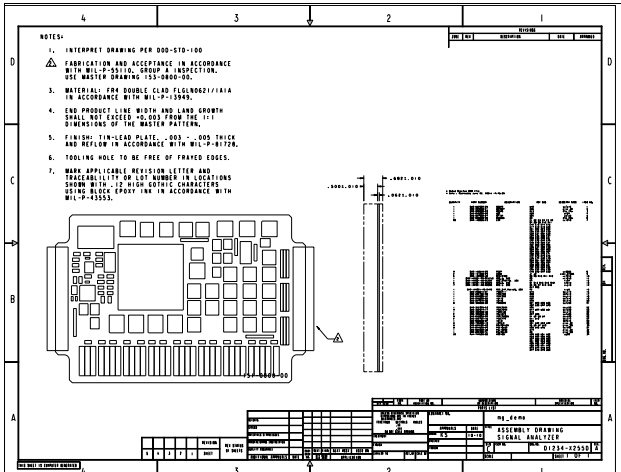
### Board Fabrication

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 web client by your PCB manufacturer.

# Integrate

## Board Assembly

Deposit variant data for the assembly and the programming of the board in PLM and create top and bottom assembly plots.



## Publish Parts

Capture classified electronic component descriptions in PLM including the release state and then synchronize the items with the part descriptions into the Altium Designer or Protel PMX parts database.

## bom\_back

Review and optionally back annotate legal Bill-of-Material changes from PLM into Altium Designer or Protel PMX.

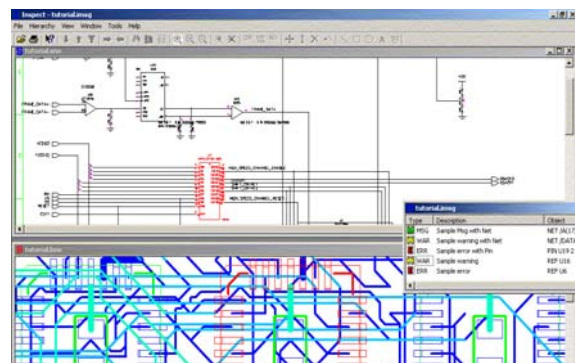
## Adaptability

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, multi\_level 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 synchronisation from PLM into the Altium Designer or Protel PMX library with optional display of associated data sheets. Optional function **Import Parts** to create preliminary classified electronic items in PLM from the Altium Designer or Protel PMX 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 organisations.
- Monitor the design progress by grading the design process for cost, MTBF, or multi-suppliers.