Stencil Manufacturer Company Background and Challenges

A Minnesota-based Stencil Service Bureau company was dealing with the many challenges faced by all Stencil Supplier companies:

- How do we reduce cycle time?
- Where can we lower labor costs?
- What can we do to improve yields?
- Which areas do we target for these improvements?
- How do we accelerate revenues?

Key Areas to Examine for Improvement

Internal company analysis showed that that the stencil design process performed by experienced highly skilled technical staff members was consuming upwards three to eight hours of their day to produce data that was ready for the laser cutter or photo etching process. These technicians were dealing with customers' diagrams, drawings, and hard copy "Rulebooks" to insure accurate geometric edits per their customers' specifications.

This company's current CAM editing system lacked the advanced features that facilitated eliminating the "Rulebook" method of storing customers build requirements. It also forced them to designate the more experienced CAM technicians for the difficult editing jobs. All of these issues combined resulted in:

- Poor profit margin
- CAM being the factory gate
- Wasting a great deal of technical resource time
- Unanticipated overtime to get jobs out on time

They knew that they could not continue down the same path while looking increase profits, get new customers and keep the good will of their existing customers. ***They made a corporate decision to expedite the editing process of their customer's stencil data and eliminate the factory gate of CAM so that more jobs could be brought in and delivered on time and ahead of schedule. More specifically, they decided to find a way to dramatically decrease time required all of the required edits for generating a solder paste stencil, leverage their staff so that all technicians could perform at equal proficiency, load level the factory floor, and increase sales opportunities.***

Decision to Use Gen Stencil™ Software

Once they decided improve the data editing process, they reviewed all of the available Stencil CAM editing software companies. In every category they tested their requirements against the capabilities of the software providers and found Infinite Graphic's Gen Stencil Software was superior to other solutions. Their decision to purchase and implement the Gen Stencil were many:

1. The Gen Stencil core concept of a database library for both components and rule edits.

2. Once a component footprint was "learned" and edit rule assigned a to a component, they were able to import jobs into Gen Stencil and CAD technicians spent just minutes verifying component edits.
3. When a new component was introduced by a customer in a new design, the ease and speed of identification and rule edits took just a few minutes.
4. With the hierarchical methodology that Gen Stencil uses they were able to build a library based by: customer, foil thickness, and customer engineer specific guidelines.
5. They were now in complete control of their workflow and have eliminated the bottle neck caused by their inefficient CAM editing system.
6. Since this Stencil Service Bureau is now delivering stencil ready data to their laser cutter faster, they are now reaping the additional benefit of having more shop floor capacity without adding additional CAM seats or headcount.
7. They discovered that IGI uses the core engine of Gen Stencil software in their internal Precision Imaging engineering software tools that has produced hundreds of thousands of high quality glass and film masks for their customers around the world.

Excellent Return on Investment

It was vital to have an excellent Return on Investment (ROI). The ROI was calculated over a 5 year period where Cost is the Gen Stencil software license fee and maintenance. The return at a rate of 1000 jobs per year includes savings from reducing the cost of scrap, labor rate of the Technical staff, and laser machine downtime combined with new revenues. These Returns were estimated flat year over year. But in reality, actual Returns would likely increase year over year – improving ROI even more.

Purchase	Investment	Returns	ROI	Cumulative ROI
Year 1	$30,250	$112,350.00	$82,100	$82,100
Year 2	$3,750	$112,350.00	$108,600	$190,700
Year 3	$3,750	$112,350.00	$108,600	$299,300
Year 4	$3,750	$112,350.00	$108,600	$407,900
Year 5	$3,750	$112,350.00	$108,600	$516,500

This Stencil Service Bureau was easily able to justify the purchase price of the Gen Stencil software with a breakeven of just 5 months.

Summary

This case study clearly showed how this Stencil Service Bureau realized significant financial, throughput and increased sales benefits by using Gen Stencil Software as their CAM editing solution. Your Stencil Service Bureau Company can also eliminate issues with stencil editing bottlenecks and realize the benefits of: accelerating and load leveling your manufacturing process, increase yields, increasing shop floor capacity, and improve the goodwill with your customers. Your customers will reap the benefit of your speed and quality improvements, enjoy consistent on-time delivery, will keep coming back with more orders.