

PADS

MCAD Collaboration

D A T A S H E E T

Overview

Included with PADS® Standard, PADS Standard Plus, and PADS Professional, PADS MCAD Collaborator communicates design intent between electrical and mechanical CAD systems. With it, you can preview and consider design proposals, then accept, reject, and counter-propose design proposals between disciplines at any time throughout the design process. Collaboration is effective and convenient because ECAD and MCAD remain in their respective tools.

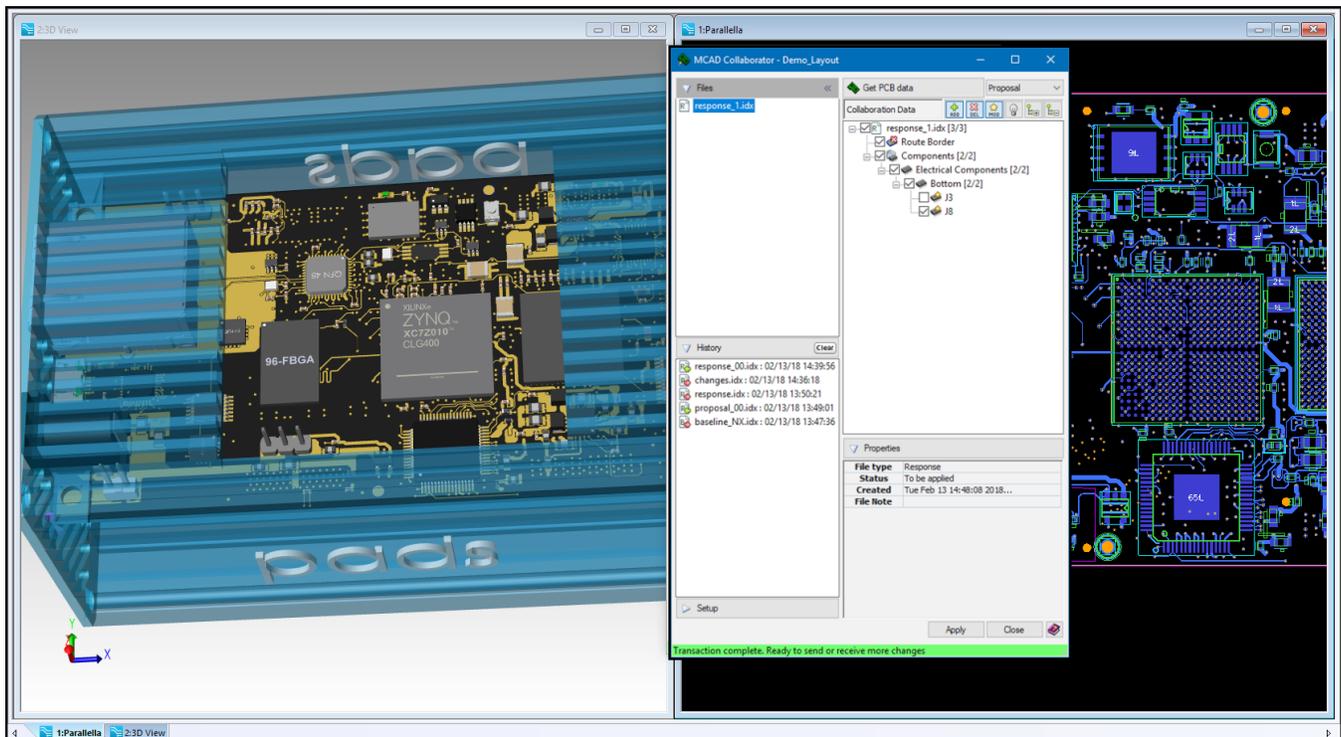
With PADS MCAD Collaborator you can easily collaborate within your own environment, consistently and iteratively, with an intuitive 3D visualization of both the PCB and enclosure. Fast and effective communication between you and your mechanical counterpart means you get your products to market faster while keeping development costs low.

“Best-in-Class companies are ... more likely to use integrated MCAD/ECAD tools.”

Source: Why Printed Circuit Boards Design Matters, Aberdeen Group

PRODUCT BENEFITS:

- Supports all major MCAD vendors
- Shortens the design cycle and minimizes costly prototypes
- Provides real-time communication between ECAD and MCAD design teams
- Improves product quality, reliability, and performance
- Enables speedy, error-free design changes
- Graphically supports “what-if” scenarios
- Helps detect electro-mechanical conflicts



ECAD-MCAD collaboration breaks down the communication barriers between the electrical and mechanical domains.

COLLABORATE FROM WITHIN YOUR OWN ENVIRONMENT

PADS MCAD Collaborator utilizes the ProSTEP iVIP format to enable effective real-time collaboration. Developed in a joint effort with the industry's leading ECAD and MCAD vendors, including Siemens® NX, PTC® Creo®, and Dassault Systèmes' SolidWorks® and CATIA®, this schema enables accurate and timely bi-directional communication of incremental design change data between ECAD and MCAD domains.



Easy-to-use controls guide you through the steps of design change proposal, rejection, acceptance, agreement, and design synchronization. Unlike IDF, which overloads communication by transferring more design data than necessary, PADS uses IDX data exchange files to transmit only the data needed to propose changes to the MCAD team.

Mechanical designers also stay in their comfort zone, working within their own toolset to communicate changes to you. Once both sides have come to a mutual agreement, any required changes are updated automatically in the database for synchronization.

By transmitting only relevant data for change proposals, your intellectual property is preserved. This is particularly important when you and your mechanical counterpart work for different companies. There is no need to learn tools particular to the other discipline. As part of the collaboration process, you can also include notes or comments for each data element, and for the collaboration data file itself, in order to provide feedback or other relevant information to each other.

Collaboration is possible in real-time or in batch mode via a shared directory, email, or Dropbox location, for collaboration across different time zones.

A TYPICAL USE CASE (ECAD INITIATED)

Here is a typical use case showing an ECAD-MCAD change proposal:

1. The ECAD engineer (you) proposes a new connector location to the MCAD engineer in a collaboration session.
2. After evaluating the change in his or her own design system, the MCAD engineer determines that the new location will be problematic, so s/he rejects the proposed change and proposes an alternative location that won't adversely affect the mechanical enclosure design.
3. You review the suggestion in PADS MCAD Collaborator and find it satisfactory. You apply the change in PCB layout and send an acceptance notice back to MCAD.
4. Both design databases are updated automatically with the same change to keep them synchronized. The transaction is logged and tracked by the PADS MCAD Collaborator.

3D VIEWING OF COLLABORATION DATA

As the collaboration preview between you and the MCAD team takes place in PADS 3D, you can browse and import exact 3D models. This provides a true 3D view of the design that can be rotated and inspected visually for interferences between ECAD and MCAD items.

For example, if your 3D review of an MCAD proposal shows that a mounting hole has been placed in an unacceptable location, your team can easily justify the rejection of that hole. Rejections can be accompanied by a collaboration note that tells the MCAD engineer why the hole was rejected. This enables the MCAD engineer to decide if a design change is warranted.

SUMMARY

To prevent electro-mechanical violations from occurring when a PCB is placed within an enclosure or system, electrical and mechanical designers must take component and mechanical clearances into account. The PADS MCAD Collaborator considers mechanical requirements during layout and efficiently communicates them between the electrical and mechanical flows.

With PADS, you can be sure your designs are correctly aligned for manufacturing, thereby helping to avoid re-spins and the discovery of conflicts and interferences during assembly and installation that cost time and money.

For the latest product information, call us or visit: www.pads.com

©2018 Mentor Graphics Corporation, all rights reserved. This document contains information that is proprietary to Mentor Graphics Corporation and may be duplicated in whole or in part by the original recipient for internal business purposes only, provided that this entire notice appears in all copies. In accepting this document, the recipient agrees to make every reasonable effort to prevent unauthorized use of this information. All trademarks mentioned in this document are the trademarks of their respective owners.

Corporate Headquarters
Mentor Graphics Corporation
8005 SW Boeckman Road
Wilsonville, OR 97070-7777
Phone: 503.685.7000
Fax: 503.685.1204

Sales and Product Information
Phone: 800.547.3000
sales_info@mentor.com

Silicon Valley
Mentor Graphics Corporation
46871 Bayside Parkway
Fremont, CA 94538 USA
Phone: 510.354.7400
Fax: 510.354.7467

North American Support Center
Phone: 800.547.4303

Europe
Mentor Graphics
Deutschland GmbH
Arnulfstrasse 201
80634 Munich
Germany
Phone: +49.89.57096.0
Fax: +49.89.57096.400

Pacific Rim
Mentor Graphics (Taiwan)
11F, No. 120, Section 2,
Gongdao 5th Road
HsinChu City 300,
Taiwan, ROC
Phone: 886.3.513.1000
Fax: 886.3.573.4734

Japan
Mentor Graphics Japan Co., Ltd.
Gotenyama Trust Tower
7-35, Kita-Shinagawa 4-chome
Shinagawa-Ku, Tokyo 140-0001
Japan
Phone: +81.3.5488.3033
Fax: +81.3.5488.3004

Mentor[®]
A Siemens Business

MGC 03-18 1032367-w