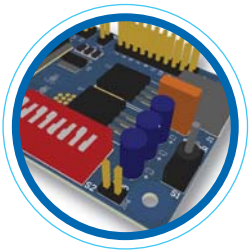


## Simulation Technologies, Inc.

Simulation Technologies, Inc. reduces schematic entry from weeks to days using Altium Designer.



*“Altium is a powerful, intuitive, and flexible electronics design tool. With its very supportive technical staff, it has allowed our organization to transition quickly and smoothly from an older design technology to a much more powerful one. Our designs are now being completed better and much faster.”*

**Richard Mohlere**

Engineer, Simulation Technologies Inc

### The Need

Simulation Technologies, Inc. (SimTech) develops and manufactures radar scene generation, infrared modeling, hardware-in-the-loop (HWIL) and real-time digital simulations for use in US military programs. Since 1983, SimTech has gained a reputation for its flexibility and technical expertise in the area of advanced simulation, threat signature analysis and target model validation.

SimTech had used the same EDA tool for approximately twenty years for all its PCB needs. However, the product support was declining and with infrequent and insignificant upgrades, the software was no longer capable of serving SimTech's PCB needs. Facing mounting market pressures for quicker turnaround of smaller and more powerful technologies, it became apparent that SimTech needed to switch to a more sophisticated toolset.

### The Challenge

When evaluating toolsets, SimTech needed to weigh its product development needs against license options and the total cost of ownership (TCO). However, the toolset also needed to deliver quick turnaround, comprehensive documentation, and parts management – crucial features needed to continue supplying the US military with high-tech equipment.

As a supplier of military equipment, SimTech could not afford the extensive downtime associated with toolset change. And when product designs include computer interfaces for real-time control of missile guidance systems, there is no room for error. To maintain product integrity, engineers needed to learn to use the new system quickly, competently, and without error.

### The Solution

After several recommendations and much deliberation, SimTech chose Altium Designer as its new electronics design solution. With three license levels (Foundation, Board, Unified) SimTech had the freedom to tailor the toolset to its development needs without the burden of paying for optional extras. And because Altium does not limit its features or offer any entry-level products, engineers are provided with an all-inclusive system for a much lower TCO.

The transition to Altium Designer was smooth. With Altium Designer's import and export functions and wizards, SimTech could easily transfer its previous designs. Engineers were able to continue designs immediately with help from Altium's comprehensive on-line training and support staff. Rather than providing text book answers, Altium's support staff literally involves themselves in the design process. By using WebEx conference tools, Altium's engineers can determine where errors are, and the reason for them, making it easier for the SimTech engineer to troubleshoot.

### The Results

The results were immediate. Within one month, SimTech engineers could navigate the software competently. The most outstanding improvement was the speed of design. The once laborious task of schematic entry was reduced from weeks to days – a dramatic improvement attributed to Altium Designer's parts library and the wizards found in both the schematic and the PCB footprint editors.

In addition, board routing also became much easier – completion rates rose from 85% to 100%. By using Altium's auto-routing tools, engineers found the board clean-up and manual routing much easier. Engineers are creating more sophisticated designs in a shorter period of time.



### Product Information

SimTech specializes in developing high-tech support for real-time infrared signature modelling and radar scene generation. Examples of its technology include polarization and aspect-dependent models used in military aircraft, missile and ground vehicle simulations.

### Customer Information

Since 1983 SimTech has been supporting military programs with the development of radar scene generation, advanced simulation, threat signature data analyses and target model validation.

SimTech's sophisticated technology has been long regarded as a staple for military programs such as Joint Common Missile, Longbow, THAAD, PAC-3, iPAM, GMD, NLOS-LS, JAGM, and MRM.

For more information, visit [www.simtechinc.com](http://www.simtechinc.com)



**Altium** implemented  
in the digital simulation  
industry

### About Altium

Altium is a global developer and supplier of electronic product development software for the Microsoft Windows environment. Founded in 1985, Altium released the world's first Microsoft Windows-based printed circuit board design tool in 1991, and continues to provide advanced, easy-to-use and affordable design systems to electronics engineers, designers and developers worldwide.

Altium Designer is a single, unified application that provides all the technologies and capabilities necessary for complete electronic product development. Altium Designer integrates board- and FPGA-level system design, embedded software development and PCB layout, editing and manufacturing.

For more information, visit [www.altium.com](http://www.altium.com)

