Altium Designer

Developer(s)	Altium
Initial release	2005; 14 years ago
Stable release	19 / December 14, 2018; 3 months ago
Written in	C#
Operating system	Microsoft Windows
Type	Electronic design automation
License	Proprietary
Website	www.altium.com/altium-designer/

Altium Designer is a PCB and electronic design automation software package for printed circuit boards. It is developed by Australian software company Altium Limited.

History

In 1985, Protel Systems Pty Ltd launched the DOS-based PCB design tool known as Protel PCB (which later emerged into Autotrax and Easytrax). Originally it was sold only in Australia.[1][2] Protel PCB was marketed internationally by HST Technology Pty Ltd. since 1986.[2] In October 1986 the San Diego-based ACCEL Technologies, Inc. acquired marketing and support responsibilities of the PCB program for the USA, Canada and Mexico under the name Tango PCB.[2] In 1987, Protel launched the circuit diagram editor *Protel Schematic* for DOS.

In 1991, Protel released *Advanced Schematic* and *Advanced PCB* 1.0 for Windows (1991-1993), followed by Advanced Schematic/PCB 2.x (1993-1995) and 3.x (1995-1998). In 1998, *Protel 98* consolidated all components, including *Advanced Schematic* and *Advanced PCB*, into a single environment. *Protel 99* in 1999 introduced the first integrated 3D visualization of the PCB assembly. It was followed by *Protel 99 SE* in 2000.

Protel DXP was issued in 2003, *Protel 2004* in 2004, Altium Designer 6.0 in 2005.

Altium Designer version 6.8 from 2007 was the first to offer 3D visualization and clearance checking of PCBs directly within the PCB editor.

In April 2011, Altium moved from Australia to Shanghai in China.[3]

Features

Altium Designer's suite encompasses four main functional areas: schematic capture,[4] 3D PCB design,[5] Field-programmable gate array (FPGA) development[6] and release/data management.[7] Noteworthy features referred to in the reviews include:

- Integration with several component distributors allows search for components and access to manufacturer's data[8][9]
- Interactive 3D editing of the board and MCAD export to STEP[10]
- Cloud publishing of design and manufacturing data[11]
- Simulation and debugging of the FPGA can be achieved using the VHDL language and checking that for a given a set of input signals the expected output signals would be generated.[12]. FPGA soft processor software development tools (compiler, debugger, profiler) are available for selected embedded processors within an FPGA.[13]

Reception and criticisms

Altium Designer is generally found to be more costly than other PCB design software but is noted for its ability to achieve fast results for complex circuits.[14]