



850 Purchase Order - Outbound from iTN

X12/V4010/850: 850 Purchase Order/Replacement

Version: 1.5

Company:	iTradeNetwork
Publication:	7/18/2018

Notes

This version includes a note added regarding streamed data, updated ISA/GS ID info, additional codes added for BEG, N1 and TD5, and an N1 added in detail area.

850 Purchase Order

Functional Group=PO

Purpose: 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.

Not Defined:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
	ISA	Interchange Control Header	M	1			Must use
	GS	Functional Group Header	M	1			Must use

Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	ST	Transaction Set Header	M	1			Must use
020	BEG	Beginning Segment for Purchase Order	M	1			Must use
050	REF	Reference Identification	M	4			Must use
080	FOB	F.O.B. Related Instructions	O	1			Recommended
LOOP ID - SAC					<u>25</u>		
120	SAC	Service, Promotion, Allowance, or Charge Information	O	1			Recommended
150	DTM	Date/Time Reference	O	3			Recommended
240	TD5	Carrier Details (Routing Sequence/Transit Time)	O	1			Recommended
LOOP ID - N9					<u>1</u>		
295	N9	Reference Identification	O	1			Recommended
300	MSG	Message Text	O	30			Recommended
LOOP ID - N1					<u>8</u>		
310	N1	Name	O	1			Recommended
330	N3	Address Information	O	1			Recommended
340	N4	Geographic Location	C	1			Recommended
360	PER	Administrative Communications Contact	O	1			Recommended

Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
LOOP ID - PO1					<u>100000</u>		
010	PO1	Baseline Item Data	M	1		N2/010	Must use
030	PO3	Additional Item Detail	O	1			Used
049	MEA	Measurements	O	40			Recommended
LOOP ID - PID					<u>1</u>		
050	PID	Product/Item Description	O	1			Recommended
100	REF	Reference Identification	O	2			Recommended
LOOP ID - SAC					<u>25</u>		

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
130	SAC	Service, Promotion, Allowance, or Charge Information	O	1			Recommended
LOOP ID - N9					<u>1</u>		
330	N9	Reference Identification	O	1			Recommended
340	MSG	Message Text	O	30			Recommended
LOOP ID - N1					<u>200</u>		
350	N1	Name	O	1			Used
370	N3	Address Information	O	2			Used
380	N4	Geographic Location	O	1			Used

Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
LOOP ID - CTT					<u>1</u>		
010	CTT	Transaction Totals	M	1		N3/010	Must use
030	SE	Transaction Set Trailer	M	1			Must use

Not Defined:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
	GE	Functional Group Trailer	M	1			Must use
	IEA	Interchange Control Trailer	M	1			Must use

Notes:

2/010 PO102 is required.

3/010 The number of line items (CTT01) is the accumulation of the number of PO1 segments. If used, hash total (CTT02) is the sum of the value of quantities ordered (PO102) for each PO1 segment.

Change History:

Change history of Outbound 850 from version 1.4 (December 10, 2010) to version 1.5 (July 18, 2018).

- . Informational note added that all data is sent in streamed format.
- . Informational note that ISA and GS ID's are dependent on communication profile setup.
- . Codes '20' and '22' added to BEG01.
- . 'TT' added to N101 for alternate receiving warehouse.
- . 'T' added to TD504 for Best Way (Shipper's Option).
- . Added N1 to detail area for detail ship from location.

ISA Interchange Control Header

Pos:	Max: 1
Not Defined - Mandatory	
Loop: N/A	Elements: 14

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ISA01	I01	Authorization Information Qualifier	M	ID	2/2	Must use
Description: Code to identify the type of information in the Authorization Information						
Code Name						
00 No Authorization Information Present (No Meaningful Information in I02)						
ISA03	I03	Security Information Qualifier	M	ID	2/2	Must use
Description: Code to identify the type of information in the Security Information						
Code Name						
00 No Security Information Present (No Meaningful Information in I04)						
ISA05	I05	Interchange ID Qualifier	M	ID	2/2	Must use
Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified						
User Note 1: 01 used for Production						
08 used for Testing						
ISA06	I06	Interchange Sender ID	M	AN	15/15	Must use
Description: 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						
User Note 1: iTN's Production ID - 109563165 iTN's Test ID - 109563165						
ISA07	I05	Interchange ID Qualifier	M	ID	2/2	Must use
Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified						
All valid standard codes are used.						
ISA08	I07	Interchange Receiver ID	M	AN	15/15	Must use
Description: 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						
ISA09	I08	Interchange Date	M	DT	6/6	Must use
Description: Date of the interchange						
ISA10	I09	Interchange Time	M	TM	4/4	Must use
Description: Time of the interchange						
ISA11	I10	Interchange Control Standards Identifier	M	ID	1/1	Must use

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		Description: Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer All valid standard codes are used.				
ISA12	I11	Interchange Control Version Number	M	ID	5/5	Must use
		Description: Code specifying the version number of the interchange control segments				
ISA13	I12	Interchange Control Number	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				
ISA14	I13	Acknowledgment Requested	M	ID	1/1	Must use
		Description: Code sent by the sender to request an interchange acknowledgment (TA1)				
		Code Name				
		0 No Acknowledgment Requested				
ISA15	I14	Usage Indicator	M	ID	1/1	Must use
		Description: Code to indicate whether data enclosed by this interchange envelope is test, production or information				
		Code Name				
		P Production Data				
		T Test Data				
ISA16	I15	Component Element Separator	M	AN	1/1	Must use
		Description: 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				
		User Note 1: <i>iTN uses the '@' symbol on its outbound transactions.</i>				

User Note 1:

iTradeNetwork will send the asterisk ("") as the element separator.
iTradeNetwork will send the asterisk ("~") as the segment terminator.
iTradeNetwork will send the at sign ("@") as the composite delimiter
iTradeNetwork's ISA Qualifier and ID will be dependent on the Communication profile.
All EDI data is sent in a streamed format.*

GS Functional Group Header

Pos:	Max: 1
Not Defined - Mandatory	
Loop: N/A	Elements: 8

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
GS01	479	Functional Identifier Code	M	ID	2/2	Must use
		Description: Code identifying a group of application related transaction sets				
		Code Name				
		PO Purchase Order (850)				
GS02	142	Application Sender's Code	M	AN	2/15	Must use
		Description: Code identifying party sending transmission; codes agreed to by trading partners				
		User Note 1: iTN Production and test ID - 109563165				
GS03	124	Application Receiver's Code	M	AN	2/15	Must use
		Description: Code identifying party receiving transmission; codes agreed to by trading partners				
GS04	373	Date	M	DT	8/8	Must use
		Description: Date expressed as CCYYMMDD				
GS05	337	Time	M	TM	4/8	Must use
		Description: 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)				
GS06	28	Group Control Number	M	N0	1/9	Must use
		Description: Assigned number originated and maintained by the sender				
GS07	455	Responsible Agency Code	M	ID	1/2	Must use
		Description: Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480				
		Code Name				
		X Accredited Standards Committee X12				
GS08	480	Version / Release / Industry Identifier Code	M	AN	1/12	Must use
		Description: 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				

<u>Code</u>	<u>Name</u>
004010	Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997

Semantics:

1. GS04 is the group date.
2. GS05 is the group time.
3. The data interchange control number GS06 in this header must be identical to the same data element in the associated functional group trailer, GE02.

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.

User Note 1:

iTradeNetwork's GS ID will be dependent on the Communication profile.

ST Transaction Set Header

Pos: 010	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ST01	143	Transaction Set Identifier Code	M	ID	3/3	Must use

Description: Code uniquely identifying a Transaction Set

User Note 1: *The Transaction Set Identifier Code (ST-01) is "850" [Purchase Order]*

All valid standard codes are used.

ST02	329	Transaction Set Control Number	M	AN	4/9	Must use
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Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

User Note 1: *Transaction Set Control Number (ST-02) is an identifying number assigned by iTradeNetwork.*

Semantics:

1. The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

BEG Beginning Segment for Purchase Order

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 5

User Option (Usage): Must use

Purpose: To indicate the beginning of the Purchase Order Transaction Set and transmit identifying numbers and dates

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
BEG01	353	Transaction Set Purpose Code	M	ID	2/2	Must use

Description: Code identifying purpose of transaction set

Code Name

00	Original
01	Cancellation

User Note 1:

Code '01' indicates that the order has been cancelled.

05	Replace
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User Note 1:

Based upon the setup agreement, iTradeNetwork may support multiple PO transmissions. PO replacements need to be agreed upon and pre-configured. PO transmissions after the original PO transmission are considered replacements.

20	Final Transmission
22	Information Copy

BEG02	92	Purchase Order Type Code	M	ID	2/2	Must use
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Description: Code specifying the type of Purchase Order

Code Name

CP	Change to Purchase Order
DS	Dropship
IN	Information Copy
NE	New Order

BEG03	324	Purchase Order Number	M	AN	1/22	Must use
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Description: Identifying number for Purchase Order assigned by the orderer/purchaser

BEG04	328	Release Number	O	AN	1/30	Used
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Description: Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction

User Note 1: *Order revision number.*

BEG05	373	Date	M	DT	8/8	Must use
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Description: Date expressed as CCYYMMDD

User Note 1: *Date assigned by purchaser to purchase order.*

Semantics:

1. BEG05 is the date assigned by the purchaser to purchase order.

REF Reference Identification

Pos: 050	Max: 4
Heading - Mandatory	
Loop: N/A	Elements: 3

User Option (Usage): Must use

Purpose: To specify identifying information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

Description: Code qualifying the Reference Identification

Code Name

CB Combined Shipment

User Note 1:

PO Link number used for combined shipments.

CR Customer Reference Number

User Note 1:

Customer Reference Number is an additional Order Control Number that is assigned at the Buyer's Corporate level.

FI File Identifier

User Note 1:

File Identifier is an additional Order Control number that is assigned for a specific product category by the Buyer.

IL Internal Order Number

User Note 1:

iTN will always send the "IL" qualifier to indicate the Internal Order Number. This number is used to track all related documents within the iTN Application. Partners are required to return this number in the 855 PO Ack.

L7 Customer's Release Number

Description: A number which uniquely identifies a release against the customer's purchase order

OP Original Purchase Order

User Note 1:

Original customer order number.

PL Price List Number

User Note 1:

Price Bracket ID.

VN Vendor Order Number

VR Vendor ID Number

User Note 1:

Proprietary vendor ID.

YB Revision Number

User Note 1:

*OPTIONAL: The vendor's order revision number. Following confirmation receipt, this should match the REF*YB sent on the latest confirmation.*

YD Buyer Identification

User Note 1:

Code Name

This proprietary ID is used to assign a member as the buyer for a PO.

ZI Reference Version Number

User Note 1:

MANDATORY FOR ORDER CHANGE: The buyer's order revision number. This numeric revision number will increment for each new transaction for an order. It need not be contiguous from transaction to transaction, but will monotonically increase.

REF02	127	Reference Identification	X	AN	1/30	Recommended
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Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

REF03	352	Description	X	AN	1/80	Used
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Description: A free-form description to clarify the related data elements and their content

User Note 1: *Used when REF02='YD' to include the buyer's name.*

Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

FOB F.O.B. Related Instructions

Pos: 080	Max: 1
Heading - Optional	
Loop: N/A	Elements: 1

User Option (Usage): Recommended

Purpose: To specify transportation instructions relating to shipment

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
FOB01	146	Shipment Method of Payment	M	ID	2/2	Must use

Description: Code identifying payment terms for transportation charges

Code Name

BP Paid by Buyer

Description: *The buyer agrees to the transportation payment term requiring the buyer to pay transportation charges to a specified location (origin or destination location)*

CC Collect

PB Customer Pick-up/Backhaul

PC Prepaid but Charged to Customer

PE Prepaid and Summary Bill

PP Prepaid (by Seller)

PU Pickup

TP Third Party Pay

Semantics:

1. FOB01 indicates which party will pay the carrier.

SAC Service, Promotion, Allowance, or Charge Information

Pos: 120	Max: 1
Heading - Optional	
Loop: SAC	Elements: 15

User Option (Usage): Recommended

Purpose: To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SAC01	248	Allowance or Charge Indicator	M	ID	1/1	Must use
		Description: Code which indicates an allowance or charge for the service specified				
		Code Name				
		A		Allowance		
		C		Charge		
SAC02	1300	Service, Promotion, Allowance, or Charge Code	X	ID	4/4	Recommended
		Description: Code identifying the service, promotion, allowance, or charge				
		User Note 1: Accepted codes are dependant upon the trading relationship. Please confirm code acceptance with trading partner.				
		All valid standard codes are used.				
SAC03	559	Agency Qualifier Code	X	ID	2/2	Recommended
		Description: Code identifying the agency assigning the code values				
		Code Name				
		AB		Assigned by Buyer		
		AS		Assigned by Seller		
SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code	X	AN	1/10	Recommended
		Description: Agency maintained code identifying the service, promotion, allowance, or charge				
SAC05	610	Amount	O	N2	1/15	Recommended
		Description: Monetary amount				
SAC06	378	Allowance/Charge Percent Qualifier	X	ID	1/1	Recommended
		Description: Code indicating on what basis allowance or charge percent is calculated				
		All valid standard codes are used.				
SAC07	332	Percent	X	R	1/6	Recommended
		Description: Percent expressed as a percent				
		User Note 1: Informational only. Total amount or rate x quantity are used to determine the amount of the allowance or charge.				
SAC08	118	Rate	O	R	1/9	Recommended

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		Description: Rate expressed in the standard monetary denomination for the currency specified				
SAC09	355	Unit or Basis for Measurement Code	X	ID	2/2	Recommended
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		Code Name				
		CA Case				
		DO Dollars, U.S.				
		EA Each				
		KG Kilogram				
		LB Pound				
SAC10	380	Quantity	X	R	1/15	Recommended
		Description: Numeric value of quantity				
SAC11	380	Quantity	O	R	1/15	Recommended
		Description: Numeric value of quantity				
SAC12	331	Allowance or Charge Method of Handling Code	O	ID	2/2	Recommended
		Description: Code indicating method of handling for an allowance or charge				
		Code Name				
		01 Bill Back				
		02 Off Invoice				
		06 Charge to be Paid by Customer				
SAC13	127	Reference Identification	X	AN	1/30	Recommended
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier				
SAC14	770	Option Number	O	AN	1/20	Recommended
		Description: A unique number identifying available promotion or allowance options when more than one is offered				
SAC15	352	Description	X	AN	1/80	Recommended
		Description: A free-form description to clarify the related data elements and their content				

Syntax Rules:

1. R0203 - At least one of SAC02 or SAC03 is required.
2. P0304 - If either SAC03 or SAC04 is present, then the other is required.
3. P0607 - If either SAC06 or SAC07 is present, then the other is required.
4. P0910 - If either SAC09 or SAC10 is present, then the other is required.
5. C1110 - If SAC11 is present, then SAC10 is required.
6. L130204 - If SAC13 is present, then at least one of SAC02 or SAC04 is required.
7. C1413 - If SAC14 is present, then SAC13 is required.
8. C1615 - If SAC16 is present, then SAC15 is required.

Semantics:

1. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
2. SAC05 is the total amount for the service, promotion, allowance, or charge.
3. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
4. SAC08 is the allowance or charge rate per unit.
5. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
6. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.
7. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.
8. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.
9. SAC16 is used to identify the language being used in SAC15.

Comments:

1. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.

User Note 1:

Trading Partners must send this information if it affects pricing and completeness of the transaction.

User Note 2:

Only allowances and charges are supported. Informational only SAC are not allowed.

User Note 3:

SAC total amount OR rate x quantity must be included to determine the total amount of the allowance or charge.

DTM Date/Time Reference

Pos: 150	Max: 3
Heading - Optional	
Loop: N/A	Elements: 2

User Option (Usage): Recommended

Purpose: To specify pertinent dates and times

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
DTM01	374	Date/Time Qualifier	M	ID	3/3	Must use
Description: Code specifying type of date or time, or both date and time						
User Note 1: <i>iTN will pass one of these values for DTM01 based on what the buying organization sends to iTN.</i>						
Code Name						
002 Delivery Requested						
010 Requested Ship						
118 Requested Pick-up						
DTM02	373	Date	X	DT	8/8	Recommended
Description: Date expressed as CCYYMMDD						

User Note 1:

If only one date is provided, date pair may be calculated in iTN.

TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 240	Max: 1
Heading - Optional	
Loop: N/A	Elements: 1

User Option (Usage): Recommended

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TD504	91	Transportation Method/Type Code	X	ID	1/2	Must use

Description: Code specifying the method or type of transportation for the shipment

Code Name

- H Customer Pickup
- M Motor (Common Carrier)
- T Best Way (Shippers Option)

N9 Reference Identification

Pos: 295	Max: 1
Heading - Optional	
Loop: N9	Elements: 2

User Option (Usage): Recommended

Purpose: To transmit identifying information as specified by the Reference Identification Qualifier

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N901	128	Reference Identification Qualifier	M	ID	2/3	Must use

Description: Code qualifying the Reference Identification

Code Name

L1 Letters or Notes

User Note 1:

iTN will pass order notes from the buying organization in the N9 and MSG segments.

N902	127	Reference Identification	X	AN	1/30	Recommended
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Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

User Note 1: *iTN will send "GEN" in N902 to indicate that the MSG Segment contains General Notes.*

MSG Message Text

Pos: 300	Max: 30
Heading - Optional	
Loop: N9	Elements: 1

User Option (Usage): Recommended

Purpose: To provide a free-form format that allows the transmission of text information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
MSG01	933	Free-Form Message Text	M	AN	1/264	Must use

Description: Free-form message text

Syntax Rules:

1. C0302 - If MSG03 is present, then MSG02 is required.

User Note 1:

See Usage Notes in N9 segment for information regarding the usage of the MSG segment.

N1 Name

Pos: 310	Max: 1
Heading - Optional	
Loop: N1	Elements: 4

User Option (Usage): Recommended

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code	M	ID	2/3	Must use

Description: Code identifying an organizational entity, a physical location, property or an individual

Code Name

- BO Broker or Sales Office
- BT Bill-to-Party

User Note 1:

iTN will always send an N1 segment with "BT" qualifier to identify the Bill To address.

- BY Buying Party (Purchaser)

Description: Mandatory

User Note 1:

iTN will always send an N1 segment with a "BY" qualifier to identify the Buying Party

- CA Carrier
- OB Ordered By
- PW Pick Up Address
- SF Ship From
- ST Ship To

User Note 1:

iTN will always send an N1 segment with "ST" qualifier to identify the Ship To location.

- TT Transfer To

User Note 1:

Used for Alternate Receiving Warehouse

- VN Vendor

User Note 1:

iTN will always send an N1 segment with "VN" qualifier to identify the Vendor.

N102	93	Name	X	AN	1/60	Recommended
------	----	-------------	---	----	------	-------------

Description: Free-form name

N103	66	Identification Code Qualifier	X	ID	1/2	Recommended
------	----	--------------------------------------	---	----	-----	-------------

Description: Code designating the system/method of code structure used for Identification Code (67)

Code Name

- 1 D-U-N-S Number, Dun & Bradstreet
- 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix

Code Name

54 Warehouse
 91 Assigned by Seller or Seller's Agent
 92 Assigned by Buyer or Buyer's Agent

User Note 1:

iTN will send a "92" qualifier to indicate that the code is assigned by Buyer.

N104 67 **Identification Code** X AN 2/80 Recommended

Description: Code identifying a party or other code

User Note 1: *Configurable proprietary ID or corporate DUNS number may be transmitted.*

Syntax Rules:

1. R0203 - At least one of N102 or N103 is required.
2. P0304 - If either N103 or N104 is present, then the other is required.

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.

N3 Address Information

Pos: 330	Max: 1
Heading - Optional	
Loop: N1	Elements: 2

User Option (Usage): Recommended

Purpose: To specify the location of the named party

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N301	166	Address Information	M	AN	1/55	Must use
		Description: Address information				
N302	166	Address Information	O	AN	1/55	Recommended
		Description: Address information				

N4 Geographic Location

Pos: 340	Max: 1
Heading - Conditional	
Loop: N1	Elements: 4

User Option (Usage): Recommended

Purpose: To specify the geographic place of the named party

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N401	19	City Name	O	AN	2/30	Recommended
		Description: Free-form text for city name				
N402	156	State or Province Code	O	ID	2/2	Recommended
		Description: Code (Standard State/Province) as defined by appropriate government agency				
N403	116	Postal Code	O	ID	3/15	Recommended
		Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				
N404	26	Country Code	O	ID	2/3	Recommended
		Description: Code identifying the country				

Syntax Rules:

1. C0605 - If N406 is present, then N405 is required.

Comments:

1. A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2. N402 is required only if city name (N401) is in the U.S. or Canada.

PER Administrative Communications Contact

Pos: 360	Max: 1
Heading - Optional	
Loop: N1	Elements: 4

User Option (Usage): Recommended

Purpose: To identify a person or office to whom administrative communications should be directed

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PER01	366	Contact Function Code	M	ID	2/2	Must use
		Description: Code identifying the major duty or responsibility of the person or group named				
		Code Name				
		CN		General Contact		
PER02	93	Name	O	AN	1/60	Recommended
		Description: Free-form name				
PER03	365	Communication Number Qualifier	X	ID	2/2	Dependent
		Description: Code identifying the type of communication number				
		All valid standard codes are used.				
PER04	364	Communication Number	X	AN	1/80	Recommended
		Description: Complete communications number including country or area code when applicable				

Syntax Rules:

1. P0304 - If either PER03 or PER04 is present, then the other is required.

User Note 1:

This segment is used in N1 Loop for a specific purpose declared in N1-01 element.

PO1 Baseline Item Data

Pos: 010	Max: 1
Detail - Mandatory	
Loop: PO1	Elements: 11

User Option (Usage): Must use

Purpose: To specify basic and most frequently used line item data

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PO101	350	Assigned Identification	O	AN	1/20	Recommended

Description: Alphanumeric characters assigned for differentiation within a transaction set

User Note 1: *This line identifier is persisted throughout the life of the order, and will be consistent for all transmissions.*

PO102	330	Quantity Ordered	X	R	1/15	Recommended
-------	-----	-------------------------	---	---	------	-------------

Description: Quantity ordered

PO103	355	Unit or Basis for Measurement Code	O	ID	2/2	Recommended
-------	-----	---	---	----	-----	-------------

Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

User Note 1: *Code usage dependent upon trading partner acceptance.*

Code Name

BG	Bag
BX	Box
CA	Case
CN	Can
CS	Cassette
DR	Drum
EA	Each
GA	Gallon
LB	Pound
OZ	Ounce - Av
PA	Pail
PC	Piece
PK	Package
TE	Tote
UN	Unit

PO104	212	Unit Price	X	R	1/17	Recommended
-------	-----	-------------------	---	---	------	-------------

Description: Price per unit of product, service, commodity, etc.

PO105	639	Basis of Unit Price Code	O	ID	2/2	Recommended
-------	-----	---------------------------------	---	----	-----	-------------

Description: Code identifying the type of unit price for an item

User Note 1: *Price UOM and quantity UOM must be consistent.*

Code Name

PE	Price per Each
PK	Price per Kilogram
PP	Price per Pound

PO106	235	Product/Service ID Qualifier	X	ID	2/2	Recommended
Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)						
<u>Code Name</u>						
UA U.P.C./EAN Case Code (2-5-5)						
UK U.P.C./EAN Shipping Container Code (1-2-5-5-1)						
Description: A 14-digit code that uniquely identifies the manufacturer's shipping unit, including the packaging indicator and check digit; the first digit is the packaging indicator, the next two digits are the number system characters, the next five digits are the manufacturer ID number, the second five digits are the item code, and the final digit is the check digit						
UP U.P.C. Consumer Package Code (1-5-5-1)						
PO107	234	Product/Service ID	X	AN	1/48	Recommended
Description: Identifying number for a product or service						
PO108	235	Product/Service ID Qualifier	X	ID	2/2	Must use
Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)						
<u>Code Name</u>						
MG Manufacturer's Part Number						
VN Vendor's (Seller's) Item Number						
VP Vendor's (Seller's) Part Number						
PO109	234	Product/Service ID	X	AN	1/48	Must use
Description: Identifying number for a product or service						
PO110	235	Product/Service ID Qualifier	X	ID	2/2	Must use
Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)						
<u>Code Name</u>						
PI Purchaser's Item Code						
PO111	234	Product/Service ID	X	AN	1/48	Must use
Description: Identifying number for a product or service						

Syntax Rules:

1. C0302 - If PO103 is present, then PO102 is required.
2. C0504 - If PO105 is present, then PO104 is required.
3. P0607 - If either PO106 or PO107 is present, then the other is required.
4. P0809 - If either PO108 or PO109 is present, then the other is required.
5. P1011 - If either PO110 or PO111 is present, then the other is required.
6. P1213 - If either PO112 or PO113 is present, then the other is required.
7. P1415 - If either PO114 or PO115 is present, then the other is required.
8. P1617 - If either PO116 or PO117 is present, then the other is required.
9. P1819 - If either PO118 or PO119 is present, then the other is required.
10. P2021 - If either PO120 or PO121 is present, then the other is required.
11. P2223 - If either PO122 or PO123 is present, then the other is required.

12. P2425 - If either PO124 or PO125 is present, then the other is required.

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.

User Note 1:

iTN will send the supplier product code with qualifier "VP". UPC and Buyer product code will be sent if available.

PO3 Additional Item Detail

Pos: 030	Max: 1
Detail - Optional	
Loop: PO1	Elements: 6

User Option (Usage): Used

Purpose: To specify additional item-related data involving variations in normal price/quantity structure

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PO303	236	Price Identifier Code	X	ID	3/3	Used

Description: Code identifying pricing specification

Code Name

CON Contract Price

PO304	212	Unit Price	O	AN	1/17	Used
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Description: Price per unit of product, service, commodity, etc.

User Note 1: Contract unit price (ie 4.55) or contract unit price range (ie 4.55-5.12).

Important Note: This field is 17 characters by X12 standard, but is 20 characters in the iTN application. The field on the 850 has been expanded to support 20 characters if necessary.

PO305	639	Basis of Unit Price Code	X	ID	2/2	Used
-------	-----	--------------------------	---	----	-----	------

Description: Code identifying the type of unit price for an item

Code Name

CT Contract

PO306	380	Quantity	O	R	1/15	Used
-------	-----	----------	---	---	------	------

Description: Numeric value of quantity

PO307	355	Unit or Basis for Measurement Code	O	ID	2/2	Used
-------	-----	------------------------------------	---	----	-----	------

Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

All valid standard codes are used.

PO308	352	Description	O	AN	1/80	Used
-------	-----	-------------	---	----	------	------

Description: A free-form description to clarify the related data elements and their content

User Note 1: Contract Type (ie FIXED, HI-LOW)

Syntax Rules:

1. L040305 - If PO304 is present, then at least one of PO303 or PO305 is required.

Comments:

1. Some examples of price/quantity variations are: price in different units from the PO1 segment, price changes by date, or price changes by quantity (break and level).
2. PO307 defines the unit of measure for PO306.

User Note 1:

Used to convey Contract information.

MEA Measurements

Pos: 049	Max: 40
Detail - Optional	
Loop: PO1	Elements: 3

User Option (Usage): Recommended

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
MEA02	738	Measurement Qualifier	O	ID	1/3	Must use

Description: Code identifying a specific product or process characteristic to which a measurement applies

Code Name

G Gross Weight
 T Tare Weight
 WT Weight

MEA03	739	Measurement Value	X	R	1/20	Must use
-------	-----	-------------------	---	---	------	----------

Description: The value of the measurement

MEA04	C001	Composite Unit of Measure	X	Comp		Used
-------	------	---------------------------	---	------	--	------

Description: To identify a composite unit of measure(See Figures Appendix for examples of use)

MEA04-01	355	Unit or Basis for Measurement Code	M	ID	2/2	Must use
----------	-----	------------------------------------	---	----	-----	----------

Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

Code Name

KG Kilogram
 LB Pound

Syntax Rules:

1. R03050608 - At least one of MEA03, MEA05, MEA06 or MEA08 is required.

Semantics:

1. MEA04 defines the unit of measure for MEA03.

PID Product/Item Description

Pos: 050	Max: 1
Detail - Optional	
Loop: PID	Elements: 2

User Option (Usage): Recommended

Purpose: To describe a product or process in coded or free-form format

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PID01	349	Item Description Type	M	ID	1/1	Must use

Description: Code indicating the format of a description

Code Name

F Free-form

PID05	352	Description	X	AN	1/80	Must use
-------	-----	-------------	---	----	------	----------

Description: A free-form description to clarify the related data elements and their content

Semantics:

- 1.

Comments:

1. If PID01 equals "F", then PID05 is used.

REF Reference Identification

Pos: 100	Max: 2
Detail - Optional	
Loop: PO1	Elements: 3

User Option (Usage): Recommended

Purpose: To specify identifying information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

Description: Code qualifying the Reference Identification

Code Name

BD Bid Number

User Note 1:

If REF01 is "BD", then REF02 will be the Bid Number.

KL Contract Reference

User Note 1:

*If REF01 is "KL", then REF03 will be the Contract Customer Name. REF*KL 02 not used.*

WM Weight Agreement Number

User Note 1:

If REF01 is "WM", then REF02 will be the Price Bracket.

REF02	127	Reference Identification	M	AN	1/30	Must use
-------	-----	--------------------------	---	----	------	----------

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

REF03	352	Description	X	AN	1/80	Used
-------	-----	-------------	---	----	------	------

Description: A free-form description to clarify the related data elements and their content

SAC Service, Promotion, Allowance, or Charge Information

Pos: 130	Max: 1
Detail - Optional	
Loop: SAC	Elements: 15

User Option (Usage): Recommended

Purpose: To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SAC01	248	Allowance or Charge Indicator	M	ID	1/1	Must use
Description: Code which indicates an allowance or charge for the service specified						
Code Name						
A Allowance						
C Charge						
SAC02	1300	Service, Promotion, Allowance, or Charge Code	C	ID	4/4	Must use
Description: Code identifying the service, promotion, allowance, or charge						
User Note 1: Accepted codes are dependent upon the trading relationship. Please confirm code acceptance with trading partner.						
All valid standard codes are used.						
SAC03	559	Agency Qualifier Code	O	ID	2/2	Recommended
Description: Code identifying the agency assigning the code values						
Code Name						
AB Assigned by Buyer						
AS Assigned by Seller						
SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code	O	AN	1/10	Recommended
Description: Agency maintained code identifying the service, promotion, allowance, or charge						
SAC05	610	Amount	O	N2	1/15	Recommended
Description: Monetary amount						
SAC06	378	Allowance/Charge Percent Qualifier	C	ID	1/1	Recommended
Description: Code indicating on what basis allowance or charge percent is calculated						
All valid standard codes are used.						
SAC07	332	Percent	X	R	1/6	Used
Description: Percent expressed as a percent						
User Note 1: Informational only. Total amount or rate x quantity are used to determine the amount of the allowance or charge.						
SAC08	118	Rate	O	R	1/9	Used

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		Description: Rate expressed in the standard monetary denomination for the currency specified				
SAC09	355	Unit or Basis for Measurement Code	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		Code Name				
		CA Case				
		DO Dollars, U.S.				
		EA Each				
		KG Kilogram				
		LB Pound				
SAC10	380	Quantity	O	R	1/15	Used
		Description: Numeric value of quantity				
SAC11	380	Quantity	O	R	1/15	Recommended
		Description: Numeric value of quantity				
SAC12	331	Allowance or Charge Method of Handling Code	O	ID	2/2	Recommended
		Description: Code indicating method of handling for an allowance or charge				
		Code Name				
		01 Bill Back				
		02 Off Invoice				
		06 Charge to be Paid by Customer				
SAC13	127	Reference Identification	X	AN	1/30	Recommended
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier				
SAC14	770	Option Number	O	AN	1/20	Recommended
		Description: A unique number identifying available promotion or allowance options when more than one is offered				
SAC15	352	Description	X	AN	1/80	Recommended
		Description: A free-form description to clarify the related data elements and their content				

Syntax Rules:

1. R0203 - At least one of SAC02 or SAC03 is required.
2. P0304 - If either SAC03 or SAC04 is present, then the other is required.
3. P0607 - If either SAC06 or SAC07 is present, then the other is required.
4. P0910 - If either SAC09 or SAC10 is present, then the other is required.
5. C1110 - If SAC11 is present, then SAC10 is required.
6. L130204 - If SAC13 is present, then at least one of SAC02 or SAC04 is required.
7. C1413 - If SAC14 is present, then SAC13 is required.
8. C1615 - If SAC16 is present, then SAC15 is required.

Semantics:

1. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
2. SAC05 is the total amount for the service, promotion, allowance, or charge.
3. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
4. SAC08 is the allowance or charge rate per unit.
5. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
6. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.
7. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.
8. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.
9. SAC16 is used to identify the language being used in SAC15.

Comments:

1. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
2. In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

User Note 1:

Trading Partners must send this information if it affects pricing and completeness of the transaction.

User Note 2:

Only allowances and charges are supported. Informational only SAC are not allowed.

User Note 3:

SAC total amount OR rate x quantity must be included to determine the total amount of the allowance or charge.

N9 Reference Identification

Pos: 330	Max: 1
Detail - Optional	
Loop: N9	Elements: 2

User Option (Usage): Recommended

Purpose: To transmit identifying information as specified by the Reference Identification Qualifier

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N901	128	Reference Identification Qualifier	M	ID	2/3	Must use
Description: Code qualifying the Reference Identification						
Code Name						
L1 Letters or Notes						
N902	127	Reference Identification	X	AN	1/30	Recommended
Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier						

MSG Message Text

Pos: 340	Max: 30
Detail - Optional	
Loop: N9	Elements: 1

User Option (Usage): Recommended

Purpose: To provide a free-form format that allows the transmission of text information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
MSG01	933	Free-Form Message Text	M	AN	1/264	Must use

Description: Free-form message text

N1 Name

Pos: 350	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

User Option (Usage): Used

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code	M	ID	2/3	Must use
		Description: Code identifying an organizational entity, a physical location, property or an individual				
		Code Name				
		SF		Ship From		
N102	93	Name	X	AN	1/60	Used
		Description: Free-form name				
N103	66	Identification Code Qualifier	X	ID	1/2	Used
		Description: Code designating the system/method of code structure used for Identification Code (67)				
		Code Name				
		9		D-U-N-S+4, D-U-N-S Number with Four Character Suffix		
N104	67	Identification Code	X	AN	2/80	Used
		Description: Code identifying a party or other code				

Syntax Rules:

1. R0203 - At least one of N102 or N103 is required.
2. P0304 - If either N103 or N104 is present, then the other is required.

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.

N3 Address Information

Pos: 370	Max: 2
Detail - Optional	
Loop: N1	Elements: 2

User Option (Usage): Used

Purpose: To specify the location of the named party

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N301	166	Address Information	M	AN	1/55	Must use
		Description: Address information				
N302	166	Address Information	O	AN	1/55	Used
		Description: Address information				

N4 Geographic Location

Pos: 380	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

User Option (Usage): Used

Purpose: To specify the geographic place of the named party

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N401	19	City Name	O	AN	2/30	Used
		Description: Free-form text for city name				
N402	156	State or Province Code	O	ID	2/2	Used
		Description: Code (Standard State/Province) as defined by appropriate government agency				
N403	116	Postal Code	O	ID	3/15	Used
		Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				
N404	26	Country Code	O	ID	2/3	Used
		Description: Code identifying the country				

Syntax Rules:

1. C0605 - If N406 is present, then N405 is required.

Comments:

1. A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2. N402 is required only if city name (N401) is in the U.S. or Canada.

CTT Transaction Totals

Pos: 010	Max: 1
Summary - Mandatory	
Loop: CTT	Elements: 6

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CTT01	354	Number of Line Items	M	N0	1/6	Must use
		Description: Total number of line items in the transaction set				
CTT02	347	Hash Total	O	R	1/10	Must use
		Description: 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.				
CTT03	81	Weight	X	R	1/10	Recommended
		Description: Numeric value of weight				
CTT04	355	Unit or Basis for Measurement Code	X	ID	2/2	Recommended
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		<u>Code</u>	<u>Name</u>			
		GA	Gallon			
		KG	Kilogram			
		LB	Pound			
		OZ	Ounce - Av			
CTT05	183	Volume	X	R	1/8	Recommended
		Description: Value of volumetric measure				
CTT06	355	Unit or Basis for Measurement Code	X	ID	2/2	Recommended
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		<u>Code</u>	<u>Name</u>			
		CF	Cubic Feet			
		CI	Cubic Inches			
		CR	Cubic Meter			
		CY	Cubic Yard			

Syntax Rules:

1. P0304 - If either CTT03 or CTT04 is present, then the other is required.
2. P0506 - If either CTT05 or CTT06 is present, then the other is required.

SE Transaction Set Trailer

Pos: 030	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

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)

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SE01	96	Number of Included Segments	M	N0	1/10	Must use
		Description: Total number of segments included in a transaction set including ST and SE segments				
SE02	329	Transaction Set Control Number	M	AN	4/9	Must use
		Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set				

Comments:

1. SE is the last segment of each transaction set.

GE Functional Group Trailer

Pos:	Max: 1
Not Defined - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
GE01	97	Number of Transaction Sets Included	M	N0	1/6	Must use
		Description: 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	N0	1/9	Must use
		Description: Assigned number originated and maintained by the sender				

Semantics:

1. The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

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.

IEA Interchange Control Trailer

Pos:	Max: 1
Not Defined - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
IEA01	I16	Number of Included Functional Groups	M	N0	1/5	Must use
		Description: A count of the number of functional groups included in an interchange				
IEA02	I12	Interchange Control Number	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				