Case Study

NORTHROP GRUMMAN

A case study on how Northrop Grumman Corporation, a leading global security company that provides solutions in aerospace, electronics, information systems, and technical services, has utilized SiliconExpert's Part Search and Bill-of-Materials management tools to reduce complexity and costs and make better part selection decisions.
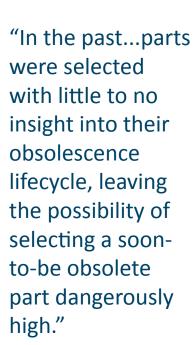
The Challenge

Responsible for a number of high-profile government and corporate contracts, Northrop Grumman is committed to delivering the best in performance and reliability to its customers. Like most successful electronics manufacturers, Northrop Grumman understands that great products start at the component level, and strives to only use best-in-class parts with long lifecycles.

But managing the thousands of components that go into Northrop Grumman's products has proven to be a difficult task.

"In the past, obsolescence data was limited to available/not available stats provided directly by part manufacturers," said Len Tosto, Engineer at Northrop Grumman. "Parts were selected with little to no insight into their obsolescence lifecycle, leaving the possibility of selecting a soon-to-be-obsolete part dangerously high."

Bills-of-Materials were generated and managed through Excel, a notoriously time-consuming and error-prone process. Version control for the BOMs was spotty at best, as most BOM management tasks were handled over email.

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Len Tosto
Engineer

"Using these tactics, we found it extremely difficult to determine risk or forecast obsolescence at the BOM level," said Tosto.

Seeking a better solution, Northrop Grumman turned to one of SiliconExpert's competitors. "It was not a good experience," said Kevin Leslie, Manager, Strategic Sourcing & Proposal Support at Northrop Grumman. "We found that they didn't even have as much part data as we did. Using their system cost us more time than it saved."

"Using [Excel for Bills-of-Materials] we found it extremely difficult to determine risk or forecast obsolescence at the BOM level."

Len Tosto
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The Solution

Northrop Grumman turned to SiliconExpert, implementing licenses for both the Part Search and BOM Manager tools.

With Part Search, Northrop Grumman can now parametrically search and cross reference millions of parts, including semiconductors, passives, and electromechanical components using partial or complete part numbers. They can easily identify parts at risk and gain an in-depth look into electronic component lifecycle statuses, multi-sourcing, available inventory, and environmental compliance data. Their engineers and buyers are finding it easier to forecast obsolescence, identify crosses, and manage their parts.

"I use SiliconExpert once or twice a day to check the status of parts and try to anticipate obsolescence issues," said Brian Stieg, Buyer at Northrop Grumman. "I find the data very helpful."

With SiliconExpert's BOM Manager tool, Northrop Grumman can scrub and manage their BOMs in one centralized location. The tool automatically corrects incorrect supplier names and part numbers, accounts for acquisitions between suppliers, and populates the latest component data from SiliconExpert's parts database. Reports for thousands of parts run instantaneously for data such as BOM Health, lifecycle statuses, multi-sourcing, environmental regulation compliance, part selection risk, and inventory availability from authorized distributors.

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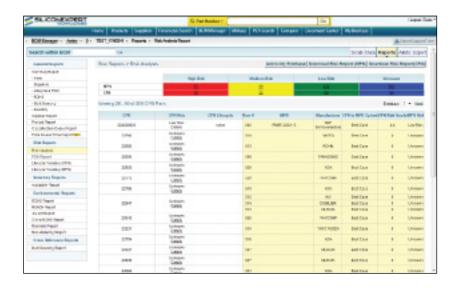
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SiliconExpert's BOM Manager also flags obsolete parts and those that are Not Recommended for New Design (NRND) for uploaded BOMs. By providing an accurate and real-time lifecycle status of parts in the BOMs, SiliconExpert now allows Northrop Grumman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

Thanks to SiliconExpert, identifying and implementing crosses has become a more streamlined, intuitive process for Northrop Grumman. Cross Reference Reports now allow Northrop Grumman to seek alternate parts that match form-fit-function, giving the company the option to lower lead times & component sourcing costs.

The Impact

Northrop Grumman realized significant cost savings right out the gate. With SiliconExpert, they were able to find availability of a part previously thought obsolete, avoiding a costly board redesign. "That saved us $50,000 almost immediately," said Kevin Leslie.

By adding SiliconExpert's resources to their already-vast knowledgebase, Northrop Grumman has discovered a better way to garner availability and obsolescence data.

"SiliconExpert gives me leads on parts I might not otherwise know about," said Stieg. "It opens up new possibilities and helps me verify the information I get from other sources."

Northrop Grumman has also seen a significant increase in overall productivity.

"We've seen some nice savings in man hours," said Tosto. "Rather than going to a bunch of different sources, which is very time consuming, we can often just go to SiliconExpert and get the data we need right away."

"[SiliconExpert] saved us $50,000 almost immediately."

Kevin Leslie
Manager, Strategic Sourcing & Proposal Support

About Northrop Grumman

Northrop Grumman Corporation (NYSE: NOC) is a leading global security company providing innovative systems, products and solutions in aerospace, electronics, information systems, and technical services to government and commercial customers worldwide. Their core competencies are aligned with the current and future needs of their customers and address emerging global security challenges in key areas, such as unmanned systems, cybersecurity, C4ISR, and logistics that are critical to the defense of the nation and its allies. For more information about Northrop Grumman, please visit www.northropgrumman.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 300 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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