



Global Semiconductor  
Company Prepares for Rapid  
Growth with Microsoft  
Dynamics AX and Dynamic  
Insights<sup>SM</sup>

**Technical Case Study**



## At A Glance

### Customer Profile:

As a world leader in connected home semiconductor solutions, Entropic's silicon and software enables leading cable, satellite, telecommunications, over-the-air, and over-the-top operators to empower subscriber's broadcast and IP-based TV experiences, anywhere. A major acquisition made Entropic's legacy ERP obsolete, so the company turned to Microsoft Dynamics AX.

### Software & Services

- Microsoft Dynamics AX
- Armanino implementation and consulting services

### Benefits

- Enterprise-grade ERP to support growth and increased complexity
- Drastic reduction in manual data manipulation efforts
- Increased accuracy and visibility across the supply chain

### Modules

- Microsoft Dynamics AX for High Tech Industries Certified for Microsoft Dynamics (CfMD) solution from Armanino
- Supply Chain Interface Module from Armanino
- Dynamic Insights<sup>SM</sup> from Armanino

## Business Challenge

Entropic is a leading fabless semiconductor company that powers the connected home by transforming the way entertainment is delivered, connected, and consumed – in the home and on the go. The only pure-play platform semiconductor company in connected home entertainment, Entropic has more than 600 employees in operations in San Diego and San Jose, California; United Kingdom; Hong Kong and Shenzhen, China; Taipei, Taiwan; and Tokyo, Japan.

To take better advantage of the large and growing connected home entertainment market, Entropic embarked on a major acquisition, one that would be transformational in many respects: complexity, headcount, revenue, operations, and more. As part of the Trident Semiconductor acquisition planning effort, Entropic conducted a gap analysis of its legacy systems.

The legacy enterprise resource planning (ERP) system included Sage PFW and a snapshot supply chain planning system from IOM(a) Serus. The analysis showed that while Entropic's solutions had been appropriate for the size and scope of the business when the applications were purchased, they weren't scalable or robust enough for a company about to substantially increase in size and complexity. Entropic needed an enterprise ERP solution that could support its aggressive growth objectives and streamline supply chain management across multiple countries.

## Solution

Following a thorough ERP evaluation, Entropic's management team selected Microsoft Dynamics AX for High Tech Industries<sup>TM</sup> from Armanino over the other solutions under consideration – SAP, Oracle, Syspro, and Epicor. "There were two main reasons we chose Microsoft Dynamics AX," says Chris Stewart, chief financial officer at Entropic. "First, we believe that the architecture of Dynamics AX is more advanced than the others. Second, we wanted the ease of use that Dynamics AX provides." With no in-house IT staff to support business applications, it was critical for Entropic to select a system that would not be overly complex to deploy and support, yet delivered the robust capabilities it required.

Entropic selected Dynamics AX for High Tech Industries<sup>TM</sup>, a Certified for Microsoft Dynamics (CfMD) industry solution developed by Armanino, because it provided robust support for the complexities of their fabless semiconductor business model. The solution included deployment of the Supply Chain Integration module to achieve bi-directional integration and automation of supply chain transactions from wafer and raw material scheduling through subcontracted manufacturing releases, purchase order receipts, all the way to sales order distribution of finished goods

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Chief Financial Officer  
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from a third party logistics (3PL) provider to the customer. This foundation for transactional integration allowed Entropic to progressively integrate operational activities for additional suppliers and vendors in order to provide real-time WIP (work in progress) visibility to planners and sales-operations personnel, in addition to real-time yield, inventory, and other financial metrics to the finance organization. This solution allows management to make decisions with accurate and current information relating to its manufacturing operations across 6+ countries and 20+ suppliers, manufacturing partners, and 3PLs.

With the acquisition of Trident Semiconductor nearly completed, Entropic and Armanino moved very quickly to complete the conversion to Dynamics AX from the acquired company's legacy ERP system. “Despite the pressure to deploy much faster than normal, the implementation was smooth and easy, which is unheard of when it comes to ERP systems,” says Stewart.

### **Building a Solid Foundation**

With a successful ERP implementation under its belt, Entropic decided to extend the capabilities of the new system to include business intelligence and budgeting, forecasting, and planning. After evaluating multiple tools, Entropic selected cloud-based Dynamic Insights<sup>SM</sup> from Armanino, to address the semiconductor company's data management needs in an efficient and cost-effective manner.

“The goal was to bring in the simplest solution. One that was easy to use, easy to maintain, and cloud-based for ease of incorporating our international processes,” says Imran Mohammed, senior financial planning and analysis manager at Entropic. “This was, by far, the easiest, most straightforward and manageable implementation I have ever experienced.”

The Adaptive Planning component of the Dynamic Insights solution streamlines budgeting & forecasting for Entropic. “We easily save at least one day's work from our monthly forecasting process,” says Mohammed. “More important, we no longer have to worry about manually double checking for inaccuracies. We spend less time on data manipulation, collection, and integration and more time on actually being able to analyze the data and engage with business owners to provide them with finance team support.”

Using a phased approach, Entropic is implementing a customized dashboard for bookings, billings, and backlogs created by Armanino using the QlikView capabilities within the Dynamic Insights solution. An operations dashboard is in development, with many other custom capabilities on the horizon.

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## Results

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Entropic experienced an immediate return on investment on its ERP implementation as part of the acquisition of the Trident Semiconductor business unit. By moving off of the acquired company's SAP footprint, Entropic saved \$1 million in operating expenses.

"The conversation would be different if we'd selected one of the other ERP vendors," says Stewart. "We'd need a bigger IT group and a much larger investment. Dynamics AX makes my life a lot easier."

The new ERP system has lived up to Entropic's expectations, delivering the robust capabilities and scalability the company needs to:

- Grow into new geographic regions and expand product offerings
- Drastically reduce manual efforts associated with using Excel spreadsheets
- Improve build/inventory accuracy
- Gain greater visibility into the supply chain

The Armanino Dynamic Insights solution enhances Entropic's Dynamics AX system by delivering powerful analytic and reporting tools to:

- Integrate data from AX and other systems to gain one version of the truth
- Accelerate getting information into the hands of business users
- Eliminate manual consolidation of data and maintenance of Excel spreadsheets

## For More Information

Armanino is one of the largest Gold Certified Microsoft Dynamics AX Partners in the nation specializing in the implementation and development of cutting-edge Microsoft Dynamics AX solutions for semiconductor, fabless semiconductor and high tech electronic manufacturers. With every project, we take a strategic approach to ensure successful deployments, user training and outstanding value, year-after-year.

For more information about Armanino products and services, call 844.582.8883 or visit us online at <https://www.armanino.com/microsoft-dynamics-ax>.

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