

rfsmart

Wireless, mobile & RFID solutions for
end-to-end inventory visibility & control



Microsoft® Dynamics™ AX



Product Line Overview

- End-to-end supply chain visibility & control for Dynamics AX
- Extensive, configurable ADC & RFID functionality
- Powerful, scalable .NET technology framework
- Web service-oriented architecture

IMPROVING ENTERPRISE PERFORMANCE

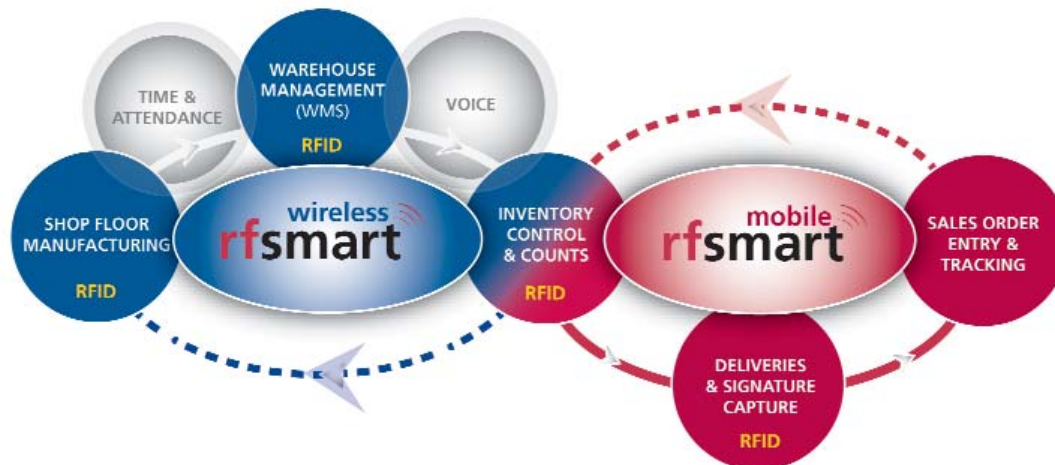
Businesses today are under continuous pressure to reduce costs, streamline operations, and optimize efficiency. While powerful ERP systems integrate enterprise information and enable business processes, they are not innately "execution systems" that increase accuracy, efficiency and productivity on the shop floor, in the warehouse *and* out in the field. That's where *rfsmart* comes in.



rfsmart Wireless: Within the Four Walls

rfsmart Wireless automated data collection (ADC) and RFID applications for Microsoft Dynamics AX provide real-time visibility and control for inventory and WIP – from the receipt of raw materials through shipment confirmation. Beyond supporting Dynamics AX functionality, *rfsmart* provides a greater level of flexibility, accuracy, security and control that enables companies to leverage their business processes and achieve measurable improvements in efficiency, productivity, customer service and bottom-line performance.

From the shop floor to the customer's door, rfsmart provides rich, configurable functionality that measurably enhances business performance.



rfsmart Mobile: Beyond the Four Walls

While most data collection solutions stop delivering value at the shipping dock, *rfsmart* continues to provide visibility and control all the way to the customer's door. From the point of ship-confirm, you can track inventory on delivery vehicles, capture customer signatures at the point of delivery, track order status in the field – even take new orders while at the customer's location.

For more information on rfsmart, contact your ICS Sales Representative or your Dynamics AX partner.





ADC for Microsoft Dynamics AX

WIRELESS APPLICATIONS

- ✔ *Globally-proven applications for automated data collection (ADC)*
- ✔ *Enables barcoding & RFID for Dynamics AX*
- ✔ *Robust array of configurable transaction workflows*
- ✔ *Track record of customer satisfaction & measurable ROI value*

15 YEARS OF DATA COLLECTION LEADERSHIP

Leveraging the power and functionality of Dynamics AX, rfsmart wireless solutions provide an added layer of flexibility and control for manufacturing, warehousing and inventory control/fulfillment processes.

Rather than mimic Dynamics AX screens on wireless devices, rfsmart dramatically simplifies transactions for floor workers and enables the use of barcodes and RFID tags to deliver measurable business benefits:

- ◆ Increased inventory accuracy
- ◆ Reduced inventory costs
- ◆ Improved picking & shipping accuracy
- ◆ Elimination of paper processes & manual data entry
- ◆ Real-time visibility into shop floor/warehouse activity
- ◆ Reduced direct & indirect labor costs
- ◆ Marked improvements in worker productivity
- ◆ Reduced/eliminated physical inventories
- ◆ Enhanced profit performance.

A Superior, Easy-to-Use Platform for ADC

At the core of our solution is the rfsmart Foundation. The Foundation includes our data collection and validation "engine" and a wealth of easy-to-use tools for managing the system, users, devices and Dynamics AX integration:



The Foundation also provides flexible point-and-click controls for configuring transaction workflows to meet your specific business rules and end-user requirements.

Functional Breadth

For Dynamics AX, rfsmart offers the broadest range ADC and RFID functionality:

- ◆ Trade & Logistics
- ◆ Warehouse Management
- ◆ Production
- ◆ Shop Floor
- ◆ Mobile Inventory
- ◆ Mobile Sales
- ◆ Mobile Delivery
- ◆ Mobile Construction



We also offer industry-leading solutions for Voice Picking and Time & Attendance.

Industry Expertise

- ◆ Consumer packaged goods
- ◆ Life sciences & medical devices
- ◆ High-tech & electronics
- ◆ Industrial fabrication/assembly
- ◆ Automotive parts & supplies
- ◆ Wholesale distribution
- ◆ Pulp & paper goods
- ◆ Construction

Track Record of Customer Satisfaction

Although ICS has come a long way since developing rfsmart in 1992 – we now have more than 1,100 installations in 17 countries – one thing that hasn't changed is our dedication to exceeding our customers' expectations. We are proud that our customer satisfaction ratings consistently hover around 97%.

For more information on rfsmart, contact your ICS Sales Representative or your Microsoft Dynamics AX partner.



Technology & Architecture

WIRELESS APPLICATIONS

- *Globally-adopted and supported development tools and languages*
- *Technology framework that optimizes IT adaptability*
- *Service-oriented architecture that protects IT investments*
- *No proprietary code or one-off skill sets to manage*

Powerful, Efficient .NET Technology

rfsmart was developed exclusively using .NET tools and technologies that you can count on for long-term value, performance, scalability and manageability.

As a application development, execution and Web service communications platform, the .NET Framework reduces technology risk, streamlines IT skill requirements, and enables measurable productivity gains in building and supporting applications.



Because .NET is central to all Microsoft products, you can count on seamless integration between rfsmart and your enterprise, email and Office applications.

SOA: The Ultimate Interoperability Enabler

A service-oriented architecture (SOA) is effectively a real-time *dynamic data bridge* that allows companies to quickly and easily configure business processes by sequencing the interaction of different application components ("services") across networks.

A powerful, flexible programming and application-communications model, SOA is the direction of Microsoft, ICS and every forward-thinking software company because of the measurable benefits SOA delivers:

- Reduces the cost of application development, support, and ownership
- Protects existing IT investments
- Reduces implementation risk
- Hides the complexity of today's heterogeneous IT environments
- Enables a levels of IT adaptability that has never before been possible.

The Role of Web Services

Web services are a combination of open-standard, platform-independent communication protocols that play a pivotal role in fulfilling the promise of SOA applications:

- UDDI, WDSL and/or SOAP allow services be dynamically discoverable and evocable
- XML enables a scalable, robust, secure and platform independent interface contract, and
- HTTP fulfills the promise of interoperability.

It is the combination of these protocols that allow different applications on different networks to interact in a manner similar to the efficiency of the inter-process communication on a single computer. It's *that* efficient.

What The Experts Say About SOA

By encapsulating a business application behind capability-based interfaces, SOA allows controlled access to mission-critical applications and creates the opportunity for continuous improvement.
– Microsoft. *SOA & Its Role in Your Systems Strategy*. July 2004

SOA represents the next big breakthrough in software design and deployment, leading to cheaper and faster integration and more flexible business processes.
– Aberdeen Group. *SOA in the Supply Chain*. September 2005

Embracing a service-oriented architecture is crucial to any company hoping to build a competitive edge. That's because SOAs directly address the many hurdles that IT departments must overcome in order to deliver on the dynamic and evolving requirements of business.
– Oracle Corp. *Strategies for SOA Success*. December 2005



For more information on rfsmart, contact your ICS Sales Representative or your Dynamics AX partner.



Flexible / Easy-to-Use / Low TCO

WIRELESS APPLICATIONS

- ✔ *Intuitive, easy-to-learn administrator interface*
- ✔ *Highly-configurable transaction workflows*
- ✔ *Web-based tools for managing users, devices & functionality*
- ✔ *Easy and inexpensive to adapt to your changing needs*

EASY-TO-LEARN, EASY-TO-MANAGE & EASY-TO-USE

A high degree of solution flexibility and a low total cost of ownership (TCO) do not often coexist. Typically, companies must decide between one or the other. **rfsmart**, however, delivers both.

Because a majority of the costs to own an ADC solution arise from managing and adapting the solution on an ongoing basis, the **rfsmart** back office (**smartConsole**) provides *flexibility through configurability* as opposed to endless, expensive hard-code changes.

A web-based application, **smartConsole** provides a complete set of point-and-click tools for managing every aspect of your ADC solution. Our **smartConsole** will enable you to quickly, easily and inexpensively adapt **rfsmart** to meet new business processes, changing market conditions, and new customer demands.

The categories of controls contained in the **smartConsole**, and a partial list of functions, include:

Workflow Configuration & Management

- ◆ Tailor workflows to meet your unique processes
- ◆ Create an unlimited number of workflow versions
- ◆ Associate workflows/versions with users/groups
- ◆ Select global system menus for your functionality
- ◆ Specify system defaults, prompts and overrides
- ◆ Manage users individually, by location or globally

ADC System Security

- ◆ Set and manage overall system security and access
- ◆ Use Windows security to double-validate logins
- ◆ Auto-collect electronic signatures/time stamps
- ◆ Specify common or rigorous password rules
- ◆ Easily meet quality requirements like 21 CFR Part 11

Device & Labeling Management

- ◆ Set-up all RF devices (handhelds, vehicle mounts, etc.)
- ◆ Select HTTP or VT220 terminal emulation preferences
- ◆ Set-up all label printers on the network
- ◆ Create and maintain label formats
- ◆ Choose automatic or manual label generation
- ◆ Add or drop RF devices and printers
- ◆ Define the printers to be used for each label type

System Administration

- ◆ Access a complete transaction history log
- ◆ View reports by user, shift, location or globally
- ◆ Generate reports by transaction or order type
- ◆ Track which users are logged in and active
- ◆ Resubmit corrected transactions to Dynamics AX
- ◆ Monitor end-user productivity and performance

End-User Management

- ◆ Add, change and drop users/logins
- ◆ Track which users are logged in
- ◆ Customize role-based menus, screens & default data
- ◆ Set language preferences & messages
- ◆ Specify & change user security settings

*Why choose between flexibility and a low cost of ownership when you can have both with **rfsmart**?*

For more information on **rfsmart, contact your ICS Sales Representative or your Dynamics AX partner.**





Partial Functionality List

WIRELESS APPLICATIONS

- *Wide range of configurable, ready-to-use transactions*
- *Customized functionality to meet unique requirements*
- *Module-based: Implement what you need, when you need it*
- *Standard and Advanced (24x7) Support Program options*



EXTENSIVE, CONFIGURABLE FUNCTIONALITY

An important advantage of **rfsmart** is the functionality we offer. Leveraging Dynamics AX modules (as opposed to third-party WMS applications), ICS is able to continuously enhance the functionality of our modules in tune with Dynamics AX.

The high degree of configurability that is native to standard and ICS-developed transaction workflows make **rfsmart** less-expensive to own and manage. Altering screens, changing menus, specifying default data, creating custom workflow versions, modifying security settings, customizing messages and literally dozens of other changes are all *point-and-click configurations* with **rfsmart**.

Partial List of Available **rfsmart** Functionality

RFSMART FOUNDATION SUITE

- Real-time connectivity
- Store and forward mode support
- Multiple environments
- Multiple hosts
- Wizard install process
- Unicode/double-byte support
- Environment migration tools
- COM connector support
- smartConsole management tools

STANDARD INQUIRIES

- Purchase Orders & PO Lines
- Vendors
- Item Cross Reference
- Batch & serial numbers
- Inventory locations
- Printers
- Pallet transports
- Shipments
- Picking routes
- Sales Order picking lists
- Production orders & Pick Lists
- Application Suites

PRODUCTION

- Production picking
- Production picking (WMS II)
- Production receiving*
- Production receiving (WMS II)
- Production reporting*
- Production start*

TRADE & LOGISTICS / WMS I

- Purchase order arrivals
- Inventory transfer
- Inventory adjustment
- Inventory Inquiry by item
- Inventory Inquiry by location
- Add bar code
- Inventory counting (Planned)
- Inventory counting (Un-Planned)
- Sales order picking
- Packing slip update

WMS II

- Purchase order arrival journal
- Pallet transports
- Pallet move
- Picking routes
- Shipment confirm
- Pallet inquiry

RFID COMPLIANCE LABELING

- Create and manage EPC-Global SGTIN numbers in conjunction with Dynamics AX capabilities
- Associate RFID tags to cases/pallets
- Print, commission and validate RFID tags
- Configure a majority of RFID workflows without programming

RFSMART WORKFLOW FEATURES

- Support for Axapta dimensions
- Field level validation
- Bar code parsing
- Item/barcode cross reference
- Unit of measure conversions
- Journal selection
- User preferences
- Workflow options
- Manufacturing & expiration dates

NOTE: We continually add new functionality to for Dynamics AX.



smartRFID for Compliance Labeling

- ✔ *EPC-Global (Wal-Mart) compliance labeling*
- ✔ *Configurable & scalable functionality*
- ✔ *Easy to implement, easy to use*
- ✔ *Service-oriented architecture for long-term value*

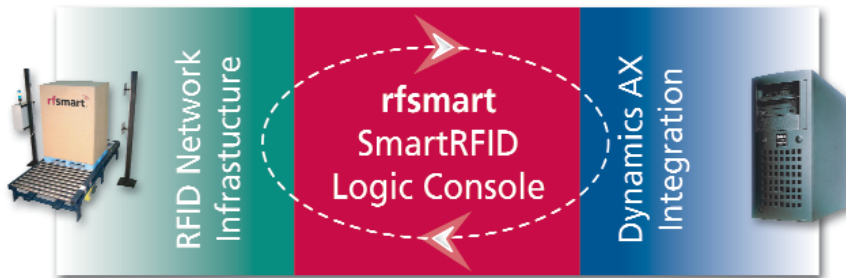
WIRELESS APPLICATIONS



Stay up-to-date on RFID and barcode labeling compliance with rfsmart.

ADVANCED TECHNOLOGY, SUPERIOR APPROACH

Our SmartRFID Suite is complete, ready-to-use solution for outbound EPC-Global (Wal-Mart) compliance labeling. Leveraging a single technology stack, our solution provides RFID infrastructure management, configurable logic controls, and proven Dynamics AX integration to deliver flexible, powerful and scalable RFID capabilities – enabling you to derive long-term value and performance from your RFID investment.



Proven COM Integration to Dynamics AX

SmartRFID uses our proven, efficient and reliable COM integration to Dynamics AX.

For v4.0, rfsmart collects EPC tag numbers from Dynamics AX for commissioning and printing. Validated, completed transactions are stored in the designated Dynamics AX fields for RFID data.

For v3.0, rfsmart generates the EPC-Global number and maintains that data and the transaction within rfsmart for reporting and traceability.

Regardless of your version of Dynamics AX, rfsmart can transmit your RFID data to trading partners.

The Microsoft RFID Infrastructure

This is the underlying network linking all RFID hardware and is where RFID tasks and rules assigned in the SmartRFID Logic Console are physically performed.

As part of the transaction process, all data smoothing and manipulation occurs to ensure that all anticipated tags have been read and that duplicate reads have been eliminated. In addition, end-users are prompted to continue or stop a transaction using lights, sounds or screen displays.

SmartRFID Logic Console

At the heart of SmartRFID is the Logic Console, a single command center for configuring RFID functions, printing and commissioning tags, and seamlessly integrating RFID functionality to Dynamics AX.

Using point-and-click tools, rfsmart system administrators can quickly and easily:

- ◆ Create and manage EPC-Global SGTIN numbers in conjunction with Dynamics AX capabilities
- ◆ Associate RFID tags with cases & pallets
- ◆ Print, commission & validate RFID tags
- ◆ Configure a majority of RFID workflows without programming.

For more information on rfsmart smartRFID, contact your ICS Sales Representative or your Dynamics AX partner.



Mobile Solutions for Dynamics AX

MOBILE APPLICATIONS

- 📍 *Extend inventory visibility & control beyond your four walls*
- 📍 *Increase the accuracy & timeliness of your inventory data*
- 📍 *Enhance productivity & operational efficiency*
- 📍 *Improve customer service & profit performance*

INVENTORY CONTROL ALL THE WAY TO THE CUSTOMER'S DOOR

For many organizations, the need to accurately track inventory, improve productivity and accountability, and increase customer service levels extends beyond the warehouse. That's where **rfsmart** Mobile applications begin to deliver value.

Starting at the dock door, **rfsmart** Mobile extends inventory visibility and control functionality to delivery vehicles and ultimately to customer locations.



Mobile Inventory Control

Operating in a casually-connected or disconnected (batch) mode, **rfsmart's** mobile functionality allows companies to accurately and paperlessly perform inventory control functions in remote warehouses, delivery vehicles – even on trade show floors.

As a result, your team can execute a broad array of Dynamics AX-integrated inventory transactions using the same barcodes and RFID tags generated by **rfsmart** ADC in your warehouse:

- ◆ Perform, prioritize, consolidate and distribute batch cycle counts and full inventory counts across multiple handhelds and locations. With route optimization features and field-level data validation, **rfsmart** increases employee productivity and count accuracy.
- ◆ Search, assign, manage and route-optimize item, case or pallet picking tasks by location, employee, unit-of-measure (UOM), lot/serial or several other criteria.
- ◆ Perform highly-accurate, traceable inventory moves between trucks, bins, locations and warehouses with full support for UOM conversions and lot/serial tracking.
- ◆ Make a variety of off-site inquiries on inventory availability, order status, filled orders, customer account information, and more.

Delivery Confirmation & Signature Capture

To increase accuracy, efficiency and accountability in product delivery, **rfsmart** provides a wealth of delivery management functionality, including:

- ◆ Organizers can assign deliveries to specific users or mobile devices, transmit new deliveries to drivers in the field, check delivery status, organize routes, cancel deliveries and modify delivery quantities.
- ◆ Drivers are able to account for inventory in their possession, plan or adjust their routes, capture signatures for delivery confirmation, print receipts and invoices, and make customer account inquiries.

Mobile Sales

At customer locations or on sales floors, your representatives can enter new sales orders, quote customized pricing, check order status, update customer information, capture signatures for new purchases and print invoices on-site to speed cash flow.



Increase accuracy, productivity, accountability and service all the way to the customer

For more information on **rfsmart Mobile solutions, contact your ICS Sales Representative or your Dynamics AX partner.**



Track Record of Service & Success

- ✔ *24 years experience in supply chain applications & consulting*
- ✔ *Special competencies in logistics, distribution & manufacturing*
- ✔ *Recipient of awards for sales, technical & service excellence*
- ✔ *Focused on delivering value & service to our customers*

About ICS

In business since 1982, Information & Computing Services, Inc. (ICS) is a Florida-based software development, solution delivery and consulting firm specializing in supply chain management and supply chain execution software and services.

One of the fastest-growing technology firms in Florida and a member of the *Hispanic Business 500*, ICS provides world-class software solutions and services delivered by seasoned professionals with application and business process expertise in the areas of:

- ◆ Barcoding & RFID
- ◆ Warehouse management
- ◆ Distribution & logistics
- ◆ Manufacturing / shop floor
- ◆ Mobile inventory & delivery
- ◆ Mobile sales
- ◆ Enterprise software

The ICS Approach

Achieve customer satisfaction by combining our knowledge and skills with superior technology and business process knowledge to generate ROI benefit linked to our customers' business drivers.

Track Record of Growth & Success

ICS has consistently achieved year-to-year organic growth and has complemented that growth through strategic acquisitions.



ICS Headquarters in Jacksonville, Florida

With more than 100 employees, seven offices and a global network of Business Partners, you can count on ICS to deliver the products, services and support required for your wireless, mobile and RFID data collection initiatives.

Around the world, more than 400 companies – from Fortune 500 firms to growing enterprises – rely on our products and consulting advice for mission-critical operations and profit performance.

ICS Office Locations

- ◆ Jacksonville, FL (HQ)
- ◆ Wichita, KS
- ◆ Tampa, FL
- ◆ Lancaster, PA
- ◆ Denver, CO
- ◆ San Clemente, CA
- ◆ Amsterdam, NED (*new in 2006*)

We sincerely appreciate your interest in rfsmart and look forward to the opportunity to earn your business and ultimately your satisfaction as an ICS customer.