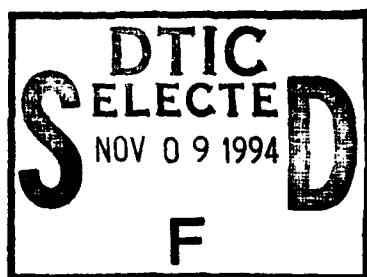


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Department
of
Defense

DoD Electronic Data Interchange (EDI) Convention

ASC X12 Transaction Set 410
Rail Carrier Invoice
(Version 003020)

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March 1993

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Department
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DoD Electronic Data Interchange (EDI) Convention

ASC X12 Transaction Set 410
Rail Carrier Invoice
(Version 003020)

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Defense Logistics Agency
Cameron Station
Alexandria, VA 22304-6100

10.0 DoD EDI CONVENTION

ASC X12 TRANSACTION SET 410 RAIL CARRIER INVOICE (VERSION 003020)

**FORMATTING INVOICE INFORMATION FOR THE DoD
TRANSPORTATION PAYMENT SYSTEM USING THE X12.139
TRANSACTION SET 410 RAIL CARRIER INVOICE.**

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Contents

FORMATTING INVOICE INFORMATION FOR THE DoD
TRANSPORTATION PAYMENT SYSTEM USING THE X12.139
TRANSACTION SET 410 RAIL CARRIER INVOICE.

10.i Introduction

10.1 Reserved

10.2 Control Segments

10.3 Reserved

10.4 Reserved

10.5 Data Element Cross-Reference Matrix

10.6 Reserved

10.7 DoD Convention

10.A Reserved

10.B Reserved

10.C Examples - Invoice Information From Carrier to DFAS-IN Using ASC X12 410

10.D Reserved

10.E Reserved

10.F Additional Government Code Lists

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10.i INTRODUCTION

This is an Electronic Data Interchange (EDI) systems design document that describes the standard or "convention" the Department of Defense (DoD) will use to accept a transportation invoice using the ASC X12.139 Transaction Set 410 Rail Carrier Invoice (003020). It contains information for the design of interface computer programs that serve to link systems application computer programs and an EDI translator computer program.

Who Needs to Use This Document

Computer programmers can use this document to identify the data in a populated EDI transaction with data requirements of their specific application database. Conversely, programmers can identify where their applications data requirement should be carried in an EDI transaction.

Why Use a Convention

There are more ways to populate an EDI transaction than there are ways to fill out a blank form. A convention defines the rules for filling in or "populating" an EDI transaction with a specific data set. Following a convention ensures the integrity of data that is produced and processed by EDI capable computer systems.

Contents

Four sections are included in this document.

- Section 10.2, Control Segments, identifies the specific data requirements for formatting the EDI interchange control segments needed to send and receive EDI transactions.
- Section 10.5, Data Element Cross-Reference Matrix, lists the data requirements of DoD and specifies where each data element should be carried in the transaction set. This section can be used to map an existing application database into the transaction set.
- Section 10.7, DoD Conventions, lists the layout of the target transaction set by segment and data element. Identified along side each transaction set data element is the cross-reference data element from Section 10.5. This section can be used to interpret segments and data elements of a populated transaction set.
- Appendices contain examples of populated transaction sets, trading partner data element matrix, and other items that serve as references for software developers.

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10.2 Control Segments

Overview

This chapter describes the Electronic Data Interchange (EDI) control segments (interchange control segments and functional group segments). The control segment information was derived from the ASC X12 Standards Draft Version 3 Release 2 (003020).

Purpose

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

Contents

Two items are included in this chapter.

- Table 10.2-1, Interchange Control Segment Hierarchy describes the control segments in their order of occurrence in an EDI communications interchange.
- Table 10.2-2, DoD Convention ASC X12 Control Segments is a detailed description of the Department of Defense data conventions for formatting EDI standard control segments. All segments identified in Table 10.2-1 are broken down and described by their discrete data elements.

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TABLE 10.2-1

Control Segment Hierarchy

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		Interchange Control Envelope Control Segments				
Industry		Pos No.	Seg ID	Name	Req Des	Use Loop
USE		10	ISA	Interchange Control Header	M	1
USE		20	GS	Functional Group Header	M	1
				•		
				• Grouped Transactions		
				•		
USE		30	GE	Functional Group Trailer	M	1
USE		40	IEA	Interchange Control Trailer	M	1

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TABLE 10.2-2

DoD Convention

ASC X12 Control Segments

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Segment: **ISA** Interchange Control Header

Usage: M

Purpose: To start and identify an interchange of one or more functional groups and interchange-related control segments. The actual values of the data element separator and the segment terminator for this interchange are set by the interchange control header. For a particular interchange, the value at the fourth character position is the data element separator, and the value of the last character position is the value of the segment terminator.

Note: The interchange control number value in this header must match the value in the same data element in the corresponding interchange control trailer.

Data Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>				
ISA01	I01	Authorization Information Qualifier Code to identify the type of information in the Authorization Information.	M ID 2/2				
<table><tr><th><u>Code</u></th><th><u>Definition</u></th></tr><tr><td>00</td><td>No Authorization Information Present</td></tr></table>				<u>Code</u>	<u>Definition</u>	00	No Authorization Information Present
<u>Code</u>	<u>Definition</u>						
00	No Authorization Information Present						
ISA02	I02	Authorization Information Information used for additional identification or authorization of the sender or the data in the interchange.	M AN10/10				
ISA03	I03	Security Information Qualifier Code to identify the type of information in the security information.	M ID 2/2				

Authorization Qualifier
[001]

Authorization Info
[002]

If no authorization information is agreed to by trading partners, fill field with zeroes.

Security Qualifier
[003]

Code Definition

00 No security information present.

Security Info
[004]

If no security information is
agreed to by trading partners, fill
field with zeroes.

ISA04 104 Security Information M AN10/10
This is used for identifying the security information
about the sender or the data in the interchange.

Sender Qualifier
[005]

Use authorized X12 code list.

ISA05 105 Interchange Id Qualifier M ID 2/2
Qualifier to designate the system/method of code
structure used to designate the sender ID element
being qualified.

Sender Id
[006]

DoD activities use Department of
Defense Activity Address
Code (DoDAAC) or other code
coordinated with the Defense
Transportation EDI Administrator.
Non-DoD activities use identifica-
tion code qualified by ISA05 and
coordinated with the value-added
network (VAN).

ISA06 106 Interchange Sender's Id M AN15/15
Identification code published by the sender for other
parties to use as the receiver ID to route data to
them.

Interchange Qualifier
[007]

Use authorized X12 code list.

ISA07 105 Interchange Id Qualifier M ID 2/2
Code to identify the type of information in the
Authorization Information.

Receiver Id
[008]

For DoD activities, use Department of Defense Activity Address Code (DoDAAC) or other code coordinated with the Defense Transportation EDI Administrator. For Non-DoD activities, use identification code qualified by ISA07 and coordinated with the VAN.

Date
[009]

Assigned by translation software.

Time
[010]

Assigned by translation software.

Standards Id
[011]

ISA08 I07 Interchange Receiver's Id M AN15/15
Identification code published by the receiver of the data.

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

ISA10 I09 Interchange Time M TM 4/4
Time of the interchange.

ISA11 I10 Interchange Control Standard Identifier 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

ISA12 I11 Interchange Control Version M ID 5/5
This version number covers the interchange control segments and the functional group control segments.

Version Id
[012]

Version ID as defined or agreed
upon by the trading partners.

Code Definition

00302 Draft Standard for Trial Use Approved for
Publication by ASC X12 Procedures Review
Board Through October 1991

Interchange Control Number
[013]

Assigned by translation software.

ISA13 I12 Interchange Control Number M NO 9/9
This number uniquely identifies the interchange data
to the sender.

Acknowledgment Request
[014]

Code value agreed upon by trad-
ing partners.

ISA14 I13 Acknowledgment Requested M ID 1/1
Code sent by the sender to request an interchange ac-
knowledgement.

Code Definition

0 No Acknowledgment Requested
1 Interchange Acknowledgement Requested

Test Indicator
[015]

Code value agreed upon by trad-
ing partners.

ISA15 I14 Test Indicator M ID 1/1
Code to indicate whether data enclosed by this inter-
change envelope is test or production.

Code Definition

P Production Data
T Test Data

ISA16 I15 Subelement Separator M AN 1/1
This is a field reserved for future expansion in
separating data element subgroups.

Subelement Separator
[016]

Segment: GS Functional Group Header

Usage: M

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

Comment: A. A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.

Syntax Notes: 01 The data interchange control number (GS06) in this header must be identical to the same data element in the associated Functional Group Trailer (GE02).

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
-----------	--------------	------	------------

GS01	479	Functional Id Code	M ID 2/2
------	-----	--------------------	----------

Code identifying a group of application related Transaction Sets.

Functional Id
[020]

Code Definition

IA	110 - Air Freight Details and Invoice
IM	210 - Freight Details and Invoice (Motor)
MI	213 - Carrier Shipment Status Inquiry
QM	214 - Shipment Status Message
IR	410 - Freight Details and Invoice (Rail)
RA	820 - Payment Order/Remittance Advice
SI	858 - Shipment Information
FB	859 - Freight Invoice (Generic Mode)
CG	994 - Administrative Message
FA	997 - Functional Acknowledgement

Choose the code value appropriate to the information content of the functional group. See X12 Dictionary for source code list.

GS02	142	Application Sender's Code	M AN 2/12
------	-----	---------------------------	-----------

Code identifying party sending transmission. Codes agreed to by trading partners.

Sender's Code
[021]

DoD activities use Department of Defense Activity Address Code (DoDAAC). Non-DoD activities use identification code assigned by DoD activity. Recommend for increased security that non-DoD code differ from that used in ISA06.

Receiver's Code
[022]

DoD activities use Department of Defense Activity Address Code (DoDAAC). Non-DoD activities use identification code assigned by DoD activity. Recommend for increased security that non-DoD code differ from that used in ISA08.

Date
[023]

Assigned by translation software.

Time
[024]

Assigned by translation software.

Group Control Number
[025]

Assigned by translation software.

GS03 124 Application Receiver's Code M AN 2/12
Code identifying party receiving transmission. Codes agreed to by trading partners.

GS04 29 Group Date M DT 6/6
Date sender generated a functional group of transaction sets.

GS05 30 Group Time M TM 4/4
Time (HHMM) when the sender generated a functional group of transaction sets (local time at sender's location).

GS06 28 Group Control Number M NO 1/9
Assigned number originated and maintained by the sender.

Agency Code
[026]

Indicates that an ANSI X12 standard is being transmitted.

Version/Release
[027]

Code value agreed to by trading partners. See X12 Dictionary for source code list.

GS07 455 Responsible Agency Code M ID 1/2
Code used in conjunction with Data Element 480 to identify the issuer of the standard.

<u>Code</u>	<u>Definition</u>
X	Accredited Standards Committee X12

GS08 480 Version/Release/Industry Id Code M ID 1/12
Code indicating the version, release, subrelease and industry identifier of the EDI standard being used. (See X12 Dictionary)

<u>Code</u>	<u>Definition</u>
003020	Draft Standards Approved By ASC X12 Through October 1991

Segment: **GE** Functional Group Trailer

Usage: M

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

Comment: A. The use of identical data interchange control numbers in the associated functional group header and trailer is designed to maximize functional group integrity. The control number is the same as that used in the corresponding header.

Syntax Notes: 01 The data interchange control number (GE02) in this trailer must be identical to the same data element in the associated Functional Group Header (GS06).

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
GE01	97	Number of Included Sets	M NO 1/6
		Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element.	
GE02	28	Group Control Number	M NO 1/9
		Assigned number originated and maintained by the sender.	

Number of Segments
[028]

Assigned by the translation
software.

Group Control Number
[029]

Assigned by the translation
software. This control number
must match the control number of
the preceding GS06 control num-
ber.

Segment: IEA Interchange Control Trailer

Usage: M

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

Note: The interchange control number in this trailer must match the value in the same data element in the corresponding interchange header.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
IEA01	116	Number of Included Functional Groups	M N0 1/5
		A count of the number of functional groups included in a transmission.	

Functional Group Count
[040]

Assigned by translation software.

IEA02	112	Interchange Control Number	M N0 9/9
		This number uniquely identifies the interchange data to the sender.	

Interchange Control Number
[041]

Assigned by translation software.
This number must match the number that occurs in ISA13.

10.5 DATA ELEMENT CROSS-REFERENCE MATRIX

Overview

This chapter lists the data element cross-reference between the Department of Defense (DoD) ASC X12.139 Transaction Set 410 Rail Carrier Invoice (003020). We derived the cross-reference from the following:

- Examination of DoD transportation invoice information data requirements.
- Analysis of ASC X12.139 Transaction Set 410 Rail Carrier Invoice.
- Comments submitted by DoD activities and commercial carriers involved in the DoD electronic data interchange effort.

Purpose

This chapter identifies specific data in an application and their corresponding EDI mapping into the Transaction Set 410. Data elements from an existing application database can be identified with elements in this cross-reference. If no application exists, the cross-reference provides enough information to develop a database design to automate the application. With an application in place, this cross-reference will expedite mapping of the database into a commercial EDI translation package. All trading partners who plan to exchange the 410 with DoD can use this document as a reference for the development of their database/EDI translator interface program.

Contents

One table is included in this chapter. Table 10.5-1, Data Element Cross-Reference lists all the discrete data elements of the DoD invoice data requirements and their corresponding segment and data element of the ASC X12.139 Transaction Set 410 Rail Carrier Invoice.

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TABLE 10.5-1

DATA ELEMENT CROSS-REFERENCE

DoD Transportation Invoice Data Using ASC X12.139 Transaction Set 410 Rail Carrier Invoice.

How To Read This Table

Table 10.5-1 cross-references discrete DoD invoice data requirements to the corresponding segment and data elements of the Transaction Set 410. The following definitions explain how table 10.5-1 is organized. Understanding the information in this table requires familiarity with EDI standards.

Government References

The first three columns on the left in Table 10.5-1 identify the specific invoice data element.

- **INVOICE DATA NAME:** Lists individual data elements required to send a transportation invoice. The user should identify these elements with a data name in their internal database system.
- **INDEX:** Three entries may appear in this column and represent various levels of indexing used to sort the data names in a data dictionary.
- **Q:** An asterisk (*) in this column identifies the data as a qualifier code.

EDI References

The remaining seven columns identify the detailed mapping of each data name into Transaction Set 410. Using these references is explained below in "How To Use This Table".

- **AREA:** The area of the transaction set where the data is mapped. A = header, B = detail, C = summary.
- **POS:** The sequential position of a specific segment within the area of the transaction set.
- **REF DES:** The first two or three alphanumeric characters identify a transaction set segment; the last two numeric characters in the column identify a data element position in the segment.
- **DE #:** The EDI data element number that appears at that position in the segment.
- **VALUE:** The recommended code value(s) that should be used.

- DoD CONVENTIONS: Additional information about the data as they apply to Department of Defense use.

How To Use This Table

This table maps a data element to a specific data element in an EDI transaction set.

1. Select any data element from the INVOICE DATA NAME list,
2. Identify the AREA, POS, and REF DES for that DATA NAME,
3. Go to Table 10.7-2 DoD Segment Hierarchy,
4. Find the AREA (Table A = header, etc.) in the hierarchy,
5. Locate the segment that corresponds to the POS and the REF DES. NOTE: The POS may not appear in some hierarchy tables. In this case, use the segment id identified by the first 2-3 characters in the REF DES,
6. In the left-hand column, identify the page number of the segment Id,
7. Turn to that page number in Table 10.7-3,
8. Now in the convention table 10.7-3, find the REF DES from step, 2 under the Ref. Des. column on the right hand side of the page,
9. You have now mapped a data element from table 10.5-1 into the convention table 10.7-3.

The INVOICE DATA NAME from Table 10.5-1 appears in the right hand column along with its INDEX and the DoD CONVENTION. The EDI standard definition of the data element appears in the right hand column of the page.

Each INVOICE DATA NAME from Table 10.5-1 can be mapped into the transaction set in this manner.

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410 RAIL CARRIER INVOICE
DATA NAME

INDEX Q A POS REF DES DE # VALUE DoD CONVENTION

Transaction Set Id [001] * 1 10 ST01 143 410 - X12.139 Rail Carrier Freight Details and Invoice

Transaction Set Control Number [002] 1 10 ST02 329

The application and structure of the control number must be agreed upon between DoD and its trading partners. The first five digits will indicate the interchange control number. The last four digits represent the sequence of the transaction within the functional group.

Invoice Number [003] 1 20 B3B01 76

Transportation service provider's unique invoice number.

Shipment Method of Payment [004] 1 20 B3B02 146 PP - Prepaid

Invoice Date [005] 1 20 B3B03 373

Date the invoice is issued. Use format YYMMDD.

Total Charges [006] 1 20 B3B04 193

Total shipment charge including linehaul, accessorials, miscellaneous, and fuel charges. Implied decimal at second position from right.

Payment Due Date [007] 1 20 B3B05 373

Not used by DoD payment centers. Use format YYMMDD.

Billing Carrier SCAC [008] 1 20 B3B06 140

Use the SCAC of the carrier that issues the invoice.

Transportation Method [009] 1 20 B3B07 91 R - Rail

GBL Number

[010] 1 20 B3B08 145

DoD unique number representing a shipment. The number is made up of one or two alpha characters followed by six or seven numbers. Do not use any punctuation or special characters.

Correction Indicator

[011] * 1 20 B3B10 202 AD - Supplemental
CA - Cancel

If the invoice is submitted for the first time (original invoice), this optional data field is not used.

Payee Code Qualifier

[012] * 1 40 N901 128 PQ - Payee Identification

Payee Code

[013] 1 40 N902 127

Identification assigned by DoD payment center. Qualify in N901.

Payee Zip Code

[013 010] 1 40 N903 369

Zip code of location that payee authorizes payment to be sent. Must match payee information on file at payment center.

Carrier Pickup Date Qualifier

[014] * 1 40 N901 128 P8 - Pickup Reference Number

Carrier Pickup Date Text

[015] 1 40 N903 369

To satisfy X12 syntax, fill this data element with "PICKUP DATE".

Carrier Pickup Date

[016] 1 40 N904 373

Date carrier picked up shipment. Not required for submission of supplemental invoices. Use format YYMMDD.

Carrier Pickup Time

[017] 1 40 N905 337

Time carrier picked up shipment. Use format HHMM.

Carrier Delivery Date Qualifier

[018] * 1 40 N901 128 DO - Delivery Reference Number

410 RAIL CARRIER INVOICE
DATA NAME

INDEX	Q	A	POS	REF DES	DE #	VALUE	DoD CONVENTION
Carrier Delivery Date Text	[019]		1	40	N903	369	To satisfy X12 syntax, fill this data element with "DELIVERY DATE."
Carrier Delivery Date	[020]		1	40	N904	373	Date carrier delivered shipment. Not required for submission of supplemental invoices. Use format YYMMDD.
Carrier Reference Number Qualifier	[021]	*	1	40	N901	128	CN - Carrier Reference Number (PRO Number)
Carrier Reference Number	[022]		1	40	N902	127	Qualify in N901.
Equipment Number	[022 010]		1	50	N702	207	Mandatory ANSI syntax field not required by DoD.
Waybill Number	[022 100]		1	130	N801	186	Mandatory ANSI syntax field not required by DoD.
Waybill Date	[022 110]		1	130	N802	373	Mandatory ANSI syntax field not required by DoD.
Origin Station	[022 120]		1	140	F902	101	Mandatory ANSI syntax field not required by DoD.
Origin Station Code	[022 130]		1	140	F903	156	Mandatory ANSI syntax field not required by DoD.
Destination Station	[022 140]		1	150	D902	300	Mandatory ANSI syntax field not required by DoD.

Destination Station State Code	[022 150]	1	150	D903	156	Mandatory ANSI syntax field not required by DoD.	
Issuing Office Qualifier	[031]	*	1	160	N101 98	IU	- Issuer
Issuing Office GBLOC Qualifier	[032]	*	1	160	N103 66	27	- Government Bill Of Lading Office Code (GBLOC)
Issuing Office GBLOC	[033]	1	160	N104 67			
Qualify in N103.							
Tendered To Carrier Qualifier	[034]	*	1	160	N101 98	OC	- Origin Carrier
Tendered To Carrier SCAC Qualifier	[035]	*	1	160	N103 66	2	- SCAC
Tendered To Carrier SCAC	[036]	1	160	N104 67			
Use SCAC of billing company.							
Destination Transportation Company Qualifier	[037]	*	1	160	N101 98	DC	- Destination Carrier
Destination Transportation Company SCAC Qualifier	[038]	*	1	160	N103 66	2	- SCAC
Destination Transportation Company SCAC	[039]	1	160	N104 67			
Use SCAC of delivering carrier.							
Diversión/Reconsignment From Qualifier	[043]	*	1	160	N101 98	T4	- Transfer Point
Diversión/Reconsignment From SPLC Qualifier	[044]	*	1	160	N103 66	20	- Standard Point Location Code (SPLC)
Diversión/Reconsignment From SPLC	[045]	1	160	N104 67			
Qualify in N103.							

410 RAIL CARRIER INVOICE
DATA NAME

INDEX	Q	A	POS	REF DES	DE #	VALUE	DoD CONVENTION
[046]	*	1	430	LX01	554	-	Assign a sequential number for each charge. Charges include transportation linehaul, accessorial, miscellaneous, and authorized surcharges. Use one LX01 for each L108 (service charge code).
Description, Marks, and Numbers	[046 010]	1	440	L501	213		Mandatory ANSI syntax field not required by DoD.
Loop Header	[046 020]	1	445	LS01	447		Mandatory ANSI syntax field not required by DoD.
Assigned Number	[047]	*	1	450	LX01	554	Mandatory ANSI syntax field not required by DoD.
Line Item - Quantity and Weight	[047 010]	1	460	L001	213		Mandatory ANSI syntax field not required by DoD.
Service Charge	[048]	1	470	L104	58		Charge for each service identified in L108. Implied decimal at second position from right.
Service Charge Code	[049]	*	1	470	L108	150	Services regulated by the Military Traffic Management Command (MTMC). See Billing Instructions available from DoD Payment Center for more information. See Appendix 10.F for cross reference from DoD codes to ASC X12 codes.

Service Charge Description [050] * 1 470 L112 276

Use free form description of any third party or miscellaneous service code identified in L108. See Appendix 10.F for application.

Loop Trailer [050 010] 1 475 LE01 447

Mandatory ANSI syntax field not required by DoD.

Tariff/Tender Miles [051] 1 480 L713 294

Mileage used in calculating mileage related charges. Qualify in L714.

Tariff/Tender Miles Qualifier [052] * 1 480 L714 295 T - Tariff/Tender Miles

Total Billed Weight [052 100] 1 540 L301 81

Total Billed Weight Qualifier [052 110] * 1 540 L302 187 B - Billed Weight

Included Number of Segments [053] 1 570 SE01 96

Transaction Set Control Number [054] 1 570 SE02 329

Total segments in this transaction set including the ST and SE segments.

This data element ends the transaction set and should match the number that appears in the ST02 that begins the transaction set.

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10.7 DoD CONVENTIONS

Overview

This chapter is the convention for the ASC X12.139 Transaction Set 410 (Version 003020) as used by the Department of Defense for accepting a transportation invoice. It was derived from:

- Table 10.5-1, Data Element Cross-Reference Matrix that describes the discrete DoD data requirements for invoices.
- ASC X12.139 Transaction Set 410 Rail Carrier Invoice.

A relational database management system was used to merge the Data Element Cross-Reference Matrix and a Transaction Set 410 database into the subset of 410 segments described in table 10.7-3 of this chapter.

Purpose

This chapter contains all necessary information for a DoD trading partner to map and translate a Transaction Set 410. All trading partners who plan to exchange the Transaction Set 410 can use this document as a reference for the development of their EDI database/translator interface program.

Contents

Three tables are included in this chapter.

- Table 10.7-1, ASC X12.139 Transaction Set 410 Segment Hierarchy describes the 410 segments as they appear in the ASC X12 Standards Dictionary.
- Table 10.7-2, DoD Model Transaction Set 410 Segment Hierarchy describes the subset of 410 segments used for sending transportation invoices.
- Table 10.7-3, Conventions is a detailed description of the Department of Defense conventions for transmitting Transaction Set 410. All segments identified in Table 10.7-2 are detailed in Table 10.7-3 by segment, position, and code value.

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TABLE 10.7-1

SEGMENT HIERARCHY

ASC X12.139 TRANSACTION SET 410
RAIL CARRIER INVOICE
(Version 003020)

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ASC X12.139 Transaction Set 410
Rail Carrier Freight Details and Invoice
(Version 003020)
Segment Hierarchy

Table 1 - Header Area

Industry	Pos No.	Seg ID	Name	Req Des	Use	Loop
USE	10	ST	Transaction Set Header	M	1	
USE	20	B3B	Beginning Segment for Carrier's Invoice	M	1	
	30	C4	Alternate Amount Due	O	1	
USE	40	N9	Reference Number	O	30	
USE	50	N7	Equipment Details	M	1	N7\255
	60	VC	Motor Vehicle Control	O	21	
	70	G4	Scale Identification Segment	O	1	
	80	M7	Seal Numbers	O	5	
	90	N5	Equipment Ordered	O	1	
	100	IC	Intermodal Chassis Equipment	O	1	
	110	IM	Intermodal Movement Information	O	1	
	120	M12	In-bond Identifying Information	O	1	
USE	130	N8	Waybill Reference	M	255	
USE	140	F9	Origin Station	M	1	
USE	150	D9	Destination Station	M	1	
USE	160	N1	Name	O	1	N1\10
	170	N3	Address Information	O	2	
	180	N4	Geographic Location	O	1	
	190	F1	Consignor Name	O	1	
	200	F2	Consignor Address	O	2	
	210	F4	Consignor City	O	1	
	220	D1	Consignee Name	O	1	
	230	D2	Consignee Address	O	2	
	240	D4	Consignee City	O	1	
	250	U1	Ultimate Consignee Name	O	1	
	260	U2	Ultimate Consignee Address	O	1	
	270	U4	Ultimate Consignee City	O	1	
	280	U5	Prior Origin Name	O	1	
	290	U6	Prior Origin Address	O	1	
	300	U9	Prior Origin City	O	1	

	310 F5	Consignor's Third Party	O	1	F5\10
	320 F6	Consignor's Third Party Address	O	1	
	330 F7	Consignor's Third Party City	O	1	
	340 D5	Consignee's Third Party	O	1	D5\10
	350 D6	Consignee's Third Party Address	O	1	
	360 D7	Consignee's Third Party City	O	1	
	370 S1	Stop-off Name	O	1	S1\6
	380 S2	Stop-off Address	O	1	
	390 S9	Stop-off Station	O	1	
	400 R2	Route Information	O	13	
	410 RE	Rebill At Interchange	O	1	
	420 PS	Protective Service Instructions	O	3	
USE	430 LX	Assigned Number	M	1	LX\25
USE	440 L5	Description, Marks and Numbers	M	15	
USE	445 LS	Loop Header	M	1	
USE	450 LX	Assigned Number	M	1	LX\25
USE	460 L0	Line Item - Quantity and Weight	M	10	
USE	470 L1	Rate and Charges	M	10	
USE	475 LE	Loop Trailer	M	1	
USE	480 L7	Tariff Reference	O	30	
	490 T1	Transit Inbound Origin	O	1	T1\64
	500 T2	Transit Inbound Lading	O	30	
	510 T3	Transit Inbound Route	O	12	
	520 T6	Transit Inbound Rates	O	1	
	530 T8	Free-form Transit Data	O	99	
USE	540 L3	Total Weight and Charges	M	1	
	550 X7	Customs Information	O	2	
	560 GA	Canadian Grain Information	O	1	
USE	570 SE	Transaction Set Trailer	M	1	

TABLE 10.7-2

SEGMENT HIERARCHY

DoD MODEL FOR TRANSACTION SET
410 RAIL CARRIER INVOICE

(BLANK PAGE)

DoD Model Transaction Set 410
Rail Carrier Invoice
Segment Hierarchy

Table 1 - Header Area

Page No.	Pos No.	Seg ID	Name	Req Des	Use	Loop
13	10	ST	Transaction Set Header	M	1	
14	20	B3B	Beginning Segment for Carrier's Invoice	M	1	
17	40	N9	Reference Number	O	30	
20	50	N7	Equipment Details	M	1	N7\255
22	130	N8	Waybill Reference	M	255	
24	140	F9	Origin Station	M	1	
25	150	D9	Destination Station	M	1	
27	160	N1	Name	O	1	N1\10
30	430	LX	Assigned Number	M	1	LX\25
31	440	L5	Description, Marks and Numbers	M	15	
33	445	LS	Loop Header	M	1	
35	450	LX	Assigned Number	M	1	LX\25
36	460	L0	Line Item - Quantity and Weight	M	10	
38	470	L1	Rate and Charges	M	10	
40	475	LE	Loop Trailer	M	1	
42	480	L7	Tariff Reference	O	30	
44	540	L3	Total Weight and Charges	M	1	
46	570	SE	Transaction Set Trailer	M	1	

(Blank Page)

TABLE 10.7-3

DoD 410 CONVENTION

How To Read This Table

This table contains two sets of references. ASC X12 references are contained in the right-hand column. Government references are contained in the left-hand column except for codes lists which are included in the right-hand column.

Government References

The left-hand and middle columns in Table 10.7-3 describe Department of Defense conventions.

- Left-hand column contains two general references.
 - > INDEX: is enclosed in brackets and corresponds to a specific INDEX from Table 10.5-1.
 - > INVOICE DATA NAME: Appears above the INDEX and corresponds to a specific DATA NAME from Table 10.5-1.
- Middle column: Contains a less-than sign to indicate where Department of Defense conventions vary from the ASC X12 convention.

To help the user determine the source data, the INDEX can be used to trace data elements back to Table 10.5-1.

ASC X12 References

The right-hand column describes the ASC X12 conventions. The information included at the beginning of a segment description is standard ASC X12 information. The subheadings listed under Data Element Summary describe conventions for each data element in the segment.

- > Ref Des, Data Element, Attributes: Three subheadings describe the format of the segment as prescribed by ASC X12.
- > Name: Describes the ASC X12 data element and offers the standard definition. It also lists the specific code values the Department of Defense prescribes and may provide other Department of Defense information.

How To Use This Table

This table can be used to identify the data contained in populated Transaction Set 410.

1. Identify a segment from a populated transaction set (See Appendix 10.C for examples of the 410).
2. Look up the segment in table 10.7-3.
3. Read the right-hand column to identify the Reference Designator (Ref.Des.). The Reference Designator combines the segment id and the data element position to form a single identifier.
4. Read the left-hand column immediately adjacent to the Reference Designator to find the discrete DATA NAME, INDEX, and DoD CONVENTION from Table 10.5-1 that is mapped to that Reference Designator. When multiple DATA NAMES appear for a single Reference Designator, there is usually a code qualifier somewhere in the same segment that identifies the data.

Segment: ST Transaction Set Header
Level: 1
Sequence: 10
Usage: M
Max Use: 1
Loop:
Purpose: To indicate the start of a transaction set and to assign a control number
Comment: 01 The transaction set identifier (ST01) is intended for use by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the invoice transaction set).

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
ST01	143	Transaction Set Identifier Code	M ID 3/3
		Code uniquely identifying a Transaction Set.	
		<u>Code</u>	<u>Definition</u>
		410	X12.139 Rail Carrier Freight Details and Invoice
ST02	329	Transaction Set Control Number	M AN 4/9
		Identifying control number assigned by the originator for a transaction set.	

Transaction Set Id
[001 *]

Transaction Set Control
Number
[002]

The application and structure of the control number must be agreed upon between DoD and its trading partners. The first five digits will indicate the interchange control number. The last four digits represent the sequence of the transaction within the functional group.

Segment: B3B Beginning Segment for Carrier's Invoice

Level: 1

Sequence: 20

Usage: M

Max Use: 1

Loop:

Purpose: To transmit identifying numbers, dates and other basic data relating to the transaction set.

Comment: 03 B3B03 is the billing date.

05 B3B05 is the payment due date.

09 B3B09 default value is pounds.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
-----------	--------------	------	------------

B3B01	76	Invoice Number	M AN 1/22
-------	----	----------------	-----------

Identifying number assigned by issuer.

Invoice Number
[003]

Transportation service provider's
unique invoice number.

B3B02	146	Shipment Method of Payment	M ID 2/2
-------	-----	----------------------------	----------

Code identifying payment terms for transportation charges.

Shipment Method of
Payment
[004]

Code	Definition
PP	Prepaid

B3B03	373	Date	M DT 6/6
-------	-----	------	----------

Date (YYMMDD).

Invoice Date
[005]

Date the invoice is issued. Use format YYMMDD.

B3B04	193	Net Amount Due	M N2 1/9
-------	-----	----------------	----------

Total charges to be paid by the receiver of this transaction set expressed in the standard monetary denomination for the currency specified.

Total Charges
[006]

Total shipment charge including
linehaul, accessorial, miscel-
laneous, and fuel charges. Implied
decimal at second position from
right.

Payment Due Date
[007]

Not used by DoD payment
centers. Use format YYMMDD.

Billing Carrier SCAC
[008]

Use the SCAC of the carrier that
issues the invoice.

Transportation Method
[009]

GBL Number
[010]

DoD unique number representing a
shipment. The number is made up
of one or two alpha characters fol-
lowed by six or seven numbers.
Do not use any punctuation or spe-
cial characters.

B3B05 373 Date M DT 6/6
Date (YYMMDD).

B3B06 140 Standard Carrier Alpha Code M ID 2/4
Standard Carrier Alpha Code

B3B07 91 Transportation Method/Type M ID 1/2
Code
Code specifying the method or type of transportation
for the shipment.

Code	Definition
R	Rail

B3B08 145 Shipment Identification Number O AN 1/30
Identification number assigned to the shipment by
the shipper that uniquely identifies the shipment
from origin to ultimate destination and is not subject
to modification. (Does not contain blanks or special
characters.)

B3B09 188 Weight Unit Qualifier O ID 1/1

Correction Indicator
[011 *]

If the invoice is submitted for the first time (original invoice), this optional data field is not used.

B3B10 202 Correction Indicator

O ID 2/2

Code used to indicate that the transaction set contains information which corrects a previous billing.

<u>Code</u>	<u>Definition</u>
-------------	-------------------

AD	Supplemental
CA	Cancel

Segment: **N9** Reference Number

Level: 1

Sequence: 40

Usage: M

Max Use: 30

Loop:

Purpose: To transmit identifying numbers and descriptive information as specified by the reference number qualifier

Syntax Notes: 02 R0203 - At least one of N902 or N903 is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N901	128	Reference Number Qualifier	M ID 2/2
		Code qualifying the Reference Number.	

Payee Code Qualifier
[012 *]

Code Definition

PQ Payee Identification

Carrier Pickup Date Qualifier
[014 *]

Code Definition

P8 Pickup Reference Number

Carrier Delivery Date Qualifier
[018 *]

Code Definition

DO Delivery Reference Number

Carrier Reference Number
Qualifier
[021 *]

Code Definition

CN Carrier Reference Number (PRO Number)

N902	127	Reference Number	C AN 1/30
		Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	

Payee Code
[013]

Identification assigned by DoD pay-
ment center. Qualify in N901.

Carrier Reference Number
[022]

Qualify in N901.

Payee Zip Code
[013 010]

Zip code of location that payee
authorizes payment to be sent.
Must match payee information on
file at payment center.

Carrier Pickup Date Text
[015]

To satisfy X12 syntax, fill this
data element with "PICKUP
DATE".

Carrier Delivery Date Text
[019]

To satisfy X12 syntax, fill this
data element with "DELIVERY
DATE."

Carrier Pickup Date
[016]

Date carrier picked up shipment.
Not required for submission of sup-
plemental invoices. Use format
YYMMDD.

N903 369 Free-form Description
Free-form descriptive text.

C AN 1/45

N904 373 Date
Date (YYMMDD).

O DT 6/6

Carrier Delivery Date
[020]

Date carrier delivered shipment.
Not required for submission of sup-
plemental invoices. Use format
YYMMDD.

Carrier Pickup Time
[017]

Time carrier picked up shipment.
Use format HHMM.

N905 337 Time

O TM 4/6

Time expressed in 24-hour clock time (HHMMSS)
(Time range: 000000 through 235959)

Segment: N7 Equipment Details
Level: 1
Sequence: 50
Usage: O
Max Use: 1
Loop:
Purpose: To identify the equipment.
Comment: 01 N701 is mandatory for rail transactions.
20 N720 and N721 are expressed in inches.

Syntax Notes: 03 C0304 - If N703 is present, then 04 is required.
05 P0516 - If either N705 or N716 is present, then the other is required.
08 P0809 - If either N708 or N709 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N701	206	Equipment Initial	O AN 1/4
N702	207	Equipment Number Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred).	M AN 1/10
N703	81	Weight	O R 1/8
N704	187	Weight Qualifier	C ID 1/2
N705	167	Tare Weight	C N0 3/8
N706	232	Weight Allowance	O N0 2/6
N707	205	Dunnage	O N0 1/6

Equipment Number
[022 010]

Mandatory ANSI syntax field not required by DoD.

N708	183	Volume	C R	1/8
N709	184	Volume Unit Qualifier	C ID	1/1
N710	102	Ownership Code	O ID	1/1
N711	40	Equipment Description Code	O ID	2/2
N712	307	Equipment Owner Code	O ID	1/4
N713	319	Temperature Control	O AN	3/6
N714	219	Position	O AN	1/3
N715	567	Equipment Length	O NO	4/5
N716	571	Tare Qualifier Code	C ID	1/1
N717	188	Weight Unit Qualifier	O ID	1/1
N718	761	Equipment Number Check Digit	O NO	1/1
N719	56	Type of Service Code	ID	2/2
N720	65	Height	O R	1/8
N721	189	Width	O R	1/8
N722	24	Equipment Type	O ID	4/4

Segment: N8 Waybill Reference

Level: 1

Sequence: 130

Usage: M

Max Use: 255

Loop:

Purpose: To identify the waybill and to specify the equipment used and the destination details

Comment: 00 Waybill type should only be transmitted when the transaction set involves a multiple Car/TOFC/COFC shipment or a conveying flat car. Waybill type should not be sent on a single Car/TOFC/COFC.

02 N802 is the Waybill Date.

07 N807 is the Waybill Date.

10 N810 will contain destination railroad initial (SCAC).

11 N811 will contain railroad destination (FSAC).

Syntax Notes: 03 P030405 - If either N803,N804 or N8 are present, then the others are required.

06 P0607 - If either N806 or N807 is present, then the other is required.

08 P0809 - If either N808 or N809 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N801	186	Waybill Number	M N0 1/6
		Carrier accounting number of the waybill for the in-bound movement.	
N802	373	Date	M DT 6/6
		Date (YYMMDD).	

Waybill Number
[022 100]

Mandatory ANSI syntax field not required by DoD.

Waybill Date
[022 110]

Mandatory ANSI syntax field not required by DoD.

N803	231	Cross Reference Type Code	C	ID	1/1
N804	206	Equipment Initial	C	AN	1/4
N805	207	Equipment Number	C	AN	1/10
N806	186	Waybill Number	C	N0	1/6
N807	373	Date	C	DT	6/6
N808	300	Destination Station	C	AN	2/19
N809	156	State or Province Code	C	ID	2/2
N810	140	Standard Carrier Alpha Code	O	ID	2/4
N811	573	Freight Station Accounting Code	O	ID	1/5

Segment: F9 Origin Station
Level: 1
Sequence: 140
Usage: O
Max Use: 1
Loop:
Purpose: To identify the rail origin of this shipment.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
F901	573	Freight Station Accounting Code	O ID 1/5
F902	101	Origin Station Railroad station at which the movement of goods originated.	M AN 2/19
F903	156	State or Province Code Code (Standard State/Province) as defined by appropriate government agency.	M ID 2/2
F904	26	Country Code	O ID 2/2
F905	194	Billed At Station Code	O ID 1/6
F906	19	City Name	O AN 2/19
F907	156	State or Province Code	O ID 2/2
F908	154	Standard Point Location Code	O ID 6/9
F909	116	Postal Code	O ID 4/9

Origin Station
[022 120]

Mandatory ANSI syntax field not
required by DoD.

Origin Station Code
[022 130]

Mandatory ANSI syntax field not
required by DoD.

Segment: D9 Destination Station

Level: 1

Sequence: 150

Usage: O

Max Use: 1

Loop:

Purpose: To identify the rail destination of this shipment.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
D901	573	Freight Station Accounting Code	O ID 1/5
D902	300	Destination Station Railroad station at which the movement of goods is to terminate.	M AN 2/19
D903	156	State or Province Code Code (Standard State/Province) as defined by appropriate government agency.	M ID 2/2
D904	26	Country Code	O ID 2/2
D905	194	Billed At Station Code	O ID 1/6
D906	19	City Name	O AN 2/19
D907	156	State or Province Code	O ID 2/2
D908	154	Standard Point Location Code	O ID 6/9

Destination Station
[022 140]

Mandatory ANSI syntax field not required by DoD.

Destination Station State
Code
[022 150]

Mandatory ANSI syntax field not required by DoD.

D909 116 Postal Code

O ID 4/9

Segment: N1 Name

Level: 1

Sequence: 160

Usage: M

Max Use: 1

Loop:

Purpose: To identify a party by type of organization, name and code

Comment: 04 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.

Syntax Notes: 02 R0203 - At least one of N102 or N103 is required.

03 P0304 - If either N103 or N104 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
N101	98	Entity Identifier Code	M ID 2/2
		Code identifying an organizational entity or a physical location.	

Issuing Office Qualifier
[031 *]

Code Definition

IU Issuer

Tendered To Carrier Qualifier
[034 *]

Code Definition

OC Origin Carrier

Destination Transportation
Company Qualifier
[037 *]

Code Definition

DC Destination Carrier

Diversion/Reconsignment
From Qualifier
[043 *]

Code Definition

T4 Transfer Point

Issuing Office GBLOC Qualifier [032 *]	N102 93 Name C AN 1/35				
Tendered To Carrier SCAC Qualifier [035 *]	N103 66 Identification Code Qualifier C ID 1/2 Code designating the system/method of code structure used for Identification Code (67). <table> <tr> <th>Code</th><th>Definition</th></tr> <tr> <td>27</td><td>Government Bill Of Lading Office Code (GBLOC)</td></tr> </table>	Code	Definition	27	Government Bill Of Lading Office Code (GBLOC)
Code	Definition				
27	Government Bill Of Lading Office Code (GBLOC)				
Destination Transportation Company SCAC Qualifier [038 *]	<table> <tr> <th>Code</th><th>Definition</th></tr> <tr> <td>2</td><td>SCAC</td></tr> </table>	Code	Definition	2	SCAC
Code	Definition				
2	SCAC				
Diversion/Reconsignment From SPLC Qualifier [044 *]	<table> <tr> <th>Code</th><th>Definition</th></tr> <tr> <td>2</td><td>SCAC</td></tr> </table>	Code	Definition	2	SCAC
Code	Definition				
2	SCAC				
Issuing Office GBLOC [033] Qualify in N103.	<table> <tr> <th>Code</th><th>Definition</th></tr> <tr> <td>20</td><td>Standard Point Location Code (SPLC)</td></tr> </table>	Code	Definition	20	Standard Point Location Code (SPLC)
Code	Definition				
20	Standard Point Location Code (SPLC)				
Tendered To Carrier SCAC [036] Use SCAC of billing company. Destination Transportation Company SCAC [039] Use SCAC of delivering carrier.	N104 67 Identification Code C AN 2/17 Code identifying a party.				

Diversion/Reconsignment
From SPLC
(045 1

Qualify in N103.

Segment: LX Assigned Number
Level: 1
Sequence: 430
Usage: M
Max Use: 1
Loop:
Purpose: To reference a line number in a transaction set.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
LX01	554	Assigned Number	M N0 1/6

Number assigned for differentiation within a transaction set.

Service Charge Loop Identifier [046 *]

Assign a sequential number for each charge. Charges include transportation linehaul, accessorial, miscellaneous, and authorized surcharges. Use one LX01 for each L108 (service charge code).

Segment: L5 Description, Marks and Numbers
Level: 1
Sequence: 440
Usage: O
Max Use: 15
Loop:

Purpose: To specify the line item in terms of description, quantity, packaging, and marks and numbers.

Comment: 02 L502 may be used to send quantity information as part of the product description.

03 L503 and L504 are "Paired" data elements. If one is used, both must be used except for rail transaction sets where STCC is understood.

Syntax Notes: 03 P0304 - If either L503 or L504 is present, then the other is required.

08 P0809 - If either L508 or L509 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L501	213	Lading Line Item Number Sequential line number for a lading item.	O NO 1/3
L502	79	Lading Description	O AN 1/50
L503	22	Commodity Code	C AN 1/16
L504	23	Commodity Code Qualifier	C ID 1/1
L505	103	Packaging Code	O AN 5/5
L506	87	Marks and Numbers	O AN 1/45

Description, Marks, and
Numbers
[046 010]

Mandatory ANSI syntax field not
required by DoD.

L507	88	Marks and Numbers Qualifier	O	ID	1/2
L508	23	Commodity Code Qualifier	C	ID	1/1
L509	22	Commodity Code	C	AN	1/16
L510	595	Compartment ID Code	O	ID	1/1

Segment: LS Loop Header
Level: 1
Sequence: 445
Usage: M
Max Use: 1
Loop:
Purpose: Indicate that the next segment begins a loop

Comment: 00 LS is a control segment. LS is always used in conjunction with a corresponding loop trailer (end) - LE, as illustrated below. The LS and LE indicate the start and end of a loop but are not part of the iteration of the loop.

LOOP NESTING

Loop "A" Header (LS "A")
Loop "B" Header (LS "B")
Loop "C" Header (LS "C")
Loop "C" Trailer (LE "C")
Loop "D" Header (LS "D")
Loop "D" Trailer (LE "D")
Loop "B" Trailer (LE "B")
Loop "A" Trailer (LE "A")

Neither LS nor LE is used if the data within the loop is not used.

Syntax Notes: 00 One loop may be nested contained within another loop, provided the inner nested loop terminates before the outer loop. When specified by the standard setting body as 'mandatory', this segment in combination with "LE", must be used. It is not to be used if not specifically set forth for use. The loop identifier in the loop header and trailer must be identical. The value for the identifier is the loop ID of the required loop beginning segment. The loop ID number is given on the transaction set diagram in the appropriate ASC X12 version/release.

Data Element Summary

Ref.	Data		
Des.	Element	Name	Attributes

LS01	447	Loop Identifier Code	M AN 1/4
------	-----	----------------------	----------

Code identifying a loop within the transaction set which is bounded by the related LS and LE segments (corresponding LS and LE segments must have the same value for loop identifier). (Note: The loop ID number given on the transaction set diagram is recommended as the value for this data element in segments LS and LE.)

Loop Header
[046 020]

Mandatory ANSI syntax field not
required by DoD.

Segment: LX Assigned Number
Level: 1
Sequence: 450
Usage: M
Max Use: 1
Loop:
Purpose: To reference a line number in a transaction set.

Data Element Summary

<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
LX01	554	Assigned Number	M NO 1/6
		Number assigned for differentiation within a transaction set.	

Assigned Number
[047 *]

Mandatory ANSI syntax field not
required by DoD.

Segment: L0 Line Item - Quantity and Weight
Level: 1
Sequence: 460
Usage: O
Max Use: 10
Loop:

Purpose: To specify quantity, weight, volume and type of service for a line item including applicable "quantity/rate-as" data.

Syntax Notes: 02 P0203 - If either L002 or L003 is present, then the other is required.
04 P0405 - If either L004 or L005 is present, then the other is required.
06 P0607 - If either L006 or L007 is present, then the other is required.
08 P0809 - If either L008 or L009 is present, then the other is required.
11 C1104 - If L011 is present, then 04 is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L001	213	Lading Line Item Number Sequential line number for a lading item.	O N0 1/3
L002	220	Billed/Rated-as Quantity	C R 1/11
L003	221	Billed/Rated-as Qualifier	C ID 2/2
L004	81	Weight	C R 1/8
L005	187	Weight Qualifier	C ID 1/2
L006	183	Volume	C R 1/8
L007	184	Volume Unit Qualifier	C ID 1/1

Line Item - Quantity and Weight
[047 010]

Mandatory ANSI syntax field not required by DoD.

L008	80	Lading Quantity	C	N0	1/7
L009	211	Packaging Form Code	C	ID	3/3
L010	458	Dunnage Description	O	AN	2/25
L011	188	Weight Unit Qualifier	O	ID	1/1
L012	56	Type of Service Code	O	ID	2/2

Segment: L1 Rate and Charges

Level: 1

Sequence: 470

Usage: O

Max Use: 10

Loop:

Purpose: To specify rate and charges detail relative to a line item including freight charges, advances, special charges, and entitlements

Syntax Notes: 04 R040506 - At least one of L104, L105 or L106 is required.

14 P1415 - If either L114 or L115 is present, then the other is required.

17 P1718 - If either L117 or L118 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L101	213	Lading Line Item Number	O N0 1/3
L102	60	Freight Rate	O R 1/9
L103	122	Rate/Value Qualifier	O ID 2/2
L104	58	Charge	C N2 1/9
		For a line item: freight or special charge; for the total invoice: the total charges -- expressed in the standard monetary denomination for the currency specified.	
L105	191	Advances	C N2 1/9
L106	117	Prepaid Amount	C N2 1/9
L107	120	Rate Combination Point Code	O AN 3/9

Service Charge [048]

Charge for each service identified in L108. Implied decimal at second position from right.

Service Charge Code
[049 *]

Services regulated by the Military Traffic Management Command (MTMC). See Billing Instructions available from DoD Payment Center for more information. See Appendix 10.F for cross reference from DoD codes to ASC X12 codes.

Service Charge Description
[050 *]

Use free form description of any third party or miscellaneous service code identified in L108. See Appendix 10.F for application.

L108	150	Special Charge or Allowance Code Code identifying type of special charge or allowance.	O ID	3/3
L109	121	Rate Class Code	O ID	1/3
L110	39	Entitlement Code	O ID	1/1
L111	16	Charge Method of Payment	O ID	1/1
L112	276	Special Charge Description Identification of special charge. This data element is used whenever an applicable code cannot be found in data element 150.	O AN	2/25
L113	257	Tariff Application Code	O ID	1/1
L114	74	Declared Value	C N2	2/10
L115	122	Rate/Value Qualifier	C ID	2/2
L116	372	Lading Liability Code	O ID	1/1
L117	220	Billed/Rated-as Quantity	C R	1/11
L118	221	Billed/Rated-as Qualifier	C ID	2/2

Segment: LE Loop Trailer

Level: 1

Sequence: 475

Usage: M

Max Use: 1

Loop:

Purpose: To indicate that the loop immediately preceding this segment is complete

Comment: 00 LE is a control segment. LE is always used in conjunction with a corresponding loop header (start) - LS, as illustrated below. The LS and LE indicate the start and end of a loop but are not part of the iteration of the loop.

LOOP NESTING

Loop "A" Header (LS "A")

Loop "B" Header (LS "B")

Loop "C" Header (LS "C")

Loop "C" Trailer (LE "C")

Loop "D" Header (LS "D")

Loop "D" Trailer (LE "D")

Loop "B" Trailer (LE "B")

Loop "A" Trailer (LE "A")

Neither LS nor LE is used if the data within the loop is not used.

Syntax Notes: 00 One loop may be nested contained within another loop, provided the inner nested loop terminates before the outer loop. When specified by the standard setting body as 'mandatory', this segment, in combination with "LS", must be used. It is not to be used if not specifically set forth for use. The loop identifier in the loop header and trailer must be identical. The value for the identifier is the loop ID of the required loop beginning segment. The loop ID number is given on the transaction set diagram in the appropriate ASC X12 version/release.

Data Element Summary

Ref.	Data	
Des.	Element Name	Attributes

LE01 447 Loop Identifier Code M AN 1/4

Code identifying a loop within the transaction set which is bounded by the related LS and LE segments (corresponding LS and LE segments must have the same value for loop identifier). (Note: The loop ID number given on the transaction set diagram is recommended as the value for this data element in segments LS and LE.)

Loop Trailer
[050 010]

Mandatory ANSI syntax field not
required by DoD.

Segment: L7 Tariff Reference

Level: 1

Sequence: 480

Usage: O

Max Use: 30

Loop:

Purpose: To reference details of the tariff used to arrive at applicable rates or charge

Comment: 10 L710 is the Effective Date.

15 "City" and "State" in L715 and L716 are used for rate combination city and state.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L701	213	Lading Line Item Number	O NO 1/3
L702	168	Tariff Agency Code	O ID 1/4
L703	171	Tariff Number	O AN 1/7
L704	172	Tariff Section	O AN 1/2
L705	169	Tariff Item Number	O AN 1/16
L706	170	Tariff Item Part	O NO 1/2
L707	59	Freight Class Code	O AN 2/5
L708	173	Tariff Supplement Identifier	O AN 1/4
L709	46	Ex Parte	O AN 4/4
L710	373	Date	O DT 6/6
L711	119	Rate Basis Number	O AN 1/6

Tariff/Tender Miles [051] Mileage used in calculating mileage related charges. Qualify in L714.	L712	227	Tariff Column	O AN 1/2
	L713	294	Tariff Distance Distance on which the rate for a shipment is based.	O NO 1/5
	L714	295	Distance Qualifier Code identifying the distance unit.	O ID 1/1

Code	Definition
T	Tariff/Tender Miles

Tariff/Tender Miles Qualifier [052 *]	L715	19	City Name	O AN 2/19
	L716	156	State or Province Code	O ID 2/2

Segment: L3 Total Weight and Charges

Level: 1

Sequence: 540

Usage: C

Max Use: 1

Loop:

Purpose: To specify the total shipment in terms of weight, volume, rates, charges, advances, and prepaid amounts applicable to one or more line items

Comment: 05 L305 is the total charges.

Syntax Notes: 01 P0102 - If either L301 or L302 is present, then the other is required.
03 P0304 - If either L303 or L304 is present, then the other is required.
09 P0910 - If either L309 or L310 is present, then the other is required.
14 P1415 - If either L314 or L315 is present, then the other is required.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
L301	81	Weight Numeric value of weight.	C R 1/8
L302	187	Weight Qualifier Code defining the type of weight.	C ID 1/2
		<u>Code</u> <u>Definition</u>	
		B Billed Weight	
L303	60	Freight Rate	C R 1/9
L304	122	Rate/Value Qualifier	C ID 2/2
L305	58	Charge	O N2 1/9

Total Billed Weight
[052 100]

Total billed weight in pounds rounded to whole number. If not applicable to invoice, enter 0.

Total Billed Weight Qualifier
[052 110 *]

L306	191	Advances	O	N2	1/9
L307	117	Prepaid Amount	O	N2	1/9
L308	150	Special Charge or Allowance Code	O	ID	3/3
L309	183	Volume	C	R	1/8
L310	184	Volume Unit Qualifier	C	ID	1/1
L311	80	Lading Quantity	O	N0	1/7
L312	188	Weight Unit Qualifier	O	ID	1/1
L313	171	Tariff Number	O	AN	1/7
L314	74	Declared Value	C	N2	2/10
L315	122	Rate/Value Qualifier	C	ID	2/2

Segment: SE Transaction Set Trailer
Level: 1
Sequence: 570
Usage: M
Max Use: 1
Loop:
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).
Comment: 00 SE is the last segment of each transaction set.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
SE01	96	Number of Included Segments	M N0 1/6
		Total number of segments included in a transaction set including ST and SE segments.	
SE02	329	Transaction Set Control Number	M AN 4/9
		Identifying control number assigned by the originator for a transaction set.	

Included Number of
Segments
[053]

Total segments in this transaction
set including the ST and SE seg-
ments.

Transaction Set Control
Number
[054]

This data element ends the trans-
action set and should match the
number that appears in the ST02
that begins the transaction set.

10.C Examples - X12.139 Transaction Set 410 Rail Carrier Invoice

This appendix contains an example of Transaction Set 410 as it is used for transmitting invoice information to a DoD payment center.

The example illustrates the use of a 410 to transmit invoice information to the Defense Finance and Accounting Service - Indianapolis Center (DFAS-IN).

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Example - Invoice information from Carrier to DFAS-IN using ASC X12 410

ST*410*00001 n/l	Transaction set header
B3B*784682*PP*910630*99750*910723*CR*R*C0016115 n/l	Beginning segment
N9*PQ*1611*45421 n/l	Payee code
N9*P8**PICKUP DATE*910622*1230 n/l	Pickup date and time
N9*DO**DELIVERY DATE*910630 n/l	Delivery date
N9*CN*827648 n/l	Carrier reference number
N7**000 n/l	Equipment number
N8*110201*910630 n/l	Waybill number
F9**origin station*VA n/l	Origin station
D9**destination station*CA n/l	Destination station
N1*IU**27*LNFL n/l	Issuing Office GBLOC
N1*OC**2*AACS n/l	Tendered To Carrier SCAC
N1*DC**2*CR n/l	Destination transportation company SCAC
LX*1 n/l	Charge loop ID
L5*1 n/l	Description, marks, numbers
LS*1 n/l	Loop header
LX*1 n/l	Assigned number
L0*1 n/l	Line item - quantity and weight
L1****80000****LHS n/l	Transportation linehaul charge
LE*1 n/l	Loop trailer
L7*****1500*T n/l	Tender miles
LX*2 n/l	Charge loop ID
LX*1 n/l	Assigned number
L5*1 n/l	Description, marks, number
LS*1 n/l	Loop header

LX*2 n/l	Charge sub-loop ID
L0*1 n/l	Line item - quantity and weight
L1****197.50****ARG n/l	Accessorial services charge
LE*1 n/l	Loop trailer
L3*120000*B n/l	Total weight
SE*31*00001 n/l	Transaction set trailer

10.F Additional DoD Code Lists

This appendix contains additional DoD code lists for formatting invoice data to the ASC X12 210 transaction set. Please note that DoD code definitions may not be exactly the same as those identified in the ASC X12 Standards publications.

Code list includes:

[051] - Service Charge Code

Footnote definitions:

* Need new X12 code

** Code to be moved from DE 152 to DE 150

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[055] Service Charge Code

Mapping: 2 120 L108 150

Accessorial Services for Freight Rail Shipments

DoD Code	L108 Value	DoD Definition
GS	GSS**	Greater Security
RG	ARG**	Rail Armed Guard
RS	RMS*	Rail Surveillance
TS	TSS**	Tank Surveillance (one tank per car)
TS	TMS*	Tank Surveillance (two tanks per car)
DM	DEM	Demurrage
HR	HRS*	Heater/Refrigeration
RC	RCC	Reconsignment/Diversion
SO	SOC	Stop-Off
SO	EXM*	Stop-Off (Excess Mileage Charge)
SG	SRG	Storage
WV	WTV	Weight Verification
AC	045	Advancing Charges
DV	DTB*	Detention
FC	FCS*	Furnishing Chassis
HF	HHB	Handling Freight
LU	URC	Loading/Unloading
PD	PUD	Pickup/Delivery
PR	PRL	Prelodging
RD	RCL	Redelivery
RV	RLS*	Relocation of Vehicle
SP	SPU	Split Pickup
SV	SVS*	Storage of Vehicles
TM	TMV*	Tendering of Multiple Vehicles
VF	VFN*	Vehicles Furnished But Not Used
SS	SFT	Special Train Service
AA	AAS*	Attendants Accompanying
CG	CSP*	Government Caboose
CG	GSP*	Government Guard Cars

DEPARTMENT OF DEFENSE
EDI CONVENTION

RAIL CARRIER INVOICE
410.003020

CG	CCP*	Carrier Caboose
CG	GCP*	Carrier Guard Cars
CG	CRS*	Government Caboose/Guard Cars Returned
EC	ECS	Empty Cars Ordered But Not Used

Third Party or Miscellaneous Services

DoD Code	L108 Value	DoD Definition	L112 Value
-	PUC	Pickup Service Furnished (air freight)	-
-	SPC	Overdimension Permit	-
-	BRD	Bridge Tolls	-
-	IHT	Highway Tolls	-
-	TPS*	Third Party/Miscellaneous Service	Description

Linehaul Services

DoD Code	L108 Value	DoD Definition	L112 Value
-	LHS*	Linehaul service	-

Surcharges

DoD Code	L108 Value	DoD Definition	L112 Value
-	100	Air surcharge	-
-	405	Fuel surcharge	-
-	BSC	Bunker surcharge	-
-	CON	Port congestion surcharge	-
-	WAR	War risk surcharge	-

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