



Plex Systems

IMPLEMENTATION GUIDELINES FOR
ANSI X12 EDI CONVENTIONS

856 TRANSACTION SET

SHIP NOTICE / MANIFEST

Version 004010

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Introduction:

This document contains the format and establishes the data contents of the Ship Notice/Manifest Transaction Set (856) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment. The transaction set enables the sender to describe the contents and configuration of a shipment in various levels of detail and provides an ordered flexibility to convey information. The sender of this transaction is the organization responsible for detailing and communicating the contents of a shipment, or shipments, to one or more receivers of the transaction set. The receiver of this transaction set can be any organization having an interest in the contents of a shipment or information about the contents of a shipment.

Segment: **ST** Transaction Set Header

Position: 010

Loop:

Level: Heading

Usage: Mandatory

Max Use: 1

Purpose: To indicate the start of a transaction set and to assign a control number

Syntax Notes:

Semantic Notes:

Comments:

Example: ST*856*000001

Data Element Summary

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>	
>>	ST01	143	Transaction Set Identifier Code	M ID 3/3
			Code uniquely identifying a Transaction Set	
		856	Ship Notice/Manifest	
>>	ST02	329	Transaction Set Control Number	M AN 4/9
			Must contain a unique number assigned to each transaction set within a functional group. This number must match the value in SE02	

Segment: **BSN** Beginning Segment for Ship Notice

Position: 020

Loop:

Level: Heading

Usage: Mandatory

Max Use: 1

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

Syntax Notes:

Semantic Notes:

Comments:

Example: **BSN*00*123456*20070212*0837**

Data Element Summary

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>	
>>	BSN01	353	Transaction Set Purpose Code	M ID 2/2
		00	Original	
		01	Cancellation	
		05	Replace	

>>	BSN02	396	Shipment Identification	M AN 2/30
			A unique control number assigned by the original shipper to identify a specific shipment.	
>>	BSN03	373	Date	M DT 8/8
			Date expressed as CCYMMDD	
			Ship notice generation date.	
>>	BSN04	337	Time	M TM 4/8
			Ship notice generation time.	

Segment: **DTM** Date/Time Reference

Position: 040

Loop:

Level: Heading

Usage: Mandatory

Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes:

Semantic Notes:

Comments:

Example: DTM*011*20070304*1230*ES

Data Element Summary

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>	
>>	DTM01	374	Date/Time Qualifier	M ID 3/3
		011	Shipped	
>>	DTM02	373	Date	M DT 8/8
			Date expressed as CCYMMDD	

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DTM03 337 Time C 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 DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)

DTM04 623 *Time Code* O ID 2/2

Segment: **HL** Hierarchical Level

Position: 010

Loop: HL Mandatory Repeat: 200000

Level: Detail - Shipment

Usage: Mandatory

Max Use: 1

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Syntax Notes:

Semantic Notes:

Comments:

Example: HL*1**S

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	HL01	628	Hierarchical ID Number M AN 1/12
		A unique number assigned by the sender to identify a particular data segment in a hierarchical structure.	
		Use "1" for the shipment level HL segment. Increment by 1 for each subsequent HL segment within the transaction.	
	HL02	734	Hierarchical Parent ID Number O AN 1/12
		Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	
		Not Used for this occurrence of the HL segment	

>>

HL03

735

M ID 1/2

Hierarchical Level Code

S

Shipment

Segment: **MEA** Measurements

Position: 020

Loop: HL

Level: Detail – Shipment

Usage: Mandatory

Max Use: 2

Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

Syntax Notes:

Semantic Notes:

Comments:

Example: MEA*WT*G*1243*LB

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
MEA01	737	Measurement Reference ID Code	O ID 2/2

WT Weights

>>	MEA02	738	Measurement Qualifier	M	ID 1/3
			G Gross Weight (required)		
			N Net Weight (optional)		
	MEA03	739	Measurement Value	C	R 1/20
			The value of the measurement		
	MEA04	C001	Composite Unit of Measure	C	
			LB Pound		
			KG Kilograms		

Segment: **TD1** Carrier Details (Quantity and Weight)

Position: 030

Loop: HL

Level: Detail - Shipment

Usage: Mandatory

Max Use: 20

Purpose: To specify the transportation details relative to commodity, weight, and quantity

Syntax Notes:

Semantic Notes:

Comments:

Example: TD1*CTN90*5

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
TD101	103	Packaging Code	O AN 3/5
		Code identifying the type of packaging.	
TD102	80	Lading Quantity	C NO 1/7
		Number of units (pieces) of the lading commodity.	
		Number of packages of the type specified in TD101.	

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Segment: **TD5** Carrier Details (Routing Sequence/Transit Time)

Position: 040

Loop: HL

Level: Detail - Shipment

Usage: Mandatory

Max Use: 1

Purpose: To specify the carrier and sequence of routing and provide transit time information

Syntax Notes:

Semantic Notes:

Comments:

Example: TD5*B*2*CETR*M

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
TD501	133	Routing Sequence Code	C ID 1/2

B Origin/Delivery Carrier (Any Mode)

TD502	66	Identification Code Qualifier	C ID 1/2
		2 Standard Carrier Alpha Code (SCAC)	
TD503	67	Identification Code	C AN 2/80
		Code identifying a party or other code	
		Carrier SCAC Code	
TD504	91	Transportation Method/Type Code	C ID 1/2
		Code specifying the method or type of transportation for the shipment.	
		ANSI X –12 Data Element Dictionary	

Segment: **TD3** Carrier Details (Equipment)

Position: 050

Loop: HL

Level: Detail - Shipment

Usage: Mandatory

Max Use: 12

Purpose: To specify transportation details relating to the equipment used by the carrier

Syntax Notes:

Semantic Notes:

Comments: This Segment is Mandatory when the pick-up and delivery equipment number is the same. This maximum use of the TD3 segment is one. This TD3 is used to identify the serial number of the trailer or railcar.

Example: TD3*TL* *438573

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
TD301	40	Equipment Description Code	M ID 2/2

Code identifying type of equipment used for shipment.

TD302 **206** **Equipment Initial** **O AN 1/4**

Prefix or alphabetic part of an equipment unit's identifying number

TD303 **207** **Equipment Number** **M AN 1/10**

Sequencing or serial part of an equipment unit's identifying number
(pure numeric form for equipment number is preferred)

Segment: **REF** Reference Identification

Position: 060

Loop: HL

Level: Detail - Shipment

Usage: Mandatory

Max Use: 3

Purpose: To specify identifying information

Syntax Notes:

Semantic Notes:

Comments:

Example: **REF*BM*12345**
 REF*PK*67890
 REF*CN*98765431

Data Element Summary

Ref.	Data		
Des.	Element	Name	Attributes
>> REF01	128	Reference Identification Qualifier	M ID 2/3

AW Air Waybill Number

BM Bill of Lading Number

CN	Carrier's Reference Number
FR	Freight Bill Number
MB	Master Bill of Lading
PK	Packing List Number
SI	Shipper's Identifying Number of Shipment

REF02 127 Reference Identification C AN 1/30

Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Segment: **FOB** F.O.B. Related Instructions

Position: 070

Loop: HL

Level: Detail – Shipment

Usage: Mandatory

Max Use: 1

Purpose: To specify transportation instructions relating to shipment

Syntax Notes:

Semantic Notes:

Comments:

Example: FOB*CC

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> FOB01	146	Shipment Method of Payment	M ID 2/2
		CC	Collect
		PP	Prepaid

Segment: **CUR** Currency

Position: 310

Loop: HL

Level: Detail - Shipment

Usage: Optional

Max Use: 1

Purpose: To specify the currency (dollars, pounds, francs, etc.) used in a transaction

Syntax Notes:

Semantic Notes:

Comments:

Example: CUR*SE*USD

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> CUR01	98	Entity Identifier Code	C ID 2/3
		SE Selling Party	
>> CUR02	100	Currency Code	C ID 3/3
		Code (Standard SO) for country in whose currency the charges are specified	

Segment: **N1** Name

Position: 010

Loop: N1 Repeat: 200

Level: Detail – Shipment

Usage: Mandatory

Max Use: 2

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

Syntax Notes:

Semantic Notes:

Comments:

Example: N1*ST*ACME MFG*01*987456321

N1*Sf**92*48977

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> N101	98	Entity Identifier Code	M ID 2/3

ST Ship To

SU Supplier/Manufacturer

SF Ship From

	N102	93	Name	O	AN 1/60
			Free-form name		
>>	N103	66	Identification Code Qualifier	M	ID 1/2
			01		D-U-N-S Number, Dun & Bradstreet
			92		Mutually Defined
>>	N104	67	Identification Code	M	AN 2/80
			Code identifying a party or other code		

Segment: **HL** Hierarchy

Position: 010

Loop: HL

Level: Detail - Tare

Usage: Optional

Max Use: 1

Purpose: To specify the currency (dollars, pounds, francs, etc.) used in a transaction

Syntax Notes:

Semantic Notes:

Comments:

Example: HL*2**1

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> CUR01	98	Entity Identifier Code	C ID 2/3
		SE Selling Party	
>> CUR02	100	Currency Code	C ID 3/3
		Code (Standard SO) for country in whose currency the charges are specified	

Segment: **HL** Hierarchical Level

Position 010

Segment: **HL** Hierarchical Level

Position: 010

Loop: HL Repeat: 200000

Level: Detail - Tare

Usage: Optional

Max Use: 1

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Syntax Notes:

Semantic Notes:

Comments: This segment is optional, but must be used if master units are being reported.

Example: HL*2*1*T

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> HL01	628	Hierarchical ID Number	M AN 1/12

A unique number assigned by the sender to identify a particular data

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segment in a hierarchical structure.

Use "1" for the shipment level HL segment. Increment by 1 for each subsequent HL segment within the transaction.

	HL02	734	Hierarchical Parent ID Number	O AN 1/12
			Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	
			Hierarchical ID number of the parent HL segment.	
>>	HL03	735	Hierarchical Level Code	M ID 1/2
			T Tare	

Segment: **CLD** Container Load Details

Position: 020

Loop: HL

Level: Detail - Tare

Usage: Optional

Max Use: 1

Purpose: To provide tare level packaging information

Syntax Notes:

Semantic Notes:

Comments: This segment is optional, but must be used if pallet detail is required.

Example: CLD*1*1*PLT90

Data Element Summary

Ref.	Data		Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>	
>>	CLD01	622 Number of Loads	M NO 1/5
>>	CLD02	382 Number of Units Shipped	M R 1/10
>>	CLD03	103 Packaging Code	O AN 5/5

Segment: **REF** Reference Identification

Position: 150

Loop: HL

Level: Detail - Tare

Usage: Optional

Max Use: 200

Purpose: To specify identifying information

Syntax Notes:

Semantic Notes:

Comments: This segment is optional, but must be used if container detail is required.

Example: REF*LS*123456789

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> REF01	128	Reference Identification Qualifier	M ID 1/3
		HC Heat Code	
		LS Bar-coded Serial Number – Master Unit	
REF02	127	Reference Identification	C AN 1/10

Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier. Heat code will allow AN 1/30, but Master Unit Serial is AN 1/10.

Segment: **HL** Hierarchical Level

Position 010

Segment: **HL** Hierarchical Level

Position: 010

Loop: HL Repeat: 200000

Level: Detail - Item

Usage: Mandatory

Max Use: 1

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Syntax Notes:

Semantic Notes:

Comments:

Example: HL*2*1*I

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> HL01	628	Hierarchical ID Number	M AN 1/12

A unique number assigned by the sender to identify a particular data segment in a hierarchical structure.

Use "1" for the shipment level HL segment. Increment by 1 for each subsequent HL segment within the transaction.

HL02 734 Hierarchical Parent ID Number O AN 1/12

Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to

Hierarchical ID number of the parent HL segment.

>> **HL03 735 Hierarchical Level Code M ID 1/2**

I Item

Segment: **LIN** Item Identification

Position: 020

Loop: HL

Level: Detail - Item

Usage: Mandatory

Max Use: 1

Purpose: To specify basic item identification data

Syntax Notes:

Semantic Notes:

Comments

Example: **LIN**BP*123456*PO*1234563**

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
LIN01	350	Assigned Identification	N AN 1/20
>>	LIN02	235 Product/Service ID Qualifier	M ID 2/2
		BP Buyer's Part Number	
>>	LIN03	234 Product/Service ID	M AN 1/48

Identifying number for a product or service

LIN04	235	Product/Service ID Qualifier	X ID 2/2
		PO Purchase Order	
LIN05	234	Product/Service ID	X AN 1/48
		Identifying number for a product or service	
LIN06	235	Product/Service ID Qualifier	X ID 2/2
		EC Engineering Change	
LIN07	234	Product/Service ID	X AN1/48

Segment: **SN1** Item Detail (Shipment)

Position: 030

Loop: HL

Level: Detail - Item

Usage: Mandatory

Max Use: 1

Purpose: To specify line-item detail relative to shipment

Syntax Notes:

Semantic Notes:

Comments:

Example: SN1**40000*PC*165000

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
SN101	350	Assigned Identification	O AN 1/20
>>	SN102	382 Number of Units Shipped	M R 1/10
		Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set	

>> **SN103 355 Unit or Basis for Measurement Code M ID 2/2**

Order Unit of Measure

Example:

EA Each

PC Piece

SN104 646 Quantity Shipped to Date O R 1/15

Number of units shipped to date

Segment: **PRF** Purchase Order Reference

Position: 050

Loop: HL

Level: Detail - Item

Usage: Mandatory

Max Use: 1

Purpose: To provide reference to a specific purchase order

Syntax Notes:**Semantic Notes:****Comments:**

Example: PRF*WFC1000

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> PRF01	324	Purchase Order Number	M AN 1/22
		Identifying number for Purchase Order assigned by the buyer/purchaser	
PRF02	328	Release Number	O AN 1/30
		Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction	

Segment: **CLD** Container Load Details

Position: 170

Loop: HL

Level: Detail - Item

Usage: Optional

Max Use: 1

Purpose: To provide container packaging information

Syntax Notes:

Semantic Notes:

Comments: This segment is optional, but must be used if container detail is required.

Example: CLD*1*40*CNT71

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	CLD01	622 Number of Loads	M N0 1/5
>>	CLD02	382 Number of Units Shipped	M R 1/10
>>	CLD03	103 Packaging Code	M AN 5/5

Segment: **REF** Reference Identification

Position: 150

Loop: HL

Level: Detail - Item

Usage: Optional

Max Use: 200

Purpose: To specify identifying information

Syntax Notes:

Semantic Notes:

Comments: This segment is optional, but must be used if container detail is required.

Example: REF*LS*123456789

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>> REF01	128	Reference Identification Qualifier	M ID 1/3
		LS – Serial is Mandatory. LT-Lot Optional	
		LS Bar-coded Serial Number	
		LT Lot Number	
REF02	127	Reference Identification	C AN 1/25

Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier. Lot Number must be AN 1/15, but Bar-coded Serial Number is AN 1/25

Segment: **CTT** Transaction Totals

Position: 010

Loop:

Level: Summary

Usage: Mandatory

Max Use: 1

Purpose: To transmit a hash total for a specific element in the transaction set

Syntax Notes:

Semantic Notes:

Comments:

Example: CTT*2

Data Element Summary

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>	
>>	CTT01	354	Number of Line Items	M NO 1/6
			Total number of line items in the transaction set	
			Total Number of HL segments	

Segment: **SE** Transaction Set Trailer

Position: 020

Loop:

Level: Summary

Usage: Mandatory

Max Use: 1

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)

Syntax Notes:

Semantic Notes:

Comments:

Example: SE*55*000001

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	SE01	96	Number of Included Segments M NO 1/10
		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 that must be unique within the transaction set functional group assigned by the originator for a transaction set. This must match the value in ST02.	
		This must match the value in ST02.	

SAMPLE 1 – Item Level Only ASN

ISA*00* *00* *01*SENDERID *01*RECEIVERID
*120130*1729*U*00401*000000091*0*T*~<~

GS*SH*SENDERID*RECEIVERID*120130*1729*91*X*004010~

ST*856*0091~

BSN*00*SHIPPERID*20120130*1729~

DTM*011*20120130*1512~

HL*1**S~

MEA*PD*G*100*LB~

TD1*CTN90*1~

TD5*B*2*SCAC*M~

TD3*TL**123456~

REF*BM*BOL~

REF*PK*SHIPPER~

FOB*CC~

N1*ST**01*SHIPTOCODE~

N1*SF**01*SHIPFROMCODE~

HL*2*1*I~

LIN**BP*71800S84*PO*TESTPO*EC*A~

SN1**100*EA*177~

PRF*TESTPO~

CLD*1*100*CTN90~

REF*LS*S010866~

CTT*1~

SE*21*0091~

GE*1*91~

IEA*1*000000091~

SAMPLE 2 – Master Units: Tare Level ASN

ST*856*0001~

BSN*00*SHIPPERID*20120604*1739~

DTM*011*20120604*1740~

DTM*017*20120607*1740~

HL*1**S~

MEA*PD*G*336*LB~

MEA*PD*N*304*LB~

TD1*PLT90*2~

TD5*B*2*SCAC*M~

TD3*TL**56565~

REF*BM*BOL~

REF*PK*SHIPPERID~

N1*ST**01*SHIPTOCODE~

N1*Sf**01*SHIPFROMCODE~

HL*2*1*T~

CLD*1*1*PLT90~

REF*LS*M0577994~

HL*3*2*I~

LIN**BP*99999*EC*4~

SN1**4000*EA*104000~

PRF*987665~

CLD*4*1000*CTN25~

REF*LS*01JS775089~

REF*LS*01JS775090~

REF*LS*01JS775091~

REF*LS*01JS775092~

HL*4*1*T~

CLD*1*1*PLT90~

REF*LS*M0577995~

HL*5*4*I~

LIN**BP*99999*EC*4~

SN1**2000*EA*5975~

PRF*987665~

CLD*2*1000***EA~

REF*LS*S0001467~

REF*LS*S0001795~

HL*6*4*I~

LIN**BP*45678*EC*B~

SN1**500*EA*3600~

PRF*987665~

CLD*2*250*CTN25*~

REF*LS*S0001656~

REF*LS*S0001657~

CTT*6~

SE*44*07~