



About Analog Devices

Year Founded
1965

Industry
Semiconductor Manufacturing

Annual Revenue
\$2.0 Billion

Headquarters
Norwood, MA USA

Manufacturing Locations
6

Summary

Analog Devices is a worldwide producer of integrated circuits with costing systems that did not meet their changing business strategies. With the recent change to centralized manufacturing management, coupled with the company's implementation of a new enterprise resource planning system, Analog was looking for a flexible costing solution that would tie together all production facilities. ImpactECS by 3C Software was implemented to centralize cost management for most of Analog's manufacturing locations, providing tools for standard costing, inventory valuation, scenario analysis and subcontractor pricing. The selection of ImpactECS led the semiconductor company to increasing cost data visibility throughout the organization, improving the integrity of cost data and decreasing the amount of time the accounting staff spent on manual costing tasks.

Restructuring Costs at Analog Devices

Current Cost Management Situation

With manufacturing facilities in Massachusetts, California, North Carolina, Ireland, the Philippines and the United Kingdom, Analog Devices has implemented a number of IT solutions to manage their growth. The company relies on SAP for enterprise resource planning, PROMIS for shop floor management, and various data warehouse tools to manage the abundance of information produced in the manufacturing process.

During the transition to new IT systems, Analog also experienced a reorganization of their corporate management strategy, integrating the marketing, manufacturing and planning groups on a global basis. This change created the Central Manufacturing group responsible for all domestic and international production facilities as well as managing subcontractors working with Analog. The newly formed super departments exposed many inconsistencies in their existing cost management process, forcing Analog to review its methods and form consistent rules that could be followed for all product lines.

With the reorganization and new system implementation initiatives, Bill Carlson and his team realized the ineffectiveness of separate cost systems at each production facility. Carlson, the company's Manager of Cost Accounting Systems, was looking for a way to generate consistent and relevant cost data using one system. At the time, some of Analog's facilities were dissatisfied using the PROMIS system to track cost information, while others would be losing their cost systems completely with the company's conversion from CAS to SAP. The rules to manage these systems were equally varied, creating confusing differences in costing processes from facility to facility.

It could be difficult to make business decisions at Analog because information could not be easily compared or interpreted. At times, the same or similar products fabricated at two different facilities could generate different costs. The accounting team generally could not determine if the variance was real or the result of different costing methods. Furthermore, the implementation of new systems at Analog was also a significant consideration in the changing organization. With centralized SAP and PROMIS systems, there was a need to develop a central cost system that could integrate with both.

Analog adapted their approach for determining customer requirements for new integrated circuit products to determine the requirements for a new cost system. Success of the new cost management process would be based on its acceptance by its customers – the system's users across all relevant departments. To select the best set of criteria, a cross-functional team of Analog employees participated in workshops, interviews and questionnaires. The group landed on the terms consistency, flexibility and simplicity as the key characteristics of their new costing solution.

A number of systems were reviewed to determine the best costing solution for their complex manufacturing process. The existing standard cost module offered through the PROMIS system enabled Analog to calculate standard costs and value inventory locally, but was cumbersome to maintain and difficult to globalize. Other solutions tended to come bundled with either General Ledger or Manufacturing systems and free-standing ABC calculating tools, which are fine for analysis but not suited for operations. However, its limited integration capabilities with SAP and other manufacturing systems created manual data entry processes that did not optimize the company's ability to track and manage costs accurately. Analog also reviewed the cost functionality offered through SAP but determined the system was not flexible enough to mirror their production processes and would take a significant investment of time and money to develop an appropriate solution.

Carlson located a solution that would meet the cost system requirements compiled by his cross-functional team when he discovered the ImpactECS cost management system developed by 3C Software. ImpactECS is a flexible system equipped to handle differences between manufacturing locations or processes, while providing accurate and comparable

data to make solid business decisions. The solution's design allows integration with all existing enterprise and manufacturing systems so costs are based on the most current manufacturing data available. And, the user-friendly platform makes it easy to define and only generates data that is important to Analog's decision making process. "There were no gotchas with Impact", shared Carlson, "...Analog needed a system like ImpactECS to centralize our costs."

ImpactECSSolutions

Implementing ImpactECS at Analog was a phased approach starting with a pilot at the Santa Clara production facility. The location was using the PROMIS cost module, which made it difficult to keep cost information up to date. The goal of the Santa Clara pilot was to develop a costing solution that would seamlessly integrate with their manufacturing systems and prototype the integration across all sites.

3C Software consultants worked with the Analog team to develop a completely automated costing process based on a common methodology that would fit the unique needs of each manufacturing site. During this period, naming conventions were implemented so anyone could easily navigate through the information supplied from the cost system. Data from existing systems was scrubbed and the most reflective cost information was used to create the basic cost sheet, work-in-process valuations and value added earns reports.

The next phase of the project was a worldwide rollout including additional functionality - an Activity Based Costing (ABC) model that would compute process rates and product costs for Analog's indirect production activity centers. This was a significant undertaking because each manufacturing location that had been operating independently had to agree on a common set of allocation rules. ImpactECS was rolled out to its manufacturing locations in California, Massachusetts, Ireland and the Philippines during the final implementation phase. During this period, another system enhancement was integrated into Analog's new cost system. The subcontractor pricing engine would combine product definitions from PROMIS and pricing information from vendors to calculate subcontractor standard costs and spending. Projected and historical activities could be tracked through ImpactECS tools and Analog could accurately develop budgets and track spending for subcontractors across all locations.

Results of Implementing ImpactECS

Analog's use of ImpactECS allowed the company to completely centralize its costing processes and provide its internal customers with relevant data that they can use. Carlson reflected on the installation of ImpactECS on his organization and stated that ImpactECS provided "hands-on information to the people who need it". Each of Analog's vital enterprise or production systems is tightly integrated through ImpactECS and the company can now compare manufacturing costs worldwide.

ImpactECS has increased the usability of information across the company. Cost data users are impressed by the straightforward nature of information produced by the cost management system, and support calls by the cost accounting group have decreased by nearly 90% with the introduction of ImpactECS. The integration of ImpactECS with Cognos' Upfront tool allows users to access product cost summaries online, eliminating the need for spreadsheets to track important information.

Carlson also revealed that his cost accounting group has benefited greatly from implementing ImpactECS. The software solution makes it easier to respond to requests from other groups within Analog, and the decision makers from marketing and manufacturing are now armed with relevant and accurate information. Also, the cost accountants as a group have reduced the amount of time on accounting functions like monthly closing and general ledger by one third, allowing them to focus on strategy instead of task lists.

To learn more about ImpactECS and discover how it can help your company produce results, call 800-226-2036 or visit us online at www.3csoftware.com.