850 Purchase Order

Functional Group ID=PO

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Purchase Order Transaction Set (850) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business and industry practice relative to the placement of purchase orders for goods and services. This transaction set should not be used to convey purchase order changes or purchase order acknowledgment information.

Notes:

When using any ANSI X12 transaction there must be additional segments that "ENVELOPE" around the transaction sets.

Every ANSI X12 transmission must contain, within the COMMUNICATION SESSION, the INTERCHANGE ENVELOPE, FUNCTIONAL GROUP, and TRANSACTION SET.

The interchange header and trailer are always the first and last (respectively) segments within a transmission, and envelope one or more functional groups.

A functional group surrounds a single transaction set (VENDOR Standard).

Each transaction set must begin and end with a header (ST segment) and a trailer (SE segment), and must surround at least one other segment.

ANSI X12 Segments Requirement Designator used in this Implementation Guide in a "Base Status" column:
M = Mandatory
O = Optional
X = Depends on the presence of another element
D = Dependent (often on a user-defined business rule)

VENDOR Segments Requirement Designator used in this Implementation Guide in a "User Status" column:
M = Mandatory
Must Use = Required in VENDOR conventions, though optional in Standards
('M' and 'Must Use' are functionally equivalent)
O = Optional
Rec = Optional, but recommended in VENDOR conventions

Envelope Header:

Pos. No.	Seg. ID	Name	Base Status	User Status	Max.Use	Loop Repeat	Notes and Comments
010	ISA	Interchange Control Header	M	M	1		
020	GS	Functional Group Header	M	M	1		

Heading:

Pos. No.	Seg. ID	Name	Base Status	User Status	Max.Use	Loop Repeat	Notes and Comments
010	ST	Transaction Set Header	M	M	1		
020	BEG	Beginning Segment for Purchase Order	M	M	1		
150	DTM	Date/Time Reference	M	M	10		
		LOOP ID - N1				200	
310	N1	Name	M	M	1		

Detail:

Pos. No.	Seg. ID	Name	Base Status	User Status	Max.Use	Loop Repeat	Notes and Comments
		LOOP ID - PO1				999	
010	PO1	Baseline Item Data	M	M	1		
		LOOP ID - PID				1	
050	PID	Product/Item Description	O	O	1		

Summary:

Pos. No.	Seg. ID	Name	Base Status	User Status	Max.Use	Loop Repeat	Notes and Comments
		LOOP ID - CTT				1	
010	CTT	Transaction Totals	M	M	1		
030	SE	Transaction Set Trailer	M	M	1		

Envelope Trailer:

Pos. No.	Seg. ID	Name	Base Status	User Status	Max.Use	Loop Repeat	Notes and Comments
030	GE	Functional Group Trailer	M	M	1		
040	IEA	Interchange Control Trailer	M	M	1		

Segment: **ISA** **Interchange Control Header**
Position: 010
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To start and identify an interchange of zero or more functional groups and interchange-related control segments
Comments:

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes
ISA01	**I01**	**Authorization Information Qualifier** Code to identify the type of information in the Authorization Information	**M**	**ID 2/2**	**M**
ISA02	**I02**	**Authorization Information** Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)	**M**	**AN 10/10**	**M**
ISA03	**I03**	**Security Information Qualifier** Code to identify the type of information in the Security Information	**M**	**ID 2/2**	**M**
ISA04	**I04**	**Security Information** 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)	**M**	**AN 10/10**	**M**
ISA05	**I05**	**Interchange ID Qualifier** Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified Customer Trading Partner Qualifier ZZ Mutually Defined	**M**	**ID 2/2**	**M**
ISA06	**I06**	**Interchange Sender ID** 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 Customer Trading Partner ID (See Appendix A)	**M**	**AN 15/15**	**M**
ISA07	**I05**	**Interchange ID Qualifier** Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified ZZ Mutually Defined VENDOR Standard qualifier is 'ZZ'	**M**	**ID 2/2**	**M**
ISA08	**I07**	**Interchange Receiver ID** 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 VENDORXX X VENDOR Standard; XXX = SSCO Company number	**M**	**AN 15/15**	**M**
ISA09	**I08**	**Interchange Date** Date of the interchange YYMMDD	**M**	**DT 6/6**	**M**
ISA10	**I09**	**Interchange Time** Time of the interchange HHMM	**M**	**TM 4/4**	**M**
ISA11	**I10**	**Interchange Control Standards Identifier** Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer	**M**	**ID 1/1**	**M**

		U	U.S. EDI Community of ASC X12, TDCC, and UCS			
ISA12	**I11**	**Interchange Control Version Number**		**M**	**ID 5/5**	**M**
		This version number covers the interchange control segments				
		00401	Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997			
ISA13	**I12**	**Interchange Control Number**		**M**	**N0 9/9**	**M**
		A control number assigned by the interchange sender				
		Translator enerated. See Appendix A				
ISA14	**I13**	**Acknowledgment Requested**		**M**	**ID 1/1**	**M**
		Code sent by the sender to request an interchange acknowledgment (TA1)				
		Not interpreted for meaning.				
ISA15	**I14**	**Usage Indicator**		**M**	**ID 1/1**	**M**
		Code to indicate whether data enclosed by this interchange envelope is test, production or information				
		VENDOR order processing does not allow or trap orders received with the value 'T'.				
		P	Production Data			
			Not interpreted for meaning.			
		T	Test Data			
			Not interpreted for meaning.			
ISA16	**I15**	**Component Element Separator**		**M**	**AN 1/1**	**M**
		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				
		Customer defined				

Segment: **GS** **Functional Group Header**
Position: 020
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of a functional group and to provide control information
Comments: **1** 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.

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes	
GS01	**479**	**Functional Identifier Code**	**M**	**ID 2/2**	**M**	
		Code identifying a group of application related transaction sets				
		PO Purchase Order (850)				
GS02	**142**	**Application Sender's Code**	**M**	**AN 2/15**	**M**	
		Code identifying party sending transmission; codes agreed to by trading partners				
		Customer defined				
GS03	**124**	**Application Receiver's Code**	**M**	**AN 2/15**	**M**	
		Code identifying party receiving transmission; codes agreed to by trading partners				
		VENDORXXX VENDOR Standard; XXX = VENDOR Company number				
GS04	**373**	**Date**	**M**	**DT 8/8**	**M**	
		Date expressed as CCYYMMDD				
		YYYYMMDD				
GS05	**337**	**Time**	**M**	**TM 4/8**	**M**	**TM 4/4**
		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)				
		HHMM				
GS06	**28**	**Group Control Number**	**M**	**N0 1/9**	**M**	
		Assigned number originated and maintained by the sender				
		Translator generated				
GS07	**455**	**Responsible Agency Code**	**M**	**ID 1/2**	**M**	**ID 1/1**
		Code used in conjunction with Data Element 480 to identify the issuer of the standard				
		X Accredited Standards Committee X12				
GS08	**480**	**Version / Release / Industry Identifier Code**	**M**	**AN 1/12**	**M**	**AN 1/1**
		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 user); if code in DE455 in GS segment is T, then other formats are allowed				
		004010 Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997				

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
Comments:

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes	User Attributes
ST01	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 850 Purchase Order	**M ID 3/3**	**M**
ST02	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M AN 4/9**	**M**

Segment: **BEG** **Beginning Segment for Purchase Order**
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of the Purchase Order Transaction Set and transmit identifying numbers and dates
Comments:

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes	
BEG01	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set 00 Original	**M**	**ID 2/2**	**M**	
BEG02	**92**	**Purchase Order Type Code** Code specifying the type of Purchase Order SA Stand-alone Order	**M**	**ID 2/2**	**M**	
BEG03	**324**	**Purchase Order Number** Identifying number for Purchase Order assigned by the orderer/purchaser	**M**	**AN 1/22**	**M**	**AN 1/20**
BEG04	**328**	**Release Number** Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction This field is not used at the current time.	**O**	**AN 1/30**	**O**	
BEG05	**373**	**Date** Date expressed as CCYYMMDD YYYYMMDD	**M**	**DT 8/8**	**M**	
BEG06	**367**	**Contract Number** Contract number	**O**	**AN 1/30**	**O**	

Segment: **DTM** **Date/Time Reference**
Position: 150
Loop:
Level: Heading
Usage: Mandatory
Max Use: 10
Purpose: To specify pertinent dates and times
Comments:

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes
DTM01	**374**	**Date/Time Qualifier**	**M**	**ID 3/3**	**M**
		Code specifying type of date or time, or both date and time			
		002 Delivery Requested			
DTM02	**373**	**Date**	**X**	**DT 8/8**	**O**
		Date expressed as CCYYMMDD			
		YYYYMMDD			

Segment: **N1** **Name**
Position: 310
Loop: N1 Mandatory
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Comments:
1 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.
2 N105 and N106 further define the type of entity in N101.
Notes: VENDOR will consider only the FIRST N1 loop; all others will be ignored.

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes	
N101	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual ST Ship To	**M**	**ID 2/3**	**M**	**ID 2/2**
N102	**93**	**Name** Free-form name This field is not being used at the current time.	**X**	**AN 1/60**	**O**	**AN 1/35**
N103	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) 91 Assigned by Seller or Seller's Agent	**X**	**ID 1/2**	**O**	
N104	**67**	**Identification Code** Code identifying a party or other code VENDOR Customer Number	**X**	**AN 2/80**	**Must Use**	**AN 2/6**

Segment: **PO1** **Baseline Item Data**
Position: 010
Loop: PO1 Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify basic and most frequently used line item data
Comments:
1 See the Data Element Dictionary for a complete list of IDs.
2 PO101 is the line item identification.
3 PO106 through PO125 provide for ten different product/service IDs per each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.
Notes: The VENDOR and Customer product IDs may appear in any sequence.

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes	
PO101	**350**	**Assigned Identification** Alphanumeric characters assigned for differentiation within a transaction set PO line number	**O**	**AN 1/20**	**O**	**AN 1/30**
PO102	**330**	**Quantity Ordered** Quantity ordered VENDOR accepts only whole number quantities.	**M**	**R 1/15**	**M**	**R ¼**
PO103	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken All values, except for 'EA', will be interpreted as "full case" quantity ordered. CA Case EA Each LB Pound RL Roll	**M**	**ID 2/2**	**M**	
PO104	**212**	**Unit Price** Price per unit of product, service, commodity, etc. This field is not being used at the current time.	**O**	**R 1/17**	**O**	**R 1/14**
PO105	**639**	**Basis of Unit Price Code** Code identifying the type of unit price for an item This field is not being used at the current time.	**O**	**ID 2/2**	**O**	
PO106	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) VC Vendor's (Seller's) Catalog Number	**X**	**ID 2/2**	**Must Use**	
PO107	**234**	**Product/Service ID** Identifying number for a product or service VENDOR's item number (SUPC)	**X**	**AN 1/48**	**Must Use**	**AN 1/7**
PO108	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) IN Buyer's Item Number	**X**	**ID 2/2**	**O**	
PO109	**234**	**Product/Service ID** Identifying number for a product or service Buyer's item number	**X**	**AN 1/48**	**O**	**AN 1/10**
PO110	**235**	**Product/Service ID Qualifier**	**X**	**ID 2/2**	**O**	

		Code identifying the type/source of the descriptive number used in Product/Service ID (234) PD Part Number Description					
PO111	**234**	**Product/Service ID** Identifying number for a product or service The item description may also be passed in a separate PID segment.	**X**	**AN 1/48**	**O**	**AN 1/30**	

Segment: **PID** **Product/Item Description**
Position: 050
Loop: PID Optional
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To describe a product or process in coded or free-form format
Comments:
1 If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2 Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3 PID07 specifies the individual code list of the agency specified in PID03.
Usage Notes: This segment may be used or omitted.

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes
PID01	**349**	**Item Description Type** Code indicating the format of a description F Free-form	**M**	**ID 1/1**	**M**
PID02	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process characteristic	**O**	**ID 2/3**	**O**
PID03	**559**	**Agency Qualifier Code** Code identifying the agency assigning the code values	**X**	**ID 2/2**	**O**
PID04	**751**	**Product Description Code** A code from an industry code list which provides specific data about a product characteristic	**X**	**AN 1/12**	**O**
PID05	**352**	**Description** A free-form description to clarify the related data elements and their content Customer's product description	**X**	**AN 1/80**	**Must Use**

Segment: **CTT** **Transaction Totals**
Position: 010
Loop: CTT Mandatory
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Comments: **1** This segment is intended to provide hash totals to validate transaction completeness and correctness.

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes
CTT01	**354**	**Number of Line Items** Total number of line items in the transaction set	**M**	**N0 1/6**	**M**
CTT02	**347**	**Hash Total** Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. Example: -.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. --------- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field.	**O**	**R 1/10**	**O**

Segment: **SE** **Transaction Set Trailer**
Position: 030
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)
Comments: **1** SE is the last segment of each transaction set.

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes	
SE01	**96**	**Number of Included Segments**	**M**	**N0 1/10**	**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**	**M**	
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set				

Segment: **GE** **Functional Group Trailer**
Position: 030
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of a functional group and to provide control information
Comments: **1** 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.

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes
GE01	**97**	**Number of Transaction Sets Included** Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	**M**	**N0 1/6**	**M**
GE02	**28**	**Group Control Number** Assigned number originated and maintained by the sender	**M**	**N0 1/9**	**M**

Segment: **IEA** **Interchange Control Trailer**
Position: 040
Loop:
Level:
Usage: Mandatory
Max Use: 1
Purpose: To define the end of an interchange of zero or more functional groups and interchange-related control segments
Comments:

Data Element Summary

Ref. Des.	Data Element	Name	Base Attributes		User Attributes
IEA01	**I16**	**Number of Included Functional Groups** A count of the number of functional groups included in an interchange	**M**	**N0 1/5**	**M**
IEA02	**I12**	**Interchange Control Number** A control number assigned by the interchange sender	**M**	**N0 9/9**	**M**

Appendix A
Uniqueness of EDI transactions

The following are guidelines for those who are building their own EDI translation process and are not using an EDI translation package. For those who are using X12 EDI translation system this issue is already accounted for and may be skipped.

To prevent the potential duplicate processing of EDI transactions, VENDOR builds a unique key based on the combination of certain EDI elements. These elements are:

ISA06 ISA Sender ID + **ISA13** ISA Control Number + **ST02** Transactions Control Number.

VENDOR requests that all ISA Control numbers be unique and preferably incremented for each ISA generated to VENDOR. We do allow missing ISA control number. We understand the need to reprocess data. We only ask that the number not repeat for a period of 30 or more days.

A suggestion on the ST02 Transaction Control Number: For a given ISA Envelope, VENDOR suggests that you number your ST loops sequentially starting at '1'. There is no need to provide leading zeros.

SAMPLE PURCHASE ORDER EDI850

Example 1: A single EDI 850 order contained in a single ISA envelope.

ISA*00* *00* *ZZ*CUSTOMER *ZZ*VENDORXXX
*040119*0101*U*00401*000000001*0*T*>~
GS*PO*CUSTOMER*VENDORXXX*20030101*0101*1*X*004010~
ST*850*0001~
BEG*00*SA*12345678901234567890**20030609*123~
DTM*002*20030101~
N1*ST**91*123457~
PO1**3*CA***VC*3333333*IN*1234567890*PD*SOME ITEM DESCRIPTION A~
PO1**1*CA***VC*4444444*IN*1234567890*PD*SOME ITEM DESCRIPTION B~
PO1**4*CA***VC*5555555*IN*1234567890*PD*SOME ITEM DESCRIPTION C~
CTT*3~
SE*9*0001~
GE*1*1~
IEA*1*000000001~

Example 2: More than one EDI850 contained in a single ISA envelope. Note that this is not a duplicate of the single order from Example 1 because the ISA Control Number is different.

ISA*00* *00* *ZZ*CUSTOMER *ZZ*VENDORXXX
*040119*0101*U*00401*000000002*0*T*>~
GS*PO*CUSTOMER*VENDORXXX*20030101*0101*1*X*004010~
ST*850*0001~
BEG*00*SA*12345678901234567890**20030609*456~
DTM*002*20030101~
N1*ST**91*123457~
PO1**3*CA***VC*3333333*IN*1234567890*PD*SOME ITEM DESCRIPTION A~
PO1**1*CA***VC*4444444*IN*1234567890*PD*SOME ITEM DESCRIPTION B~
PO1**4*CA***VC*5555555*IN*1234567890*PD*SOME ITEM DESCRIPTION C~
CTT*3~
SE*9*0001~
ST*850*0002~
BEG*00*SA*12345678901234567890**20030609~
DTM*002*20030101~
N1*ST**91*123457~
PO1**3*CA***VC*3333333*IN*1234567890*PD*SOME ITEM DESCRIPTION D~
PO1**1*CA***VC*4444444*IN*1234567890*PD*SOME ITEM DESCRIPTION E~
PO1**4*CA***VC*5555555*IN*1234567890*PD*SOME ITEM DESCRIPTION F~
CTT*3~
SE*9*2~
GE*2*1~
IEA*1*000000002~