

General Dynamics Land Systems

Supplier Instruction
For
Item Unique Identification (IUID)
Marking

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REVISION RECORD

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1. Purpose

This Vendor Instruction defines the requirements for applying a U.S. Department of Defense (DoD) Item Unique Identification (IUID) mark and submittal of required data to the DoD IUID Registry. A IUID mark consists of an encoded data string applied via a 2-dimensional (2-D) data matrix symbol. This Vendor Instruction provides instruction on the format of the encoded data, the application of a valid 2-D data matrix symbol, and submittal of required data for/to the DoD IUID Registry. This document also details the process for meeting these requirements.

A IUID mark is normally required when the U.S. Department of Defense Federal Acquisition Regulations Supplement (DFARS) 252.211-7003 (Item Identification and Valuation) is listed as a contractual requirement. The DFARS clause references MIL-STD-130 (Identification Marking Of US Military Property), which in turn regulates the details of the mark. The DFARS clause also references several policy and guideline documents issued by the DoD. It is the intention of this Vendor Instruction to interpret these various generic requirements, and provide specific direction to vendors and subcontractors providing material to General Dynamics Land Systems for delivery to DoD customers.

2. Scope

This Vendor Instruction is applicable to all products requiring IUID at General Dynamics Land Systems (GDLS). This document encompasses the application of a valid UID mark and submission of IUID required data for the DoD IUID Registry.

3. Applicable Documents

Reference	Title
DFARS 252.211-7003	Defense Federal Acquisition Regulation Supplement for Item Identification and Valuation [Updated Final Rule for UID, June 2005]
MIL-STD-129P w/Change 1	Military Marking for Shipment & Storage
MIL-STD-130L w/Change 1	Identification Marking of US Military Property
DoD 4140.1-R	DoD Regulation - DoD Supply Chain Material Management
DoDI 5000.2	DoD Instruction - Operation of the DefeLSe Acquisition System
DoDI 5000.64	DoD Instruction - DefeLSe Property Accountability
DoD 7000.14R	DoD Instruction - DoD Financial Management Policy and Procedures
CJCSI 3170.1C	Requirements Generation System
DCMA One Book	DCMA Reference Material For Contractors
DoD MIL-HDBK-61A (SE)	Configuration Management Guidance
EIA Standard 836	Configuration Management Data Exchange & Interoperability

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Reference	Title
ALSI/EIA 649	National Consensus Standard for Configuration Management
ISO/IEC Standard 15418	EAN/UCC Application Identifiers and ASC MH 10 Data Identifiers and Maintenance
ISO/IEC Standard 15434	Syntax for High Capacity ADC Media
ISO/IEC 15459-2 Standard	Registration Procedures
ISO/IEC Standard 16022	International Symbology Specification - Data Matrix
ISO/IEC Standard 15415	Bar Code Print Quality Test Specification - Two-Dimensional Symbols
SAE AS9132	Data Matrix (2D) Coding Quality Requirements for Parts Marking
ATA	Common Support Data Dictionary
"Guide 1.5"	DoD Guide to Uniquely Identifying Items - Assuring Valuation, Accountability and Control of Government Property, Version 1.5, 07 June 2005
"UII Quality"	Quality Requirements - Quality Considerations for UII - 30Jun2005.pdf
"UID Basics 1Jul05"	UID - The Basics - 01Jul2005.pdf
"UII Construction Tips 5Jul05"	Tips on Constructing the UII - 05Jul2005.pdf

Documentation may be found on the **DoD UID Website**: <http://www.acq.osd.mil/dpap/UID>.

4. Definitions, Abbreviations & Acronyms

4.1 Definitions

See Appendix A.

4.2 Abbreviations & Acronyms

See Appendix B.

5. Requirements

Vendors shall ensure items identified in GDLS Purchase Orders as requiring IUID marking are properly marked in accordance with DFARS 252.211-7003 and MIL-STD-130 (current version as of this date is MIL-STD-130L w/Change 1). The following documents provide additional guidance:

- DoD Guide to Uniquely Identifying Items - Assuring Valuation, Accountability and Control of Government Property, Version 1.5, 07 June 2005
- Quality Requirements - Quality Considerations for UII - 30Jun2005.pdf
- UID - The Basics - 01Jul2005.pdf
- Tips on Constructing the UII - 05Jul2005.pdf

Documentation may be found on the **DoD UID Website**: <http://www.acq.osd.mil/dpap/UID>.

The following section describes the requirements and methods for applying DoD Item Unique Identification (IUID) on either a nameplate (metal photo process) or a label (thermal transfer process). There are two major considerations in marking the UII. They are 1) the encoded UII data string, and 2) the 2-D data matrix mark.

5.1 UII Encoded Data String

An example General Dynamics Land Systems UII encoded data string, as encoded in the 2-D data matrix, is included below:

D>^R_s06^G_s17V7W356^G_s1P305051-903^G_sSA1234^R_s^E_s^O_T

A correct encoded UII data string involves an understanding of the **1) data elements**, **2) data qualifiers**, **3) data element separators**, and **4) message header**

5.1.1 Construct Type

Before a UID is constructed, it is important to note that there are two acceptable methods of serialization: Construct 1 - serialization within the enterprise identifier, and Construct 2 - serialization within the part number. The type of serialization will govern the construction of the UII. Serialization within the enterprise identifier occurs when each tangible item is assigned a serial number that is unique among all the tangible items identified under the enterprise identifier, and is never used again. Serialization within the part number occurs when each tangible item of a particular part number is assigned a unique serial number within the original part number assignment, and the part number – serial number combination is never used again.

The method in which GDLS serializes is **Construct 2 – serialization within the part number**. For items that are serialized within the part number, unique identification is achieved by a combination of the issuing agency code, enterprise identifier, the original part number, and the serial number.

Three data elements will comprise the universally unique identification number for each serialized item:

- Original Equipment Manufacturer (OEM) identification code [Commercial and Government Entity (CAGE) (preferred), Dun and Bradstreet Number, or UCC.EAN]
- OEM part or reference number, and
- OEM serial number (single use within OEM part or reference number, per manufacturer identification code)

5.1.2 Data Qualifiers **17V, 1P, S**

Data Identifiers (DIs) enable the customers' business systems to identify the category of data elements which follow. There are four allowable formats for Data Identifiers - CAGE/NCAGE, DUNS, and EAN.UCC, and Other Agencies – as shown in the table below. GDLS has chosen to use **Data Identifiers, Format 06**, in order to align with other Business Units in the General Dynamics Corporation.

Table 5.1.2 Data Qualifiers

Data Element	DI (Format 06) ISO/IEC 15434	AI (Format 05) ISO/IEC 15434	TEI (Format DD) ATA CSDD
Enterprise Identifier <ul style="list-style-type: none"> • CAGE/NCAGE • DUNS • EAN.UCC • Other Agencies 	17V 12V 3V 18V <i>(Note 1)</i>	95	CAG, MFR or SPL <i>(Note 2)</i> DUN EUC
Serial Number within Enterprise Identifier			SER or UCN <i>(Note 3)</i>
Serial Number within Original Part Number	S	21	SEQ
Original Part Number	1P	01	PNO
Lot / Batch Number	1T	10	LOT or BII
Concatenated UIIs	25S <i>(Note 4)</i> I <i>(Note 5)</i> 22S <i>(Note 6)</i>	8002 <i>(Note 7)</i> 8003 <i>(Note 8)</i> 8004 <i>(Note 9)</i>	UID
Unique Item Identifier (not including the IAC)	18S <i>(Note 10)</i>		USN or UST <i>(Note 11)</i>
Current Part Number <i>(Note 12)</i>	30P	240	PNR

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Notes:

- Note 1: Data identifier 18V is the concatenation of the Issuing Agency Code (IAC) + Enterprise Identifier (EID). This data identifier would be used for all other EIDs, which were assigned by an issuing agency that has an assigned IAC but does not have their own specific EID data identifier.
- Note 2: MFR - Manufacturer CAGE Code. Identifies the manufacturer, government agency or other organization controlling the design and the part number assignment of the subject part.
SPL - Supplier CAGE Code. The organization assigning a Unique Component Identification Number (UCN), where the organization is not the manufacturer, government agency, or other organization controlling the design of the serialized component.
- Note 3: SER - Serial Number within Enterprise. The SER is the manufacturer's serialized identity for an individual part, component or component end item.
UCN - Unique Component Identification Number. The UCN is the permanent tracking identity assigned to an in-service part in lieu of the manufacturer's serial number.
- Note 4: 25S is a data identifier defined as the identification of a party to a transaction (as identified by data identifier 18V), followed by a supplier assigned serial number (for UII purposes, this has to be unique serialization within the EID that assigns the UII data elements). Thus, for UII purposes, 25S must represent the following string of concatenated elements – IAC + EID + Unique serial number within the EID, which directly corresponds to a concatenated UII using Construct #1.
- Note 5: DI I identifies a U. S. Vehicle Identification Number – VIN.
- Note 6: DI 22S identifies a cellular mobile telephone electronic serial number.
- Note 7: AI 8002 identifies a cellular mobile telephone electronic serial number.
- Note 8: AI 8003 identifies an EAN.UCC GRAI.
- Note 9: 8004 is the application identifier for the EAN.UCC Global Individual Asset Identifier (GIAI). The GIAI is up to 30 characters and is a combination of the EAN.UCC Company Prefix and an Individual Asset Reference, which is assigned by the holder of the EAN.UCC Company Prefix.
- Note 10: In the case where the EID is the CAGE Code, data identifier 18S may be used. 18S is defined as the concatenation of the CAGE Code (EID) + Unique serial number within the CAGE Code. This is UII Construct 1. This data element does not contain the IAC, which must be added.
- Note 11: USN – The concatenation of MFR + SER.
UST – The concatenation of SPL + UCN.
These elements do not contain the IAC, which must be added.
- Note 12: The current part number is not part of the UII. It is an additional data element that may be encoded in the ISO 15434 syntax with the UID and placed on the item in a separate data matrix symbol, or, in the case of severe space limitations, it may be encoded in the same data matrix along with the UII data elements (see MIL-STD-130L).

5.1.3 Data Elements

Enterprise Identifier 7W356

Because the Issuing Agency is CAGE, the enterprise identifier is the CAGE code. The CAGE code for GDLS is 7W356 (Lima 9R547, Tallahassee 0HGX3, Anniston 07MV4 and BR Williams-Anniston 46VM9). However, if a vendor or subcontractor IUID-marks and registers his own equipment in the DoD IUID Registry, the Enterprise Identifier and Issuing Agency used shall be the vendor's/subcontractor's. There may also be instances where GDLS may be required to use the customer's Enterprise Identifier in the UID, if specified in the contract.

Original Part Number 305051-903

The original part number is a combination of numbers and letters assigned by the enterprise (i.e., a manufacturer or vendor) at asset creation to a class of items with the same form, fit, function, and interface. Normally, GDLS shall use the vendor-assigned part number. However, part number may also be specified by customer-owned drawings in many different formats (ex 12993456).

Serial Number A1234

The serial number within the part number is a combination of numbers and letters assigned by the enterprise (i.e., a manufacturer or vendor) to an item that provides for the differentiation of that item from any other like item. GDLS shall normally use the manufacturer/vendor-assigned serial number. The data elements of enterprise identifier, original part number and serial number within the original part number provide the permanent identification for the life cycle of the item.

5.1.4 Data Element Separators RS GS EoT

Data Element Separators are indicators to the automated identification technology (AIT) media (e.g., scanner) and business system that a new field has encountered. Data elements separators are non-printable characters, and can only be programmed using the matrix encoding software. At GDLS, Seagull Scientific's BarTender is the software application used for inserting data element separators between data elements. The separators consist of a return separator, group separator, and an end-of-transmission separator.

5.1.5 Message Headers]> 06

A header is string of ASCII characters which the DoD requires at the beginning of the data string.

]> is a three character Compliance Indicator consisting of left bracket, right parentheses, and the greater-than symbol.

5.2 UID Marking

MIL-STD-130, DoD Standard Practise for Identification Marking of US Military Property, is the governing document for the application of the 2-D data matrix.

There are several important aspects surrounding marking. They are:

1. Marking method
2. Marking media
3. Marking verification

5.2.1 Marking Method

There are two basic types of marking allowed in the MIL standard: 1) indirect part marking, and 2) direct part marking.

Indirect Part Marking

Indirect part marking involves the affixing of a label, nameplate or tag to the end item. Historically, 100% of products delivered by GDLS to DoD customers are marked in this manner.

Direct Part Marking

Common forms of direct part marking methods include dot-peen, chemical etch, laser etch, and stencil printing. GDLS does not currently utilize direct part marking but may if the parts cannot be marked using data plates.

5.2.2 Marking Media

At GDLS, the UID will be marked on a nameplate or label, in accordance with MIL-STD-130.

If a particular order necessitates a deliverable item be marked using a nameplate, GDLS shall specify nameplate layout and content with the order. Otherwise, labels shall be used.

Labels shall be metalized polyester, with a transparent polyester sheet, similar to Winco Identification's (WincoID) TT777 Gloss Polyester Material. Labels shall be printed using thermal transfer printers.

Each deliverable item requiring IUID marking per the DoD IUID Guidelines has unique location and space available for placing the UII label. Therefore, the vendor shall select appropriate label size sufficient to contain the information required by MIL-STD-130. Typically, commercial off-the-shelf (COTS) products are marked with manufacturer's/vendor's logo, part number, and serial number. The additional information required to be added on a label in this case will typically be the Enterprise Identifier (e.g., CAGE or DULS code) and the UII 2-D matrix. If a particular order requires additional marking, GDLS shall include said requirement(s) in its Purchase Order.

5.2.3 Mark Quality Verification

To ensure the 2-D data matrix meets the standard, the standard requires that the mark be “verified”. If a mark is readable, this does not necessarily mean that the mark has been verified to meet the standard. Verification involves evaluating the marking against criteria outlined in ISO/IEC standards 16022, 15416 and 15426. In summary:

- The 2-D data matrix shall be at least a “grade B” and maintain a minimum “grade C” quality over the service life of the item marked.
- The standard states that for acceptance the symbol shall have a minimum print quality of B/05/660, where the minimum grade is B, measured with an aperture size of 0.127 mm (0.005) with a light source wave length of 660 nm + or - 10 nm. The methodology for measuring the print quality shall be as specified in ISO/IEC 16022.
- The standard states that the 2-D symbol shall be ECC (Error Correction Code) 200.
- The standard states that minimum cell sizes and quality levels shall be within a range of 0.0075 inch (0.19 mm) to 0.015 inch (0.38). **Note: GDLS has standardized on a cell size range of 0.011 to 0.014 inch, with nominal size of 0.0125 inch.** The matrix symbol shall be selected in accordance with Table 11 of ISO/IEC 16022, for the proper configuration to support the data fields being encoded, and to physically fit on the selected label size for the available label area.

For further clarification on mark requirements, please reference the aforementioned ISO Standards.

6. Registration Data

When a vendor or contractor ships items, IUID data must be included in the electronic shipment notification as the contract specifies and as the Requiring Activity requests. The IUID standards and Guidelines specify certain data is to be uploaded into the DoD IUID Registry database via Wide Area Workflow. The information required from the Vendor to support that submittal is listed below.

6.1 Required Vendor Information

The following information shall be submitted by the Vendor to the procuring General Dynamics Business Unit at the time of material shipment. Address instructions shall be included in the General Dynamics Purchase Order. The information requested below shall be provided for each unit requiring UII marking.

For each shipment containing UII-marked items, provide the following data:

1. Vendor Name
2. Gov't. Contract Number
3. Gov't. Delivery Order (D.O.) Number
4. GDLS Purchase Order (P.O.) Number
5. Shipment Number (if multiple shipments; e.g., back-ordered item)
6. Ship Date
7. Carrier and Tracking Number
8. Ship-to Address
9. Ship-to Address DoDAAC

For each UII-marked item contained in the shipment, provide the following data:

10. GDLS Purchase Order Line Item Number
11. EIN Issuing Agency Code
12. Enterprise Identification Number (EIN) (e.g., Manufacturer's CAGE code / DULS / UCC Number)
13. Original Part Number
14. Current Part Number (if applicable)
15. Serial Number
16. UII Number (Concatenated unique item identifier; or DoD-recognized UII equivalent)
17. UII Type
18. Parent UII Number (if applicable)
19. P.O. Unit Price
20. Validation Report Attached: Yes: ____ No: ____ NA (Label Not Verified): ____

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Each embedded item UII shipped shall have its parent end-item UII identified. The parent-child relationship shall always be hierarchical to one level. Parent item is defined as the item assembly, intermediate component or subassembly that has an embedded item with a unique item identifier or DoD recognized unique identification equivalent. An example may be a control module in a data switch that is identified as requiring IUII marking.

Although the **Lot or Batch Number** is identified in the IUID standards, GDLS assumes that all items it procures will not be controlled by the Government on a lot or batch basis, and hence will not be part of the concatenated IUII value. Should an occasion warrant using the lot or batch number, GDLS shall identify the requirement to the vendor with the Purchase Order.

Should an IUID-Registered item's part number change, the following data shall be included in the IUID information provided the GDLS Business Unit:

- Original Part Number
- Current Part Number
- Current Part Number Effective Date

6.2 Required Vendor Information Submittal Format

The required information shall be submitted by the Vendor to the procuring General Dynamics Business Unit via a tabular format, as illustrated in **Figure 4.0-1**. A Microsoft Excel file is preferred; an alternative is a comma-separated-variable (CSV) file. Maximum alpha-numeric characters are identified for each field. A separate row shall be used for each UII-marked item.

6.3 GDLS-Provided Information

GDLS shall provide the vendor with the following information in or with the Purchase Order:

1. Purchase Order Number
2. Gov't. Contract Number
3. Gov't. Delivery Order (D.O.) Number
4. Ship-to Address
5. Ship-to Address DoDAAC
6. Each item in the GDLS Purchase Order requiring IUID marking shall be so identified.

Figure 6.0-1 Data Submission File Format

Contract No.	Delivery Order No.	Purchase Order / Sales Order No.	Shipment No.	P.O. Line Item ID	EIN Issuing Agency Code	Enterprise ID (EIN)	Original Part No.	Serial No.	Item UII	Item UII Type	Parent UII of Item	Item Unit Price (P.O. Price)	Current Part No. (If Applicable)	Current Part No. Effective Date (If Applicable)	UII Validation Report Attached
25 Char. Max.	25 Char. Max.	16 Char. Max.	16 Char. Max.	8 Char. Max.	4 Char. Max.	13 Char. Max.	32 Char. Max.	30 Char. Max.	78 Char. Max.	10 Char. Max.	78 Char. Max.	18 Digit Max. Decimal Number	32 Char. Max.	32 Char. Max.	3 Char. Max (Yes/No /NA)

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6.4 IUII Mark Quality Verification

As described in Section 5.2.3, the standard requires that the IUII mark be “verified”. The verification may be performed on each label, or on a sample basis. See Quality Considerations for Unique Item Identifiers, dated June 30, 2005 for additional information.


The Government has the right to inspect the IUID label Quality Verification records. Therefore, GDLS requires that the vendor maintain said records, or provide copies of the applicable IUID label Quality Verification reports to the procuring General Dynamics Business Unit at the time of material shipment. The Data Submission file includes a field for each item to indicate whether the label was verified, and if so, if a copy of the Verification report is being submitted to the GDLS Business Unit or if it is being retained at the Vendor’s.

Appendix A

Key Definitions

Word or Phrase	Definition	Source
Automatic identification device	A device, such as a reader or interrogator, used to retrieve data encoded on machine-readable media.	252.211-7003
Compliant unique item identifier	For DoD purposes, a compliant UII is either a Construct #1, Construct #2, Global Individual Asset Identifier (GIAI), Global Returnable Asset Identifier (GRAI), Vehicle Identification Number (VIN), or Electronic Serial Number ((ESN), for cell phones only), all of which have their data elements encoded in a data matrix in the ISO/IEC 15434 syntax with ISO/IEC 15418 or ATA CSDD semantics.	DoD Guide to Uniquely Identifying Items
Concatenate	To link together in a series or chain.	Merriam-Webster Online Dictionary
Concatenated unique item identifier	<ol style="list-style-type: none"> 1. For items that are serialized within the enterprise identifier, the linking together of the unique item identifier data elements in order of the issuing agency code, enterprise identifier, and unique serial number within the enterprise identifier; or 2. For items that are serialized within the original part, lot or batch number, the linking together of the unique item identifier data elements in order of the issuing agency code, enterprise identifier, original part, lot or batch number, and serial number within the part, lot or batch number. 	252.211-7003
Controlled inventory	Those items that are designated as having characteristics that require that they be identified, accounted for, segregated, or handled in a special manner to ensure their safeguard and integrity. Includes classified items (require protection in the interest of national security), sensitive items (require a high degree of protection and control due to statutory requirements or regulations, such as precious metals; items of high value, highly technical, or hazardous nature; and small arms), and pilferable items (items having a ready resale value or application to personal possession, which are especially subject to theft) (See DoD 4100.39-M, Volume 10, Table 61); and safety controlled items.	

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Word or Phrase	Definition	Source
Custodian	The enterprise that has stewardship accountability of an item, i.e., responsibility for the control of, transfer and movement of, and access to, equipment and material. Custody also includes the maintenance of accountability for equipment and material.	Based on the definition of “custody” from the JCS DoD Dictionary
Data carrier	The medium selected to record, transport or communicate data. For unique identification purposes, the data carrier is the Data Matrix symbol.	The American Heritage Dictionary
Data Matrix	<p>A two-dimensional matrix symbology containing dark and light square data modules. It has a finder pattern of two solid lines and two alternating dark and light lines on the perimeter of the symbol. A two-dimensional imaging device such as a charge-coupled device camera is necessary to scan the symbology. Data Matrix is designed with a fixed level of error correction capability. It supports industry standard escape sequences to define international code pages and special encodation schemes. Data Matrix is used for small item marking applications using a wide variety of printing and marking technologies. The data matrix symbol looks like this:</p> 	See ALSI/AIM BC11 International Symbology Specification -Data Matrix
Data qualifier	A specified character (or string of characters) that immediately precedes a data field that defines the general category or intended use of the data that follows.	252.211-7003
DoD item unique identification (Formerly known as DoD unique item identification.)	A system of marking items delivered to the Department of Defense with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. Items are marked with a Data Matrix, the contents of which are encoded in the syntax of ISO/IEC 15434 and the semantics of ISO/IEC 15418 or the ATA CSDD. <i>[Text Element Identifiers are taken from the Air Transport Association Common Support Data Dictionary (ATA CSDD).]</i> The Data Matrix contents may be either a Unique Item Identifier (Construct #1 or Construct #2) or a DoD-recognized IUID equivalent.	211.274

Word or Phrase	Definition	Source
DoD serially managed items	<p>Includes reparable items down to and including sub-component reparable unit level; life-limited, time-controlled, or items requiring records (e.g., logbooks, aeronautical equipment service records, etc.); and items that require technical directive tracking at the part level.</p> <p>A distinction must be made between “serialized items” and “DoD serially managed” items. While DoD may use an item that has been serialized by the manufacturer, DoD may not manage the item by means of its serial number. When DoD elects to serially manage an item it becomes "DoD serially managed". This means it is a tangible item used by DoD, which is designated by a DoD, or Service Item Manager to be uniquely tracked, controlled or managed in maintenance, repair and/or supply by means of its serial number.</p> <p><i>[A serial number is an assigned combination of numbers and/or letters to an item instance that separately identifies that item instance from all others]</i></p>	DUSD(Logistics & Material Readiness) Memorandum, September 4, 2002, Serialized Item Management
DoD-recognized unique identification equivalent	<p>A unique identification method that is in commercial use and has been recognized by DoD. The IUID equivalents are the Global Individual Asset Identifier (GIAI), Global Returnable Asset Identifier (GRAI), Vehicle Identification Number (VIN), and Electronic Serial Number ((ESN), for cell phones only). While the constructs are equivalent, they must be placed on the items in a Data Matrix symbol encoded with ISO 15434 syntax and semantics of ISO 15418 in order to be compliant with DoD IUID policy.</p>	252.211-7003
End Item	<p>A final combination of end products, component parts, and/or materials ready for its intended use, e.g., a ship, tank, mobile machine shop, or aircraft.</p>	AP16.33 4140.1R
Enterprise	<p>The entity (e.g., a manufacturer or vendor) responsible for assigning unique item identifiers to items.</p>	252.211-7003
Enterprise identifier	<p>A code that is uniquely assigned to an enterprise by a registered issuing agency.</p>	252.211-7003

Word or Phrase	Definition	Source
Equipment	<p>A tangible article of personal property that is complete in-and-of itself, durable, nonexpendable, and needed for the performance of a contract. Equipment generally has an expected service life of one year or more, and does not ordinarily lose its identity or become a component part of another article when put into use.</p> <p>Includes military equipment, support equipment, general-purpose equipment, special test equipment, and special tooling. Includes Class VII, Major End Items, a final combination of end products that is ready for its intended use, that is, launchers, tanks, mobile machine shop, and vehicles, etc. It does not include real property, reparables, consumables or materials.</p>	4140.1-R
Innate serialized identity	<p>The essential inherent data elements that are physically and permanently placed on an item at original manufacture, subsequent overhaul, or during operations to distinguish it from all other like items, which can be read from either a human or machine-readable format. For contractors with possession of Government property, this may be the asset identification number they use to track the item.</p>	Adapted from the definition of “innate” and “serial” in the American Heritage Dictionary and the definition of “unique item identifier” listed below.
Issuing agency	<p>An organization responsible for assigning a non-repeatable identifier to an enterprise (i.e., Dun & Bradstreet's Data Universal Numbering System (DULS) Number, Uniform Code Council (UCC)/EAN International (EAN) Company Prefix, or Allied Committee 135 Commercial and Government Entity (CAGE) Code).</p>	252.211-7003
Issuing agency code	<p>A code that designates an agency with authority to issue unique enterprise identifiers.</p>	252.211-7003
Item	<p>A single hardware article or unit formed by a grouping of subassemblies, components, or constituent parts.</p>	252.211-7003(a)
Item essentiality	<p>A measure of an item's military worth in terms of how its failure (if a replacement is not immediately available) would affect the ability of a weapon system, end item, or organization to perform its intended functions.</p>	AP16.61 4140.1-R
Item identification	<p>Sufficient data to establish the essential characteristics of an item that give the item its unique character and differentiate it from other supply items.</p>	4140.1-R

Word or Phrase	Definition	Source
Legacy items	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 for use.	USD(AT&L) Memorandum, dated 23 Dec 04, Policy for Unique Identification (UID) of Tangible Personal Property Legacy Items in Inventory and Operational Use, Including Government Furnished Property (GFP)
Lot/Batch number	An identifying number assigned by the enterprise to a designated group of items, usually referred to as either a lot or a batch, all of which were manufactured under identical conditions.	252.211-7003
Machine-readable media	An automatic information technology media, such as bar codes, contact memory buttons, radio frequency identification, or optical memory cards.	252.211-7003
Marking	The application of legible numbers, letters, labels, tags, symbols, or colors to ensure proper handling and identification during shipment and storage.	4140.1-R
Material	<p>Of, composed of, or pertaining to physical substances.</p> <p>Materials are items that may lose their identity when incorporated in an end item. (e.g., sheet metal).</p> <p>Property that may be incorporated into or attached to a deliverable end item or that may be consumed or expended in performing a contract. It includes assemblies, components, parts, raw and processed materials, and small tools and supplies that may be consumed in normal use in performing a contract.</p>	<p>The American Heritage Dictionary, Office Edition, July 1987</p> <p>FAR 45 sub 45.3</p>
Mission essential	A measure of an item's military worth in terms of how its failure (if a replacement is not immediately available) would affect the ability of a weapon system, end item, or organization to perform its intended functions.	4140.1-R
Operating materials and supplies	<p>Personal property to be consumed in normal operations. Excluded are (a) goods that have been acquired for use in constructing real property, (b) stockpile materials, and (c) inventory.</p> <p>FMR, Volume 4, Chapter 4, Operating Materials and Supplies and Stockpile Materials, January 1995.</p>	7000.14
Original part number	A combination of numbers or letters assigned by the enterprise at asset creation to a class of items with the same form, fit, function, and interface.	252.211-7003
Parent item	The item assembly, intermediate component or subassembly that has an embedded item with a unique item identifier or DoD recognized unique identification equivalent.	252.211-7003

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Word or Phrase	Definition	Source
Permanent Part Mark	The method used for placing physical identification on a part that is durable, robust, fit for the intended purpose, and will ensure that machine readability (i.e., decode using electronic reading equipment) is satisfactory for the life of the item in all use environments.	
Personal property	Property of any kind or any interest therein, except real property.	JCS DoD Dictionary
Pilferable items	Items that have a ready resale value or application to personal possession and that are, therefore, especially subject to theft. (See DoD 4100.39-M, Volume 10, Table 61)	E2.1.12.3 5000.64
Property accountability record	The official record of personal property, including inventory, owned by the Department that is maintained to identify the quantities of items on-hand, unit prices, locations, physical condition, receipt and issue records, authorized stock numbers, item descriptions, and other such information necessary to properly account for materiel and exercise other inventory management responsibilities.	AP16.104 4140.1R
Registration authority	Refers to the Nederlands Normalisatie-instituut (NEN), Registration Authority for ISO/IEC 15459, which is responsible for assigning codes to issuing agencies with conforming systems for issuance of unique enterprise identifiers.	252.211-7003
Repairable	An item of supply subject to economical repair for which repair (at either depot or field level) is considered in satisfying computed requirements at any inventory level. Examples include aircraft engines, rotors, guidance systems, and electronic circuit boards.	DoD 4140.1-R
Sensitive items	Items that require a high degree of protection and control due to statutory requirements or regulations, such as narcotics and drug abuse items; precious metals; items that are of a high value, highly technical, or a hazardous nature; and small arms, ammunition, explosives, and demolition material. (See DoD 4100.39-M, Volume 10, Table 61)	E2.1.12.2 5000.64
Serialization within the enterprise identifier	Each item produced is assigned a serial number that is unique among all the tangible items produced by the enterprise and is never used again. The enterprise is responsible for ensuring unique serialization within the enterprise identifier.	252.211-7003

Word or Phrase	Definition	Source
Serialization within the part, lot or batch number	Each item of a particular part, lot or batch number is assigned a unique serial number within that part, lot or batch number assignment. The enterprise is responsible for ensuring unique serialization within the part, lot or batch number within the enterprise identifier.	252.211-7003
Unique identification	A set of data marked on items that is globally unique, unambiguous, and robust enough to ensure data information quality throughout life and to support multi-faceted business applications and users.	252.211-7003
Unique identification equivalent	<p>A unique identification method that is in commercial use and has been recognized by DoD. All DoD recognized unique identification equivalents are listed at http://www.acq.osd.mil/dpap/uid.</p> <p>DoD recognized IUID equivalents are:</p> <ul style="list-style-type: none"> • Global Individual Asset Identifier (GIAI), • Global Returnable Asset Identifier (GRAI), • Vehicle Identification Number (VIN), or • Electronic Serial Number ((ESN), for cell phones only) 	252.211-7003
Unique item identifier	<p>The unique item identifier (UII) is defined in two separate contexts:</p> <ol style="list-style-type: none"> 1. DoD UII Data Set. A UII is a set of data elements marked on an item that is globally unique and unambiguous. <p>For items that are serialized within the enterprise identifier, the UII data set includes the data elements of enterprise identifier and a unique serial number (Construct #1).</p> <p>For items that are serialized within the part, lot or batch number within the enterprise identifier, the UII data set includes the data elements of enterprise identifier, the original part, lot or batch number, and the serial number (Construct #2).</p> 2. Use. The generic term, UII, has evolved through usage to mean the concatenated UII as a common data base key without regard to the data set construct being used. In this context, the term “UII” may be used to designate UII Constructs #1 and #2, or the DoD recognized IUID equivalents of Global Individual Asset Identifier (GIAI), Global Returnable Asset Identifier (GRAI), Vehicle Identification Number (VIN), or Electronic Serial Number ((ESN), for cell phones only). 	252.211-7003

Word or Phrase	Definition	Source
Unique item identifier type	A designator to indicate which method of uniquely identifying a part has been used. The current list of accepted unique item identifier types is maintained at http://www.acq.osd.mil/dpap/UIID .	252.211-7003
Unit acquisition cost	<ol style="list-style-type: none"> 1. For fixed-price type line, subline, or exhibit line items, the unit price identified in the contract at the time of delivery; and 2. For cost-type line, subline, or exhibit line items, the Contractor's estimated fully burdened unit cost to the Government for each item at the time of delivery. 	252.211-7003
Virtual unique item identifier	The UII data elements for an item that have been captured in a database, but not yet physically marked on the item.	DoD Guide to Virtual Unique Item Identifiers, 29 Dec 04

Appendix B

Abbreviations & Acronyms

ACRN	Accounting Classification Reference Number
ADC	Automatic Data Capture
AIS	Automated Information System
AIT	Automatic Identification Technology
ALS	American National Standard
ALSI	American National Standard Institute
ALSI/EIA	American National Standard Institute/Electronic Industries Alliance
ALSI T1.220 Number	North American Telecommunication Industry Manufacturers, Suppliers, and Related Service Companies
ASC	Accredited Standards Committee
ATA	Air Transport Association
CAG	Text Element Identifier for CAGE
CAGE	Commercial And Government Entity
CDRL	Contract Data Requirements List
CFO	Chief Financial Officers
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CLEI	COMMON LANGUAGE® Equipment Identification
CLIN	Contract Line Item Number
CSDD	Common Support Data Dictionary published by the ATA
D	Issuing Agency Code for CAGE Numbers
DCMA	Defense Contract Management Agency
DFARS	Defense Federal Acquisition Regulation Supplement
DLMS	Defense Logistics Management System
DoD	Department of Defense

DoDAAC	Department of Defense Activity Address Code
DoDD	Department of Defense Directive
DoDI	Department of Defense ILStruction
DUN	Text Element Identifier for DUNS Number
DUNS ® Number	Dun & Bradstreet Data Universal Numbering System number
EAN	European Article Numbering
EAN.UCC	European Article Numbering Uniform Code Council
EHIBCC	European Health Industry Business Communications Council
EIA	Electronic Industries Alliance
EID	Enterprise Identifier
ESN	Electronic Serial Number
EUC	Text Element Identifier for EAN.UCC
FAR	Federal Acquisition Regulation
FASAB	Federal Accounting Standard Advisory Board
FMEA	DoD Financial Management Enterprise Architecture
FMIP	Financial Management Improvement Plan
FMMP	DoD Financial Management Modernization Program
FMR	DoD Financial Management Regulation
FMS	Foreign Military Sales
GAO	General Accounting Office
GIAI	Global Individual Asset Identifier
GRAI	Global Returnable Asset Identifier
GTIN™	Global Trade Item Number™
HIBCC	Health Industry Business Communications Council
IAC	Issuing Agency Code
ID	Identification

IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
ISO/IEC 15418	EAN/UCC Applications Identifiers and ASC MH 10 Data Identifiers and Maintenance
ISO/IEC 15434	Syntax for High Capacity ADC Media
ISO/IEC 15459-2	Unique Identifiers for Item Management
IUID	Item Unique Identification
JCS	Joint Chiefs of Staff
JRIB	Joint Requirements Implementation Board
JTC 1	ISO/IEC Joint Technical Committee O
LB	Issuing Agency Code for ALSI T1.220 Numbers
LD	Issuing Agency Code for DoDAAC Numbers
LH	Issuing Agency Code for Ehibcc Numbers
MFR	Text Element Identifier for CAGE Code of the Manufacturer
MIL HDBK	Military Handbook
MIL STD	Military Standard
MILSTRAP	Military Standard Transaction Reporting and Accounting Procedures
MH 10	The US Technical Advisory Group to ANSI
NATO	North Atlantic Treaty Organization
NCAGE	NATO Commercial And Government Entity
NEN	Nederlands Normalisatie-instituut
OEM	Original Equipment Manufacturer
OSD	Office of the Secretary of Defense
PNO	Text Element Identifier for Original Part Number
PP&E	Property, Plant and Equipment

SC 31	ISO Sub Committee 31 (Automatic Data Capture)
SER	Text Element Identifier for Serial Number assigned by the Manufacturer
SEQ	Text Element Identifier for Serial Number assigned within the Original Part Number
SLIN	Sub Line Item Number
SPL	Text Element Identifier for CAGE Code of Enterprise other than the Manufacturer
TC	ISO Technical Committee
TEI	Text Element Identifier
TG	US TAG Technical Group
UCC	Uniform Code Council
UCN	Text Element Identifier for Unique Component Number assigned by Enterprise other than the Manufacturer
UID	Unique Identification; Text Element Identifier for Concatenated Unique Item Identifier
UII	Unique Item Identifier
UN	Issuing Agency Code for DUNS Numbers
USD (AT&L)	Undersecretary of Defense for Acquisition, Technology and Logistics
USN	Text Element Identifier of Universal Serial Number formed by Concatenating MFR+SER
UST	Text Element Identifier of Universal Serial Tracking Number formed by Concatenating SPL+UCN
US TAG	U.S. Technical Advisory Group
VIN	Vehicle Identification Number
WG	ISO Working Group

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