# WHAT'S NEW IN ALTIUM DESIGNER® 17.1

FEATURE	DETAIL	BENEFITS
Draftsman® Enhancements	Add new PCB measurements between datums and design objects.	Precisely dimension objects and measurements with improved workflow efficiencies in Draftsman.
DRC Flexibility	Exclude design rule violations from further checks and add them to a violations report with author info and reason for violation exclusion.	Exclude formal DRC errors from future checks to enable work in progress project release in Altium Vault and combine them in a violations report
Object Specific Keepouts	Create object specific keepout regions to prohibit and allow the objects you want.	Automatically ensure object types don't get placed in restricted board regions, so that you don't have to manually.

# **ALTIUM DESIGNER® KEY FEATURE SUMMARY**

FEATURE	DETAIL	BENEFITS
Dynamic Copper	Customize copper borders and add/subtract overlaying copper.	Save time customizing your copper polygons with easy-to-use editing modes and customizable borders.
ActiveRoute®	Fully control your routing workflow with guided routing technology that adheres to design constraints.	Design the highest quality PCB layouts in a fraction of the time with high- performance, guided routing technology that routes on one or multiple layers simultaneously.
Track Glossing	Automatically optimize the length and quality of PCB nets.	Automatically align routing paths without ever having to waste time manually adjusting individual nets.
Dynamic Selections	Define selection areas for PCB objects with any freeform shape or gesture.	Quickly select specific areas or objects on your PCB layout to easily group and edit design objects.

FEATURE	DETAIL	BENEFITS
Backdrilling	Create rules for drill sizes, max stub lengths, and start/stop layers for drill holes.	Reduce signal integrity disturbances on high-speed PCBs with complete control over every drill hole.
Auto Cross-Probing	Automatically cross-reference every net, pin and component on your PCB.	Quickly navigate between multiple files in your design project with cross-referencing for every design object.
PDF/A Support	Generate ISO-standardized PDF files with embedded annotations and fonts.	Maintain the long-term integrity of your documentation with PDF files that work on any device.
PCB Component Parameters	Automatically synchronizes component parameters between schematic and pcb.	Easily define specific design rule scopes and communicate intent to manufactured based on your part parameters.
Intuitive Interactive Routing	Interactively route your board with several powerful routing options including autoroute, walk around, push, hug and push, and ignore obstacle.	Save time when routing your board with powerful and intuitive interactive routing options that allow you to precisely control the organization and flow of your board layout.
High-Speed Routing Tools for DDR3/4 & USB3.0	Define speed signal paths for modern, multi-topology high-speed PCB designs with the xSignals wizard.	Easily plan and constrain your high-speed designs with xSignals. Route your high-speed design with fully configurable differential pair routings that carry precise signal lengths across your PCB.
Powerful NATIVE 3D™ PCB Editing with Support for Rigid- Flex Circuits	Add rigid-flex sections to your PCB design with bikini coverlay support and check clearances in NATIVE 3D.	Easily design flex and rigid-flex PCBs with extended coverlay support. Confirm that your board fits your mechanical enclosure right the first time with real-time clearance checking in NATIVE 3D.
Customizable Design Rules & Constraints	Set specific manufacturing guidelines with a customizable design rule system including specifications for board outlines, solder mask expansions, and drill placement.	Keep your board layout error-free and in line with your specific manufacturing guidelines with a fully customizable design rule system and advanced query editor.
Enhanced Layer Stack Manager	Define and manage all of the layer stacks in your design and account for rigid-flex and complex high-speed stackups.	Easily manage the layers stacks for your rigid-flex or high-speed design in one central location. Add multiple layer stacks using subsets of materials used in your primary layer stack.
Unified Design Environment	Unites your design process together between schematic capture and PCB layout with a unified interface and design environment.	Improve your design efficiency and productivity in schematic capture or PCB layout with the same unified interface and design environment.

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Seamless ECAD/MCAD NATIVE 3D Integration	Import or automatically generate 3D STEP models and check board clearances with mechanical enclosures in NATIVE 3D.	Ensure your board fits your mechanical enclosure right the first time without the need for costly prototypes. Check fitting with real-time clearance checking in NATIVE 3D.
Auto Cross-Probing	Cross probe between objects on your schematic document and corresponding objects on your PCB.	Easily locate and edit similar objects between your schematic and PCB layout, with full cross-probing support for components, buses, nets, pins, and pads.
Real-Time Supplier Links	Link directly to part suppliers with included data for pricing and availability.	Pick parts for your design that provide the best price and exact availability you need for your budget and time-to-market goals.
Flexible Design Variants	Create multiple versions of a board design with modifications to objects and other design elements.	Save time producing variations of your original design by creating multiple versions with different components and other version-specific design elements.
Automated Design Reuse Tools	Reuse design elements on future designs with snippets, multi-channel designs, and pad & via libraries.	Shave hours off of future projects by reusing sections of circuitry or creating templates for pads and vias.
Draftsman: Integrated Documentation Tool	Create complete documentation for fabrication and assembly in your design workspace.	Save time creating and updating assembly and fabrication documentation with a set of powerful and easy-to-use documentation tools integrated in Altium Designer.
Integrated Version Control	Check design files in and out of a central repository and track changes made to your design.	Know exactly who made changes to your design and when with integrated version control. Detailed change logs allow you to compare changes and keep your design on track.
Comprehensive Library Management	Add components and schematic templates to your library for later design reuse, or link to your existing company database.	Avoid re-creating components and schematics with an integrated library. Link to your existing company database to use approved parts on your design.
ACTIVEBOM® Interactive BOM Management	Get real-time cost estimation and part tracking throughout your entire board design process.	Make the most informed part selections and meet your project budget with ongoing cost estimations and availability directly in your BOM.
Altium Vault® Integration	Provides a centralized platform for design data management.	Take the guesswork out of managing and organizing your design workflow, with a centralized platform for managing design data, projects, and infrastructure.
Design Importers <sup>1234</sup>	Import schematics and PCBs from P-CAD®, EAGLE®, OrCAD®, PADS®, xDxDesigner, Xpedition®, CADSTAR®, and Allegro® to Altium Designer®.	Save time re-creating schematics, board layouts, and associated design data with an automatic importer of project files from P-CAD, EAGLE, OrCAD,PADS, Xpedition, CADSTAR, and Allegro.

# **ALTIUM DESIGNER® 17.1**

### **KEY FEATURE SUMMARY**

FEATURE	DETAIL	BENEFITS
Offline Design System	Specify network connectivity for specific applications in Altium Designer.	Always remain in complete control of what network data you share with the outside world by specifying connectivity for specific applications including licensing servers, part supplier connections and more.
Visual Clearance Boundaries	Visually see clearance boundaries between traces and components as you route your board.	Clearly understand the impact of your routing decisions in real-time with visual clearance boundaries between traces and components on your board.
Component Placement System	Dynamically place and drag components that align with other objects on your board.	Design the most organized and efficient board layout with the ability to place and drag components that push, avoid, and snap-to alignment with other objects on your board layout.
3D STEP Model Generation Wizard	Generate data-rich 3D STEP models with included parametric data.	Easily generate the most realistic, accurate, and data-rich 3D models and get an exact representation of your physical board in real-time NATIVE 3D.
Alternative Part Choice System	Specify pin compatible backup part choices directly in your BOM and automatically substitute part numbers as needed.	Have complete control over your component selection process and avoid any delays when manufacturing your board by specifying backup part choices directly in your BOM.

<sup>1</sup>**Xpedition**<sup>®</sup> and **PADS**<sup>®</sup> are registered trademarks of Mentor Graphics Corporation and Altium claims no rights therein.

 $^2\textbf{EAGLE}^{\$}$  is a registered trademark of Autodesk Inc. and Altium claims no rights therein.

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#### **ABOUT ALTIUM**

Altium LLC (ASX: ALU) is a multinational software corporation headquartered in San Diego, California, that focuses on electronics design systems for 3D PCB design and embedded system development. Altium products are found everywhere from world leading electronic design teams to the grassroots electronic design community.

With a unique range of technologies Altium helps organisations and design communities to innovate, collaborate and create connected products while remaining on-time and on-budget. Products provided are ACTIVEBOM®, ActiveRoute®, Altium Designer®, Altium Vault®, Autotrax®, Camtastic®, Ciiva™, CIIVA SMARTPARTS®, CircuitMaker®, CircuitStudio®, Codemaker™, Common Parts Library™, Draftsman®, DXP™, Easytrax®, NanoBoard®, NATIVE 3D™, OCTOMYZE®, Octopart®, P-CAD®, PCBWORKS®, PDN Analyzer™, Protel®, Situs®, SmartParts™ and the TASKING® range of embedded software compilers.

Founded in 1985, Altium has offices worldwide, with US locations in San Diego, Boston and New York City, European locations in Karlsruhe, Amersfoort, Kiev, Munich and Zug and Asia Pacific locations in Shanghai, Tokyo and Sydney. For more information, visit www.altium.com. You can also follow and engage with Altium via Facebook, Twitter, LinkedIn and YouTube.

