Department
of
Defense

# DoD Transportation Electronic Business (DTEB) Convention

ASC X12 Control Segments (Version 004010)

**VERSION 0**

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# Section 1.0

# INTRODUCTION

This implementation convention (IC) describes the standard or convention the Department of Defense will use to exchange Control Segments in support of the Defense Transportation Electronic Business (DTEB) program. The copyright on the ASC X12 standards is held by the Data Interchange Standards Association on behalf of ASC X12.

For further information about the DTEB program, to obtain DoD conventions or ASC X12 guidance or to recommend DoD conventions or ASC X12 maintenance, contact the following:

United States Transportation Command
TCJ6-S
508 Scott Drive
Scott Air Force Base, IL 62225-7001

For the most recent publication, go to the World-Wide Web at

## https://cris.transcom.mil/cris/dteb/ic/trans_ics.cfm

[Note: To access the publication, you must have an Information Tool Suite (ITS) account.]

## Who Needs to Use This Document?

Computer programmers use this document to identify the data requirements for populating an EDI transaction.

## Why Use a Convention?

A convention defines the rules for populating an EDI transaction. Following a convention ensures that trading partners will encounter fewer data quality problems during development and maintenance of EDI systems.

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# Section 2.0

# Control Segments

## 2.1 Overview

This section describes the EDI control segments (interchange control and functional group segments). The control segment information was derived from the *ASC* X12 Standards Version 4 Release 1 (004010).

This information is intended as a representative example only. Users/implementers should contact their specific trading partner for Control Segment implementation.

## 2.2 Purpose

This section identifies the specific data requirements for formatting the EDI control segments when transmitting and receiving EDI transactions. The format and data content of the control segments are usually managed by EDI translation software. The data requirements described herein should be used to set control segment formats when installing or initializing translation software for transmission and reception of EDI transactions.

## 2.3 Contents

The complete 004010 version/release control segments includes an Interchange Control Segment Hierarchy, which identifies the control segments in their order of occurrence in an EDI communications interchange.

Beginning in section 3.0 are Department of Defense (DoD) Convention *ASC* X12 Control Segments, which present a detailed description of DoD data conventions for formatting Interchange Control and Functional Group segments for use among Defense Transportation Electronic Business (DTEB) trading partners.

## 2.4 Special Instructions

Any unique eight-bit (byte) character may serve as data element separator, segment terminator, or component element separator, provided each character is disjoint from all data elements within an interchange and that these values do not conflict with telecommunications protocols necessary to the transmission of the interchange. The following recommended values conform to information published in Electronic Data Interchange, X12 Standards, Interchange Control Structures, Section 4.3, Delimiter Specifications.

### 2.4.1 DATA ELEMENT SEPARATOR

While the data element separator is graphically displayed as an asterisk (*) or a tilde (~) in *ASC* X12 documentation, it is the value employed in the fourth byte of an interchange envelope that actually assigns the separator that the translators will use throughout an interchange. Any unique eight-bit (byte) character may serve as data element separator, segment terminator, or component element separator, provided each character is disjoint from all data elements within an interchange and that these do not conflict with telecommunications protocols necessary to the transmission of the interchange.

*ASC* X12 recommends the ASCII character with hexadecimal value "1D" for use as the data element separator (gs). These values conform to information published in Electronic Data Interchange, X12 Standards, Interchange Control Structures, Section 4.3, Delimiter Specifications.

### 2.4.2 SEGMENT TERMINATOR

Likewise, the control envelope establishes the byte value used for segment termination within an interchange. *ASC* X12 documentation usually portrays this as a new line (n/l character, but the actual segment terminator for an interchange will be the byte value occurring immediately following the ISA16 segment. *ASC* X12 recommends the ASCII character with hexadecimal value "1C" for use as the segment (fs) terminator.

### 2.4.3 COMPONENT ELEMENT SEPARATOR

The ISA segment provides a discrete element (ISA16) for defining the component element separator within an interchange. The component element separator is a delimiter used to separate component data elements within a composite data structure. It must be different than the data element separator and the segment terminator. *ASC* X12 recommends the ASCII character with hexadecimal value "1F" for use as the component element separation (us) character.

### 2.4.4 GS01 CODE VALUE

Use the appropriate code value from data element 479 in GS01 of the control envelope for indicating the transaction set being transmitted. For example, to exchange an implementation convention for Transaction Set 315, the correct code value for GS01 is 'QO' denoting Status Details (Ocean).

## 2.5 X12 Publication

See *ASC* X12 Electronic Data Interchange X12 Draft Version 4 Release 1 Standards, Document Number: *ASC X12S/97-372*, for complete 004010 version/release control segment specifications.

# Section 3.0

# Interchange Control Envelope Control Segments

| Usage | Seg ID | Name | Req | Des | Max Use |
|---|---|---|---|---|---|
| Must Use | ISA | Interchange Control Header | M | | 1 |
| Must Use | GS | Functional Group Header | M | | 1 |
| Must Use | • ST - SE | Grouped Transactions | | | |
| Must Use | • ST - SE | Grouped Transactions | | | |
| Must Use | • ST - SE | Grouped Transactions | | | |
| Must Use | GE | Functional Group Trailer | M | | 1 |
| Must Use | GS | Functional Group Header | M | | 1 |
| Must Use | • ST - SE | Grouped Transactions | | | |
| Must Use | • ST - SE | Grouped Transactions | | | |
| Must Use | • ST - SE | Grouped Transactions | | | |
| Must Use | GE | Functional Group Trailer | M | | 1 |
| Must Use | IEA | Interchange Control Trailer | M | | 1 |

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Segment: ISA Interchange Control Header

Usage: Mandatory

Max Use: 1

Purpose: To start and identify an interchange of zero or more functional groups and interchange-related control segments

## DATA ELEMENT SUMMARY

| | Ref Des | Data Element | Name | Attributes |
|---|---|---|---|---|
| **M** | **ISA01** | **I01** | **Authorization Information Qualifier**<br>Code to identify the type of information in the Authorized Information<br><br>**Code** — **Definition**<br>00 — No Authorization Information Present (No Meaningful Information in I02) | **M ID 2/2** |
| **M** | **ISA02** | **I02** | **Authorization Information**<br>Information used for additional clarification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)<br><br>For code value ‘00’ in ISA01, fill with zeros. | **M AN 10/10** |
| **M** | **ISA03** | **I03** | **Security Information Qualifier**<br>Code to identify the type of information in the Security Information<br><br>**Code** — **Definition**<br>00 — No Security Information Present (No Meaningful Information in I04) | **M ID 2/2** |
| **M** | **ISA04** | **I04** | **Security Information**<br>This is used for identifying the security Information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03).<br><br>For code value ‘00’ in ISA03, fill with zeros. | **M AN 10/10** |

**M ISA05 I05 Interchange ID Qualifier M ID 2/2**

Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified

Select appropriate code value for sender from 4010 X12 code list for data element I05. For Department of Defense Agency Address Code (DoDAAC) use code value '10'.

**M ISA06 I06 Interchange Sender ID M AN 15/15**

Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element.

DoD activities use DoDAAC or other code coordinated with trading partners. Non-DoD activities use identification code qualified by ISA05 and coordinated with network value added network (VAN) Administrator.

**M ISA07 I05 Interchange ID Qualifier M ID 2/2**

Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified

Select appropriate code value for receiver from 4010 X12 code list for data element I05. For DoDAAC use code value '10'.

**M ISA08 I07 Interchange Receiver ID M AN 15/15**

Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them.

DoD activities use DoDAAC or other code coordinated with trading partners. Non-DoD activities use identification code qualified by ISA05 and coordinated with VAN Administrator.

**M ISA09 I08 Interchange Date M DT 6/6**
Date of the interchange

Date in YYMMDD format assigned by translation software

**M ISA10 I09 Interchange Time M DT 4/4**
Time of the interchange

Time in HHMM format assigned by translation software

**M ISA11 I10 Interchange Control Standards M ID 1/1**
Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer

| Code | Definition |
|---|---|
| U | U.S. EDI Community of ASC X12, TDCC, and UCS |

**M ISA12 I11 Interchange Control Version Number M ID 5/5**
This version number covers the interchange Control segments.

| Code | Definition |
|---|---|
| 00401 | Draft Standards for Trial Use Approved for Publication by ASC 12 Procedures Review Board through October 1997 |

Version/release of control segment, as agreed upon by the trading partners

**M ISA13 I12 Interchange Control Number M N0 9/9**
A control number assigned by the interchange sender

Number assigned by translation software. The sender, receiver, and all third parties should be able to maintain an audit trail of interchanges using this number.

**M ISA14 I13 Acknowledgment Requested M ID 1/1**
Code sent by the sender to request an interchange acknowledgment (TA1)

| Code | Definition |
|---|---|
| 0 | No Acknowledgment Requested |
| 1 | Interchange Acknowledgment Requested |

Send code agreed upon by trading partners.

**M ISA15 I14 Usage Indicator M ID 1/1**

Code to indicate whether data enclosed by this interchange envelope is test, production, or information

| Code | Definition |
|---|---|
| I | Information |
| P | Production Data |
| T | Test Data |

Use code value as agreed upon by trading partners.

**M ISA16 I15 Component Element Separator AN 1/1**

Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator.

ASC X12 recommends the use of ASCII character whose hexagonal value is ‘1F’as the component element separation character

Segment: GS Functional Group Header

Usage: Mandatory

Max Use: 1

Purpose: To indicate the beginning of a functional group and to provide control information

## DATA ELEMENT SUMMARY

| | Ref Des | Data Element | Name | Attributes |
|---|---|---|---|---|
| **M** | **GS01** | **479** | **Functional Identifier Code**<br>Code identifying a group of application related transaction sets<br><br>Use the appropriate code value from data element 479 in GS01 of the control envelope for indicating the transaction set being transmitted. For example, to exchange an implementation convention for Transaction Set 315, the correct code value for GS01 is 'QO' denoting Status Details (Ocean). | **M ID 2/2** |
| **M** | **GS02** | **142** | **Application Sender's Code**<br>Code identifying party sending transmission; codes agreed to by trading partners<br><br>Typically, a sender will use different codes here to uniquely identify each implementation convention (IC) for a particular transaction set. DoD activities use DoDAAC or other code coordinated with trading partners. Non-DoD activities use identification code assigned by DoD, which for increased security should differ from that used in ISA06. | **M AN 2/15** |
| **M** | **GS03** | **124** | **Application Receiver's Code**<br>Code to identify the type of information in the Security Information<br><br>DoD activities use DoDAAC or other code coordinated with trading partners. Non-DoD activities use identification code assigned by DoD, which for increased security should differ from that used in ISA08 | **M AN 2/15** |

**M GS04 373 Date M DT 8/8**
Date expressed as CCYYMMDD.
Information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)

Date assigned by translation software

**M GS05 337 Time M TM 4/8**
Time expressed in 24-hour clock time as follows: HHMM or HHMMSS, or HHMMSSD, or HHMMSSDD, where H – hours (00-23), M = minutes (00-59), S = integer seconds (00-59),and D = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)

Time expressed in HHMM format assigned by translation software

**M GS06 28 Group Control Number M N0 1/9**
Assigned number originated and maintained by the sender

Number assigned by translation software. The sender, receiver, and all third parties should be able to maintain an audit trail of interchanges using this number.

**M GS07 455 Responsible Agency Code M ID 1/1**
Code used in conjunction with Data Element 480 to identify the issuer of the standard.

| Code | Definition |
|---|---|
| X | Accredited Standards Committee X12 |

**M GS08 480 Version / Release / Industry Identified Code M AN 6/6**
Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by the user), if code in DE455 in GS segment is T, then other formats are allowed.

| Code | Definition |
|---|---|
| 004010 | Draft Standard Approved for Publication by ASC X12 Procedures Review Board through October 1997 |

This is the version/release for all transactions within a functional group. See X12 4010 Dictionary for source code list. Note: optional positions 7-12 are not used by the DTEB community.

Segment: GE Functional Group Trailer

Usage: Mandatory

Max Use: 1

Purpose: To indicate the end of a functional group and to provide control information

## DATA ELEMENT SUMMARY

| | Ref Des | Data Element | Name | Attributes |
|---|---|---|---|---|
| **M** | **GE01** | **97** | **Number of Transaction Sets Included**<br>Total number of segments included in a transaction set including ST and SE segments<br><br>Number assigned by translation software | **M N0 1/6** |
| **M** | **GE02** | **28** | **Group Control Number**<br>Assigned number originated and maintained by the sender<br><br>Number assigned by the translation software. This control number matches the control number that occurs in GS06. | **M N0 1/9** |

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Segment: IEA Interchange Control Trailer

Usage: Mandatory

Max Use: 1

Purpose: To define the end of an interchange of zero or more functional groups and interchange related control segments

## DATA ELEMENT SUMMARY

| | Ref Des | Data Element | Name | Attributes |
|---|---|---|---|---|
| **M** | **IEA01** | **I16** | **Number of Included Functional Groups**<br>A count of the number of functional groups included in an interchange<br><br>Number calculated by translation software | **M N0 1/6** |
| **M** | **IEA02** | **I12** | **Interchange Control Number**<br>A control number assigned by the interchange sender<br><br>Number assigned by translation software. This number must match that occurring in ISA13. | **M N0 9/9** |

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