ECAD/MCAD Collaboration

Enables bi-directional collaboration between the electrical and mechanical domains

Overview

Xpedition® xPCB MCAD, formerly known as ECAD/MCAD Collaborator, communicates design data to mechanical CAD systems using the Electrical Design, Mechanical Design (EDMD), ProSTEP-approved data exchange standard based on XML protocol. This allows communication between disciplines at any time or frequency, keeping the participants in their respective system's comfort zone.

For example, an ECAD designer can propose a change and transmit only the data necessary to illustrate the proposal to the MCAD organization, and vice versa for the MCAD designer.

- Enables ECAD and MCAD teams to optimize electronics within tight form-factor constraints while still meeting quality, reliability, and performance requirements
- Replaces paper and verbal interchanges with digital for speedy and error-free changes
- Provides a graphical platform for collaborative "discussions," ensuring that ECAD and MCAD engineers consider the complete set of design requirements
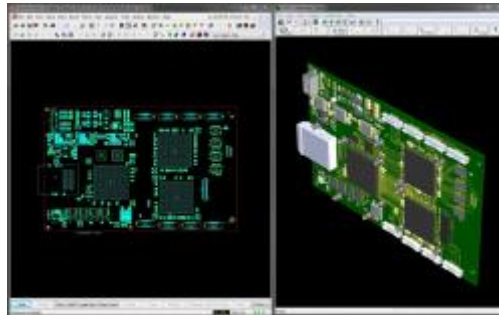- Supports "what-if" scenarios in a graphical "sandbox"

ECAD and MCAD designers can collaborate from within their own environments
Saves on training and onboard time; no need to learn new tools
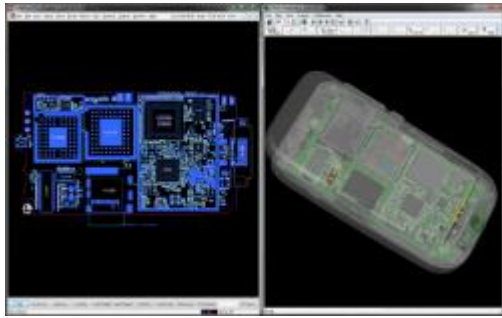
3D visualization of the PCB and enclosure within layout environment

Enables electronics designers to optimize the layout, based on mechanical and manufacturability constraints

Consistent, iterative communication

Keeps design teams synchronized and avoids rework late in the process

Technical Specifications

- Supports "what-if" scenarios in a graphical "sandbox"
- Tightly integrated with the Xpedition Enterprise flow for ease of use
- Communicates to MCAD systems via the electrical design, mechanical design (EDMD), ProSTEP-approved standard XML protocol
- ECAD and MCAD designers can work in the comfort of their own design environments, and quickly and efficiently communicate text and graphics transactions back and forth, as needed
- When mutual agreement is reached between ECAD and MCAD, the changes can be automatically made in the PCB layout
- Collaboration enables ECAD and MCAD teams to optimize electronics within tight form-factor constraints while still meeting quality, reliability, and performance requirements
- Collaboration on what-if scenarios replaces time-consuming re-spins due to errors
- 3D visualization of the PCB and enclosure enables electronics designers to optimize the layout based on mechanical and manufacturability constraints

- Enables accurate and timely bi-directional communication of design change data between ECAD and MCAD