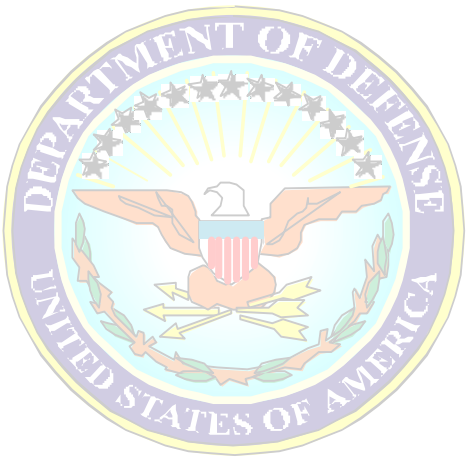
Department of Defense



Guidelines
for the
Virtual Unique Item Identifier (UII)

Version 1.2
November 28, 2006

Office of the Principal Deputy Under Secretary of Defense
(Acquisition, Technology & Logistics)

Table of Contents

Preface

The DoD Guidelines for the Virtual Unique Item Identifier (UII), Version 1.1, dated May 16, 2006, is changed by Version 1.2, dated November 1, 2006, as follows:

- Expanded the discussion of the virtual UII concept, including DoD Item Unique Identification (IUID) equivalents, in the Introduction.
- Included DoD IUID equivalents in the sections entitled "Determining Virtual UII Constructs" and "Business Rules for Assigning the Virtual UII".
- Synchronized Chapter 2, Registering the Virtual UII, with the DoD IUID Registry data submission requirements.
- Appendix B illustrates the requirements for registering the existing physical mark data for an item with an assigned virtual UII.

Introduction

PURPOSE

This paper describes the Department of Defense (DoD) virtual unique item identifier (UII) concept, the processes for assigning and registering virtual UIIs, and the prospective marking of items that have virtual UIIs.

CONCEPT OF VIRTUAL UII

A virtual UII enables the entry of a UII and its associated pedigree data in the DoD Item Unique Identification (IUID) Registry, while postponing the physical marking of the item with a DoD IUID-compliant two-dimensional (2D) data matrix symbol to a more advantageous time based on logistic and economic considerations.

Virtual UIIs will only be used for DoD-owned legacy personal property items, which are: (1) items and embedded items that have already been produced and deployed for use, or placed in inventory or storage pending issue for use[1], and (2) property in the possession of contractors (PIPC)[2]. These types of items would not previously have been marked with a DoD compliant UII in a 2D data matrix[3], since they were produced or deployed prior to the IUID policy.

In order to assign a virtual UII, data elements have to be already marked on an item that permits the item to be uniquely associated with its assigned virtual UII. This is an essential requirement because the assigned UII has to be physically marked on the item with a DoD IUID-compliant 2D data matrix at a future trigger event. Trigger events are discussed in Chapter 3 of this guide. These data elements may be UII data elements supporting a UII Construct #1 or #2, or a UII in the form of a DoD IUID equivalent[4]. The data elements will typically be physically marked on an item in a medium other than a DoD compliant 2D data matrix, such as a non-

[1] A virtual UII can be assigned to an item acquired from a small business concern or a commercial item acquired under FAR Part 12 or Part 8 per the exception at DFARS 211.274-2(b)(2) to the extent that these type items already have innate serialized identity data marked on them.
[2] PIPC includes resident government owned property that is usually stationary within a contractor's facility and material provided to a contractor.
[3] For DoD purposes, a DoD compliant UII is either a Construct #1, Construct #2, Global Individual Asset Identifier (GIAI), Global Returnable Asset Identifier (GRAI) for serialized assets, Vehicle Identification Number (VIN), or Electronic Serial Number (ESN), all of which have their data elements encoded in a 2D data matrix in the ISO/IEC 15434 syntax with ISO/IEC 15418 or Air Transport Association Common Support Data Dictionary semantics.
[4] The DoD IUID equivalents are the GIAI, the GRAI for serialized assets only, the VIN, and the ESN.

compliant 2D data matrix[5], linear barcode, or a human readable data plate or label. The reporting of the physical mark by itself on an item assigned a UII may be sufficient to associate the item with its pedigree data in the IUID Registry. If there is no physical UII mark, then the assigned UII is recorded in the IUID Registry as "DEFINED" along with as many physical marks needed to uniquely identify the item. If there is a physical, non-compliant UII mark, only that UII mark is recorded in the IUID Registry. When the UII is marked on the item in a 2-D compliant data matrix, the mark(s) should be updated to reflect the change from a Virtual UII to a compliant UII.

Legacy items and PIPC that had been previously marked with DoD IUID equivalents without using a DoD compliant 2D data matrix may be registered as virtual UIIs until such time that the IUID equivalent is marked on the items in a DoD compliant 2D data matrix.

The virtual UII concept should only be used when the program manager has accomplished the required planning for eventually placing the UII marks on items that have been assigned virtual UIIs. The concept should not be applied to items that are not tracked.

[5] A 2D data matrix would be non-compliant if the concatenated UII or the UII data elements are not identified by the acceptable semantics and encoded per the syntax requirements of ISO/IEC 15434.

Chapter 1
Assignment of Virtual UIIs

GENERAL

Assignment of virtual UIIs to existing items requires: (1) identifying those items of legacy equipment and spares to be uniquely identified, and then determining whether or not to apply a compliant mark or assign a virtual UII, (2) determining the UII construct or DoD item unique identification (IUID) equivalent that will be used for the virtual UII, and (3) following the business rules for assigning the virtual UII.

IDENTIFYING LEGACY ITEMS FOR ASSIGNMENT OF VIRTUAL UIIS

Virtual UIIs may be used for those DoD-owned personal property items that can be accurately and uniquely identified until a trigger event[6] for physical marking occurs. The legacy item must have innate serialized identity data marked on it that is sufficiently unique to associate the individual item with its virtual UII (i.e., no existing redundant serialization)[7]. This means that serialized legacy equipment or reparable spares that are actively tracked and meet the IUID qualifying criteria may be assigned virtual UIIs[8] when any one of the following conditions exists:

- The Government's unit acquisition cost or historical unit cost of the item is $5,000 or more;
- The item is either equipment or a reparable item for which the Government's unit acquisition cost or historical unit cost is less than $5,000, and is DoD serially managed, or serialized mission essential, or serialized controlled inventory items; or
- The item is a DoD serially managed subassembly, component, or part embedded within another item, or

[6] A trigger event might be scheduled depot maintenance of an item, or removal and repair of an embedded item in an item. See Chapter 3 of this guide for details on trigger events.
[7] Innate serialization data may include serial numbers, property control numbers, vehicle registration numbers, aircraft tail numbers and ship hull numbers. This data may be permanently marked on items by data plates, barcode labels, etchings, or stencils.
[8] Materials that change form in manufacturing and consumable items will not normally be assigned virtual UIIs, unless there is a compelling reason to do so, such as tracking hazardous materials or precious metals.

- The item is a parent item, which contains a DoD serially managed subassembly, component or part as an embedded item.

- The item is provided to a contractor as government property in the possession of the contractor.

DETERMINING THE VIRTUAL UII CONSTRUCTS

The basic elements of information required to construct a virtual UII are: (1) the identity of the organization that assigns the virtual UII, known as the enterprise identifier, and a serial number unique within the enterprise (UII Construct #1), (2) the identity of the organization that assigns the virtual UII, the part, lot or batch number of the item, and a serial number unique within the part, lot or batch number (UII Construct #2), or (3) the actual value of a DoD IUID equivalent. An enterprise that assigns a virtual UII may be an entity such as a contractor, depot, program management office, or a third party.[9]

BUSINESS RULES FOR ASSIGNING THE VIRTUAL UII

The virtual UII shall be assigned and managed through use of the following business rules:

- An item shall have an existing innate serialized identity and qualify for item unique identification (IUID). Contractors in possession of Government property may use the property control number or asset identification number they use to track the item as the innate serialized identity.

- The innate serialized identity data (e.g., enterprise designation; part, lot or batch number; serial number; or property control number) must be affixed to the item (e.g., contact memory button, linear bar code, human readable data plate, etc).

- Items that require unique identification and are too small to have their innate serialized identity data physically placed on them may have this data placed on a tag attached to the item. The tag must remain attached to the item to assure unique identification is maintained. Once the tag is removed, unique identification is lost.

[9] The DoD Guide for Uniquely Identifying Items (available at www.acq.osd.mil/dpap/UID/attachments/DoDUIDGuide.pdf) contains guidance on how to formulate the UII constructs and describes the conditions for DoD IUID equivalence.

- For UII Type 1 and UII Type 2, the enterprise identifier of the enterprise that assigns the virtual UII for the item shall be used in conjunction with the existing innate serialized identity data (e.g., manufacturer's part, lot or batch number; serial number; or property control number) to establish a virtual UII.[10] For UII Types GIAI, GRAI, VIN and ESN (the DoD IUID equivalents), the actual value of the DoD IUID equivalent will be entered as the virtual UII[11]. The enterprise assigning the virtual UII shall: (a) validate the accuracy of the innate serialized identity data for items to guarantee uniqueness of the virtual UIIs to be assigned, and (b) assure that using the innate serialized identity data on items from different manufacturers does not create a duplicate UII[12].

- The enterprise that has stewardship responsibility of Government property shall use its enterprise identifier for the assignment of virtual UIIs to the Government property it is responsible for, even though the Government property may be physically located at different facilities of the enterprise or at the enterprise's subcontractor facilities.

- The assigned virtual UII becomes the permanent UII for life and the eventual physical mark using the two-dimensional data matrix symbol.

[10] As an alternative, an enterprise identifier other than that of the enterprise assigning the virtual UII may be used provided there is a written agreement between the two parties to document the arrangement.
[11] This will only be done in those cases where the DoD IUID equivalent is not marked on the item with a UII compliant data matrix.
[12]The enterprise assigning the UII may wish to consider appending a prefix to the item's current serialization construct in order to minimize this issue.

Chapter 2
Registering the Virtual UII

GENERAL

Virtual UIIs and their pedigree data will be entered into the IUID Registry. Using the virtual UII does not change the basic data requirements for legacy items, but may require additional data be provided about the serialization data marked on the item when a virtual UII is not physically marked on the item in a DoD compliant UII 2D data matrix. The additional information on the existing physical mark(s) on the item is needed to associate the item's data with the virtual UII.

REGISTERING ITEMS WITH VIRTUAL UIIS

The pedigree data required for the virtual UII

The pedigree data for a PIPC and a non-PIPC legacy item with a virtual UII that must be recorded in the IUID Registry are listed at http://www.acq.osd.mil/dpap/UID/DataSubmission.htm. In addition to the basic data elements of the virtual UII, it is essential that the existing innate serialization mark contents be registered for each virtual UII. This allows the virtual UII to be retrieved from the IUID Registry and associated to the physical item that it uniquely identifies.

Registering an item's existing physical mark contents

The contents of the existing physical mark on an item that defines its association with the item's assigned virtual UII must be registered in the DoD IUID Registry. Appendix B illustrates the requirements for registering the existing physical mark data for an item with an assigned virtual UII.

Business rule for registering the virtual UII

Once the virtual UII is assigned, it shall be registered through use of the following business rule:

- The enterprise (contractor, depot, program management office, or a third party) that assigns the virtual UII shall initially register it and its pedigree data in the IUID Registry. When the UII is marked on the

item in a 2-D compliant data matrix, the enterprise marking the item should update the mark(s) should be updated to reflect the change from a Virtual UII to a compliant UII.

Chapter 3
Prospectively Marking the Item

GENERAL

The following sections apply to physically marking the virtual UII on the item by applying a data matrix symbol that contains the set of UII data elements in the prescribed IUID semantics and syntax formats. At a designated trigger event, the innate serialized identity data can be used to determine the virtual UII to be marked on the item.

PHYSICALLY MARKING ITEMS THAT HAVE ALREADY BEEN PRODUCED AND DEPLOYED, OR PLACED IN INVENTORY OR STORAGE

These items shall be physically marked when a trigger event occurs or a pre-planned opportunity is executed, as follows:

- Trigger events will be designated based on accessibility of the item to be marked and establishment of the marking capability. A number of opportunities may exist in the field, factory, and repair depot or storage facility. Situations where a trigger event may occur include, but are not limited to:

  (a) Change in location where the item is taken out of service at one accountable entity and moved to another accountable entity to begin service. The item shall be marked during this movement process by the organization that is losing custody, unless there is a previous agreement with the receiving organization.

  (b) Change in status where the item is taken out of service and placed in maintenance or returned to inventory. Maintenance status may include phase maintenance, scheduled servicing, depot rebuild or overhaul processes, and work-order processes during modification. The item shall be marked while in maintenance or upon receipt at the inventory point.[13]

[13] This also applies to contractual maintenance arrangements; but it does not apply to normal contractor preventive maintenance and calibration efforts.

(c) Change in program where the item is shifted from control of one program to another program. The item may be marked by either the losing or gaining program upon the transfer of accountability.[14]

(d) Change in organizational alignment where the item is moved from the custody of one organization to the custody of another organization, such as transfer of Government property from the custodian back to the DoD. The item shall be marked by the organization that is losing custody, unless there is a previous agreement with the receiving organization.

- As a pre-planned opportunity, a seek-and-apply strategy can be used for particular items in use or storage. This strategy is dependent on establishing the location and availability of items before deployment of application equipment and teams. The location of items can be determined through the supply chain management information systems and inventory control systems. This approach is dependent upon good legacy data, and will demand greater supervision of coordinated effort to effect access to the assets. By concentrating application efforts, the advantage is faster fielding of configuration management for specific items.

- As a pre-planned opportunity, the interception of items as they transit specific gates within the supply chain can ensure no item enters service without the data elements needed to construct item unique identification. Having identified an item at the gate that requires item unique identification, the situation can be resolved by either provision of an application capability at the specific supply gate, or diversion of the item to a centralized application facility.

PHYSICALLY MARKING GOVERNMENT PROPERTY IN THE POSSESSION OF CONTRACTORS

These items shall be physically marked when the contractual accountability of the items changes from one contractor to another. The accountable contractor may, however, physically mark the item at its discretion any time before the movement event if it is advantageous to do so.

[14] This does not apply if the item is under control and accountability of the same entity.

BUSINESS RULES FOR PHYSICALLY MARKING AN ITEM WITH ITS ASSIGNED VIRTUAL UII

The virtual UII shall be marked on the item through use of the following business rules:

- Legacy items shall be marked with their registered virtual UII in accordance with UII marking protocols at a trigger event.
- The enterprise that physically marks the item shall obtain the item's virtual UII from the IUID Registry or other official documentation.
- If the innate serialization data on an item is unreadable, then it will not be possible to query the IUID Registry to determine if an assigned virtual UII exists. If the innate serialization data for the item cannot be determined by other means (such as, shipping documentation or property book records), then that item cannot be physically marked with a UII.[15]
- A UII must be physically marked on Government property in the possession of contractors when the item is physically moved to an entity with a different enterprise identifier, unless a contractor is moving the item between entities with enterprise identifiers that are both under control of the contractor.
- In the event the Government property item is dispositioned and physically moved to another prime contractor or returned to the Government, the contractor shall mark the item with its assigned virtual UII prior to movement to the new enterprise and update the status in the IUID Registry to indicate that the virtual UII has been placed on the item in accordance with UII marking protocols.
- If the item is declared excess and placed into the disposal process, the virtual UII will be used to track the item until actual disposition has been confirmed.

  (a) No physical UII need be placed on the item that no longer has residual value and is to be destroyed or scrapped.

  (b) Items that are reutilized or redeployed to another entity will be physically marked with the assigned virtual UII prior to movement.

[15] If it is positively known that a virtual UII was never assigned to an item whose innate serialization data is missing or unreadable, then that item may, with engineering approval, be identified and re-serialized for purposes of marking with a UII.

- For small items that are tagged, the assigned virtual UII may be physically marked on the tag.
- The enterprise identifier of the enterprise that physically places the two-dimensional data matrix symbol on the item that contains its assigned virtual UII will be recorded in the IUID Registry.
- The enterprise that physically marks an item with its assigned virtual UII shall update the IUID Registry to indicate that the item is physically marked.[16]

[16] See footnote 15 for the course of action for an item that was never assigned a virtual UII.

Appendix A - Definitions

a. Concatenated Unique Item Identifier. (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 number.

b. Custodian. The enterprise that has stewardship accountability of an item.

c. Data Matrix. Data Matrix is 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 encoding schemes. Data Matrix is used for item marking applications using a wide variety of printing and marking technologies (see ISO/IEC 16022 Information technology - International Symbology Specification - Data Matrix). The data matrix symbol looks like this:

d. Defined UII. A UII has been assigned, but it has not been marked on the item in either a compliant or non-compliant method.

e. DoD Compliant Unique Item Identifier (UII). For DoD purposes, a DoD compliant UII is either a Construct #1, Construct #2, Global Individual Asset Identifier (GIAI), Global Returnable Asset Identifier (GRAI) for serialized assets, Vehicle Identification Number (VIN), or Electronic Serial Number (ESN), all of which have their data elements encoded in a two-dimensional (2D) data matrix in the ISO/IEC 15434 syntax with ISO/IEC 15418 or Air Transport Association Common Support Data Dictionary semantics.

f. DoD Item Unique 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. For items that are serialized within the enterprise identifier, the unique item identifier shall include the data elements of enterprise identifier and a unique serial number. For items that are serialized within the part, lot or batch number within the enterprise identifier, the unique item identifier shall include the data elements of enterprise identifier, the original part, lot or batch number, and the serial number.

g. DoD Serially Managed Items. 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. DoD serially managed items include 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. See DoD Guide to Uniquely Identifying Items, Version 1.6, June 1, 2006.

h. Enterprise Identifier. A code that is uniquely assigned to an enterprise by a registered issuing agency.

i. Innate Serialized Identity. 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.

j. Issuing Agency. An organization responsible for assigning a non-repeatable identifier to an enterprise (i.e., Dun & Bradstreet's Data Universal Numbering System (DUNS) Number, Uniform Code Council GS1 Company Prefix, Defense Logistics Information System (DLIS) Commercial and Government Entity (CAGE) Code or Department of Defense Activity Address Code (DoDAAC).

k. Issuing Agency Code. A code that designates the registration (or controlling) authority (the Issuing Agency) for the enterprise identifier.

l. Item. A single hardware article or a single unit formed by a grouping of subassemblies, components, or constituent parts.

m. Legacy Items. DoD-owned or managed 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.

n. Lot or 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.

o. Marking. The process of physically placing a permanent two-dimensional data matrix symbol on an item, either by direct inscribing, labeling or tagging.

p. 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.

q. 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.

r. Personal Property. Property of any kind or any interest therein, except real property, i.e., land and facilities.

s. Reparable Item. 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.

t. Serial Number. A combination of numbers, letters, or symbols assigned by the enterprise to an item that provides for the differentiation of that item from any other like and unlike item and is never used again within the enterprise.

u. 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.

v. 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.

w. Unique Item Identifier (UII). The unique item identifier (UII) is defined in two separate contexts:

1. DoD UII Data Set. A UII is a set of data elements marked on an item that is globally unique and unambiguous. 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). 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).

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 concatenated UII Constructs #1 and #2, or the DoD recognized IUID equivalents of Global Individual Asset Identifier (GIAI), Global Returnable Asset Identifier (GRAI) for serialized assets only, Vehicle Identification Number (VIN), or Electronic Serial Number ((ESN), for cell phones only).

w. Virtual Unique Item Identifier (UII). The UII data elements for an item that have been captured in the IUID Registry, but not yet physically marked on the item.

Appendix B. Requirements for Registering the Existing Physical Mark Data for an Item with an Assigned Virtual UII

Scenario: An item is being added to the DoD IUID registry for the first time. Column A lists the required data elements. Column B indicates the entries in the "Mark" section if the UII is physically marked on the item. Column C & D indicates the entries in the "Mark" section when the UII is not marked on the item. Column E provides the definitions from the data structure sheet. When you report marks, you report either Column C or Columns D & E.	**Definitions:** Virtual UII – A UII has been assigned, but it is not marked on the item with a 2D compliant data matrix. This may mean that the UII isn't marked on the part or that it is marked on the part with something other than a 2D compliant data matrix. "DEFINED" UII – A UII has been assigned but it has not been marked on the item in either a compliant or non-compliant method.

Column A	**Column B**	**Column C**	**Column D**	**Column E**
		UII is not physically marked on the item.		
Mark Loop Data Element	**UII is physically marked on the item**	**UII Mark loop**	**Existing physical mark(s) that uniquely identify item. May need multiple Mark loops to achieve item individuality.**	**Data Structure Definitions**
Contents (1)	UII	UII	"Serial Number", "Hull Number", etc. The type of data on the item that allows it to be individually identified and associated with its virtual UII.	What has been recorded on or with the item such as "UID", "Serial Number", "Internal Number", etc. For UII, must contain "UID". All non-UII markings must be physically marked on the item.
Effective Date (1)	Date item was marked with the UII	Date UII was associated with the item	Date the item was marked with the native mark, if known. Otherwise, date virtual UII was associated with the item.	The date the mark was added, removed or modified, or the date the virtual UII was associated with the item.
AddedOrRemoved Code (0..1)	A	A	A	'A' Mark is added to the item 'R' Mark is removed from the item. 'C' The UII mark's Medium Code

				is being changed from 'DEFINED' to a physical medium.
Marker Code (1)	Designator of Marker Identifier	Who created the UII.	Designator of Marker Identifier	Designator to indicate which code was used in the Marker Identifier. Values: D - CAGE LB - ANSI T1.220 LD - DoDAAC LH - EHIBCC UN - DUNS 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9 – GS1 Company Prefix
Marker Identifier (1)	DoDAAC, CAGE, etc that physically marked the item with the UII.	DoDAAC, CAGE, etc that defined the associated UII	DoDAAC, CAGE, etc that physically marked the item with the native mark.	Code identifying the Entity that placed the physical mark on or associated the UII with the item.

Medium Code (1)	"2D COMPLIANT", "HUMAN READABLE", "BARCODE", etc that indicates the type of mark that was used to place the UII on the item.	"DEFINED"	"HUMAN READABLE", "BARCODE", etc that indicates the type of mark that was used to place the native mark on the item.	The method used to associate the mark identified in Contents with the item. The codes provide information on what is needed to read the mark. The available codes are: "2D COMPLIANT" "NONCOMPLIANT DATA MATRIX" "HUMAN READABLE" "CMB" "PDF417" "BARCODE" "RFID" - If the UII is by association only, not physically marked, use "DEFINED". "DEFINED" can only be used when the Contents contains "UID". - When the UII is physically marked with a 2D Data Matrix in accordance with DoD policy, ISO/IEC 15434, use "2D COMPLIANT".
Value (0..1)	No entry required	No entry required	If Contents is "CAGE" then the CAGE Number; if "SERIAL NUMBER", the serial number; etc.	The string representation of the physical mark. Not required when the content is UII.

The following shows an example of the correct entry of mark data for a UII that is not physically on the item. The scenario is that enterprise CAGE 12345 has assigned a UII to an item that was previously marked by enterprise CAGE 54321 with a serial number and part number.

Mark Loop	Contents	Effective Date	Added Or Removed Code	Marker Code	Marker Identifier	Medium Code	Value
1	UII	1/1/2005	A	D	12345	DEFINED	D123453939391239
2	SERIAL NUMBER	6/15/2004	A	D	54321	BARCODE	1239
3	PART NUMBER	6/15/2004	A	D	54321	BARCODE	393939