



ACCEL *EDA*

EDA
SOLUTIONS
FROM
ACCEL
TECHNOLOGIES

*a rich
heritage,
a solid
foundation...*

ACCEL TECHNOLOGIES has been a leader in electronic design software since 1986. Emphasizing innovation, excellence and value, we offer exceptional design tools for engineering professionals around the world. ACCEL's mission is to promote your success with superior products, service, and technical support.



These form the foundation of our business and our challenge — keeping PCB designers competitive in their ever-changing markets.

Our commitment to research and development has resulted in a steady stream of enhancements for P-CAD® and Tango® users, as well as significant new products for the entire electronics industry. These products have been highly rated for their quality, power, and ease-of-use. Each release is well documented, rigorously tested, and professionally supported. ACCEL EDA™ truly springs from a rich heritage.

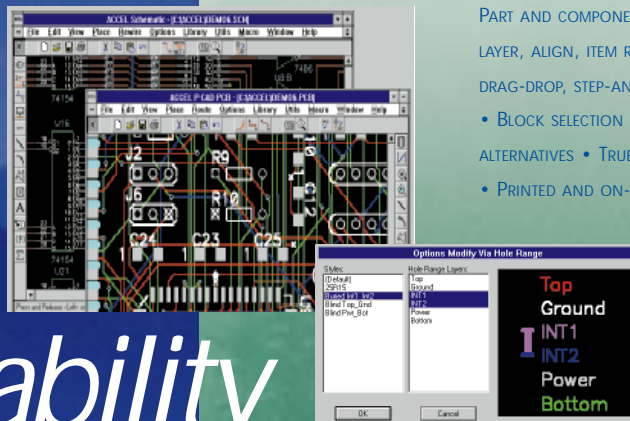
We measure our success by the quality of the products and services we offer. Our goal is to maintain the highest reputation for excellence, built as a result of paying close attention to our products and our customers. To reach new heights with your own ideas, depend on ACCEL EDA as your solid design foundation.

*from the
root of
your ideas...*

...towering products grow with ACCEL EDA.

ACCEL's dedication to innovation and designer productivity can be clearly seen in ACCEL EDA's schematic capture, PCB layout, and autorouting applications. As ACCEL'S fourth major Windows™ product release, ACCEL EDA is well-founded in a comprehensive specification developed by design engineers, service bureaus, and PCB fabricators. With roots in the popular P-CAD and Tango products, ACCEL EDA was built using the latest in object-oriented programming techniques. The result is a design system providing versatility and extensive functionality in a logical, easy-to-use manner.

- WINDOWS 3.1, WINDOWS 95, AND WINDOWS NT • PAD & VIA STACKUP DISPLAY • STATUS LINE EDITING • DIRECT QUERY/EDIT • USER-DEFINABLE ATTRIBUTES, FILE VIEWER, HOT KEYS, AND SHORTCUT KEYS • PATTERN & SYMBOL CREATION WITHIN EDITOR • PART AND COMPONENT BROWSE • EDIT WITH REWIRE, MOVE TO LAYER, ALIGN, ITEM RESIZE, CONTROL-DRAG COPY, UNWIND LINES, DRAG-DROP, STEP-AND-REPEAT • SUB-SELECTION
- BLOCK SELECTION FILTERS • IEEE & DeMORGAN SYMBOL ALTERNATIVES • TRUEType FONTS (SCHEMATIC) • ON-LINE HELP
- PRINTED AND ON-LINE DOCUMENTATION • NETWORK LICENSING



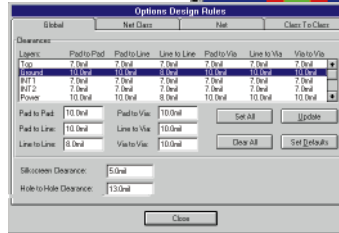
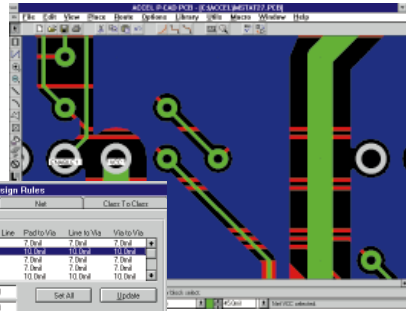
usability

power

ACCEL EDA's
recognized value lies
in its overall
productivity for
designing analog,

digital, and mixed signal printed circuit boards. Its enhanced interface streamlines repetitive tasks, leaving the user to concentrate on the design at hand. With an eye towards usability, we've packed tremendous capability into simple and convenient operations. ACCEL EDA's advanced features share this approach in providing the power necessary to complete today's most complex and time-critical designs. A "correct by design" philosophy and accompanying rules-based methodology eliminates errors before they are made.

Tight integration between applications allows engineering specs to be entered once and passed from the schematic to the PCB layout and autorouter. ACCEL EDA's integrated component libraries facilitate cross-probing and comprehensive forward and backward ECOs.



- COPPER POUR ISLAND REMOVAL,
- TRACE PLOWING, DESIGN RULE BACKOFF
- HIERARCHICAL DESIGN RULES • BLIND AND BURIED VIAS • LAYER STACKUP CONTROL • CURVED TRACES • CROSS-PROBING • ABUTMENT ROUTING FOR SYMBOL WIRING • PIN AND GATE SWAPPING • INTERACTIVE ROUTING • BUILT-IN MAZE AUTOROUTER •

OPTIONAL HIGH-COMPLETION ROUTERS • LIBRARY MANAGER INTEGRATES SCHEMATIC, LAYOUT, AND ELECTRICAL DATA

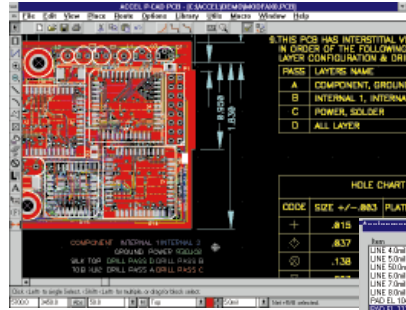


- SPLIT PLANES WITH AUTOMATIC THERMAL TIES AND ACCURATE RULES CHECKING • ERC & DRC WITH ERROR INDICATORS • ON-LINE DRC • SUB-MICRON DATABASE • ACCURATE UNITS CONVERSION • WYSIWYG OUTPUT AND ITEM DISPLAY • FULL FORWARD AND BACKWARD ECOs • ATTRIBUTES PASSED FROM SCHEMATIC TO PCB AND ROUTER
- AUTOMATIC THERMAL CONNECTIONS TO PLANES • AUTOMATIC APERTURE AND DRILL ASSIGNMENTS • INTEGRATED COMPONENT LIBRARIES

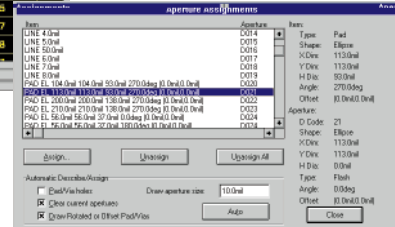
correct by design

manufacturability

The Library Manager combines schematic symbol, PCB pattern, and electrical data into a single component to further promote design compatibility between applications.

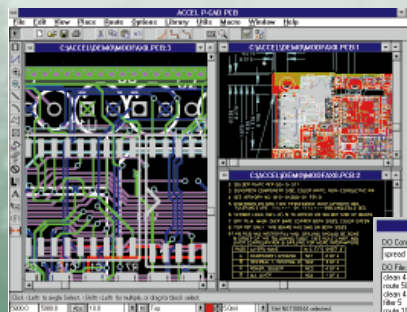


- DIMENSIONING • AUTOMATIC APERTURE AND DRILL ASSIGNMENTS
- GERBER VIEWER • CURVED AND 45 DEGREE MITERS • GLUE DOTS
- PICK-AND-PLACE POINTS • LAYER SETS • DXF INPUT AND OUTPUT
- ASSEMBLY AND PASTE LAYER ARTWORK • DRILL DRAWING
- NC DRILL FILE GENERATION • SAVED OUTPUT SETUP • OUTPUT REPORTS • WINDOWS-SUPPORTED PRINTERS

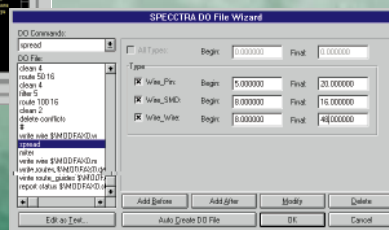


ACCEL EDA's wide variety of output options simplify the manufacturing process. Automated set-up and WYSIWYG display provide additional methods for ensuring data correctness. With ASCII data formats, Windows inter-operability, and its own application programming interface ACCEL EDA's influence extends to a limitless range of Windows applications and EDA third party software.

From usability to power to manufacturing to interoperability, ACCEL EDA is the tool to grow your good ideas into great products.



- MULTIPLE DOCUMENT INTERFACE • TIGHT INTEGRATION TO SPECCTRA®, CAM350, AND VIEWLOGIC® PRODUCTS
- DDE LINKS • CUT/COPY/PASTE (METAFILE SUPPORT)
- APPLICATION PROGRAMMING INTERFACE • ASCII DESIGN AND LIBRARY FILE • PDF INPUT AND OUTPUT



inter-operability

TECHNICAL SPECIFICATIONS

Hardware	
Platforms	PC 486, Pentium (Win 3.1+, Win 95, NT)
RAM	16 MB
Disk Space	45 MB
Graphics	VGA or better
Mouse	Microsoft mouse or equivalent
Media	CD ROM
Networks	LanManager or Novell

Products
ACCEL Schematic
ACCEL P-CAD PCB
ACCEL Tango PCB
ACCEL PRO Route
ACCEL PRO Route 2/4

Interfaces are available to high-end applications including Viewlogic's WorkView Office, CCT's SPECCTRA, and Advanced CAM Technologies' CAM350 products.

Software Specs (General)

ACCEL EDA essentially supports unrestricted design size including the number of components, parts, nets, pins, vias, symbols, and styles.

- 32-bit database
- 0.1 mil, 0.01 mm grid resolution
- User-defined absolute and relative grids
- Accurate imperial/metric conversion
- Over 20,000 unique library parts
- 64,000 nets per design
- 2,000 characters per attribute
- 2,000 characters per text string
- 20 characters per pin name, net name, RefDes
- Global, net class, net, and class-to-class design rules
- Unlimited zoom levels

ACCEL Schematic

- 99 sheets, 60" x 60" max
- Pre-defined A-E, A0-A4 and user-defined sheet sizes
- Unlimited symbols per design
- 999 pins per component
- Netlist output for ACCEL EDA, P-CAD, Tango, FutureNet net and pin lists, PSpice, EDIF 2.0.0
- ERC of single nets; no-node nets; unconnected pins and wires; electrical, bus/net, component, and net connectivity errors

ACCEL P-CAD PCB

- 99 layers (11 pre-defined), 60"x60" max
- Forward and backward ECOs for RefDes changes, net name updates; net and net node addition and deletion; part, component, and net attribute addition, deletion, modification
- Unlimited components per design
- 64,000 pad styles per design
- Trace widths to 1 cm (394 mils)
- 0.1 degree item rotation
- Unlimited sides per polygon
- 11 pad shapes: ellipse, oval, rectangle, rounded rectangle, mounting hole, target, direct connect, thermals with 2 spokes (0 or 90 degrees) or 4 spokes 0 or 45 degrees)
- DRC of unrouted nets; unconnected pins; netlist, clearance, text, silk, copper pour, drilling, and plane violations
- Supports Gerber 4.4 and 5.3 formats, G54, embedded apertures; NC drill EIA Odd and ASCII Even or None formats, with zero suppression control

Space limitations prevent us from telling you everything here — call for detailed specs and information on ACCEL Tango PCB and our autorouting options.



backed by solid service and support...

At ACCEL, quality software and documentation is only the beginning. Our customer service and technical support groups are staffed by knowledgeable professionals, eager to back you up. Rely on us for the most comprehensive user support in the business, including access to a technical support hotline, 24-hour electronic bulletin board, user groups, newsletters, directories of service bureaus and third party software, and the expertise and integration support of authorized resellers around the world. It's all part of our commitment, backed by the worldwide resources of ACCEL Technologies. Service and support — just another reason more PCB designers have chosen P-CAD and Tango than any other design system.

The ACCEL EDA suite of electronic design automation tools includes schematic capture, two tiers of PCB layout (full function ACCEL P-CAD PCB and the capable, yet affordable ACCEL Tango PCB), and a host of autorouting products.

SEE FOR YOURSELF! CALL TODAY FOR A FREE FULL-FUNCTION EVALUATION SOFTWARE PACKAGE, MORE INFORMATION, OR TO SET UP A PERSONAL DEMONSTRATION!



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