



# Manufacturing ERP for High-Tech and Electronics Manufacturers

A complete, industry-specific ERP system for high-tech and electronics manufacturing that accommodates customers' shifting demands while increasing efficiency and quality.

High-tech and electronics manufacturers often have short product lifecycles, tight margins, fluctuating consumer demand, and complex supply chains. Innovation happens rapidly in these industries, so plenty of revenue opportunities exist. Businesses in this space must be agile, fully connected, and highly efficient.

To be successful, high-tech and electronics manufacturers need to know what is happening in the business at all times. There is little room for error, so they must have accurate data and real-time visibility.



## Common Challenges for High-Tech and Electronic Manufacturers

- 1 Aligning inventory with production due to rapid demand fluctuations and short lead times
- 2 Tight operating margins from frequent innovations/updates, short product lifecycles, high costs, and inaccurate job costs
- 3 Difficulty managing quality due to the use of outside production resources, overseas materials, lots of components, and tight production times
- 4 Complex supply chain due to international vendors, some production outsourced, use of high-demand items, and extensive supplier network
- 5 Managing product service and warranties due to multiple options, no supporting software solution, a large number of products sold, and no mobile app
- 6 Implementing sustainability practices and meeting government environmental regulations

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In order to capture the growth we are expecting and evolve into a larger company, we need systems and applications like OptiProERP in place to help us operate more efficiently.

Marcus Straw,  
President and CEO,  
Applied Physics Technologies

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# OptiProERP with SAP Business One **Benefits Critical** for High-Tech and Electronics Manufacturers

OptiProERP is manufacturing ERP built on SAP Business One, the leading ERP for small and midsize enterprises with over 85,000 customers. It provides end-to-end functionality with best-in-class business and industry capabilities to help high-tech and electronics manufacturers streamline and connect all aspects of their business.

## Deep and End-to-End Industry Functionality

A complete and fully integrated manufacturing ERP solution for high-tech and electronics manufacturers that manages and streamlines all business operations. Sales, production, and purchasing departments are connected for greater coordination.

OptiProERP provides end-to-end visibility, advanced manufacturing functionality, and best-practice business processes for the high-tech and electronics industry. It delivers increased data with real-time business intelligence to make more timely and informed decisions.

## Optimized Production with Planning, Scheduling, and Shop Floor Execution

Balance demand, capacity, and constraints with advanced planning and scheduling to generate achievable production schedules. Take all resources, including machines, into account to improve equipment usage and minimize resource downtime.

In planning, visualize what production will look like based on “what if” scenarios—capture plant floor data and leverage it to increase throughput and improve quality. Increase on-time deliveries with accurate scheduling for greater customer satisfaction.



## Quote and Build Custom Projects with a Product Configurator

Walk step-by-step through creating accurate quotes, building bills of material, and processing a production order using a fully integrated product configurator. Quickly respond to customer requests for quotes and easily reconfigure them when adjustments are needed.

Rule-based and drill-down options are layered to support the most detailed configurations with multiple options, unique part numbers, and component combinations. Control each design with a unique item code for tracking and traceability. Provide customers with the ability to self-select configurations through your website.

## Real-time Inventory Status with Inventory and Warehouse Management

The real-time status and location of inventory cover materials, parts, work in process and finished goods. Knowing lead times for procurement and production can help maintain optimal inventory levels. Inventory and accounting are integrated, so stock levels are adjusted, accounts are credited or debited, and inventory discrepancies are noted.

Execute transactions and track activity using the mobile app and hand-held scanners with barcodes or QR codes for greater efficiency. The system suggests alternative scenarios for materials considered critical for an expedited order or materials that have been delayed, helping you adapt and keep projects on track. Eliminate stock outages, reduce unused inventory, and lower carrying costs. Ensure sufficient stock levels to maintain production schedules.

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What was funny to me was that our old accountant, who doesn't like change, I was sure that he would insist on Infor because it would just be an upgrade. He selected OptiProERP with SAP Business One. The Infor upgrade looked the same as it was, and they really didn't change it. We have really enjoyed the ease of OptiProERP's hyperlinks and mapping. Getting to different modules and looking up things is much better than how we had to do it before. You can map it to see what has happened in a PO. It gives us a step-by-step that tells us what is in inventory, what job used up some inventory, and how much, and so now you have this amount left.

Sue Hendricks,  
Manufacturing Planner and Buyer,  
Hinds Instruments.

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# OptiProERP with SAP Business One Functionality High-tech and Electronics Manufacturers Need

## Financial Management

- 1 Manage and forecast cash flow, control budgets, and monitor job costs.
- 2 Use real-time reporting with either standard or customized reports for better-informed decisions.
- 3 Track fixed assets through a virtual function to eliminate manual entries.
- 4 Post and create journal entries and allocate them to a project or profit center.
- 5 Track all banking processes and easily reconcile accounts.
- 6 Accelerate your financial close and utilize role-based dashboards.



## Sales & CRM

- 1 Reps can track all opportunities and lead activities throughout the sales cycle.
- 2 Create, manage, and analyze marketing activities to help turn prospects into customers.
- 3 All critical customer information is stored in one place to assist customers quickly.
- 4 A mobile app lets sales reps work from their mobile devices anytime and anywhere.



# Inventory Management

- 1 Maintain the minimum stock needed with real-time reports that utilize past buying patterns to forecast demand.
- 2 Keep track of inventory by physical counting, spot checks, and cycle counting.
- 3 Use ABC item analysis to categorize inventory by highest consumption value, lowest consumption rate, and interclass items.
- 4 Forecast inventory requirements accurately with hindcasting based on historical demand.

# Production Management

- 1 Bill of Materials (BOM) lets you build a comprehensive list of materials, resources, and costs to complete a job.
- 2 Manage revisions or create alternate BOMs to ensure updated documents get associated with the correct production orders.
- 3 Use alternate BOMs to create engineering change orders and automatically update all changes.
- 4 Managers can monitor workers' and machines' performance and job status for any work center.
- 5 Identify and track direct and indirect costs for material resources and labor.
- 6 Use production move orders to automate requests to move materials from one onsite location to another while keeping track of the inventory.
- 7 Set up tooling specifications for machines to monitor performance and maximize capacity.



# Materials Requirements Planning (MRP)

- 1 Use MRP to automate purchasing and production to ensure inventory levels are available when needed.
- 2 Working backward, the planning engine automatically calculates the materials, resources, and capacity needed to complete each step.
- 3 Forecast inventory demand by sales order, historical sales patterns, or to meet minimum stock requirements.
- 4 Define total operational capacity based on machines, tooling, and available resources.
- 5 Work with projected and actual supply chain demand to create production, purchasing, and inventory schedules.
- 6 Working within a predefined operational capacity, the Resource Planning tool allocates work based on the capacity of available resources.

## Product Configurator

- 1 Configure products and create quotes and sales orders using a rules-based engine.
- 2 Make it customer-facing with e-commerce integration.
- 3 A product configuration wizard guides you through the configuration process in a step-by-step format to make it easy to structure products as needed.
- 4 Create BOMs and assembly routings for either standard or custom products.
- 5 Access previous orders and existing configurations to create new orders, make adjustments, and find new product combinations.
- 6 Use multiple dimensional calculations and formulas to determine product material requirements.
- 7 Check if order configuration components are available and allocate as needed.

- 8 Keep a history of changes in configurations and who made them.
- 9 Copy and modify configurations, create customizable reports, and review in the order queue before final approval.

## Quality Management

- 1 Execute quality management across receiving, production, and shipping to identify and resolve issues proactively.
- 2 Use MRP to automate purchasing and production to ensure inventory levels are available when needed.
- 3 Track raw materials, work in progress, and finished goods to expedite negotiated pricing and if any were faulty.
- 4 Conduct QC and capture data from any location via mobile and web.
- 5 Streamline post-inspection processes to determine when received goods are faulty quickly.
- 6 Execute inspection plans, checklists, and QC tests against products, people, and equipment.
- 7 Track non-conformances, maintain a complete audit trail, and manage corrective and preventive action processes.
- 8 Carry out 100% inspection or sampling routines for AQL and non-AQL throughout processes.
- 9 Implement forward and backward tracing of all serial or lot number movements.
- 10 Evaluate and rank vendor/supplier performance through key performance indicators (KPIs).
- 11 Document internal controls, security, quality measures, and document searches and retrievals for audits or inspections.
- 12 Receive multi-level notifications and historical tags with automated changes to policies, procedures, and more.





- 13 Support the complete audit from beginning to end in compliance with corporate standards and industry regulations.
- 14 Report with user-friendly and pre-built reports for vendor, production, and stability analytics.

## Warehouse Management System

- 1 Issue materials for delivery or production using the mobile app.
- 2 Record receipt of goods from vendors or the shop floor.
- 3 Capture cycle or physical inventory counting for real-time status of on-hand stock and set replenishment alerts.
- 4 Execute transactions and track activity using the mobile app and hand-held scanners with barcodes or QR codes.



## Shop Floor Execution

- 1 Manage labor, machines, and materials for optimal shop floor performance.
- 2 Include documents, drawings, and videos as attachments for work instructions.
- 3 Operators utilize touch screens to log in, start work, manage tasks, and report job status.
- 4 Supervisors use the mobile app to monitor production status from anywhere and assign workers with a specific skill set to a particular machine.

## Shipping

- 1 All major carriers supported.
- 2 Validate addresses and create shipping quotes and labels.
- 3 Use a consignee account for shipments.
- 4 Scan the Bill of Ladings.
- 5 Track shipments, cancel shipments, and create a pickup request.
- 6 International shipping with multi-language and multi-currency support.
- 7 Print shipping labels in batches.
- 8 Receive email notifications on the progress of shipments.
- 9 See rates for different shipping options.

## Planning & Scheduling

- 1 Work with projected and actual supply chain demand to create production, purchasing, and inventory schedules.
- 2 Identify demand for multi-plant entities and consolidate orders for efficient procurement.
- 3 Explode the planning BOMs and do the same for lower-level items in the production plan.

- 4 Visualize and interact with your production schedule by clicking and dragging to automatically move production orders and watch schedules update.
- 5 Use 'what if' simulations to see how different scenarios impact production.
- 6 Evaluate the effects of future demand changes to see how or if they can be met.
- 7 Consider rough cut capacity, target days of stock cover, re-order quantities, and more for scheduling.
- 8 Model constraints to include primary, secondary, materials, resources, tooling, labor, and machines.
- 9 Implement custom rules about how materials are consumed to ensure sub-assemblies and raw materials are used according to business rules.
- 10 Define schedule optimization rules to deal with problems such as minimizing changeover times, WIP, and stock levels.
- 11 Create order-based schedules and apply a ranking or weighting to prioritize orders based on resources available and additional constraints.
- 12 Trace and manage changes, costs, delays, and more.
- 13 Flexible and customizable to set up the way you need.
- 14 Quickly run best-practice reports and alerts that are ready out of the box.

## Purchasing

- 1 Synchronize goods receipts and inventory and have purchasing processes in a central location to manage detailed data.
- 2 Match documents and view information trails for audit efficiency.
- 3 Use a PO reference to process AP transactions to plan for and purchase needed materials.





- 4 Request vendor quotes, create purchase requests, and pay vendors systematically.
- 5 Set approvals by dollar thresholds, users, departments, and locations.
- 6 Match purchase orders, invoices, and packing slips to ensure accuracy.

## Customer and Vendor Portal

- 1 Customers can access their account, order, payment, and service/support information via a web-based, two-way portal.
- 2 Suppliers can log in 24/7 to view purchase orders and other pertinent information.

## Mobility

- 1 Set up triggers and receive alerts for quality issues, inventory levels, machine malfunctions, and purchase requests.
- 2 Customize dashboards and receive information from across the business to stay informed.
- 3 Have a 360-degree view of customer information, including account, order, payment, and service/support information.
- 4 See inventory by item or warehouse and know the location and status of every type of inventory.
- 5 View employee productivity to include items made, time to make, interruptions and causes, and faulty items.
- 6 Warehouse staff can quickly locate inventory and complete tasks using mobile devices.
- 7 Sales staff can manage leads and customer accounts, view stock, and place orders on mobile devices.
- 8 Immediate visibility of the supply chain and trading partner transactions and communications.
- 9 Configure products easily and assemble quotes/orders on the fly with accurate price lists.



# OptiProERP Customer Profile: M.I.S. Electronics Corp.

- Headquarters: Richmond Hill, Ontario
- Replaced: Legacy ERP
- Evaluated: Acumatica, Syspro, Oracle, NetSuite, Microsoft Dynamics, OptiProERP
- Pain Points:
- ✓ Operational challenges
  - ✓ Inefficiencies
  - ✓ Couldn't produce quotes
  - ✓ Unable to meet customer needs
  - ✓ Lots of workarounds
- Benefits:
- ✓ Have access to real-time, accurate data
  - ✓ Able to make informed decisions
  - ✓ Have achieved deep data insights
  - ✓ Able to provide quotes fast
  - ✓ Can see customer and product profitability

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It is easy for a business to create the right tools and product-oriented solutions for clients. However, it is how the business thinks ongoing, how it cares about the industry's future and its customers, and how the business moves to ensure success is created for all. The people at OptiProERP are aligned with our approach to business. At the same time, we believe OptiProERP is scalable, flexible, and supports our long-term vision.

Saeid Mohmedi,  
Founder, MIS Electronics Corp.

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