MCAD + ECAD
Better Together with CoDesigner

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Designing Electronics is Easier with Altium CoDesigner

The Altium MCAD CoDesigner capability is part of the Altium Subscription and accessible through Altium 365. CoDesigner allows the most recent version of boards to be easily included in assemblies, eliminating the need to use single imported STEP files. It also features support for the re-usage of models across projects, as well as rigid-flex support.

CoDesigner makes it easy for mechanical engineers to work alongside their PCB designer colleagues by simply downloading a free plug-in for their MCAD tool and then continuing to work with their native assemblies without leaving their MCAD environment. Once they're ready to share, mechanical designers can just push/pull changes from their MCAD tools into the Altium ECAD space.

MCAD CoDesigner Capabilities

Share design data with your mechanical team and effortlessly create today's advanced electronic products.

Bi-directional ECAD-MCAD Design

Work together with your electrical engineering team and share design revisions to ensure your board fits right the first time.

- Keep your mechanical constraints alive throughout the collaboration process.
- No more error-prone file exchange between ECAD and MCAD tools.
- Quickly push and pull changes between Altium Designer and your mechanical environment.

Works with Dassault Systèmes SOLIDWORKS®, PTC Creo Parametric®, Autodesk Inventor®, and Autodesk Fusion 360®.

Advanced Copper Geometry in MCAD

Get all the data needed to perform detailed mechanical checks or FEA with advanced geometry support for extruded copper and via transfers.

ECAD-MCAD Rigid-Flex Synchronization

Design your electronics to meet the needs of today's portable and flexible devices with rigid-flex support.

Available now for Dassault Systèmes SOLIDWORKS and PTC Creo Parametric.

ECAD-MCAD Native Component Linkage

Save time on your PCB layout by placing the key components directly in an MCAD environment with full visibility for enclosure constraints. Components placed in an MCAD tool are automatically synchronized with your ECAD components to simplify your design process.

Don't worry about data duplication when building PCB in MCAD. The native MCAD components can be caught up automatically.

Available now forDassault Systèmes SOLIDWORKS, PTC Creo Parametric, Autodesk Inventor.

MCAD-ECAD Enclosure Exchange

Save time on your PCB layout by representing a mechanical enclosure in ECAD. That enclosure can be sent from MCAD in just two clicks.

Available now forDassault Systèmes SOLIDWORKS, PTC Creo Parametric, Autodesk Inventor.

Technical Specifications

Altium CoDesigner

Altium CoDesigner is an interface for transferring printed circuit board designs between ECAD and MCAD design domains. Once the CoDesigner plug-in has been added to the ECAD and MCAD software, CoDesigner can pass design changes back and forth through Altium's managed content server.

- For use with Altium Designer 20.2 or later, with the MCAD CoDesigner extension version 2.1.0 or later; supported MCAD programs with CoDesigern Add-In version 2.1.0 and above

- Use of the ECAD/MCAD capability requires no additional licensing when managed content servers are hosted on Altium 365; it's also accessible via self-managed Altium Concord Pro®, delivered as a traditional on-site server that users install, setup and manage on a server within their own network

- Supported MCAD platforms: PTC Creo Parametric (4.x , 5.x, 6.x, 7.x+); Autodesk Inventor Professional (versions 2019, 2020, 2021); Autodesk Fusion 360, Dassault Systèmes SOLIDWORKS (Standard, Pro, and Premium; versions 2018, 2019, 2020, 2021).

Collaborative Design Interface

Both Altium Designer and MCAD interface to each other through a panel in the software. In Altium Designer, it's the MCAD CoDesigner panel; in MCAD software, it's called the Altium CoDesigner panel, or tab.

- In Altium Designer, the MCAD CoDesigner panel is used to push and pull design changes back and forth, and display messages

- In the MCAD software, the Altium CoDesigner panel is used to:
  - *Create new collaboration projects*
  - *Open an existing collaboration project*
  - *Configure collaboration options*
  - *Push and pull design changes back and forth*
  - *Display messages*

Installing and Configuring Altium CoDesigner in MCAD Software

The MCAD CoDesigner extension is included in the standard Altium Designer installation, so the MCAD CoDesigner panel is always available in the PCB editor.

An Add-In must be added to access the Altium CoDesigner panel in MCAD software. The Add-In can be downloaded from:

- The Altium website download page
- The MCAD Plugins page when logged in to the Altium 365 Workspace

  An Auto-Update feature was included in the MCAD Add-In in version 2.0.1; a dialogue box will automatically appear to alert users to update subsequent versions accordingly.

  The MCAD Add-In can also be updated by downloading a new version from the Altium website download page and installing it over the top of the current Add-In.

More detailed information can be found [here](#).

To contact our sales team about Altium Designer or an Altium subscription at: **sales.na@altium.com** or **1-800-544-4186**