# Case Study: idWorx!

... electronic WAWF and UID submittals reduces time and errors.

ID Technology - WINCO ID
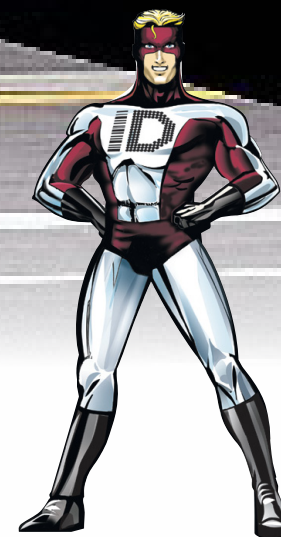
## Case Study Introduction

A leading global supplier of systems and services to the Aerospace and Defense industry needed a way to reduce the amount of processing time that it took to enter data to the WAWF and UID registry. Specifically, they wanted to implement electronic WAWF and UID submittals in their Pre-shipping, Intermediate, and Final Ship Processes.

Manual data entry to the WAWF and UID registry is time consuming and can often introduce data entry errors. Reducing the processing time with electronic submittal and approval is not only faster, but there is an improved acceptance rate for government UID registry submittals.

**The technical and financial hurdles along the way can make these benefits harder to achieve. Careful planning right from the start is the cornerstone for continual success.**

WIDE AREA WORKFLOW (WAWF)

The WAWF enables electronic submission of invoices, advance shipping notices, UID, and RFID data, and is intended to replace the paper DD250 system.

## WAWF and UID Registry Overview

The Wide Area Workflow (WAWF) is a secure web-based system for electronic invoicing, receipt and acceptance. WAWF creates a virtual folder to combine the three documents required to pay a vendor – the contract, the invoice and the Receiving Report.

The WAWF application lets you submit invoices, government inspection, and acceptance documents electronically. It provides the technology for Government contractors and authorized DoD personnel to generate, capture, and process receipt and payment-related documentation, via interactive Web-based applications. Authorized DoD users are notified of pending actions by e-mail and are presented with a collection of documents required to process the contracting or financial action.

The UID Registry captures and stores all UID information. The UID Registry is populated as new items are acquired, or as legacy items are assigned UIDs. The UID Registry is maintained by the Defense Logistics Information Service (DLIS) to allow the DoD to gain increased visibility into their vast network of assets. In order to comply with the DoD mandate for UID you must submit all UID information to the UID registry.

The submission of UIDs to the UID Registry requires several pieces of data for each marked item in addition to contract and shipment numbers, the contract line item number (CLIN), product identifier (NSN/PN) and unit cost:

- UID Type (Construct 1 or 2)
- Entity Identifier (such as CAGE) of company assigning the UID
- IAC (Issuing Agency Code) which controls the Entity ID
- Part Number (Construct 2 only)
- Serial Number
- Fully constructed UID

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**UID Registry Data Elements**

UID is a system of uniquely identifying parts and products. It is composed of a numbering system, the Unique Item Identifier (UII) that guarantees global uniqueness, as well as a method for permanently marking the number on an item using a Data Matrix barcode. The major components that make up the UII number are usually a cage code, a part number, and a serial number.

**Submitting Items to the UID Registry**

There are three ways to submit items to the UID registry:

1. Direct Submission

   This method allows you to securely submit computer files containing your UID information via the internet.

2. Wide Area Workflow (WAWF) Submission

   The Wide Area Workflow system can now accept UID data along with receiving reports and combo (2-N-1) documents. The wide area workflow system will then forward on all UID data to the UID registry.

3. UID Registry Website

   The UID registry website allows you to type in UID data directly. This process is usually very cumbersome, time consuming, and error-prone, but it can be used effectively in cases of extremely low volume UID shipments.

**Which Items Require UID?**

Items that have a procurement cost of more than $5,000 are generally required to have UID markings. Other conditions for UID marking include:

- Serially Managed Items

- Mission Critical Items

- Controlled Inventory Items

- Items Needing Permanent Identification

The guidelines above are general. If you are required to mark items with a UID, the relevant DFARS clauses will be spelled out in your contract.

## The Solution

idWorx! was selected as the ideal tool for uploading all of the data. idWorx! is used for UID, RFID, and MSL labels and for submitting the data from those labels to the WAWF and UID registry.

- Reduce shipping time

- Automate data entry to the WAWF and UID Registry

- Eliminate serial number duplication to improve government acceptance

- Eliminate/reduce the risk of shipment penalty fees

- Eliminate current backlog of UID submittals

- Automatically generate manual shipping labels

- Consolidate packing and shipping operations

### IT Software Installation and Support

idWorx! software was installed on a workstation and configured the hardware needed for printing, scanning, and verifying labels. Using the idWorx! administration screen, an administrator can establish communication to printers in the manufacturing and shipping area that will print the UID labels for each component, each subassembly containing the component, and each final system containing one or more subassemblies.

Hardware specific to the operations for which they are used is set up in the supplier's manufacturing and shipping areas. For example, one idWorx! workstation has a label printer and verifier. Another has a scanner for scanning assembled products. In the shipping area, an RFID label printer is available for printing RFID labels when required.
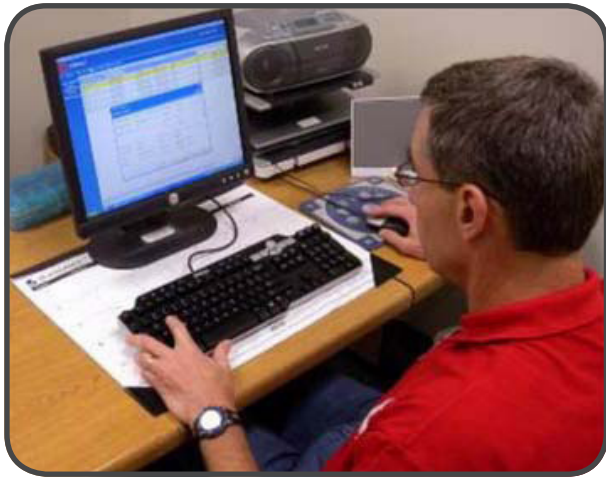
**Managing Contracts and Shipments**

The electronic contract files received from the government are imported into idWorx! or an administrator can enter contract data manually. Once the contract is imported, all fields from the flat file will auto-populate.

To create a shipment to fulfill the contract, an administrator selects the Purchase Order number and Contract Line Item Numbers (Clin) that specifies the product to ship.

Once this information is entered,
the required product is then
manufactured, labeled, and tested.



**Managing UID Labeling**

Products that require a UID label are added to the idWorx! database by an administrator. idWorx! has the UID templates that meet the MIL-STD-130 marking requirements. An operator can then print the UID labels from the workstation by selecting the part number and the number of labels needed, and then clicking the Print operation on the screen. The UIDs are automatically serialized, eliminating errors; the software displays a warning before any duplicate labels are printed.

All UID labels must be verified, and this is done at the workstation immediately after label printing by simply selecting the VERIFY operation on the idWorx! screen. Place the matrix mark under the laser, and select VERIFY. If the label passes verification, idWorx! displays a green pass screen. If the label fails, idWorx! displays a red fail screen and highlights the qualities of the mark that failed.

Before components are built into a subassembly, they are labeled with the verified UID labels. UID labels are applied to components in a conspicuous location. It's a good idea to have a document detailing the printing and verifying procedures for UID labels. Such a document can be made available for reference and training, and can detail instructions for correct placement of UID labels.
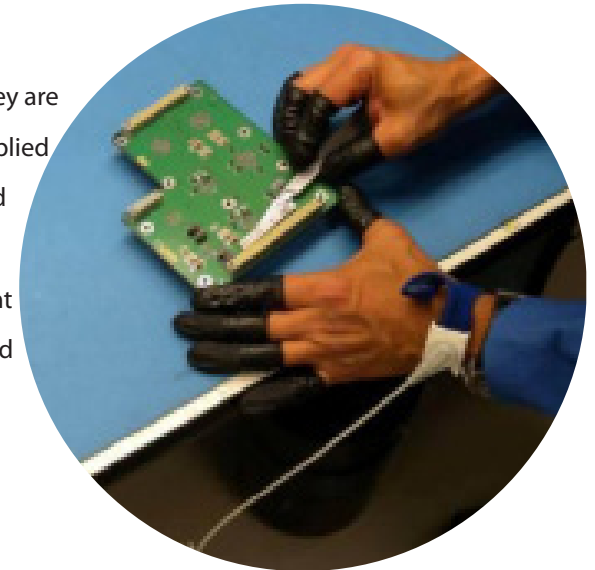




Each labeled component is protected from electrostatic discharge by placing it in protective packaging. In this case study, the supplier prints subassembly asset tag, each one having UID barcode and human readable text. Each subassembly asset tag contains three labels: one label for the component, one for the component's protective packaging, and one for the finished subassembly.

**Building Complex Hierarchies**



The UIDs of each component that is part of the subassembly must be scanned to create the parent-child hierarchy. Since the components are sensitive to static, the UID information is scanned from the component's packaging.

Up until now, the UID parent-child hierarchy is that of the components that are part of a particular subassembly. One or more of the subassemblies will go into a complete system. After the subassemblies have been tested, parent-child relationships are needed for the entire system.

For such a complex product, the supplier uses a 'build book'. The build book has copies of each and every UID label from every component put into a subassembly, and every subassembly that goes into the final system.

The operator first scans the UID label of the finished system (which in this case, is on the spine of the build book for the system). Next, the UID labels from each subassembly are scanned. In this case, five subassemblies make up the entire system. You'll remember that each subassembly was already labeled with a UID label and scanned into idWorx! An extra UID label from each subassembly for a finished system was printed and stored in the build book.



All the parent-child-grandchildren hierarchies are built for the finished system; a green check mark on the idWorx! screen signifies that the system hierarchy is complete.

**Building RFID Shipments**

To prepare for initiating the WAWF shipment, an administrator creates an RFID shipment on idWorx!.

Information from the contract is pulled into idWorx! data fields. The administrator selects the appropriate options for shipment, such as Ship Date, Delivery Mode, Addresses, Bill of Lading numbers, Transportation Control number, Line Item Numbers, Milstrip numbers, and Quantities to ship. The shipment status is set to "RFID Needed".

During packing the UIDs are added to the idWorx! shipment. An operator opens the "RFID Shipment" option and selects the packaging configuration that matches the shipment. The single system UID label is scanned and all system child UIDs are added to the shipment. A UID box label is printed for each box containing a subassembly that is part of the final system, as well as an MSL label.

Each UID label contains important identification information for the subassembly inside the box in the UII data - the Cage Code, the part number, and the serial number. All subassembly boxes are packed into a case, and the case will have the RFID label attached to it.
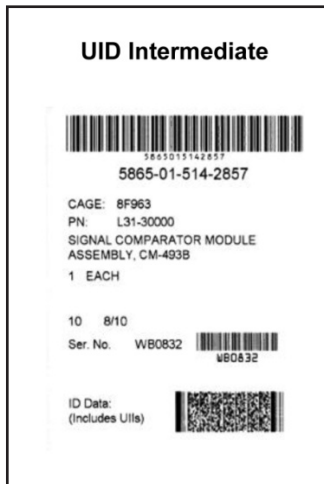
The operator uses idWorx! to create a unique RFID number, and the RFID label is printed and attached to the case. The RFID label also has printed on it the UII data from the UID labels contained within the case. All labels are printed from the same idWorx! operation screen simply with the click of a button.

After all the labels have been printed, the shipment is marked as "RFID Complete". idWorx! generates a shipping report containing all the information about the shipment, including all of the UID numbers contained in the shipment.

**Submitting Data to the WAWF and UID Registry**

The shipment is submitted electronically to government WAWF and the UID Registry by clicking on the "Send to WAWF" button on the idWorx! screen.  After DCMA approval of the WAWF, an operator can upload data to the UID Registry by selecting the "Send to Registry" button.

A few  hours later, the existence of the UIDs in the UID Registry can be checked in idWorx!, and the shipment remains in the database for historical reference.

## idWorx! Solution

√ Reduce shipping time

√ Automate data entry to the WAWF and UID Registry

√ Eliminate serial number duplication to improve government acceptance

√ Eliminate/reduce the risk of shipment penalty fees

√ Eliminate current backlog of UID submittals

√ Automatically generate manual shipping labels

√ Consolidate packing and shipping operations



Over the course of one year, they also realized a significant reduction in time spent on tasks in areas of their shipping process.

## Summary

Using idWorx! accomplished their goals. With idWorx! they were able to eliminate manual record keeping and duplication of manual data entry to their ERP system, to the WAWF, and to the UID registry which led to significant time savings and increased productivity. They also saw a reduction in time spent and a reduction in data entry errors in other areas specifically QC verification, label printing, manufacturing and shipping processes,

### MONTHLY TIME SAVING (HOURS)
### BASED ON TWENTY SYSTEMS PER MONTH

| Task | Before | After |
|---|---|---|
| Generate UID Labels and Enter in to Build Books | 16 | 2 |
| Quality In Process UID Verification | 16 | 0 |
| Quality Data Entry of UID Data Entry | 20 | 2 |
| Verification of Intermediate Pack | 4 | 0 |
| Intermediate Pack Process – Label, package, scan in idWorx! | 40 | 6 |
| Final Pack Process – MSL, RFID, System Pack | 20 | 8 |
| WAWF Entry, Signoff, Corrections | 8 | 0.5 |
| UID Registry | 40 | 0.5 |
| Hours Per Month | 164 | 19 |
| **Total Hours Per Year** | **1968** | **228** |

*Monthly (X12) = Yearly Savings

# The Complete Solution with ID Technology

As part of ID Technology, Winco ID has unique qualifications to help you meet the requirement of MIL-STD-130 including UID, MIL-STD-129 including RFID requirements and other DoD Military Labeling.

**What makes Winco ID different?**

Winco ID is a label manufacturer that understands all aspects of the label (durable materials, adhesives, top coat, and more) to ensure it meets and exceeds longevity, performance and formatting requirements.

Winco ID has been designing bar code and labeling systems for over 25 years in many different industries. We understand the challenges of the most demanding client applications and compliance mandates.



**WincoID's RFID /UID Services**

- Complete labeling, barcode, workflow support to ensure compliance and extend the benefits beyond compliance to maximize business process.

- Labeling Compliance Solutions specific to DoD.

- Testing labs and verification services along with Certificate of Compliance.

- Labeling expertise to meet your durable labeling requirements.

- Label Verification Service

- Label printing services for one or many durable labels or RFID SmartTags

*. . . A complete DoD Labeling & Data Solution*
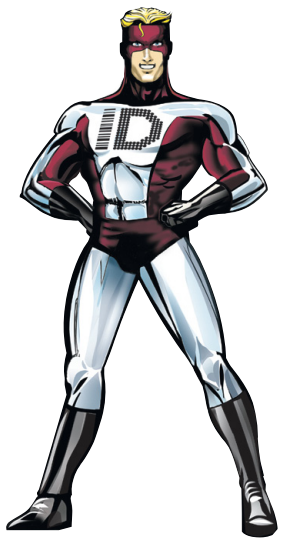
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