DEFENSE LOGISTICS AGENCY
HEADQUARTERS
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DLMSO   August 9, 2007

MEMORANDUM FOR SUPPLY, FINANCE, AND CONTRACT ADMINISTRATION
PROCESS REVIEW COMMITTEE (PRC) MEMBERS

SUBJECT: Proposed Defense Logistics Management System (DLMS) Change (PDC)
274, Establishment of Borrowed Codes for DLMS Unit of Material Measure
(Unit of Issue/Purchase Unit) Conversion Guide

We are forwarding the attached proposed change to DOD 4000.25-M, Defense
Logistics Management System (DLMS), for evaluation and submission of a single
coordinated DOD Component position. The interface requirement relating to this
proposed change is shown to assist in your internal coordination. However, omission of
such a requirement does not relieve you of the responsibility to assure full coordination of
the proposal within your Component. In addition, this memorandum formally withdraws
PDC 193, DLMS Unit of Issue and Purchase Unit Conversion Guide.

Request you review the attached proposed change and provide your
comments/concurrence to DLMSO not later than **5 calendar** days from the date of this
memorandum. Adoption and use of borrowed codes are critical to precluding rejection of
transactional interchanges that are applicable to DOD units of material measure which are
not available in the commercial standard at the applicable version/release.

Addressees may direct questions to the DLMSO point of contact, Ms. Ellen Hilert,
Chair, Supply Process Review Committee, 703-767-0676, DSN 427-0676, or e-mail:
ellen.hilert@dla.mil or Mr. Joseph Pipan, 703,767-0753, DSN 427-0753, DSN 427-0753
or e-mail: joseph.pipan.ctr@dla.mil. Others must contact their Component designated
representative.

DONALD C. PIPP
Director
Defense Logistics Management
Standards Office

Attachment

cc:
DUSD (L&MR) SCI

Establishment of Borrowed Codes for DLMS Unit of Material Measure
(Unit of Issue/Purchase Unit) Conversion Guide Update

1. ORIGINATOR

    a. Service/Agency: Defense Logistics Management Standards Office (DLMSO)

    b. Sponsor: Supply PRC Chair: Ellen Hilert, DLMSO/DLA J-6251, Defense Logistics Management Standards Office (DLMSO), 703-767-0676 (DSN 427), ellen.hilert@dla.mil

2. FUNCTIONAL AREA: Supply, Distribution, Procurement, Contract Administration

3. REFERENCES:

    a. DLMSO Memoranda dated May 14, 2007, subject: Approved Defense Logistics Management System (DLMS) Change (ADC) 239, DLMS Unit of Material Measure (Unit of Issue/Purchase Unit) Conversion Guide Update

    b. DLMSO Memoranda dated July 2, 2007, subject: Approved DLMS Change (ADC) 239A, DLMS Unit of Material Measure (Unit of Issue/Purchase Unit) Conversion Guide Update

    c. DLMSO Memoranda dated October 24, 2005, subject: Proposed DLMS Change (PDC) 193, DLMS Unit of Issue and Purchase Unit Conversion Guidelines

4. REQUESTED CHANGE:

    a. Procedures: Revise the DLMS Unit of Material Measure Conversion Guide to include new borrowed/substitute codes to provide DOD equivalent codes for conversion processing at American National Standards Institute (ANSI) ASC X12 Electronic Data Interchange (EDI) version 4010 or higher, up to the version at which the correct X12 code becomes available. The conversion process is used to equate DOD codes for unit of issue or purchase unit to a corresponding value in the ASC X12 code list for unit of measure. When a new unit of measure is needed, DLMSO proposes a data maintenance action to ASC X12 to have a code added to the standard. However, ASC X12 codes are not downward compatible, and when a new code is approved, it cannot be applied retro-actively to an earlier version/release of the standard. Using borrowed codes by assigning a new DOD meaning to valid (but unused) codes in the standard, fills the gap which prevents transactions from processing properly. New updates are listed in Attachment 1.

    b. Background: ADC 239A represented the end result of a "wall to wall" review of X12 EDI code values potentially required for use in all DOD transactional interchanges where entry of a unit of material measure was required. The result of that review was the submission of eighteen (18) proposed new code values to the ANSI ASC X12 committee for code assignment. The new code assignments were approved and are effective in version releases 005020 (16 each) and 005030 (2 each). However, assignment

of borrowed codes to cover the period up to the implementation date(s) was inadvertently omitted. Borrowed codes, or designated substitute codes, are used to represent the approved value. The X12 codes on the conversion table, including the borrowed codes, apply only to the DLMS X12 EDI transaction during transmission; sender and receiver applications apply the conversion values for transmission where the DOD value differs from the approved standard. The borrowed codes are needed when the X12 EDI code is assigned, but is unavailable in the published standard at the lower X12 EDI version/release in use by the sender or receiver. Under this PDC, DLMSO has assigned borrowed code values to redress the previous omission. The codes are identified in attachment 1 to this proposal. Once approved, the borrowed codes will be published on the DLMSO Web site at URL https://www.dla.mil/j-6/dlmso/eapplications/Logdrms/ logview/LQVTOC>asp. To view, select the Unit of Issue and Purchase Unit Conversion Guide (Unit or Basis For Measurement) in the desired sequence: DOD Code sequence, ANSI ASC X12 Code sequence, or alphabetic sequence by text name.

c. Withdrawal of PDC 193 (Reference 3.c). This PDC was previously placed on hold and is now officially withdrawn by DLMSO due to substantial negative comment. PDC 193 proposed abolishing current and future version/release restrictions for ASC X12 unit of measure codes used by DLMS for conversion to DOD unit of issue and purchase unit.   This would have allowed unrestricted use of approved ASC X12 unit of measure codes in higher, more recent version ASC X12 releases (e.g. 005010/005030) and authorizes their usage in lower versions (e.g., 004010/004030). X12 EDI codes used in this way are sometimes referred to as a migration or local codes.   DLMSO did not formally support the use of migration codes, but as an alternative solution to a difficult issue, DLMSO provided the documentation as a way of obtaining Component feedback. Comments are provided in Attachment 2.

5. Reason for Change: Borrowed codes to cover version releases up to 005020/005030 are required to provide version-specific equivalents for DOD unit of issue/purchase unit codes which are not available in lower versions.

6. ADVANTAGES AND DISADVANTAGES:

a. Advantages. Prevents transaction processing failure due to lack of an identified X12 equivalent value without violating the standard to achieve this goal.

b. **Disadvantages.**   As noted in PDC 193, when forced to stay within the lower version, DLMSO selects a valid code from the X12 list to use as a substitute for the desired unit of measure code. The substitute code may be unrelated to the desired unit of measure. This practice of using one code to mean another may result in confusion. There is also a small risk of needing the actual value of the chosen substitute code at a later date and it would already be in use for a different meaning.

7. IMPACT:

a. Components should evaluate this change for suitable assignment of the borrowed codes. X12 EDI codes which are assigned as borrowed codes will no longer be available for future use under their original X12 meaning.

b. Upon approval, Components must update internal conversion tables to include all additional cross-reference values provided in the attachment. These codes apply to all DLMS transactions across multiple functional areas where the unit of measure is identified in the X12 EDI transaction exchange.

c. DOD trading partners (e.g., vendors using X12 for submission of shipment notice, invoice, and etc.) must be provided updated codes for use in information exchange.

d. Implementation Plan. These new codes will become effective and valid for use immediately upon publication of the DLMS change.   Staggered implementation is authorized, however this will risk transaction rejection. A deferred synchronized implementation is not appropriate due to operational impact of delayed processing of business transactions.

Attachment 1
Unit or Basis for Measurement Code (Unit of Issue/Purchase Unit)
Proposed Borrowed Code Assignments

All releases under versions 003 and 004 and version release 005010 (or 005020 for code values PI and PX) must use the borrowed codes for the DLMS/X12 conversion of the DoD codes to X12 and vice versa.

DOD Code	Name of Code Value for DoD Usage	X12 Code	Borrowed Code	X12 EDI Standard's Text Name of Borrowed Code
AO	Apothecary Ounce	9O *	32	Kilograms per Air Dry Metric Tons
AP	Apothecary Pound	9A *	33	Kilopascal Square Meters per Gram
AS	Apothecary Scruple	ZY*	34	Kilopascals per Millimeter
B1	Barrel, Liquid	ZX*	36	Cubic Feet per Minute per Square Foot
B2	Barrel, Dry	ZW*	35	Milliliters per Square Centimeter Second
BQ	Briquet	9B*	4J	Meters per Second per Second
EX	Exposure	JX*	IW	Inches per Second per Second
FD	Fold	9F*	K2	Kilovolt Amperes Reactive Demand
HB	Hospital Beds	HX*	K3	Kilovolt Amperes Reactive Hour
KV	Kilovolts	K0*	IU	Inches per Second (Linear Speed)
OL	Outlet	OB*	JK	Mega Joule per Kilogram
OU	Operating Unit	OU*	JE	Joule per Kelvin
PI	Pillow	9P**	KQ	Kilopascal
PX	Pellet	I2 **	KO	Millequivalence Potash
ST	Seat	9S*	JG	Joule per Gram
US	US Pharmacopeia (USP) Unit	9Z*	JM	Mega Joule/Cubic Meter

*   **Version Release 005020**
**   **Version Release 005030**

DCMA	Strongly disagree with this proposed change for the following reasons:
	1. If implemented, DoD will no longer be able to state that it is using the X12 standards.
	2. Using codes in any version/release of the X12 standards has been rejected by X12 each time it was proposed.
	3. In federal ICs, the Unit of Measure, data element (355), usually states, "Use any code". Programming complexity will be increased when version/release has to be considered.
	4. If approved, this could be extended to all X12 codes, which will be a disaster for receiving applications.
	5. X12 transaction sets that work in concert must all use the same codes. Back fitting current codes into ICs in previous version/releases requires all ICs be revised.
GSA	The impact of UoM changes is huge because of the number of transactions that use it especially when they are talking about retrofitting to previous versions as well. With the addition of the local codes, most systems will have to maintain conversion charts or turn off compliance checking for that element which seems to go against X12 policy. The manual effort for those who will be using these additional codes could turn out to be more than they had anticipated.
	Simplix will have a huge issue with this.
USTRANSCOM (multiple comments received)	Below are USTRANSCOM's mostly negative comments relative to PDC 193.
	As everyone knows, we thought and fretted long and hard over "migration" vs. "borrowed" codes as a way out of our dilemma. Migration codes was really not a solution, in that it left us in the same state of violation that started the unwinding of the whole issue. Borrowed codes, which seemed to most of the DTEB players to be a workable compromise that contained the problem at the trading-partner level, seemed the better road to travel. Even so, many critics have emerged from the woodwork claiming the practice of borrowing codes for meeting our own business needs to be a clear violation of X12 compliance. There is no "correct" solution, unless all trading partners are willing to defer their business requirements for a year or so, awaiting the release of the perfect and exact code as well as all trading partners implementing and completely testing the associated migration to the compliant version/release.
	…this PDC basically allows "migration codes", as we have called them in the DTEB community, to be used in DLMS ICs, but ONLY for "unit of measure codes used by DLMS for conversion to DOD unit of issue and purchase unit". As long as the affected ICs are being used only among internal government trading partners, I see no problem whatever with this procedure -- there are, in fact, some instances where the

	DTEB ICs use migration codes. The use of migration codes breaks down, however, when we send transactions using those codes to commercial trading partners outside of the government community, such as commercial carriers and PowerTrack. The recent refusal of the Rail Carriers to consider accepting the SDDC-proposed migration codes (from version /release 5030) for blocking and bracing in version /release 4010 transactions illustrates the problem. While DLMSO documents one disadvantage of approving the use migration codes -- "Potential rejection of ANSI ASC X12 code values by Value Added Networks (VANs) or validation processes in Service/Agency automated systems" they do not acknowledge similar problems that would be encountered by external trading partners outside government agencies. I wonder if this proposal has been vetted with US Bank or any other commercial trading partners, where it will certainly have an impact. My second concern is that the proposed change will allow the implementation of migration codes without comprehensive review by all potentially affected parties: "Open usage of all conversion entries is allowed irrespective of version release. Further, all future additions to the Unit of Issue and Purchase Unit Conversion Guide (Appendix 4) will be published by administrative change using the DLMS Approved Change format." I see this as an invitation disaster -- all trading partners across the entire supply chain, including transportation and finance, need to understand what codes will be used within a transaction set, and what meaning those codes convey for the trading partner who generated the transaction. Trading partners also need to have the opportunity to review proposed changes that may impact their internal application systems before the changes are imposed by "administrative change". Instead of using "migration" codes, the DTEB has voted to use "borrowed codes" -- i.e., code that are valid in the version release of X12 Standards being used, but defining the codes differently than the official X12 definition -- in future ICs. Even in this case, however, the DTEB committee handles implementation of a borrowed code on an individual basis, and a user must submit a specific DM for each proposed change.
DSS	Yes. We are in favor. In fact, when we coded DSS we made the cross reference capability across the board regardless of version just as you are proposing. Hence, we had to discuss internally to even understand what you were proposing to change.….. Right now, these three cross reference situations are hard coded within DSS, but in our next release (6.2 that we are designing now and will be PDRing later this month) we are going to tablize these three so it is a mere table change for the customer vice code change by us.
DSCA	DSCA concurs.