



ALTIUM 365

BLOG

Unite PCB and Mechanical Designers



In the world of product design, effective collaboration between mechanical and electrical designers is crucial for creating better, high-quality products. However, the language barrier and inefficient data exchange processes often hinder this collaboration.

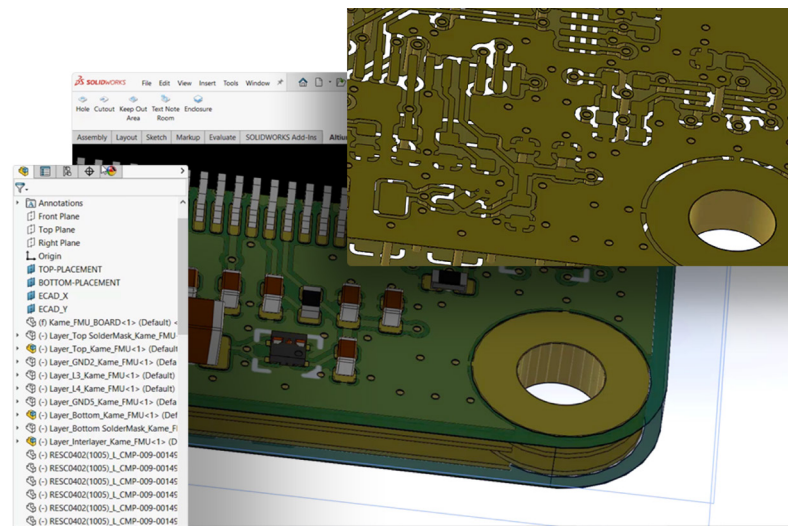
Time-to-market pressures are a constant reality for companies striving to stay competitive. Faster development cycles, cost reduction, and superior product quality are the goals. Unfortunately, the lack of communication and collaboration between mechanical and PCB design teams can result in errors, delays, and increased costs. To overcome these challenges, companies need to find ways to improve the efficiency of their design practices and foster collaboration between these two critical teams.

Workflows Between PCB and Mechanical Designers are Inefficient

For many companies, the collaboration workflows between PCB and mechanical designers are far from efficient. Ineffective design flows waste the valuable time of both electrical and mechanical designers. Communication is often limited to informal methods like email, leading to a lack of clarity and potential misunderstandings. File exchange methods, such as DXF, STEP, IDF, and IDX, although commonly used, are time-consuming and fail to create a truly collaborative environment.

- What if there was a solution that allowed each designer to work seamlessly in their native design tool?
- What if data transfers could happen instantly, without the need for intermediate file formats?
- What if changes made by one designer were highlighted and immediately reflected in the other's workspace?

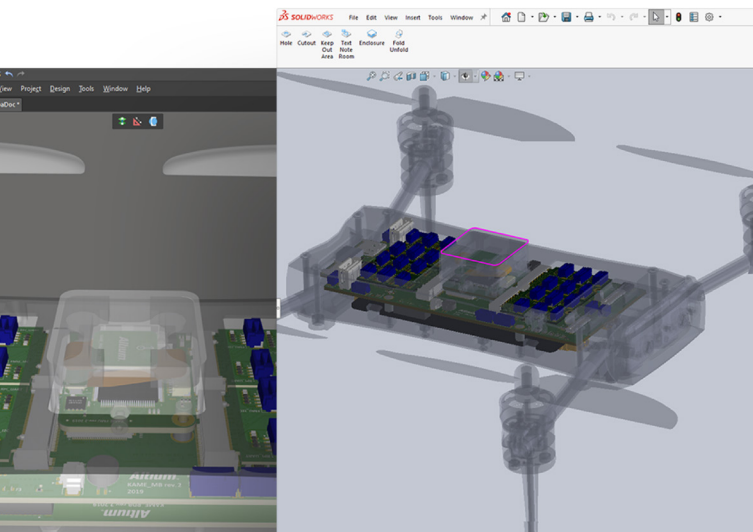
Such a collaborative environment would enable designers to focus on their expertise while fostering efficient collaboration to create the best products.



Collaborative Workspace for Mechanical & PCB Design

Altium MCAD CoDesigner is a powerful tool designed specifically for mechanical designers working alongside Altium Designer, a world-class PCB design tool. This innovative solution unites mechanical and PCB designers within a collaborative workspace that integrates their respective native design tools.

Altium MCAD CoDesigner provides a plug-in for the most popular mechanical CAD systems, ensuring a seamless integration between electrical and mechanical design. With this collaborative solution, PCB designs are directly imported into the native MCAD workspace, and mechanical designs can be effortlessly shared with PCB counterparts.



True ECAD-MCAD Co-design

One of the standout features of Altium MCAD CoDesigner is its ability to automatically convert design data between electrical and mechanical CAD systems. This seamless data exchange ensures that both the electrical and mechanical aspects of the design are accurately represented, fostering collaboration and reducing the risk of errors. Real-time synchronization between ECAD and MCAD enables immediate reflection of design changes, facilitating efficient collaboration.

Fit, Form, and Function

Altium MCAD CoDesigner goes beyond mere data transfer by allowing detailed copper geometry to be transferred into MCAD for mechanical analyses, such as thermal and vibration simulations. This comprehensive understanding of the board's performance in various mechanical scenarios enables designers to optimize their designs. Moreover, MCAD CoDesigner facilitates the precise shaping of boards to fit complex enclosures, ensuring a perfect fit within the final product. Additionally, it seamlessly transfers flex and rigid-flex board designs, guaranteeing accurate fit and optimal performance.

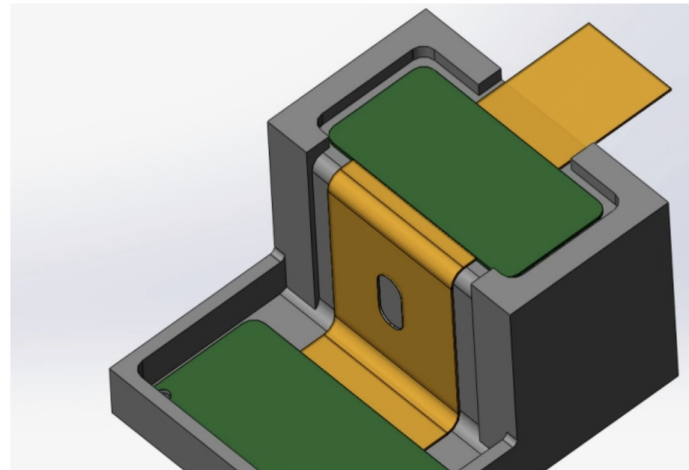
Digital Twin on One Platform

Altium MCAD CoDesigner offers an innovative workspace where designers can visualize and version-control both mechanical and electrical designs. This comprehensive view of the entire design process enables thorough analysis and optimization. Design reviews for both mechanical and electrical aspects can be conducted and documented, ensuring.

Simplified & Enhanced Design Process

The current scenario, where mechanical and PCB designers work in separate worlds using different languages, poses a significant challenge to the design process. This disconnect leads to inefficiencies, extended design times, and the possibility of undetected errors until later stages. Ultimately, it prevents the design from reaching its full potential.

Altium MCAD CoDesigner addresses this problem by providing a collaborative design environment that bridges the gap between mechanical and PCB designers. With Altium's solution, designers can seamlessly work in their native tools while enjoying real-time data transfers and synchronized design changes. This streamlined collaboration not only saves precious design resources but also significantly improves the quality of the final product.



Learn More Now

If you're eager to create better products, reduce time-to-market, and enhance the overall design quality, Altium's collaborative design environment for mechanical and PCB designers is the answer. Take the next step and discover how Altium MCAD CoDesigner can revolutionize your design process.

Empower your design team, eliminate inefficiencies, and unlock the full potential of your electromechanical product designs with Altium MCAD CoDesigner.