

Department of Defense Standard Operating Procedure



Acquisition/Procurement Guide for Unique Item Traceability Data Integrity

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Office of the Director, Defense Procurement and
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Preface

INTENDED USER

This guide is intended for use by contractors, contracting offices or anyone performing contract administration prior to contract closeout

DISCLAIMER

If you discover a non-compliant UII mark, you should submit a Product Quality Deficiency Report (PQDR) or a Supply Discrepancy Report (SDR) to report the incident or provide the item to your local quality assurance representative for submission of a PQDR or SDR and subsequent adjudication. If you subsequently receive direction to correct the non-compliant UII mark, then follow the instructions in this guide.

If you are pre-authorized locally to correct a non-compliant UII mark, then follow the instructions in this guide.

NOTE TO THE READER

This standard operating procedure (SOP) was written for a targeted audience. The targeted audience is the user of automatic identification technologies, such as bar codes and bar code readers.

Data that identifies an item is encoded in a bar code. The bar code is placed on the item. The user retrieves the identification data with a reader and sends it to a data base.

The Department of Defense (DoD) uses the Data Matrix bar code for Item Unique Identification (IUID).

LEVEL OF KNOWLEDGE

The reader needs to be familiar with the basic DoD IUID policies and practices. If new to you, the fundamentals of IUID can be found in the Defense Acquisition University (DAU) Continuous Learning Module CLM 200, Item Unique Identification, at <https://learn.dau.mil/html/login/login.jsp>.

The reader also needs to be familiar with the fundamentals of IUID marking. They can be found in the DAU Continuous Learning Module CLE 040, IUID Marking.

Introduction

PURPOSE

This SOP tells you what to do when you find a unique item identifier (UII) mark on an item of DoD property that: (a) is not compliant with DoD policy, or (b) is not registered in the DoD Item Unique Identification (IUID) Registry, or both.

BACKGROUND

What is IUID?

IUID is a system of unique identification to mark and identify items of property. In order for this to work, UIIs have to be globally unique and unmistakable. You can't have duplicates. An item's UII stays with it for its lifetime.

What is IUID Compliance in Terms of DoD Requirements?

The conditions that must be satisfied for an IUID compliant UII mark are described below in the subsection entitled "What is an IUID Compliant UII Mark?".

The DoD IUID compliance requirements are as follows:

- The entity that is responsible for the item being uniquely identified must guarantee the uniqueness of the UII by DoD contractual requirement or for their own internal purposes.
- The UII must be entered into the DoD IUID Registry to satisfy the intent of compliance and guarantee the commitment on the part of the responsible entity to assure UII uniqueness. (Note: An item mark can follow ISO/IEC 15434 syntax and use the required semantics; however, until the UII is registered, there is no explicit guarantee of whether the entity's intent is to uniquely identify the item, or merely use automatic data capture to read those data elements encoded within the mark.)

What is an IUID Compliant UII Mark?

Appendix A has a brief tutorial on what a UII mark is and how to tell if the mark is good.

The UII is a set of data elements, like Issuing Agency Code (IAC)¹, CAGE² codes, part numbers and serial numbers, which are strung together. The data elements have to be tagged (by a data qualifier) that tells what the data element is.

These data elements are carried in an Error Correction Code (ECC) 200 Data Matrix (hereafter referred to as Data Matrix), which is a two-dimensional bar code. They are encoded in the Data Matrix using a standard message string (or syntax)³. This Data Matrix is permanently placed on an item.

UIIs are read (also called scanning) by an electronic device (imager or reader) to provide specific information for database transactions. They must be encoded properly, or the imager can't scan the data elements correctly.

Using imagers to scan UIIs means that you don't have to hand-copy CAGE codes, part numbers and serial numbers off a label or data plate.

Who Puts a UII Mark on an Item?

Contractors put UII marks on new items during production, as directed in the contract. They also register the UIIs in the DoD IUID Registry upon delivery of the marked items to the DoD.

The DoD Components are required to mark UIIs on all applicable legacy items in inventory and in operational use and all applicable embedded assets and register them.

¹ The issuing agency code, or IAC, is that assigned by the Registration Authority for ISO/IEC 15459-2, Registration Procedures. The IAC represents the agency that issued the enterprise identifier. The IAC can be derived from the data qualifier for the enterprise identifier and is not marked separately on the item. Scanner devices are programmed to use the embedded IAC, or to deduce the IAC from the data qualifier, but the IAC is not encoded as a separate data element in the Data Matrix symbol. . When a UII is encoded in a single data element, such as 25S or UID, the concatenation of the IAC, enterprise identifier and unique serial number is accomplished prior to encoding.

² Commercial and Government Entity

³ The message syntax is defined by an international standard, ISO/IEC 15434, Information technology – Transfer syntax for high capacity ADC [Automatic Data Capture] media, current edition.

Based on the 11,760,356 UIIs registered as of November 12, 2010, approximately 7 out of 10 were marked by contractors during production and 3 out of 10 were legacy items.

UII Marking Requirements for Packaging

Shippers of DoD military property are required to include the concatenated UII(s) on the unit pack, intermediate container, and exterior container using the 2D (PDF417) symbol preceded by the following information: ID DATA INCLUDES UII(s).⁴ DoD 4000.25-M, Defense Logistics Management System (DLMS), contains procedures for reporting IUID package marking deficiencies found during shipping operations.⁵

Marking of U.S. Military Property

Items meeting the IUID marking criteria will have UIIs marked on them per the practices described in MIL-STD-130N or later.⁶ To be an IUID-compliant UII mark, the UII data elements, or concatenated UII single data element, must be encoded in a Data Matrix in accordance with the message syntax requirements of ISO/IEC 15434.⁷

SITUATION

This SOP addresses actions you should take in the situation where you are required to read the encoded data in a Data Matrix with a scanner and retrieve the IUID data for the item from the DoD IUID Registry.

When you do this, the following outcomes may occur:

Data Matrix is IUID compliant; UII is registered

No further action on your part is required.

⁴ MIL-STD-129P/w Change 4, Paragraphs 4.4.2.3 and 4.4.3.3.1.

⁵ Specifically, see C17.3.8, Discrepancies in IUID Data, and C19.15, UII RECEIPT DISCREPANCIES.

⁶ MIL-STD-130N, Department of Defense Standard Practice, Marking of U. S. Military Property, December 17, 2007.

⁷ ISO/IEC 15434, Information technology – Transfer syntax for high capacity ADC [Automatic Data Capture] media, current edition.

Data Matrix is IUID compliant; UII is not registered

When this happens, you need to:

- Investigate based on the contract number, enterprise identifier, part number or other information to find out if IUID was required of the contractor or an internal DoD Component for the item.
- Confirm with the cognizant contracting office or enterprise that did the marking that the UII was not registered.
- Request the enterprise identified in the UII mark to register the compliant UII with all the associated data.
- If they will not, then seek permission from the cognizant contracting office or enterprise identified in the UII mark to register the compliant UII and follow the instructions in Chapter 5, Reporting and Remediation for Contractor Non-Compliance.

Data Matrix is not IUID compliant; UII is registered

When this happens, you need to:

- Investigate based on the contract number, enterprise identifier, part number or other information to find out who incorrectly marked the UII, either the contractor or an internal DoD Component.
- Confirm with the cognizant contracting office or enterprise that did the marking that the UII is not IUID compliant.
- Request the cognizant contracting office or the enterprise identified on the item or in the contract data to re-mark the compliant UII with all the

associated data consistent with the DoD IUID Registry data.

- If they will not re-mark the item, then seek permission from the appropriate authority to create and apply a replacement mark using the correct construction with the original data in the DoD IUID Registry. Remove or obliterate the original, non-compliant mark.
- If the non-compliant enterprise is a contractor, follow the instructions in Chapter 5, Reporting and Remediation for Contractor Non-Compliance.

Data Matrix is not IUID compliant; UII is not registered

When this happens, you need to:

- Investigate based on the contract number, enterprise identifier, part number or other information to find out if the item is required to be marked by the contractor or an internal DoD Component.
- Confirm with the cognizant contracting office or the enterprise that the item was not required to be marked nor registered. If confirmed, take no further action.
- If the item is required to be marked with a UII, gain permission from the appropriate authority to create, apply and register a replacement mark using the correct construction with the original data, or apply a new mark using an in-house procedure under your own enterprise identifier. Remove or obliterate the original, non-compliant mark.
- If the non-compliant enterprise is a contractor, follow the instructions in Chapter 5, Reporting and Remediation for Contractor Non-Compliance.

Chapter 1

Data Matrix is IUID Compliant; UII is Registered

DETERMINING DOD COMPLIANCE

You need to take the steps discussed in this Chapter to confirm that the Data Matrix on an item is IUID compliant and is registered in the DoD IUID Registry.

Step 1 – Check Message String Syntax



Let's use this Data Matrix to show how you check the message string syntax.

The scanner output shows this message string:

```
[ ]>0617V955421P788R330G01S3050R
```

DoD policy requires that the message string be encoded using the conventions of international standard ISO/IEC 15434. The standard requires that each message string start with a Compliance Indicator. This Compliance Indicator is globally unique; it can only mean that a message string was encoded using ISO/IEC 15434.

The Compliance Indicator is the first three characters in the encoded message string. These characters are "[]>" (left bracket, right parenthesis, greater than). The header "[]>" confirms that the message string was encoded using ISO/IEC 15434 conventions.

Step 2 – Check Format Indicator, Data Elements and Data Qualifiers

Next, you have to confirm that the following information elements within the message string are correct: (a) the format indicator, (b) the data elements within the UII construct, and (c) the data qualifiers, as defined by the format indicator, which are used to tag (identify) the individual UII data elements within the UII construct.

Interpreting the message string against the data in Table 1, Appendix A reveals that:

- The format indicator "06" signals that Data Identifiers (DIs) are being used.
- Three UII data elements appear in the message string, which means a UII Construct #2 is encoded.
- The enterprise identifier DI "17V" defines a CAGE code, which defines the responsible enterprise that caused the UII to be marked and registered, and that the Issuing Agency Code (IAC) of "D" associated with the CAGE code is used to begin the resulting UII.
- The DI "1P" defines the Original Part Number.
- The DI "S" defines the Serial Number within the Original Part Number.

Based on this information, you can conclude that the Data Matrix is an IUID-compliant UII mark.

The resulting UII for the above data would be:

D95542788R330G013050R

VERIFYING UII REGISTRATION

Step 1 – Query the DoD IUID Registry Directly

Appendix B contains a description of the capabilities available from the DoD IUID Registry. The IUID Registry has a web interface at <https://www.bpn.gov/iuid> (See Figure 1).



Figure 1. DoD IUID Registry Landing Page

Anyone can access certain limited item information through the IUID Registry’s Public Access Query (See Figure 2).

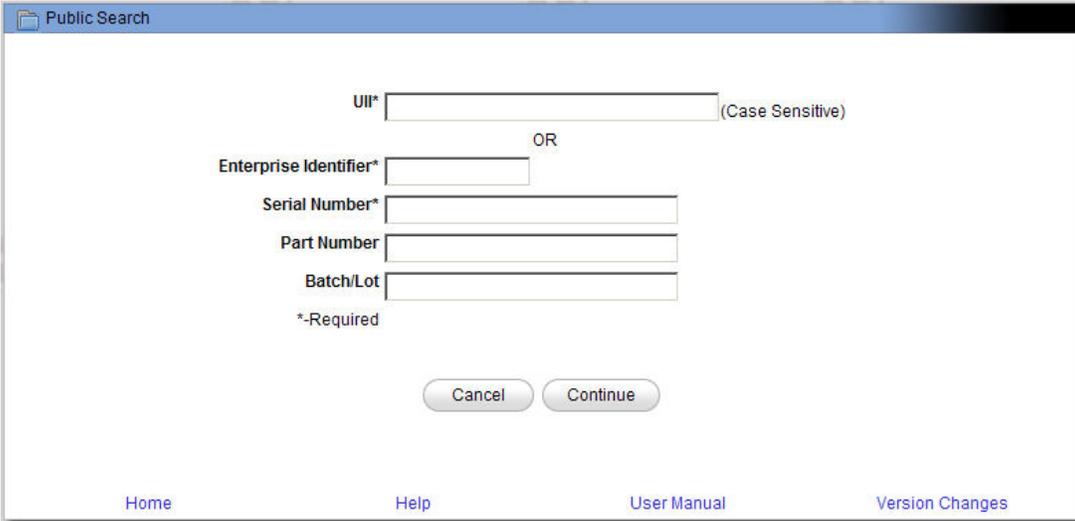


Figure 2. DoD IUID Registry Public Access Query

Users with a need to register UIIs and know detailed IUID information can request Controlled Access to the IUID Registry at <https://www.bpn.gov/BRS> (See Figure 3). Users with Controlled Access can add, update, and correct small numbers of items. Users can also retrieve useful, approved data in the form of reports and queries (See Appendix B for a description of the latest DoD IUID Registry capabilities).

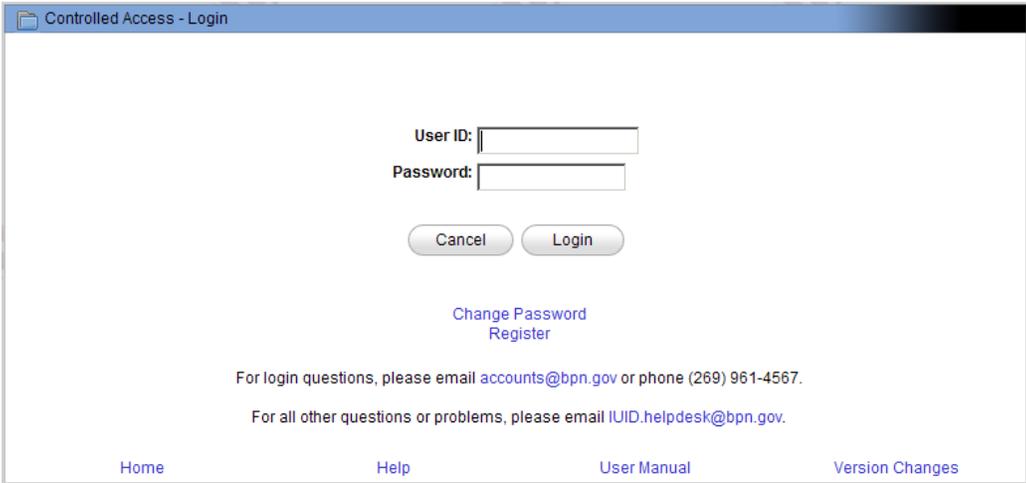


Figure 3. DoD IUID Registry Controlled Access Landing Page

When you check to see if the UII with the value "D95542788R330G013050R" is registered through the IUID Registry's Public Access Query, you will get the results shown in Figure 4:

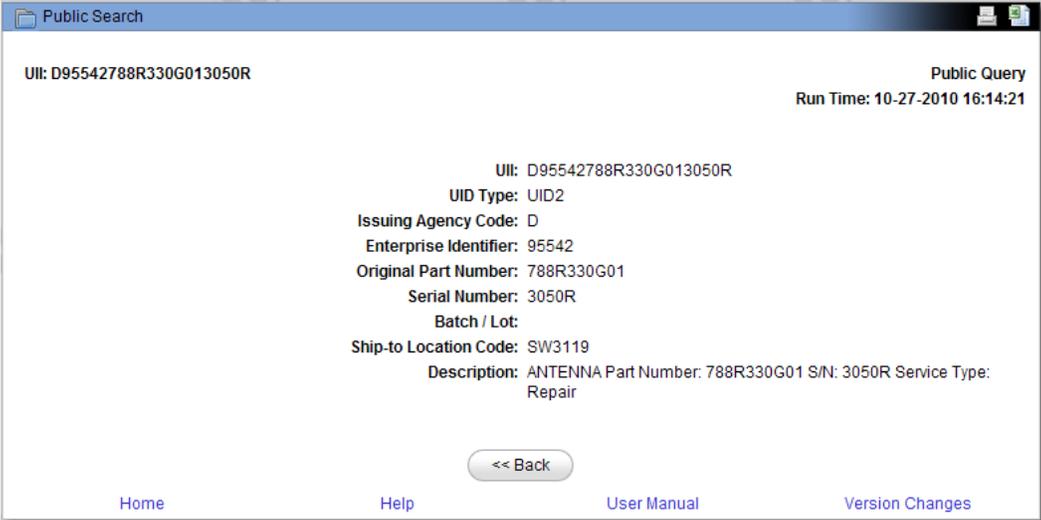


Figure 4. DoD IUID Registry Public Search Results

Alternate Method – Use Quick Compliance Tool Suite

The DoD Quick Compliance Tool Suite (QCTS) has a web interface at http://qcts.org/IUID_Compliance_Checker/ (See Figure 5).

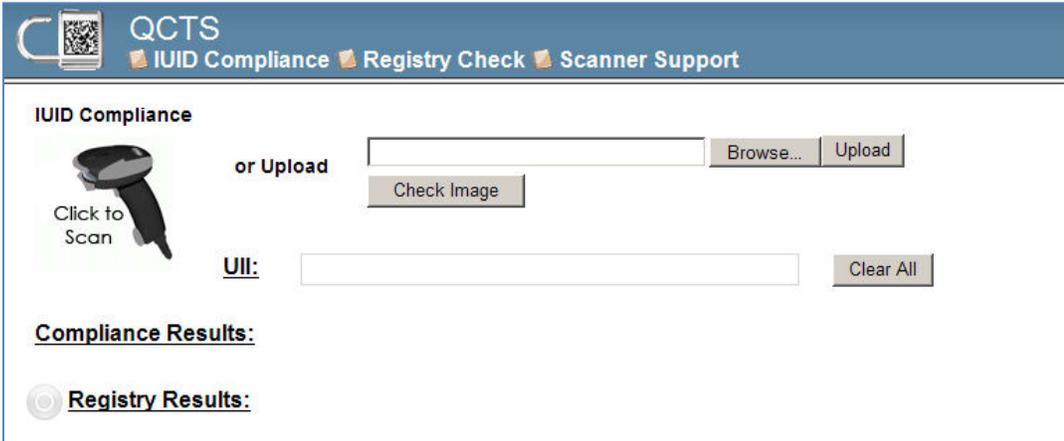


Figure 5. QCTS Query Page

If you checked this Data Matrix for compliance, you would get the display from QCTS shown in Figure 6:

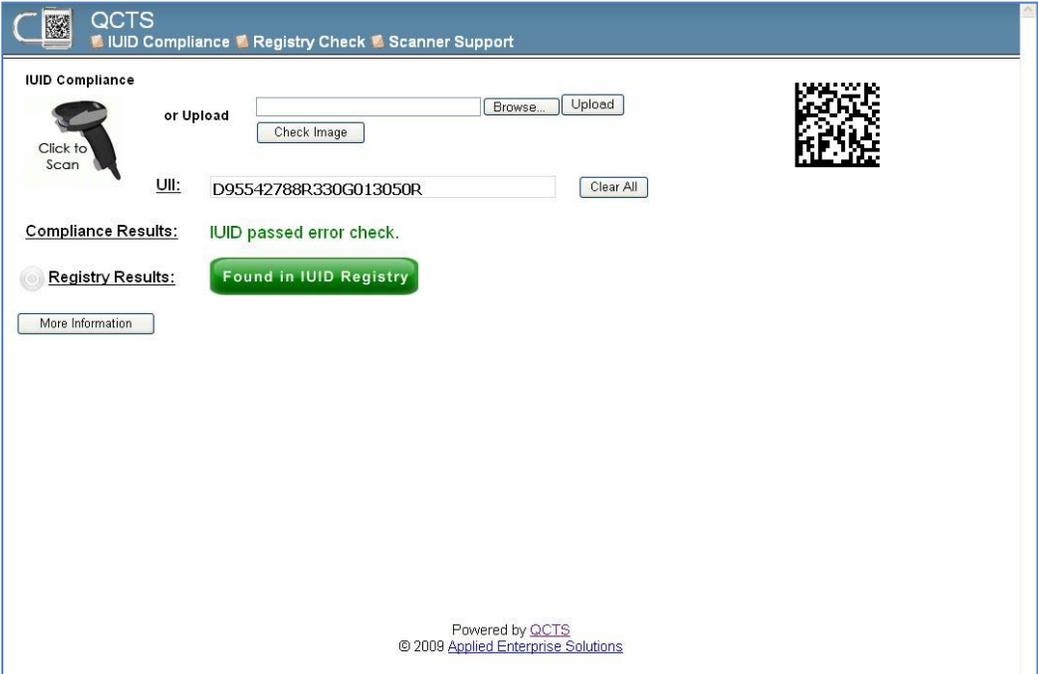


Figure 6. QCTS Compliance Check Results

If you checked this Data Matrix for registration, you would get the display from QCTS shown in Figure 7:

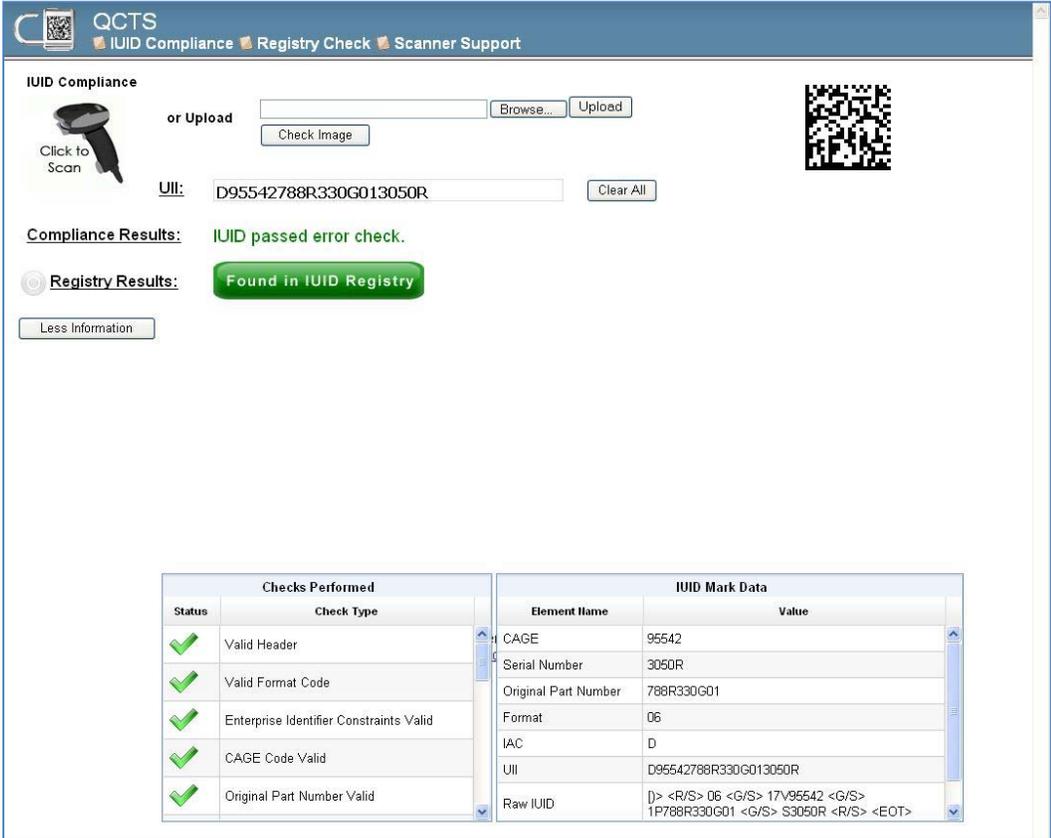


Figure 7. QCTS DoD IUID Registry Check Results

By using the above steps, you can determine if the UII is IUID compliant and is registered. If it is, then you have a good UII mark.

Chapter 2

Data Matrix is IUID Compliant; UII is Not Registered

CONFIRM THE NON-REGISTRATION

If, after performing the steps in Chapter 1, you find that the Data Matrix is IUID compliant, but is not registered, you need to take the steps discussed in this Chapter to confirm the non-registration and to take corrective action.

Step 1 – Contact the DoD IUID Registry Helpdesk

Sometimes, an attempt to register UIIs may have been rejected by the DoD IUID Registry because the registration failed to pass the internal Registry checks.

If this happens, the Registry Helpdesk works with the contractor/DoD Component to get the UIIs accepted by the registration process.

It's a good idea to first contact the Registry Helpdesk by email at IUID.helpdesk@bpn.gov to ask them to check if the unregistered UII is in the process of being properly registered.

If the UII is a disputed registration that the Registry Helpdesk is fixing, then you do not need to take any further actions. Ask the Helpdesk to notify you when the registration has been successfully completed.

Step 2 - Determine Who is Responsible for UII Uniqueness

If Step 1 doesn't resolve the problem, then determine who is responsible for guaranteeing the uniqueness of the UII. This can be done by picking out the enterprise identifier from the message string. The enterprise identifier may be for a contractor or for an internal DoD enterprise.

Identifying the Contractor Enterprise

Let's use the example from Chapter 1 to show how this is done. The message string is:

```
[ ]>□06□17V95542□1P788R330G01□S3050R□□
```

Check the codes in Appendix A Table 1 for enterprise identifiers. You can see that the code "17V" means the value "95542" is a CAGE code.

Next, you need to find out who owns CAGE code "95542". There is a data base called BINCS⁸. BINCS is a search engine of manufacturers and suppliers. Information in this system is cross-referenced to permit inquiry by CAGE, DUNS (Dun and Bradstreet Number System), UPC (Uniform Product Code), Company Name, Phone Number, SIC (Standard Industry Classification) Code and ZIP code.

The BINCS search page looks like this (See Figure 8):

The image shows a screenshot of the BINCS search page. At the top, there is a blue banner with the text "BINCS The Business Identification Number Cross-reference System". Below this banner is a navigation bar with buttons for "BINCS Home", "FAQ", "Disclaimer", "Search Info", and "Search". The main search area is enclosed in a blue border and contains several input fields, each with a blue button to its left: "CAGE", "DUNS", "Company", "Company, State", "Phone", "Zip", "SIC", "SIC, State", and "JCP CERT #". At the bottom of the search area are "Submit" and "Reset" buttons.

Figure 8. BINCS Search Page

⁸ The Business Identification Number Cross-reference System. Accessible at <https://www.bpn.gov/bincs/default.asp>

Entering CAGE code "95542" returns the results shown in Figure 9:

CAGE INFORMATION	
Company Name:	NORTHROP GRUMMAN SYSTEMS CORPORATION DBA NORTHROP GRUMMAN SYSTEMS
CAGE Code:	95542
Status:	A - Active Record
Parent CAGE:	06892
Address:	10 NORDEN PL
P.O. Box:	
City:	NORWALK
ZIP:	06855 - 1452
CAO-ADP:	S0701A - HQ0337
State:	CT
County:	FAIRFIELD
Voice Phone Number:	203-852-4861
Fax Phone Number:	203-852-7696
Date CAGE Code Established:	11/4/1974
Last Updated:	3/20/2008

CCR INFORMATION	
Company Name:	NORTHROP GRUMMAN SYSTEMS CORPORATION
Address:	10 NORDEN PL
City:	NORWALK
ZIP Code:	06855 - 1452
State:	CT
Point of Contact:	MELISSA A. KAYE
Contact Phone:	2038524861
Do a CCR Inquiry	

Figure 9. BINCS CAGE Code Query Results

Now you know who is responsible for the uniqueness of the item UII, and how to contact them.

But you don't know if the contractor in this case was responsible for the UII mark and its registration in the DoD IUID Registry on a DoD contract.

You can call the point of contact for the CCR⁹ Information and ask them to find a person who you can talk to about the non-registration.

⁹ Central Contractor Registration

If that doesn't work, then you will have to find the contract number following the instruction in Step 3 below.

Identifying the Internal DoD Enterprise

We'll use this Data Matrix for a legacy item.



The internal DoD enterprise example has this message string:

```
[ ]>□06□7LW81N8L□1P7-311422050-7S□SC12-D961□□
```

Check the codes in Appendix A, Table 1 for enterprise identifiers. You can see that the code "7L" means the value "W81N8L" is a DoDAAC¹⁰ code.

If you do not have a DoD Common Access Card (CAC), query-only capability to the DoD Activity Address Directory (DoDAAD) can be obtained by requesting the URL for the Defense Activity Addressing System Inquiry (DAASINQ) via email to daasinghelp@dla.mil. Or you may request the URL from the Transaction Services Help Desk at DSN 986-3247 or Commercial (937)656-3247.

If you are a contractor working with a legacy item and don't know who the DoDAAC is and can't get the URL for DAASINQ access, then you will have to contact your customer for assistance.

In this case, W81N8L is the AH-64D Apache Helicopter Program Office at Redstone Arsenal, AL.

Step 3 – Determine if Contractor Marking was Required

The contract number may be marked on the item's data plate, or it may be printed on the item's packaging or

¹⁰ Department of Defense Activity Address Code

shipping documentation that came with the item. If not found in these places, you can contact the cognizant contracting office for help in tracking down the contact number.

Let's say that you were successful in finding the contract number, and it is "FA850406D0002". Now you need to find out if UII marking was required by the contract. There are two ways to do this: (a) Get a copy of the contract from the Electronic Document Access (EDA)¹¹ database, or (b) ask the cognizant contracting office for help.

Since searching databases can be time-consuming and tedious, perhaps your first shot should be to get the cognizant contracting office to help you. They should already have access to the various databases. If you can't get their help, then you can proceed as discussed in the following paragraphs.

You have to register for access to EDA, and contractors may only access information in EDA for their company. If you are registered and can retrieve the contract, you need to look for DFARS Clause 252.211-7003, Item Identification and Valuation. If that clause is present, then marking was probably required¹², and the UII should have been registered.

An alternative method is to determine the contracting office DoDAAC from the first six numbers of the contract number, FA850406D0002. In this case, the contracting office DoDAAC is FA8504. A DoDAAC look-up¹³ shows that FA8504 is the 330th Aircraft Sustainment Group (an Air Force Group) with the office code of GFKA (the organization within the Group), which is located at Warner Robbins Air Logistics Center.

¹¹ EDA is a web-based system that provides secure online access, storage, and retrieval of contracts. Registration is required for access. Register at https://eda2.ogden.disa.mil/index_regis.htm.

¹² The contract requirements should reflect the marking requirements of the version of DoDI 8320.04, Item Unique Identification (IUID) Standards for Tangible Personal Property that was effective on the date of the contract.

¹³ If you do not have a DoD Common Access Card (CAC), query-only capability to the DoD Activity Address Directory (DoDAAD) can be obtained by requesting the URL for the Defense Activity Addressing System Inquiry (DAASINQ) via email to daasinqhelp@dla.mil. Or you may request the URL from the Transaction Services Help Desk at DSN 986-3247 or Commercial (937)656-3247.

You can ask the cognizant contracting office to verify that the item required UII marking.

Your next move is to ask the cognizant contracting office to confirm with the enterprise identified in the IUID compliant mark that the UII was not registered.

Step 4 – Confirm Non-Registration with the Responsible Enterprise

The cognizant contracting office can contact the contractor and confirm with them that the UII was not registered. The reasons for not registering the UII should be obtained from the contractor at the same time.

For a legacy item UII that is not registered, you can contact the internal DoD enterprise identifier (usually DoDAAC or CAGE code) for confirmation that the UII was not registered.

TAKE CORRECTIVE ACTION

Step 1 – Seek Permission from the Responsible Enterprise to Register the UII

The responsible enterprise for the UII can either be a contractor or internal DoD enterprise.

If the responsible enterprise is a contractor, the item with an unregistered UII will have been accepted by the Government. In this case, it falls on the Government to get the item's UII registered. If you are able to get help from the cognizant contracting office, they can contact the contractor and request that the contractor register the UII. If the contractor does not agree to register the UII, then the contractor should be notified that the Government will register the UII.

If the responsible enterprise is an internal DoD enterprise, then you can contact them and request that they register the UII. It will be their responsibility to do so.

Step 2 – Registering the UII

You will need controlled access to the DoD IUID Registry in order to register a UII. The page for controlled access registration is shown in Figure 10:

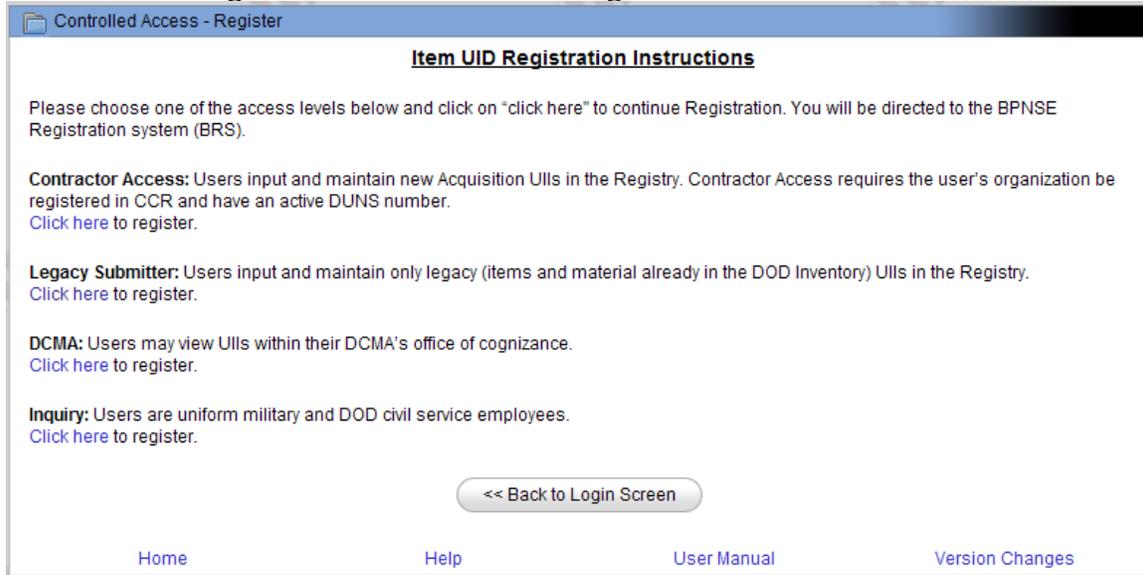


Figure 10. Item UID Registration Instructions

Since the unregistered UII is on an item already in the DoD inventory, you will have to register it in the role of a “Legacy Submitter”.

The recommended data submission option is to manually enter the IUID data via the production IUID Registry web entry site. To do so, you must register for Controlled Access at the production IUID Registry via the website <https://www.bpn.gov/iuid> as a “Legacy Submitter”.

The minimum information that has to be registered for a legacy item is listed at http://www.acq.osd.mil/dpap/pdi/uid/data_reporting_requirements.html.

If you need help or additional information, please email any questions to the Help Desk at iuid.helpdesk@bpn.gov.

Step 3 – Notify the Responsible Enterprise of Their Failure to Register

You should send an e-mail to the responsible enterprise (contractor or internal DoD enterprise) that marked the UII on the item. If the organization is a contractor, also address the e-mail to the cognizant contracting office that awarded the contract to the contractor and the contract administration office identified on the contract.

Recall that the methods to identify the responsible enterprise were discussed above in Chapter 2, under the Section entitled “Confirm the Non-Registration”, Step 2 - Determine Who is Responsible for UII Uniqueness.

Chapter 3

Data Matrix is not IUID Compliant; UII is Registered

DETERMINE WHO IS RESPONSIBLE FOR UII UNIQUENESS

You may find instances where the Data Matrix is not encoded properly, yet the UII is registered. Since the UII is registered, you can retrieve the IUID data, which will identify the enterprise who is responsible for assuring the UII is unique. To do this, you must be registered for Controlled Access as a "Legacy Submitter", as described above in Chapter 2, under the Section entitled "Take Corrective Action" in Step 2 – Registering the UII.

Step 1 – Verify Responsible Enterprise was Required to Mark

Follow the procedures above in Chapter 2 under the Section entitled "Confirm the Non-Registration", Step 2 – Determine Who is Responsible for UII Uniqueness.

If the responsible enterprise was an internal DoD enterprise, then you can assume that marking was required without further investigation.

If the responsible enterprise was a contractor, follow the procedures in Chapter 2 under the Section entitled "Confirm the Non-Registration", Step 3 – Determine if Contractor Marking was Required.

Step 2 – Confirm Non-Compliance with the Responsible Enterprise

If you are able to get help from the cognizant contracting office, they can contact the contractor and confirm with them that the UII is not compliant. The reasons for marking a non-compliant UII should be obtained from the contractor at the same time.

For a legacy item UII mark that is non-compliant, you can contact the internal DoD enterprise identifier (usually DoDAAC or CAGE code) for confirmation that the UII is non-compliant.

REPORT THE NON-COMPLIANT MARK AND TAKE CORRECTIVE ACTION

Step 1 – Submit Product Quality Deficiency Report

A product quality deficiency is a defective or non-conforming condition which limits or prohibits the item from fulfilling its intended purpose. These include deficiencies in design, specification, materiel, manufacturing and workmanship. A non-compliant UII mark would be reportable. See Chapter 5, Reporting and Remediation of Contractor Non-Compliance.

Step 2 – Seek Permission from the Responsible Enterprise to Replace Mark with DoD-Complaint Mark

The responsible enterprise for the UII can either be a contractor or internal DoD enterprise.

If the responsible enterprise is a contractor, the item with a non-compliant UII mark will have been accepted by the Government. In this case, it falls on the Government to get the item's UII mark replaced with an IUID-compliant mark, unless the item is under a contractor warranty. If the item marking is covered under warranty, the item can be returned to the contractor to replace the non-compliant UII mark.

If you are able to get help from the cognizant contracting office, they can contact the contractor and request that the contractor replace the non-compliant UII mark. If the contractor does not agree to replace the mark, then the contractor should be notified that the Government will replace the non-compliant UII mark. The non-compliant mark should be removed or obliterated during the replacement process.

The cognizant contracting office can seek remedies to a contractor's failure to correctly mark. See Chapter 5,

Reporting and Remediation for Contractor Non-Compliance.

If the responsible enterprise is an internal DoD enterprise, then you can contact them and request that they replace the non-compliant UII mark. It will be their responsibility to do so. They will inform you what to do with the item.

Chapter 4

Data Matrix is not IUID Compliant; UII is not Registered

CONFIRM THE NON-COMPLIANCE AND NON-REGISTRATION

You may find instances where the Data Matrix is not encoded properly, and the UII is not registered. Since the UII is not registered, you can't retrieve the IUID data, which means you have to identify the enterprise that was responsible for UII uniqueness from the data in the UII mark.

Step 1 – Determine Who is Responsible for UII Uniqueness

The only way left to determine who is responsible for UII uniqueness is to try to deduce from the data elements in the mark a data qualifier for the responsible enterprise identifier. Consult Table 1 in Appendix A for a list of the enterprise identifiers.

If you can't identify the responsible enterprise, then you can take no further action.

Step 2 – Determine if Marking was Required

If you can identify the responsible enterprise for the item and it is a contractor, follow the procedures in Chapter 2 under the Section entitled "Confirm the Non-Registration", Step 3 – Determine if Contractor Marking was Required. If marking was not required, then you should take no further action.

If the responsible enterprise was an internal DoD enterprise, then you can assume that marking was required without further investigation.

Step 3 – Confirm UII Mark Non-Compliance and Non-Registration with the Responsible Enterprise

If you confirm that IUID marking is required, follow the procedures above in Chapter 3 under the Section entitled “Determine Who is Responsible for UII Uniqueness”, Step 2 – Confirm Non-compliance with the Responsible Enterprise, to confirm that the mark is non-compliant and is not registered.

REPORT THE NON-COMPLIANT AND UNREGISTERED MARK AND TAKE CORRECTIVE ACTION

Step 1 – Submit Product Quality Deficiency Report

Follow the procedures in Chapter 3, under the Section entitled “Report the Non-compliant Mark and Take Corrective Action”, Step 1 – Submit Product Quality Deficiency Report.

Step 2 – Seek Permission from the Responsible Enterprise to Replace and Register Mark with DoD-Compliant Mark

The responsible enterprise for the UII can either be a contractor or internal DoD enterprise.

To seek permission to replace the non-compliant mark, follow the procedures of in Chapter 3 under the Section entitled “Report the Non-Compliant Mark and Take Corrective Action”, Step 2 - Seek Permission from the Responsible Enterprise to Replace Mark with DoD-Compliant Mark.

To register the replacement mark, follow the procedures in Chapter 2 under the Section entitled “Take Corrective Action”, Step 2 – Registering the UII.

Chapter 5

Reporting and Remediation of Contractor Non-Compliance

Under terms of the contract, the contractor may be liable for damages to the Government if it does not do the work of correctly marking the UII on the item and registering the UII.

Step 1 – Report Contractor Non-Compliance

The purpose of reporting non-compliance is to determine the cause of supply discrepancies and product quality deficiencies, effect corrective action, prevent recurrence, and provide a measure for contractor past performance. Discrepancies in packaging, deficiencies in marking and registration should be reported

DoD 4000.25-M, Defense Logistics Management System (DLMS), contains procedures for reporting IUID package marking deficiencies found during shipping operations. Specifically, see C17.3.8, Discrepancies in IUID Data, and C19.15, UII RECEIPT DISCREPANCIES.

A non-compliant UII mark would be reportable under Code 1AE = IMPROPER MARKING on a Product Quality Deficiency Report (PQDR) in accordance with policy found in DLAR 4155.24/AR 702-7/SECNAVINST 4855.5B, AFR 74-6, Product Quality Deficiency Report Program.

Quality deficiencies reported via PQDR and supply discrepancies reported via SDR will be investigated within the Inventory Control Point (ICP)/ Integrated Materiel Manager (IMM) organization.

Step 2 – Notify the Cognizant Contracting Office

You should inform the cognizant contracting office of the cost to correct the contractor's failure to correctly mark the UII and/or register the UII. The contracting officer can then make a determination to recover the Government's cost of the contractor's non-compliance based on the merits of the case; and that is consistent with the contract terms.

Appendix A

Is This a Good UII Mark?

What Does a Data Matrix Look Like?

This is a Data Matrix¹⁴:



You can't tell what is encoded in this Data Matrix by looking at it with the naked eye.

How Do You Get Data From the Data Matrix?

You have to use a device, such as an imager or reader, to see the data.

When you scan this Data Matrix, this is the "raw read" that you will see on the output screen unless your scanner is set to show other than the raw read:

```
[>0617V955421P788R330G01S3050R
```

This is a good Data Matrix.¹⁵

How Do I Decipher the Message String?

First, you have to understand the structure of the string. In the string shown above:

- The "[>" is the Compliance Indicator that tells you the message string uses the formats of ISO/IEC 15434.
- The "06" is the format indicator that says the data elements are tagged with Data Identifiers (DIs).

¹⁴ This example is an actual UII that is registered in the DoD IUID Registry.

¹⁵ The square symbol is the scanner's depiction of an unprintable ASCII character that is used to separate the data elements in the message string. The symbol used may vary among scanner manufacturers.

- The "17V" is the DI for CAGE code and its value is 95542. This is the enterprise identifier of the enterprise responsible for assuring the uniqueness of the UII.
- The "1P" is the DI for Original Part Number and its value is 788R330G01.
- The "S" is the DI for Serial Number within the Original Part Number and its value is 3050R.

Second, you have to understand that three different format indicators from ISO/IEC 15434 can be used:

- Format Indicator "05" stands for Application Identifiers (AIs)
- Format Indicator "06" stands for Data Identifiers (AIs)
- Format Indicator "12" stands for Text Element Identifiers (TEIs)

Each format indicator has its own unique data qualifiers for tagging data elements in the message string. Table 1 shows the permissible data qualifiers for each format indicator for each UII data element.

UII Data Elements	Data Identifiers (DIs)	Application Identifiers (AIs)	Text Element Identifiers (TEIs)
Enterprise Identifiers: CAGE/NCAGE DUNS GS1 Company Prefix DoDAAC Other Agencies	17V 12V 3V 7L 18V	- - - - -	MFR, SPL or CAG DUN EUC - -
Serial Number within Enterprise Identifier	-	-	SER or UCN
Serial Number within Original Part Number (or Serial Number within Lot/Batch number)	S	-	SEQ
Original Part Number	1P	-	PNO
Lot/Batch Number	1T	-	LOT, LTN or BII
UII Data Elements	Data Identifiers (DIs)	Application Identifiers (AIs)	Text Element Identifiers (TEIs)
IUID using a Single Data Qualifier for the UII	25S		UID
UII not including the IAC (CAGE + Serial Number within CAGE)	18S	- - -	USN or UST
IUID Equivalents: VIN ESN GRAI GIAI	I 22S	8002 8003 8004	- - - -
Current Part Number (additional data element - not used in UII)	30P	-	PNR
Current Lot/Batch Number (additional data element - not used in UII)	30T	-	-

Table 1. Data Qualifiers for UII Data Elements

Third, you have to understand that the UII can be in any one of three different constructs:

- Construct #1 – Serialization within the Enterprise Identifier. Figure 11 is an example of a Construct #1 using format indicator 12 for TEIs.



Figure 11. Construct #1 with TEIs

- Construct #2 – Serialization within the Original Part, Lot or Batch Number within the Enterprise Identifier.

Figure 12 is an example of a Construct #2 using format indicator 06 for DIs.

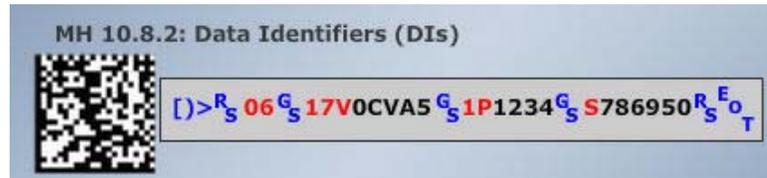


Figure 12. Construct #2 With DIs

- DoD IUID Equivalent – An item unique identification method that is in commercial use and has been recognized by DoD. Figure 13 is an example of a DoD recognized IUID Equivalent using format indicator 05 for AIs.



Figure 13. DoD IUID Equivalent with AIs

Based on the 11,760,356 UIIs registered as of November 12, 2010, approximately 4 out of 5 are Construct #2, 1 out of 5 are Construct #1, and 1 out of 53,000 are DoD IUID Equivalents. This means that the odds are that you will be looking at a Construct #2 UII in 4 out of 5 cases.

Appendix B

DoD IUID Registry Capabilities

ITEM UNIQUE IDENTIFICATION

IUID

Registry

What can the DoD IUID Registry data tell me?

The IUID Registry website features the following queries and reports:



- ✓ Single Item Query: Provides the user with the pedigree or "birth record" of the item, as well as composition, mark, lifecycle, and custody information.
- ✓ Contract Query: Provides the user with all the Unique Item Identifiers (UIIs) delivered on a specific acquisition contract as of a specific date.
- ✓ Composition Query: Provides the user with the composition (parent and/or child item) information for a specific item.
- ✓ GFP Custody by Contract Query: Provides the user with a list of Government Furnished Property (GFP) items furnished under a specific custodial contract as of a specific date.
- ✓ GFP Custody by CAGE/DUNS Query: Provides the user with a list of all GFP items furnished to a contractor. Queries can be submitted using either the Commercial and Government Entity (CAGE) or the Data Universal Numbering System (DUNS).
- ✓ Mark Query: Provides the user with a list of all items having a physical mark matching those in the request.
- ✓ Pedigree Query: Provides the user with a list of items matching a requested serial number, part number, lot/batch number, and/or enterprise identifier as part of the UII's pedigree elements.
- ✓ Part Number Query: Provides the user with a list of items that have the requested part number.
- ✓ GFP Reconciliation Query: Provides the user with a list of GFP items provided to the requested contractor CAGE or DUNS and the current custodial status of the items.
- ✓ Active Part/Serial/Batch/Lot Number Query: Provides the user the most current part number, batch/lot number, serial number and description for each item matching the requested criteria.
- ✓ GFP Summary by Contract Report: Provides the user with a summary count and value of GFP items associated with the contract number requested.
- ✓ GFP Summary by Contractor Report: Provides the user with a summary count and value of GFP items provided to a contractor using the CAGE or DUNS.




<https://www.bpn.gov/iuid>

1

ITEM UNIQUE IDENTIFICATION IUID Registry

Are there other ways of receiving large amounts of data?



The IUID Registry has several Application Program Interfaces (APIs) available to users. Many of these APIs are publicly available, but some require a secure system user account and password just like individual users receive for the IUID Registry website. The IUID Registry API Software User Manual is located at http://www.bpn.gov/iuidapi2/IUID_Reg_API_Guide_SUM.doc.

The list of currently available APIs includes:

- ✓ UII Verification: Allows a user system to verify if a specific UII is already in the system.
- ✓ UII Retrieval from Elements: Allows a user system to retrieve the matching UII (if found) for each set of pedigree data provided. A set of pedigree data requires the enterprise identifier and serial number, and may include the part number and/or batch/lot number.
- ✓ UII Validation: Allows a user system to verify lists of UIIs are correctly constructed.
- ✓ Elements Retrieval from UII: Allows a user system to retrieve UII elements for a list of UIIs submitted.
- ✓ UII Retrieval from Marks: Allows a user system to retrieve UII matching the Mark Section data requested.
- ✓ Warranty: Allows a user system to retrieve simple warranty information. This is being expanded to include more comprehensive warranty data.
- ✓ General Purpose API (secure): Allows a government-user system to retrieve specific data for UIIs submitted. Requires a Controlled Access account.
- ✓ General Purpose API for Industry (secure): Allows an industry-user system to retrieve specific data for UIIs for which the contractor is the Prime or Custodial Contractor. Requires a Controlled Access account.

How accurate is the data in the DoD IUID Registry?

Acquisition data is subject to about 150 validations and legacy data approximately 120 validations. Updates to UIIs already in the Registry are processed with 110 validations. Ninety-five percent of the data in the Registry comes via the GEX – from WAWF data feeds, or through flat file or XML submission. WAWF and GEX also add their own validations. The use of automatic identification technology (AIT) such as scanners and imagers further reduces “fat finger” data entry errors.

Errors are still a possibility, and so the Registry allows users to make corrections for 60 days after original item entry. Additionally, as soon as the Registry staff is alerted to a data issue, research begins and a correction process is initiated. Common sense and real data both indicate that as validations and training increases, user data entry error decreases.



<https://www.bpn.gov/iuid>