Case Study

A case study on how Microboard Processing, Inc., a New England based Contract Manufacturer, has utilized SiliconExpert's Component Management solutions to lower component costs, increase productivity for managing Bill-of-Materials, turn-around quotes to customers faster and adopt proactive approaches for obsolescence mitigation.

The Challenge

As a Contract Manufacturer, Microboard Processing, Inc. (MPI) manufactures products on behalf of its customers and deals with large numbers of electronic components and customer provided bills-of-materials (BOMs) on a daily basis. "Our customers provide us with a variety of BOMs in various formats and levels of completeness. It has been an ongoing challenge to clean & scrub incomplete part numbers and mismatched suppliers for hundreds of line items in any given BOM," says Jeffrey Cholin, Senior Component Engineer at MPI. "Incomplete part numbers impede our ability to provide quotes to customers in a timely manner as we do not have enough accurate component information to estimate costs, further if we have an incomplete part number in our MRP system it forces our buyers to resolve them with the vendor or causes the parts to be held in receiving if the vendor "interprets" what the number should be."

Component Engineers at MPI manually corrected hundreds of records in customer BOMs and sought additional component data one by one before quoting customers or starting the purchasing process. "Manually scrubbing BOMs is a tedious and inefficient process. We needed a fast, automated approach to scrubbing BOMs that also gave us deep component and sourcing data. We were also in a reactive paradigm with respect to component obsolescence; not an acceptable situation."

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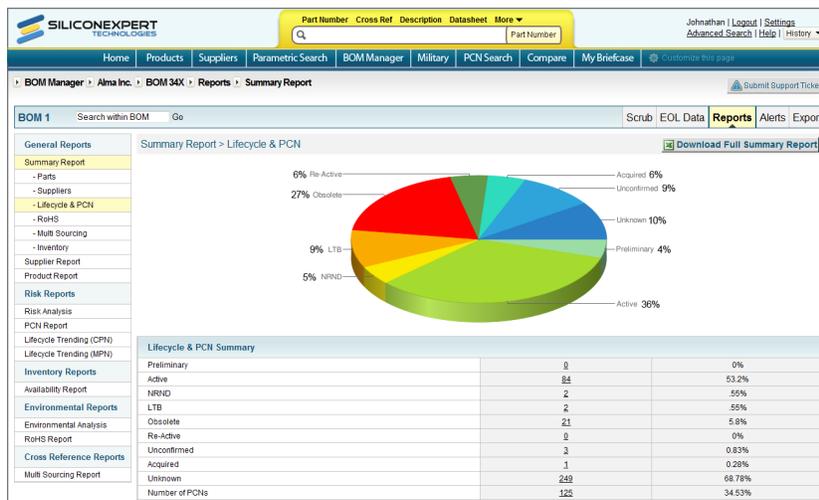
SILICONEXPERT
TECHNOLOGIES

The Solution

MPI turned to SiliconExpert to lower the number of man-hours it required to normalize its customer's BOMs. SiliconExpert's BOM Manager™ tool now allows the engineering team at MPI to quickly scrub and source component data. "The scrubbing process for the average size BOM used to take us several hours to complete. We're now able to scrub and normalize the BOMs to our formats in a matter of minutes," adds Cholin. "Because of clean part numbers, we were also able to reduce the amount of parts that get placed on hold in receiving due to incomplete information available. We now do fewer audits and were able to reduce the hold rate by half. Complete and correct part numbers significantly reduces our part management overheads."

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SiliconExpert also flags obsolete parts and those that are Not Recommended for New Design (NRND) for BOMs that are uploaded. By providing an accurate and real-time lifecycle status of parts in the BOMs, MPI is now able to identify problem components earlier giving their customers more time to respond.

Cross Reference Reports also allow MPI to seek alternate parts that match form-fit-function giving the company the option to lower lead times & component sourcing costs. "The Parametric Search facility has come in handy dozens of times to find an equivalent component in minutes when we were faced with a shortage, allowing us to recommend solutions to customers rather than hand them delays. In one specific case, we found an alternate component using the Parametric Search when faced with stretching delivery dates. Our customer approved the alternate and we were able to lower the cost of the assembly significantly for them" says Cholin. "Also, the Inventory Report allows us to focus on sending PO's to vendors we know have the parts rather than using the Buyer's time to poll availability."

"Finally, the Risk Analysis tool has allowed us to work more proactively with our customers to manage their BOM's as component availability changes. We are a metrics driven company, so we focus on providing our customers with accurate information," Cholin adds.

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The Result

Faster Quotes to Customers Yielding New Business Opportunities
By switching to SiliconExpert's BOM Manager, MPI has significantly reduced its time to clean & scrub customer BOMs. This in turn allows MPI to turn around quotes to customers with greater confidence and in a significantly smaller time frame than before.

Lowered Component Costs Result in Higher Return on Investment
By using SiliconExpert's Lifecycle & Cross Reference features, MPI is able to mitigate the effects of upcoming obsolescence events and source viable alternates helping it reduce purchasing costs.

Reduced Man-Hours Increase Productivity & Control
MPI's Component Engineers no longer spend hours and days scrubbing and normalizing tedious BOMs. SiliconExpert's BOM Manager cleans BOMs automatically and populates deep parametric data on components, allowing MPI to increase efficiency and improve its time-to-market.

SiliconExpert Parts Database

SiliconExpert's parts database and tools keep your team up to date on millions of electronic parts ranging from semiconductors and passives to electromechanicals. We provide global manufacturers, EMS, and suppliers with the most accurate data and sophisticated tools for component management.

Instantly find the part information you need including datasheets, parametric data, and cross references. Stay on top of your inventory with automated obsolescence and PCN notices in addition to inventory and lead time availability from distributors.

In addition to regularing maintaing and updating our robust database, SiliconExpert's dedicated team of engineers are here to address your specific customer issues through our customer ticket support system.

SiliconExpert Products:

Part Search™

Search millions of semiconductors, passives & electromechanical parts through an easy-to-use interface. Gain access to datasheets, cross reference data and daily inventory feeds from dozens of authorized distributors. Find out current lifecycle status, PCN/PDNs connected at the part number level and run risk analysis on individual parts. Part Search™ also allows you to compare parts parametrically within individual product lines.

BOM Manager™

SiliconExpert's BOM Manager tool allows users to scrub groups of bills of materials and organize components based on product categories and suppliers. Empowered by SiliconExpert's Parts Database, the BOM Manager allows you to scrub, edit and fix your part list automatically. In addition to performing maintenance functions, the tool also provides Lifecycle, Datasheet, RoHS, PCN and Cross Reference data. Combined with the Part Search tool by default, the BOM Manager truly becomes a complete component management tool.

About MPI

Microboard Processing, Inc. (MPI) is a privately held, full-service electronics manufacturing services (EMS) company serving the Aerospace, Defense, Medical, Industrial and Alternative Energy sectors since 1983. MPI's world-class technical capabilities and strategy to employ best-in-class equipment, processes, and personnel has enabled them to attract a diverse clientele ranging from emerging technology companies to Fortune 500 OEMs. The company specializes in rapid prototyping and product commercialization services, and has the capacity to support moderate-to-high-volume customer programs. MPI is located at 4 Progress Avenue, Seymour, Connecticut 06483; Telephone 203-881-4300. More information regarding the company can be found at http://www.microboard.com

About SiliconExpert Technologies

Founded in 2000, SiliconExpert Technologies has built the world's largest electronic components database and provides this data through a secure, on-demand webservice to the electronics industry. SiliconExpert's software and data are used daily by 1000s of electronic engineers, supply chain and procurement managers at leading Fortune 500 companies. With over 250 employees worldwide, SiliconExpert maintains a global presence for its wide range of customers spanning Asia, Europe and the Americas, operating in innovative industries such as consumer electronics, telecommunications, automotive, medical and aerospace. Find out more at www.siliconexpert.com

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