

Army

Unit Level Item Unique
identification (IUID)

Validation/Sustainment
Instructions

5 Nov 13

Proponent: Army Materiel Command (AMC) G-3/4

Table of Contents

1. Introduction.....	3
2. Validation Phase I (Categorized as Unmarked)	3
3. Validation Phase II (Validation of existing IUID marks).....	4
Appendix A: Using the EDL, create a text file of NIINs to generate AIW Total Army PBUSE Report....	6
Appendix B: Generate a Total Army PBUSE report using the list of NIINs from the LOGSA provided EDL.....	12
Appendix C: Querying AIW to identify if equipment has an existing UII in the DoD registry.....	15
Appendix D: Analyze Total Army PBUSE IUID Report.....	18
a. Equipment not physically marked, there is no UII indicator in PBUSE, and no UII in the DoD Registry.....	18
b. Equipment not physically marked but a UII indicator set in PBUSE and/or UII exists in the DoD Registry.....	18
c. Equipment physically marked but UII indicator is not set in PBUSE and there is no UII in the DoD Registry.....	19
d. Equipment does not have a physical mark, UII indicator is not set (serial number highlighted in PBUSE) but a UII is found in the DoD registry.....	20
e. Equipment is physically marked but the IUID mark is not readable and the UII indicator is set in PBUSE.....	20
Appendix E: Ordering IUID Compliant Replacement (Sustainment) Labels	
Appendix F: Applying Replacement (Sustainment) IUID Labels.....	24
Appendix G: Tips on Unique Item Identifier (UII) Mark and Building the Concatenated UII.....	27

1. Introduction

a. The purpose of the Validation Phase is to ensure all items requiring IUID are marked with a machine readable IUID label, the IUID information is registered in the DoD registry, and the IUID data is published in PBUSE.

b. The Validation is done in two different phases:

a. **Validation Phase I- Items categorized as unmarked per Total Army PBUSE Report**

b. **Validation Phase II – Validation of existing IUID marks**

c. This document provides instructions on how to determine that IUID labels previously applied and applied during marking phase, are registered and making the connection between PBUSE and the DoD registry. Additionally, there are steps to verify existing IUID labels and order replacement labels for IUID marks that have become unreadable. It is not necessary to complete Phase I to begin scanning IUID marks for Phase II. IUID marks on equipment reflected on the Total Army PBUSE Report can be validated simultaneously with Phase I.

NOTE:

Units must have their PBUSE AIT installed and operational to complete this phase.

d. AMC, G-3/4 will provide initial Equipment Detail List (EDL) and the Total Army PBUSE Report.

1) The Equipment Detail List (EDL) is a current list of items that are required to be marked based on current IUID business rules.

2) The “Total Army PBUSE Report” identifies equipment as having a UII in PBUSE and if the UII is registered.

2. Validation Phase I (Categorized as Unmarked)

Phase I of validation requires units to work items on the Total Army PBUSE report with an "N" in the "UII IN PBUSE" and "UII Registered" columns. An “N” in the "UII IN PBUSE" column indicates the item does not have an IUID mark or data associated with the existing mark is incorrect. An “N” in the "UII Registered" columns indicates the UII in PBUSE is not registered. This equipment will require data cleansing, research and validation of existing IUID marks (See Appendix G).

a. Units must determine why items have no UII in PBUSE or why the UII is not registered. (See Appendix G for conditions and recommended procedures to rectify these conditions).

1) Perform data cleansing IAW AMC Data Cleansing Guide.

2) Check item for UII mark.

(a) If there is no IUID mark, order labels IAW Unit Level Marking SOP

(b) If the item is marked, verify serial number on data plate matches Property Book (should have been accomplished in Data Cleansing).

(1) If serial number does not match Property Book, correct the Property Book to reflect correct serial number.

(2) If serial number matches the Property Book, send the UII raw scan to Ms Sanders. Research is required to determine disconnect (see APPENDIX G for instructions on how to search the DOD registry).

b. Return the EDL to Ms Sanders (usarmy.redstone.usamc.mbx.iuid@mail.mil) once data cleansing has been conducted. Please rename EDL by adding Validation to the beginning of the file (i.e. Validation 196th Infantry EDL (W36KAA)).

3. Validation Phase II (Validation of existing IUID marks)

a. This Validation Phase requires units validate existing IUID labels on every piece of equipment that has been identified as having an IUID label. During this process the objective is to validate the correct IUID label is on the correct piece of equipment and that the IUID label is machine readable.

b. The initial "Total Army PBUSE Report" is provided in the email packet (see Appendix A for instruction for producing additional Total Army PBUSE Report as required). The "Total Army PBUSE Report" identifies items having an UII in PBUSE and the UII is registered in the DoD Registry. "UII IN PBUSE" or "UII Registered" columns are populated with either a "Y" or "N". Items populated with a "Y" in both "UII IN PBUSE" and "UII Registered" columns, have an UII listed in PBUSE and is registered in the DoD Registry. Items with a "Y" in the "UII IN PBUSE" and an "N" in UII Registered require additional research to determine why PBUSE is not making the connection to the DoD registry (see conditions in Appendix D). Items with an "N" in both columns indicate the equipment is not marked or, data in PBUSE is incorrect or, data associated with the UII is incorrect. These items will require data cleansing, research and validation of marking (see conditions in Appendix D).

c. Filter Total Army PBUSE Report on "UII in PBUSE" and "UII Registered" columns so that only the "N" is displayed. These are items that should have been identified in Phase I above.

d. Filter Total Army PBUSE Report so that "UII in PBUSE" column reflects Y and "UII Registered" column reflects N. This report identifies items that have a UII in PBUSE but are NOT making the connection with the DoD Registry (see conditions in Appendix D).

e. Filter Total Army PBUSE Report on "UII in PBUSE" and "UII Registered" columns so that only the "Y" is displayed. This report identifies items that have a UII in PBUSE and are making the connection with the DoD Registry. This list of items can be used to begin the validation scans during Phase II.

f. During scanning process there maybe some errors that occur, there are several types of errors and different action that needs to be taken for those errors.

1) Label will not scan – unreadable (order replacement label, see Appendix D)

2) Label scans but IUID is not loaded in PBUSE – further research required (see conditions in Appendix D).

3) Syntax Error- Many need to check PBUSE to AIT SYNC

g. After all equipment IUID labels are scanned, compare the scan report to the Total Army PBUSE report. If all IUID labels can be scanned with no errors, report back to AMC G-4 completion of Phase II of validation.

h. PBUSE will produce an Error listing of those items that scanned and are not on the property book and those items that were not scanned. Review this error listing and correct these items if required.

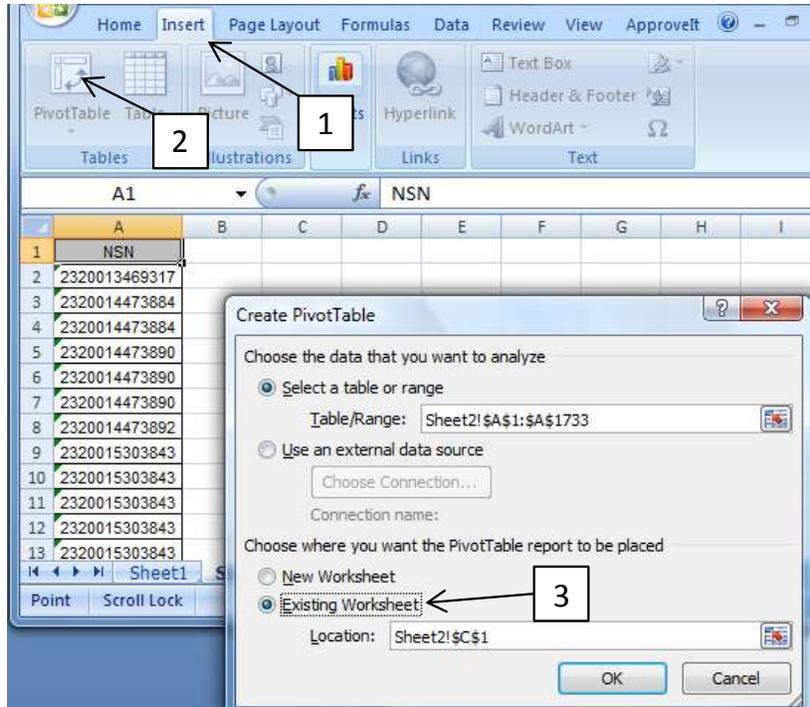
Appendix A

Create a text file of NIINs (to generate a Total Army PBUSE Report). Using LOGSA provided Equipment Detail List (EDL):

1. Open LOGSA provided Equipment Detail List (List is provided from AMC to the ACOM/ASCC/DRU point of contact).
 - a. Open a new worksheet by selecting “Insert Worksheet tab (1) at the bottom of the current worksheet.
 - b. Copy and paste NSN column (column F) into the new worksheet.

A	B	C	D	E	F	G	H
LIN	SUBLIN	MODEL	SERIAL_NUM	PART_NUM	NSN	NOMEN	REG_NUM
T41271		M1087A1	VE-111987BGFT	87T0046	2320015303843	TRK CARGO M1087A1	NL1RZK
T41271		M1087A1	VE-111989BGFT	87T0046	2320015303843	TRK CARGO M1087A1	NL1RZM
T41515		M1083A1P2WOW	B-D701432EHBV	87T0141	2320015498610	TRK CGO 5 TON WO/W	NL21KR
T95924		M1102	15464	6636	2330013875426	TLR CGO HI MOB 11/4T	PC0NA3
T95992		M1101	18006	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZSD
T95924	T95992	M1101	18007	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZSE
T95992		M1101	18010	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZSH
T95992		M1101	18019	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZSS
T95992		M1101	18047	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZTL
T95992		M1101	18052	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZTR
T95992		M1101	18062	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZU1
T95992		M1101	18084	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZUP
T95992		M1101	18100	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZV5
T95992		M1101	18111	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZVG
T95992		M1101	18116	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZVM
T95992		M1101	18129	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZW0
T95997		M1101	18130	7192	2330013875443	TLR CGO HI MOB 3/4T	NW1ZW1

- c. Select the NSN header (cell A1) and then select Insert (1), PivotTable (2).
- d. In Create PivotTable window, select Existing Worksheet (3).
- e. Select a cell (cell 1C has been selected in the screen shot)
- f. Select OK in Create PivotTable window

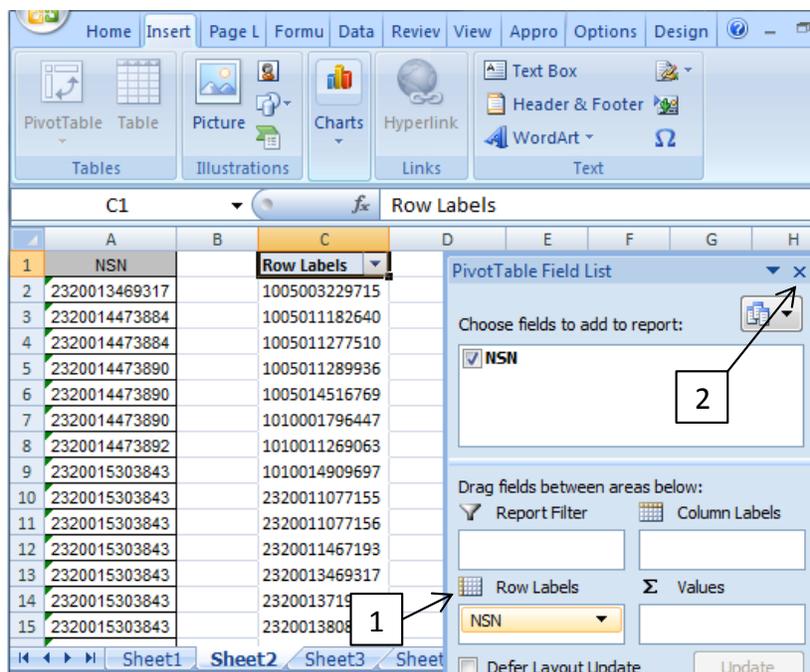


g. In Pivot Table Field List, click on NSN and drag and drop in Row Labels (1); this step eliminates all duplicate NSNs.

NOTE:

If NSN converts to a formula, select all and format as a number (with no decimal places)

h. Close PivotTable Field List (2).



i. Copy Row Labels list (highlight cell 1C to end of list but do not include Grand Total) just created into another column (column E is used in example).

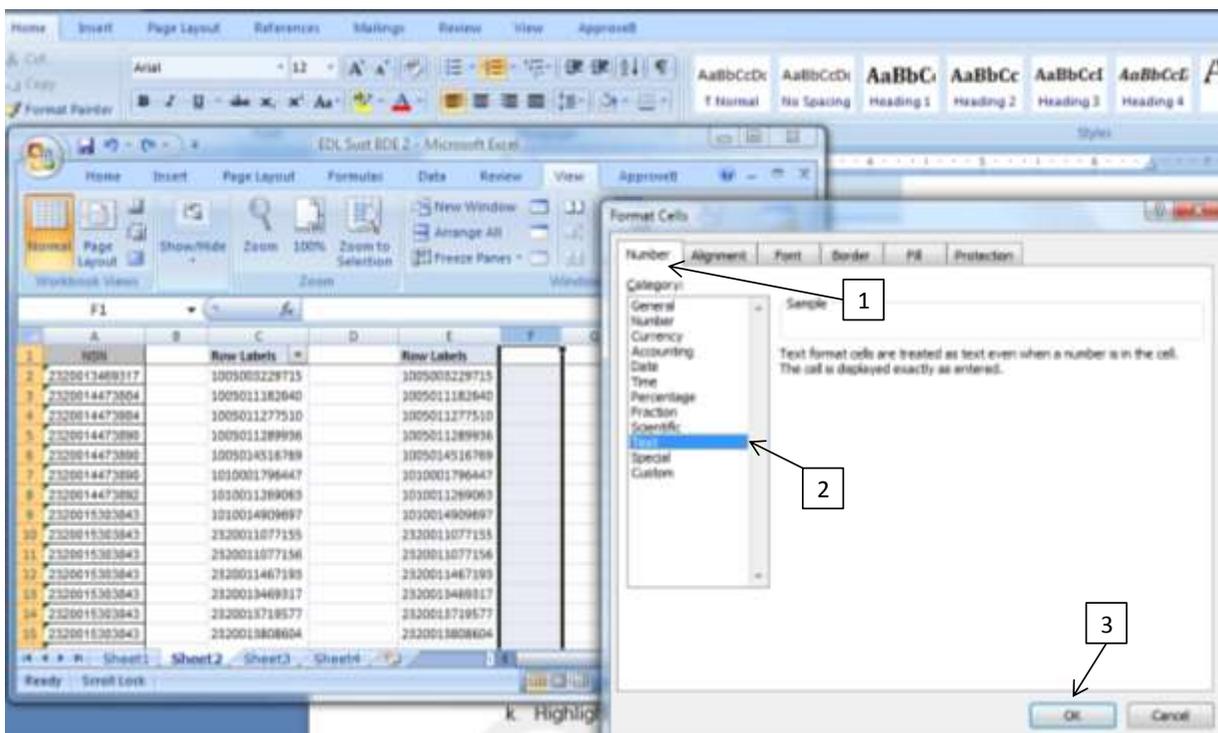
NOTE:

When you perform Text to Columns (next steps) and separate the FSC from the NIIN, the column the NIIN in moving to MUST be in “Text” format or leading zeros will be removed.

j. Copy Row Labels list (highlight cell 1C to end of list but do not include Grand Total) just created into another column (column E is used in example).

k. Highlight Column F, right mouse click on column F.

l. In Format Cells box, select Number tab (1), then select Text (2), then OK (3).

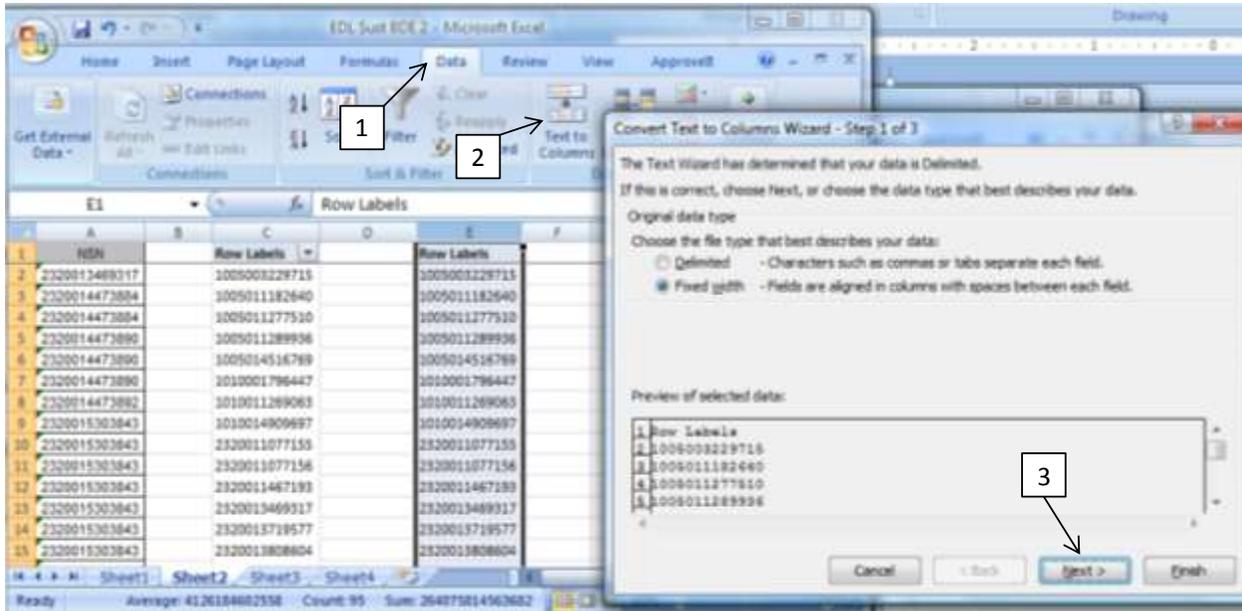


m. In Format Cells box, select Number tab (1), then select Text (2), then OK (3).

n. With column E highlighted, Select Data (1), Text to Columns (2)

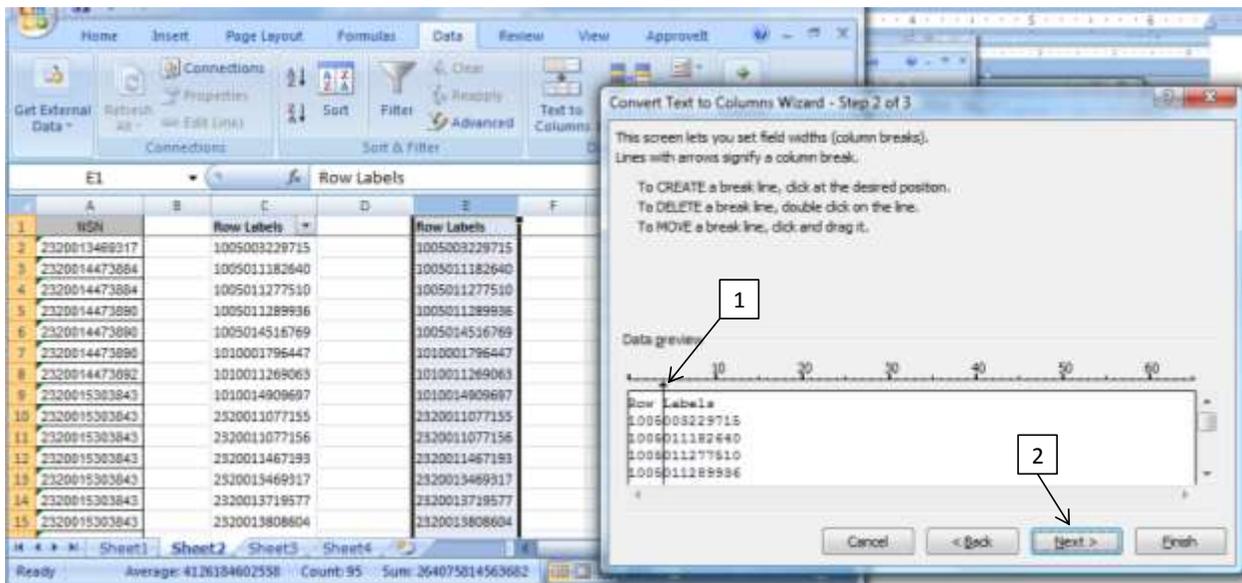
o. In Convert Text to Columns Wizard box, select Fixed width (3)

p. Select Next



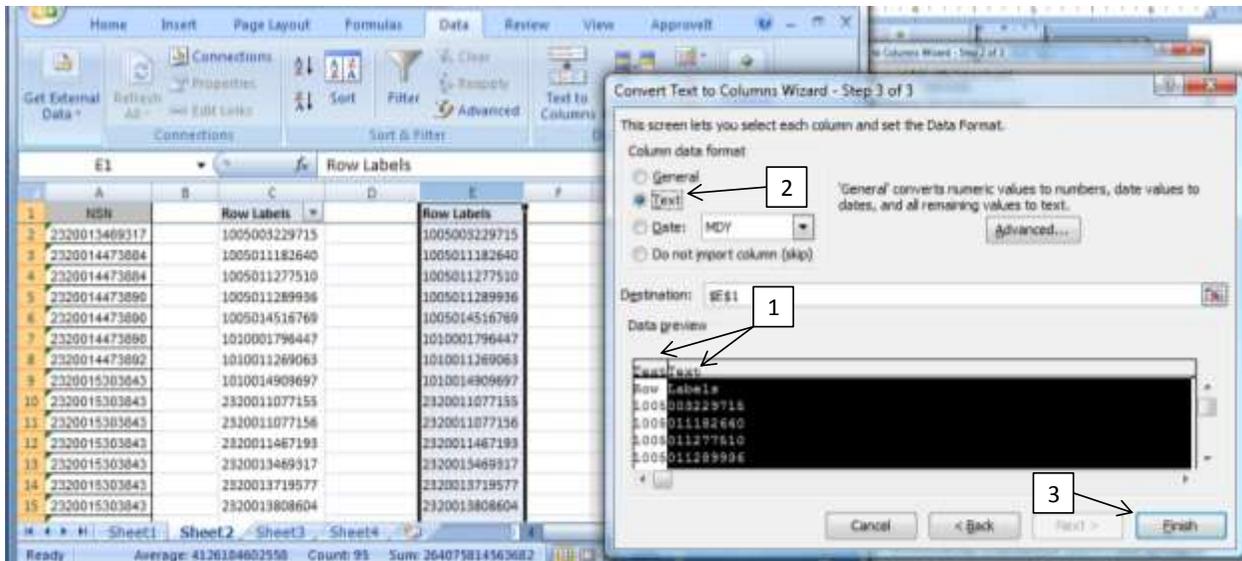
q. In Convert Text to Columns Wizard box, click between FSC and NIIN to create a line, indicating where new columns will be created (1).

r. Select Next (2).

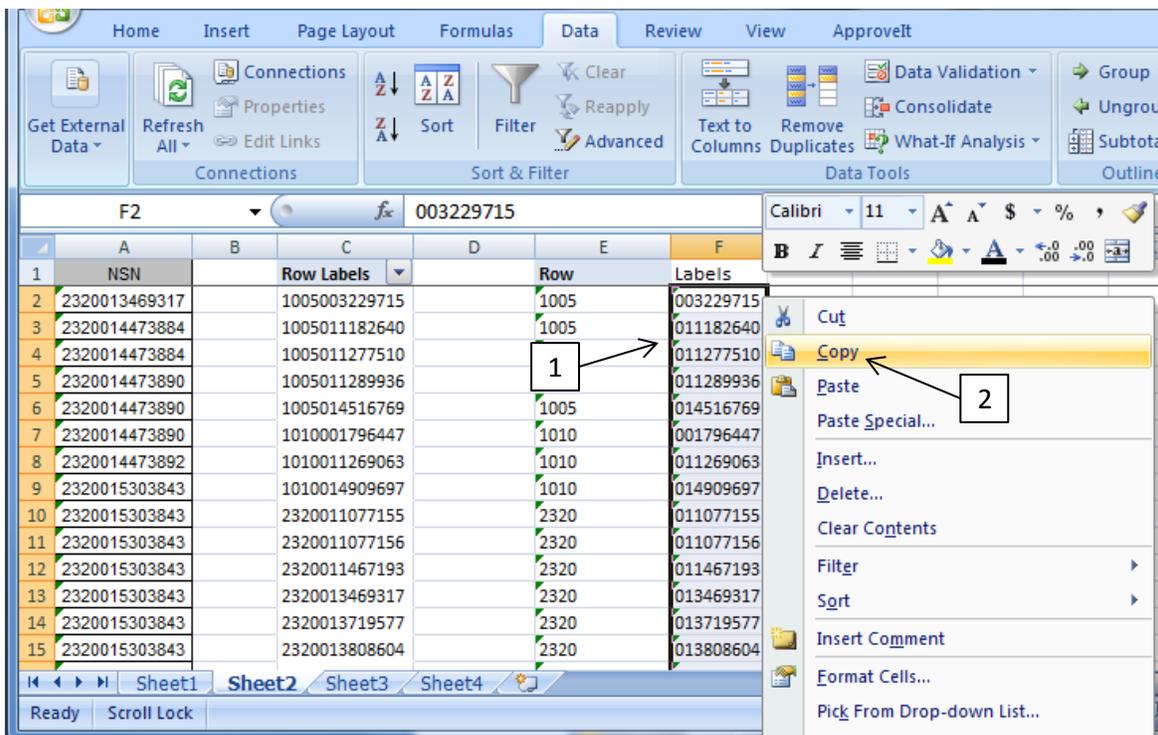


s. In Convert Text to Columns Wizard box, select each section (Row and Labels) (1) and select Text for Column data format (2).

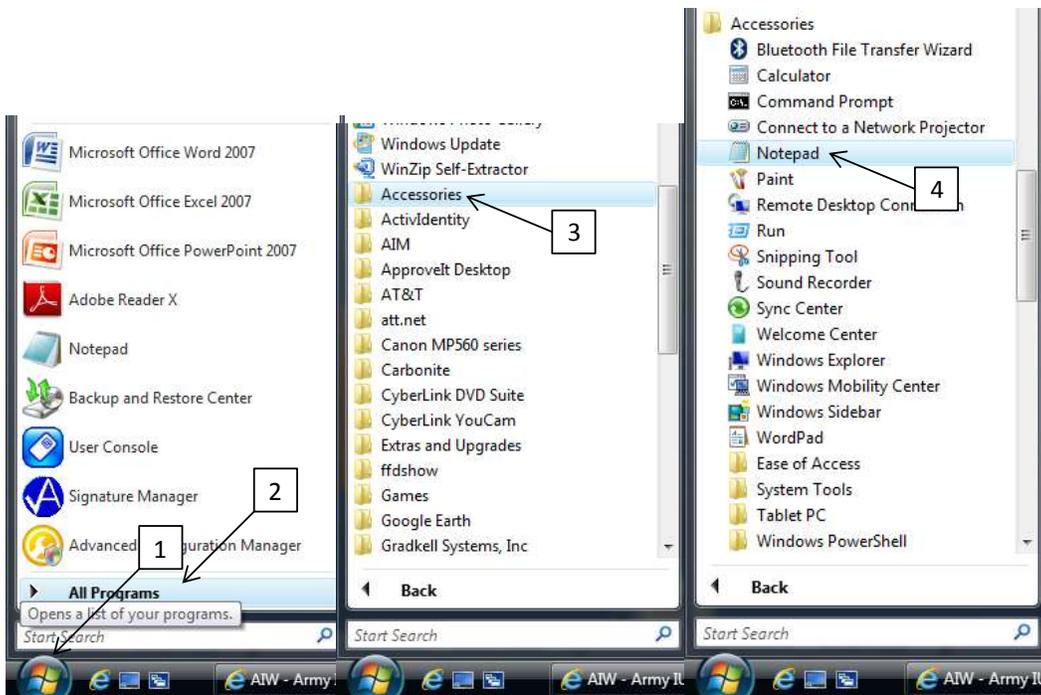
t. Select Finish (3).



- u. In the column with NIINs (column F), highlight all NIINs (1).
- v. Right mouse click highlighted cells and select copy (2). NIINs will be pasted in Notepad.

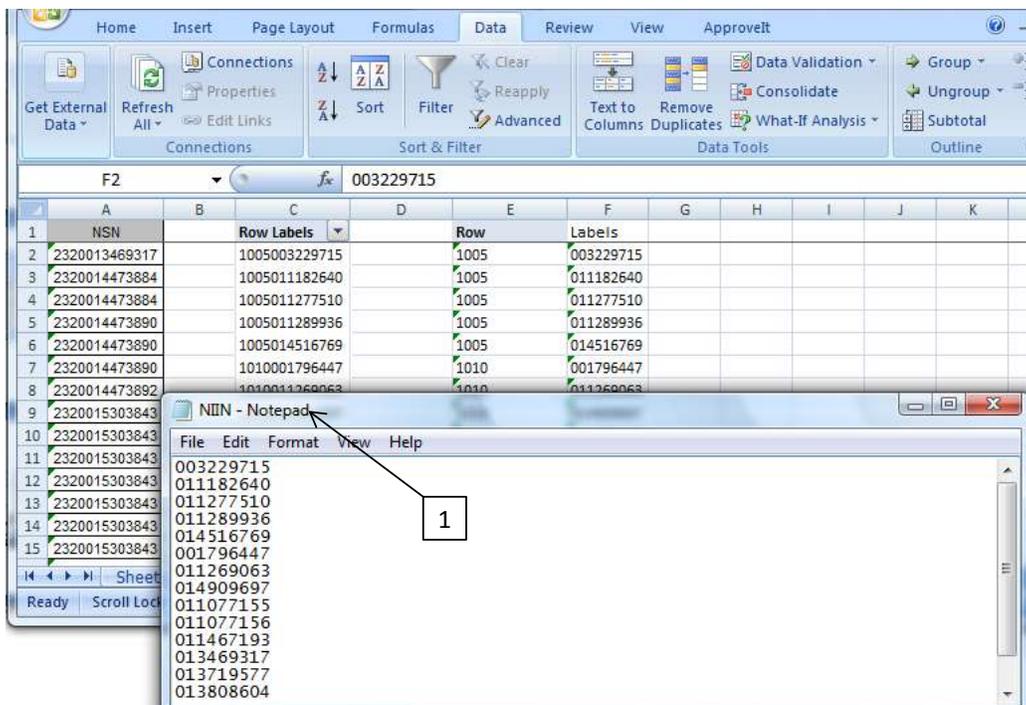


- w. To open Notepad click on Start (1), select All Programs (2), then select Accessories (3), then select Notepad (4).



x. Paste NIINs into Notepad.

y. Save Notepad file to your computer where you can find it to import into AIW (screen shot indicates I saved as NIIN (1) and I saved file to desktop)



z. The NIINs are now ready to be imported into AIW (Total Army PBUSE Report).

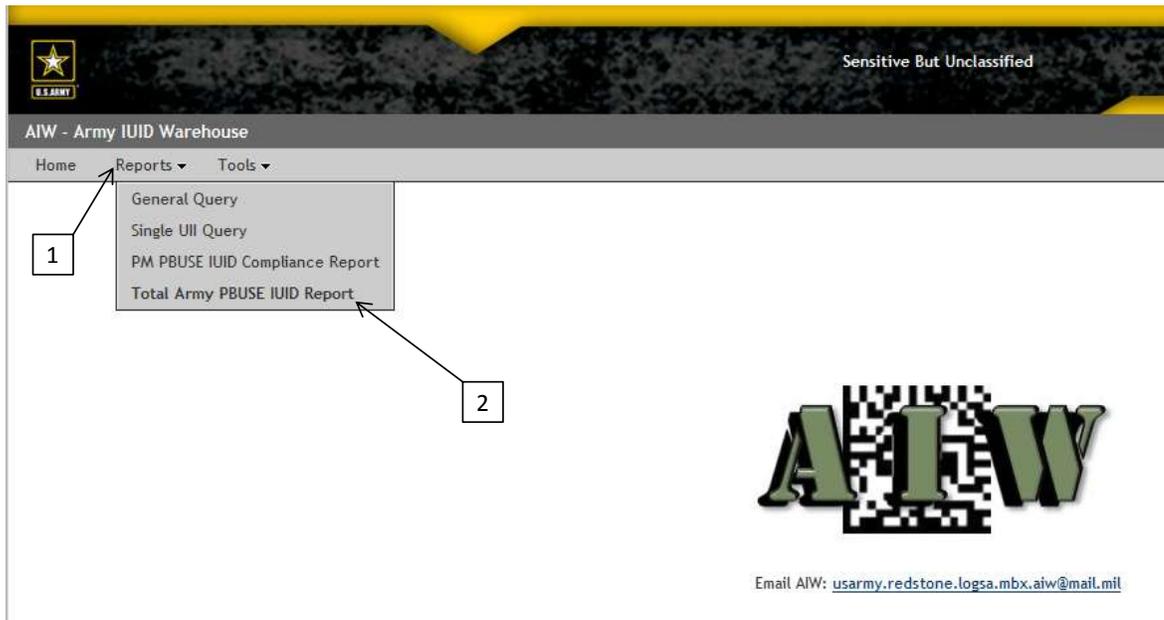
Appendix B

Generate a Total Army PBUSE report using the list of NIINs from the LOGSA provided EDL

1. Unit personnel will run the Army IUID Warehouse (AIW) Total Army PBUSE IUID Report using the Equipment Detail List (EDL) NSNs. To be able to generate this report, you have to create a text file of the NIINs requiring IUID to import into AIW. The list of NIINs can be created from the last AMC provided EDL

2. Generate Army IUID Warehouse (AIW) Total Army PBUSE IUID Report.

a. In AIW, select Reports (1), Total Army PBUSE IUID Report (2).



b. In Total Army PBUSE IUID Report, select Unit Task Organization Force Tree (1).

c. Find unit in Force Tree Selection (2) and check associated box or type in UIC in Force Tree Search (3).

NOTE:

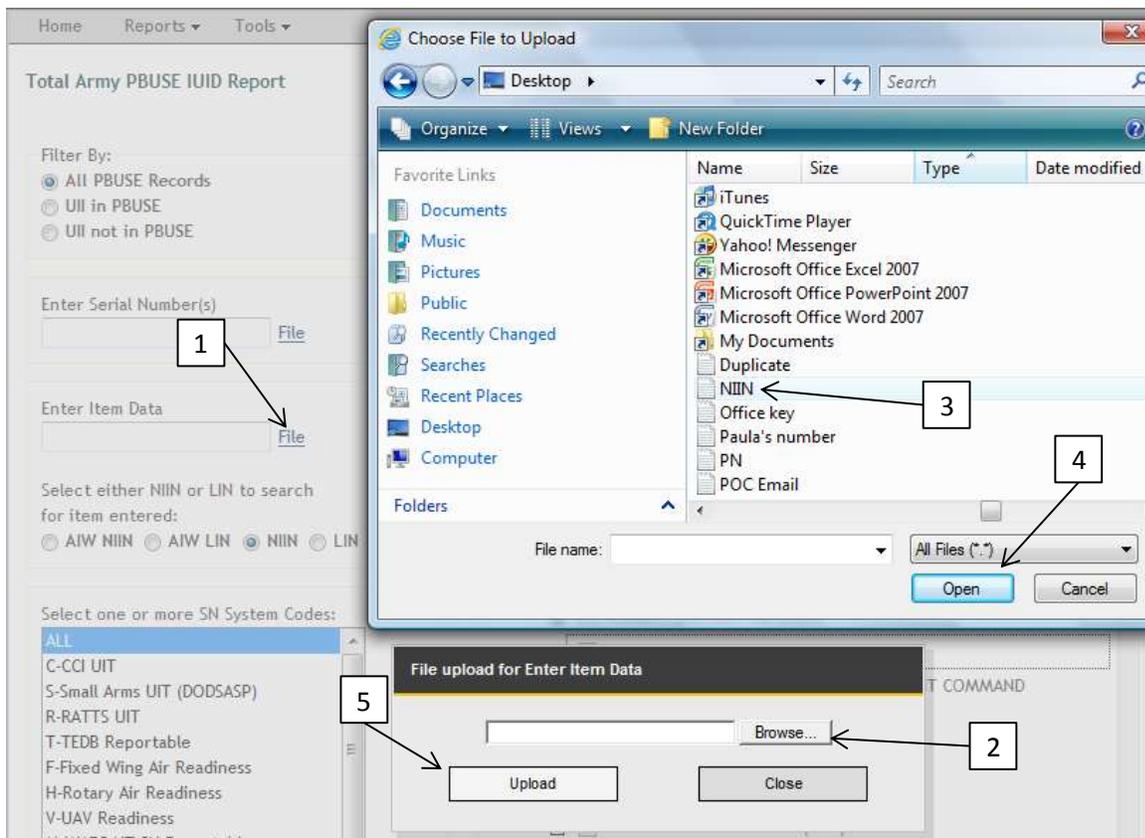
In the example, 82d Sustainment Brigade was selected and found in the Force Tree under FORSCOM, XVIII ABN Corps.

d. Select File for Enter Item Number (1)

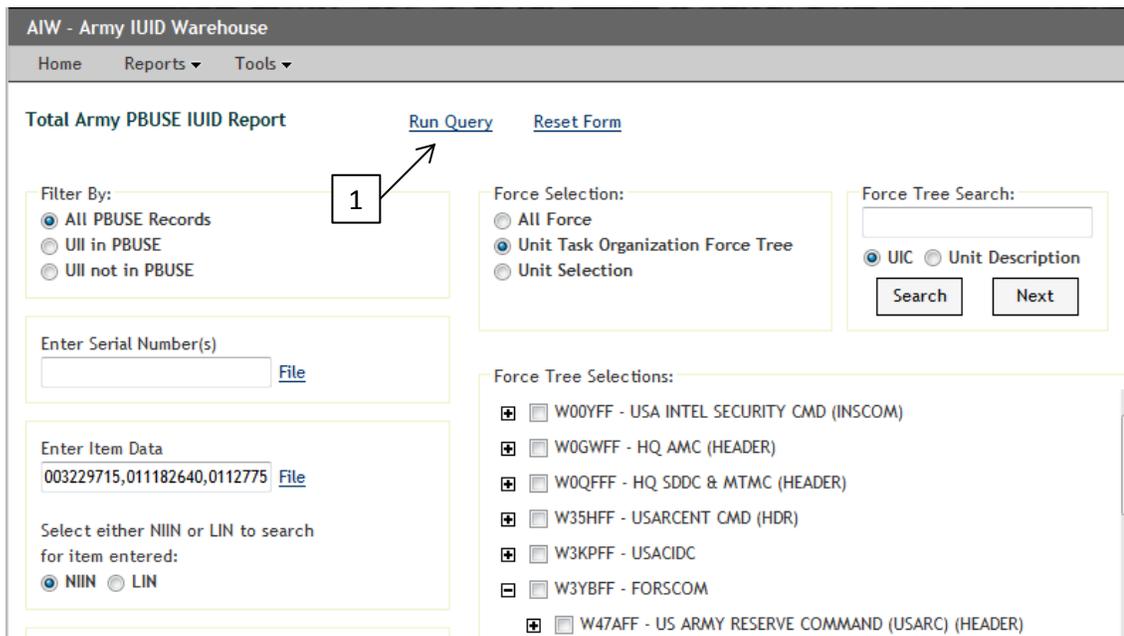
e. Select Browse (2) and locate Text file saved from Text to Column steps above.

f. Select saved file (NIIN in screen shot (3)) and then select Open (4).

g. Select Upload (5).



h. Select Run Query (1).



i. Follow screen instructions to Export to Excel and save as a file.

Total Army PBUSE IUID Report

[Export to Excel](#) [Edit Report](#)

Report Criteria Selections

Total Rows returned: 553

Rows displayed: 250

1

LIN	R/SR	SRC	UNIT DESCRIPTION	SERIAL NUMBER	REGISTRATION NUMBER	LAST UPDATE	UIC	UIC W PDU/SE	UIC REGISTERED	SN SVL CODE
L44595	1010001790447	WHSCAA	18 HRC	301303		2013-06-26	DNDM711830703301303	Y	Y	S
L44595	1010001790447	WHSCAA	18 HRC	306478		2013-12-18		N	N	S
L44595	1010001790447	WHSCAA	18 HRC	44221		2012-12-18		N	N	S
L44595	1010001790447	WHSCAA	18 HRC	44881		2013-06-25	DNDM71183070344681	Y	Y	S
L44595	1010001790447	WCFZAA	17B SK CO	26289		2013-06-26	DNDM71183070328289	Y	Y	S
L44595	1010001790447	WCFZAA	17B SK CO	62177		2013-06-25	DNDM71183070362177	Y	Y	S
L44595	1010001790447	WCFZAA	17B SK CO	08827		2013-06-26	DNDM71183070358827	Y	Y	S
L44595	1010001790447	WH3CA2	B DET 82 FMC	179121		2013-06-26	DNDM711830703179121	Y	Y	S
L44595	1010001790447	WABEAA	82 SB	94900		2013-06-25	DNDM71183070394900	Y	Y	S
L44595	1010001790447	WH3CA2	B DET 82 FMC	5461		2013-06-26	DNDM7118307035461	Y	Y	S
L44595	1010001790447	WH3CA2	B DET 82 FMC	112830		2013-06-26	DNDM711830703112830	Y	Y	S
L44595	1010001790447	WH3CHD	HHO 82 FMC REAR	27926		2013-06-26	DNDM71183070327926	Y	Y	S
L44595	1010001790447	WH3CB1	A DET 82 FMC REAR	34742		2013-06-26	DNDM71183070334742	Y	Y	S
L44595	1010001790447	WH3CB1	A DET 82 FMC REAR	4325		2013-06-26	DNDM7118307034325	Y	Y	S
L44595	1010001790447	WH3CB1	A DET 82 FMC REAR	07453		2013-06-26	DNDM71183070307453	Y	Y	S
L44595	1010001790447	WHSCAA	18 HRC	27995		2013-06-26	DNDM71183070327995	Y	Y	S

Appendix C

Determine if equipment has an existing UII in the DoD registry.

In this example, we are using a Launcher, Grenade M320A1, SN 254-020148. The Grenade Launcher did not have an IUID mark on it and the Total Army PBUSE Report indicated N for UII in PBUSE and N for UII Registered.

Using AIW General Query:

1. Perform General Query Report in the Logistics Information Warehouse (LIW), Army Item Unique Identification Warehouse (AIW) application.

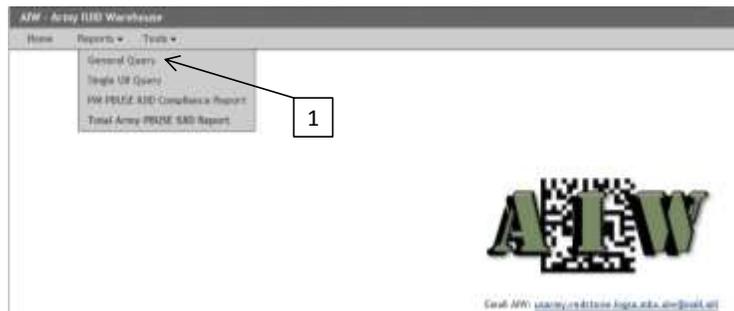
NOTE:

The AIW General Query, using the equipment serial number, assumes that the serial number used in the query is correct and that a UII in the DoD Registry has data elements associated with the equipment serial number.

- a. Access AIW (1) within the LIW.

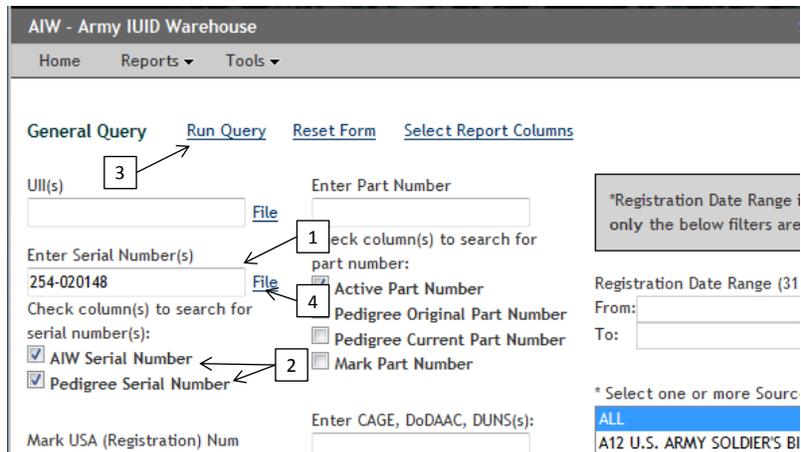


- b. In Reports, select General Query (1).



c. Enter the serial number of the item in the Enter Serial Number(s) block (1) and select Run Query (2). If multiple SNs for the same NSN need to be checked, a txt file containing the serial numbers can be uploaded by selecting File (3) next to Enter Serial Number(s) block.

- d. Ensure both AIW Serial Number and Pedigree Serial Number boxes are checked (4).



Note:

The more complex the serial number, the fewer number of UIIs will be returned.

e. The query will return information that could possibly identify the item as having a UII in the DoD Registry. If it is determined the item does not have a UII in the DoD Registry order a new IUID label IAW Unit Level Marking SOP.

Note:

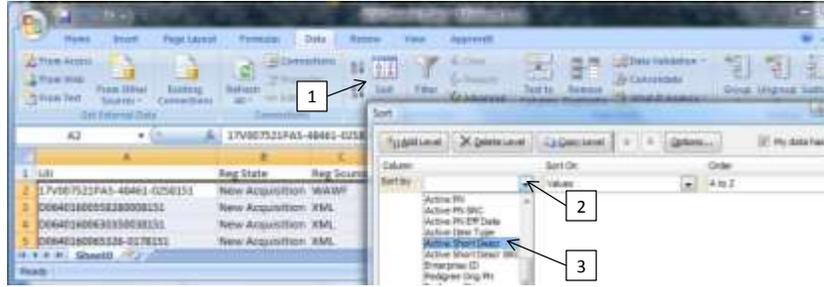
In some instances, weapons are in the registry as the receiver (serialized component of the weapon) and require an update to the UII information. Contact MCDS Help Desk at E-mail: data2410@redstone.army.mil; Commercial Phone 256-313-2410 or DSN 897-2410 to update UII information.

2. Identify if a UII exists for the equipment by determining if the report returned a UII for the same equipment.

a. If more UIIs are returned than can be scrolled through to identify the equipment, export the report to Excel by selecting Export to Excel (1) and selecting Open (2) to open in Excel.



b. In Excel, select Sort (1), Sort by (2), and select Active Short Descr (3). This will group all like items together and make it easier to identify an existing UII.



3. Identify if a UII exists for the equipment.

a. Scroll through the spreadsheet, looking for the description of the equipment. The item can also be verified with the AIW NSN, and AIW NSN Nomenclature.

Appendix D

Analyze Total Army PBUSE IUID Report systemic issues between PBUSE and the DoD Registry; Conditions.

i. Condition: Equipment not physically marked, there is no UII indicator in PBUSE (serial number highlighted), and no UII in the DoD Registry.

(1). Analysis of the Total Army PBUSE IUID Report for this condition requires physical inspection of the equipment to determine if a physical mark exists and verification of equipment information (serial number). Equipment with no physical IUID mark, no UII indicator in PBUSE, and no UII in the DoD Registry will require the unit to request a new IUID label.

(a). Physical inspection verifies that the equipment is not physically marked.

(b). Review of PBUSE record identifies UII indicator is not set in PBUSE (serial number highlighted). The AIW Total Army PBUSE report could also be generated to identify if PBUSE has a UII associated with the item (Appendix B).

(c). Generate an AIW General Query to identify if a UII exists in the DoD Registry for the equipment (Appendix C)

(d). If the equipment is identified as not having a IUID mark physically applied, there is no UII indicator in PBUSE, or a UII could not be found in the DoD Registry, request a new IUID label IAW Unit Marking SOP.

j. Condition: Equipment not physically marked but a UII indicator set in PBUSE and/or UII exists in the DoD Registry.

(1). Analysis of the Total Army PBUSE IUID Report indicates a UII is in PBUSE (Y) but the UII is not registered (N). The report also provides an entry in the UII column PBUSE is identifying as the UII. In this example, NIIN 013469317 has the UII indicator set to “Y” and UII registered “N” with an entry in the UII column of D192078750236578151.

1	A	B	C	D	E	F	G	H	I	J
	LIN	NIIN	LIC	UNIT DESCRIPTION	SERIAL NUMBER	REGISTRATION NUMBER	LAST_UPDATE	UII	UII IN PBUSE	UII REGISTERED
2064	P99881	5820015644845	WHSCAA	18 HRC	94861		2012-12-30		N	N
2065	P99881	5820015644845	WHSCAA	18 HRC	A130231		2012-12-30		N	N
2067	T82494	2320013469317	WABCAA	82 SB	378143	NI3PBT	2012-02-23	D192078750236578143	Y	N
2068	T82494	2320013469317	WABCAA	82 SB	378143	NI3PBT	2012-02-23	D192078750236578143	Y	N
2069	T82494	2320013469317	WESCAA	249 CS	378149	NI3PBT	2012-02-23	D192078750236578149	Y	N
2089	T82494	2320013469317	WESCAA	HHC 130 ACB	378141	NI3PBT	2012-06-13	378141	Y	N
2090	T82494	2320013469317	WESCAA	HHC 130 ACB	378141	NI3PBT	2012-06-13	378141	Y	N

(a) Inspect equipment to verify if an IUID mark is physically applied. For this example, the inspection of the equipment found no IUID mark physically applied.

(b) Query AIW to identify if there is an existing UII in the DoD registry for the equipment (Appendix B). The AIW Total Army PBUSE Report identified a UII existing in PBUSE but not registered (this could happen by a fielding team using PBUSE upload tool, or a scan of existing IUID

mark). We must determine if there is a UII in the DoD Registry for the same item but may have been constructed differently (different enterprise identifier (CAGE), different part number, or different Construct).

NOTE:

The AIW General Query, using the equipment serial number, assumes that the serial number used in the query is correct and that a UII in the DoD Registry has data elements associated with the equipment serial number.

1. Generate an AIW General Query, using the serial number of the equipment, to identify if a UII exists in the DoD Registry (Appendix B).

2. Verify the report returned a UII for the same equipment.

(c) If the report did NOT identify an existing UII for the equipment, order an IUID label IAW Unit Marking SOP.

(d) If the report identified an existing UII for the equipment, order a replacement IUID label for that specific UII IAW Appendix D of this guide.

c. Condition: Equipment physically marked but UII indicator is not set in PBUSE and there is no UII in the DoD Registry. During this phase, it is presumed that the PBUSE AIT is installed and operational.

(1). For this condition, a physical inspection of the equipment data plate is required to verify PBUSE information. If a piece of equipment is marked, there are three issues that could cause the PBUSE to IUID Registry disconnect.

(a). Equipment information in PBUSE is incorrect.

(b). UII created with incorrect equipment information or improper syntax.

(c). The IUID mark is not registered.

(2). If the inspection of the equipment data plate verifies equipment information in PBUSE is not correct, perform the necessary PBUSE Administrative Adjustment Report (AAR) to correct.

(a). After 72 hrs (3 working days) of completing PBUSE AAR, validate equipment indicates UII in PBUSE and UII registered by running the AIW Total Army PBUSE report.

(b). If, after 3 working days of completing PBUSE AAR, the UII indicator in AIW Total Army PBUSE Report reflects a "N" for UII in PBUSE, contact MCDS IUID Help Desk at E-mail: data2410@redstone.army.mil; Commercial Phone 256-313-2410 or DSN 897-2410.

(3). If the inspection of the equipment data plate verifies equipment information in PBUSE is correct, perform a scan of the IUID mark to capture the raw data.

(a). Clean the IUID mark with a clean damp cloth, and then try scanning.

(b). If, after two attempts to clean and scan the mark the IUID mark is still unreadable, contact MCDS IUID Help Desk at E-mail: data2410@redstone.army.mil; Commercial Phone 256-313-2410 or DSN 897-2410.

(4). Contact MCDS IUID Help Desk at E-mail - data2410@redstone.army.mil; Commercial Phone - 256-313-2410 or DSN 897-2410; Commercial Fax - 256-313-2075, DSN 897-2075 to have existing UII registered. When contacting the MCDS Help Desk, have the following available if possible:

- (a). Raw data from the scanned IUID mark.
- (b). Item Serial Number and National Stock Number/Non-Standard Stock Number.
- (c). Clear, digital photo of the IUID mark and item data plate (if unable to scan).

d. Condition: Equipment does not have a physical mark, UII indicator is not set (serial number highlighted) in PBUSE but a UII is found in the DoD registry.

(1). It is very rare that an item would not have a physical IUID mark but a UII in the registry exists. For this condition, equipment could have been found to have a UII in the DoD registry by searching on the equipment serial number and identified by the Active Short Description. In some instances, manufacturers use a part number that is not catalogued in FLIS/FEDLOG which cause the PBUSE/DoD Registry disconnect. To identify if there is an existing UII in the DoD registry for an item, perform the steps outlined in Appendix B.

(2). If a UII is found in the DoD Registry, order a replacement IUID label for that specific UII IAW Appendix D.

(3). When received, apply replacement IUID label IAW Appendix E.

e. Condition: Equipment is physically marked but the IUID mark is not readable and the UII indicator is set in PBUSE.

(1). In many instances, existing IUID marks have been on the equipment since 2004. If an IUID mark is identified by the PBUSE AIT as being unreadable, the property book personnel needs to identify what the existing UII is and order a replacement. The AIW Total Army PBUSE Report generated in paragraph 2 will provide the UII information for the IUID label that has become unreadable. To ensure the UII identified in the AIW Total Army PBUSE Report is registered, input the UII into AIW general query IAW Appendix C.

(2). If the UII is verified to be in the DoD Registry, order a replacement IUID label for that specific UII IAW Appendix D.

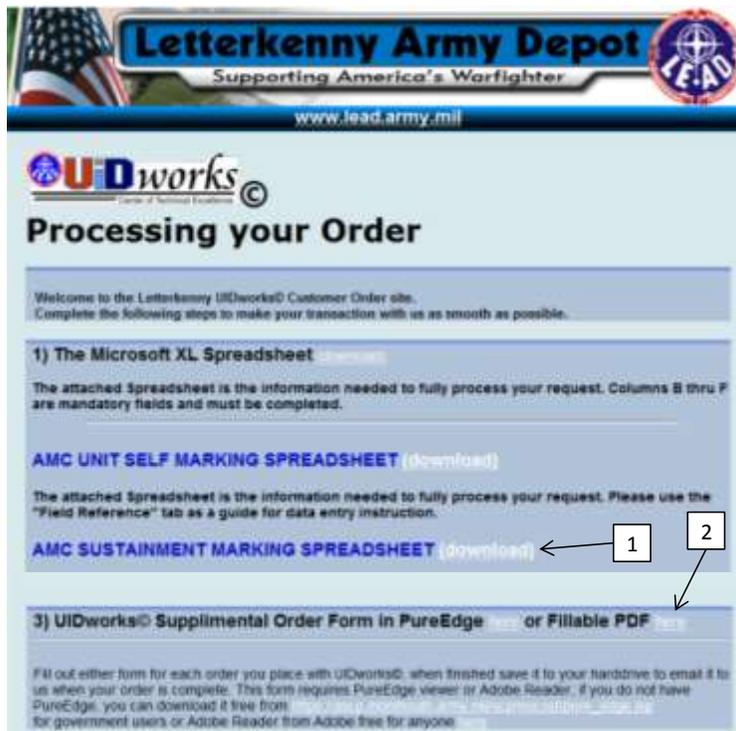
(3). When received, apply replacement IUID label IAW Appendix E.

Appendix E

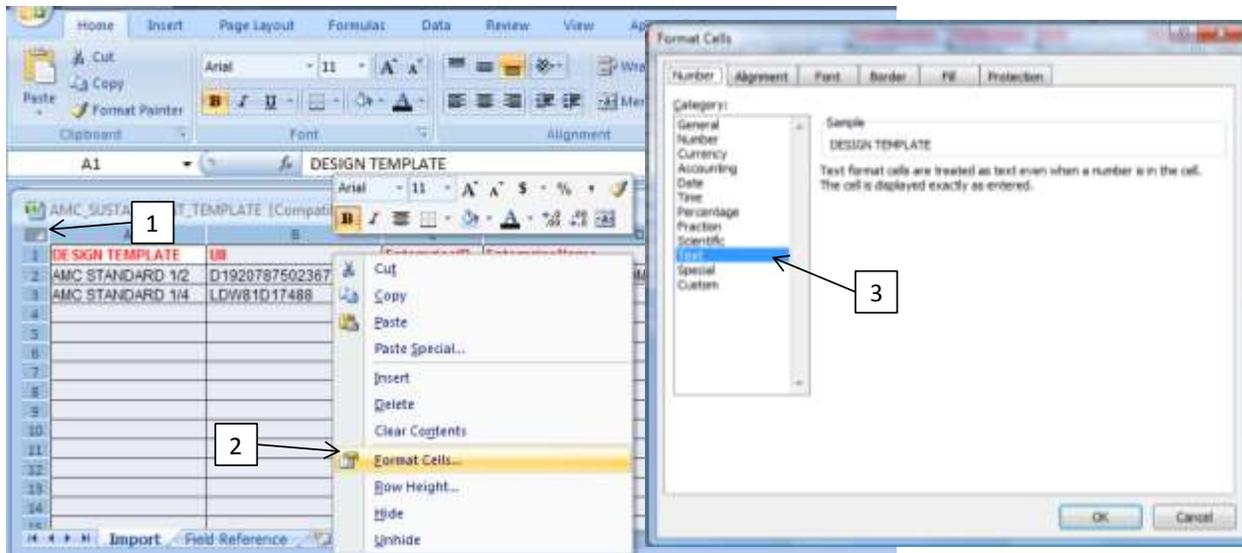
Ordering IUID Compliant Replacement (Sustainment) Labels

1. During the Marking Phase, IUID labels were ordered for equipment identified as not having an existing IUID mark, either on the equipment or in the DoD Registry. In this, the Validation/Sustainment Phase, IUID labels will be ordered for equipment having existing IUID marks but have been identified as unreadable. An unreadable situation could have been caused by damage to the IUID mark or incorrect encoding in the mark (syntax). Additionally, IUID labels will be ordered for equipment identified as having a UII in PBUSE or the DoD Registry but the equipment does not have a physical IUID mark on it. The following procedures are used to order replacement IUID labels.

a. (1). To order a replacement IUID label, go to Letterkenny UIDWoks site at <http://www.letterkenny.army.mil/UIDworks/howto.html> and download the AMC Sustainment Marking Spreadsheet (1) and the UIDworks Supplemental Order Form (2).



b. Open the Sustainment Marking Spreadsheet, select all (1) and format (2) spreadsheet as Text (2).



c. Complete columns A-L. There are two rows of examples that must be deleted prior to submitting the order.

1) Determine the IUID label size required and enter in column A (1/2" is used for everything except for Pistol, Flute, Piccolo, etc).

2) The UII entered in column B is the UII found in Total Army PBUSE IUID Report or UII identified during AIW search. In this example the entry would be D192078750236578151. (the unconcatenated UII would be 0617V192071P8750236S578151 that would have been identified if scanned)

3) Enter the Enterprise ID in column C (To understand how a UII is constructed, refer to Appendix F). In this example the Enterprise ID is 19207. In a raw scan, depending on the construct used, the Enterprise ID is between the 17V and 1P data separators (Construct 2 using Data Identifier (DI) of 06).

4) Enter the Enterprise Name in column D. The Enterprise Name can be found by pasting the Enterprise ID in CAGE Code Search of the following link http://www.dlis.dla.mil/cage_welcome.asp. In this example, it returns U S ARMY TANK AUTOMOTIVE COMMAND.



5) Enter the Serial Number in column E (To understand how a UII is constructed, refer to Appendix F). In this example the serial number is 578151. In a raw scan, the Serial Number is after the S data separator.

6) Enter the Part Number in column F (To understand how a UII is constructed, refer to Appendix F). In this example, the UII is a Construct 2 and will have a part number where a Construct 1

UII will contain only the Enterprise ID and the UII serial number (not necessarily the serial number of the equipment). The part number in this example is 8750236. In a raw scan, the Part number will be between the 1P and S data separators.

7) Enter the NSN in column G. The NSN is the NSN from the Total Army PBUSE IUID Report. In this example the NSN is 2320013469317.

8) Enter Nomenclature in column H. The Nomenclature can be found in FEDLOG/FLIS. In this example, the Nomenclature is TRUCK, UTILITY.

9) Enter Registration Number in column I. The Registration Number should be verified using the equipment data plate. In this example, the Registration Number is NZ3P91.

10) Enter the unit Entity Status (Guard, Active, Reserve) in column J. In this example, ACTIVE.

11) Enter the UIC of the unit who is requesting the label in column K. In this example, the UIC is WCMRAA.

12) Enter AMC SUSTAINMENT MARKING in Type Program, column L. This is the default entry and will be in every row on the Sustainment order Form.

2. Complete the Supplemental Order Form.

Note:

The only information required on the Supplemental Order Form is the label quantity and ship to address.

a. Add the total labels being ordered in Label Quantity (1) and Ship to address in Shipping Information (2).

The image shows a screenshot of the "UID Works Supplemental Order Form". The form is titled "UID Works Supplemental Order Form" in bold black text. It contains several sections with input fields and checkboxes. A blue highlight covers the "Label Quantity" field, with a callout box containing the number "1" and an arrow pointing to it. Another blue highlight covers the "Address 1" field, with a callout box containing the number "2" and an arrow pointing to it. The form includes sections for "Adhesive?", "Shipping Information", and "Shipping Method".

2. Submit Sustainment Order Form and Supplemental Order Form to usarmy.lead.usamc.mbx.uidworkslead@mail.mil.

Appendix F

Applying Replacement (Sustainment) IUID Labels

1. Replacement IUID labels will be applied directly over existing IUID marks when incorporated as part of the data plate or, removing existing IUID mark when made of a label type material (Tesa) in accordance with current “seek & apply” instructions for the item being marked.
2. To apply the replacement IUID label over the existing IUID mark that is incorporated as part of the data plate, follow procedures outlined in paragraph 5 below.
3. To apply the replacement IUID label, replacing an existing label, you must remove the existing IUID label. To remove the existing IUID label from the equipment, perform the following steps:

WARNING



Chemical solvents can be harmful. Use chemicals in a well ventilated area and wear protective gloves to avoid injury. Refer to chemicals Material Safety Data Sheet (MSDS) for specific safe handling procedures. Failure to comply may result in injury to personnel.

For current MSDS: <http://www.setonresourcecenter.com/msdshazcom/htdocs/>

NOTE

Some residual adhesive may remain on equipment.

Materials/Parts

Acetone/Alcohol
Latex Gloves

Materials/Parts-cont.

Lint Free Cloth
Plastic Scraper

- a. Apply acetone or alcohol (at least 95% strength) using a lint free cloth.
 - b. Use plastic scraper to remove label by holding scraper at approximately 30 degrees from the surface of the label and pushing scraper so that it slides between the surface of equipment and label.
 - c. Slowly remove label from equipment, being sure not to scratch the surface of equipment. For residual adhesive remaining on equipment, wipe area with Acetone or Alcohol until all residue is removed.
4. To determine proper placement of a replacement IUID label (when replacing an existing IUID label and NOT a IUID mark incorporated as part of the data plate):
 - a. Using a web browser, go to <https://tamms-a.redstone.army.mil/>.

b. Search for seek & apply instructions using the item's NSN or Part Number.

c. If instructions exist for the item, the search will return a link to view/download the instructions. Follow the instructions to apply the IUID label. Otherwise:

1) If there is sufficient space on the data plate to apply the label without covering any existing "Human Readable" information, place the label on the data plate (see Figure 0-1, Position A). Otherwise...

2) Place the label adjacent to data plate at upper right corner (see Figure 0-1, Position B). If space is not sufficient to apply the label there...

3) Place the label adjacent to data plate at lower right corner (see Figure 0-1, Position C). If space is not sufficient to apply the label there...

4) Place the label adjacent to data plate at upper left corner (see Figure 0-1, Position D). If space is not sufficient to apply the label there...

5) Place the label adjacent to data plate at lower left corner (Figure 0-1, Position E).

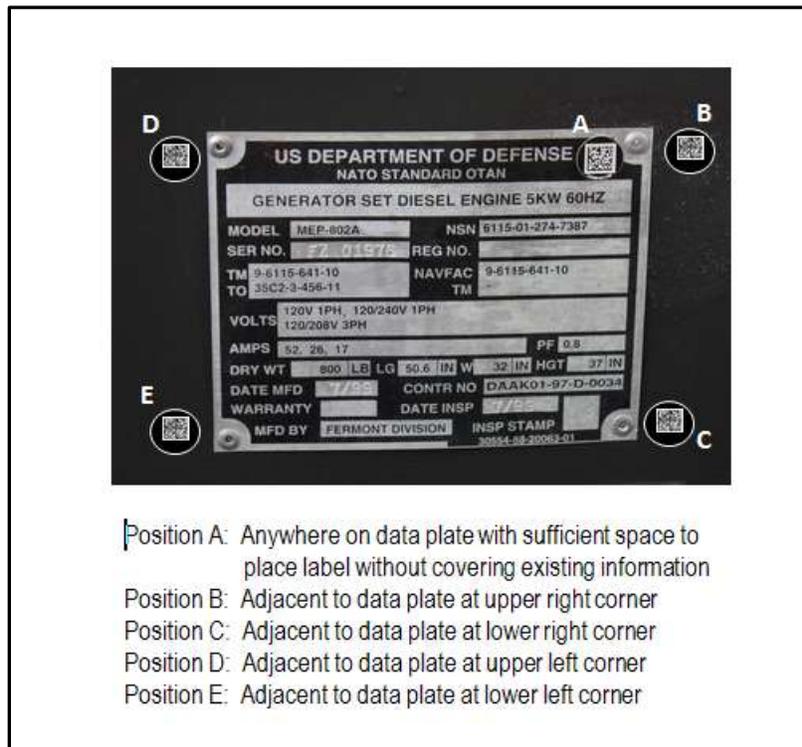


Figure 0-1: Label Placement

5. To apply the replacement IUID label:

NOTE:

Label material, Tesa® Secure™ 6973, MUST be applied to a clean/dry surface. Manufacturer recommends an ambient temperature greater than 50 degrees F and allow adhesive to cure for eight (8) hours following application. Colder ambient temperature increases adhesive curing time.

- a. Inspect the surface of the material to which the label will be applied.
- b. Ensure that the area is clean and oil free. Isopropyl alcohol must be used to clean the application zone. Alcohol concentrations of 90% or higher are preferred over lower concentrations (minimum is 70%).
- c. Wipe the area to remove any residue and allow to completely dry before applying the label. Do not continue to use the same area on the cloth used to clean the surface.

NOTE:

The label material contains a fragmenting, tamper-proof feature that does not allow the label to be removed in one piece once applied. Use caution when affixing the label as it will be destroyed upon any attempt to reposition once adhered to the component.

- d. Select the correct label for the item being marked. Labels provided by Letterkenny Army Depot will have Nomenclature, Part Number and Serial Number printed on the label. Verify that the information on the label selected, matches the corresponding item to be marked.
- e. Once the correct label has been selected, peel the round (or rounded square) label from backing by bending and lifting at the edge using tweezers. Do not touch the adhesive backing, as oils from skin may prevent the label from adhering properly to the surface.
- f. Apply pressure by rubbing the label surface to thoroughly activate the adhesive.
- g. Label Cure Time: Label manufacturer recommends label cure time of 8 hours at 50 degrees or higher and without exposure to liquids or impact. Colder temperature will affect curing time and exposure to liquids must be avoided during curing.

Appendix G

Tips on Encoding the Unique Item Identifier (UII) Mark and Building the Concatenated UII:

An accurate understanding of the UII is based on the use of precise terms in written and verbal communications. Some terms that should be used when referring to the UII are as follows:

“Concatenated UII” designates: (a) the resulting data string when the data elements in a IUID mark have been stripped of all data qualifiers and linked (concatenated) along with an issuing agency code, or (b) the resulting data string when the data qualifiers have been removed from the already concatenated DoD recognized IUID equivalents or a fully concatenated UII encoded in a IUID mark.

“IUID mark” designates the physical representation of the 2D matrix when attached to the item for unique identification purposes.

The Basics:

First, as stated previously, the UII is a set of data elements that is encoded in a Data Matrix symbol with Error Correction Code 200.

Second, the set of data elements you will have to encode is driven by the method used to uniquely identify the item. The item can be uniquely identified by a Construct #1, serialization within the enterprise identifier; a Construct #2, serialization within the original part, lot or batch number.

Third, a data qualifier must identify each encoded data element in the Data Matrix Symbol. A data qualifier is basically the name for the data element. The data qualifier itself is represented by a code.

Fourth, the data elements used to uniquely identify the item must be precisely encoded in the Data Matrix ECC 200 symbol in a message string, which is assembled to comply with the syntax formats of ISO/IEC 15434, Transfer Syntax for High Capacity Automatic Data Capture Media. Syntax format is just a fancy way of saying the way words are put together to form a construction, such as a phrase.

Fifth, the concatenated UII has to be formed in a prescribed way if it is not already an equivalent or a fully concatenated UII and transmitted to the IUID Registry.

What is a Data Matrix:

Data Matrix symbols have a checkerboard appearance, with each uniformly spaced square shaped cell corresponding to a data bit. They are constructed of a mosaic of light and dark elements that must all be read before any characters can be recognized. Data Matrix symbols are encoded with binary code requiring an imager to read them. A Data Matrix looks like this.



How Do We Name UII Data Elements:

Data qualifiers are used to name data elements. These data qualifiers have to define each data element placed in the UII. Specific data qualifiers are used to tell the imaging devices whether to read the UII by using Construct #1, Construct #2, an already concatenated UII format, or an IUID equivalent. Table 1 shows the different data qualifiers for each of the data elements that are used for determining uniqueness.

Data Element	DI (Format 06) ISO/IEC 15434	AI (Format 05) ISO/IEC 15434	TEI ATA CSDD
Enterprise Identifier			
CAGE/NCAGE	17V		
DUNS	12V		
GS1 Company Prefix	3V		CAG, MFR or SPL8
DoDAAC	7L		DUN
Other Agencies	18V	95	EUC
Serial Number within Enterprise Identifier			SER or UCN
Serial Number within Original Part Number	S	21	SEQ
Original Part Number	1P	1	PNO
Lot/Batch Number	1T	10	LOT, LTN or BII
Concatenated UIIs	25S	8002	UID
	I	8003	
	22S	8004	
UII not including the IAC (CAGE + Serial Number within CAGE)	18S		USN or UST
Current Part Number	30P	240	PNR

Table 1. Data Qualifiers

Which Data Qualifiers Are Used With Which Construct or Equivalent:

Table 2 shows which data qualifiers are used with which construct or DoD recognized equivalent.

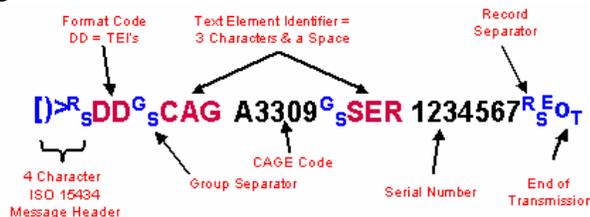
Data Qualifiers	Construct #1	Construct #2	DoD Recognized IUID Equivalents
Data Identifiers	18S 25S	17V, 12V, 3V, 18V 1P or 1T S	I 22S
Application Identifiers		95 01 or 10 21	8002 8003 8004
Text Element Identifiers	CAG, MFR or SPL, DUN, EUC SER or UCN USN or UST	CAG, MFR or SPL, DUN, EUC PNO, LOT or BII SEQ UID	

Table 2. Data Qualifiers and Their Usage by Constructs/Equivalents

What is Syntax:

Each data string is assembled beginning with a message header consisting of the compliance indicator and a record separator. The compliance indicator is the ASCII code for the three characters [,), and > which are assembled in that order—[]>. The record separator that follows the compliance indicator is also an ASCII-coded character but it does not have a printable representation. The convention for depicting the record separator uses RS to represent the single ASCII-coded character. Because the record separator also appears at the end of the formatted data in the data string, it is known as the format trailer character.

There are two other ASCII-coded characters that are used in UII encoding that do not have printable representations. They are the data element separator—GS—and the message trailer character—EOT. The decimal ASCII codes for of RS, GS, and EoT are 30, 29 and 4 respectively. The hexadecimal codes are 1E, 1D and 4 respectively. The message header is followed by a two-character format code to identify the semantics of the formatted data elements. The format code, the data qualifiers and the data values in the remainder of the data string are separated using the data element separator— GS —between each element of the formatted data. The formatted data is terminated using the format trailer character— RS —after the last data element, and the data string is terminated using the message trailer character— EOT—to indicate the end. Figure 1 shows UII data elements encoded in ISO/IEC 15434 syntax.



Note: This example uses construct #1 with Text Element Identifiers (TEI).

Figure 1. IUID Mark ISO/IEC 15434 Syntax Example

When the UII data elements are concatenated, the IAC “D” for CAGE is added and the text element identifiers are stripped out to yield the concatenated UII as: DA33091234567.

Building an IUID Mark and Concatenate the UII:

These are the data elements we have:

(a) Enterprise Identifier – CAGE 98897, (b) Original Part Number – 4L0014-163B, and (c) Serial Number – SA10197.

Assigning data qualifiers. We’ll use data identifiers (DI). The DI for CAGE is 17V, 1P for original part number, and S for serial number within the original part number.

Now we attach the DIs to the front of the data elements and this gives us the values that we will encode in the message syntax that goes in the Data Matrix. This operation results in the following values to encode:

Enterprise Identifier – 17V98897

Original Part Number – 1P4L0014-163B

Serial Number – SSA10197

Notice that there are no spaces or any characters separating the DI from the data values. Remember that we are using DIs, so the format code we use will tell the imager to get ready to read data fields that are defined by DIs. In this instance we are using format code 06.

We are now ready to put together our message syntax:

```
[ ]>RS06GS17V98897GS1P4L0014-163BGSSSA10197RSEoT
```

The Concatenated UII for the data string is:

D988974L014-163BSA10197