

Gen Stencil™ Software

Gen Stencil helps Stencil and EMS Contract Manufacturers dramatically accelerate data preparation to ensure solder paste stencil repeatability, resulting in faster delivery times, increased yields and ultimately increased profit margin.

How do You Accelerate Cycle Time?

Solve these Key Issues and Frustrations:

- ▶ Lengthy New Product Introduction (NPI) revisions
- ▶ Global edits done individually and manually
- ▶ Edits are time consuming and prone to error
- ▶ Correction and Clean-up of Bad Data
- ▶ Need additional CAM operators
- ▶ Multiple CAM systems required to complete job
- ▶ Inaccurate Stencils due to operator differences
- ▶ Time spent educating, expediting, and reworking

Leverage IGI's Experience

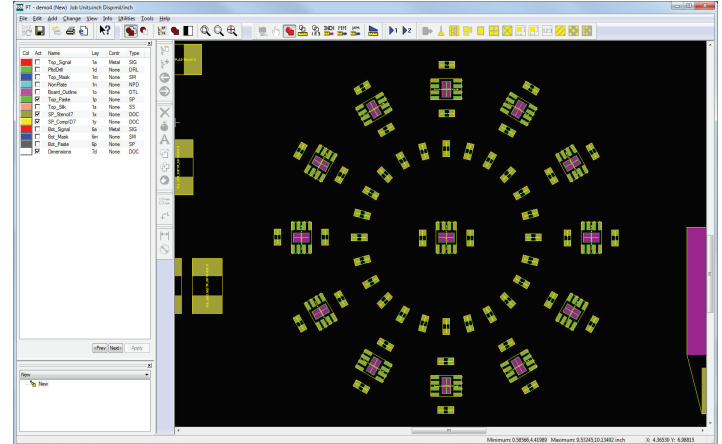
As a Precision Imaging Services bureau for the last 45+ years, IGI has developed a reputation as an expert in dealing with data service challenges. We have worked closely with our customers to solve the issues of bad data, data manipulation mistakes, time consuming manual edits, and cleaning data for many applications.

To accelerate the stencil generation process, improve revenues and reduce costs, we created Gen Stencil to realize up to an **80% time reduction** in stencil generation data preparation time.

Gen Stencil is the premier tool set for saving time and increasing quality in your electronics manufacturing process. Our unique approach creates virtual edit rules, filters, and custom specifications assuring correct and repeatable solder paste stencils - quickly. Gen Stencil excels with rotated components, bad data, and multi-step edits.

PC-based Gen Stencil is Easy to Use

The software runs on Windows 7 and 8. No special hardware is needed. Export a variety of formats such as DXF, DWG, RS-274X and GDSII directly to laser cutters.



The Power of Gen Stencil

IGI Provides the only software solution that addresses your SMT stencil issues through the entire data editing, stencil producing, and services life cycle. There are many features that drive these benefits:

- ▶ Automatic component identification
- ▶ Edit rules are stored with custom specifications
- ▶ The Gen Stencil Rules Library enables editing by all skill levels of CAM operators
- ▶ Global Editing on identical components regardless of angle
- ▶ Drag and Drop of multiple data sources
- ▶ Graphical User Interface driven edits
- ▶ Group edits by type and pitch
- ▶ Quick consistent editing
- ▶ Easily supports rotated components
- ▶ Complete stencil data in the same time it takes to document just the requirements.

Return on Investment is impressive. Even more exciting is the competitive advantage created by providing high quality stencils much faster.



Why is Gen Stencil The Right Choice?

Gen Stencil software utilizes an advanced Library-based architecture that continues to reduce stencil data processing time the more it is used. IGI's unique and logical application of edit rules give you quick, consistent and diverse editing capabilities. Custom libraries of edit rules are created and stored for instant recall and guarantees consistency on subsequent jobs. CAM operators' time is now spent on the next job rather than identifying and editing individual components. There are many advanced features in Gen Stencil that save time and improve quality such as:

Specifications

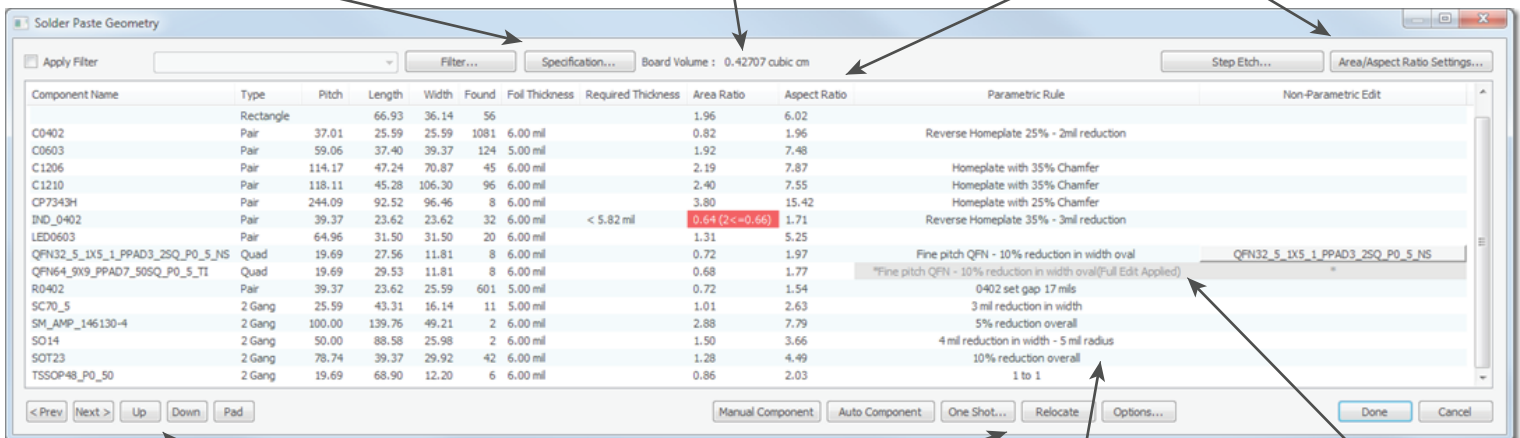
Create specifications to filter components and apply edits according to the specific needs of your customer. Apply with one click.

Paste Volume

The required paste volume is calculated to optimize the assembly process.

Area/Aspect Ratio

Ratios for the smallest aperture are shown for each component. Stencil apertures which don't meet the target values are flagged in red. Required thickness to meet the target is also shown - eliminating the need to manually calculate.



| Component Name | Type | Pitch | Length | Width | Found | Foil Thickness | Required Thickness | Area Ratio | Aspect Ratio | Parametric Rule | Non-Parametric Edit |
|---------------------------------|-----------|--------|--------|--------|-------|----------------|--------------------|----------------|--------------|---|---------------------------------|
| C0402 | Rectangle | 37.01 | 66.93 | 36.14 | 56 | 6.00 mil | | 1.96 | 6.02 | | |
| C0603 | Pair | 59.06 | 37.40 | 39.37 | 124 | 5.00 mil | | 0.82 | 1.96 | Reverse Homeplate 25% - 2mil reduction | |
| C1206 | Pair | 114.17 | 47.24 | 70.87 | 45 | 6.00 mil | | 1.92 | 7.48 | | |
| C1210 | Pair | 118.11 | 45.28 | 106.30 | 96 | 6.00 mil | | 2.19 | 7.87 | Homeplate with 35% Chamfer | |
| CP7343H | Pair | 244.09 | 92.52 | 96.46 | 8 | 6.00 mil | | 2.40 | 7.55 | Homeplate with 35% Chamfer | |
| IND_0402 | Pair | 39.37 | 23.62 | 23.62 | 32 | 6.00 mil | < 5.82 mil | 3.80 | 15.42 | Homeplate with 25% Chamfer | |
| LED0603 | Pair | 64.96 | 31.50 | 31.50 | 20 | 6.00 mil | | 0.64 (2<=0.66) | 1.71 | Reverse Homeplate 35% - 3mil reduction | |
| QFN32_5_1X5_1_PPAD3_2SQ_P0_5_NS | Quad | 19.69 | 27.56 | 11.81 | 8 | 6.00 mil | | 1.31 | 5.25 | Fine pitch QFN - 10% reduction in width oval | QFN32_5_1X5_1_PPAD3_2SQ_P0_5_NS |
| QFN64_9X9_PPAD7_50SQ_P0_5_TI | Quad | 19.69 | 29.53 | 11.81 | 8 | 6.00 mil | | 0.72 | 1.97 | Fine pitch QFN - 10% reduction in width oval(Full Edit Applied) | |
| R0402 | Pair | 39.37 | 23.62 | 25.59 | 601 | 5.00 mil | | 0.68 | 1.77 | 0402 set gap 17 mils | |
| SC70_5 | 2 Gang | 25.59 | 43.31 | 16.14 | 11 | 5.00 mil | | 0.72 | 1.54 | 3 mil reduction in width | |
| SM_AMP_146130-4 | 2 Gang | 100.00 | 139.76 | 49.21 | 2 | 6.00 mil | | 1.01 | 2.63 | 5% reduction overall | |
| SO14 | 2 Gang | 50.00 | 88.58 | 25.98 | 2 | 6.00 mil | | 2.88 | 7.79 | 4 mil reduction in width - 5 mil radius | |
| SOT23 | 2 Gang | 78.74 | 39.37 | 29.92 | 42 | 6.00 mil | | 1.50 | 3.66 | 10% reduction overall | |
| TSSOP48_P0_50 | 2 Gang | 19.69 | 68.90 | 12.20 | 6 | 6.00 mil | | 1.28 | 4.49 | 1 to 1 | |
| | | | | | | | | 0.86 | 2.03 | | |

Complete Review

Pan and Scan review is no longer needed. Stepping tools ensure pads, components, and edits cannot escape review.

Handle Ambiguous Data

Tools are provided to handle cases where more than one component definition could match the geometry.

Change and Edit

Edits are made according to the edit rule you selected. You have the option to reselect, change, or create a new edit for the component.

Edit Special Cases

The manual edit option offers further customization after edits are applied.

Get Started Now with a Demo

The best way to understand how you can utilize the power of Gen Stencil software is to schedule a demo of the capabilities with an IGI Software Applications Engineer at sales@igi.com. IGI can also provide custom software solutions to further accelerate stencil generation data preparation.

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