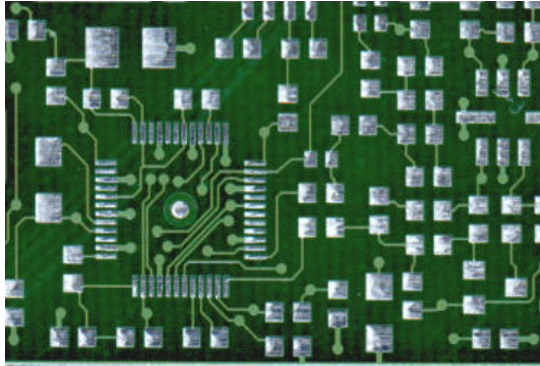


PCB BUILDER™

"Linking existing designs to CAD & Production"



WHAT IS PCBBUILDER?

PCBBUILDER is a fully integrated, stand-alone workstation linking existing or old designs with today's automated production environment.

PCBBUILDER uses Windows based software integrated with a high-resolution, calibrated flatbed scanner. This combination allows re-engineering and precise reproduction of data for original board designs, regardless of input.

INPUT DATA VERSATILITY

PCBBUILDER adds flexibility to the fabrication process. Utilizing its calibrated scanner, PCBBUILDER inputs silver or diazo film, Mylar images, technical drawings, actual PCB's, Stencils or your original hand-taped designs to produce necessary Gerber data.

AUTOMATIC FEATURES

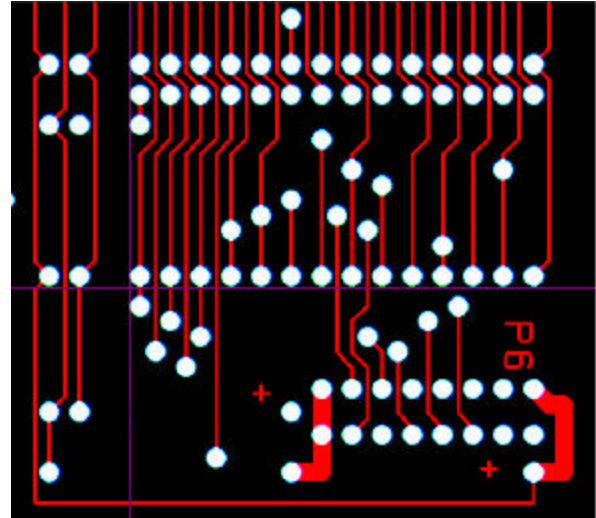
Tired of using slow vectorization methods? PCBBUILDER offers various functions to quickly and automatically vectorize:

- Flash Pads (circular, square, oval, rectangle)
- Tracks (orthogonal/all angle)
- Silkscreens
- Copper Fill Areas/Ground Planes
- Crosshatched Areas (90°/45°)
- Stencil Files

EDITING

Editing is performed in the Graphics Screen, a user-friendly editing environment. Using a combination of tool bars, "hotkeys" and menu-driven functions, the user is able to make corrections and modifications quickly and easily.

The multi-color display and multiple zoom levels allow selection of the most convenient editing environment.



VERIFICATION

Worried about the quality of the finished Gerber files? Use PCBBUILDER's "check functions" to verify the accuracy of the data.

These check functions will verify layer-to-layer pad alignment, eliminate "double-hits," air gap clearance check, identify tolerance violations and prevent opens and shorts.

PRODUCTION TOOLS

PCBBUILDER creates Gerber files as well as other data used in PCB production, including: Silkscreens, Drill Files, Soldermasks, Padmasters, Stencil Files, Panelized Images, DXF, Gerber-274x.

PCBBUILDER increases versatility in the working environment!

WHY USE PCBBUILDER?

- Necessity: Supply production with required Gerber data.
- Flexibility: Use boards, films or stencils as input.
- Accuracy: Eliminate errors caused by old hand digitizing, hand-taping or camera step and repeat methods.
- Accuracy: Increase board quality by using internal checks features.
- Security: Prevent film/drawing deterioration by storing images in electronic format.
- Security: Archive multiple copies of designs, both on and off-site.

SYSTEM FEATURES:

SCANNING

- Bareboards, film, paper, stencils, screens, diazo or silver film
- Verifiable image alignment
- Automatic layer-to-layer alignment

AUTOMATIC FUNCTIONS

- Pad recognition: circle, square, oval, rectangle
- Track recognition: all angles
- Copper area fill
- Ground/Power plane fill
- Cross-Hatching: 90° and 45°
- Pads and tracks on grid

EDITING

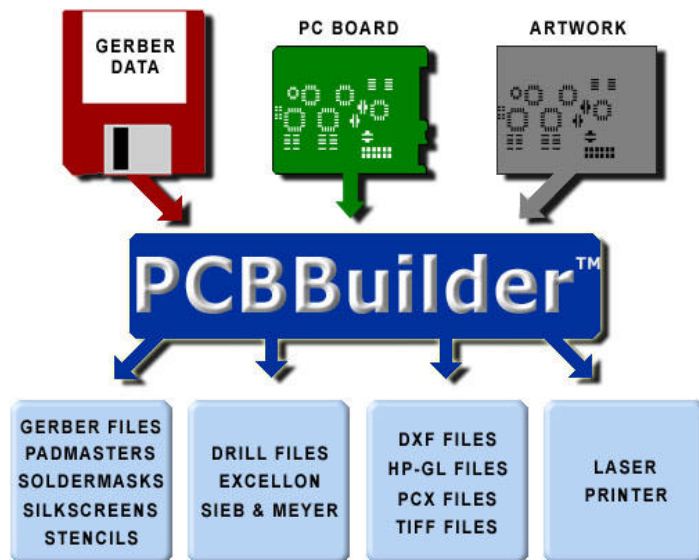
- Multi-color display
- Multi-level zoom function
- Gerber edit accuracy: 0.0001" (0.00254mm)
- Customized aperture tables
- Snap-to-Pad: center/track vertex
- Snap-to-Grid: pads/tracks
- Vertex display
- Multi-layer display
- Macros: create & store
- Automatic text function
- Metric or Inch

CHECK / VERIFICATION

- Highlight D Codes
- Delete "double-hit" pads
- Verify layer-to-layer pad alignment
- Check Gerber image vs. scanned image
- Compare Gerber image vs. Gerber image
- Compare one scanned image to another scanned image
- Design rule check
- Verify track connections

OUTPUT FILES

- Gerber files (274x or 274d)
- Comprehensive aperture tables
- Drill files: Excellon
Sieb & Meyer
- Stencil files
- Soldermask
- Padmaster
- Silkscreen
- HP-GL
- DXF
- PCX and TIFF
- Panelized images



TECHNICAL SPECIFICATIONS

SCANNER

- High-Resolution Flatbed Scanner, Size A3:
(400/1000/2000/3200*/4000* dpi)
 - Calibrated Accuracy: $\pm 0.0015"$ ($\pm 0.0381\text{mm}$)
 - Scanning Bed Area: 11.7" x 16.5" (297mm x 420mm)
 - Maximum Work Area: 32.0" x 32.0" (813mm x 813mm)
- * Reduced scanning area for 3200 & 4000 dpi.*

COMPUTER*

- Pentium III (1GHz) Personal Computer
- 60 GB HD, 512 MB RAM
- CD-ROM (CD-RW for archive purposes)
- Monitor (17" or larger)
- Printer
- Win 98SE/Me/2000/XP – Requires:
2 available USB ports

**Recommended customer supplied minimum PC requirements.*

ADDITIONAL SYSTEM COMPONENTS

- Precision Glass Calibration Grid
- Scanner Interface Card/Cable
- Optical Scope
- Software Protection Key
- Scanning Accessory Package
- Custom Transmissive Lighting Package
- Custom Desk (Optional)

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All specifications are subject to change without notice.



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