



INTRODUCTION

Welcome to the UID Quarterly Summer 2010 Edition, brought to you by A2B Tracking Solutions as an educational service. We think you will find a great deal of practical and useful information here. Read each article carefully and then pass along the Quarterly to a friend or colleague who could benefit from reading it.

What you'll find in this issue:

Opinion: A2B President Peter Collins describes the Five Stages of UID Compliance that he has observed since 2003. What stage are you in? Read this article to find out.

UID Success: You'll want to see some of the problems your fellow UID

professionals are encountering. We present a cross section, along with proposed solutions from A2B's IUID Coaching Staff.

UID Solutions: Should you use Virtual UII's? Our staff presents the pluses, the minuses and some common sense advice about good data management.

Public Service Announcement from A2B: Don't miss this free tool that ensures your items are properly registered.

UID Education: Check out the upcoming IUID web seminar dates presented by David Collins of Data Capture Institute.

News From A2B Tracking: Read all the latest from A2B.

OPINION

Five Stages of UID Adoption

by Peter Collins

A2B Tracking Solutions entered the UID market as a solution provider early on. Our Board Chairman was a member of the integrated product team (IPT) working with the DoD UID Program Office, and as a bar code pioneer he saw the value of UID, not only to the military but also to their suppliers.

Since 2003, when we first began development of the groundbreaking UID Comply!® data management software, we have talked with many thousands of professionals who are being impacted by UID. We have co-sponsored and exhibited at every UID Forum and spoken at dozens of professional meetings across the US and aboard. We have worked tirelessly to educate those who need to know about AIT (Automatic Identification Technology) and UID best practice through our UID Quarterly Newsletter and numerous articles. And we talk daily with UID practitioners, from those who manage legacy equipment for whole military services such as the Air Force and the Marine Corps to manufacturers who need UID labels in order to ship product.

What we have noted is a five-stage process that virtually everyone goes through on their way to UID literacy. Those stages look something like this:

1. HELP!
2. GET SMART
3. GET ORGANIZED
4. GET TO WORK
5. KEEP IT WORKING

HELP!

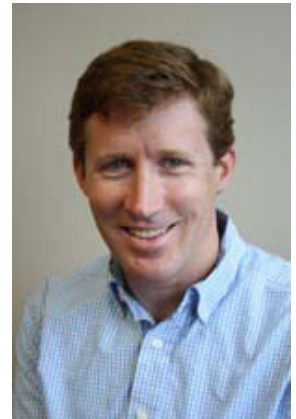
We know we're dealing with someone in the HELP stage when we hear uncertainty and a strong need to get answers to questions such as these: What do I need to know? Where can I go to learn what I need to know? How is this going to impact my organization? What happens if I don't implement UID? And finally, we hear fear - Why me? What will this mean for my career?

Understand that these are normal reactions when faced with mandatory change. And UID isn't just any change; rather it represents a whole new paradigm. As the saying goes, old habits die hard and we might add, few habits die harder than entrenched business practices. The HELP stage is, therefore, a normal reaction. There is no shame in asking for help. The only risk is in seeking help from unreliable sources.

We don't recommend that OEMS involve the DCMA at this stage, although that time will come later. Instead we suggest reaching out to the industry for an understanding of technology components and UID obligations. Those who are in the trenches every day, working to solve UID requirement issues, are the best bet for advice at this stage. The experts are easily recognizable.

GET SMART

This second stage of UID adoption is marked by acceptance and a strong need to understand what is involved in compliance. In this stage soon-to-be UID professionals ask questions such as these: What is it that I REALLY must know? What is the scope of UID? What are the most important aspects of UID policy and FAR obligations? What can I avoid knowing?



We find that as individuals become more immersed in UID implementation their attitudes shift from avoidance and the desire to learn as little as possible, to wanting to understand and a growing intrigue about the robust benefits of UID.

GET ORGANIZED

By the time individuals reach this third stage of adoption, they are taking charge of the change. As a result they are often immersed in coordination and planning decisions and anxious to gain organizational acceptance (commercial and government personnel). This often involves learning about the resources available to them and the hurdles they can expect to meet along the road to compliance.

This stage is characterized by questions such as these: Who do I need to involve, both inside and outside the organization? Is there adequate expertise inside, or do we need to look outside for additional help? How do I get everyone to agree on a path forward? Where will I find the resources to fund the UID initiative? How will I keep up with UID policy, technology and DoD system changes?

OEMs should begin to involve their DCMA representatives near the end of this stage. Now there is the confidence to speak with a certain amount of authority and more than likely there is an initial plan in place.

GET TO WORK

The individual at this stage has reached a critical juncture. After all the education and planning, they ask themselves - Will the pieces fall into place? This stage is characterized by a strong need for predictability as the plan goes into effect, often with limited resources and looming deadlines.

Common questions at this stage are these: How do I keep everyone on task? What technologies or services are required that weren't planned for? How will I handle unexpected challenges? How will I learn about and adjust for ongoing UID policy, FAR and DoD system updates?

We find that although this stage is ripe with anxiety, there is also excitement. Many UID leads who have taken the project to this point

sense the career building opportunity that has come their way, and armed with that potential they begin to think creatively.

At this stage, pilot efforts help to gain organizational learning. It is a good idea to find champions within the organization, those who can benefit from UID, and enlist them to amplify the message that this change is good. A bigger bandwagon ensures a less lonely position for the UID lead.

KEEP IT WORKING

By the time many UID professionals have reached this stage, they have crossed the chasm. Now, no longer consumed with implementation and planning, there is hope that the pieces they have put into place will stay relevant in the face of policy changes. Many of these individuals also begin to understand the benefits of UID within their organizations, beyond mere compliance, and they begin to plan for the future.

But in the short run, questions at this stage are often these: How will we implement and monitor a sustainment plan? What are the challenges that seem to be looming? What quality controls will be required going forward?

Whatever your stage, know that you are helping to make economic history. Think about the grocery store before bar code, if you can remember back then. With the efficiencies afforded by UID and utilized by industry as a whole, nothing will operate quite the same in the future. Your grandchildren will be amazed that once upon a time a tank could get lost.

Peter M. Collins

As Founder and President of A2B Tracking Solutions, Inc, Peter M. Collins is recognized as one of the world's foremost experts in the implementation of UID across government and industry. Under his leadership A2B Tracking has developed UID Comply!® and UC! Web™ - web-based, enterprise UID compliance and tracking software application, along with a broad array of UID solutions and services. Recipient of the prestigious ID People Leadership Award at the 2008 ID World International Congress in recognition of his UID expertise, Collins serves as Vice President of AIM North America.

UID SUCCESS

UID Coaching Success Stories

A2B Tracking Solutions recently announced a value added UID coaching service to users of the UID Comply!® and UC! Web™ suite of data management software with Premium One™ support contracts. Simply put, this coaching service utilizes the expertise of A2B's remarkable team of bar code and automatic identification technology (AIT) experts who have been immersed in UID from the beginning.

Coaching calls are not intended to solve complex issues, but they are meant to save our customers' time. A quick call to an [UID Coach](#) can answer a question that might otherwise require days of research. We thought our readers would be interested to learn about some of the problems others are facing and the solutions our coaches have helped them to develop.

Gaining label real estate saved more than space

One of our client companies, an electronics manufacturer who ships 15 to 20 percent of their total annual production to the military, showed



us their standard inventory label which is applied during the packaging stage of production. That label was quite large and contained several fields of Code 39 linear bar code. They wanted to know if all the label real estate was really necessary. Our coach pointed out that the data contained in the old fashioned linear bar codes could be handled in the UID Data Matrix 2-D code instead. A great deal of label real estate was saved as a direct result. This, in turn, had the side benefit of reducing the order fulfillment process by three manpower-intensive steps and saving printing costs.

System integrator streamlines process

On another occasion a system integrator, a client of A2B, who was using UID Comply!® data management software had questions about the imbedded component capability of the software. Our coach guided them through a new component integration process. With that capability they now share UID marking tasks with their suppliers who, in turn, can meet their contracting officers' system acceptance criteria. This is accomplished by drop-shipping certain bulky sub-systems directly to the delivery location, without performing the integration and testing on the integration floor first. Benefits to the government include quicker system delivery and lower total shipping costs.

MIL STD 130 requirement subtleties solve label dilemma

A UID Comply!® user was required to place a UID Data Matrix label on a very small (1.75" X .25") electronic component label. That label already contained a linear bar code serial number used for manufacturing quality control documentation. When the user attempted to compose a square to fit within the required real estate of the Construct # 2 Data Matrix label, the module size was less than the .0075" minimum specified in MIL STD 130. (Construct #2 was chosen because it would allow for a very desirable item part number, for internal use.)

Because we were aware of MIL STD 130, section 5.2.3.2, which permits the use of rectangular Data Matrix labels, our client was able to design an eminently machine readable, Construct #2, label with a module size of .010". This easy-to-scan label included a CAGE Code, an 8-character part number and an 8-character serial number. It also permitted human readable text, .045" high, of each data element. The .045" text font is the same as that of the original linear bar code serial number.

GFP registration questions answered

One of our UC! Web™ customers had concerns about which government-owned items (GFP) in their possession must be UID registered. This client is a custodian of both government furnished materiel (GFM) and government furnished equipment (GFE). Our coach was able to inform them that, as of this time, equipment must be registered, but not materiel. The same client asked about the need to register embedded items. Again the answer is that although embedded items must be registered for legacy and end item deliverables, it is not currently required for GFP.

UID SOLUTIONS:

Good data management is the key to Virtual UII success

If you have legacy equipment in the field or GFP (government furnished property) you can create and register a UII (unique item identifier) without marking the item directly. However, creating a mark from a UII file and perfectly matching it to the item in the field has not proven successful in assuring the high reliability goals of the DoD. There are specific rules to this process, and Virtual UIIs should only be used as a last resort. That said, Virtual UIIs allow you to be in compliance while sorting out marking techniques or with items that may currently be in use and therefore unavailable for marking.

Questions to Consider

There are several decisions to be made when thinking about how to permanently mark items. What type of medium will you use: labels, plates or direct part marking? Once you determine a medium, what type of equipment do you need? What training and ramp-up time do you need to use the equipment? If you choose to go down the road of Virtual UIIs, be sure to have all the facts straight and your methodology fully established. A miss-marked item is really worse than an unmarked item, because it gives an illusion of compliance that will "deceive" for the item's lifetime.

Here are some key points to consider in the Virtual registration process:

Existing and Additional Mark Details: This is the key to handling virtual UIIs. It is essential to keep track of any and all marks on an item to

As MIL STD 130 requirements evolve, this may change, but for now our customer found a reliable source from an A2B coach.

UID Registry process confirmed

One of our UID On-Demand™ customers wanted clarification on the creation of labels and the UID Registry process. Our coach referred the customer to the [UID Registry](#) website, but also took the customer through the steps, beginning with the choice of Construct 1 vs. Construct 2, noting that the latter should be used only when there is compelling need for additional data in the label. She also explained the difference between public and controlled access to the Registry. When the customer asked about having a large quantity of new labels manufactured, the coach referred the customer to A2B's custom spreadsheet for IUID Registry submission of appropriate data such as additional marks, enterprise IDs, part numbers, serial numbers, technical contact, etc.

Virtual UII or not

A customer asked whether the numerous, short-lived legacy assets in his custody required virtual UIIs given that many would reach life-cycle replacement before mandatory labeling is complete. He was also aware that UIIs are prone to error. In this case our coach advised creating Construct 1 UID labels and applying the labels utilizing one of two marking methodologies, either seek and apply or opportunistic. The latter would take place at the time of maintenance or during warehouse picking. The data would then be uploaded to the IUID Registry.

Learn more about [IUID Coaching](#) from A2B.

ensure proper identification. The more marks the better. The reason for this: For an item to be eligible for Virtual UII registration, there must be some way to identify it as a unique item. Using more than one mark allows for cross reference. Identification can be a human readable serial number or serial number equivalent such as a VIN number that appears on the item.



What follows is a list of possible marks that may be used for this purpose: contract number, date of manufacture, FAA certification, hull number, internal asset number, item nomenclature, lot number, manufacturer CAGE, manufacturer name, national stock number, part number, property control number, serial number, service/agency/command, supplier name, tail number, type designation, UID, USA number, USAF number, USN number and vessel class.

Only a handful of these marks can be used as a single additional identifying mark. But best practice dictates that all additional marks should be linked in the data file. For example, a serial number alone is insufficient as two completely different items may have the same serial number. Add the part number or type designation, however, and the combination of marks is more useful, with each additional mark adding integrity to the process.

Virtual UII Registration: The registration process will require submitting the UII with a medium code of "DEFINED." This will let the Registry know that the UII is a virtual mark. Along with the UII, you will register all the pedigree data for this item. That includes the serial number, part number, enterprise ID and all other elements that identify the item. The final piece of information that must be registered is the existing mark data within the mark loop in the registry XML.

Taking possession of Virtual UIIs: What happens when you receive or take custody of an item that may have been registered virtually? It is imperative to use your data management system along with Registry APIs to check for each UII's existence in the IUID Registry. If the item is not found in the Registry a new UIIs must be created and registered. Of course, taking physical possession of an item would be a trigger for physical marking and changing of the status in the Registry.

Triggers for Physical Marking of Items: Once virtual UII registration has taken place, there are specific triggers that tell you when you MUST physically mark the item. These are as follows:

- » Change of custody from one entity to another, such as return of an item from a contractor to the government.
- » Change in status, such as an item taken out of service for a foreign military sale.

At any point above, the entity responsible for creating the Virtual UII must physically mark the item and update the Registry before it is transferred or re-allocated.

A Virtual UII Management Option

One solution for managing Virtual UIIs is to put a system into place like A2B Tracking's UID Comply!® or UC! Web – A2B's web-based, hosted UID data management application which deploys Software as a Service (SaaS). This will allow you to create and manage the Virtual UIIs throughout the lifecycle of that item, from creation of the Virtual UII to uploading of a fully compliant UII to the IUID Registry. In such a system the management of the Virtual UII process is broken down into the following steps:

- » **Creation of Virtual UIIs** Ensure that the UIIs are created correctly and with the correct information. Choose the construct you will use, Construct 1 or Construct 2? Which data elements will you use within the two constructs?
- » **Tracking of existing mark data and the association to the UII** As stated above, in order to register a Virtual UII you must have an existing mark on the item that will identify it as unique. When the time comes for physical marking, it is absolutely critical to know which mark goes with which UII.

- » **Registration of the Virtual UII** To complete virtual registration you must have pedigree information for the item and the existing mark information. In addition you must have a system that guarantees that the proper XML file is generated with the appropriate information, in the correct format. If not, you will need to hand key each piece of information directly into the Registry, a process that leads to numerous errors.
- » **Marking Strategy** You need to determine what your marking strategy will be and start the marking process. This encompasses which marking technology you will use and where you will mark the items.
- » **Data Management** You must keep track of the status of the items as they move through the lifecycle. You must know which items have been marked, which have been updated in the registry, and which are still in need of work. This data management will allow you to know which items need work before they are transferred from your custody or re-allocated.
- » **Update the Registry** This will change the Virtual "DEFINED" status to the "2D COMPLIANT" status once the item is marked.

Pitfalls to Avoid

There are a couple of pitfalls to avoid during a Virtual UII registration process. The first is failure to keep track of which items have been registered virtually and which are MIL STD 130 mark compliant. Without this information, you will need to examine all items in order to determine which have been physically marked and which have not. Data management of the UIIs and their status is probably the most important aspect to a successful Virtual UII process.

Another pitfall is failure to track which item goes with which UII. As stated earlier, this relationship must be maintained to ensure you are linking the appropriate item to its UII.

The difference between failure and success depends on the system you use to keep track of the process. Knowing which items have UIIs created, whether they have been virtually registered, if they are physically marked or not, and allowing the facilitation and completion of these actions is imperative to a successful Virtual UII project. UID Comply! or UC! Web allows you to track and fully manage that process, from Virtual UIIs to fully compliant UIIs in the IUID Registry.

PUBLIC SERVICE ANNOUNCEMENT FROM A2B

A FREE and reliable quality check for all the IUIDs your organization handles



We would like to make you aware of a free, web-based service that A2B is offering to the general public, including the military and military suppliers. Our objective is to support IUID Policy Office efforts to reduce the instance of improperly formatted 2D Data Matrix bar codes and UII's.

The vehicle for this support is UC! Web Validator, part of our new UID compliance web-based application suite – UC! Web™. Follow this URL <http://validator.uidcomply.com> to register and know that you have launched a vital quality assurance tool. UC! Web Validator will operate with many current 2D imaging devices, and there is no fee, setup or other charge.

Two core functions give you a quick, reliable quality check:

- » The syntax of any UII is inspected to ensure its validity and to communicate errors.
- » An IUID Registry check authenticates whether or not the UII has been registered.

Those who wish to gain access to the application simply go online and register. A2B will notify you, through the email you provide, when your account has been processed.

* You will receive login information from A2B once your account is activated.

Learn more about UC! Web Validator

[Click here](#) to watch the UC! Web Validator video.



UID EDUCATIONAL WEB SEMINARS

Data Capture Institute in our quest to provide ongoing education to those who are implementing IUID and RFID we offer the following seminar series:

IUID Web Seminars from Data Capture Institute

David Collins, President of Data Capture Institute, has been engaged by A2B to present a series of IUID Web Seminars as a non-commercial, educational service to those who are required to implement IUID.

David is considered by many to be the "father of the bar code industry" having led the original bar code project, KarTrack, for Sylvania in the early 1960s and later, in 1968, founding Computer Identics Corp, the first company to design and manufacture commercial bar code scanners. Over the years Collins and his team have overseen thousands of bar code installations around the world. He is author of the popular 1992 book, "Using Bar Code – Why It's Taken Over" and is a frequent keynote speaker

and automatic data collection seminar presenter. As a member of the UID integrated product team (IPT) he is uniquely qualified to respond to the questions and concerns of companies of all sizes, including large, multi-national enterprises as they grapple with UID implementation.

Upcoming UID Web Seminar Dates

(Presented each day at 2:00 Eastern)

- » Tuesday, August 24
- » Tuesday, September 14
- » Tuesday, September 24
- » Thursday, October 14
- » Tuesday, October 26



To register for any of these dates, email pchasse@a2btracking.com or click on this link: <http://www.uidsolutions.com/webinarSignUp.html>

NEWS FROM A2B TRACKING

Latest Press Releases

A2B Tracking Solutions Offers IUID Coaching Service to Customers

PORTSMOUTH, RI (July 1, 2010) – A2B Tracking Solutions, the leading provider of IUID (item unique identification) products and services to the military, per MIL STD 130, is announcing a value added coaching service to users of the UID Comply!® suite of data management software who hold Premium One™ support contracts. [\[Read More\]](#)

A2B Tracking Solutions Offers Free Service to Support DoD's IUID Program

PORTSMOUTH, RI (June 15, 2010) – A2B Tracking Solutions President Peter Collins has announced a web-based service which is free to military suppliers and services who must comply with MIL STD 130. In making the announcement Collins said, "Our purpose is to support IUID Policy Office efforts to reduce the instance of improperly formatted 2D Data Matrix bar codes and UII's." [\[Read More\]](#)

A2B to Participate in NPMA National Education Forum

PORTSMOUTH, RI (June 10, 2010) – A2B Tracking Solutions, the leading provider of IUID data management software, including UID Comply!® and UC! Web™ as well as UC! Web Validator™ validation and registration service, will be exhibiting at Booth 29 at the National Property Managers (NPMA) National Education Seminar, June 14-17. In addition, A2B President Peter Collins will be presenting a seminar session, "Streamlining IUID Compliance." [\[Read More\]](#)

A2B Travels



Please stop by our booth # 20-21

Plan to attend our UID Comply!® and UC! Web™ User Group Breakfast on Thursday, September 9th at 7AM. For more information email pchasse@a2btracking.com

AIMAIM Expo - Nov. 1-3 - Chicago, IL - Hyatt Regency O'Hare

[AIM Expo](#) has engaged the leading industry experts and end-users for a complete showcase of auto ID & mobile IT solutions for government that includes a personal invitation for you.

A2B Tracking Solutions offers you a 10% discount off of registration – use code "A2B608" during [online registration!](#) Stop by our booth #109.



UID QUARTERLY - A2B TRACKING SOLUTIONS - SUMMER 2010

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