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Introduction to QAD

We founded QAD in 1979 with a vision to develop software exclusively for manufacturing companies. Many global companies choose QAD for our global manufacturing focus and multinational support. We derive over 60 percent of our revenue from outside the United States. Today, we are proud that our products are in use at over 6,400 manufacturers in more than 90 countries.

Early in our evolution, we embraced the emergence of open systems, which today form the foundation of most companies’ applications architecture. We were one of the first ERP companies with an offering in the cloud when we introduced Supplier Portal in 2003. We focus on developing products that are easy to learn, intuitive to operate and that meet the needs of manufacturing companies. We back up our products with world-class services and support, and we have more than 1650 people dedicated to delivering the best user experience in the world.

As majority shareholders, we have been able to remain focused on our customers and vision without distraction through market ups and downs. We focus on providing the best combination of software and services for our customers, and we have built a business with a customer focused culture, a strong and experienced global executive team and an impressive board of directors.

While other companies may be larger than QAD, none has our complete focus on global manufacturing companies. For the past 35 years, we have concentrated on a select set of vertical markets in manufacturing: automotive, consumer products, food and beverage, discrete products, configured products and life sciences.

We recognize the challenges faced by our customers and we bring to that challenge a combination of vision, commitment and technology to help them excel in today’s environment.

Sincerely,

Pam and Karl Lopker
President and CEO
QAD Quick Facts

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<thead>
<tr>
<th>Founded</th>
<th>1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol:</td>
<td>NASDAQ: QADA &amp; QADB</td>
</tr>
<tr>
<td>Revenue:</td>
<td>US $277.9 FY16</td>
</tr>
<tr>
<td>Worldwide Employees:</td>
<td>Approximately 1,650</td>
</tr>
<tr>
<td>Headquarters:</td>
<td>Santa Barbara, CA, USA</td>
</tr>
<tr>
<td>Licensed Sites:</td>
<td>6,400</td>
</tr>
<tr>
<td>Industries:</td>
<td>Automotive, Life Sciences, Configured Products, Industrial, High Tech, Consumer Products, Food &amp; Beverage</td>
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QAD Worldwide Locations
QAD Enterprise Applications Overview

QAD Enterprise Applications is a complete suite of software designed to support all of the key processes of global manufacturers. The software is in use at over 6,400 sites worldwide. QAD Enterprise Applications enables measurement and control of all key business processes, and embraces best practices to support companies, whether in a single plant or across an entire global organization.

QAD has a vision for a future state where every QAD customer becomes an Effective Enterprise. We define an Effective Enterprise as one where every business process works at peak efficiency, and every process aligns perfectly to the customers’ strategic goals. QAD is helping companies achieve this vision by delivering solutions that improve business process efficiency, deployment technologies that make applications simpler to support and more rapid and effective to use and learn and implementation methods that simplify and reduce risk and effort.

QAD Enterprise Applications Key Benefits

- **Business processes supporting best practice**: Built to support best-in-class business processes—easily visible using QAD Process Maps—and changeable to match each company’s unique processes
- **Designed for global multinationals**: Built-in support for local languages, currencies, business practices and legal requirements
- **Deployment flexibility**: Meets the needs of any manufacturing organization with cloud, on premise or blended deployment options
- **Quick implementation**: QAD Easy On-Boarding provides fast, effective implementation
- **Ease of use**: Easy to use, quick to implement and intuitive to learn

QAD Manufacturing Industry Focus

QAD delivers solutions that focus on the needs of companies in specific manufacturing industries: automotive, consumer products, food & beverage, discrete products, configured products and life sciences. QAD develops products and services to address industry specific needs by working collaboratively with leading global manufacturers and industry bodies, and through research.

Our industry focus allows QAD to deliver solutions tailored to the needs of manufacturers in our focus industries.

In each of our vertical markets, QAD takes an active role with industry groups and standards bodies to ensure that we embrace new manufacturing practices, provide
innovative solutions to give our customers a competitive advantage and deliver capabilities to address regulatory compliance.

We engage with every one of our customers in an annual business review process to determine their current and future challenges. As part of this engagement, we present a Vision analysis identifying several ways we believe we can enhance their business processes and assist them in achieving their goals.

The result of QAD’s attention to specific industry requirements is a suite of solutions, which more rapidly responds to industry requirements, and more precisely addresses customer requirements than broader, less-focused applications.

**Product Usability—Channel Islands**

QAD places considerable importance on developing products that are simple to learn and easy to use. The latest development in our User Interface is the Channel Islands initiative, named after the islands visible from the QAD corporate headquarters in Santa Barbara. QAD conceived the Channel Islands program as a way to provide a consistent, individually adaptable and device-independent user experience that is personalized to the activity and the user to increase efficiency, simplify task completion and provide insight to decisions.

The new UX leverages a role-based approach providing insight to support data driven decisions with a simplified view of information. Its redesigned experience optimizes business processes for maximum efficiency. While currently only available on recent cloud deployed versions, Channel Islands is ultimately meant to improve the user experience for both Cloud and on premise customers, providing access anywhere, anytime and on any device with a modern browser.
Key Usability Features

- Access all QAD products with a single sign-on using any browser
- Activity feeds enable users to follow and receive information about events of interest based on user-defined criteria
- Visualize and navigate through business processes with customizable process maps, role-based action centers, and built-in analytics
- Integrate with Microsoft Office applications
- Rearrange a workspace to match a business process or user preference
- Attach any type of file to a record using standard drop and drag techniques
- Use integrated Inbox messaging from within QAD Enterprise Applications
- Customize action centers, activity feeds, menus, fields, and tabs to streamline usability
- Access multiple workspaces and programs simultaneously
- Use full browse search with drill-down and linking capabilities
Process Maps and Process Standardization

Most global companies strive for process consistency and standardized operations across their business. QAD Enterprise Applications supports this goal by incorporating process maps. These are a powerful set of ‘best practice’ business processes and a tool for online process visualization and documentation. The process map metaphor also allows navigation throughout the entire application.

Process maps provide graphic representations of workflows that can include links to programs, browses, documentation or other maps. Accessible throughout QAD Enterprise Applications, process maps facilitate the rapid development and deployment of company best practices. Customers’ users can edit process maps for any segment of the organization, or model unique environments in as much detail as appropriate.

- **Improve end user performance**: Make process instructions visual and readily available, increasing awareness of standard procedures for routine and special tasks.
- **Reduce errors and waste**: Users quickly access information regarding handling procedures, detailed documentation and instructions, eliminating guesswork.
- **Increase global staff communication**: Process maps are globally available, and editable to match regional language and operational demands.

Benefits of Process Maps
QAD Enterprise Applications process maps allow each company to configure business processes in the applications to match its unique business practices. Process maps can function as a navigation tool, training aid and process-planning tool. Process maps can show subsidiary or chained processes.

- Links multiple actions to a single node
- Includes links to any document type and displays in the current or new browser
- Provides a navigation path to appropriate functionality based on the process
- Provides easy-to-learn, grid-based metaphor for rapid map development and management
- Supports multiple languages
QAD Cloud ERP

No Headache, No Hardware, No Hassle. No Compromise Cloud ERP

QAD Cloud ERP is a full-strength ERP solution that customers can deploy almost anywhere in the world. QAD Cloud ERP applications can coexist with other QAD Enterprise Applications instances running on premise.

Using QAD Cloud ERP, customers can address the needs of their businesses faster and more easily, and they are able to predict costs better than with other solutions.

The application is simple to learn, use and deploy.

QAD Cloud ERP is affordable and has predictable operating costs. The solution easily scales from 10 to more than 5,000 users.

The solution provides a high level of availability and carries an SSAE16 certification, the highest standard of operational control and data security.

Moving to the cloud is a strategic decision, not a deployment option. Choosing the cloud frees up resources to focus on more strategic processes such as streamlining key business processes.

IT resources can be redeployed to more strategic continuous improvement efforts.
Key QAD Cloud ERP Strengths

QAD Cloud ERP has many strengths that differentiate it and drive the appeal of the product:

Freedom

QAD Cloud ERP offers customers the same freedoms they enjoy in on premise solutions with the ease and convenience of the cloud:

- Upgrade Schedule Control — Upgrade when it makes sense for your business
- Choice of User Interface — Choose the innovative Channel Islands UI for unparalleled flexibility or use QAD .NET UI for familiarity. Mix and match by user or task.
- Customization — Not every business fits into a template. QAD allows customization to standard code and supports customizations in the cloud
- Integration and Third Parties — QAD provides tools to integrate with other applications, whether they are on premise or in another cloud. QAD hosts many third party partner applications
- Streamline Business Processes — Personalize processes to suit the way each user works
- Deployment — Cloud, on premise or a blended deployment - you get the same great software no matter where you choose to operate it

Flexibility

QAD Cloud ERP’s architecture allows customers tremendous flexibility and many deployment options:

- **Deployment portability** — Move from on premise to QAD Cloud ERP or back easily
- **Deployment independence and blended deployment** — Combine on premise and QAD Cloud ERP to work together in the same environment
- **High availability** — Greater than 99.5 percent availability - better than the availability of most in-house systems

Accessibility

- **Globally accessible** — Accessible from most places in the world
- **HTML5 User Experience** — QAD Channel Islands UI lets you access with any browser or device
• **High Reliability** — Greater than 99.5 percent uptime

**Low Risk ERP with Security and Control**

QAD Cloud ERP has a lower risk profile than typical in-house systems and provides data security and system reliability at levels well beyond those a customer’s own IT resources can typically provide.

- **SSAE16 SOC 1 Type II documented** — Data centers certified to the highest international standard
- **Disaster Recovery** — Option for a ‘warm site’ in case of disaster
- **ISO certified organization** — Quality accredited organization and business processes
- **Low risk** — No risks due to inability to retain skills or the need to hire or train someone to support the application.

**Predictability**

QAD Cloud ERP customers can count on their ERP systems to be there whenever they need them. Truly no Headache, No Hardware, No Hassle ERP

- **Predictable costs** — Easy to calculate since the cost of the user count, storage requirements and additional elements are known. No unexpected expenses.
- **High Reliability** — Greater than 99.5 percent uptime

**Simplicity**

A key benefit of QAD Cloud ERP is its simplicity. No worries about mundane tasks like backups or complex tasks like disaster recovery plans.

- **Simple to deploy** — QAD Easy On Boarding makes deployment fast and easy
- **Simple to convert** — Prepackaged conversion services make it simple
- **Simple to learn and use** — Intuitive user interface and online training make it simple to learn
- **Full-strength ERP** — All the capabilities that major manufacturers need
QAD Cloud ERP Editions

**Discrete Manufacturing Edition** — This edition suits the needs of most discrete manufacturers with or without global operations and contains the core modules of QAD Enterprise Applications.

**Life Sciences Edition** — Provides the same capabilities as the Discrete Manufacturing Edition, and includes a qualified environment if deployed from our Denver data center.

A qualified environment means an auditor who is an expert in current Good Manufacturing Practices (cGMP) from the U.S. FDA reviewed our operating procedures and protocols and wrote a letter certifying that the environment complies with the needs of a Life Sciences company per FDA requirements and current good manufacturing practice rules (cGMP). This qualification may allow life sciences companies to rely on QAD’s qualification rather than conducting their own review and documenting operation of the data center, saving considerable time and effort for validation.

**Automotive Edition** — Provides the same capabilities as the Discrete Manufacturing Edition, and includes a suite of process maps to support Materials Management Operational Guideline/Logistics Evaluation (MMOG/LE).
**QAD Cloud ERP Capabilities**

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<th>General Ledger</th>
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**Bundle Notes**

- The bundle does not include EE Bank Drivers or EE Country Packages.
- The Mobile Field Service Client requires a separate fee to enable the solution.
- Q-Xtend is included, but any effort required to build out third party connections is not. Please refer to the integrations section later in the document for more explanation.

**Data Storage**

QAD Cloud ERP includes 150GB of Data Storage per environment.
QAD Cloud ERP Services

Services Available with QAD Cloud ERP

Service Management

As part of the QAD Enterprise Cloud service, QAD manages the system for the customer. Defining the contacts and roles at the customer is a key element in performing these tasks, allowing QAD to route issue escalations to the correct person and ensuring that the correct individuals receive system performance reports in accordance with the Service Level Agreement (SLA).

QAD assigns a QAD Cloud ERP client services manager within the QAD Cloud ERP operations group to each account at the time of initial implementation.

Service Level Reporting — QAD provides a monthly report of application performance compared to the Service Level Agreement.

The QAD Enterprise Cloud is extremely reliable. QAD offers a minimum committed availability of 99.5 percent in our standard Service Level Agreement (SLA). Availability is a measurement of the time that the application is available for use. The percentage in our SLA refers to the percentage of time the application is available as a proportion of all time less scheduled maintenance events per month. Customer’s designated contacts receive notification of all scheduled maintenance events and other scheduled outages in advance.

Upgrade Planning — We expect to upgrade environments of QAD Cloud ERP to the latest releases of QAD Enterprise Applications within one year of general availability. QAD and the customer mutually agree to upgrade timing, usually resulting in an annual upgrade.

When upgrading, QAD creates an image of the client data on the latest version of QAD enterprise applications in their development environment and then moves it to their test environment. The client may take up to three months to test before the final upgrade in their production environment occurs. If the customer is not able to upgrade within this period, QAD will continue to support the customer’s deployment at an
additional fee until the customer upgrades to the new environment. The customer’s subscription reverts to the standard fee after completion of the upgrade.

**Operational Meetings** — For customers with more than 35 users, the QAD Enterprise Cloud client services manager meets by telephone or in person with the person designated by the customer at least monthly to discuss budget, performance and support issues.

**Infrastructure Management**

**Application Administration** — QAD administers QAD Cloud ERP for the customer. These requests include day-to-day administrative requests such as printer set up, user accounts and similar tasks.

**Systems Management**

With QAD Cloud ERP, QAD manages the entire infrastructure except the network and desktop PCs. QAD manages the customer’s database, application and hardware. For instances with less than 50 users, the server may be a virtual machine. Whether the platform is virtual or physical is invisible to the customer.

**Database and Systems Administration** — QAD constantly monitors database and hardware performance. In the event that any work is required, QAD may announce a scheduled maintenance event, giving the customer advance notice if there will be any outage.

**Upgrades & Patches** — QAD applies required patches and will upgrade the platform as part of the regular upgrade cycle. QAD operations plans upgrades with the customer as part of the Service Management program.

**Functional Management**

The QAD Cloud ERP service includes guiding training plan preparation and providing support to individual users. With QAD Cloud ERP, users may log incidents with QAD Support just as QAD on premise customers can. Functional support is independent of the deployment option.

**Support** — QAD provides support and users can log calls by phone or online using QAD’s standard support systems. QAD Cloud ERP customers can elect to allow individual users to log calls directly with QAD, or they can appoint a contact to log calls. **The QAD Customer Support Guide** details full support services.

**Training** — QAD provides a broad range of online training to customers as part of the QAD Enterprise Cloud service. QAD services will work to help customers define training programs for users, and guide them in the use of QAD’s learning management system
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July 14, 2016

to track and control training programs. A Learning Q-Scan allows organizations to assess any current training gap and to make plans to address it.

**EDI Management**

QAD provides a full end-to-end EDI solution for QAD Cloud ERP customers. QAD Cloud EDI provides EDI translation and communication, and QAD EDI eCommerce provides ERP integration. All EDI components require a service engagement.

---

**QAD Cloud EDI**

QAD Cloud EDI Service provides:

- EDI mapping for all major EDI standards, along with the most common non-EDI formats, such as XML, csv or flat files
- EDI connectivity with a majority of Trading Partners through VAN interconnection with major VANs, including:
  - GXS
  - Covisint
  - Sterling Commerce
  - IBM
  - Inovis
  - Indra
  - Intesa
  - Easylink (AT&T)
  - BT
  - Infonet
  - T-Systems
  - EDS
  - Azertia
  - Telefonica
  - EDIServ
  - Multilateral
  - Map
  - BT EDI*Net
Direct TP connections through the most common protocols:
- OFTP
- OFTP2
- AS2
- HTTP
- FTP
- SFTP
- SMTP
- X.400
- Connectivity to ENX and ANX through a TCP/IP connection

QAD Cloud EDI is the standard offering for QAD Cloud ERP EDI translation and communication. Reps should escalate exceptions to the standard offering because of existing contracts between the customer and other VAN Service providers to the Cloud Steering Committee for approval.

AMS for EDI eCommerce

This optional service provides application managed services for EDI eCommerce that with QAD Cloud EDI provides a fully managed EDI environment for those customers who wish to outsource their EDI operations completely.

QAD can tailor AMS for EDI eCommerce to fit each customer's needs, internal EDI expertise and other factors. QAD Global EDI Services provides specific pricing for this service depending on requirements.

The different components of this service are:

Trading partner management — Optional service covering maintenance and implementation of any changes requested by the customer’s trading partners. It includes maintenance of QAD EDI eCommerce transformations for any adjustments required to accommodate change requests initiated by the trading partner.

Operational support help desk — A recommended option that provides the broadest level of service, representing a full end-to-end service model with complete support and troubleshooting coverage.

Proactive daily monitoring — A recommended option that provides daily EDI transaction monitoring for early discovery of potential EDI issues. This service is especially useful to organizations with limited resources or EDI knowledge.

Supplier On Boarding — A recommended option that extends the level of service to the supplier community, providing technical point of contact for supplier EDI issues and for onboarding of additional suppliers.
Customization Management

QAD Cloud ERP customers will sometimes need to make changes to the software to meet their needs precisely. Changes to the QAD Cloud ERP environment are usually either personalization or customization changes.

When QAD, a partner, a third party or the customer makes programming or database changes, there is a cost to perform, install and support the customization. As a rule, we should encourage customers to use the strong personalization capabilities in QAD Enterprise Applications before changing the software code.

Personalization

In QAD Cloud ERP environments, we emphasize personalization, which enables tailoring reports, browses and screen configuration without changing underlying programs. We expect that the personalization capabilities will be adequate to enable most companies to tune QAD Cloud ERP to their specific needs.

QAD considers the following items personalization that may be changed by the customer or third parties:

- Browses and reports, using the built in Browse and Report Framework
- Field screen location
- New fields and validations
- Menus
- Process Maps
- Operational Metrics

Customization

Customization requiring changes to standard programs or database tables requires a higher level of oversight. QAD can provide these customizations, or the customer may have them done by a qualified individual and then checked by QAD.
QAD’s Manufacturing Industry Focus

QAD provides solutions that focus on the needs of companies in specific manufacturing industries: automotive, consumer products, food & beverage, discrete products, configured products and life sciences. QAD develops products and services to address industry-specific needs by working collaboratively with leading global manufacturers and industry bodies, and through research.

QAD collaborates with leading global manufacturers to ensure we align our solutions to industry issues and requirements.

QAD participates in many industry groups serving our target markets to ensure that we address regulatory compliance, embrace new manufacturing practices and provide innovative solutions that give our customers a competitive advantage.

QAD Enterprise Applications enables leading global manufacturers to meet business goals and more effectively manage their business by providing:

- Manufacturing solutions that maximize our customer’s ability to become an effective enterprise
- Supply chain solutions that enhance collaboration with suppliers and customers
- Customer management solutions that significantly improve customer relationships
- Financial applications that meet global and regulatory reporting requirements and improve operational efficiency

QAD delivers its solutions in the cloud and on premise, enabling deployment whenever and wherever needed.
QAD in Automotive

QAD solutions are in use at most of the market-leading automotive parts companies throughout the world. Our customers include OEMs, part suppliers and aftermarket providers. QAD Enterprise Applications allow quick implementations, and provide cost-effective support for changing business demands.

QAD’s Automotive Edition provides suppliers and sub-suppliers globally with the right solution to balance demand and supply while reducing inventory, meeting stringent quality standards and demanding delivery schedules.

Automotive Key Issues

Complying with OEM requirements (MMOG/LE): QAD provides complete mapping to global OEM quality and vendor compliance models. We provide the training, modeling and solution necessary for the company to earn and retain certifications and meet customer’s requirements.

QAD has worked with the Automotive Industry Action Group (AIAG) in the U.S. and with Odette in Europe to develop methods and systems to support the global Materials Management Operations Guidelines/Logistics Evaluation (MMOG/LE) standard.

Identifying low-cost approaches to new markets: Opportunities in China, India and Korea require companies to drive to a lower cost structure to compete effectively in these markets.

QAD currently provides solutions in over 90 countries. We understand local requirements by geography, OEM or cluster. QAD provides a low-cost QAD Cloud ERP solution and predefined, monthly pricing models.

Enabling acquisitions and divestitures: The automotive industry continues to deal with mergers, acquisitions, divestitures and joint ventures. Financial management becomes critical to manage risk and control costs.

QAD Enterprise Applications’ architecture, global design and simplicity enable the company to quickly divest or acquire new sites. Predefined process maps allow rapid implementation and conversion from legacy systems. QAD’s component architecture allows the use of high value solutions, such as advanced planning, visualization, or transportation regardless of the ERP system in use.
Automotive Value Chain

QAD tailors its solutions to address the automotive value chain, including OEMs, multiple supplier tiers and aftermarket providers.

Automotive Segments

**Automotive Suppliers:** QAD provides solutions to the global automotive supplier community, including systems suppliers and all sub-tiers. QAD develops its solution with the input and guidance of its key industry-leading customers.

**Automotive Aftermarket:** QAD provides solutions to manage the automotive aftermarket, including advanced sales forecasting, planning, warehouse management and logistics.

**Construction and Heavy Equipment:** QAD provides complete solutions for both build-to-order or build-to-stock construction and heavy equipment manufacturers.

Automotive Functional Benefits

QAD’s automotive edition provides global suppliers with the right solution to balance demand and supply while reducing inventory, meeting demanding delivery schedules and stringent quality and delivery requirements.

QAD’s solution addresses most automotive industry business processes, including:
QAD Manufacturing in Automotive

Reduce costs and increase throughput using QAD Enterprise Applications to plan, schedule and track products:

**Planning and Scheduling Workbenches:** Provides simple, visual manipulation of the master schedule and planned production. Planners can schedule production to meet demand more effectively and take action when problems are imminent.

**Manufacturing Planning:** Includes fully integrated MPS and MRP and supports all production control methods such as repetitive, discrete and mixed-mode environments. Allows for simple adoption of tactical plans to meet and exceed customer expectations and changing demands.
Repetitive Manufacturing: Provides high-volume, repetitive scheduling across multiple production lines, even sharing the same resources used by discrete items controlled with work orders, including full support of serialization.

Lean Manufacturing: Supports companies adopting lean principles; QAD’s integrated Lean Manufacturing supports Kanban, TAKT time calculations and visual control methods.

Just-In-Time Scheduling: Allows customers to make in-line sequenced vehicle components in order to deliver to schedules broadcast by the OEM.

Automation Solutions: Provides integration to various data capture technologies, including RFID and bar coding for real-time transaction capture and validation of scanned data, eliminating manual data entry.

Quality Management System: Supports product quality, including inspection and testing, incoming inspection of purchased items and inventory sampling. This includes definitions of standard testing procedures and manages inventory sampling plans and quality work orders, and includes support for APQP/PPAP, critical to Tier 1 automotive parts suppliers.

Capital Projects: Supports the financial aspects of project management, including reporting throughout the process and capitalization on completions.

Product Genealogy: Provides history from finished goods back to the supplier’s lot. Adds extensive lot/serial trace and reporting functions to work-in-process (WIP) and generates tracing information at the operation level whenever the company uses registered resources.

Outsourcing/Subcontracting: Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.

Data Capture: Provides integration to various data capture technologies, including RFID and bar coding for real-time transaction capture and validation of scanned data, eliminating manual data entry.

Enterprise Asset Management: Supports all plant maintenance activities, including preventive maintenance and predictive management, work orders and service requests to ensure equipment is reliable and ready to go at all times, and compliance with regulatory mandates regarding product safety and cleanliness standards.

Product Change Control: Provides control and improves information audit throughout QAD Enterprise Applications.
**QAD Customer Management in Automotive**

Respond more quickly to customers by providing the right products at the right time and at the right cost:

**Release Management:** Provides integration into customer schedules — cumulative schedule-based (Cum) or net-based — directly into QAD Enterprise Applications. Handles sequenced scheduling and links details (Kanban, Drop Zones, etc.) to specific scheduled release lines.

**Sales Orders:** Supports order entry, tracking and reporting order status and inventory allocations in both centralized and decentralized mode. It also allows customer service representatives (CSRs) to configure the process to match the company business processes.

**Shipment Performance:** Continuously monitors shipments and tracks performance against industry metrics, including DIFOT (Delivery in Full, On Time).

**Sales Quotations:** Supports management of sales quotations for tracking and conversion to sales orders.

**QAD Supply Chain in Automotive**

Gain ROI and improve supply chain management by increasing supplier visibility:

**Supplier Portal:** Collaborative portal communicates demand changes in real time and tracks the flow of orders and shipments using ASNs.

**Transportation Management System:** Provides a complete set of tools to optimize shipments by air, sea, parcel, truckload or less than truckload; provides international documentation and assists in compliance with denied party regulations.

**Managed EDI:** A scalable, cloud-based EDI translation and communication service solution that enables simple global e-commerce and collaboration with trading partners across the value chain.

**EDI eCommerce:** Gateway and mapping tool to support multiple EDI documents and multiple standards (EDIFACT, ANSI .X12, etc.). Validates and monitors transactions to ensure effective collaboration.

**Outsourcing/Subcontracting:** Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.
Supplier Performance: Monitors and reports supplier performance against defined metrics and key indicators, enabling constant monitoring and dialog with suppliers about quality and performance.

Warehousing: For larger or more sophisticated warehouses, provides automated task management, RF based picking, wave management, batch picking, location find/audit, put-away, picking, cross docking, quality control, replenishment, transfers and advanced cycle counting activities, including full support for global inventory views in multiple physical warehouses across multiple domains.

Logistics Accounting: Allows users to track and monitor freight costs and financial transactions by accrual and recovery of freight charges for delayed or missing invoices, critical to costing items accurately when freight invoices may lag behind the material invoice.

Consignment Inventory: Manages and tracks consigned inventory received from suppliers in a Vendor Managed Inventory (VMI) model or sent to customers—from receipt to inventory to consumption—and creates triggers for payment processing.

Container and Line Charges: Tracks and invoices customers for different types of shipping containers or for extra line charges, including adding charges at the line-item level or during the shipping process.

QAD Financials in Automotive

Increase fiscal control and comply with industry mandates:

Centralized or Decentralized Operations: Includes fully internationalized shared services; support for multiple languages, transactions and reporting in any currency; multiple accounting calendars and charts of accounts.


Configuration Cost and Pricing: Automatically calculates prices for configurations, ensuring that margins remain strong and that customers experience fewer errors. Automatically calculates costs to ensure accurate profit calculations.

Enhanced Controls: Provides strict enforcement of the authenticity, integrity, auditing and confidentiality of electronic records and supports eSignature.

Evaluated Receipts Settlement (ERS): Records liabilities automatically based on quantities received at the unit price negotiated with the supplier in a purchase agreement.
Accounts Receivable Self-Billing: Processes customer-initiated payments by recording documents and applying payment credit to accounts receivable based on the line-item shipper details.

Retro Billing: Allows invoicing a customer for price changes on shipped items originally invoiced at a different price.

Cost Management: Provides multiple user-defined cost sets and elements for simulations and analysis, supports cost by location and supports multiple cost methods in parallel.
QAD in Life Sciences

Over 400 Life Sciences manufacturing sites in more than 40 countries around the world have deployed QAD Enterprise Applications. Companies ranging from startups to multinationals enjoy the simplicity, reliability and performance that QAD delivers.

QAD developed the Life Sciences Edition to meet the needs of its worldwide customers in a variety of segments from medical devices to pharmaceuticals. QAD’s commitment to Life Sciences ensures medical device, pharmaceutical and biotechnology manufacturers are able to work toward becoming effective enterprises, while meeting stringent regulatory demands.

QAD’s solution supports flexible business process configuration and multiple business entities and can be deployed in multiple languages. Deployment options—including on demand—support the needs of global life science companies.

QAD’s solution supports critical quality requirements, including regulatory compliance, CAPA and Device History/Electronic Batch Record requirements as well as providing a full range of Current Good Manufacturing Practices (cGMP) validation capabilities and tools. Enhanced controls and audit capabilities, along with eSignature support, help meet the mandate of compliance tracking.

Life Sciences Key Issues

Meeting global regulations: Governments across the globe enforce quality codes for life sciences manufacturers wherever they sell or distribute products. Generally, the regulations cover all aspects of manufacturing, selling, marketing and distributing products. Failure to comply can result in heavy fines and product recalls. The pressure of demonstrating and validating systems compliance to Current Good Manufacturing Practices (cGMP) is paramount.

QAD provides tools to help ensure that users follow all processes and safeguards.

Introducing new products: With limits on patents, technology and science, innovations are critical to drive the success of life science companies.

QAD Enterprise Applications provides the tools needed to manage resources and contain costs across all phases from discovery and development to marketing and manufacturing.

Reducing risk: A secure and auditable system is a key mandate for the life sciences industry. Details on a product’s history, from discovery through manufacturing, need to be accessible in the event the product faces an inquiry.
QAD Enterprise Applications equips manufacturers with the tools to manage systems validation, electronic records and signatures, comprehensive audit trails and lot traceability to reduce risk and cost-effectively manage compliance.

**Enhancing performance across the supply chain:** Supply chain managers require complete visibility across the extended supply chain to incorporate information from suppliers as well as collaboration with customers.

QAD Enterprise Applications provides tools such as the Supply Chain Portal to simplify providing secure access.

**Life Sciences Value Chain**

While the number of value chain participants in life sciences may be limited, the relationships are particularly close, durable and deep. Supply chains tend to remain static due to regulatory issues inhibiting change.

![Life Sciences Value Chain Diagram](image)

**Life Sciences Segments**

**Medical Devices:** QAD supports the requirements of medical device manufacturers for Class I to Class III (pre-market). QAD solutions for lot and serial number traceability, shop floor control and global trade compliance help to ensure companies operate in accordance to Current Good Manufacturing Practices (cGMP) and in compliance with global trade requirements.
Pharmaceuticals: QAD supports manufacturers in ethical pharmaceuticals, including generic pharmaceutical manufacturers. QAD helps pharmaceutical manufacturers with our planning capabilities, material controls and visibility to shop floor and distribution activities.

Biotechnology: QAD enables biotechnology companies to manage rapid growth in very short time frames. Our ability to implement quickly, including regulatory validation, makes QAD attractive to companies experiencing explosive growth.

Life Sciences Functional Benefits

QAD life sciences edition supports critical quality requirements including corrective action/preventive action (CAPA) and adverse reaction reporting, and provides a full range of validation capabilities. QAD provides a suite of tools to assist in Current Good Manufacturing Practices (cGMP) validation, including advanced controls, audit trails and the use of eSignatures.

QAD Enterprise Applications solution addresses most aspects of a life sciences company’s business processes, including:

- cGMP - Computer System Validation
- CFR 21 Part 11 (21CFR11)
- Manufacturing and Contract Manufacturing
- Quality Management
- Serialization & ePedigree
- Forward & Backward Lot/Serial Tracking
- WIP Lot Trace
- Product Genealogy
- EDI
- Transportation Management
- Customer Service and Support
- Engineering Change Control
- Contracts, Promotions and Rebates
- Demand Planning
- Packaging
- Supply Chain Portal
- Regulatory Validation Compliance
- Warehouse Management
- Distribution
The process map below demonstrates the breadth of QAD’s life sciences offering.

QAD Manufacturing in Life Sciences

Reduce costs and increase throughput using QAD Enterprise Applications to plan, schedule and track products:

**Planning and Scheduling Workbenches:** Provides simple, visual manipulation of the master schedule and planned production. Planners can schedule production to meet demand more effectively and take action when problems are imminent.

**Manufacturing Planning:** Includes fully integrated MPS and MRP and supports all production control methods such as repetitive, discrete and mixed-mode environments. Allows for simple adoption of tactical plans to meet and exceed customer expectations and changing demands.

**Repetitive Manufacturing:** Provides high-volume, repetitive scheduling across multiple production lines, even sharing the same resources used by discrete items controlled with work orders, including full support of serialization.

**Lean Manufacturing:** Supports companies adopting lean principles; QAD’s integrated Lean Manufacturing supports Kanban, TAKT time calculations and visual control methods. This makes lean adoption finally feasible for regulated manufacturers in the life sciences market.
**Configured Products:** The QAD Product Configuration suite allows for configuration of products at order entry or quotation, and creates bill of materials and routings for manufacturing. By linking the shop order and the sales order, the configurator reduces shipping errors and enhances customer satisfaction.

**Computer System Validation:** Provides detailed processes, scripts and supportive activities to enable companies to meet regulatory audits against Current Good Manufacturing Practices (cGMP). QAD Life Sciences Edition QAD Cloud ERP is an FDA qualified environment, significantly shortening the effort and time for customers to achieve certification.

**Serialization:** Supports regulatory compliance for aggregated product serialization on pallet, shipper, case and unit levels. QAD Serialization offers serial number management, packing/unpacking and full-serialized inventory management.

**Automation Solutions:** Provides integration to various data capture technologies, including RFID and bar coding for real-time transaction capture and validation of scanned data, eliminating manual data entry.

**QAD Quality Management System (QAD QMS):** Supports product quality, including inspection and testing, incoming inspection of purchased items and inventory sampling. This includes definitions of standard testing procedures and manages inventory sampling plans and quality work orders, CAPA and adverse reaction reporting.

**Capital Projects:** Supports the financial aspects of project management, including reporting throughout the process and capitalization on completions.

**Full Lot Traceability / Product Genealogy:** Provides history from finished goods back to the supplier’s lot. Adds extensive lot/serial trace and reporting functions to work-in-process (WIP) and generates tracing information at the operation level whenever the company uses registered resources.

**Outsourcing/Subcontracting:** Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.

**Compliance Management:** Provides critical manufacturing controls at the batch level, including the ability to track additional item and work order attributes and key batch dates. This solution also provides the ability to manage controlled substances, track DEA and other regulatory agency licenses, support controls required by Current Good Manufacturing Practices (cGMP) and provide for the use of eSignatures.

**Enterprise Asset Management:** Supports all plant maintenance activities, including preventive maintenance and predictive management, work orders and service
requests to ensure equipment is reliable and ready to go at all times, and compliance with regulatory mandates regarding product safety and cleanliness standards.

**Product Change Control**: Provides control and improves information audit throughout QAD Enterprise Applications.

**Attribute & Characteristic Management with Multiple Units of Measure**: Assists in tracking additional item information at various levels of detail, such as lot, pallet, case, sub-case and volume. Also includes functionality to track product using multiple units of measure.

**QAD Customer Management in Life Sciences**

Respond more quickly to customers by providing the right products at the right time and at the right cost:

**Demand Planning**: Tools to build and manage forecasts, either collaboratively or individually, based on mathematical models that utilize demand history.

**Customer Relationship Management (CRM)**: Provides a fully functional sales and marketing automation toolset designed to improve sales and marketing productivity, including communications and scheduling tools, pipeline and forecast management and customer service.

**Sales Orders**: Supports order entry, tracking and reporting order status and inventory allocations in both centralized and decentralized mode. It also allows customer service representatives (CSRs) to configure the process to match the company business processes.

**Customer Self Service (CSS)**: Provides a web storefront for self-service sales transactions and inquiries that enable suppliers to automatically take orders while reducing processing cost and time to deliver, and with a higher degree of accuracy. This is particularly prevalent in the over-the-counter (OTC) medical device market.

**Configurator**: QAD’s complete rules-based product configuration suite supports configurations from quoting and order entry all the way through production planning, shop floor control, serialization, order fulfillment and after-sale service and support.

**Sales Quotations**: Supports management of sales quotations for tracking and conversion to sales orders.

**Shipment Performance**: Continuously monitors shipments and tracks performance against industry metrics, including DIFOT (Delivery in Full, On Time).

**Service & Support Management**: Manages installation, ongoing support, maintenance and repair of products including coverage by warranty or service contracts and tracks engineering resources.
Mobile Field Service: PC-based application that allows field engineers to log in remotely to record activities from a customer site, driving improved customer service and field productivity.

QAD Supply Chain in Life Sciences

Gain ROI and improve supply chain management by increasing supplier visibility:

Supply Chain Portal: Collaborative portal communicates demand changes in real time and tracks the flow of orders and shipments using ASNs.

Purchasing: A comprehensive procurement and strategic sourcing tool, fully integrated with planning that provides sophisticated pricing across contracts and individual and blanket orders.

Transportation Management: Provides a complete set of tools to optimize shipments by air, sea, parcel, truckload or less than truckload; provides international documentation and assists in compliance with denied party regulations.

EDI: Gateway and mapping tool to support multiple EDI documents and multiple standards (EDIFACT, ANSI .X12, etc.). Validates and monitors transactions to ensure effective collaboration.

Supplier Performance: Monitors and reports supplier performance against defined metrics and key indicators, enabling constant monitoring and dialog with suppliers about quality and performance.

Warehousing: For larger or more sophisticated warehouses, provides automated task management, RF based picking, wave management, batch picking, location find/audit, put-away, picking, cross docking, quality control, replenishment, transfers and advanced cycle counting activities, including full support for global inventory views in multiple physical warehouses across multiple domains.

Logistics Accounting: Allows users to track and monitor freight costs and financial transactions by accrual and recovery of freight charges for delayed or missing invoices, critical to costing items accurately when freight invoices may lag behind the material invoice.

Consignment: Manages and tracks consigned inventory received from suppliers in a Vendor Managed Inventory (VMI) model or sent to customers from—receipt to inventory to consumption—and creates triggers for payment processing.

Container Management: Tracks and invoices customers for different types of shipping containers or for extra line charges, including adding charges at the line-item level or during the shipping process.
Returned Goods Management (RMAs): Generates invoices or credits for returns and exchanged goods processing.

QAD Financials in Life Sciences

Increase fiscal control and comply with industry mandates:

Centralized or Decentralized Operations: Includes fully internationalized shared services; support for multiple languages, transactions and reporting in any currency; multiple accounting calendars and charts of accounts.


Configuration Cost and Pricing: Automatically calculates prices for configurations, ensuring that margins remain strong and that customers experience fewer errors. Automatically calculates costs to ensure accurate profit calculations.

Enhanced Controls: Provides strict enforcement of the authenticity, integrity, auditing and confidentiality of electronic records and supports eSignature.

This supports the needs of the United States Food & Drugs Administration (US FDA) with Code of Federal Regulation 21 Part 11 (21CFR11).

Accounts Receivable Self-Billing: Processes customer-initiated payments by recording documents and applying payment credit to accounts receivable based on the line-item shipper details.

Retro Billing: Allows invoicing a customer for price changes on shipped items originally invoiced at a different price.

Cost Management: Provides multiple user-defined cost sets and elements for simulations and analysis, supports cost by location and supports multiple cost methods in parallel.
QAD in Configured Products

The need to be agile in delivering complex products is growing in many markets, and manufacturers have a challenge in addressing customer demand. Customers want mass customization. This customer demand conflicts with the need for companies to keep inventory low. It is nearly impossible to predict demand at the final product level of detail, and doing so may result in a needless buildup of never-used finished goods inventory.

A configurator helps in this entire process. By allowing companies to forecast and manufacture at the modular level, it can reduce inventory and lead times. By allowing customers to define the exact product they want, it can improve customer satisfaction, decrease costs and reduce delivery times.

QAD Product Configurator helps to control rework and eliminate errors by simplifying the manufacturer’s product technology and ensuring that requirements are consistent through the entire cycle from quote to delivery.

Configured products company characteristics:

- Produces a large number of end-products out of a relatively small number of standardized components
- Production is based on the assembly of variable items rather than fabrication from scratch
- The manufacturing strategy is “make/assemble-to-order,” rather than “make-to-stock”
- Considers order lead times, sales costs and quote errors too high

Configured products manufacturers can reduce rework, lead times and sales costs by guiding the sales and manufacturing processes with the use of QAD Product Configurator.

QAD Product Configurator addresses the needs of configured products companies, including:

- Configurations in quotes, orders and stand-alone
- Guided selling/rules-based selling through interactive questionnaire for rapid configuration
- Pricing by component or option
- Flexible model creation
- Comprehensive reporting capabilities
- Multi-language capabilities
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- Seamless integration to QAD Enterprise Applications
- Automatically creates BOM and work order for manufacturing, reducing errors and delays
- Configured routings or standard routings
- Links sales order and shop order to reduce shipping errors and ensure accurate builds

Configured Products Key Issues

**Demanding customers:** Customers want low prices, high quality and quick delivery, but they want a product that is exactly suited to their requirements. Manufacturers need to balance the increased customer satisfaction of providing mass customization products with potential increased costs of managing complexity.

QAD Product Configurator enables customer service representatives (CSRs) to enter orders and quotes for the customer's exact needs—quickly and accurately without in-depth product knowledge.

**Competitive pressures:** Manufacturers face increasing competitive pressures to standardize products for the cost and delivery benefits while simultaneously being pushed to mass customization.

QAD Product Configurator allows companies to deliver the customer's exact configuration quickly, without having to stock finished goods.

**Reduce order and quote errors:** When products become more complex, it can bog down the order or quote process while customer service reps check with engineering to ensure that customer requests are possible. Sometimes these communication issues between order and manufacturing result in costly rework or missed deliveries.

QAD Product Configurator ensures that the order or quote is for a buildable product that meets the customer's needs—without requiring engineering intervention or review. The information passes perfectly and immediately to manufacturing for quick, error-free assembly and shipment.

Configured Products Value Chain

The value chain for configured products can be very complex, since it maps to the value chain of non-configured products in the same industry.
Configured Products Segments

Configured products exist in virtually every manufacturing industry, from industrial equipment to medical devices to high-tech test equipment. Some specific examples within QAD’s focus verticals include:

**Life Sciences:** Medical devices have very complex configuration needs that may depend on the intended purpose, the clinical environment, and sometimes even the specific doctor or office that will use them. QAD Product Configurator easily manages even the most complex product needs.

**Industrial Products:** Because of the wide range of industrial products, many companies in this industry can benefit from QAD Product Configurator. Industrial machinery, equipment, instruments and computers might have an option for analog or digital gauges, right- or left-hand setup, numerical or manual controls and many more.

**High-tech:** high-tech encompasses both business products—copiers, test equipment and more—and consumer equipment—computers, stereos, TVs—any of which might benefit from QAD Product Configurator. For example, computers have the option to select memory and storage configurations, colors and more.
Configured Products Functional Benefits

QAD is committed to developing solutions that enable our customers in the configured products industry to become effective enterprises, and accelerate communication throughout the supply chain.

QAD's solution addresses all aspects of a configured products company's processes, including:

- Lean Manufacturing
- Enterprise Assess Management
- Engineering Change Control
- Transportation Management
- Demand Planning
- Quality Management
- Supplier Management
- Configuration Management
- Direct and Contract Manufacturing
- Sales and Service Support
- Packaging
- Customer Self Service
- Distribution Network Management
- Electronic Data Interchange

The process map below reflects the breadth of QAD's configured products offering.
QAD Manufacturing in Configured Products

Reduce costs and increase throughput using QAD Enterprise Applications to plan, schedule and track products:

**Master and Production Scheduling Workbenches:** Provides simple, visual manipulation of the master schedule and planned production. Planners can schedule production to meet demand more effectively and take action when problems are imminent.

**Manufacturing Planning:** Includes fully integrated MPS and MRP and supports all production control methods such as repetitive, discrete and mixed-mode environments. Allows for simple adoption of tactical plans to meet and exceed customer expectations and changing demands.

**Repetitive Manufacturing:** Provides high-volume, repetitive scheduling across multiple production lines, even sharing the same resources used by discrete items controlled with work orders, including full support of serialization.

**Lean Manufacturing:** Supports companies adopting lean principles; QAD’s integrated Lean Manufacturing supports Kanban, TAKT time calculations and visual control methods.

**Configurator:** QAD’s complete rules-based product configuration suite supports configurations from quoting and order entry all the way through production planning, shop floor control, serialization, order fulfillment and after-sale service and support.

**Automation Solutions:** Provides integration to various data capture technologies, including RFID and bar coding for real-time transaction capture and validation of scanned data, eliminating manual data entry.

**Quality Management:** Supports product quality, including inspection and testing, incoming inspection of purchased items and inventory sampling. This includes definitions of standard testing procedures and manages inventory sampling plans and quality work orders.

**Capital Projects:** Supports the financial aspects of project management, including reporting throughout the process and capitalization on completions.

**Full Lot Traceability:** Provides history from finished goods back to the supplier’s lot. Adds extensive lot/serial trace and reporting functions to work-in-process (WIP) and generates tracing information at the operation level whenever the company uses registered resources.

**Serialization:** Supports regulatory compliance for aggregated product serialization on pallet, shipper, case and unit levels. QAD Serialization offers serial number management, packing/unpacking and full-serialized inventory management.
**Outsourcing/Subcontracting:** Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.

**Enterprise Asset Management:** Supports all plant maintenance activities, including preventive maintenance and predictive management, work orders and service requests to ensure equipment is reliable and ready to go at all times, and compliance with regulatory mandates regarding product safety and cleanliness standards.

**Master Data Management:** Provides capabilities for tracking part numbers, bill of materials (BOM), routings and work centers, and integrates to Product Change Control (PCC) or Product Lifecycle Management (PLM).

**Product Change Control:** Provides control and improves information audit throughout QAD Enterprise Applications.

**Attribute & Characteristic Management with Multiple Units of Measure:** Assists in tracking additional item information at various levels of detail, such as lot, pallet, case, sub-case and volume. Also includes functionality to track product using multiple units of measure.

**QAD Customer Management in Configured Products**

Respond more quickly to customers by providing the right products at the right time and at the right cost:

**Demand Planning:** Tools to build and manage forecasts, either collaboratively or individually, based on mathematical models that utilize demand history.

**Customer Relationship Management (CRM):** Provides a fully functional sales and marketing automation toolset designed to improve sales and marketing productivity, including communications and scheduling tools, pipeline and forecast management and customer service.

**Sales Orders:** Supports order entry, tracking and reporting order status and inventory allocations in both centralized and decentralized mode. It also allows customer service representatives (CSRs) to configure the process to match the company business processes.

**Customer Self Service (CSS):** Provides a web storefront for self-service sales transactions and inquiries that enable suppliers to automatically take orders while reducing processing cost and time to deliver, and with a higher degree of accuracy.

**Configurator:** QAD’s complete rules-based product configuration suite supports configurations from quoting and order entry all the way through production planning, shop floor control, serialization, order fulfillment and after-sale service and support.
**Sales Quotations:** Supports management of sales quotations for tracking and conversion to sales orders.

**Shipment Performance:** Continuously monitors shipments and tracks performance against industry metrics, including DIFOT (Delivery in Full, On Time).

**Service & Support Management:** Manages installation, ongoing support, maintenance and repair of products including coverage by warranty or service contracts and tracks engineering resources.

**Mobile Field Service:** PC-based application that allows field engineers to log in remotely to record activities from a customer site, driving improved customer service and field productivity.

**QAD Supply Chain in Configured Products**

Gain ROI and improve supply chain management by increasing supplier visibility:

**Supplier Portal:** Collaborative portal communicates demand changes in real time and tracks the flow of orders and shipments using ASNs.

**Purchasing:** A comprehensive procurement and strategic sourcing tool, fully integrated with planning that provides sophisticated pricing across contracts and individual and blanket orders.

**Transportation Management:** Provides a complete set of tools to optimize shipments by air, sea, parcel, truckload or less than truckload; provides international documentation and assists in compliance with denied party regulations.

**EDI:** Gateway and mapping tool to support multiple EDI documents and multiple standards (EDIFACT, ANSI .X12, etc.). Validates and monitors transactions to ensure effective collaboration.

**Supplier Performance:** Monitors and reports supplier performance against defined metrics and key indicators, enabling constant monitoring and dialog with suppliers about quality and performance.

**Warehousing:** For larger or more sophisticated warehouses, provides automated task management, RF based picking, wave management, batch picking, location find/audit, put-away, picking, cross docking, quality control, replenishment, transfers and advanced cycle counting activities, including full support for global inventory views in multiple physical warehouses across multiple domains.

**Logistics Accounting:** Allows users to track and monitor freight costs and financial transactions by accrual and recovery of freight charges for delayed or missing invoices.
critical to costing items accurately when freight invoices may lag behind the material invoice.

**Consignment**: Manages and tracks consigned inventory received from suppliers in a Vendor Managed Inventory (VMI) model or sent to customers from—receipt to inventory to consumption—and creates triggers for payment processing.

**Container Management**: Tracks and invoices customers for different types of shipping containers or for extra line charges, including adding charges at the line-item level or during the shipping process.

**QAD Financials in Configured Products**
Increase fiscal control and comply with industry mandates:

**Centralized or Decentralized Operations**: Includes fully internationalized shared services; support for multiple languages, transactions and reporting in any currency; multiple accounting calendars and charts of accounts.

**Global Reporting**: Provides multi-GAAP reporting of financial statements and multiple sets of books, which simplifies compliance with emerging treatments and standards, like International Financial Reporting Standards (IFRS).

**Configuration Cost and Pricing**: Automatically calculates prices for configurations, ensuring that margins remain strong and that customers experience fewer errors. Automatically calculates costs to ensure accurate profit calculations.

**Enhanced Controls**: Provides strict enforcement of the authenticity, integrity, auditing and confidentiality of electronic records and supports eSignature.

**Evaluated Receipts Settlement (ERS)**: Records liabilities automatically based on quantities received at the unit price negotiated with the supplier in a purchase agreement.

**Accounts Receivable Self-Billing**: Processes customer-initiated payments by recording documents and applying payment credit to accounts receivable based on the line-item shipper details.

**Retro Billing**: Allows invoicing a customer for price changes on shipped items originally invoiced at a different price.

**Cost Management**: Provides multiple user-defined cost sets and elements for simulations and analysis, supports cost by location and supports multiple cost methods in parallel.
QAD in Discrete Products

QAD Enterprise Applications is a full-featured software solution that enhances customers' ability to become effective enterprises by addressing many business challenges of a global discrete manufacturing company.

QAD helps companies address the challenges of managing product complexity, coping with volatility in raw material pricing and ensuring plant effectiveness to meet demanding customer delivery schedules.

QAD’s solution supports lean principles across both manufacturing operations and the supply chain to drive cost reductions, increase margins and improve customer satisfaction.

QAD Enterprise Applications embrace mixed modes of manufacturing in a single environment and supports outsourced operations and off shoring, where required.

Key Issues in Discrete Products

Managing variable demand: The ability to react to events is essential to profitability and delivery performance. Product variations and short product life cycles increase the challenge.

QAD systems support collaboration and visibility with trading partners.

Support Lean principles: Customer responsiveness is dependent on eliminating manual intervention with improved automation and integration from quote to delivery.

QAD Enterprise supports lean functionality such as Kanban, TAKT time calculations, buffer management load leveling and pull signals.

Creating innovation, new products, value-add and competitive differentiation: Discrete product manufacturers face extreme competitive pressures; introducing innovative new products quickly can mean the difference between a market leader and an unprofitable entry.

QAD offers many tools to assist in product design – from multiple cost sets that enable tracking to target costs to full ECN tracking and approval.

QAD Product Configurator enables a quick and effective configure-to-order process supporting complex and highly variable customer requirements.

Achieving fast implementation, low TCO for mature and emerging markets: Business moves at such a fast pace; companies cannot afford the luxury of long, drawn-out implementations.
QAD has the best record of accomplishment for fast ERP implementation. Our software and services reduce the risk of implementation.

QAD Easy On-Boarding is an innovative method that reduces the risk and cost of upgrades and implementations while allowing for short project time frames.

**Discrete Products Value Chain**

Discrete products manufacturers have complex value chains, often incorporating distributors, end customers and even retail channels. Regardless of the position in the value chain, QAD Enterprise Applications will meet the needs of discrete manufacturers.

**Discrete Products Segments**

Discrete manufacturing occurs in many industries and market segments. Each segment varies – in accepted business processes, terminology and a myriad subtle ways. Experience makes a difference in understanding the unique nuances of an industry. The list below shows some of the discrete manufacturing industry segments where QAD has extensive experience.

**Computers & Related Hardware Manufacturers:** QAD solutions help manufacturers efficiently and effectively balance supply and demand, and addresses mixed-mode manufacturing including repetitive, configure-to-order and assemble-to-order manufacturing in the same environment.

**Consumer Electronics:** QAD Enterprise Applications provides tools to address the challenges related to complex supply chains for products like cameras, PDAs, calculators, audio devices and many other home products. QAD Supply Chain Portal,
for example, allows rapid communication of demand changes between customers and suppliers.

**Discrete Component Manufacturers:** Discrete components, semiconductors, passive components and electro-mechanical components all have different challenges, including different quality certifications and process variability. QAD addresses the various needs by providing varying levels of quality tracking and certification support that meet these requirements.

**Telecommunications Equipment Manufacturers:** From broadcast equipment to cellphone base equipment, these manufacturers need configuration tools, serialization and after-sale service and support to be competitive in their market. QAD Enterprise Applications addresses these requirements with solutions that are simple to deploy and use.

**Heating, Air Conditioning, & Ventilation (HVAC) Manufacturers:** Companies in this industry need solutions for commissioning site projects and for providing on-site after-sale service and support. QAD Enterprise Applications includes solutions that address these needs.

**Industrial Machinery & Equipment Manufacturers:** Industrial machinery and equipment manufacturers sell custom products to end customers or standard products through dealer/distributor networks. QAD Enterprise Applications supports the flexible distribution channels this segment requires. QAD Product Configurator allows mass customization, while Service and Support addresses post-sale service and warranty tracking needs.

**Valve & Pump Manufacturers:** Companies in this industry face a wide variety of product requirements. Configured- or manufactured-to-order products often coexist in the same facility with high volume products. QAD Enterprise Applications allows mixed-mode manufacturing and even allows products manufactured on shop orders or repetitive schedules on the same equipment or production line.

**Test and Measurement Equipment Manufacturers:** Manufacturers of test equipment often face complex calibration and repair requirements to ensure the products meet specifications. QAD EAM provides tools that track and monitor planned and unplanned maintenance as well as calibration timing and results.

**Construction and Heavy Equipment Manufacturers:** QAD solutions have helped manufacturers be more efficient and effective in the areas of configuration, field service support and product change management.
Discrete Products Functional Benefits

QAD is committed to developing solutions that enable our customers in discrete manufacturing to become more effective. QAD solution addresses many aspects of a discrete product manufacturing company’s processes, including:

- Lean Manufacturing
- Enterprise Asset Management
- Engineering Change Control
- Transportation Management
- Demand Planning
- Quality Management
- Supplier Management
- Configuration management
- Direct and Contract Manufacturing
- Sales and Service Support
- Packaging
- Customer Self Service
- Distribution Network Management
- Electronic Data Interchange

The process map below reflects the breadth of QAD’s discrete products offering.

QAD Manufacturing in Discrete Products

Reduce costs and increase throughput using QAD Enterprise Applications to plan, schedule and track products:
**Master and Production Scheduling Workbenches:** Provides simple, visual manipulation of the master schedule and planned production. Planners can schedule production to meet demand more effectively and take action when problems are imminent.

**Manufacturing Planning:** Includes fully integrated MPS and MRP and supports all production control methods such as repetitive, discrete and mixed-mode environments. Allows for simple adoption of tactical plans to meet and exceed customer expectations and changing demands.

**Repetitive Manufacturing:** Provides high-volume repetitive scheduling across multiple production lines, even sharing the same resources used by discrete items controlled with work orders, including full support of serialization.

**Lean Manufacturing:** Supports companies adopting lean principles; QAD’s integrated Lean Manufacturing supports Kanban, TAKT time calculations and visual control methods.

**Configurator:** QAD’s complete rules-based product configuration suite supports configurations from quoting and order entry all the way through production planning, shop floor control, serialization, order fulfillment and after-sale service and support.

**Shop Floor Control:** QAD Shop Floor Control provides a full range of tools to track production and operation completions, scrap, and rework and quality results. Flexible inputs include shop floor data collection devices such as bar code or RFID equipment or SCADA, or manually keyed entries.

**Automation Solutions:** Provides integration to various data capture technologies, including RFID and bar coding for real-time transaction capture and validation of scanned data, eliminating manual data entry.

**Quality Management:** Supports product quality, including inspection and testing, incoming inspection of purchased items and inventory sampling. This includes definitions of standard testing procedures and manages inventory sampling plans and quality work orders.

**Capital Projects:** Supports the financial aspects of project management, including reporting throughout the process and capitalization on completions.

**Full Lot Traceability:** Provides history from finished goods back to the supplier’s lot. Adds extensive lot/serial trace and reporting functions to work-in-process (WIP) and generates tracing information at the operation level whenever the company uses registered resources.
Serialization: Supports regulatory compliance for aggregated product serialization on pallet, shipper, case and unit levels. QAD Serialization offers serial number management, packing/unpacking and full-serialized inventory management.

Outsourcing/Subcontracting: Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.

Enterprise Asset Management: Supports all plant maintenance activities, including preventive maintenance and predictive management, work orders and service requests to ensure equipment is reliable and ready to go at all times, and compliance with regulatory mandates regarding product safety and cleanliness standards.

Master Data Management: Provides capabilities for tracking part numbers, bill of materials (BOM), routings and work centers, and integrates to Product Change Control (PCC) or Product Lifecycle Management (PLM).

Configured Products: The QAD Product Configuration suite allows for configuration of products at order entry or quotation, and creates bill of materials and routings for manufacturing. By linking the shop order and the sales order, the configurator reduces shipping errors and enhances customer satisfaction.

Product Change Control: Provides control and improves information audit throughout QAD Enterprise Applications.

QAD Customer Management in Discrete Products

Respond more quickly to customers by providing the right products at the right time and at the right cost:

Demand Planning: Tools to build and manage forecasts, either collaboratively or individually, based on mathematical models that utilize demand history.

Customer Relationship Management (CRM): Provides a fully functional sales and marketing automation toolset designed to improve sales and marketing productivity, including communications and scheduling tools, pipeline and forecast management and customer service.

Sales Orders: Supports order entry, tracking and reporting order status and inventory allocations in both centralized and decentralized mode. It also allows customer service representatives (CSRs) to configure the process to match the company business processes.

Customer Self Service (CSS): Provides a web storefront for self-service sales transactions and inquiries that enable suppliers to automatically take orders while reducing processing cost and time to deliver, and with a higher degree of accuracy.
Sales Quotations: Supports management of sales quotations for tracking and conversion to sales orders.

Shipment Performance: Continuously monitors shipments and tracks performance against industry metrics, including DIFOT (Delivery in Full, On Time).

Service & Support Management: Manages installation, ongoing support, maintenance and repair of products including coverage by warranty or service contracts and tracks engineering resources.

Mobile Field Service: PC-based application that allows field engineers to log in remotely to record activities from a customer site, driving improved customer service and field productivity.

QAD Supply Chain in Discrete Products

Gain ROI and improve supply chain management by increasing supplier visibility:

Supplier Portal: Collaborative portal communicates demand changes in real time and tracks the flow of orders and shipments using ASNs.

Purchasing: A comprehensive procurement and strategic sourcing tool, fully integrated with planning that provides sophisticated pricing across contracts and individual and blanket orders.

Transportation Management: Provides a complete set of tools to optimize shipments by air, sea, parcel, truckload or less than truckload; provides international documentation and assists in compliance with denied party regulations.

EDI: Gateway and mapping tool to support multiple EDI documents and multiple standards (EDIFACT, ANSI .X12, etc.). Validates and monitors transactions to ensure effective collaboration.

Supplier Performance: Monitors and reports supplier performance against defined metrics and key indicators, enabling constant monitoring and dialog with suppliers about quality and performance.

Warehousing: For larger or more sophisticated warehouses, provides automated task management, RF based picking, wave management, batch picking, location find/audit, put-away, picking, cross docking, quality control, replenishment, transfers and advanced cycle counting activities, including full support for global inventory views in multiple physical warehouses across multiple domains.

Logistics Accounting: Allows users to track and monitor freight costs and financial transactions by accrual and recovery of freight charges for delayed or missing invoices,
critical to costing items accurately when freight invoices may lag behind the material invoice.

**Consignment**: Manages and tracks consigned inventory received from suppliers in a Vendor Managed Inventory (VMI) model or sent to customers from—receipt to inventory to consumption—and creates triggers for payment processing.

**Container Management**: Tracks and invoices customers for different types of shipping containers or for extra line charges, including adding charges at the line-item level or during the shipping process.

**Returned Goods Management (RMAs)**: Generates invoices or credits for returns and exchanged goods processing.

**QAD Financials in Discrete Products**

Increase fiscal control and comply with industry mandates:

**Centralized or Decentralized Operations**: Includes fully internationalized shared services; support for multiple languages, transactions and reporting in any currency; multiple accounting calendars and charts of accounts.

**Global Reporting**: Provides multi-GAAP reporting of financial statements and multiple sets of books, which simplifies compliance with emerging treatments and standards, like International Financial Reporting Standards (IFRS).

**Configuration Cost and Pricing**: Automatically calculates prices for configurations, ensuring that margins remain strong and that customers experience fewer errors. Automatically calculates costs to ensure accurate profit calculations.

**Enhanced Controls**: Provides strict enforcement of the authenticity, integrity, auditing and confidentiality of electronic records and supports eSignature.

**Evaluated Receipts Settlement (ERS)**: Records liabilities automatically based on quantities received at the unit price negotiated with the supplier in a purchase agreement.

**Accounts Receivable Self-Billing**: Processes customer-initiated payments by recording documents and applying payment credit to accounts receivable based on the line-item shipper details.

**Retro Billing**: Allows invoicing a customer for price changes on shipped items originally invoiced at a different price.

**Cost Management**: Provides multiple user-defined cost sets and elements for simulations and analysis, supports cost by location and supports multiple cost methods in parallel.
QAD in Consumer Products

QAD Enterprise Applications solution for consumer products manufacturers helps balance ever-increasing numbers of new products and line extensions, demanding consumers, and customers and regulators in a complex and volatile supply chain.

QAD’s solutions enable companies to optimize inventory, collaborate with suppliers and run a more efficient manufacturing environment. QAD’s solutions improve supply chain efficiency while helping manage costs, improve margins and more effectively collaborate with customers.

QAD’s solutions support such key initiatives as sustainability, regulatory export and import, customer centric supply chains, and improved quality and regulatory compliance.

The QAD consumer products offering supports global eCommerce requirements in a single environment. With comprehensive training and partner support for major global retailers, QAD supports every major country.

Consumer Products Key Issues

**Building consumer confidence in product safety and quality:** Consumers are increasingly concerned about the source and quality of products and components.

QAD Enterprise Applications provides complete tracking and tracing capabilities. Companies always know exactly where the ingredients came from and where they have sold products.

**Global regulatory compliance:** Heightened fears of terrorism have redefined the rules for global commerce. Increasingly rigorous compliance reporting has placed new pressures on the supply chain and supporting systems.

QAD Enterprise Applications provides tools to enforce company policies and track transactions.

**Supporting global sustainability initiatives:** Global retailers mandate that manufacturers implement sustainability programs that take emissions out of the environment, save on natural resources and improve utilization of materials.

QAD Enterprise Applications supports green initiatives through functionality such as tracking reusable containers and packaging.
**Consumer Products Value Chain**

The consumer products value chain can be particularly complex. Manufacturers frequently deal with many different layers of suppliers, distributors and channels. The QAD consumer products solution accelerates communication at all levels of the value chain and provides tools to manage demand, promotions, and product introductions and brand development.

QAD Enterprise Applications for consumer products provides capabilities to help customers throughout the value chain achieve their business goals.

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**Consumer Products Industry Segments**

**Consumer Electronics:** QAD has been delivering industry specific solutions to consumer products manufacturers for nearly 20 years. QAD Demand Planning helps ensure consistent supplies by generating accurate forecasts, enabling efficient Service and Support and managing warranties and service contracts efficiently.

**Office Equipment:** QAD Enterprise Applications makes it easy to collaborate with every member of the value chain to ensure consistent, reliable supply of finished goods. QAD Product Configurator allows mass customization for products that offer many variations, and to quickly access and accurately exchange sales and supply information with partners.
Household & Personal Products: QAD Enterprise Applications maximize product availability at low cost by providing an end-to-end integrated solution to optimize planning, production and warehousing. Repetitive manufacturing allows for high volume production typical of household and personal products manufacturing.

Sporting Goods: Many sports have global equipment specifications, which makes sporting goods a very global industry. Multi-language and multi-currency capabilities integrated with extensive global services sharply increase the company’s ability to grow internationally and transact with manufacturers, suppliers, sub-contractors and retail trading partners in new markets.

Consumer Products Functional Benefits

QAD’s solutions support such key consumer products industry initiatives as sustainability, regulatory export and import, customer-centric supply chains, and improved quality and regulatory compliance.

QAD solution addresses many aspects of consumer products manufacturing, including:

- Lean Manufacturing
- Enterprise Asset Management
- Trade and Promotions Management
- Warehouse Management
- Transportation Management
- Quality Management
- Supplier Management and Collaboration
- Distribution Network Management
- Electronic Data Interchange
- Consigned and Vendor Managed Inventory
- Electronic Records Management
- Customer Management
- Demand Planning and Forecasting
- Returned Goods Management
QAD Manufacturing in Consumer Products

Reduce costs and increase throughput using QAD Enterprise Applications to plan, schedule and track products:

**Master and Production Scheduling Workbenches:** Provides simple, visual manipulation of the master schedule and planned production. Planners can schedule production to meet demand more effectively and take action when problems are imminent.

**Manufacturing Planning:** Includes fully integrated MPS and MRP and supports all production control methods such as repetitive, discrete and mixed-mode environments. Allows for simple adoption of tactical plans to meet and exceed customer expectations and changing demands.

**Repetitive Manufacturing:** Provides high-volume, repetitive scheduling across multiple production lines, even sharing the same resources used by discrete items controlled with work orders, including full support of serialization.

**Lean Manufacturing:** Supports companies adopting lean principles; QAD’s integrated Lean Manufacturing supports Kanban, TAKT time calculations and visual control methods.
Batch & Formula Management: Flexible formula and recipe management allows multiple formulations of a product and helps ensure consistent product characteristics with batch balancing for ingredient potencies.

Automation Solutions: Provides integration to various data capture technologies, including RFID and bar coding for real-time transaction capture and validation of scanned data, eliminating manual data entry.

Quality Management: Supports product quality, including inspection and testing, incoming inspection of purchased items and inventory sampling. This includes definitions of standard testing procedures and manages inventory sampling plans and quality work orders.

Capital Projects: Supports the financial aspects of project management, including reporting throughout the process and capitalization on completions.

Full Lot Traceability: Provides history from finished goods back to the supplier’s lot. Adds extensive lot/serial trace and reporting functions to work-in-process (WIP) and generates tracing information at the operation level whenever the company uses registered resources.

Serialization: Supports regulatory compliance for aggregated product serialization on pallet, shipper, case and unit levels. QAD Serialization offers serial number management, packing/unpacking and full-serialized inventory management.

Compliance Management: Provides critical manufacturing controls at the batch level, including the ability to track additional item and work order attributes and key batch dates. This solution also provides the ability to manage controlled substances, track DEA and other regulatory agency licenses, support controls required by Current Good Manufacturing Practices (cGMP) and provide for the use of eSignatures.

Outsourcing/Subcontracting: Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.

Enterprise Asset Management: Supports all plant maintenance activities, including preventive maintenance and predictive management, work orders and service requests to ensure equipment is reliable and ready to go at all times, and compliance with regulatory mandates regarding product safety and cleanliness standards.

Product Change Control: Provides control and improves information audit throughout QAD Enterprise Applications.
Attribute & Characteristic Management with Multiple Units of Measure: Assists in tracking additional item information at various levels of detail, such as lot, pallet, case, sub-case and volume. Also includes functionality to track product using multiple units of measure.

QAD Customer Management in Consumer Products

Respond more quickly to customers by providing the right products at the right time and at the right cost:

Demand Planning: Tools to build and manage forecasts, either collaboratively or individually, based on mathematical models that utilize demand history.

Customer Relationship Management (CRM): Provides a fully functional sales and marketing automation toolset designed to improve sales and marketing productivity, including communications and scheduling tools, pipeline and forecast management and customer service.

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Customer Self Service (CSS): Provides a web storefront for self-service sales transactions and inquiries that enable suppliers to automatically take orders while reducing processing cost and time to deliver, and with a higher degree of accuracy.

Configurator: QAD’s complete rules-based product configuration suite supports configurations from quoting and order entry all the way through production planning, shop floor control, serialization, order fulfillment and after-sale service and support.

Sales Quotations: Supports management of sales quotations for tracking and conversion to sales orders.

Shipment Performance: Continuously monitors shipments and tracks performance against industry metrics, including DIFOT (Delivery in Full, On Time).

Service & Support Management: Manages installation, ongoing support, maintenance and repair of products including coverage by warranty or service contracts and tracks engineering resources.

Mobile Field Service: PC-based application that allows field engineers to log in remotely to record activities from a customer site, driving improved customer service and field productivity.

Pricing: Dynamic and flexible framework for multiple price lists with effectivity dates and discounts that applies sophisticated rules to ensure best pricing.
Returned Goods Management (RMAs): Generates invoices or credits for returns and exchanged goods processing.

Data Synchronization Interface: Provides required GS1-compliant messaging for supplier-side transactions using workflow.

**QAD Supply Chain in Consumer Products**

Gain ROI and improve supply chain management by increasing supplier visibility:

Supplier Portal: Collaborative portal communicates demand changes in real time and tracks the flow of orders and shipments using ASNs.

Purchasing: A comprehensive procurement and strategic sourcing tool, fully integrated with planning that provides sophisticated pricing across contracts and individual and blanket orders.

Trade Management: Enables the ability to drive, manage and reconcile on-going product promotion events with key retailers to ensure that spending generates appropriate sales, and manages rebates, chargebacks and promotional activities.

Transportation Management: Provides a complete set of tools to optimize shipments by air, sea, parcel, truckload or less than truckload; provides international documentation and assists in compliance with denied party regulations.

EDI: Gateway and mapping tool to support multiple EDI documents and multiple standards (EDIFACT, ANSI .X12, etc.). Validates and monitors transactions to ensure effective collaboration.

Outsourcing/Subcontracting: Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.

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Logistics Accounting: Allows users to track and monitor freight costs and financial transactions by accrual and recovery of freight charges for delayed or missing invoices,
critical to costing items accurately when freight invoices may lag behind the material invoice.

**Consignment**: Manages and tracks consigned inventory received from suppliers in a Vendor Managed Inventory (VMI) model or sent to customers from—receipt to inventory to consumption—and creates triggers for payment processing.

**Container Management**: Tracks and invoices customers for different types of shipping containers or for extra line charges, including adding charges at the line-item level or during the shipping process.

**QAD Financials in Consumer Products**

Increase fiscal control and comply with industry mandates:

**Centralized or Decentralized Operations**: Includes fully internationalized shared services; support for multiple languages, transactions and reporting in any currency; multiple accounting calendars and charts of accounts.

**Global Reporting**: Provides multi-GAAP reporting of financial statements and multiple sets of books, which simplifies compliance with emerging treatments and standards, like International Financial Reporting Standards (IFRS).

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**Retro Billing**: Allows invoicing a customer for price changes on shipped items originally invoiced at a different price.

**Cost Management**: Provides multiple user-defined cost sets and elements for simulations and analysis, supports cost by location and supports multiple cost methods in parallel.
QAD in Food and Beverage

QAD provides solutions for food and beverage companies, including global leaders in alcoholic and non-alcoholic beverages, baking, daily fresh production and full process producers.

QAD’s goal is to support food and beverage manufacturers in achieving their market goals in brand development, demand management and new product introduction, while embracing food security and quality requirements.

QAD Enterprise Applications solution for food and beverage manufacturers helps companies manage the challenges of meeting consumer demand at the shelf, margin pressures, increasing product regulation requirements and the ever-increasing pressure for both increased quality and sustainability.

QAD’s solution enables food and beverage companies to optimize inventory, significantly improve collaboration with suppliers and customers and plan promotions that are more effective. QAD solutions enable a more efficient manufacturing environment, improve supply chain efficiency, help control costs and improve margins.

Food and Beverage Key Issues

Becoming market leaders in the food and beverage industry requires the ability to anticipate and exceed customer demands, develop close supply chain partnerships, increase customer service levels, control costs and streamline operations. QAD understands these needs and offers solutions and services to address them.

Effective New Product Introductions: Margins are thin and competition is strong in the fast-paced food and beverage market. Brands and SKUs are proliferating, with a steady stream of new flavors and product variations entering the marketplace. To win, food and beverage companies must develop an effective new product introduction processes.

QAD Enterprise Applications supports an efficient new products introduction process, manages costs and cost projections.

Consumer confidence in product safety and quality: Consumers have shown heightened concerns about quality—affecting manufacturers’ ability to sell into new markets.

QAD Enterprise Applications provides complete tracking and tracing capabilities so the company always knows exactly where ingredients come from and they have sold products.
Global compliance: Heightened fears of terrorism have redefined the rules for global commerce. Increasingly rigorous compliance reporting has placed new constraints on the supply chain and supporting systems.

QAD Enterprise Applications enforces corporate policies and procedures, and securely tracks all transactions, including date, time and user, with alerts for system security breaches.

Global sustainability initiatives: Global retailers mandate that manufacturers implement sustainability programs that take emissions out of the environment, save on natural resources and improve utilization of materials.

QAD Enterprise Applications supports green initiatives in a variety of ways, including managing reusable packaging and containers, and handling by-products and co-products efficiently.

Food and Beverage Value Chain

Food and beverage manufacturers deal with many different suppliers, distributors and channels in taking their product to market. The QAD food and beverage solution accelerates communication at all levels of the value chain and provides tools to manage demand, promotions and packing and co-packing.

QAD Enterprise Applications provides capabilities to help food and beverage customers achieve their business goals regardless of their position in the food and beverage value chain.
QAD continually works with food and beverage customers, through customer advisory groups and development groups, to identify and develop new capabilities, such as radio frequency identification (RFID) and serialized shipping container codes.

Food and Beverage Segments

**Daily Fresh and Primary Produce:** Delivering a complete product suite for daily fresh food manufacturers, QAD Enterprise Applications addresses all the requirements of the value chain including advanced manufacturing, supply and demand, route management and direct store delivery.

**Alcoholic and Non-Alcoholic Beverages:** QAD Enterprise Applications provides an end-to-end integrated solution to address the requirements of beverage manufacturers. QAD’s advanced manufacturing products provide full capabilities for manufacturers to optimize planning, producing and warehousing of products.

**Processed Foods:** Processed foods are demand driven, requiring significant collaboration between manufacturers, their customers and retail trading partners to ensure the right product is available at the right place at the right time and for the right price. QAD’s demand products provide capabilities that manage all aspects of sales and service support.
Food and Beverage Functional Benefits

QAD’s solution enables food and beverage companies to optimize inventory, significantly improve collaboration with suppliers and customers and plan promotions that are more effective. QAD solutions enable a more efficient manufacturing environment, improve supply chain efficiency, help control costs and improve margins.

QAD’s solution addresses food and beverage companies’ manufacturing processes, including:

- Trade and Promotions Management
- Enterprise Asset Management
- Demand Planning and Forecasting
- Warehouse Management
- Transportation Management
- Quality Management
- Supplier Management and Collaboration
- Direct Store Delivery
- Electronic Data Interchange
- Consigned and Vendor Managed Inventory
- Electronic Record Management
- Customer Management
- Shop Floor Data Collection
- Returned Goods Management

The process map below demonstrates the depth of QAD’s food and beverage industry offering.
QAD Manufacturing in Food and Beverage

Reduce costs and increase throughput using QAD Enterprise Applications to plan, schedule and track products:

**Master and Production Scheduling Workbenches:** Provides simple, visual manipulation of the master schedule and planned production. Planners can schedule production to meet demand more effectively and take action when problems are imminent.

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**Capital Projects:** Supports the financial aspects of project management, including reporting throughout the process and capitalization on completions.

**Full Lot Traceability:** Provides history from finished goods back to the supplier’s lot. Adds extensive lot/serial trace and reporting functions to work-in-process (WIP) and generates tracing information at the operation level whenever the company uses registered resources.

**Lot/Serial Traceability:** Provides history from finished goods back to the supplier’s lot. Adds extensive lot/serial tracing and reporting functions to work-in-process (WIP) and
generates tracing information at the operation level whenever the company consumes or produces registered resources.

**Compliance Management:** Provides critical manufacturing controls at the batch level, including the ability to track additional item and work order attributes and key batch dates. This solution also provides the ability to manage controlled substances, track DEA and other regulatory agency licenses, support controls required by Current Good Manufacturing Practices (cGMP) and provide for the use of eSignatures.

**Outsourcing/Subcontracting:** Tracks financial obligations and the flow of materials, allowing seamless control of outsourced production as though it were a part of one production schedule.

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**Product Change Control:** Provides control and improves information audit throughout QAD Enterprise Applications.

**QAD Customer Management in Food and Beverage**

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Data Synchronization Interface: Provides required GS1-compliant messaging for supplier-side transactions using workflow

**QAD Supply Chain in Food and Beverage**

Gain ROI and improve supply chain management by increasing supplier visibility:

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Purchasing: A comprehensive procurement and strategic sourcing tool, fully integrated with planning that provides sophisticated pricing across contracts and individual and blanket orders.

Trade Management: Enables the ability to drive, manage and reconcile on-going product promotion events with key retailers to ensure that spending generates appropriate sales, and manages rebates, chargebacks and promotional activities.

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**Logistics Accounting**: Allows users to track and monitor freight costs and financial transactions by accrual and recovery of freight charges for delayed or missing invoices, critical to costing items accurately when freight invoices may lag behind the material invoice.

**Consignment**: Manages and tracks consigned inventory received from suppliers in a Vendor Managed Inventory (VMI) model or sent to customers from—receipt to inventory to consumption—and creates triggers for payment processing.

**Container Management**: Tracks and invoices customers for different types of shipping containers or for extra line charges, including adding charges at the line-item level or during the shipping process.

**Daily Fresh**: Includes route management and settlement and preconfigured DSD applications for in-store tasks, including route sales, delivery, merchandising, pre-sales and full-line vending and allows customers to create unique localization business rules, workflow and services and enables mobile device use.

**Financials in Food and Beverage**

Increase fiscal control and comply with industry mandates:

**Centralized or Decentralized Operations**: Includes fully internationalized shared services; support for multiple languages, transactions and reporting in any currency; multiple accounting calendars and charts of accounts.

**Global Reporting**: Provides multi-GAAP reporting of financial statements and multiple sets of books, which simplifies compliance with emerging treatments and standards, like International Financial Reporting Standards (IFRS).

**Configuration Cost and Pricing**: Automatically calculates prices for configurations, ensuring that margins remain strong and that customers experience fewer errors. Automatically calculates costs to ensure accurate profit calculations.

**Enhanced Controls**: Provides strict enforcement of the authenticity, integrity, auditing and confidentiality of electronic records and supports eSignature.

**Evaluated Receipts Settlement (ERS)**: Records liabilities automatically based on quantities received at the unit price negotiated with the supplier in a purchase agreement.
Accounts Receivable Self-Billing: Processes customer-initiated payments by recording documents and applying payment credit to accounts receivable based on the line-item shipper details.

Retro Billing: Allows invoicing a customer for price changes on shipped items originally invoiced at a different price.

Cost Management: Provides multiple user-defined cost sets and elements for simulations and analysis, supports cost by location and supports multiple cost methods in parallel.
QAD Enterprise Applications

QAD Enterprise Applications is a complete suite to support the needs of global manufacturers. QAD Enterprise Applications consists of functional suites, which address business processes. The suite includes:

**Enterprise Financials:** Addresses complex regulatory requirements, strict segregation of duties, and more controls as required by larger, more complex enterprises; includes sophisticated budget modeling capabilities, advanced reporting, multiple reporting layers that simplify complex Multi-GAAP reporting requirements and enhanced audit capabilities.

**Customer Management:** Provides improved responsiveness through collaboration and management of customers and demand.

**Manufacturing:** Enables companies to reduce costs and increase throughput using the latest manufacturing scheduling techniques, including the capability to support lean principles.

**Supply Chain:** Helps companies improve management of supply and suppliers through real-time collaboration.

**Service and Support:** Provides the capability for after-sale service and support. Manages warranty tracking, service calls, and returns and repairs.

**Enterprise Asset Management:** Supports all plant maintenance activities, including preventive maintenance and predictive management, work orders and service requests to ensure equipment is reliable and ready to go at all times, and to ensure compliance with regulatory mandates regarding product safety and cleanliness standards.

**Analytics:** Helps companies analyze data to measure business performance in key areas.

**Interoperability:** Allows database portability and operating system flexibility, and works with QAD Q-Xtend application-to-application (A2A) integration toolset that enables enterprise applications to interoperate with the complete QAD Enterprise Application suite without coding. X-Tend serves as the “adapter” between QAD and other enterprise applications, automating critical tasks such as data synchronization, and eliminates the burden of maintaining custom interfaces and manual data entry.

QAD Boomi AtomSphere enables simple integration between applications in the QAD cloud and on-premise solutions or customer solutions running in a different public or private cloud.
System Performance: Performance Monitoring Framework provides the capability to pre-actively monitor system performance and take action to prevent or correct any issues that may affect optimum performance. Business Process Manager allows for simple configuration of business processes and associated workflows.
The QAD Enterprise Applications Financials suite provides comprehensive controls and capabilities needed to support global financial reporting and disclosure. With these processes built into the software, manufacturers can focus on their business, not their software.

QAD Financials addresses complex regulatory requirements, strict segregation of duties, and controls required by larger, more complex enterprises. QAD Financials includes sophisticated budget modeling capabilities, advanced reporting, multiple reporting layers that simplify complex Multi-GAAP reporting requirements and enhanced audit capabilities.

- **Drive efficient processes**: Supports both shared services and local autonomy
- **Streamline regulatory reporting**: Built in support for compliance requirements
- **Increase efficiency**: Includes eliminations, consolidations and GL allocations
- **Improve visibility**: Provides insight into operations around the world

**Financials Highlights**

**Financial Analysis**: Provides powerful financial analysis to determine the overall state of the business. It ensures that everyone from C-level executives to line-of-business managers has the best information available to make critical business decisions confidently.

**Management Reporting**: Provides a powerful tool to generate daily, monthly, quarterly and annual corporate and governmental reports. The extensive reporting features provide maximum flexibility and operational efficiency.
Multi-GAAP: Supports adherence to local and regional reporting requirements simultaneously in many jurisdictions, and the ability to transact and report in any currency.

Budgeting: Features a powerful set of budgeting and modeling tools, allowing planning for multiple companies, and multiple level budget roll-ups, with drill down for detailed analysis.

Governance, Risk & Compliance: Provides tools and controls to help companies comply with regulations such as Sarbanes-Oxley (SOX) or the Japanese version, J-SOX.

Consolidations: Automates financial consolidations and eliminations across enterprises, even when entities use different charts of accounts, fiscal periods and currencies. Multiple consolidation views allow for simulated financials, proportional consolidations, in both summary and detail. Automatic eliminations reduce the need for manual journal entries.

Allocations: Simplifies cost and revenue distribution by automatically distributing amounts based on user-defined algorithms and allows for multi-level and recursive allocations.

Financial Shared Services: Promotes centralization and rollout of corporate wide standards, providing economies of scale and ensuring consistency.

Credit Management: Ensures visibility of credit issues and supports customer credit checking across the entire global enterprise, ensuring that local orders or shipments don’t exceed corporate credit limits even if within local limits, and provides critical and timely monitoring of overdue payments and customer balance.

Tax Management: Supports tax calculations, complex tax environments and taxes for multiple countries in the same database, eliminating the need for regional tax systems.

General Ledger: Multiple-layered model supports multiple sets of books to simplify global international reporting across all divisions and regions, and tracks all financial transactions in any currency.

Multi-currency: Allows the organization to conduct business in any currency and generate consolidated reporting in any currency. Dual Base Currency allows transactions to be stored in transaction currency, base or functional currency and in an additional base or statutory currency.

Accounts Receivable: Monitors customer balances, supports credit management, produces statements, aging reports and records customer payments, including electronic funds forwarding.
**Accounts Payable:** Streamlines the payables process, manages supplier accounts, monitors outstanding payables, manages electronic fund transfers and automates the processing of payments to suppliers.

**Banking/Cash Management:** Provides for the efficient management of the organization’s cash flow. It automates the processing of payments using electronic banking, as well as electronic import and balancing of bank statements. Banking/Cash Management projects future cash positions, based on expected cash sources and cash uses.

**Cost Management:** Provides multiple user-defined cost sets and elements for simulations and analysis, supports cost by location and supports multiple cost methods in parallel.

**QAD Fixed Assets:** Supports asset tracking and depreciation calculation and reporting. Provides multiple advanced depreciation methods and multiple depreciation books for reporting and tax purposes.

**Enhanced Controls:** Provides strict enforcement of the authenticity, integrity, auditing and confidentiality of electronic records and supports eSignature.

**Logistics Accounting:** Allows users to track and monitor freight costs and financial transactions by accrual and recovery of freight charges for delayed or missing invoices, critical to costing items accurately when freight invoices may lag behind the material invoice.

**Partner Products**

**Cforia Software Credit Collections and Deductions Automation:** Delivers Lean Accounts Receivable including Credit, Collections, Deductions, Auto Cash Application, Customer Self-Service, AR Analytics, Cash Flow Forecasting and Interdepartmental Collaboration.

**Transaction Watchdog:** Provides critical control capabilities to identify money leaks in real time.

**ACOM Document Management:** Forms design and business document delivery system that enables enterprises to create, manage and deliver complex business documents according to their business needs.

**Billtrust Complete Billing:** Supports outsourced paper and electronic bill delivery for business-to-business billers.

**M2M Advanced Costing Modules:** Adds additional costing methods to QAD Enterprise Applications (SE), based on predefined or user-defined formulas that can automatically enable the most effective costing algorithms in different manufacturing environments.
Customer Management

QAD’s comprehensive suite of customer management solutions supports all phases of the customer lifecycle—from acquiring customers, through managing orders, pricing and fulfillment. Customers rely on our solutions to run marketing and salesforce automation, manage sales force activity and performance and to monitor adherence to their sales process.

- **Drive revenue:** Through effective and cost efficient marketing campaigns
- **Increase visibility across all channels:** Giving a complete picture of the customer
- **Improve the customer’s experience:** Quick, accurate information and self-service options help keep the customer informed
- **Streamline order processes, including configurations:** Accurate order entry and product configuration reduce costs and shorten deliveries

Customer Management Highlights

**Customer Relationship Management (CRM):** Provides a fully functional sales and marketing automation toolset designed to improve sales and marketing productivity, including communications and scheduling tools, pipeline and forecast management and customer service.

**Sales Quotations:** Supports management of sales quotations for tracking and conversion to sales orders.

**Sales Orders:** Supports order entry, tracking and reporting order status and inventory allocations in both centralized and decentralized mode. It also allows customer service representatives (CSRs) to configure the process to match the company business processes.

**Sales Analysis:** Allows companies to monitor margins and salesperson productivity. It also provides analysis on sales by product, item, site and customer, and ranks sales by item, margin or quantity sold.
Pricing: Dynamic and flexible framework for multiple price lists with effectivity dates and discounts that applies sophisticated rules to ensure best pricing.

Configurator: QAD’s complete rules-based product configuration suite supports configurations from quoting and order entry all the way through production planning, shop floor control, serialization, and order fulfillment and after-sale service and support.

Customer Self Service (CSS): Provides a web storefront for self-service sales transactions and inquiries that enable suppliers to automatically take orders while reducing processing cost and time to deliver, and with a higher degree of accuracy.

Demand Planning: Tools to build and manage forecasts, either collaboratively or individually, based on mathematical models that utilize demand history.

Trade Management: Enables the ability to drive, manage and reconcile ongoing product promotion events with key retailers to ensure that spending generates appropriate sales, and manages rebates, chargebacks and promotional activities.
Manufacturing

QAD Enterprise Applications Manufacturing suite is a complete and feature-rich suite addressing simultaneous, multi-mode manufacturing and provides full shop floor control of orders through the entire manufacturing process. It provides for mass customization of products in response to customer’s unique requirements, and measures and tracks performance and quality. The solution provides tools for planning, scheduling, cost management, material control, shop floor control and reporting in, discrete, repetitive, multi- and mixed-mode, Kanban, flow, batch and formula process and co-product/by-products manufacturing.

- **Streamline manufacturing planning and execution:** Incorporates best practices and enables efficient coordination
- **Improve response time:** Enables timely access to accurate planning information
- **Increase customer satisfaction:** Allows faster response to demand changes
- **Drive performance:** Measures performance to strategic goals and facilitates adoption of tactical plans

**Manufacturing Highlights**

**Manufacturing Planning:** Includes fully integrated MPS and MRP and supports all production control methods such as repetitive, discrete and mixed-mode environments. Allows for simple adoption of tactical plans to meet and exceed customer expectations and changing demands.

**Manufacturing Execution:** Provides a full range of tools to track production and operation completions, scrap and rework and quality results. Flexible inputs include shop floor data collection devices such as bar code or RFID equipment, SCADA or manually keyed entries.

**Automation Solutions:** Provides integration to various data capture technologies, including RFID and bar coding for real-time transaction capture and validation of scanned data, eliminating manual data entry.
Quality Management: Supports product quality, including inspection and testing, incoming inspection of purchased items and inventory sampling. This includes definitions of standard testing procedures and manages inventory sampling plans and quality work orders.

Lean Manufacturing: Supports companies adopting lean principles, QAD’s integrated Lean Manufacturing supports Kanban, TAKT time calculations and visual control methods.

Production Scheduler: Provides a simple, visual manipulation of the master schedule and planned production. Planners can schedule production to meet demand more effectively and take action when problems are imminent.

PRO/PLUS: Tools to manage supplier performance tracking and advanced production tracking.

Partner Products

Advanced Planning and Scheduling:

Preactor provides advanced planning and scheduling tools that optimize production scheduling.

Automated Data Collection:

Factivity performs data collection directly from the shop floor to provide job tracking, labor collection, time and attendance monitoring, and job sequencing.

Radley-Automated Q*Automated Data Collection automates manufacturing transactions and simplifies data entry processes.

Eagle Consulting and Development RF Express™ integrates critical automated data collection and bar coding functions.

Freedom Technologies monitors, manages and controls production line operations, ensuring correct manufacturing and shipping procedures.

Execution Tools:

Tugboat Software Labor Scheduling automates labor scheduling and optimizes labor assignments by combining QAD work orders with the company’s skills inventory.

Quality:

QAD QMS provides the functionality to meet ongoing quality system requirements, while automatically sharing data across the entire quality and business system. QAD QMS allows end users to configure to their business process requirements ensuring they can
meet internationally recognized compliance requirements, such as ISO and FDA requirements, and those of specific customers.

**Product Life Cycle Management**

PTC delivers a complete portfolio of integral Product Lifecycle Management solutions to customers in the industrial, high-tech, automotive, consumer products, medical device and aerospace & defense industries.
Supply Chain

QAD Supply Chain supports supply networks with enhanced visibility, and the ability to drive margin and cost improvements, reduce lead times, increase inventory turns and meet industry compliance requirements.

- **Improves margins:** Helps eliminate waste and reduces inventory
- **Drives the effective enterprise:** Promotes efficient business processes
- **Streamlines communication:** Customer and supplier portals simplify and speed communication
- **Increases responsiveness:** Faster access to information means faster response times

**Supply Chain Highlights**

**Purchasing:** A comprehensive procurement and strategic sourcing tool, fully integrated with planning that provides sophisticated pricing across contracts and individual and blanket orders.

**Supplier Performance:** Monitors and reports supplier performance against defined metrics and key indicators, enabling constant monitoring and dialog with suppliers about quality and performance.

**Supply Chain Planning:**

- **Distribution Requirements Planning (DRP):** Intra-company demand planning allows companies to easily plan, manage, track and record costs associated with the transfer of items between sites
- **Enterprise Operations Planning (EOP):** Supports the highest level of S&OP and integrates with planning and scheduling

**Consignment:** Manages and tracks consigned inventory received from suppliers in a Vendor Managed Inventory (VMI) model or sent to customers from—receipt to inventory to consumption—and creates triggers for payment processing.

**Warehousing:** Supports the requirements of organizations with larger or more sophisticated warehouses. QAD Warehousing provides automated task management,
RF based picking, wave management, batch picking, location find/audit, put-away, picking, cross docking, quality control, replenishment, transfers and advanced cycle counting activities, including full support for global inventory views in multiple physical warehouses across multiple domains.

**Demand Planning:** Tools to build and manage forecasts, either collaboratively or individually, based on mathematical models that utilize demand history.

**Release Management:** Provides integration into customer schedules — cumulative schedule-based (Cum) or net-based — directly into QAD Enterprise Applications. Handles sequenced scheduling and links details (Kanban, Drop Zones, etc.) to specific scheduled release lines.

**Transportation Management:** Provides a complete set of tools to optimize shipments by air, sea, parcel, truckload or less than truckload; provides international documentation and assists in compliance with denied party regulations.

**Data Synchronization Interface:** Provides required GS1-compliant messaging for supplier-side transactions using workflow.

**Supply Chain Portal:** Collaborative portal communicates demand changes in real time and tracks the flow of orders and shipments using ASNs.

**Partner Products**

**Numeric Computer Systems, Inc. (NCS)** Route Management System (eRMS) provides Route Accounting and Settlement solution, including preconfigured DSD applications for in-store tasks, including route sales, delivery, merchandising, pre-sales and full-line vending. It provides for creation of unique localization business rules, workflow and services, and enables mobile devices.
Service and Support

QAD Service and Support product suite enables exceptional after-sale service and support. The suite covers all aspects of tracking and support for equipment after manufacture, from installation to on-site or warranty repair, and manages engineer/technician schedules, warranty/service contracts and records of installed base configuration.

Designed to ensure customer satisfaction, QAD Service and Support suite resolves service calls, manages service queues and organizes mobile field resources. Combined with extensive project management support, organizations can track materials and labor against warranty and service work, compare actual costs to budget and generate appropriate invoicing.

Companies need to systematically manage all interactions related to the support, maintenance and repair of products; grow revenue and reduce service costs. QAD Enterprise Applications provides tools for warranty and service contracts, spares management and after-sale services.

- **Improve technician effectiveness**: Assign tasks to the nearest tech with the right skill to resolve an issue, maximizing customer satisfaction and minimizing technician travel
- **Control and reduce warranty and service contract costs**: Automatically bill for labor and parts on out-of-warranty service calls and know revision levels of installed equipment so technicians can bring the right service parts the first time
- **Manage Projects**: Create detailed schedules and plans with resource requirements

### QAD Service and Support Highlights

**Service & Support Management**: Manages installation, ongoing support, maintenance and repair of products including coverage by warranty or service contracts, and tracks engineering resources.

**Field Service Scheduler**: Helps reduce costs and improve customer service by improving service engineers’ productivity and optimizing other resources in the field.
Mobile Field Service: PC-based application that allows field engineers to log in remotely to record activities from a customer site driving improved customer service and field productivity.
Enterprise Asset Management

Enterprise Asset Management is an integrated plant operation solution that enables companies to operate plants more smoothly by keeping equipment running at the lowest cost. EAM manages planned and unplanned equipment maintenance, including calibrations, manages procurement of MRO inventory and manages capital asset project costs.

- **Manage plant maintenance:** Schedules preventive maintenance based on elapsed time or run hours to minimize downtime and maximize throughput.

- **Reduce MRO inventory:** Provides greater visibility of MRO inventory across multiple facilities to enable more effective spares planning.

- **Ensure accurate project accounting:** Tracks project milestones and ensures invoicing occurs according to contract terms.

**QAD Enterprise Asset Management Highlights**

**Project Accounting:** Plans, tracks and controls detailed project budget and spending data for capital expense or engineer-to-order projects, providing project engineers with up-to-the-minute costing information, and displays summary and detailed spending information at the project or sub-component level.

**Plant Maintenance:** Drives work order functionality for maintenance and repair operations, including all Preventive/Predictive Maintenance and both planned and unplanned work, to keep equipment reliable and plants operating at optimum capacity.

**MRO Management:** Helps manufacturers achieve the ideal balance between having the right inventory on hand and minimizing inventory investment by providing structure and controls to ensure ordering the correct item and quantities. Ensures critical spare parts are on hand as needed and enforces company spend policies.
Analytics

QAD Analytics enables companies to become effective enterprises by monitoring performance against defined key metrics and key indicators. It provides reporting any way the user wants, from basic reporting through simple browses, to user portals or complex OLAP analysis—all in real time. It allows users to view trends and drill down into detailed data from multiple sources, providing the flexibility and accuracy to quickly make fact-based decisions, and to analyze and share critical information.

- **Drive performance to strategic metrics**: Monitors and reports performance against defined strategic effective enterprise metrics
- **Improve business performance**: Provides visibility into performance trends against strategic goals
- **Reduce business risks**: Identifies issues before they become problems to keep processes running at peak performance
- **Streamlined reporting**: Consolidates data from multiple sources and provides a single point to view information, simplifying analysis
- **Produce forms and outputs**: Allows users to format common forms in WYSIWYG (What You See Is What You Get)

**QAD Enterprise Applications Analytics Highlights**

**Operational Metrics**: Provides a single point of view to key effective enterprise performance measures and helps identify issues before they become problems.

**Reporting Framework**: Provides graphical view to status metrics to identify issues that impede performance and provides decision guidelines in line with objectives; allows the creation of browses and structured inquiries, views and WYSIWYG reports.

**Workflow Alerts**: Alerts and notifications ensure information flows to responsible individuals.

**Business Intelligence**: Promotes fact-based decisions by unifying data from multiple sources using an included ETL (Extract, Transform, Load) tool, allowing decision makers to access, analyze and share critical information using a browser-based portal.
**QAD BI Data Warehouse Designer:** Allows data consolidation, optimization, multi-currency consolidation, support for database maintenance tasks and impact analysis, and provides a single repository for transformation logic.

**QAD BI Modules:** Integrates with QAD apps out of the box and organized to make data easy to access without complex database queries and programming resources.

**QAD BI Portal:** Enables decision makers to create and reuse secure dashboard components placing critical data at their fingertips.
Interoperability

QAD Interoperability solutions are available at many layers throughout the solution. They enable enterprise and trading partner applications to interoperate seamlessly with QAD Enterprise Applications. This robust solution set relies on standard business rules. It simplifies the upgrade process and enables integration without coding.

- **Reduce costs of integrating multiple systems**: Automatically synchronizes with no coding required
- **Ensure consistent information**: Ensures systems remain in sync with data repository
- **Desktop integration**: Seamlessly transfers information from common desktop applications like Microsoft Office and Excel

**QAD Enterprise Applications Interoperability Highlights**

**Q-Xtend**: A simple message-based integration tool that runs over middleware or peer-to-peer. Xtend features a full set of APIs to accommodate most transactions addressed by QAD. Xtend has a documented set of mapped transactions that simplify integration tasks defined in QDocs. Q-Xtend is the backbone for application-to-application integration to the QAD Enterprise Applications suite, as well as opening up the application to other sources. Q-Xtend allows automated and rules-based data synchronization tasks and eliminates the burden of maintaining custom interfaces.

**Managed EDI**: A scalable, cloud-based EDI translation and communication service solution that enables simple global e-commerce and collaboration with trading partners across the value chain.

**EDI eCommerce**: Provides a streamlined method for managing EDI communications between trading partners, including an end-to-end integration broker for B2B communications.

QAD’s EDI eCommerce module supports multiple parallel EDI documents depending on trading partner or Value-added Network (VAN) provider.
Partner Products

Output Management: Forms automation solutions for formatting, personalizing and delivering standard QAD print output or spool files into attractive functional documents distributed via print, fax, email or web.

ACOM Document Management: A form design and business document delivery system that enables enterprises to create, manage and deliver complex business documents according to their business needs.

Bottom line Output Management: Enables enterprises to customize documents, such as invoices, purchase orders and advance shipping notices, for distribution by print, email, fax and the web.

Sterling (Gentran) Integration Suite: Provides integration with a VAN or Gateway platform for electronic messaging, including electronic data interchange (EDI) and XML.
System Performance

Underperforming business services can seriously affect a company’s ability to support its. Identifying notoriously hard to identify performance issues in a timely manner is critical to a company’s success.

- Identify and address issues before a crisis develops
- Identify usage patterns and performance bottlenecks
- Continuous application, system and network monitoring
- Configure business processes
- User definable work flows

QAD Enterprise Applications System Performance Highlights

QAD Monitoring Framework

QAD Monitoring Framework allows customers to monitor their servers as well as the QAD solutions that run on them providing system transparency as well as baseline performance data. This continuous monitoring and alerting enables customers to plan preemptive actions that can help to prevent application downtime and optimize the performance of applications from an end-user perspective.

QAD Monitoring Framework also enables customers to observe performance patterns and trends over time, giving a historical overview of a system as well as the ability to adapt the alerting solution to notify of exceptions to the baseline measurements provided. In addition to this, the data it collects can be used to view retrospectively the state of a system when an unexpected failure occurred and can help in diagnosing the cause of the failure or performance issue.

QAD Monitoring Framework can help improve user satisfaction as it helps administrators monitor QAD Applications, Databases, Systems and Networks more efficiently.

QAD Business Process Management

Business Process Management (BPM) is a combination of management practices, policies, metrics and software tools designed to help organizations document, automate, manage, analyze and improve processes.

Create business process models that drive process execution
Assign task responsibilities/ownership to individual users/roles
Automate execution of the business process
Reduce process execution time
Operational metrics show the status of active processes
Improve visibility of active processes
Analyze process execution metrics
Identify bottlenecks
Model process modifications
Support iterative process improvement
QAD Enterprise Applications by Process

The efficiency of a company’s business processes plays a strong role in how well the business will perform. QAD strives to help its customers become effective enterprises, by enabling their processes to operate at peak efficiency and align perfectly with their strategic goals.

- **Measure performance to improve**: QAD provides a complete set of effective enterprise metrics in composite scorecards by industry and process
- **Simplify user training**: QAD process maps link directly to the software so users get a clear picture of the entire process
- **Achieve faster ROI**: Process maps help users visualize the flow of information so implementation and go-live are faster
- **Comply with regulatory requirements**: Documenting processes can help achieve ISO, SOX, FDA or other regulatory certifications

**Business Processes**

**Design**

QAD Enterprise Applications provide design aids such as engineering bill of materials, ECN processing, flexible cost sets, and communication tools like collaborative forecasting, and the supplier portal to help gather input and ensure new products achieve profitability, manufacturability and market acceptance.

**Draw on trading partner knowledge**: Customers and suppliers are key stakeholders in the design of new ideas and manufacturing methods. Collaborative tools help the company benefit from suppliers’ expertise.
Rationalize product catalogs: Analyze products and product line profitability; reuse common components.

Minimize inventory investment: Configured products, modular assemblies and reuse of common components help minimize inventory while ensuring maximum flexibility to meet demand.

Effective Enterprise Best Practices

- Use collaboration tools to help assist distributed teams to participate in the design process
- Leverage suppliers to drive innovation through joint ventures
- Design for ease of production (CAD, CAM)
- Reuse common components across products and product lines to help simplify supplier base, reduce inventory costs and potential stock outs
- Segregate pending product changes from the active database
- Clearly define the design change approval process
- Transmit design information and changes instantly to all downstream functions and throughout the supply chain
- Single source product design data

Effective Enterprise Metrics

- Time to design an item of certain complexity (development efficiencies)
- Quality in terms of number of errors and rework
- Cost per Engineering Change Order (ECO)
- Number of ECOs
- Configured order accuracy
**Plan**

QAD Enterprise Applications offers planning tools that can help companies become a more effective enterprise. From distribution resource planning to rationalize inventory across plants, to planner workbenches to optimize the shop floor, to service part optimization, QAD Enterprise Applications offers a planning tool for every phase of the operation.

**Align strategic objectives with operations execution:** Ensure forecasts and master schedules meet the company’s objectives for service levels, inventory balances and resource consumption.

**Balance supply and demand:** Forecast algorithms coupled with collaborative input ensure demand forecasts are as accurate as possible; supplier portal ensures supply chain issues are visible in time to take action to prevent disrupting production.

**Make confident decisions:** Dashboards and browsing provide information fast—whenever needed—to support decisions based on facts, not guesswork.

**Effective Enterprise Best Practices**

- Visibility across supply chain
- Collaborative forecasting with multiple stakeholders
- Optimized order quantities based on order multiples such as case quantities and EOQ
- Use sales and operations planning to align supply and demand

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Multiple statistical forecasting methods and cross-validation using causal factors
- Multi-entity, multi-enterprise planning
- Inventory stocked at the “feature” level, to enhance flexibility

**Effective Enterprise Metrics**
- Order fill rates
- Forecast cycle time
- Planning cycle
- Premium freight charges
- Equipment capacity utilization equipment
- Cost of WIP in queue at work centers
- Perfect order fills
- Unplanned overtime

**Source**

QAD Enterprise Applications provide tools for effective sourcing across the most complex global supply chains.

**Improve quality and reduce inventory:** Supplier performance reports keep suppliers on their toes. Quality reports manage testing procedures and results. Supplier portal improves communication to smooth out supply and demand fluctuations.

**Drive profitability:** Effective sourcing provides parts at the lowest possible cost and with the highest possible quality consistent with delivery requirements. High quality, low cost parts received on time keep scrap, rework and downtime costs low.
Sub-contract effectively: Sub-contracting is one of the most complex sourcing tasks. It involves quality, price, delivery and the added challenges of capacity and materials planning.

**Effective Enterprise Best Practices**

- Full visibility of demand and supply
- Use consignment agreements to reduce assets and cycle time while increasing availability of critical items
- Use supplier certification programs to reduce or eliminate inspection of received materials
- Use RFID and bar coding to minimize handling time and maximize data accuracy
- Build sustainable collaborative partnerships with key suppliers

**Effective Enterprise Metrics**

- Supplier performance ratings
- Value of assets provided by supplier (cost avoided by the company)
- Supplier acquisition cost
- Cost to source product
- Degree and frequency of demonstrated flexibility or responsiveness
- Percent of scheduled product deliveries communicated via EDI
- Time and cost related to expediting the sourcing process
- Perfect purchase order fulfillment
- Purchase price variance
QAD Enterprise Applications helps effective enterprises respond to changing demand, conform to regulatory requirements and control shop floor activities. Whether manufacturers are discrete, process or mixed-mode, whether they uses work orders or rate-based schedules, manufacturing companies must be flexible and continuously improve their operations.

**Streamline track and trace recording:** Tracking and tracing is required in many industries. Flexible serial tracking, eSignatures and audit trails can simplify the process and improve operational efficiency.

**Adopt lean principles:** Minimal inventory delivered just in time, foolproof processes and continuous improvement all are basic tenets of lean. Adopting even a few lean principles allows the company to reap the benefits of lower costs and higher throughput.

**Configure products to order:** Reduces finished goods inventory, shortens delivery lead times, improves customer satisfaction and increases manufacturing flexibility.

**Effective Enterprise Best Practices**
- Regular monitoring, measurement and analysis of performance metrics
- Well-defined, understood and documented performance metrics
- Stable, repeatable and predictable processes
- Production planning systems dynamically incorporate last minute changes in requirements when generating production schedules
- Serial traceability process that meets customer, industry, government, and/or international standards
Bidirectional communication and data exchange with suppliers, subcontractors and service providers
- Lean Manufacturing

**Effective Enterprise Metrics**
- Plant capacity utilization
- Manufacturing errors
- Planned downtime for maintenance
- Overhead as a percentage of direct costs
- Cost per part
- Defective parts

**Engage**

QAD Enterprise Applications provides tools for every phase of the customer life cycle from quotations and RFQs to order and delivery through after-sale service and support. Customers can choose self-service options, EDI or traditional communication channels, and QAD Enterprise Applications gives the company a complete view of the customer.

**Improve response time:** Customers want information about order status, including inventory on hand, invoice or shipment information or pricing—and business systems must deliver this information whenever and however customers ask.
Communicate through multiple channels: Whether customers choose self-service, phone, fax, EDI or XML, QAD Enterprise Applications handles them all and provides a complete picture of the customer's interactions with the company.

Effective Enterprise Best Practices

- Web orders integrated with pricing, ATP and back-end supply chain functions
- Complete capture of a customer's interactions
- Integrated marketing, sales and customer service database
- Customer self-service to place orders and check status
- Customized configurations in quoting and order entry process

Effective Enterprise Metrics

- Lead-to-Customer conversion ratio
- Quote-to-Order conversion ratio
- Time to convert a lead to a customer
- Time between customer call and company response
- Cost of customer acquisition
- Average time to resolve a customer issue
- Campaign effectiveness by demographic, by product
- Promotion effectiveness by demographic, by product

Deliver

Companies can have effective planning and execute flawlessly, but success hinges on how well they meet customer delivery schedules. QAD Enterprise Applications supports
every step of the delivery process from picking orders to least cost routings for shipments.

**Reduce invoice errors:** Automatically produce accurate invoices from shipments, including freight charges; generate international shipping documents automatically.

**Decrease freight charges:** Consolidate shipments, use least cost freight options and reduce dependence on premium freight methods.

**Eliminate non-value add steps:** Automatically print shipping labels, generate shipping documents, send advanced shipment notifications and reduce shipping errors and returns.

**Effective Enterprise Best Practices**
- Advanced ship notices to downstream distribution entities
- Bundling deliveries of different products into single shipments when possible
- Minimize non-value-added paperwork
- Advance planning to reduce expedited shipping

**Effective Enterprise Metrics**
- Invoicing accuracy
- Shipping accuracy
- On-time delivery
- Shipping cost per pound per mile by mode of transportation
Companies need to manage all interactions related to product support and maintenance and repair, to grow revenue and reduce service costs. QAD Enterprise Applications provides tools for warranty and service contracts, spares management and after-sale services.

**Improve technician effectiveness**: Assign tasks to the nearest tech with the right skill to resolve an issue, maximizing customer satisfaction and minimizing technician travel.

**Control and reduce warranty and service contract costs**: Automatically bill for labor and parts on out-of-warranty service calls and know revision levels of installed equipment so technicians can bring the right service parts the first time.

**Effective Enterprise Best Practices**

- Integrating handheld devices in real time
- Continuously improving measuring and monitoring of product installation and service
- Maintaining a skills library to match the nearest technician to jobs to reduce travel and improve customer satisfaction
- Automatically billing labor and materials for out-of-warranty service calls
Accessing revision levels of installed equipment to ensure bringing the right parts on initial service calls

**Effective Enterprise Metrics**

- Average number of service call made per field engineer
- Field personnel utilization
- Average time per call
- Percentage of calls within or outside the SLA
- Elapsed time from when the customer first logs the call to final resolution
- Variances from expected technician time
- Ratio of visits/calls to resolve an issue

**Finance**

Global companies face challenges such as accommodating multiple languages and currencies, adhering to local business practices and remaining compliant with government regulations. QAD Enterprise Applications meets all of these challenges.
Comply with government and local regulations: QAD design for internationalization handles different business processes and unique reporting regulations by site.

Communicate in local languages across time zones: QAD Enterprise Applications is in use in over 90 countries worldwide and available in 27 languages.

Increase visibility of global profit status: Utilize shared services and common business processes across sites or let every site design its own process. QAD Enterprise Applications can provide quick closing and flexible reporting.

Streamline accounting procedures: Consolidations, general ledger allocations and automatic cash application to invoices are just a few of the ways QAD Enterprise Applications helps companies streamline accounting tasks.

Effective Enterprise Best Practices

- Seamless integration of finance processes with sales, distribution, planning and manufacturing
- Unified process to manage and control businesses at a local, regional and global level that supports consolidated reporting
- Financial decisions driven by fact-based analysis of past financial data and scenarios
- Multiple currencies for reporting and transacting
- Automating repetitive transactions such as periodic financial allocations
- Eliminating non-value-add transactions by adopting self-billing, automatic cash applications and consignment
- Utilize shared services for routine processes such as accounts payable and accounts receivable

Effective Enterprise Metrics

- Days to complete a period-end close
- Number of out-of-compliance incidents in a period
- Time to generate financial reports
- Average collection period (or Days Sales Outstanding)
- Average number of days to complete a payment transaction
Companies engaged in manufacturing and distributing products and services plan, source, make and deliver products during their day-to-day business operations. The challenge lies in ensuring that they have best-in-class processes and systems in place to help optimize their operations.

Common Issues

- Lack of rigor in defining and implementing best-in-class business processes
- Lack of an integrated ERP system that supports all business processes
- Embedded processes in the ERP system that are not best-in-class or industry specific

Enable Compliance: Companies need to have processes and systems in place to limit risk, comply with reporting requirements and ensure that their actions will not conflict with any laws. Automated, centralized and standardized processes help to limit risk and the cost of compliance.

Enable Quality: Quality processes and systems should support test planning and in-process testing and industry and international standards and best practices, including ISO TS19649, ISO 9000, 9001, advanced product quality planning (APQP), corrective action/preventive action (CAPA), production part approval process (PPAP) and e-Pedigree. It should encompass audits, document management, supplier quality, shop floor quality, and sales and PO receipt transactions.

Enable EDI: Electronic Data Interchange (EDI) has emerged as a common method for companies to automate business communications with trading partners. Companies require a standards-neutral system to support common business transactions such as
sales orders, purchase orders, payments, receipts, customer consignment consumption, supplier drop ship (EMT), Kanban, inventory levels and scheduled customer releases.

**Enable Maintain Assets:** Companies need processes and tools that enable them to operate plants more smoothly by keeping equipment running at the lowest cost. They need to manage capital projects to efficiently bring their assets “online” and then manage those assets through operational life and replacement, while minimizing lead times and MRO inventory costs.

**Enable Schedules:** Issuing individual purchase orders to suppliers from whom the company orders routinely requires unnecessary paperwork and is inefficient, unpredictable and prone to errors. A more effective way to manage frequent transactions is with schedules released against contracts or blanket orders.

**Enable Projects:** Companies need project management tools integrated with ERP systems, tied into financial systems and suited for planning and executing new equipment projects. Such tools should track capital, expense and customer funded spending, trigger milestone payments based on supplier schedules, trigger sales order shipment and invoicing, control spending against projects based on approved budget, break projects and budgets into sub-jobs for easier management and have the ability to reallocate budgets from one project to another.

**Enable Transportation:** Companies need an integrated process that manages international trade and ensures global regulatory compliance. With Transportation Management, organizations easily can control transactions for transportation, trade and compliance business processes from one system.

**Enable Warehousing:** Even though warehouse management processes and systems have matured, the pressure to increase the velocity of inventory through the warehouse remains. By implementing better logic, advanced algorithms and technologies such as RFID and Wi-Fi, warehouse processes are becoming more efficient.

**Enable Complex Pricing:** Pricing plays a crucial role in determining sales volume and profitability. Pricing models should be flexible enough to accommodate a wide range of pricing situations, tailoring prices to the market conditions and customers to maximize profit. Pricing models must accommodate promotional campaigns or one-off, time-bound discounts.

**Enable Consignment:** Companies are able to lower inventory costs by having suppliers send materials on consignment. Companies may find competitive differentiation by sending customers inventory on consignment. Consignment inventory tracking is important in determining transfer of ownership and ensuring timely invoices.
Enable Serialization: Cradle-to-grave lot/serial number traceability through the materials system ensures the integrity and configuration management of critical parts and products. Tracking processes and systems should support compliance with regulations such as Waste Electrical and Electronic Equipment (WEEE) Recycling of Hazardous Substances (RoHS), and Hazard Analysis and Critical Control Point (HACCP), and provide traceability, control and status lots and e-Pedigree as mandated for compliance with Current Good Manufacturing Practices (cGMP) and similar regulations.

Enable Configuration: Mass customization has become a norm. Customers expect the exact product they want delivered to them as quickly as possible. The ability to allow customers to order configured products is a competitive differentiator, but it doesn’t come without cost. Without the right tools in place, there can be added effort and an increase in errors throughout the supply chain. Companies must have processes and systems in place that allow them to design, manufacture and deliver configured products.
End-to-End Processes

Key End-to-End Processes

The best way to achieve operational efficiency is to look at an entire process, rather than each department optimizing its own productivity. QAD provides tools to examine and manage end-to-end processes effectively.

Quote to Cash

The quote-to-cash process describes all of the steps involved from the initial quote or bid to the customer through fulfillment, invoicing and payment.

**Improve days sales outstanding:** Simplifying the quote-to-cash process reduces the time between paying for materials and receiving payment. Cash flow improves. Return on assets improves. The whole business becomes healthier and more profitable.

**Improve quote-to-order time:** By automating data flow from RFQ to quotation-to-order, companies move customer orders to production and shipment faster while eliminating manual data entry and potential for error. Automatic pricing algorithms help ensure accuracy, maintain margins and reduce the need for manual order approvals that delay orders.
Automate invoicing and payments to eliminate non-value added steps: By invoicing automatically as shipments occur and applying cash to invoices automatically as it’s received, companies can significantly reduce the amount of time to access cash.

Procure to Pay

Procure-to-Pay covers sourcing through paying suppliers. Buying only the required materials at an acceptable quality and achieving on time delivery at a good price are the goals.

Improve cash flow: Demand visibility helps ensure timely purchase of required materials to keep operations flowing smoothly. Vendor managed inventory can help ensure the company pays only for materials used. Reducing scrap and rework cuts costs, while vendor performance reporting helps improve quality and delivery performance.

Reduce inventory: Having the right materials on hand when needed to complete a job helps reduce inventory in queue at work centers, increasing throughput and operational efficiency.

Source strategically: Monitoring supplier performance helps ensure that suppliers offer the best possible mix of price, quality and delivery to minimize supply chain disruptions, while maintaining cost controls and margins.
**Eliminate non-value-add processes:** Adopting methods like vendor managed inventory and evaluated receipts settlement helps enable users to focus on more strategic activities while keeping costs low.

**Capitalize on supplier knowledge to improve processes and designs:** Suppliers know their own processes better than anyone else knows them. Often, they can provide key design tips or ordering suggestions that reduce overall costs and may improve quality.

**Make quality a key performance metric:** Don’t inject quality inspection into the process; make it a key selection criterion and work with suppliers on continuous improvement and performance metrics.

**Plan to Perform**

Plan-to-Perform includes sales forecasting, operational planning and execution against the plans.

**Improve operational efficiency:** Effective planning helps eliminate bottlenecks and ensure adequate materials and resources.

**Balance forecasts and orders to production capacity:** Sales and Operations Planning helps ensure that the company meets its corporate objectives, customers receive orders consistently and that production proceeds without costly unplanned overtime.

**Ensure equipment is in top condition:** Effective preventive maintenance based on actual production quantities or manufacturers recommendations can help minimize unplanned downtime, improve the quality of products and maximize predictable throughput.

**Forecast with partners, customers and the sales force:** Forecasting with input from multiple sources can ensure that forecasts are as accurate as possible, materials can be supplied as needed for promotions or marketing campaigns and surprises are kept to a minimum.
QAD Implementation Methodology

QAD has worked with many thousands of customers on business software implementations. During that time, we have earned a reputation as leaders in rapid implementation that provide customers quicker time-to-benefit from our solutions.

Easy On-Boarding

QAD Easy On-Boarding (EOB) is for companies seeking an industry-specific solution at a low cost of ownership. The methodology offers a predefined project scope, predictable costs and short implementation times. It enables companies to minimize their service and support costs and the burden on their IT staff. EOB provides customers a solution with built-in support for the best business practices in the industry, and a solution that can adapt and grow with requirements over time.

Easy On-Boarding utilizes industry-specific best practices to accelerate every aspect of how customers deploy our applications. By using our predefined software components of QAD Enterprise Applications the EOB program reduces complexity, eliminates risk, accelerates decision-making, and enables the rapid implementation of a solution that best fits the company’s needs.

QAD Enterprise Applications, a world-class, fully integrated suite of software solutions, is designed to accommodate the needs of a new generation of software users.
Customers can start small and grow as needed, adding solutions and users as it expands. Whether a company seeks to support new processes and business opportunities or to grow its business internationally with a single solution that supports multiple countries, languages and currencies, QAD can help transform your company.

**Key Benefits:**
- Based on Industry best practices
- Fast implementation
- Faster realization of business benefits
- Low startup costs
- Less resource intensive
- Less intrusive
- Reduce/eliminate customizations
- Reduce training time
- Standardized way of working

QAD has worked with thousands of customers on projects to implement business software solutions. We have earned a reputation as leaders in rapid implementation.

**QAD Easy On-Boarding Steps**
QAD has developed a set of simple guides and tools to make the process easy. QAD’s global support and consulting organization can engage at any time to keep the project on plan.

QAD Easy On-Boarding consists of four steps: Plan, Design, Implement and Manage.

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**Plan**

*Set the Schedule*
The QAD services team can help determine a reasonable schedule that meets the company’s needs and resources.

**Train the Project Team**

QAD has developed a comprehensive suite of e-learning tools covering concepts and operational training on how to use every aspect of the software.

**Develop Test Scenarios**

Test scenarios are an excellent way to configure the software to meet the company’s own unique processes and form the basis of a training program for users.

**Design**

**Finalize the Business Processes**

Modify process maps to standardize all the company’s business processes based on test scenarios and link directly to quality checklists, and training guides.

**Modify EDI Transactions, Standard Forms, Reports and User Screens**

Edit standard EDI transactions for specific trading partners. Add logos or other information to forms that are specific to the company’s business. Adjust reports to meet specific needs and modify screens to allow users to work most effectively.

**Run a Conference Room Pilot**

Conduct a conference room pilot using test scenarios. The conference room pilot will give users confidence that the system will perform as required on the first day of implementation.

**Implement**

**Train Users**

Attach a predefined learning path to each user who connects to the QAD Self Learning Portal for their self-study education and training program.

**Convert the Data**

QAD provides a set of simple spreadsheet-like tools to upload data to the new system. The system validates data at time of upload to guard against any poor or incomplete data getting into the system.

**Go Over the Final Checklist**

Before any project is finished, review the checklists provided to ensure that every step is complete and tested.
Go Live
Go live, and then celebrate!

Manage

Monitor System Performance
Monitor system performance and make any adjustments necessary. QAD Support is on hand to provide assistance whenever needed.

Train New Users
New users will want to take advantage of QAD’s self-study programs to rapidly become as productive as possible.
QAD Consulting

QAD Consulting delivers solid industry expertise, proven best practices and unmatched implementation capabilities that ensure on-time deployment, fast ROI and maximum long-term benefit from QAD solutions. QAD Consulting operates as part of the extensive QAD ecosystem, and can orchestrate consistent global rollout projects working with our customers and combinations of QAD certified partners to meet customers’ goals – anywhere.

Successful software deployments require experienced, knowledgeable resources that understand and can manage project scope, timelines and budget. Employing industry-specific best practices and empowering users with training and ongoing education minimizes implementation risk while maximizing system value.

With almost 400 certified consultants in 26 countries, QAD Global Services provides global coverage and local expertise to help companies get the most from their QAD investment. By applying best practices specifically for manufacturers, QAD helps companies achieve rapid time-to-benefit and a superior ownership experience.

Application Management Services

Managing applications effectively and efficiently is a tough challenge with the ever-growing complexities of systems and environments. Providing exceptional levels of support for the user community, while delivering optimal application performance—and trying to do it all with limited internal resources—is a tall order for any organization. The concept of application outsourcing has existed for many years and has matured into a realistic and cost-effective option for not only large corporations, but for small and midsize companies as well.

QAD Application Management Services encompass the ongoing help desk support, enhancement, development, system administration and optimization of the application landscape. QAD offers a “service anywhere” model that helps balance risk and cost depending on the company’s requirements for applications management.

Migration and Upgrade Services

QAD Consulting has years of experience and automated upgrade tools to help ensure a smooth and effective migration from previous releases to the most current version of QAD applications. QAD uses a set of industry best practices and offers a wide range of migration and upgrade services for customers.
Business Consulting Services

It's often difficult to assess a business with limited resources for areas of improvement, cost savings and new opportunities. With our Discovery and Vision, QAD business consultants can quickly evaluate key business processes and identify areas to reduce costs and maximize operating cash flow, with minimal disruption to the company’s business.
**QAD Education**

**User Readiness**

A common challenge in all organizations is knowledge/skills attrition. Over time, personnel change roles, leave the organization or just forget critical capabilities. At QAD, we focus on helping our customers to maintain peak system effectiveness through online training. We deliver a comprehensive range of online training, complete with a Learning Management System to track user completion. Additionally we have a schedule of classroom training events around the world, and can schedule bespoke training for our customers.

All of our training can be harnessed by conducting a Learning Q-Scan. A Learning Q-Scan is a predefined consulting engagement in which QAD Consulting assesses the gap between your users’ skills and the required skills, defines a learning path and loads it into the online QAD Learning Management System. The Learning Management System and access to online training are part of QAD’s support program and require no fee for customers on current maintenance contracts. QAD offers a variety of convenient, accessible and affordable training options.

**Online courses:** The Learning Center supports more than 50 online courses about QAD products and industry concepts, available at no charge to customers who are active on QAD Support.

**Classroom training:** Attend instructor-led courses that offer focused attention, hands-on exercises and knowledge transfer from subject matter experts.

**Certification programs:** Validate user’s knowledge and mastery of QAD product functionality through product exams.

**Custom courses:** Request tailored training on-site, to meet specific company needs and business processes, scheduled right when required.

**QAD Learning Center**

The QAD Learning Center is the one-stop destination for all QAD courses and training materials.

- View training recommendations by job role.
- Peruse online resources to view the latest training guides.
- Connect to virtual training environments to work directly with QAD Enterprise Applications
Learn at your own pace, omitting or repeating activities as desired

QAD Certification Program

The QAD Certification Program provides QAD employees, business alliances and customer teams with a means of certifying the breadth and depth of their product knowledge. This program also assures QAD customers working with QAD certified professionals are getting maximum value from their QAD software.

The QAD Certification Program encompasses a series of Product Knowledge Specialization (PKS) exams, which test knowledge of QAD Enterprise Applications core functionality in distribution, manufacturing and finance. Each exam takes approximately six hours to complete and consists of two parts. Part I requires hands-on work with QAD Enterprise Applications; Part II does not.

QAD Product Documentation

The QAD Online Support Center provides access to QAD documentation, including user guides, a glossary, release bulletins and technical references. Access to the QAD Download Center is available to QAD customers with active maintenance and support contracts.
**QAD Customer Support**

QAD Support is a worldwide team of solution and technology experts, dedicated to helping QAD Enterprise Applications run smoothly. Quick problem resolution is conveniently accessible 24/7 through our global network of regional support centers, extensive knowledge base and online support.

QAD values the trusted adviser role we have earned over the years with our customers. Every member of the QAD Customer Support team is a seasoned veteran with years of industry experience and in-depth knowledge of QAD solutions. Our global network of local support centers gives quick access to answers, in 27 languages. Collaboration, flexibility and innovation make QAD Customer Support a unique partner for long-term success.

**Access & Response**

- Phone, email, web, chat access
- 24/7 critical system down support
- Global access to live support
- Remote access diagnostics
- Established incident response times based on severity

**Online Self Service through support.qad.com**

- Incident creation and tracking
- QAD Knowledge base
- QAD Learning Portal
- Product documentation
- QAD Download Center
- Business Improvement Webinar Series
- User communities and discussion forums
- QAD License Usage Tool

**New Releases & Product Updates**

- Major and minor releases and upgrades
- Service packs and Engineering Change Orders (ECOs)
- Proactive defect notification
- Platform compatibility guide
Remote access diagnostic tools, extensive searchable knowledge base and online chat help ensure fast time-to-value during implementation and beyond. Customers can get the latest software releases and patches through the QAD download center quickly. QAD Customer Support provides a convenient learning portal to help prevent knowledge erosion, by giving users the training they need, when they need it, at their own pace.