

**Department of the Army
Pamphlet 700–145**

Logistics

Item Unique Identification Procedures

**Headquarters
Department of the Army
Washington, DC
21 February 2023**

UNCLASSIFIED

SUMMARY of CHANGE

DA PAM 700–145

Item Unique Identification Procedures

This regulation is certified current as of 21 February 2023. Aside from the following, no other changes were made to certify the currency of this regulation—

- o Updates Summary of Change (summary of change page).
- o Updates History statement (title page).

This administrative revision, dated 20 May 2022—

- o Changes website from <https://www.lead.army.mil/uidworks/howto.html> to <https://www.lead.army.mil/uidworks/howto.html> (para 2–1e(1)).
- o Changes website from https://tammsa.redstone.army.mil/source/iuid_document_source/default.aspx to <https://tamms-a.redstone.army.mil/> (para 2–3a(2)).
- o Changes website from <https://www.logsa.army.mil/lec/> to <https://www.ldac.army.mil/#/lec/syspars> (para 3–1a(1)).
- o Changes website from <https://www.logsa.army.mil/lec/forms/register/trainingindex.cfm> to <https://www.ldac.army.mil/#/lec/syspars> (para 3–1a(3)(c)).
- o Replaces Logistics Support Activity (LOGSA) with Logistics Data Analysis Center (LDAC) (throughout).
- o Replaces AR 700–142 with AR 770–2 (throughout).

This new publication, dated 29 August 2018—

- o Provides instructions for initial marking with a unique item identifier (para 2–1).
- o Provides instructions on the explanation of markings on unique item identifier (para 2–2).
- o Provides instructions on planning item unique identifier implementation (para 3–1).
- o Provides instructions on contracting requirements (para 3–3).

Logistics

Item Unique Identification Procedures

By Order of the Secretary of the Army:

MARK A. MILLEY
General, United States Army
Chief of Staff

Official:



MARK F. AVERILL
Acting Administrative Assistant
to the Secretary of the Army

Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. It also applies to all personnel involved in materiel acquisition of new, product improved, modified, or repaired materiel that is developed, acquired, or used by the Army.

Proponent and exception authority.

The proponent and exception authority for this pamphlet is the Assistant Secretary of the Army (Acquisition, Logistics and Technology). The proponent has the authority to approve exceptions and waivers to this pamphlet that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency, its direct reporting unit, or a field operating agency, who holds the grade of colonel or the civilian equivalent. Activities may request a waiver to this pamphlet by providing justification that includes a full analysis of the expected benefits and must include

formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Suggested improvements.

Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Assistant Secretary of the Army (Acquisition, Logistics and Technology) (SAAL–ZL), 103 Army Pentagon, Washington, DC 20310–0103.

Distribution. This publication is available in electronic media only and is intended for command levels the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

History. This publication is certified current on 21 February 2023. Aside from the changes listed on the summary of change page, no other changes were made to certify the currency of this publication.

Summary. This pamphlet outlines procedures for the policy contained in AR 700–145.

Applicability. This pamphlet applies to the Regular Army, the Army

National

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Glossary

Chapter 1

Introduction

1–1. Purpose

This pamphlet provides procedures for policy set forth in AR 700–145. It contains instructions, reporting formats, contract language, and processes which are used to carry out the policies for Army’s item unique identification (IUID) marking. These procedures are intended to ensure that materiel is properly marked and registered for Army use. Ensuring that Army materiel requiring IUID is properly planned, documented, procured, fielded, and accounted for is an essential piece of the materiel’s overall logistics supportability and a critical element in the Army’s financial accountability and transparency efforts.

1–2. References and forms

See appendix A.

1–3. Explanation of abbreviations and terms

See glossary.

1–4. Applicability

The guidance and procedures in this pamphlet apply to all materiel developed, acquired, used, and/or managed by the Army and are required by AR 700–145.

Chapter 2

Item Unique Identification Instructions

2–1. Initial marking

a. IUID is required for all items, mandated by DoDI 8320.04 and AR 700–145, delivered to the government under contract or currently in inventory. The best way to ensure that the materiel is IUID compliant is to mark it when it is initially purchased. Materiel developers (MATDEVs) and acquiring activities will plan for and mark all materiel following the criteria established in accordance with AR 700–145.

b. The MATDEV and acquiring activities will ensure that for any uniquely identified subassembly, component, or part embedded within an item, the immediate parent item that contains the embedded subassembly, component, or part will also be uniquely identified.

c. When a unique item identifier (UII) is assigned to an item, that UII and supporting pedigree data must be registered in the DoD IUID registry. When the initial mark is created, submit the minimum data and as much of the optional data that can be obtained (item owner, original equipment manufacturer (OEM), cataloged part number, national stock number (NSN), serial number, and Service/command). The initial UII will remain with the item during the entire life cycle. In the event the marking is removed, the same UII is to be recreated for the item. The more information that can be incorporated during initial registration, the more complete the registry is and the easier it is to identify the item at a later date.

d. The requirement for unique item level traceability is supported by the necessity to have appropriate accountability of the materiel. Refer to AR 700–145 to identify items that require IUID markings which establishes the DA policy for IUID marking. Report these items using the IUID and/or serialized item management worksheet as an appendix to the system equipment plan.

e. Marking of materiel should be determined by the acquirer of the materiel and the manager of the item, in consultation with its users. MIL–STD–130 is a good source for military item marking requirements, label layouts and templates.

(1) In a web browser, go to <https://www.lead.army.mil/uidworks/howto.html> and use the menu to perform the required steps to properly complete and fill in the required information in the columns and save the AMC Unit Self Marking Spreadsheet as a file in a folder where it can be retrieved later.

(2) The only required information is the shipping information portion; all other fields can be left blank.

(a) For National Guard or Reserve units, enter the shipping address of the state representative who has been identified to oversee the marking operations.

(b) For Active units, enter the shipping address of the brigade and/or battalion separate PBO or designated representative. In all cases, choose “USPS” as the shipping method.

- (c) Save as required on the website for later retrieval.
- (d) Email the saved the information to: usarmy.lead.usamc.mbx.uidworkslead@mail.mil. The subject line should read “AMC” plus the unit designation. For example: “AMC 1st BCT 1AD.”
- (3) Upon receipt of the IUID labels, apply the labels in accordance with paragraph 2–4.

2–2. Explanation of markings

a. The placement of machine-readable codes on items and the use of IUID readers links the history to the item, and enables accurate information to computer systems. Also, allows quick retrieval of the item’s history by the action of reading the codes into internet enabled databases - like the IUID Registry.

b. The process for IUID begins with the determination of items that require IUID and the construction of the UII. There are two allowed IUID marking criteria in accordance with AR 700–145, figures 2–1 and 2–2.

c. The marking process needs to be developed using the syntax of International Organization for Standardization/International Electrotechnical Commission 15434. Any of the three formats identified below may be used. Using one of these approved formats permits the MATDEV flexibility to work with their vendors, who can in turn use their prevailing machine-readable marking processes, minimizing costs and requirements for compliance.

- (1) Text element identifiers.
- (2) Application identifiers.
- (3) Data identifiers.

d. Each unit pack, container, or palletized unit load that contains an item with an UII must be appropriately marked in accordance with MIL–STD–129. The label will contain the UIIs and assigned serial numbers. This packaging will be from the unit pack all the way to the exterior container (refer to figure 2–3 for a visual depiction of proper packaging labels). The information on the unit pack will be specific to the single piece of materiel contained within it (for example 1 each, carburetor, and serial number 1151). The intermediate container will be marked with all UIIs, quantities, and serial numbers of all materiel contained within that intermediate package (for example, 2 each, carburetor, serial numbers 1151 and 1153). The exterior container will be marked with all materiel containing a UII that is found within the container, regardless of how it is packaged (for example 4 each, carburetor, and serial numbers 1151, 1153, 1155, and 1157).

- e. Applying of markings.
- (1) Using labels.
 - (2) Using data plates.
 - (3) Direct part marking.

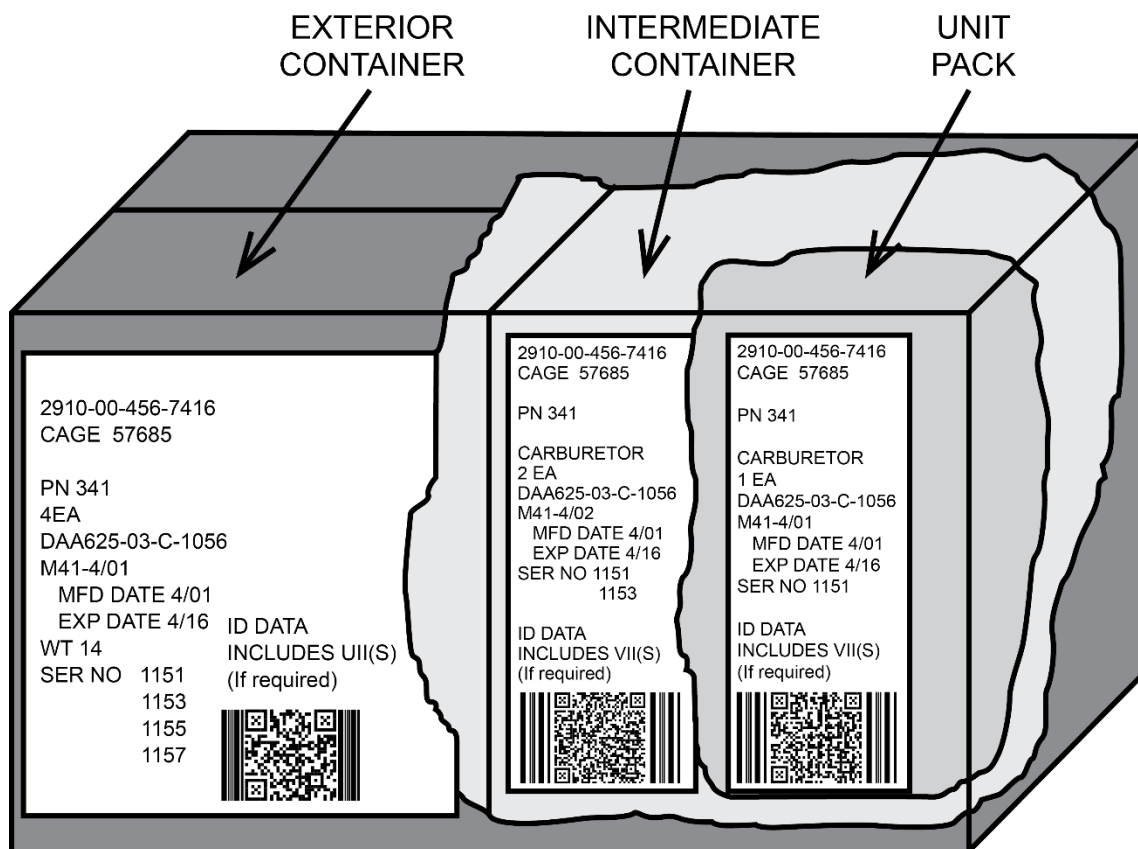


Figure 2-1. Packaging labels for materiel with item unique identification

2-3. Marking considerations

a. Unique item identifier marking placement. Where the UII mark is placed on the item and the label material strongly influences the mark's durability and usefulness. Placement considerations start from a technical understanding of how the readers decode symbols, as well as efforts taken to maximize the reliability of decoding the data matrix.

(1) The ideal location to place a mark is directly on the materiel's data plate. The UII should become a standard part of data plate development for new materiel. This will provide the best method for reading and consistent application. This will also minimize the amount of nonrecurring engineering costs for the MATDEV.

(2) For legacy materiel or re-procurement of materiel, UII labels need to be applied in accordance with the current "seek and apply" instructions for the item being marked. To determine if "seek and apply" instructions exist for the item being marked go to <https://tamms-a.redstone.army.mil/>. Search for instructions using the item's NSN or part number. If instructions exist for this item, the search will return a link to view/download the instructions. Follow the instructions to apply the UII label. New users must request access to this site. It is important for the unit to refer to their Technical Manual or program and/or component specific documentation before using the "seek and apply" instructions for the items needed to be marked.

(3) If no seek and apply instructions exist for the item or embedding the UII as a mandatory data element on the data plate is not an option for new materiel, place the label in one of the identified positions within figure 2-4 to the utmost extent possible. 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 fig 2-4, position A, B, C, D, and E). This is the preferred placement of the UII mark.

US DEPARTMENT OF DEFENSE
NATO STANDARD OTAN

GENERATOR SET DIESEL ENGINE 5KW 60HZ

MODEL	MEP-602-A	NSN	6115-01-274-7387
SER NO	12-04976	REG NO.	
TM	9-6115-641-10	NAVFAC	9-6115-641-10
TO	35C2-2-456-11	TM	-

VOLTS 120V 1PH, 120/240V 1PH
120/208V 3PH

AMPS 52, 26, 17 **PF** 0.8

DRY WT 800 LB **LG** 50.6 IN **W** 32 IN **HGT** 37 IN

DATE MFD 32 IN **CONTR NO** DAAK01-97-D-0034

WARRANTY 7/99 **DATE INSP** 7/99

MFD BY FERMONT DIVISION **INSP STAMP**

30554-06-20063-01

Figure 2-2. Unique item identifier mark placement

(4) If the UII mark cannot be embedded into the data plate during initial development, “seek and apply” instructions do not exist, and the label cannot be applied as indicated in paragraph 2-3a(3), the following should be considered when determining UII mark placement.

(a) UII marks should be placed--

1. In protected areas.
2. On a flat surface.
3. So it can be read when the item is in service.
4. So it can be read when the item is stowed.

(b) Marks should not be placed--

1. Over vents and/or air tanks.
2. On-top of or obstructing other information.
3. Covering windows or obstruct views.
4. On sealing surfaces.
5. On wearing surfaces.
6. Near high heat sources.
7. Over lenses, optics, or sensors.
8. On surfaces with dimensional tolerance requirements.

b. Data matrix considerations. The UII is encoded in a two dimensional (2-D) data matrix symbol, which is made from a collection of small black or white squares called cells or modules. It is easier to fatally damage a small data matrix than it is to fatally damage a larger data matrix containing the same data. In other words, if a small data matrix is scratched, the likelihood that matrix will be rendered unreadable is greater than if the same scratch were made to a larger data matrix. Damaged symbols with larger cell sizes are more likely to be reconstructed by the decoding software than smaller symbols. Cell sizes must be adjusted upwards to overcome anticipated environmental damage without exceeding the specification cell size limits. In general, operators should use the largest cell size practical. Figure 2–5 provides examples of the AMC standard “1/2 (half-inch) and AMC standard 1/4” (quarter-inch) design templates for Testing and Evaluation Support Activity tape. Labels should be half-inch for most items, unless the item is too small for a half-inch label to be applied without bending/distorting the label. The only item currently known to be too small for the half-inch label is a 9MM weapon. If an item (other than pistol and instruments) is encountered that appears too small for a half-inch label, contact the AMC at usarmy.redstone.usamc.mbx.iuid@mail.mil, to report the item.

AMC Standard TESA Templates

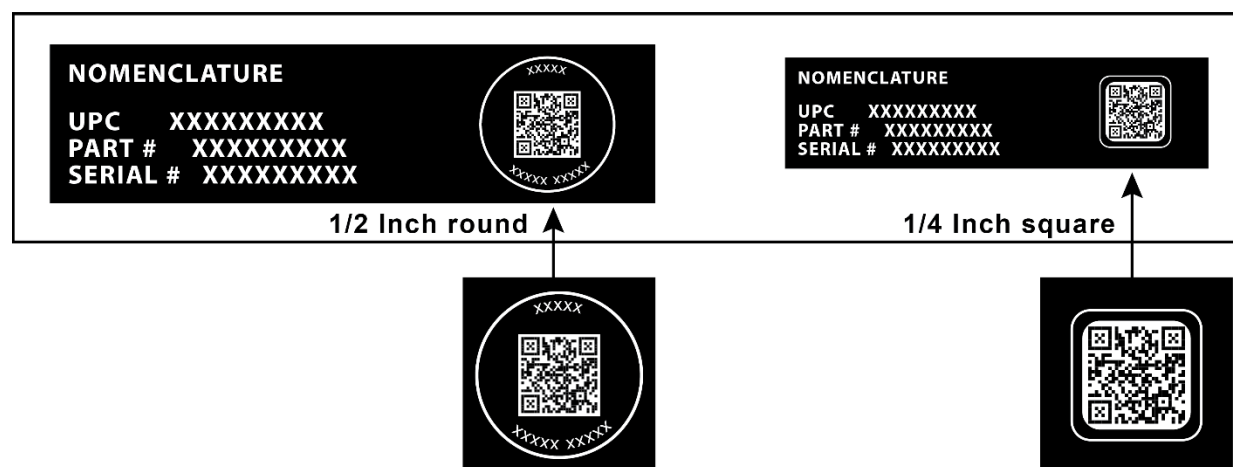


Figure 2–3. The U.S. Army Materiel Command Testing and Evaluation Support Activity Template Standard

(1) Dark colored markings are generally applied to light surfaces and light markings applied to dark surfaces. The minimum contrast difference between the symbol and its substrate that can be reliably read is 40 percent as shown in figure 2–5. The minimum acceptable contrast level difference is 20 percent at the point of marking to allow for degradation over time in the operational environment. Care must be taken to apply marks in an area of uniform color in situations where surface colors change (such as camouflage patterns).

(2) After all marking is complete; email the updated Letterkenny Army Depot documents to AMC at usarmy.redstone.usamc.mbx.iuid@mail.mil. The updated Letterkenny Army Depot documents must indicate which labels were destroyed and AMC will coordinate with Letterkenny Army Depot to have UII data removed from file to be sent to AMCOM (MCDS). All labels must be either applied or destroyed and the Letterkenny Army Depot documents must reflect those labels that were destroyed.

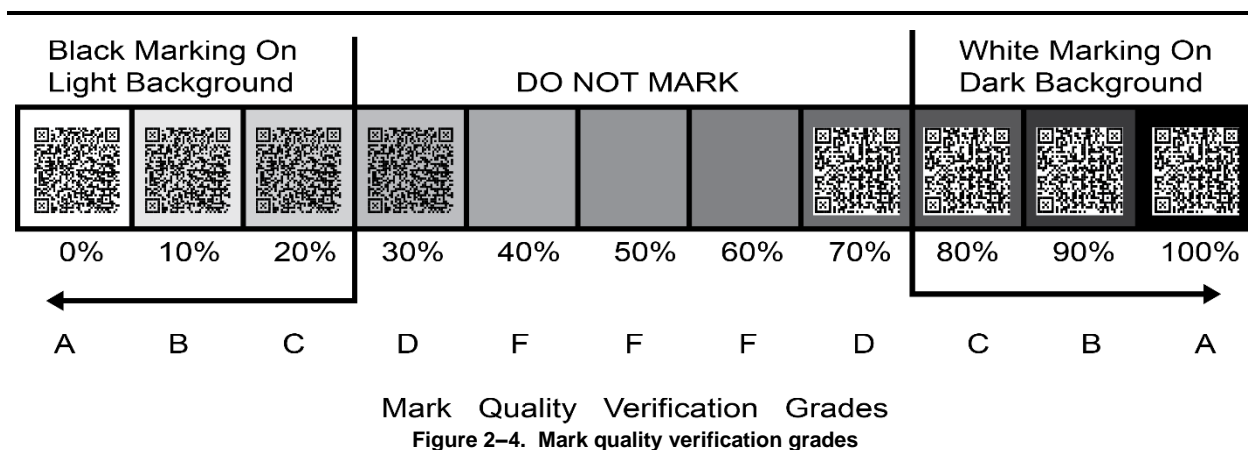


Figure 2-4. Mark quality verification grades

(3) A clear space (quiet zone) must be left around the outside of the symbol in order for the scanner to successfully decode the data matrix. A minimum of one cell width of quiet zone must be left around the symbol. Due to variations in surface finish, it is helpful to extend this area. If possible, allow an additional 10 percent of the longest symbol side as shown in figure 2-5.

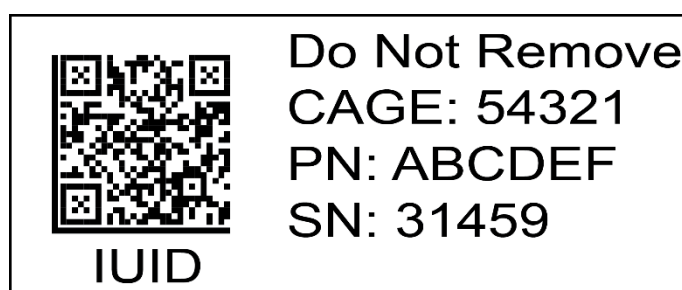


Figure 2-5. Example of clear space

c. Minimizing attachment failures. Failures of labels to maintain attachment to the item occur for a variety of reasons. In some cases, the strength of attachment declines over time, while in other cases, the initial strength of attachment is insufficient. Insufficient initial attachment strength is due to using marking materials ill-suited to the item's environmental requirements, or to the marking process. Therefore, select marking materials based on the item's environmental requirements as well as any maintenance procedures—both authorized and unauthorized—to which the item is subjected. Adhesives and epoxies are at risk of failure when they become brittle at low temperatures or soften at high temperatures, and they break down completely if the temperature is high enough.

(1) Attachment strength weakens over time due to the slow, persistent degradation of materials, which can be caused by ultraviolet (UV) light, thermal expansion, or corrosion. Adhesives/epoxies are often damaged by UV radiation. Choosing UV-blocking label stock minimizes this failure mode.

(2) Rigid adhesives and/or epoxies physically degrade if attaching two rigid materials to each other, which grow and shrink by different amounts as they heat and cool (different materials almost always have different coefficients of thermal expansion). This is prevented by using flexible adhesives or epoxies.

(3) If two different types of metals are attached to each other so that electricity can flow from one to the other, they will corrode over time. This is a particularly serious problem for aluminum data plates riveted to large steel items. Keeping the metals separated from each other with a non-conductive layer (often an adhesive tape) prevents this problem.

(4) For all labels, improper surface preparation (poor cleaning) leads to lower attachment strength and can be a prevalent, persistent, and perhaps critical problem. Likewise, attachment of labels to a surface with a temperature lower than 50 degrees can lead to attachment failure.

2–4. Marking exceptions

a. MATDEVs and acquiring activities are required to mark all designated Government-owned materiel under their control regardless of method of acquisition, current location, or custody arrangement. If a MATDEV believes that an item intended for use by their program or the end item itself that meet the requirement for marking, has been incorrectly identified for required marking in the FLIS, or through the Army Serialization flag, other supply policy or any other reference, they may appeal the decision to the Deputy Chief Staff (DCS), G–4 (DALO–SP), 103 Army Pentagon, Washington, DC 20310–0103.

b. An exception must be added to this section that requires Army Engineering approval before unique identification marking Aviation assets if we are to continue to apply Aviation Safety, CSI, and Aviation Engineering managed and controlled processes for marking Aviation items. This will ensure that nothing can compromise Aviation safety. Then this Aviation Safety reality must be recognized by this and any publication that may impact that issue.

Chapter 3 Item Unique Identification Implementation

3–1. Planning

a. *Systems Planning and Requirements Software.* SYSPARS is a multi-Service tool that provides MATDEVs a capability to help them develop IUID Implementation plans. The utilization of SYSPARS can enhance the accuracy of the MATDEV's IUID strategy because it provides the user with an interactive question and answer session, which helps users systematically consider the issues pertinent to the acquisition program. SYSPARS is designed to lead the user through a variety of potential supportability issues and provides an automated consistency check to help the user avoid inconsistencies in the document. The SYSPARS IUID Plan helps users identify items that are to be marked, the priority and method of marking, and the funding necessary to accomplish marking. IUID permanently identifies an individual item distinctly from all other individual items that the DoD buys and owns. IUID provides for marking personal property items with a machine-readable UII, which is a set of globally unique data elements.

(1) Users must register for access to SYSPARS through the LDAC website <https://www.ldac.army.mil/#/lec/sy-spars>.

(2) Users must download SYSPARS onto their computers with the provided password once registration has been approved.

(3) Assistance on how to use SYSPARS is provided by –

(a) Download the User Guide, located on the Tool's page, under Download.

(b) Contact the Logistics Engineering Center Technical Support Branch redstone.logsa.mbx.tsb-smartdesk@mail.mil or 256–955–9847 (Defense Switch Network: 645).

(c) Training for SYSPARS is available at Redstone Arsenal. The training schedule is available at <https://www.ldac.army.mil/#/lec/sy-spars>. User communities may coordinate with LDAC to provide specialized training onsite by contacting the Logistics Engineering Center Technical Support Branch.

b. *Building an Item Unique Identification Plan.* Successful IUID implementation for item marking and registering in the DoD IUID Registry begins with the establishment of a robust IUID implementation plan. The LDAC SYSPARS tool will walk the user through a question and answer process, which should successfully address all the requirements outlined in AR 700–145 for the IUID plan.

(1) There are a few questions requiring “yes and/or no” responses. For many questions, multiple choice answers are presented; for others, narrative answers are required. In cases where multiple choices are presented, it is usually easy to determine and select the best course(s) of action for implementing IUID. The questions are arrayed functionally in sections that may be accessed in any order, although doing so in numerical order is recommended.

(2) Once the plan inputs for a section are completed, the output for that section can be displayed. When the entire plan is completed, the output should be saved in a processing software format. It will normally be necessary to do some amount of editing of the SYSPARS output to produce a well-worded document.

(3) When input to the first section is completed, save your data after each section. Exit SYSPARS, then reenter SYSPARS and recover that section. (The SYSPARS save technique is a bit tricky so it is recommended that you save after each section.)

(4) SYSPARS input is divided into sections and within each section there are aspects that should be addressed.

(a) *The Cover Page.* These organizations and individuals will be involved in writing, coordinating, and approving the IUID implementation plan.

(b) *System description.* This (description, mission, acquisition category (ACAT), phase in acquisition life cycle and whether items to receive IUID are legacy, new procurement or both).

(c) *References.* This include all documents and regulations that are used to develop the plan or referenced throughout the plan.

(d) *Exceptions and exemptions.* Identify those items that meet IUID criteria but for one reason or another will not be marked and registered prior to delivery to the government.

(e) *Implementation strategy.* This is the largest section of the plan. There should be several areas laid out.

(f) *Marking.* It will identify the contract information and confirmation of DFARS Clause 252.211–7003. Specifically spell out who (OEM, secondary source, depot, and such) will mark, what are the trigger events for legacy marking (if applicable), if virtual IUID will be used and how it is to be coordinated. Specify a schedule as to when marking will be completed. Explain how materiel will be packaged and marked marking of IUID item packaging.

(g) *Information in the registry.* IUID Registry will explain how IUID information will be loaded into the registry. Will the OEM be registering materiel as part of the contract delivery or will another method be used?

(h) *Technical Documentation Strategy.* Explain how marking instructions will be integrated in technical data packages, depot maintenance work requirements and national maintenance work requirements (as applicable).

(i) *Government-furnished property.* If the program has GFP, ensure that DFARS Clause 252.211–7007 is included in the contract. Specify the process to comply with that DFARS and how change of custody will be documented.

(j) *Quality assurance.* This is extremely important. It is not enough to mark the materiel. The Government must ensure that the mark is compliant, readable, and registered. Explanation of how compliance will be evaluated and assessed needs to be addressed (compliance explanation should encompass MIL–STD–130, MIL–STD–129, and DFARS Clause compliance). There should also be an explanation of the process used to ensure validation and verification of IUID marks and registry accuracy.

(k) *Fielding.* Ensures the PM will comply with the provisions of AR 770–2, when conducting initial fielding of end items bearing IUID.

(l) *Signature page.* Ensures all plans are signed by the originating office, PM, and the PEO.

(m) *Metrics.* This should lay out the marking goals and accomplishment by year, computing and reporting quality deficiency metric.

(n) *Key program events.* Provide a schedule with target dates for imposing certain contractual requirements and for achievement of certain marking goals.

(o) *Budget by fiscal year.* The layout of all funding requested and funding received should be presented for the duration of the IUID program effort.

(p) *Appendix A.* This identifies all materiel requiring IUID and the criteria that mandates IUID for those items. The Excel spreadsheet is not a part of SYSPARS, but SYSPARS provides a link that can be used to download the spreadsheet.

c. *Staffing Item Unique Identification Plan.* IUID plans may go through a variety of staffing processes based on how the program executive office (PEO) organization has established their approval process.

(1) It is recommended that the IUID plans are coordinated with the IUID Support office (LDAC IUID Support Office contact email: usarmy.redstone.logsa.mbx.iuid-plans@mail.mil) prior to staffing for signature to include their respective LCMC, then PD AMIS (PD AMID contact email: usarmy.belvoir.peo-eis.list.amis-iuid@mail.mil).

(2) The mandatory signatures, per AR 700–145, for the IUID plan are the MATDEV, the Milestone Decision Authority, and all participating support organizations that will take part in executing the IUID Plan.

(3) If the MATDEV has identified an LCMC to participate in the marking of materiel or if the plan contains both legacy and new materiel, the LCMC is a mandatory signature.

(4) After all signatures, ACAT 1C and/or D plans will be returned to the IUID Support Office for forwarding to ASA (ALT); all other IUID plans will be filed in the Army IUID Repository.

d. *Item Unique Identification Plan Repository.* All IUID plans should be provided to the IUID Support Office for loading into the system repository. This is the official Army repository for all approved IUID Plans. Access to the repository is through Wide Area Workflow at <https://wawf.eb.mil/xhtml/unauth/home/login.xhtml?logout=y>.

e. *Virtual unique item identifiers.* In accordance with AR 700–145, virtual UIIs apply only to legacy items in DoD inventory. The use of virtual UIIs will be coordinated with the LDAC IUID support office for legacy materiel that has identified virtual UIIs as its marking methodology.

3–2. Budgeting

a. Procuring agencies will budget appropriately for IUID in accordance with AR 700–145. MATDEVs will utilize non-recurring engineering for the planning of IUID, if IUID is an itemized function. The procurement of IUID marks should be included in the cost of the materiel being purchased. Legacy items will be marked in accordance with the priorities set by the DCS, G–4 and AMC. The MATDEV, when authoring their program’s IUID plan, if their program

includes legacy items, will coordinate with these agencies to help determine the prioritization and any technical issues that will require MATDEV support.

b. Programs planning for RESET and RECAP will include IUID within their budget planning and execution. This will be coordinated with the depot/facility carrying out the work to ensure that items requiring marking will be paid for and executed in accordance with AR 700–145.

3–3. Contract requirements

a. To ensure that IUID is implemented as early as possible, personnel involved in the acquisition or maintenance of materiel need to consider the requirements for IUID. Personnel should pay equal attention to any agreements or statements of work that are not issued with a contract signed by a warranted contracting officer, such as memorandums of understanding (MOUs), memorandums of agreement (MOA), and credit card purchases as to those that are. Without proper IUID marking and registration, the Army faces an inability to trace procurement actions for materiel from vendor delivery to unit receipt; resulting in auditability failures.

b. A contract that is released without including DFARS Clause 252.211–7003, when required, is in violation of the DFARS.

c. It is important that not only is the clause be included in the contract, but that the requiring activity pay attention to the elements requiring MATDEV, acquiring organization, or LCMC input. The clause cannot guarantee the understanding or application of IUID in accordance with the MATDEV’s IUID plan or the NSN IUID codification (see para 3–9). The appropriate personnel must actively participate with their contracting office to properly fill out this clause (see app B).

d. New materiel being procured (all materiel, regardless of class of supply or funding source) must be IUID compliant prior to the acquiring activity’s acceptance in order to facilitate the Army’s traceability and transparency goals.

e. New materiel being procured must have a materiel master built prior to initiating the purchase request (PR).

f. Materiel being modified, repaired (such as RESET, recapitalized (RECAP), overhauled, rebuilt, remanufactured), or reprocured must be IUID compliant before being fielded or received back into the Army inventory. While new materiel is often the focus of most IUID Plans, it is critical that materiel being repaired or reprocured is also assessed for IUID requirements. This assessment will include the following:

- (1) Materiel that should have been UII marked, but wasn’t (see para 3–9*b*).
- (2) Materiel that is currently marked with an UII, but is not found in the registry.
- (3) Materiel that is currently marked with an unreadable UII.
- (4) Materiel that is currently marked with an UII, but is loaded in the registry incorrectly.
- (5) Pass through requirements for new parts being installed to comply with AR 700–145.

g. Refer to appendix B for supplementary instructions for the completion of DFARS Clause 252.211–7003.

h. In order to facilitate use of IUID, all contracts containing UII requires a separate contract line item number for IUID. This CLIN should include the following aspects of UII:

i. Application of the IUID across required materiel.

j. A Contractor Marking Plan is requested in support of the IUID effort for new materiel. A separate Contract Data Requirements List (CDRL) with the data item description (DID) of DI–MGMT–81803 is recommended to aid the procuring agency in ensuring that marking is being properly planned by the vendor.

k. A CDRL, for all material, requiring an IUID Marking Activity, Validation, and Verification Report (DI–MGMT–81804A) to ensure that the mark is accurate, readable, and scannable. The acquiring activity needs to perform validation and verification of the sample to confirm syntax and readability.

l. A request for sample duplicate plates of each item requiring UIIs, or good quality photograph, should be included.

m. A CDRL for drawings indicating where the IUID mark is to be applied for each material.

n. It is recommended to also have an identification guide of where the parent UII can be found, along with all children components to aid in the fielding, issuance, and transfer process throughout the materiel’s life.

o. The MATDEV or acquiring activity should have personnel capable of logging into invoicing, receipt, acceptance, and property transfer (iRAPT) to ensure that the IUID information has been loaded into the system properly. It is recommended that the MATDEV utilize the designated contracting officer’s representative for new acquisition activities. The LCMC should designate and train the item manager responsible for the repair program or spares procurement. Language that can be incorporated into the statement of work as well as the ways in which to format the CDRL is available in appendix C.

p. A crucial step in achieving IUID compliance is processing the data the contractors entered in the IUID Registry. The input data in IUID Registry become useful when key data elements are brought into the APSR as well as other

information technology systems that perform day-to-day operations including receipt and acceptance, inventory management, and maintenance. As a part of this data synchronization process, it is critical that the IUID registration data submitted by the OEMs, including the part number and serial number of the equipment is accurate.

q. All property that will be furnished to a contractor for use under a contract needs to be marked with a UII before provided to a contractor as GFP. When GFP is provided, the requiring activity needs to ensure that the applicable FAR and DFARS clauses are included in the contract. Ensure that the following clauses are incorporated into the contract: FAR Clause 52.245.7001, DFARS Clause 252.211.7003, DFARS Clause 252.211–7007, DFARS Clause 252.211–7008, DFARS Clause 252.245–7002, DFARS Clause 252.245–7003, and DFARS Clause 252.245–7004.

r. No requiring activity should accept any materiel without first ensuring that the IUID marks are readable and that the information is within the registry.

s. QA personnel will identify contracts with IUID requirements where inspection is identified at Source. Contracts containing either DFARS Clauses 252.211–7003 or 252.211–7007 or both require the following:

- (1) IUID requirements will be subjected to risk based surveillance.
- (2) Initial surveillance should include a process review with a product examination to verify the process output.
- (3) Intervals for continuing surveillance should be based on supplier performance.
- (4) IUID Process review should address as applicable:

(a) Visually verify (on a sample basis) that end items and/or components are physically marked per MIL–STD–130.

(b) The QA should verify the readability of the 2–D Data matrix using mark quality verification equipment, if available. Just being able to read the mark with most readers does not ensure it was quality formed or it is in a valid IUID format.

t. It is not acceptable to purchase or repair materiel with the expectation that the IUID marking will be handled at a later date or time. The requiring activity and all assigned personnel must be an active participant in helping to ensure proper marking and compliance with Army policy. See paragraph 3–6 for proper QA activities and mark validation.

3–4. Registering items

a. *Item Unique Identification Registry.* This Registry is the central repository for IUID information for the entire DoD. It serves as an acquisition gateway to identify unique information about a piece of materiel. The intent of the registry is to support full life cycle visibility for tangible items, integrating financial, maintenance, and accountability systems. Ultimately, the IUID Registry is geared toward enabling a joint, paperless management system for DoD property.

(1) The IUID Registry is maintained by the Defense Logistics Information Service in Battlecreek, MI. The registry resides on the Integrated Acquisition Environment, Business Partner Network.

(2) The IUID Registry captures, retains, and provides both current and historical data regarding uniquely identified tangible items enabling net-centric data discovery, correlation, and collaboration in order to facilitate effective and efficient accountability and control of DoD assets and resources in support of DoD business transformation.

(a) To access the IUID Registry within the Wide Area Workflow eBusiness Suite, submit a request at <https://wawfeb.mil> (click on “register”) that will be using the registry to validate or access information posted should register under “Inquiry.”

(b) Personnel that will be performing marking and maintaining legacy materiel should register under “Legacy Submitter.”

(c) Personnel that are part of the Defense Contract Management Agency (DCMA), should register under “DCMA.”

(d) Contractors must request “Contractor Access” to add new IUID records that have been produced.

(3) The IUID Registry can be queried and reports can be pulled in order to assist the MATDEV and procuring activities to ensure that materiel is properly marked.

(a) *Single item query* : Provides the user with the pedigree or “birth record” of the item, as well as composition, mark, lifecycle, and custody information.

(b) *Contract query* : Provides the user with all the UIIs delivered on a specific acquisition contract as of a specific date.

(c) *Composition query* : Provides the user with the composition (parent and/or child item) information for a specific item.

(d) *Government-furnished property custody by contract query* : Provides the user with a list of GFP items furnished under a specific custodial contract as of a specific date.

(e) *Government-furnished property Custody by Commercial and Government Entity and/or Data Universal Numbering System Query.* Provides the user with a list of all GFP items furnished to a contractor. Queries can be submitted using either the CAGE or the DUNS.

- (f) *Mark Query*. Provides the user with a list of all items having a physical mark matching those in the request.
 - (g) *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.
 - (h) *Part number query*. Provides the user with a list of items that have the requested part number.
 - (i) *Government-furnished property 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.
 - (j) *Active part, serial, batch, and/or 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.
 - (k) *Government-furnished property summary by contract report*. Provides the user with a summary count and value of GFP items associated with the contract number requested.
 - (l) *Government-furnished property 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.
- (4) 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 list of currently available APIs includes:
- (a) *Unique item identifier verification*. Allows a user system to verify if a specific UII is already in the system.
 - (b) *Unique item identifier 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.
 - (c) *Unique item identifier validation*. Allows a user system to verify lists of UIIs are correctly constructed.
 - (d) *Elements retrieval from unique item identifier*. Allows a user system to retrieve UII elements for a list of UIIs submitted.
 - (e) *Unique item identifier retrieval from marks*. Allows a user system to retrieve UII matching the mark section data requested.
 - (f) *Warranty*. Allows a user system to retrieve simple warranty information. This is being expanded to include more comprehensive warranty data.
 - (g) *General purpose Application Program Interface (secure)*. Allows a government-user system to retrieve specific data for UIIs submitted. Requires a Controlled Access account.
 - (h) *General Purpose Application Program Interface 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.
- (5) There are three user input functions to manage registry information -
- (a) *Add*. Receive, validate, and process UII registration and non-UII GFP transaction data. This links with WAWF and Global Exchange (GEX).
 - (b) *Update*. Receive, validate, and process updates to UII data. This links with WAWF, Defense Property Accountability System (DPAS), and the Loss, Theft, Damaged, and Destroyed eTool.
 - (c) *Correct*. Receive, validate, and process corrections for 60 days after initial entry. Changes made using the correct function only update the IUID Registry.
- (6) Information can be submitted into the registry using the following methods -
- (a) *Worldwide area workflow*. DoD Paperless Invoicing, receipt, acceptance, and property transfer. IUID data automatically flows from WAWF into the IUID Registry. This is required for all new acquisition materiel.
 - (b) *Global Exchange and Data transformation and routing*. Direct submission of registry data via Extensible Markup Language (XML) or flat file. The submitter must have GEX account. This is available for legacy submissions only. All flat file submissions must be in Flat File V6.0 format, which can be found at <https://dodprocurementtoolbox.org/>. XML schema submissions must be in v5.1.1; other schemas will not load.
 - (c) *Item unique identification Registry Website* – must have registry access and be registered as a legacy user.
- b. *Worldwide area workflow*. The IUID registry has been merged with WAWF, to enable the continued push of transparency and accountability.
- (1) Existing IUID Registry accounts will transition to the WAWF Group Administrator structure – existing users should be notified of their new account information.
 - (2) Common access card login is mandatory for all Government and Government support contractors.
 - (3) To request access to iRAPT – Invoicing, Receipt, Acceptance, and Property Transfer (Formerly WAWF) users should go to <https://wawf.eb.mil> and select “Register” and then select “iRAPT.” All Government users must enter a valid Department of Defense Activity Address Code (DoDAAC) upon entry. Each MATDEV must have a separate DoDAAC assigned to its department/division. DoDAACs cannot be shared. The process for requesting a DoDAAC

is different for each MATDEV. Most MATDEVs are supported by an LCMC and should submit their requests through the LCMC DoDAAC Coordinator for submission to LDAC.

3–5. Quality assurance

a. Marking validation. All materiel should have the IUID mark validated prior to QA inspection and acceptance. Validation measures the quality of the syntax and the semantics presented.

(1) MATDEV must request sample data plates and must be submitted as a separate deliverable on the contract prior to acceptance (see para 3–4). The MATDEV then can use a reader to validate the mark.

(2) Procuring agencies buying spares, conducting reprourement actions, or managing a repair activity should also perform mark validation.

b. Quality inspections. The manufacturer has to mark the item in accordance with the specification by constructing the UII using accurate data elements (including the part number and serial number) and placing the UII mark on a data plate affixed to the item. As part of the OEM's activity report they should identify during what phases during production IUID marking are identified, attached to the parent, and its QA protocols if parent/child relationship issues are identified.

c. General. Another important responsibility of the OEM is to properly register the item in the IUID registry.

(1) When the supplier submits the hardware for acceptance; the QA personnel should scan the IUID matrix, confirm its readability and the accuracy of the IUID and Human Readable Information (HRI), and verify against the data plate and the Certificate of Conformance (CoC) and/or other documentation. QA personnel should ensure that the IUID requirements are met per MIL–STD–130 and that the verification report shows the actual IUID syntax and number, the IUID Image as seen on hardware, the part number, serial number, and cage code.

(2) At suppliers where an APEX/PRISM Systems, Applications, and Products System generates the IUID label after the hardware serial number is entered in the database, QA personnel should verify accuracy of the data on a concurrent basis with the supplier.

(3) To the maximum extent practical, the Unique Item Identifiers should be submitted by the supplier via the WAWF, the acceptor should verify the IUID on the WAWF document against the products being delivered. Initially this should be conducted against all reportable materiel and decreased to a sample basis once confidence is established.

(4) When suppliers send supplies to a packaging subcontractor for generating the IUID label and Government final acceptance and shipment, QA personnel should issue a delegation to the supporting contract management office to perform the initial and on-going IUID surveillance.

d. Marking verification. Mark verification measures the quality of the IUID symbol. MATDEVs should ensure the mark is reviewed for readability in both a flat state and scanability when installed on the item.

e. Marking confirmation. Due to a UII deficiency rate as high as 20 percent being discovered after fielding, MATDEVs are directed by AR 770–2 to now scan every UII at fielding and confirm alignment with the information contained within the registry.

(1) If the MATDEV did not pursue QA as a CDRL within the contract, then the MATDEV must perform a 100 percent IUID mark inspection during fielding, prior to handoff, to be compliant with AR 770–2.

(2) When equipment is delivered to a fielding site, a series of steps are performed to issue materiel to the gaining unit. Depending on many factors, the hand-off process to the unit differs widely. However, one key step required to complete the fielding process is that the serial number on the data plate and the IUID has to be transferred to the unit's APSR.

f. Quality deficiencies. The most common errors detected are that the registration of the UII is not done correctly and there is a discrepancy between the data registered and data in the UII marking.

(1) Another common error is multiple UIIs for the same item. Except for new procurement, before any UII is created and registered, a thorough search of the registry be performed to ensure a UII does not already exist for the item. There are several methods available, the most common being the Registry itself, AIW, or TAMMS–A. Discrepancies should be addressed immediately by contacting the Registry help desk, AMC, or TAMMS–A.

(2) When OEMs deliver equipment with UII marking, it is critical that they input the UII data in the IUID Registry correctly. While there are many data fields that have to be submitted, the part number and the serial number (which make up the UII construct) are critical for proper data synchronization among the Army's information systems. If an incorrect serial number is submitted by an OEM, the Army systems will not be able to find a matching record in the Army's catalogue and the corresponding UII will not be brought into an APSR, rendering the UII unusable throughout the materiel's lifecycle.

(3) It is essential that the data registered by the OEM and the data elements actually encoded in the UII marking match. When a discrepancy between these two areas occur Army systems cannot detect a match between the serial number brought in from the IUID Registry and the serial number in the APSR. This results in a failure to post APSR

with the associated UII. Often, significant manpower is required to research the problem, detect the cause, communicate with other parties to obtain correct information, and make corrections in the system.

(4) Deficient marks found during fielding will be reported via Product Data Reporting and Evaluation Program and in accordance with AR 702–7.

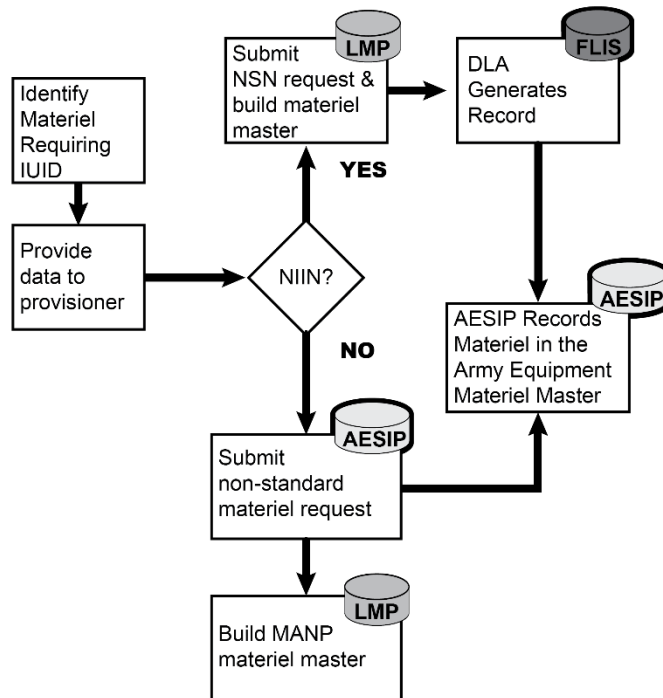
(5) The primary sources of automatic identification technology (AIT) devices such as scanners, printers, verifiers, and related services to meet Army requirements are the Indefinite Delivery/Indefinite Quantity (IDIQ) AIT contracts administered by Product Lead, Automated Movement and Identification Solution (PD AMIS). Questions and requests for assistance may be directed to usarmy.belvoir.peo-eis.list.amis-iuid@mail.mil.

3–6. Accountability and item unique identification

a. Army Enterprise. The Army Enterprise consists of a combination of systems working together to appropriately account and track materiel. It is important to understand how the enterprise operates (see fig 3–1).

Establishing a Materiel Master

Step 1



Getting it in the Contract

Step 2

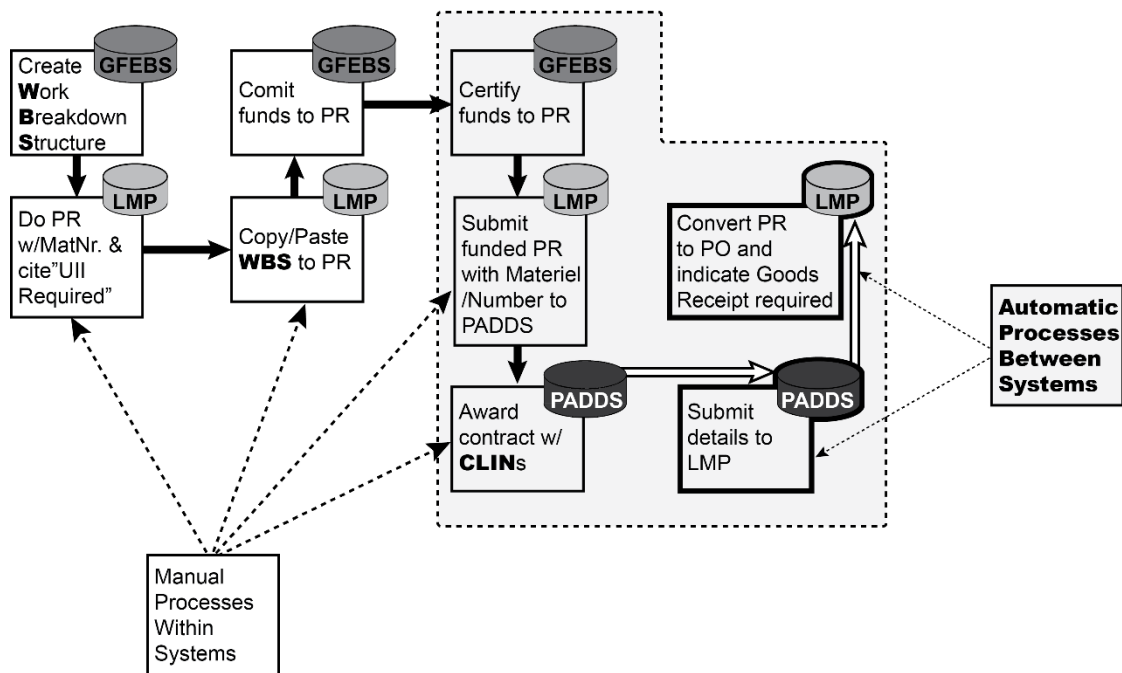
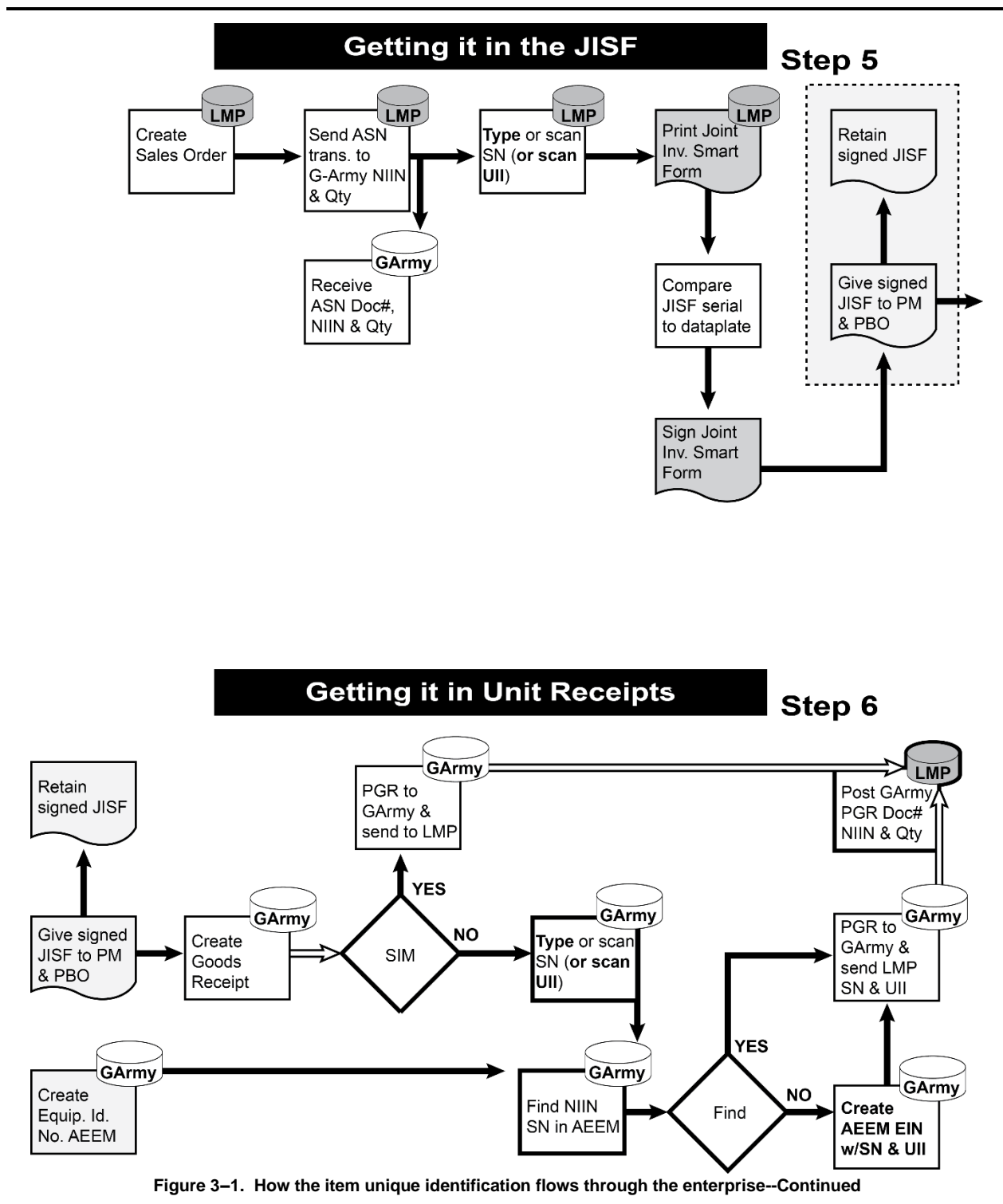


Figure 3-1. How the item unique identification flows through the enterprise



b. Logistics Modernization Program. LMP is the national-level system within the Army Enterprise. Acquisition program managers may use LMP to manage their non-fielded material. Non-fielded property is property delivered to the Army and DoD with the intent of being issued to an Army or DoD component or unit but is currently not in the

hands of the intended recipient (see DoDI 5000.64). When using LMP, acquiring activities utilize purchase orders and hand-off materiel to gaining units using post goods issue actions. In order for UII data to be captured upon receipt in LMP, acquiring activities must establish materiel master records, obtain the correct serial number indicator in the Army catalog, submit purchase orders against a materiel number (national item identification number or MANP), and ensure that the OEM registers the materiel with the DoD IUID registry and includes the information on the DD Form 250 (Material Inspection and Receiving Report). When the OEM submits the invoice to WAWF a certificate of acceptance is created, this information is syndicated to PADDs and LMP. Acquiring activity must receipt the materiel in LMP within 7 business days (in accordance with DoDI 5000.64) of the DD Form 250 being signed. Upon receipt, LMP will create an equipment master and syndicate the serial number and IUID information to AESIP. The fielding team will generate a post goods issue action, which will transmit to GCSS-Army; in return the property book officer will generate a post goods receipt (PGR) to LMP acknowledging receipt of materiel and confirmation to the accuracy of the UII and serial number provided, completing the issue.

c. Defense Property Accountability System. The system is an APSR recognized by the Army. APSR provides complete IUID capabilities and is designed to manage GFP and Government-furnished equipment in a comprehensive and complete business process that interacts with the WAWF and the IUID registry.

(1) PEOs will establish APSR accounts for all MATDEV Support Property. Material Developer Support Property is defined as any property (Class VII major end items or Class II non-expendable materiel) that is not intended for imminent unit fielding. MATDEV Support Property includes prototypes, display materiel, mission support equipment, government furnished property/government furnished equipment and contractor acquired property that will eventually return to the government at the conclusion of the contract period. All GFP are required to be marked with UII under DFARS Clause 252.211-7007. It may also include other materiel that meets these criteria that are not currently held in an APSR.

(2) PEOs will establish DPAS accounts for non-fielded property for acquisition program managers unable to or exempted from using LMP for fieldings. In this case, PEOs will use DPAS to manage their non-fielded materiel. This means PMs will procure materiel and hand-off materiel to gaining units using DPAS. In order for UII data to be captured upon receipt in DPAS, PMs need to ensure that the IUID clause is in the contract when UII materiel is obtained by way of a contract. This will ensure the OEM registers the materiel with the DoD IUID registry. When the OEM sends the shipping notice, it will contain the UII data which will be in the WAWF awaiting the PM to receive the goods in DPAS. When the PM receives the goods in DPAS, the IUID will be captured in DPAS. Prior to handing-off the materiel to a gaining unit, the fielding team will scan the materiel to ensure the bar code is readable. The fielding team will generate a good issue transaction from DPAS to GCSS-A; in return the property book officer will generate a PGR to DPAS acknowledging receipt of materiel and confirmation to the accuracy of the UII and serial number provided, completing the issue.

d. Global Combat Support System-Army. GCSS-Army is the Army's tactical level system within the Army Enterprise. Materiel will be receipted into GCSS-Army from both LMP and DPAS. Accountable property shall be tracked using the UII within GCSS-A. It is essential that the Serial Number Profile in GCSS-A aligns with the AESIP Serial Number Flag and that any acquiring activity providing accountable property to the tactical user ensure Serial Number and UII are included in the transactional paperwork.

e. Army Enterprise Systems Integration Program. AESIP is the hub within the Army Enterprise. It houses the Army Enterprise Materiel Master (AEMM), which is the authoritative data source for both materiel masters. The materiel master should have a Serial Number Flag indicating the expectation for IUID marking. The equipment records for all mandated materiel should contain both a Serial Number and a UII to comply with AR 700-145 and transparency requirements.

f. Business rules compliance. All Army modernized systems are complying with IUID business rules for registering IUID items in the DoD IUID registry and reporting identified life cycle events per Office of the Secretary of Defense and Army policies and regulations to the IUID registry via LOGSA's Maintenance Consolidated Database System solution and the Army IUID Warehouse solutions.

3-7. Reporting

a. Plan reviews. Annually, the MATDEVs or item managers will review the IUID plan. When results of an annual plan review show the IUID program is well-defined and current, items requiring IUID are listed in the plan, and only minor changes would be required (such as administrative corrections), a plan update is not required.

(1) MATDEVs with multiple programs can record reviews by the method that best suits their portfolio. MATDEVs, depending on the size and scope of their portfolio, can maintain the record of the reviews either at the MATDEV or establish a central file within their office. Some examples for consideration are:

- (a) A memorandum for record from the MATDEV stating that the plan was reviewed and re-validated. Example provided at figure 3–2.
- (b) During regular portfolio reviews include IUID plan status as an agenda item and annotate in the minutes.
- (c) During regular in progress reviews (IPRs) for programs include the IUID plan status as an agenda item and annotate in the minutes.


	DEPARTMENT OF THE ARMY ORGANIZATION STREET ADDRESS CITY STATE ZIP	
SFAE-AMO-TAS		[Date]
MEMORANDUM FOR THE RECORD SUBJECT: Annual Review of Item Unique Identification Plan		
1. The Product Management Office Silver Fox Systems reviewed the IUID plan on [Insert Date]. Changes to the Fox One program funding have altered the productions schedule somewhat but, has not changed the program plan for items to be marked. The new production schedule is documented in the Acquisition Strategy. At this time, an updated plan is not required.		
2. Point of Contact for this review is [Name, DSN, e-mail].		
[Name] [Title] [Affiliation]		

Figure 3–2. Memorandum for record annual review example

b. Defense Logistics Management System. DLMS is the process governing logistics functional business management standards and practices. IUID data will be provided in the following three DLMS transactions based on conditions identified in Defense Logistics Management (DLM) 4000.25, DLMS Manual, Volume 2, Supply Procedures.

(1) The DLMS forms identified below have fully integrated the UII information, making entry a mandatory field. IUID requirements may be added to additional DLMS procedures as supply chain business process requirements are modified and the UII field is activated. The forms below are available through the Computer Generated system SPEC Builder, DLA.

(a) DLMS Form 842A/W (Standard Supply Discrepancy Report (SDR), Follow-up, Correction, Cancellation, & Reconsideration Request).

(b) DLMS Form 856R (Shipment Status Materiel Returns).

(c) DLMS Form 856S (Shipment Status).

(2) For UIT programs defined by the DLMS DLM 4000.25 Volume 2, additional DLMS transactions are required based on UIT designator code.

3-8. Cataloging and provisioning

a. The MATDEV and acquiring activities must consider the requirements for IUID early in the process, all capital materiel and items that will be property accountable must have an IUID. Items designated for IUID or serial management, reference Army Directive 2016-21, must be conveyed when the Materiel Master is established for the equipment.

b. The MATDEV must work with the maintenance and provisioning personnel to ensure that materiel requiring IUID is properly identified prior to the materiel master record being built, whether through the non-standard process or through a standard provisioning effort. The basis for determining marking requirements is the materiel's IUID Plan, based on AR 700-145, and assessment of Army Directive 2016-21. The provisioner's role in proper coding of materiel is as essential as the physical marking and registering of materiel. For this requirement, refer to AR 700-18.

c. The Army has two levels of IUID confirmation to indicate if an existing materiel requires an IUID.

(1) Within the FLIS there is an IUID Indicator code that will allow anyone accessing WebFLIS to know if the materiel requires IUID. This code is explained within the interactive WebFLIS hyperlinks to identify materiel that is required to be marked in accordance with MIL-STD-130; DoDM 4140.01, Volume 1; DoDI 8320-04; and DoDI 4151.19. The FLIS IUID Indicator must be assigned to each individual NSN.

(2) Within AESIP there is a serialization flag code that will indicate for the Army if a materiel requires IUID. The code is M – requiring mark and all materiel procured must be marked prior to acceptance, N – not requiring a mark, U – requires a mark but there is not strategy for marking, T – requires a mark and some materiel in Army inventory is marked and some is not; any new procurement must ensure the materiel is marked prior to acceptance. The serialization flag code is assigned to both NSN'd materiel and MANPs.

d. For materiel that does not already have a materiel master in the AEMM, the provisioner should:

(1) Evaluate the drawings (engineering data for provisioning) provided and determine if the placement of the IUID mark is indicated on the drawing. It is important that this is provided on the drawing so that future procurement of the materiel can direct the proper and consistent placement of the tag so that it is consistent for the field.

(2) If a NSN is being assigned, coordinate with the Defense Logistics Information Service representatives supporting the provisioning process on the proper method for identifying new materiel requiring an IUID indicator in FLIS. The IUID indicator code is automatically set to read as "N" (No) for new NSNs assigned.

(3) For all materiel that generate a materiel master record, select the appropriate Serial Number Profile within LMP and request a Human In the Logic Serialization Adjudication Group (HITL SAG) review of the newly assigned to assign a Serialization Flag of "M" or "N" as required. Newly acquired items will only have a "U" by exception and are not authorized a "T."

e. For materiel that currently exists that require re-evaluation of IUID requirements, the provisioner should---

(1) Confirm the rationale for changing the IUID Indicator and/or the Serialization Flag.

(2) Submit a change requests processed through the component representative of the Federal Cataloging Committee for the IUID Indicator and submit a Serialization Challenge to the DCS, G-4 HITL SAG.

f. Upon completion of the provisioning effort, the provisioner should provide a copy of the complete list of all items requiring IUID marking to the MATDEV's PSMIPT.

(1) The MATDEV should cross-check its contract to ensure that all items identified as requiring IUID, whether identified in its IUID plan, are identified for marking (see para 3-4).

(2) The LCMC item manager should obtain a copy of the drawing and indicate in the requirement for IUID marking for that materiel. This will be helpful when the item manager inputs the purchase request for future procurements and must indicate whether the item requires IUID. An electronic copy of the drawing will be maintained in a central repository at the LCMC level allowing personnel who need information from this drawing to easily access it.

3-9. Marking maintenance

a. Marking the materiel is the first step in ensuring that property is compliant with the IUID requirements. However, maintaining the information within the registry is just as essential as the initial mark. The registry data is only as valid as the information loaded and maintained within the system. Remember that this is a DoD registry and the information loaded against a materiel is shared amongst the services and components.

b. There are a variety of situations in which the registry should be updated to document changes to the materiel. The registry should be updated by the MATDEV, user, item manager, or repair facility when any of the following events occur.

(1) Change in custody.

(2) A life cycle event (LCE) (see table 3-1 for definitions of life cycle events).

(3) Change in physical marking.

(4) Embedded status change.

- (5) Part or batch and/or lot number change (due to form, fit, or function change).
 - (6) Special test equipment status change.
 - (7) Change in the item owner (Service/Agency).
 - (8) Change in the type designation.
 - (9) Change in the condition code. AMC provides replacement labels to sustain IUID labels that become unserviceable or separated from the item. Instructions for ordering replacement labels are available at <https://www.usarmyamis.army.mil/customersupport/unitlevel-iuid-validate-sustainment-instructions-sop.pdf>.
- c. It is possible for a materiel to be updated incorrectly as well. It is important to use the registry appropriately, so that information is consistently and accurately updated.
- (1) Do not use a custody field or LCE of “loaned” to show a transfer of property from the prime contractor’s location to a sub-contractor.
 - (2) Do not use the custody field to show a change of ownership or location within the DoD. This field is only for the transfer of GFP between the DoD and contractors and return.
 - (3) Do not request deletion of accepted UIIs because they do not match a Service Legacy marking scheme. If the data was correct at the time of registration (not inaccurate), then the UII is for the life of the materiel.

Table 3–1
Life cycle events

Life cycle event	Description
Abandoned	Property surrendered by a Federal agency after a written determination that the property has no commercial value, or the estimated cost of its continued care and handling would exceed the estimated proceeds from its sale. An item has no commercial value.
Consumed	Non-reversibly incorporated into another item.
Destroyed - Accident	Destroyed during a fire, natural disaster, or other unplanned natural or man-made incident.
Destroyed - Combat	Destroyed by the enemy during combat.
Donated	Surplus property provided to a Service Educational Activity; a State, political subdivision, municipality, or tax-supported institution acting on behalf of a public airport; a public agency; a public body; a charitable institution; or any State or local government.
Exchanged - Sold	Provided to a supplier for credit.
Exchanged - Repair	Provided to a supplier for an equivalent replacement part.
Exchanged - Warranty	Provided to a supplier for an equivalent replacement part or credit while under warranty.
Expended - Normal use	Such as in the firing of a missile during combat or consumed during a manufacturing process.
Expended - Experimental/Target	Such as the firing of a missile during training exercises and for testing; items destroyed while serving as a target during training exercises and tests.
Leased	Property that is granted to a lessee for a period of time in exchange for rent or other consideration.
Loaned	Owned by a DoD Component and loaned to contractors, scientific institutions or other organizations.
Lost	Property that cannot be located or otherwise accounted for.
Reintroduced	When an item is returned to DoD service.
Retired	Withdrawn from normal service; taken out of use. Includes decommissioned, stricken, sunken, transferred to AMARC/DRMS; excludes temporary idling of the item.
Scrapped	Waste material that will be reused or reprocessed.
Sold - Other Federal	Title transferred to non-DoD Federal Agencies with compensation
Sold - State/Local	Title transferred to non-Federal governmental entities with compensation
Sold - Foreign Government	Title transferred to non-US governmental entities with compensation
Sold - Non-Government	Title transferred to non-governmental entities such as churches, organizations, with compensation.
Sold - Historic	Title transferred to a museum or similar entity with compensation
Stolen	Lost via theft.

3–10. Retiring unique item identifiers

Item UIIs will not be retired in the DoD IUID Registry until the item is no longer in DoD inventory. When the materiel leaves the Army inventory the Item Manager should specify the appropriate LCE to document the appropriate method of removal (see table 3–1). Retiring a UII will also retire any children UIIs currently embedded within the parent. Common errors are UIIs being reported with incorrect life cycle events because they were not properly unembedded when salvaged from the parent prior to reporting the parent UII as being retired, scrapped, and sold.

Appendix A

References

Section I

Required Publications

AR 700–145

Item Unique Identification (Cited in the title page.)

Section II

Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this publication. DoD publications are available at <https://www.esd.whs.mil/DD/>.

AR 25–30

Army Publishing Program

AR 700–18

Provisioning of U.S. Army Equipment

AR 702–7

Product Quality Deficiency Report Program

AR 710–2

Supply Policy Below the National Level

AR 770–2

Materiel Fielding

DFARS Clause 211.272–6

Contract Clauses

DFARS Clause 252.211–7003

Item Unique Identification and Valuation (Available at <https://www.acq.osd.mil/>.)

DFARS Clause 252.211–7007

Reporting of Government Furnished Property (Available at <https://www.acq.osd.mil/>.)

DLM 4000.25

Defense Logistics Management System (DLMS) (Available at <https://www.dla.mil/>.)

DoD Guide to Uniquely Identifying Items

(Available at <https://www.acq.osd.mil/>.)

DoDI 4151.19

Serialized Item Management (SIM) for Life-Cycle Management of Materiel

DoDI 5000.64

Accountability and Management of DoD Equipment and Other Accountable Property

DoDI 8320.04

Item Unique Identification (IUID) Standards for Tangible Personal Property

DoDM 4140.01, Volume 1

DoD Supply Chain Materiel Management Procedures: Operational Requirements

MIL–STD–129

Military Marking for Shipment and Storage

MIL–STD–130

Identification Marking of US Military Property

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate (APD) website: <https://armypubs.army.mil> and DD forms are available on the Office of the Secretary of Defense (OSD) website: <https://www.esd.whs.mil/directives/forms/>.

DA Form 2028

Recommended Changes to Publications and Blank Forms

DD Form 250

Materiel Inspection and Receiving Report

DD Form 1423

Contract Data Requirements List

DLMS Form 842A/W

Discrepancy Report (SDR), Follow-up, Correction, Cancellation, and Reconsideration Request (Available through Computer Generated System Spec Builder, DLA.)

DLMS Form 856R

Shipment Status Materiel Returns (Supply) (Available through Computer Generated System Spec Builder, DLA.)

DLMS Form 856S

Shipment Status (Available through Computer Generated System Spec Builder, DLA.)

Appendix B

Instructions for Completing Item Unique Identification and Valuation Defense Federal Acquisition Regulation Supplement 252.211–7003

DFARS Clause 252.211–7003 requires manual entry of information to guide contractors in the proper marking of UII.

B–1. Exceptions

The contractor will provide a unique item identifier for the following: Delivered items for which the Government’s unit acquisition cost is \$5,000 or more, except for the following line items:

- a. The customer to the Acquisition Center should specify these items to the procurement specialist. This section of the clause will not remain blank.
- b. These are the items that the MATDEVs has received an exception to using paragraph 2–4 of this pamphlet.
- c. Contract line, subline, or exhibit line item number, item description see table B–1.

Table B–1
Excepted items

CLIN 0001	Special item	NSN 2350–00–222–2222
CLIN NUMBER ITEM	NOMENCLATURE	NSN OR CAGE/PART NUMBER

If no items are exempted so state with a “not applicable and this section should not remain blank.”

B–2. Less than five thousand dollars

Items for which the Government’s unit acquisition cost is less than \$5,000 that are identified in the schedule or the following table B–2. These items should be cross-checked against the FLIS screening IUID, as identified in paragraph 3–9:

- a. If there are too many items insert a table.
- b. If the items are identified in the General Services Administration Schedule, Insert “See Schedule.”
- c. This section of the clause will not remain blank. If there are no additional items, Insert “Not Applicable.”
- d. Contract line, subline, or exhibit line item number, and item description.

Table B–2
Excepted items 2

CLIN	Nomenclature	Identifier	Cost
0111	Special item #1	Cage 12345, P/N 888888	\$1,230
A0111	Special item #2	1031–80–103–1980	\$3,900

If items are identified in the schedule, insert “see schedule in this table.”

B–3. Other considerations

The following is a listing of other considerations:

- a. If IUID is required when procuring a new end item, then a tabular listing should be created and it needs to be identified as an attachment within section J of the contract and specifically referenced here.
- b. If this is a new end item and it is not clear what items will meet the IUID criteria until the design is finalized and provisioning activities have commenced, it is recommended that the attachment identifies the criteria for each category and identifies the corresponding CDRL for identification of the list (that is, reparables would be the Maintenance Allocation Chart) and requires the manufacturer and Government to reach a mutual agreement on IUID marks X days (a predetermined number of days based on the program’s schedule) prior to the first vehicle being ready for acceptance.
- c. Production materiel should not be accepted until all IUID markings have been verified and registered in accordance with AR 700 –145.
- d. For reprourement or spares buys, the IUID requirement should be known and an attachment created and appropriately referenced.

B-4. Wide Area Workflow

The contractor will submit the information required by DFARS Clause 252.211-7003 and this clause as follows:

- a.* End items will be reported using the receiving report capability in WAWF in accordance with the end items will be reported using the receiving report capability in WAWF in accordance with the clause at 252.232-7003.
- b.* If WAWF is not required by this contract, and the contractor is not using WAWF, follow the procedures at <https://dodprocurementtoolbox.com/site/uidregistry/>. All contracts purchasing new materiel (end item).

B-5. Embedded Capability

Embedded items will be reported by one of the following methods:

- a.* Use of the embedded items capability in WAWF;
- b.* Direct data submission to the IUID Registry following the procedures and formats at <https://dodprocurementtoolbox.com/site/uidregistry/>; or via WAWF as a deliverable attachment for exhibit line item number (fill in), Unique Item Identifier Report for Embedded Items, and DD Form 1423 (Contract Data Requirements List).

Appendix C

Contract Language and Corresponding Contract Data Requirements List

When developing the statement of work supporting a contract action, consider the following criteria to guide requirements for the program's IUID Program.

C-1. What type of effort is this?

- a.* If this is a contract that will be signed by a warranted contracting officer, make sure the clause is filled out appropriately (see app B).
- b.* If the effort is being covered by a MOA or MOU or another type of contract the DFARS clauses will not be included. Inclusion of requirements for UII marking, validation, registration, updates, and replacement of damaged marks need to be addressed within the statement of work.

C-2. What special requirements exist for the materiel being procured?

- a. Background.* Remember that the ideal marking location for an UII is on the data plate (see para 2-2). The action officer can include language within the statement of work to ensure that would instruct the contractor on where to place the mark.
- b. Sample language.* The following sample statements may be used in the statement of work to help ensure the proper marking, placement, and permanency of the UII mark. These examples are not all inclusive, but provide some initial guiding language that may be used in whole or in part as required.
 - (1) *Permanency and legibility.* The IUID marking and identification plates, tags, etching, or labels when used on equipment, parts, assemblies, subassemblies, units, sets, groups, or kits will be as permanent as the normal life expectancy of the item and be capable of withstanding the environment, test, cleaning, repair, and rebuild procedures specified for the item. Legibility will be as required and verified for ready readability per MIL-STD-130.
 - (2) *Deleterious effect.* Marking of items will be accomplished in a manner that will not adversely affect the life and utility of the item. Marking materials creating hazardous conditions will not be used. Placement and choice of the marking will not create hazardous conditions.
 - (3) *Mark placement.* To the utmost extent possible, the contractor will incorporate the UII onto the materiel's data plate. The mark will be in 2-D matrix format and accompanied by Human Readable Information. Any materiel the contractor identifies as being unable to place the UII on the data plate will be identified and alternate placement locations will be discussed with the Government for approval.
- c. Contract data requirements list and/or data item.* There is no specific DID required to support this language. There is no report or deliverable required as a result of this language.

C-3. Does the requiring activity want some form of plan for incorporation of the item unique identification?

- a. Background.* This plan would identify the process and methods that the contractor will use to ensure materiel is properly marked. The contractor's plans for marking can be utilized in the development of the program IUID Plan, as well as provide a method for assessment and surveillance of marking compliance.
- b. Sample language.* The contractor will develop, deliver, and update an IUID Marking Plan (CDRL XXX) for all materiel delivered under this effort that requires an UII.
- c. Contract data requirements list and/or data item.* In order to obtain this plan utilize DID DI-MGMT-81803 when creating the CDRL. The DID may be tailored to meet the specific needs of the program. As is, it covers all aspects of marking, to include facility requirements, quality assurance, schedules, and data management.

C-4. Does the requiring activity plan to require a validation report?

- a. Background.* The IUID Marking Activity, Validation, and Verification Report is a tabular list providing IUID marking activity, validation, and verification data such as: physical asset marking, registration, inventory audits, quality audits, and verification/validation results.
- b. Sample language.* The contractor will develop, deliver, and maintain an IUID Marking Activity, Validation, and Verification Report (CDRL XXX) for all materiel delivered under this effort that requires an UII.
- c. Contract data requirements list and/or data item.* In order to obtain this report utilize DID DI-MGMT-81804 when creating the CDRL. The DID may be tailored to meet the specific needs of the program. As if, this DID has the contractor validating its marks and providing the status to the Government prior to providing materiel for acceptance.

C-5. Does the requiring activity want to request that the item unique identification is submitted through worldwide area workflow?

Remember that the DFARS clause specifically states that if requiring activity wants to request WAWF utilization, the contract must specifically call out its use.

a. Background. Having the contractor submit the data through WAWF increases the Army's ability to trace the procurement of the materiel through its issuance to the unit. This is the preferred data entry method for all contracts.

b. Sample language. The contractor will use the WAWF to input the UII information. The contractor will, to the maximum extent possible, utilize the embedded functionality of WAWF to input the data and minimize, if not eliminate, the use of scanned and uploaded documents.

c. Contract Data Requirements List and/or data item. There is no specific DID required to support this language. There is no report or deliverable required as a result of this language.

C-6. Does the materiel being purchased have existing "Seek and Apply" Instructions?

a. General. If the materiel is newly procured or there is no existing marking information, consider requiring the contractor to provide technical data.

(1) *Background.* Having the contractor provide technical data for the materiel with a UII specifying the marking location, will enable consistent application of the UII across the same piece of materiel regardless of when and how purchased. Ideally, the contractor will annotate the UII on the data plate. In the situations where marking the data plate is not possible, it is especially important to have the location of the UII identified.

(2) *Sample language.* The contractor will provide technical information depicting where the UII mark has been placed for every unique materiel (that is, NSN or part number) delivered under this effort. The contractor will submit diagrams showing placement and description of the IUID marking and applicable installation and processing instructions. Each unique materiel will have its own submission (CDRL XXXX).

(3) *Contract Data Requirements List and/or Data Item.* In order to obtain this report utilize DID DI-MGMT-80711A when creating the CDRL. The DID may be tailored to meet the specific needs of the program. As written, this DID has the contractor validating its marks and providing the status to the Government prior to providing materiel for acceptance.

b. General. If the materiel has existing "Seek and Apply" Instructions, provide the current instructions for the materiel to the contractor to ensure consistent placement.

(1) *Background.* Every materiel should be marked in the same manner consistently. This is essential for ensuring mark readability and that the QA and user community know where the mark is placed.

(2) *Sample language.* The contractor will use the UII mark placement instructions found in Attachment X for the following materiel: item nomenclature and NSN. (Note that there may be a list of several pieces of materiel with existing instructions. Make sure the attachment properly calls out which instructions belong to which piece of materiel).

(3) *Contract Data Requirements List and/or Data Item.* There is no specific DID required to support this language. There is no report or deliverable required as a result of this language.

Note: A combination of the two methods above may have need to be used if some, but not all materiel have existing instructions.

C-7. Does the action officer require a method to monitor the status of the unique item identifier application and a complete listing of all unique item identifiers created under the effort?

a. Background. In some instances, it may be helpful to have a status report that provides the Government with the marking progress for all UIIs. Note: the Validation and Verification Report are for lot samples and do not provide a complete listing of all materiel marked under the contract.

b. Sample language. The contractor will provide a UII marking status report (CDRL XXX) that identifies all UIIs marked and their corresponding information (NSN, nomenclature, serial number, and registry entry date).

c. Contract data requirements list and/or data item. In order to obtain this report utilize DID DI-MGMT-80368A when creating the CDRL. The DID needs to be tailored to meet the specific needs of the program. As written this DID does not specify what contract effort the contractor is to report on.

Glossary

Section I

Abbreviations

ACAT

acquisition category

AEMM

Army Enterprise Materiel Master

AIT

automatic identification technology

AMC

U.S. Army Materiel Command

API

Application Program Interface

APO

accountable property officer

APSR

Accountable Property System of Record

CAGE

Commercial and Government Entity

CDRL

Contract Data Requirements List

DCMA

Defense Contract Management Agency

DCS

Deputy Chief of Staff

DFARS

Defense Federal Acquisition Regulation Supplement

DIs

data identifiers

DLM

Defense Logistics Management

DLMS

Defense Logistics Management System

DoD

Department of Defense

DoDAAC

Department of Defense Activity Address Code

DoDI

Department of Defense Instruction

DPAS

Defense Property Accountability System

DRMS

Defense Reutilization and Marketing Service

DS

DLMS Supplemental

DUNS

Data Universal Numbering System

EDL

Equipment Detail List

FLIS

Federal Logistics Information System

GCSS–Army

Global Combat Support System – Army

GEX

Global Exchange

GFP

Government Furnished Property

HTTL SAG

Human in the Logic Serialization Adjudication Group

ISO/IEC

International Organization for Standardization/International Electrotechnical Commission

IUID

item unique identification

LCE

life cycle event

LCMC

Life Cycle Management Command

LDAC

Logistics Data Analysis Center

LMP

Logistics Modernization Program

MATDEV

materiel developer

MDA

Milestone Decision Authority

MOA

memorandum of agreement

MOU

memorandum of understanding

NSN

national stock number

OEM

original equipment manufacture

PBO

property book officer

PDREP

Product Data Reporting and Evaluation Program

PEO

program executive office

PGR

post goods receipt

PM

program manager

POM

program objective memorandum

PSMIPT

Product Support Management Integrated Process Team

QA

quality assurance

SDR

Supply Discrepancy Report

SIM

serialized item management

SYSPARS

Systems Planning and Requirements Software

TAMMS–A

The Army Maintenance Management System-Aviation

UII

unique item identifier

UIT

unique item tracking

UV

ultra violet

WAWF

Wide Area Workflow

XML

Extensible Markup Language

2–D

two–dimensional

Section II**Terms****Contract clause compliance metric**

Contract clause compliance (expressed as a percentage) with DFARS Clause 252.211–7003 is defined as the number of contracts issued (that should have contained the clause) divided by total number of contracts requiring the clause.

Critical safety item

Items or parts where failure could cause loss of life, permanent disability, major injury, loss of a system, or significant equipment damage.

Department of Defense Item Unique Identification Registry

The DoD IUID Registry is a database located in Battle Creek, Michigan and is operated by the Defense Logistics Information Service. The purpose of the DoD IUID Registry is to collect UIIs assigned to items owned by DoD and to distribute UII and related information to DoD users. The DoD IUID Registry provides a single point of reference for DoD items with assigned UIIs. The DoD IUID Registry will identify an item, custody (DoD or contractor), and value. The DoD IUID Registry will not track the item's location, who is using it, or provide configuration management. The DoD IUID Registry is available at <https://wawf.eb.mil/>.

End item

Final combination of end products, component parts, and/or materials ready for its intended use.

Item unique identification

A system of marking items with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items.

Items marked metric

The items marked metric reports the total number of items marked and registered divided by the total number of items planned to be marked.

Label

An item marked with the identification information of another item and affixed to that other item. A label may be of any similar or different material than that of the item to which it is affixed. A label may be made of a metallic or nonmetallic material. Labels may be affixed to the identified item by any appropriate means. Labels are often referred to as plates (for example, data plate, name plate, or identification plate); however, label material and methods of marking and affixing have no bearing on this distinction.

Leased

Leased equipment is not government procured equipment and therefore is not required to be marked. Leased equipment will be identified in the “Note” Column as “Leased” and UIIs will not be ordered. Property book personnel will account for these items utilizing an APSR AIT generated Bar Code.

Legacy item

DoD-owned items and end items that have already been produced and deployed for use or that have been produced and placed in inventory or storage pending issue. Legacy items do not include new procurement items not marked by the original equipment manufacturer but transferred to a secondary facility for marking (these items are New).

Marked

In each unit, there are several pieces of equipment that are marked but not reflected on the EDL as being marked (entry in UII column N). This is due to either error in the APSR data or error in UII associated data. AMC, in coordination with AMCOM and program management offices, identify and correct issues create the disconnection between the DoD registry and the APSR. AMC relies on units, during data cleansing, to identify equipment as “Marked” to research the reason for the disconnection and resolve.

Not Available

Any equipment that has been identified to be turned in to Defense Logistics Agency Disposition Services, deployed during the marking of other unit equipment (to be marked upon re-deployment), and equipment transferred out of the State/Brigade/Battalion Separate. It is agreed that State/Brigade/Battalion Separate PBOs will suspend transfer of equipment, once IUID labels have been ordered, until the equipment is marked.

Personal property

All property (systems and equipment, materials, and supplies), except real property (land and improvements to facilities), and records of the Federal Government.

Pilferable Items

Items that have a ready value or application to personal possession and that are, therefore, especially subject to theft (see DoD 4100.39–M).

Program objective memorandum submissions metric

POM submissions metric is defined as total funding received through the POM divided by the total funding identified in the IUID plan submitted.

Quality deficiencies metric

The quality metric is defined as the total number of IUID-related quality deficiencies reported divided by the number of items marked.

Serially managed

Includes reparable items down to, and including, the subcomponent reparable unit level; life-limited items; time-controlled items; items requiring records; and items that require technical directive tracking at the part level.

Systems of components

Items that are listed on the property book as an end item but are tracked by a serial number of one of the components (that is, there is no data plate, and if there is a data plate for the system, it is not serialized). There is no data plate that

identifies the end item and the end item is tracked on the property book by the serial number of one of the computers (a component). These “systems of components” cannot be marked.

Unique item identifier

A set of data elements assigned to an item that is globally unique and unambiguous.

Unique item traceability

Establishes the authenticity of an individual item or group of items at any time during their life and requires the capability to link information about the item to it. The ability to discover life cycle intelligence about an item is known as traceability.

Virtual unique item identifier

A virtual UII is when UII data elements for an item have been captured in the DoD IUID Registry, but not yet physically marked on the item. Use of the virtual UII enables the entry of a UII and its associated pedigree data into the DoD IUID Registry, while postponing the physical marking of the item with a DoD IUID-compliant 2–D data matrix symbol to a more advantageous time based on logistics and economic considerations. Virtual UIIs apply only to legacy items.

2–D Data matrix

The symbology used for the mark on an item is a 2–D Data Matrix symbol with error correction code 200. The UII is encoded into a data matrix symbol. 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 (modules) that must all be read before any characters can be recognized. Matrix symbols are encoded with a binary code requiring an optical imager to read them. A data matrix can store from one to about 2,000 characters. The symbol is square or rectangular and can range from 0.001 inch per side up to 14 inches per side.

Section III

Special Abbreviations and Terms

This section contains no entries.

UNCLASSIFIED

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