

Stencil Scan™ Assembly Module

"Offline Programming, Measurement & Inspection"

INNOVATIVE ALTERNATIVES

Stencil Scan Assembly Module provides a sophisticated and user-friendly alternative to complex CAM software packages and inaccurate, time consuming manual inspection and programming methods that cost assembly houses productivity, time and money.

Designed to increase PCB assembly productivity, the Assembly Module is a fully integrated, off-line programming, inspection and measurement workstation.

PROGRAMMING

Using a calibrated, high-resolution, color imaging system, the Assembly Module produces assembly programs and process documentation for Surface Mount, Insertion, Test, Inspection and Dispensing machines.

Import / Scan

- CAD, Components, Boards, Film, Stencils, BOM and Gerber Data.

Output

- Component Pitch, Rotation and body dimensions
- X/Y Component Centroid
- Reference Designator & Package ID
- Part, Feeder/Magazine Number
- User Defined Data
- Gerber Data
- Process Documentation
- Multiple machine specific CAD files (IMC, SMT, TEST, AOI) and Stencil file generation during one programming session.
- Component Information for Vision Databases

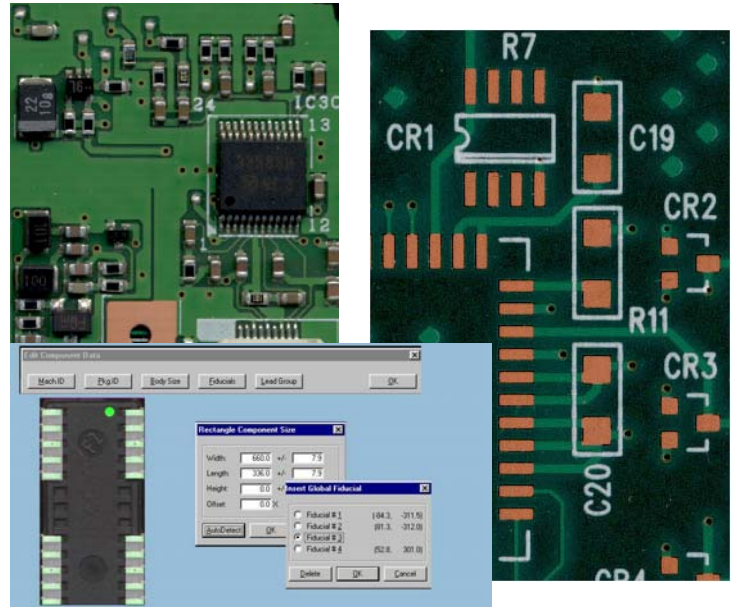
BUILD COMPONENT LIBRARIES

Scan a component to automatically calculate and register the following information:

- Lead Pitch, Lead Size, Body Size
- Lead Groups, Pick Up Location, etc.
- Specific Vision Data outputs for Fuji SMD3 and Siemens SIPLACE
- Generic Vision ASCII files for other suppliers.

FIRST ARTICLE INSPECTION

The Assembly Module increases productivity with the ability to scan the first article and compare it to the CAD



OFF-LINE INSPECTION & MEASUREMENT

The Assembly Module uses a combination of editing functions to ensure that all information has been inserted correctly. This off-line verification significantly reduces first article setup time. Overlay CAD and/or Gerber data and compare:

- Loaded Boards
- Bare Boards
- Stencils
- Components
- Wet Glue / Solder Paste/ Epoxy

Why use StencilScan's Assembly Module?

- **Flexible:** Use one workstation to produce assembly files for multi-vendor Surface Mount, Insertion, Test, Inspection and Dispensing machines.
- **Powerful:** Use one workstation to inspect stencils, screens and bare or loaded boards.
- **Accurate:** Find and eliminate errors with Loaded PCBs, Wet Solder Paste, Glue, etc.
- **Fast:** Decrease programming time from days to hours.
- **Easy:** PC based system.

SYSTEM FEATURES

INPUT DATA

PC Boards – Bare or Loaded	Components
Stencils / Screens	Gerber
ASCII CAD	BOM
Films	Drawings
Paper	

AUTOMATIC FUNCTIONS

- Surface Mount Pad Recognition
- Insertion Hole Recognition
- Automatic Text Function
- Auto Load Gerber

PLACEMENT

- Autofind Function Locates Components and Related Centroids
- Global / Circuit / Local Fiducials
- Automatic Generation of Adhesive Dot Centroids
- Component Database
- Editor Accuracy: 0.0001" (0.00254mm)

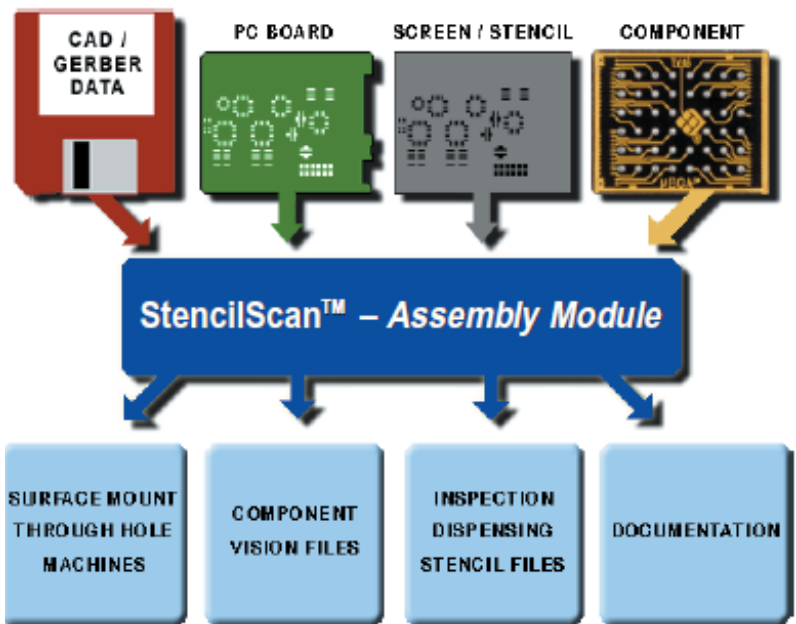
CHECK / VERIFICATION

- Scan and Compare Multiple Board Revisions
- "Jump-To" Component
- "Jump-To" Reference Designator
- Programming Environment Editor
- Assembly File Editor
- Gerber Editor

SCANNER

- High-Resolution Flatbed Scanner, Size A3, A4: (400/1000/2000/3200*/4000* dpi)
- Calibrated Accuracy: $\pm 0.0015"$ ($\pm 0.0381\text{mm}$) over 16" (420mm)
- A3-Scanning Bed Area: 11.7" x 16.5" (297mm x 420mm)
- A4-Scanning Bed Area: 8.5" x 11.5" (216mm x 292mm)
- Maximum Work Area: 32.0" x 32.0" (813mm x 813mm)

*Reduced scanning area for 3200 & 4000 dpi



AVAILABLE MACHINE OUTPUT FORMATS

Amistar	Fuji	Siemens
Assembléon	Generic	SMTech
Asymtek	Hitachi	Sony
CAM/A LOT	Juki	TDK
Contact	KME	Tenyru
CR Technology	MVT	Universal
Creative Automation	Mydata	VI Technology
DEK	Panasonic	Yamaha
Dynapert	Quad	Zevatech
Europlacer	Royonics	
Four-PI (HP)	Sanyo	

ASSEMBLY MODULE CIM SUPPORT:

Barco/Gerber (Plotters & AOI)	Lumonics
CAMTEK	Mitron
CAM350 & ECAM-ACT	PanaPRO
CIMBridge	SIPLACE Pro
FabMaster	Technomatix
GenCAD	Unican/Fujicam
GrafiCode	Unicraft – Japan
GC-Place & GC-CAM	WISE Software
LPKF (Laser Stencil Cutting)	Many others...
Lavanier	



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Contact your local representative or Smart Sonic for a demonstration!