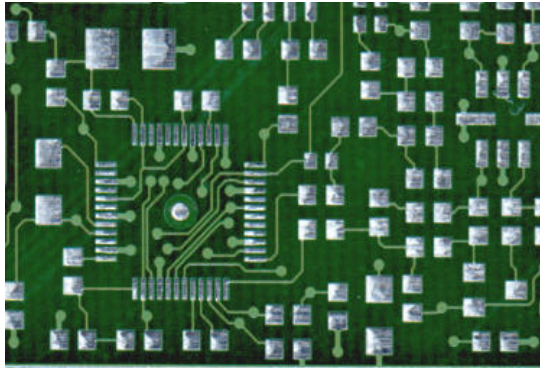# MaskBUILDER™
"Pad Generation & Drill Programming"

WHAT IS MaskBUILDER?

MaskBUILDER is a fully integrated, stand-alone workstation designed to produce padmasters and drill files when CAD data is not readily available.

MaskBUILDER combines a Windows-based software package with a high-resolution flatbed scanner to generate Gerber data and drill files.

SCANNING

Need proper pad and/or drill data and only have th e original hand-taped design? Mylar images? Diazo or silver film? Only have an existing PCB or technical drawings? Pad and/or drill data can be generated using each of these types of media!

AUTOMATIC PAD RECOGNITION

Use the automatic pad recognition functions to create Gerber and drilling data. These vectorization processes generate accurately and quickly the Gerber data required for drill files.

The Gerber files may also be utilized for stencil files, padmasters and test fixtures.

EDITING

Editing is performed in the Graphics Screen, a user-icon friendly editing environment. Use the "hot-keys" and menu-driven functions, to modify the drill file 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 Pad and/or drill files? Use MaskBUILDER's "check functions" to verify the accuracy of the data.

These check f unctions will verify layer-to-layer pad alignment, eliminate "double-hits," and identify minimum pad distances.

FILE CREATION

How easy is it to write out a pad or drill file? Use two key strokes! For Gerber data simply select Gerber 274 or 274x. For drill files, a comprehensive tool table will be generated as the drill file is written to disk; this table itemizes the X/Y dimensions of the drilled hole, the number of holes and the number of required tools.

WHY USE MaskBUILDER?

- Necessity: Supply production with required Pad and drill data.
- Flexibility: Use boards, films or stencils as input.
- Accuracy: Increase board quality by using internal check features.
- Documentation: Produce printouts of images in addition to pad and/or drill file data.
- Security: Prevent film/drawing deterioration by storing i mages 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
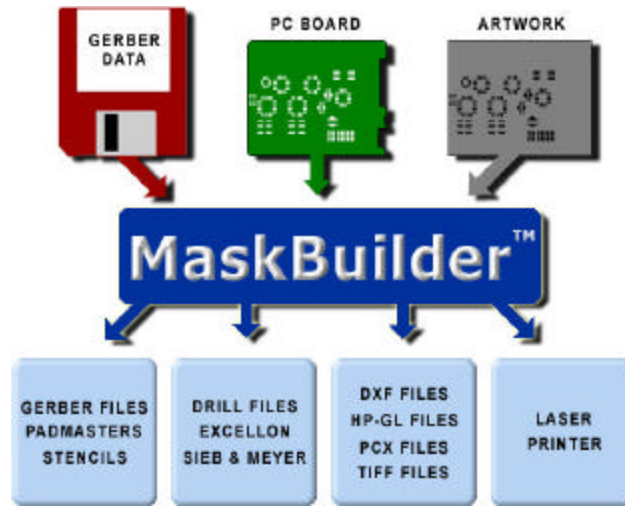- Pads on grid

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

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 dpi)
- Calibrated Accuracy: $\pm$ 0.0015" ($\pm$ 0.0381mm)
- Scanning Bed Area: 11.7" x 16.5" (297mm x 420mm)
- Maximum Work Area: 32.0" x 32.0" (813mm x 813mm)

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
- Software Protection Key
- Scanning Accessory Package
- Custom Desk (Optional)

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All specifications are subject to change without notice.

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