

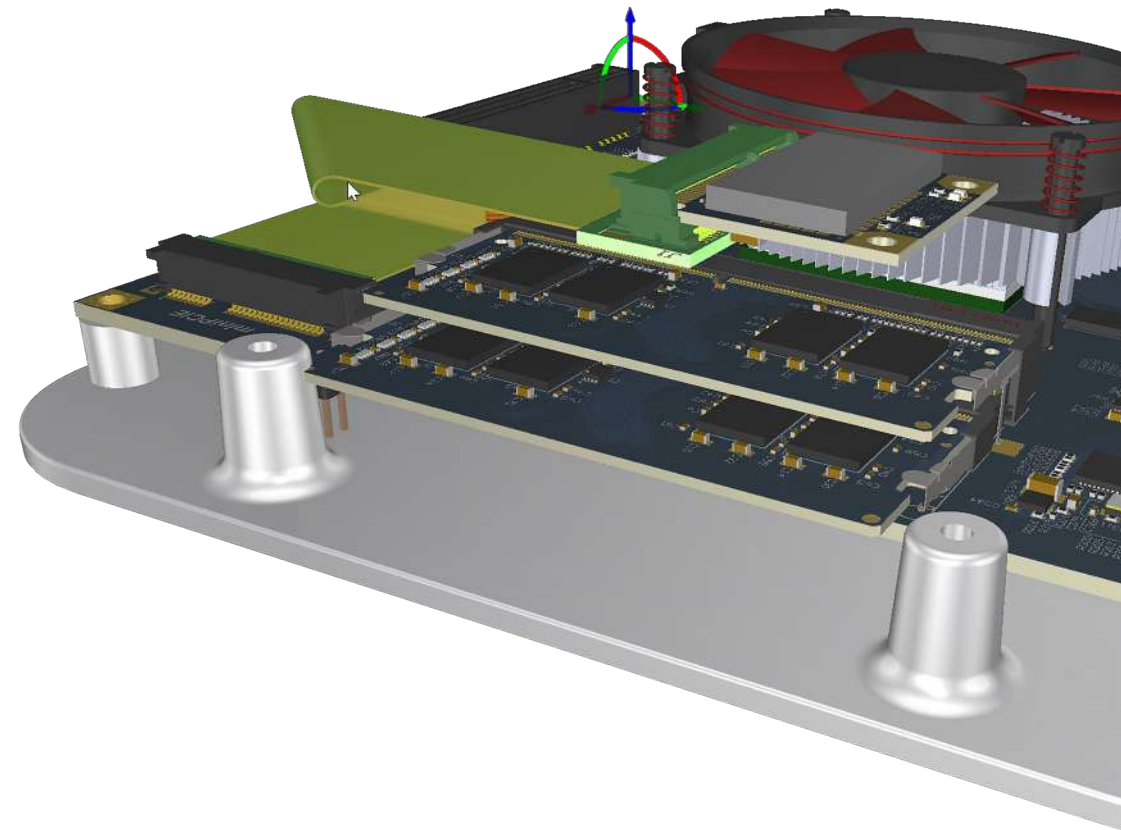
## EASY, MODERN, EVEN MORE POWERFUL

Altium continues to deliver user-focused, easy-to-use and performance-enhancing PCB design tools as part of a single unified solution, with the introduction of Altium Designer 19.

Altium Designer 19 is the result of significant investment in 3D modeling, routing, software design, and supply chain innovation, with the end goal of making electronics design more efficient, powerful and effective, and more enjoyable for engineers and PCB designers everywhere.

You can render and collision-check Multi-Board PCB projects in a fraction of the time, and create dense multi-layer high-speed and HDI designs with rapid productivity and confidence. Finding and placing components to use in your designs is no longer a drag with Altium Designer - the exceptionally fast and accurate Part Search coupled with symbol, footprint and 3D model direct placement will make designing and design BoM management a joy.

With the latest version of Altium Designer, you're always on the cutting edge with the easiest, most modern, highest power board level electronics design environment available.



## NATIVE 3D™ MULTI-BOARD MODELLING AND COLLABORATION

### HIGHLIGHTS

### DEFINITION

### ADVANTAGES

#### NATIVE 3D™ Multi-Board Solid Modeling Kernel

Natively models multi-board assemblies with geometric solids as opposed to surfaces.

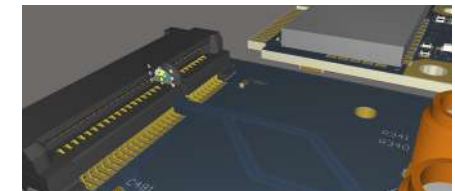
Extremely fast performance and rendering over earlier versions enabling new features (see below).



#### Object Smart Mates

A true link between objects in 3 dimensions that stays consistent.

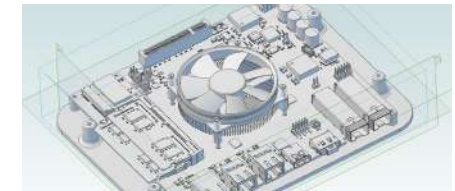
Allows rapid alignment of objects and boards to each other or other 3D models in the assembly, and for those alignments to move together. Far more intuitive and time-saving.



#### Multi-Board MCAD Export

Full import and export of STEP and Parasolid models.

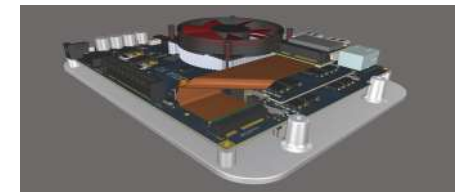
The entire assembly may be modeled and clearance-checked in Altium Designer before exporting to MCAD.



#### Rigid-Flex Multi-Board Modeling

The Multi-Board Assembly editor now supports Flex and fully folded Rigid-Flex boards.

Flex interconnects in the folded state are accurately mated into the full assembly, enabling right-first-time fit and signal management.



## HIGHLIGHTS

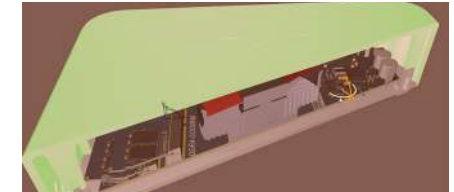
## DEFINITION

## ADVANTAGES

### Any-Angle Sectional Views

Cross-sectional views are not limited to existing XY, XZ or YZ planes.

Allows cross-sectional views of the Multi-Board Assembly on any user-defined plane, with improved solid rendering.



## FASTER, HIGHER-QUALITY ROUTES AND EDITING

## HIGHLIGHTS

## DEFINITION

## ADVANTAGES

### Single Ended and Differential Impedance Control

Solver based impedance profiles from the Layer Stack are accessible to routing and design rules.

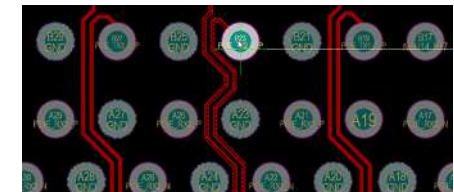
Faster setup of high-speed impedance controlled routing rules and automatic trace and pair width and spacing during routing.



### Glossing, Coupling and Pad Entry

Improved quality of routes, including push and shove.

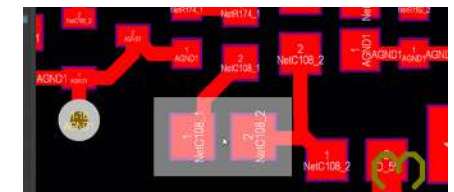
Far less time is spent on cleanup. Initial routing is higher quality and re-routing creates clean results on the first pass.



### Auto Re-route on Component Move

Dragging components allows re-route and gloss without breaking connections.

High-quality glossed pad entries and connections are maintained when adjusting component placements, saving time.



## ADVANCED LAYER STACK & IMPEDANCE DESIGN

### HIGHLIGHTS

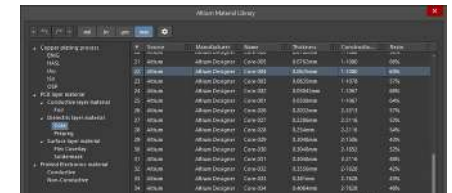
### DEFINITION

### ADVANTAGES

#### Materials Library

Conductor and Insulation material libraries can be created, stored and imported.

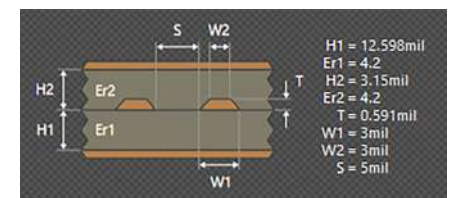
Accurate layer stack definition and impedance controlled routing profiles are calculated using materials data.



#### Impedance Profiles Creation

Single-Ended and Differential Impedance is calculated using a fast accurate field solver.

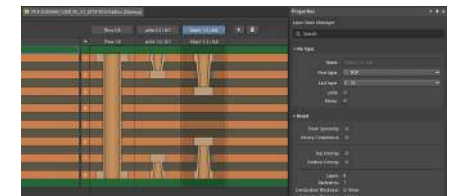
Trace widths and spacings can be defined for target impedances, and easily drive the interactive routing to automatically choose the right widths and gaps during PCB routing.



#### μVia, SkipVia and Backdrills design (Fearless HDI™)

Formal definition and visualization of μVias, SkipVias and backdrills in the Layer Stack.

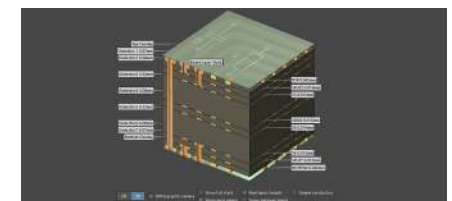
Allows accurate planning of HDI boards and immediate visual feedback during layer stack planning and routing, removing doubts about manufacturability.



#### 3D Layer Stack Visualization

2D and 3D, scaled and non-scaled visual layer stack and vias representation.

Allows unambiguous reporting and visual feedback during layer stack planning to remove all doubts about lamination, plating and drilling cycles.



## HIGHLIGHTS

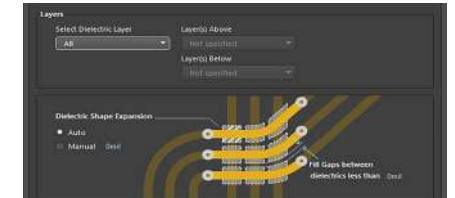
## DEFINITION

## ADVANTAGES

### Conductive Ink Technologies

Additive printed electronics including conductive and insulating inks.

Allows conductive ink printed circuits design and routing, and enables auto-generation of multiple insulating and conductive ink layers for modern prototyping and molded interconnect parts.



## HDI & $\mu$ VIA MODELLING

## HIGHLIGHTS

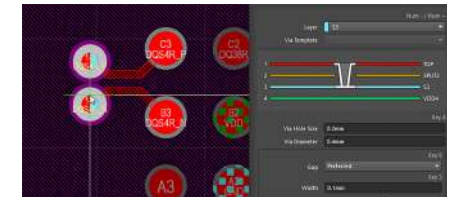
## DEFINITION

## ADVANTAGES

### $\mu$ Via and Skip-Via Profiles and Placement

Definition of HDI structures:  $\mu$ Via, SkipVia, and stacked  $\mu$ Vias.

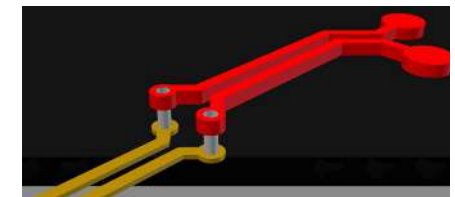
Designers can unambiguously perform HDI layouts with  $\mu$ Vias, via-in-pad, and laser drilled structures, giving confidence and clear documentation for manufacturing.



### Interactive HDI Visualization

2D and 3D visual representation of all via structures.

Defined and placed  $\mu$ Via, SkipVia and stacked via structures are interactively viewed in 2D and 3D, with design rule and visual confirmation of construction for manufacturing.



## HIGH PERFORMANCE PARTS SEARCH, PLACEMENT & CREATION

### HIGHLIGHTS

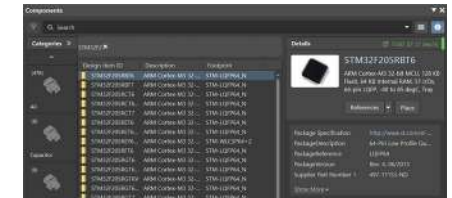
### DEFINITION

### ADVANTAGES

#### Central Components Panel

Components Panel for finding and placing from any library.

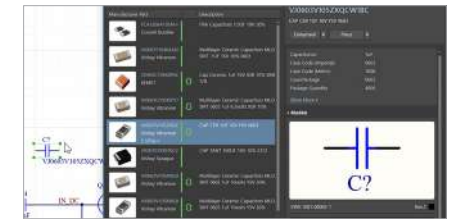
A unified components panel allows rapid parts search of all components in your libraries regardless of what kind of library you use, with all results directly placeable in schematic and PCB designs.



#### Direct Part Search and Placement

Lightning fast Parts and models search.

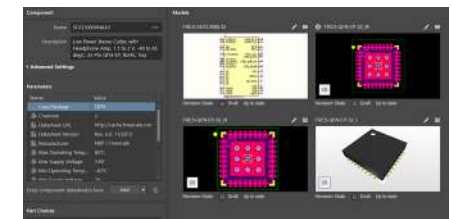
Parts search is extremely fast, and allows pre-and post filtering of results by type, packaging, values, or salient parameters, helping you find the parts you need when you need them without having to leave the design environment.



#### Unified Component Editor

A new Unified Component Editor brings symbol, footprint, simulation and supply chain together.

The new central component editor allows search and reuse of symbols, footprints, supply chain and parameters from Octopart, and includes a powerful symbol wizard, IPC compliant footprint wizard, and automatic part search.



## REFINED PCB DOCUMENTATION

### HIGHLIGHTS

### DEFINITION

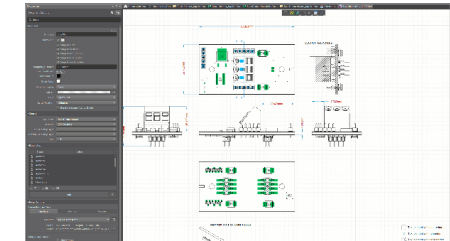
### ADVANTAGES

#### Draftsman®

Directly place all of the necessary assembly and manufacturing views with actual source data for easy updates.

Eliminate yet another product and disparate process from your design workflow to generate your fabrication and assembly drawings.

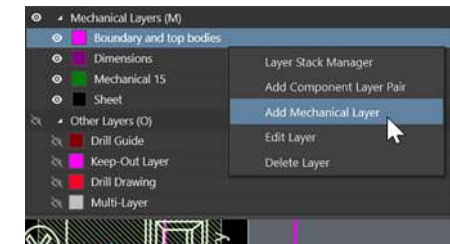
All drawings update to match source data with the push of a button, without any file exchanges.



#### Unlimited Mechanical Layers

PCB designers can add drawings, notes, and other non-electrical design data on Mechanical Layers, no unlimited in number.

No matter how complex a design becomes, or what the unique requirements of each customer may be, they are free to add as many additional non-electrical layers as they desire, for any purpose - notes, documentation, drawings, tables etc.



## OPTIMIZED BOM & SUPPLY CHAIN ENGINE

### HIGHLIGHTS

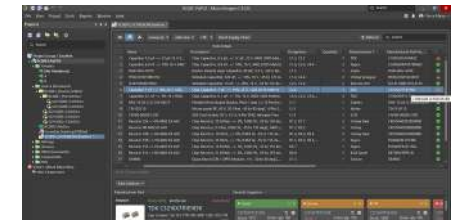
### DEFINITION

### ADVANTAGES

#### ActiveBOM®

Real-world items link to your BOM, so every part is associated with real-time availability, price, and supply chain information from over 100 verified suppliers and personal supplier contracts.

Easily track the availability, price, lead time, and approved supplier source early in the design phase - while leaving part purchasing decisions until the final stages. Simply place generic parts in your design and link to real-world items from suppliers on your own timeline.



#### Spreadsheet Neutral Export

BOM reports can be generated and exported to any CSV, XML, XLS format.

Microsoft Excel is not required for Altium Designer 19 BOM Export. Prior versions relied on Excel being installed, limiting output options. Now any of the BOM reports can be generated with or without Excel.



All Altium Designer Licenses include the first year of Altium Subscription which gains you access to Altium 365, our cloud-based platform that provides PCB designers with the most connected and convenient experience for electronics design and development. With seamless access from within Altium Designer or from a browser, Altium 365 delivers the only environment for effortless, multi-domain collaboration and real-time information sharing to ensure synchronization, accuracy and reliable manufacturability. Maintaining your subscription also ensures that you get immediate access to the latest Altium Designer innovations so you are always equipped with the most powerful, modern and easy-to-use solutions.

## 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®, Altium NEXUSTM, Autotrax®, Camtastic®, Ciiva™, CIIVA SMARTPARTS®, CircuitMaker®, CircuitStudio®, Codemaker™, Common Parts Library™, Draftsman®, DXP™, Easytrax®, EE Concierge™, NanoBoard®, NATIVE 3D™, OCTOMYZE®, Octopart®, P-CAD®, PCBWORKS®, PDN Analyzer™, Protel®, Situs®, SmartParts™, TASKING® range of embedded software compilers and Upverter™.

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, Markelo and Zug, and Asia Pacific locations in Shanghai, Tokyo and Sydney. For more information, visit [www.altium.com](http://www.altium.com). You can also follow and engage with Altium via [Facebook](#), [Twitter](#), [LinkedIn](#) and [YouTube](#).