

# 810 Invoice

This standard provides the format and establishes the data contents of an invoice transaction set. The invoice transaction set provides for customary and established business and industry practice relative to the billing for goods and services provided.

## Table 1

PAGE #	POS. #	SEG. ID	NAME	REQ. DES.	MAX USE	LOOP REPEAT
261	010	ST	Transaction Set Header	M	1	
262	020	BIG	Beginning Segment for Invoice	M	1	
N/U	030	NTE	Note/Special Instruction	F	100	
263	040	CUR	Currency	O	1	
265	050	REF	Reference Numbers	O	12	
N/U	060	PER	Administrative Communications Contact	O	3	
<b>LOOP ID - N1</b>						<b>200</b>
266	070	N1	Name	O	1	
N/U	080	N2	Additional Name Information	O	2	
268	090	N3	Address Information	O	2	
269	100	N4	Geographic Location	O	1	
270	110	REF	Reference Numbers	O	12	
N/U	120	PER	Administrative Communications Contact	O	3	
271	130	ITD	Terms of Sale/Deferred Terms of Sale	O	5	
273	140	DTM	Date/Time Reference	O	10	
N/U	150	FOB	F.O.B. Related Instructions	O	1	
N/U	160	PID	Product/Item Description	O	200	
N/U	170	MEA	Measurements	O	40	
N/U	180	PWK	Paperwork	O	25	
N/U	190	PKG	Marking, Packaging, Loading	O	25	
N/U	200	L7	Tariff Reference	O	1	

## Table 2

PAGE #	POS. #	SEG. ID	NAME	REQ. DES.	MAX USE	LOOP REPEAT
<b>LOOP ID - IT1</b>						<b>200000</b>
274	010	IT1	Baseline Item Data (Invoice)	O	1	
276	020	CUR	Currency	O	1	
278	030	IT3	Additional Item Data	O	5	
279	040	TXI	Tax Information	O	10	
N/U	050	CTP	Pricing Information	O	25	
280	059	MEA	Measurements	O	40	
<b>LOOP ID - IT1/PID</b>						<b>1000</b>
282	060	PID	Product/Item Description	O	1	
283	070	MEA	Measurements	O	10	
N/U	080	PWK	Paperwork	O	25	
N/U	090	PKG	Marking, Packaging, Loading	O	25	
285	100	PO4	Item Physical Details	O	1	
N/U	110	ITD	Terms of Sale/Deferred Terms of Sale	O	2	
287	120	REF	Reference Numbers	O	>1	
N/U	130	PER	Administrative Communications Contact	O	5	
N/U	140	SDQ	Destination Quantity	O	500	
288	150	DTM	Date/Time Reference	O	10	
289	160	CAD	Carrier Detail	O	>1	

N/U	170	L7	Tariff Reference	O	>1	
<b>LOOP ID - IT1/ITA</b>						<b>10</b>
291	180	ITA	Allowance, Charge or Service	O	1	
293	190	TXI	Tax Information	O	10	
<b>LOOP ID - IT1/SLN</b>						<b>1000</b>
N/U	200	SLN	Subline Item Detail	O	1	
N/U	210	REF	Reference Numbers	O	>1	
N/U	220	PID	Product/Item Description	O	1000	
N/U	230	ITA	Allowance, Charge or Service	O	10	
<b>LOOP ID - IT1/N1</b>						<b>200</b>
294	240	N1	Name	O	1	
295	250	N2	Additional Name Information	O	2	
296	260	N3	Address Information	O	2	
297	270	N4	Geographic Location	O	1	
298	280	REF	Reference Numbers	O	12	
N/U	290	PER	Administrative Communications Contact	O	3	

**Table 3**

PAGE #	POS. #	SEG. ID	NAME	REQ. DES.	MAX USE	LOOP REPEAT
299	010	TDS	Total Monetary Value Summary	M	1	
300	020	TXI	Tax Information	O	10	
N/U	030	CAD	Carrier Detail	O	1	
<b>LOOP ID - ITA</b>						<b>10</b>
N/U	040	ITA	Allowance, Charge or Service	O	1	
N/U	050	TXI	Tax Information	O	10	
N/U	060	ISS	Invoice Shipment Summary	O	5	
301	070	CTT	Transaction Totals	M	1	
302	080	SE	Transaction Set Trailer	M	1	

SEGMENT: **ST** Transaction Set Header  
 LEVEL: Header  
 LOOP: \_\_\_\_\_  
 USAGE: Mandatory  
 MAX USE: 1  
 PURPOSE: To indicate the start of a transaction set and to assign a control number  
 COMMENTS: **A** The transaction set identifier (ST01) is intended for use by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the invoice transaction set).

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
ST01	143	<b>Transaction Set Identifier Code</b> Code uniquely identifying a Transaction Set.	<b>M ID 3/3</b>
<b>810 X12.2 Invoice</b>			
ST02	329	<b>Transaction Set Control Number</b> Identifying control number assigned by the originator for a transaction set.	<b>M AN 4/9</b>

SEGMENT: **BIG** Beginning Segment for Invoice  
 LEVEL: Header  
 LOOP: \_\_\_\_\_  
 USAGE: Mandatory  
 MAX USE: 1  
 PURPOSE: To indicate the beginning of an invoice transaction set and to transmit identifying numbers and dates.  
 COMMENTS: **A** BIG07 is used only to further define the type of invoice when needed.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
BIG01	245	<b>Invoice Date</b> Invoice Issue Date.	M DT 6/6
BIG02	76	<b>Invoice Number</b> Identifying number assigned by issuer.	M AN 1/22
BIG03	323	<b>Purchase Order Date</b> Date assigned by the purchaser to Purchase Order.	O DT 6/6
BIG04	324	<b>Purchase Order Number</b> Identifying number for Purchase Order assigned by the orderer/purchaser.	O AN 1/22
BIG05	328	<b>Release Number</b> Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction.	O AN 1/30
BIG06	327	<b>Change Order Sequence Number</b> Number assigned by the orderer identifying a specific change or revision to a previously transmitted transaction set.	O AN 1/8
<b>Not Used by AVNET</b>			
BIG07	640	<b>Transaction Type Code</b> Code specifying the type of transaction.	O ID 2/2
<b>Recommended by AVNET</b>			
CA Cash			
CO Corrected			
FB Final Bill			
PP Prepaid Invoice			

SEGMENT: **CUR** Currency

LEVEL: Header

LOOP: \_\_\_\_\_

USAGE: Optional

MAX USE: 1

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

- SYNTAX:
- 1 If CUR08 is present, then CUR07 is required.
  - 2 If CUR09 is present, then CUR07 is required.
  - 3 If CUR11 is present, then CUR10 is required.
  - 4 If CUR12 is present, then CUR10 is required.
  - 5 If CUR14 is present, then CUR13 is required.
  - 6 If CUR15 is present, then CUR13 is required.
  - 7 If CUR17 is present, then CUR16 is required.
  - 8 If CUR18 is present, then CUR16 is required.
  - 9 If CUR20 is present, then CUR19 is required.
  - 10 If CUR21 is present, then CUR19 is required.

COMMENTS: **A** Monetary values are assumed to be expressed in the currency of the country of the transaction originator unless the optional CUR segment is used to specify a different currency. The CUR segment also permits the transaction originator to indicate a specific exchange rate, foreign exchange location and date/time as the basis for a currency conversion. Example 1. Assuming the currency of the transaction originator is U.S. dollars, the following CUR segment, when used in the heading area of a transaction, would indicate that all monetary values appearing in the transaction are expressed in Canadian Dollars (CAD). (In this example the exchange rate is at the discretion of the receiver).

CUR\*BY\*CAD\* N/L

Example 2. Assuming the currency of the transaction originator is U.S. dollars, the following CUR segment, when used in the detail area of a transaction, describes a currency conversion for that particular item from U.S. dollars to Canadian dollars. It also indicates that a specific exchange rate, at a specified foreign exchange location on a given date/time be used as the basis for the currency conversion. Notes below the diagram describe the meaning of the element values.

**B** CUR\*BY\*USD\*1.20\*SE\*CAD\*NY\*007\*840821\*1400 N/L  
           1      2      3      4

1. Identifies the buyer's (BY) currency as U.S. dollars (USD).
2. The multiplier (1.20) is the exchange rate factor for the conversion.

3. Identifies the seller's (SE) currency as Canadian dollars (CAD).

4. Indicates the basis for the exchange rate as the New York Foreign Exchange (NY) and the effective date/time (007) as August 21, 1984 (840821) at 2:00 P.M. (1400).

The value for this item is to be converted to Canadian dollars (CAD) at the exchange rate of 1.20, based on the New York Foreign Exchange (NY) at 2:00 P.M. (1400) on August 21, 1984. The actual unit price conversion for the item would be:

The unit price value 7.50 (U.S. dollars) multiplied by the exchange rate (1.20) equals 9.00 Canadian dollars (7.50 X 1.20 = 9.00) CUR07 through CUR21 provide for five (5) dates/times relating to the currency conversion, i.e., effective date, expiration date, etc.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
CUR01	98	<b>Entity Identifier Code</b> Code identifying an organizational entity or a physical location.	M ID 2/2
CUR02	100	<b>Currency Code</b> Code (Standard ISO) for country in whose currency the charges are specified.	M ID 3/3

**The ASC X12 003010 segment "CUR" contains nineteen additional data elements not used by AVNET.**

SEGMENT: **REF** Reference Numbers

LEVEL: Header

LOOP: \_\_\_\_\_

USAGE: Optional

MAX USE: 12

PURPOSE: To specify identifying numbers.

SYNTAX: 1 Either REF02 or REF03 is required.

NOTES: **This REF segment can be repeated five times.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
REF01	128	<b>Reference Number Qualifier</b> Code qualifying the Reference Number.	M ID 2/2
		<b>BM Bill of Lading Number</b> Business Requirement: Bill of Lading Number (#1). Used in the fifth of five possible REF segments.	
		<b>C6 Carnet Number</b> Business Requirement: Carnet Number (#2) Used in the third of five possible REF segments.	
		<b>CT Contract Number</b> Business Requirement: Contract Reference (#4) Used in the first of five possible REF segments.	
		<b>PX Previous Invoice Number</b> Business Requirement: Reference to a Previous Invoice (#14) Used in the second of five possible REF segments.	
		<b>VX Value-Added Tax Registration Number (Europe)</b> Business Requirement: VAT Fiscal Number (#19) Used in the fourth of five possible REF segments.	
REF02	127	<b>Reference Number</b> Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	C AN 1/30
		<b>Recommended by AVNET</b>	
REF03	352	<b>Description</b> A free-form description to clarify the related data elements and their content.	C AN 1/80

SEGMENT: **N1** Name  
 LEVEL: Header  
 LOOP: N1 REPEAT: 200  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To identify a party by type of organization, name and code  
 SYNTAX: **1** At least one of N102 or N103 must be present.  
           **2** If either N103 or N104 is present, then the other is required.  
 COMMENTS: **A** 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.  
 NOTES: **This N1 loop can be repeated seven times.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
N101	98	Entity Identifier Code Code identifying an organizational entity or a physical location.	M ID 2/2
		<b>BT Party to be Billed For Other Than Freight(Bill To)</b> Used in the fifth of seven possible loops.	
		<b>II Issuer of Invoice</b> Business Requirement: Invoice Issuer (#25) Use for the first of seven possible N1 loops.	
		<b>RB Receiving Bank</b> Business Requirement: Financial Institution (#23) Use for the second of seven possible loops.	
		<b>RE Party to receive commercial invoice remittance</b> Business Requirement: Payment Receiver (#33) Used in the fourth of seven possible loops.	
		<b>RF Refinery</b>	
		<b>RM Party that remits payment</b> Business Requirement: Payment Issuer (#32) Used in the third of seven possible loops.	
		<b>SF Ship From</b> Used in the sixth of seven possible loops.	
		<b>ST Ship To</b> Used in the seventh of seven possible loops.	
		<b>VN Vendor</b>	

**N102 93 Name** **C AN 1/35**  
Free-form name.

**Not Used by AVNET**

**N103 66 Identification Code Qualifier** **C ID 1/2**  
Code designating the system/method of code structure used for Identification Code (67).

**Recommended by AVNET**

**1 Dun and Bradstreet (Credit Reporting) (DUNS)**

**3 Federal Maritime Commission (Ocean) (FMC)**

**4 International Air Transport Association (IATA)**

**9 DUNS with 4-character suffix**

**91 Assigned by Seller or Seller's Agent**

**92 Assigned by Buyer or Buyer's Agent**

**N104 67 Identification Code** **C ID 2/17**  
Code identifying a party.

**Recommended by AVNET**

SEGMENT: **N3** Address Information  
 LEVEL: Header  
 LOOP: N1  
 USAGE: Optional  
 MAX USE: 2  
 PURPOSE: To specify the location of the named party

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
<b>N301</b>	<b>166</b>	<b>Address Information</b> Address information	<b>M AN 1/35</b>
<b>N302</b>	<b>166</b>	<b>Address Information</b> Address information	<b>O AN 1/35</b>

SEGMENT: **N4** Geographic Location  
 LEVEL: Header  
 LOOP: N1  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To specify the geographic place of the named party  
 SYNTAX: 1 At least one of N401 or N405 must be present.  
 2 If N401 is present, then N402 is required.  
 3 If either N405 or N406 is present, then the other is required.  
 COMMENTS: **A** A combination of either N401 through N404 (or N405 and N406) may be adequate to specify a location.  
**B** N402 is required only if city name (N401) is in the USA or Canada.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
N401	19	<b>City Name</b> Free-form text for city name.	C AN 2/19
N402	156	<b>State or Province Code</b> Code (Standard State/Province) defined by appropriate governmental agencies.	C ID 2/2
N403	116	<b>Postal Code</b> Code defining international postal zone code excluding punctuation and blanks (zip code for United States).	O ID 4/9
N404	26	<b>Country Code</b> Code identifying the country.	O ID 2/2
N405	309	<b>Location Qualifier</b> Code identifying type of location.	O ID 1/2
N406	310	<b>Location Identifier</b> Code which identifies a specific location.	C AN 1/25

SEGMENT: **REF** Reference Numbers

LEVEL: Header

LOOP: N1

USAGE: Optional

MAX USE: 12

PURPOSE: To specify identifying numbers.

SYNTAX: 1 Either REF02 or REF03 is required.

NOTES: **Used only in the second (Financial Institution) of seven possible loops.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
REF01	128	Reference Number Qualifier Code qualifying the Reference Number.	M ID 2/2
		<b>PY Payee's Financial Institution Account Number for Check, Draft or Wire Payments. Receiving Company Account Number for ACH Transfer.</b>	
REF02	127	Reference Number Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	C AN 1/30
		<b>Account Number</b>	
REF03	352	Description A free-form description to clarify the related data elements and their content.	C AN 1/80
		<b>Not Recommended by AVNET</b>	

SEGMENT: **ITD** Terms of Sale/Deferred Terms of Sale  
 LEVEL: Header  
 LOOP: \_\_\_\_\_  
 USAGE: Optional  
 MAX USE: 5  
 PURPOSE: To specify terms of sale.  
 SYNTAX: 1 If ITD03 is present, then at least one of ITD04, ITD05, ITD13 is required.  
 2 If ITD08 is present, then at least one of ITD04, ITD05 or ITD13 is required.  
 3 If ITD09 is present, then ITD10 or ITD11 is required.  
 COMMENTS: A If the code in ITD01 is 04, then ITD09 is required and either ITD11 or ITD12 is required. If the code in ITD01 equals 05, then ITD06 or ITD07 is required.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
ITD01	336	<b>Terms Type Code</b> Code identifying type of payment terms.	O ID 2/2
ITD02	333	<b>Terms Basis Date Code</b> Code identifying the beginning of the terms period.	O ID 1/2
ITD03	338	<b>Terms Discount Percent</b> Terms discount percentage, expressed as a percent, available to the purchaser if an invoice is paid on or before the Terms Discount Due Date.	O R 1/6
<b>Recommended by AVNET</b>			
ITD04	370	<b>Terms Discount Due Date</b> Date payment is due if discount is to be earned.	C DT 6/6
ITD05	351	<b>Terms Discount Days Due</b> Number of days in the terms discount period by which payment is due if terms discount is earned.	C N0 1/3
<b>Recommended by AVNET</b>			
ITD06	446	<b>Terms Net Due Date</b> Date when total invoice amount becomes due.	O DT 6/6
ITD07	386	<b>Terms Net Days</b> Number of days until total invoice amount is due (discount not applicable).	O N0 1/3
<b>Recommended by AVNET</b>			
ITD08	362	<b>Terms Discount Amount</b> Total amount of terms discount.	O N2 1/10
ITD09	388	<b>Terms Deferred Due Date</b> Date deferred payment or percent of invoice payable is due.	O DT 6/6
ITD10	389	<b>Deferred Amount Due</b> Deferred amount due for payment.	C N2 1/10

ITD11	342	<b>Percent of Invoice Payable</b> Amount of invoice payable expressed in percent.	C	R	1/5
ITD12	352	<b>Description</b> A free-form description to clarify the related data elements and their content.	O	AN	1/80
ITD13	765	<b>Day of Month</b> The numeric value of the day of the month between 1 and the maximum day of the month being referenced.	C	NO	1/2
<b>Not Used by AVNET</b>					
ITD14	107	<b>Payment Method Code</b> Code identifying type of payment procedures.	O	ID	1/1

SEGMENT: **DTM** Date/Time Reference  
 LEVEL: Header  
 LOOP: \_\_\_\_\_  
 USAGE: Optional  
 MAX USE: 10  
 PURPOSE: To specify pertinent dates and times  
 SYNTAX: **1** At least one of DTM02 or DTM03 must be present.  
 NOTES: **This DTM can be repeated up to three times.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
DTM01	374	<b>Date/Time Qualifier</b> Code specifying type of date or time, or both date and time.	<b>M ID 3/3</b>
		<b>AV1 Tax Point Date</b> Used for the first occurrence of this DTM segment. ASC X12 Data Maintenance request to be submitted.	
		<b>090 Report Start</b> Used for the second occurrence of this DTM segment.	
		<b>091 Report End</b> Used for the third occurrence of this DTM segment.	
		<b>150 Service Period Start</b> Used for the second occurrence of this DTM segment.	
		<b>151 Service Period End</b> Used for the third occurrence of this DTM segment.	
DTM02	373	<b>Date</b> Date (YYMMDD).	<b>C DT 6/6</b>
		<b>Required by AVNET</b>	
DTM03	337	<b>Time</b> Time expressed in 24-hour clock time (HHMM, time range: 0000 though 2359).	<b>C TM 4/4</b>
		<b>Not Used by AVNET</b>	
DTM04	623	<b>Time Code</b> Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time. Since + is a restricted character, + and - are substituted by P and M in the codes that follow.	<b>O ID 2/2</b>
		<b>Not Used by AVNET</b>	

SEGMENT: **IT1** Baseline Item Data (Invoice)  
 LEVEL: Detail  
 LOOP: IT1 REPEAT: 200000  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To specify the basic and most frequently used line item data for the invoice and related transactions.  
 SYNTAX: 1 If IT106 is present, then IT107 is required.  
 2 If IT108 is present, then IT109 is required.  
 3 If IT110 is present, then IT111 is required.  
 4 If IT112 is present, then IT113 is required.  
 5 If IT114 is present, then IT115 is required.  
 6 If IT116 is present, then IT117 is required.  
 7 If IT118 is present, then IT119 is required.  
 8 If IT120 is present, then IT121 is required.  
 9 If IT122 is present, then IT123 is required.  
 10 If IT124 is present, then IT125 is required.  
 COMMENTS: **A** Element 235/234 combinations should be interpreted to include products and/or services. See the Data Dictionary for a complete list of ID's.  
**B** IT101 is the purchase order line item identification.  
**C** IT106 through IT125 provides for ten (10) different product/service ID's for each item. For example: Case, Color, Drawing No., UPC No., ISBN No., Model No., SKU.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
IT101	350	<b>Assigned Identification</b> Alphanumeric characters assigned for differentiation within a transaction set.	O AN 1/6
IT102	358	<b>Quantity Invoiced</b> Number of units invoiced (supplier units).	M R 1/10
<b>Business Requirement: Priced Quantity (#53)</b>			
IT103	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	M ID 2/2
<b>Recommended by AVNET</b>			
<b>Business Requirement: Delivery Unit of Measure (#43)</b>			

**IT104 212 Unit Price** M R 1/14  
Price per unit of product, service, commodity, etc.

**Recommended by AVNET**

**Business Requirement: Delivery Unit of Measure (#43)**

**IT105 639 Basis of Unit Price Code** O ID 2/2  
Code identifying the type of unit price for an item.

**Not Used by AVNET**

**IT106 235 Product/Service ID Qualifier** O ID 2/2  
Code identifying the type/source of the descriptive number used in Product/Service ID (234).

**Recommended by AVNET**

**Business Requirement: Product Identification (#55)**

**IT107 234 Product/Service ID** C AN 1/30  
Identifying number for a product or service.

**Recommended by AVNET**

**IT108 235 Product/Service ID Qualifier** O ID 2/2  
Code identifying the type/source of the descriptive number used in Product/Service ID (234).

**IT109 234 Product/Service ID** C AN 1/30  
Identifying number for a product or service.

**The ASC X12 003010 segment "IT1" contains sixteen additional data elements not used by AVNET.**

SEGMENT: **CUR** Currency

LEVEL: Detail

LOOP: IT1

USAGE: Optional

MAX USE: 1

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

- SYNTAX:
- 1 If CUR08 is present, then CUR07 is required.
  - 2 If CUR09 is present, then CUR07 is required.
  - 3 If CUR11 is present, then CUR10 is required.
  - 4 If CUR12 is present, then CUR10 is required.
  - 5 If CUR14 is present, then CUR13 is required.
  - 6 If CUR15 is present, then CUR13 is required.
  - 7 If CUR17 is present, then CUR16 is required.
  - 8 If CUR18 is present, then CUR16 is required.
  - 9 If CUR20 is present, then CUR19 is required.
  - 10 If CUR21 is present, then CUR19 is required.

COMMENTS: **A** Monetary values are assumed to be expressed in the currency of the country of the transaction originator unless the optional CUR segment is used to specify a different currency. The CUR segment also permits the transaction originator to indicate a specific exchange rate, foreign exchange location and date/time as the basis for a currency conversion. Example 1. Assuming the currency of the transaction originator is U.S. dollars, the following CUR segment, when used in the heading area of a transaction, would indicate that all monetary values appearing in the transaction are expressed in Canadian Dollars (CAD). (In this example the exchange rate is at the discretion of the receiver).

CUR\*BY\*CAD\* N/L

Example 2. Assuming the currency of the transaction originator is U.S. dollars, the following CUR segment, when used in the detail area of a transaction, describes a currency conversion for that particular item from U.S. dollars to Canadian dollars. It also indicates that a specific exchange rate, at a specified foreign exchange location on a given date/time be used as the basis for the currency conversion. Notes below the diagram describe the meaning of the element values.

**B** CUR\*BY\*USD\*1.20\*SE\*CAD\*NY\*007\*840821\*1400 N/L  
                   1      2      3      4

1. Identifies the buyer's (BY) currency as U.S. dollars (USD).
2. The multiplier (1.20) is the exchange rate factor for the conversion.
3. Identifies the seller's (SE) currency as Canadian dollars (CAD).
4. Indicates the basis for the exchange rate as the New York Foreign Exchange (NY) and the effective date/time (007) as August 21, 1984 (840821) at 2:00 P.M. (1400).

The value for this item is to be converted to Canadian dollars (CAD) at the exchange rate of 1.20, based on the New York Foreign Exchange (NY) at 2:00 P.M. (1400) on August 21, 1984. The actual unit price conversion for the item would be: The unit price value 7.50 (U.S. dollars) multiplied by the exchange rate (1.20) equals 9.00 Canadian dollars (7.50 X 1.20 = 9.00) CUR07 through CUR21 provide for five (5) dates/times relating to the currency conversion, i.e., effective date, expiration date, etc.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
CUR01	98	<b>Entity Identifier Code</b> Code identifying an organizational entity or a physical location.	M ID 2/2
<b>TI Tariff Issuer</b>			
CUR02	100	<b>Currency Code</b> Code (Standard ISO) for country in whose currency the charges are specified.	M ID 3/3
CUR03	280	<b>Exchange Rate</b> Value to be used as a multiplier conversion factor to convert monetary value from one currency to another.	O R 4/6
CUR04	98	<b>Entity Identifier Code</b> Code identifying an organizational entity or a physical location.	O ID 2/2
<b>Required by AVNET</b>			
<b>II Issuer of Invoice</b> <b>Business Requirement: Invoice Issuer (#25)</b>			
CUR05	100	<b>Currency Code</b> Code (Standard ISO) for country in whose currency the charges are specified.	O ID 3/3
<b>Required by AVNET</b>			
CUR06	669	<b>Currency Market/Exchange Code</b> Code identifying the market upon which the currency exchange rate is based.	O ID 3/3
<b>The ASC X12 003010 segment "CUR" contains fifteen additional elements not used by AVNET.</b>			

SEGMENT: **IT3** Additional Item Data  
 LEVEL: Detail  
 LOOP: IT1  
 USAGE: Optional  
 MAX USE: 5  
 PURPOSE: To specify additional item details relating to variations between ordered and shipped quantities, or to specify alternate units of measures and quantities.  
 SYNTAX: 1 If IT301 is present, then IT302 is required.  
 2 At least one of IT301, IT303, IT304, or IT305 must be present.  
 NOTES: **The IT3 segment is used to specify additional item details relating to variations between ordered and shipped quantities, or to specify alternate units of measures and quantities. This segment is ONLY used when gross gallons is different than actual gallons AND state and local taxes are computed on the gross gallons.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
IT301	382	<b>Number of Units Shipped</b> Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set.	C R 1/10
IT302	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C ID 2/2
		<b>GA Gallon</b>	
		<b>GN Gross Gallons</b>	
IT303	368	<b>Shipment/Order Status Code</b> Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction.	C ID 2/2
		<b>Not Used by AVNET</b>	
IT304	383	<b>Quantity Difference</b> Numeric value of variance between ordered and shipped quantities.	C R 1/9
		<b>Not Used by AVNET</b>	
IT305	371	<b>Change Reason Code</b> Code specifying the reason for price or quantity change.	C ID 2/2
		<b>Not Used by AVNET</b>	

SEGMENT: **TXI** Tax Information  
 LEVEL: Detail  
 LOOP: IT1  
 USAGE: Optional  
 MAX USE: 10  
 PURPOSE: To specify tax information.  
 SYNTAX: **1** Either TXI02 or TXI03 is required  
           **2** If either TXI04 or TXI05 is present, then the other is required.  
 COMMENTS: **A** TXI02 is the monetary amount of the tax.  
               **B** TXI03 is the tax percent expressed as a decimal.  
               **C** If TXI02 is not used, then the application of the percent (TXI03)  
                   is between trading partners.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
TXI01	963	<b>Tax Type Code</b> Code specifying the type of tax.	M ID 2/2
<b>Business Requirement: Tax Type (#133)</b>			
TXI02	782	<b>Monetary Amount</b> Monetary amount.	C R 1/15
<b>Business Requirement: Line Tax Value (#131)</b>			
TXI03	954	<b>Percent</b> Percentage expressed as a decimal	C R 1/10
<b>Business Requirement: Tax Percentage (#132)</b>			
TXI04	955	<b>Tax Jurisdiction Code Qualifier</b> Code identifying the source of the data used in tax jurisdiction code.	C ID 2/2
TXI05	956	<b>Tax Jurisdiction Code</b> Code identifying the taxing jurisdiction.	C AN 1/10

SEGMENT: **MEA** Measurements  
 LEVEL: Detail  
 LOOP: IT1  
 USAGE: Optional  
 MAX USE: 40  
 PURPOSE: To specify physical measurements, including dimensions, tolerances, weights and counts.  
 SYNTAX: 1 Either MEA03 or MEA05 or MEA06 or MEA08 is required.  
 2 If either MEA03, MEA05 or MEA06 is used, MEA04 is required.  
 3 If MEA07 is used MEA03 is required.  
 4 Either MEA08 or MEA03 may be used, but not both.  
 COMMENTS: **A** When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed use MEA05 as the negative (-) value and MEA06 as the positive (+) value.  
 NOTES: **Business Requirement: Measurement Quantity Delivered (#56)**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
MEA01	737	<b>Measurement Reference ID Code</b> Code specifying the application of physical measurement cited.	O ID 2/2
<b>Not Used by AVNET</b>			
MEA02	738	<b>Measurement Qualifier</b> Code identifying the type of measurement.	O ID 1/3
<b>Not Used by AVNET</b>			
MEA03	739	<b>Measurement Value</b> The value of the measurement.	C R 1/10
<b>Recommended by AVNET</b>			
MEA04	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C ID 2/2
<b>Recommended by AVNET</b>			
<b>Business Requirement: Delivery Unit of Measure (#43)</b>			
MEA05	740	<b>Range Minimum</b> The value specifying the minimum of the measurement range.	C R 1/10
<b>Not Used by AVNET</b>			
MEA06	741	<b>Range Maximum</b> The value specifying the maximum of the measurement range.	C R 1/10
<b>Not Used by AVNET</b>			

**MEA07 935 Measurement Significance Code O ID 2/2**  
Code used to benchmark, qualify or further define a measurement value.

**Not Used by AVNET**

**MEA08 936 Measurement Attribute Code C ID 2/2**  
Code used to express an attribute response when a numeric measurement value cannot be determined.

**Not Used by AVNET**

**MEA09 752 Surface/Layer/Position Code O ID 2/2**  
Code indicating the product surface, layer or position that is being described.

**Not Used by AVNET**

SEGMENT: **PID** Product/Item Description  
 LEVEL: Detail  
 LOOP: IT1/PID REPEAT: 1000  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To describe a product or process in coded or free-form format  
 SYNTAX: 1 If PID04 is present, then PID03 is required.  
 2 At least one of PID04 or PID05 must be present.  
 COMMENTS: A When PID01 is "F", PID04 is not used.  
 B Use PID03 to indicate the organization that publishes the code list being referred to.  
 C PID04 should be used for industry-specific product description codes.  
 D Use PID06 when necessary to refer to the product surface or layer being described in the segment.  
 NOTES: **Business Requirement: Product Identification (#56)**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
PID01	349	<b>Item Description Type</b> Code indicating the format of a description.	M	ID	1/1
PID02	750	<b>Product/Process Characteristic Code</b> Code specifying the product or process characteristic being described.	O	ID	2/3
PID03	559	<b>Association Qualifier Code</b> Code identifying the association assigning the code values.	C	ID	2/2
PID04	751	<b>Product Description Code</b> A code from an industry code list which provides specific data about a product characteristic.	C	ID	1/12
PID05	352	<b>Description</b> A free-form description to clarify the related data elements and their content.	C	AN	1/80
PID06	752	<b>Surface/Layer/Position Code</b> Code indicating the product surface, layer or position that is being described.	O	ID	2/2

SEGMENT: **MEA** Measurements  
 LEVEL: Detail  
 LOOP: IT1/PID  
 USAGE: Optional  
 MAX USE: 10  
 PURPOSE: To specify physical measurements, including dimensions, tolerances, weights and counts.  
 SYNTAX: 1 Either MEA03 or MEA05 or MEA06 or MEA08 is required.  
 2 If either MEA03, MEA05 or MEA06 is used, MEA04 is required.  
 3 If MEA07 is used MEA03 is required.  
 4 Either MEA08 or MEA03 may be used, but not both.  
 COMMENTS: **A** When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed use MEA05 as the negative (-) value and MEA06 as the positive (+) value.  
 NOTES: **Required if the PID loop is used.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
MEA01	737	<b>Measurement Reference ID Code</b> Code specifying the application of physical measurement cited.	O ID 2/2
<b>Not Used by AVNET</b>			
MEA02	738	<b>Measurement Qualifier</b> Code identifying the type of measurement.	O ID 1/3
<b>Not Used by AVNET</b>			
MEA03	739	<b>Measurement Value</b> The value of the measurement.	C R 1/10
<b>Recommended by AVNET</b>			
MEA04	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C ID 2/2
<b>Recommended by AVNET</b>			
<b>Business Requirement: Delivery Unit of Measure (#43)</b>			
MEA05	740	<b>Range Minimum</b> The value specifying the minimum of the measurement range.	C R 1/10
<b>Not Used by AVNET</b>			
MEA06	741	<b>Range Maximum</b> The value specifying the maximum of the measurement range.	C R 1/10
<b>Not Used by AVNET</b>			

**MEA07 935 Measurement Significance Code O ID 2/2**  
Code used to benchmark, qualify or further define a measurement value.

**Not Used by AVNET**

**MEA08 936 Measurement Attribute Code C ID 2/2**  
Code used to express an attribute response when a numeric measurement value cannot be determined.

**Not Used by AVNET**

**MEA09 752 Surface/Layer/Position Code O ID 2/2**  
Code indicating the product surface, layer or position that is being described.

**Not Used by AVNET**

SEGMENT: **PO4** Item Physical Details  
 LEVEL: Detail  
 LOOP: IT1  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To specify the physical qualities, packaging, weights and dimensions relating to the item.  
 SYNTAX: 1 If PO402 is present, then PO403 is required.  
 2 If PO405 is present, then at least one of PO406 or PO407 is required.  
 3 If PO408 is present, then PO409 is required.  
 4 If PO413 is present, then at least one of PO410, PO411 or PO412 is required.  
 COMMENTS: **A** PO403 - The "Unit of Measure Code" (Element #355) in this segment position is for purposes of defining the pack (PO401) /size (PO402) measure which indicates the quantity in the inner pack unit. Example: If the carton contains 24 12-Ounce packages, it would be described as follows: Element 356 = 24; Element 357 = 12; Element 355 = OZ.  
**B** PO410 defines the unit of measure for PO408, PO409, and PO410.  
 NOTES: **Used for package products.  
 Business Requirements: Number of Packages (#51), Package Measure (#52) and Type of Package (#61).**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
PO401	356	<b>Pack</b> Number of inner pack units per outer pack unit.	O NO 1/6
PO402	357	<b>Size</b> Size of supplier units in pack.	O R 1/8
PO403	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C ID 2/2
PO404	103	<b>Packaging Code</b> Code identifying the type of packaging. Part 1. Packaging form. Part 2. Packaging Material.  <b>See Appendix C, Packaging Code List</b>	O ID 5/5
PO405	187	<b>Weight Qualifier</b> Code defining the type of weight.  <b>Not Used by AVNET</b>	O ID 1/2

PO406	384	<b>Gross Weight per Pack</b> Numeric value of gross weight per pack.	C	R	1/9
<b>Not Used by AVNET</b>					
PO407	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C	ID	2/2
<b>Not Used by AVNET</b>					
PO408	385	<b>Gross Volume per Pack</b> Numeric value of gross volume per pack.	O	R	1/9
<b>Not Used by AVNET</b>					
PO409	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C	ID	2/2
<b>Not Used by AVNET</b>					
PO410	82	<b>Length</b> Largest horizontal dimension of an object measured when the object is in the upright position.	O	R	1/8
<b>Not Used by AVNET</b>					
PO411	189	<b>Width</b> Shorter measurement of the two horizontal dimensions measured with the object in the upright position.	O	R	1/8
<b>Not Used by AVNET</b>					
PO412	65	<b>Height</b> Vertical dimension of an object measured when the object is in the upright position.	O	R	1/8
<b>Not Used by AVNET</b>					
PO413	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C	ID	2/2
<b>Not Used by AVNET</b>					

SEGMENT: **REF** Reference Numbers

LEVEL: Detail

LOOP: IT1

USAGE: Optional

MAX USE: >1

PURPOSE: To specify identifying numbers.

SYNTAX: 1 Either REF02 or REF03 is required.

NOTES: **This REF segment can be used six times.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
REF01	128	Reference Number Qualifier Code qualifying the Reference Number.	M ID 2/2
<b>Recommended by AVNET</b>			
<b>AF Airlines Flight Identification Number</b> Business Requirement: Flight Number (#121) Used for the second of six possible REF segments.			
<b>BM Bill of Lading Number</b> Business Requirement: Bill of Lading Number (#1) Used for the sixth of six possible REF segments.			
<b>C6 Carnet Number</b> Business Requirement: Carnet Number (#2) Used for the fourth of six possible REF segments.			
<b>DJ Delivery Ticket Number</b> Business Requirement: Delivery Ticket Number (#5) Used for the first of six possible REF segments.			
<b>EQ Equipment Number</b> Business Requirement: Company Issued Receiving Equipment Identification (#119) A company issued receiving equipment ID. Used for the third of six possible REF segments.			
<b>VX Value-Added Tax Registration Number (Europe)</b> Business Requirement: VAT Fiscal Number (#19) Used for the fifth of six possible REF segments.			
REF02	127	Reference Number Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	C AN 1/30
<b>Recommended by AVNET</b>			
REF03	352	Description A free-form description to clarify the related data elements and their content.	C AN 1/80

SEGMENT: **DTM** Date/Time Reference  
 LEVEL: Detail  
 LOOP: IT1  
 USAGE: Optional  
 MAX USE: 10  
 PURPOSE: To specify pertinent dates and times  
 SYNTAX: **1** At least one of DTM02 or DTM03 must be present.  
 NOTES: **This DTM segment can be repeated five times.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
DTM01	374	<b>Date/Time Qualifier</b> Code specifying type of date or time, or both date and time.	M ID 3/3
<b>Recommended by AVNET</b>			
<b>236 Tax Point Date</b> Business Requirement: Tax Point Date (#79) ASC X12 Data Maintenance request to be submitted. Used as the fifth of five possible DTM segments.			
<b>007 Effective</b> Business Requirement: Pricing Date (#75) Used for the first of five possible DTM segments.			
<b>090 Report Start</b> Business Requirement: Period Start Date (#71) Used for the third of five possible DTM segments.			
<b>091 Report End</b> Business Requirement: Period End Date (#70) Used for the fourth of five possible DTM segments.			
<b>192 Delivery Ticket</b> Business Requirement: Delivery Ticket Date (#66) Used for the second of five possible DTM segments.			
DTM02	373	<b>Date</b> Date (YYMMDD).	C DT 6/6
<b>Recommended by AVNET</b>			
The ASC X12 003010 segment "DTM" contains two additional data elements not used by AVNET.			

SEGMENT: **CAD** Carrier Detail  
 LEVEL: Detail  
 LOOP: IT1  
 USAGE: Optional  
 MAX USE: >1  
 PURPOSE: To specify transportation details for the transaction  
 SYNTAX: 1 At least one of CAD05 or CAD04 must be present.  
 2 If CAD07 is present, then CAD08 is required.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
CAD01	91	<b>Transportation Method/Type Code</b> Code specifying the method or type of transportation for the shipment.	O ID 1/2
<b>Recommended by AVNET</b>			
<b>Business Requirement: Method of Delivery (#129)</b>			
B Barge			
J Motor			
MB Motor (Bulk Carrier)			
PL Pipeline			
R Rail			
S Ocean			
CAD02	206	<b>Equipment Initial</b> Prefix or alphabetic part of an equipment unit's identifying number.	O AN 1/4
<b>Not Used by AVNET</b>			
CAD03	207	<b>Equipment Number</b> Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred).	O AN 1/10
<b>Not Used by AVNET</b>			
CAD04	140	<b>Standard Carrier Alpha Code</b> Standard Carrier Alpha Code	C ID 2/4
CAD05	387	<b>Routing</b> Free-form description of the routing or requested routing for shipment, or the originating carrier's identity.	C AN 1/35
<b>Recommended by AVNET</b>			
CAD06	368	<b>Shipment/Order Status Code</b> Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction.	O ID 2/2
<b>Not Used by AVNET</b>			

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<b>CAD07</b>	<b>128</b>	<b>Reference Number Qualifier</b> Code qualifying the Reference Number.	<b>O ID 2/2</b>
<b>CAD08</b>	<b>127</b>	<b>Reference Number</b> Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	<b>O AN 1/30</b>

SEGMENT: **ITA** Allowance, Charge or Service  
 LEVEL: Detail  
 LOOP: IT1/ITA REPEAT: 10  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To specify allowances, charges or services  
 SYNTAX: 1 If ITA02 is present, then at least one of ITA03, or ITA13 is required.  
 2 If ITA08 is present, then ITA09 is required.  
 3 If ITA10 is present, then ITA11 is required.  
 COMMENTS: **A** If ITA01 = A-Allowance or C-Charge, then at least one of ITA06, ITA07, or ITA08 must be present.  
**B** If ITA07 is present with either ITA06 or ITA08, then ITA07 takes precedence.  
**C** ITA12 is the quantity of free goods.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
ITA01	248	<b>Allowance or Charge Indicator</b> Code which indicates an allowance or charge for the service specified.	M	ID	1/1
<b>Business Requirement: Allowance/Charge Code (#112)</b>					
ITA02	559	<b>Association Qualifier Code</b> Code identifying the association assigning the code values.	O	ID	2/2
ITA03	560	<b>Special Services Code</b> Code identifying the special service.	C	ID	2/10
ITA04	331	<b>Allowance or Charge Method of Handling Code</b> Code indicating method of handling for an allowance or charge.	M	ID	2/2
ITA05	341	<b>Allowance or Charge Number</b> The number assigned by a vendor referencing an allowance, promotion, deal or charge.	O	AN	1/16
ITA06	359	<b>Allowance or Charge Rate</b> Allowance or Charge Rate per Unit.	O	R	1/9
<b>Business Requirement: Allowance/Charge Rate (#114)</b>					
ITA07	360	<b>Allowance or Charge Total Amount</b> Total dollar amount for the allowance or charge.	O	N2	1/9
ITA08	378	<b>Allowance/ Charge Percent Qualifier</b> Code indicating on what basis allowance or charge percent is calculated.	O	ID	1/1
ITA09	332	<b>Allowance or Charge Percent</b> Allowance or charge expressed as a percent.	C	R	1/6
<b>Business Requirement: Allowance/Charge Percent (#113)</b>					

ITA10	339	<b>Allowance or Charge Quantity</b> Quantity basis when allowance or charge quantity is different from the purchase order or invoice quantity.	O R	1/10
ITA11	355	<b>Unit of Measurement Code</b> Code identifying the basic unit of measurement.	C ID	2/2
ITA12	380	<b>Quantity</b> Numeric value of quantity.	O R	1/10
ITA13	352	<b>Description</b> A free-form description to clarify the related data elements and their content.	C AN	1/80
ITA14	150	<b>Special Charge Code</b> Code identifying type of special charge.	O ID	3/3

SEGMENT: **TXI** Tax Information  
 LEVEL: Detail  
 LOOP: IT1/ITA  
 USAGE: Optional  
 MAX USE: 10  
 PURPOSE: To specify tax information.  
 SYNTAX: **1** Either TXI02 or TXI03 is required  
           **2** If either TXI04 or TXI05 is present, then the other is required.  
 COMMENTS: **A** TXI02 is the monetary amount of the tax.  
               **B** TXI03 is the tax percent expressed as a decimal.  
               **C** If TXI02 is not used, then the application of the percent (TXI03)  
                   is between trading partners.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
TXI01	963	<b>Tax Type Code</b> Code specifying the type of tax.	M ID 2/2
<b>Business Requirement: Tax Type (#133)</b>			
TXI02	782	<b>Monetary Amount</b> Monetary amount.	C R 1/15
<b>Business Requirement: Line Tax Value (#131)</b>			
TXI03	954	<b>Percent</b> Percentage expressed as a decimal	C R 1/10
<b>Business Requirement: Tax Percentage (#132)</b>			
TXI04	955	<b>Tax Jurisdiction Code Qualifier</b> Code identifying the source of the data used in tax jurisdiction code.	C ID 2/2
TXI05	956	<b>Tax Jurisdiction Code</b> Code identifying the taxing jurisdiction.	C AN 1/10

SEGMENT: **N1** Name  
 LEVEL: Detail  
 LOOP: IT1/N1 REPEAT: 200  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To identify a party by type of organization, name and code  
 SYNTAX: 1 At least one of N102 or N103 must be present.  
 2 If either N103 or N104 is present, then the other is required.  
 COMMENTS: **A** 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.  
 NOTES: **This N1 loop can be repeated four times.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
<b>N101</b>	<b>98</b>	<b>Entity Identifier Code</b> Code identifying an organizational entity or a physical location.	<b>M ID 2/2</b>
<p><b>RC Receiving Location</b>                      Business Requirement: Receiving Location (#85)                      Used in the first of four possible loops.</p>			
<p><b>SF Ship From</b>                      Business Requirement: Product Service Deliver (#34)                      Used in the second of four possible loops.</p>			
<p><b>ST Ship To</b>                      Business Requirement: Product Service Receiver (#35)                      Used in the third of four possible loops.</p>			
<b>N102</b>	<b>93</b>	<b>Name</b> Free-form name.	<b>C AN 1/35</b>
<b>N103</b>	<b>66</b>	<b>Identification Code Qualifier</b> Code designating the system/method of code structure used for Identification Code (67).	<b>C ID 1/2</b>
<p><b>Recommended by AVNET</b></p>			
<b>N104</b>	<b>67</b>	<b>Identification Code</b> Code identifying a party.	<b>C ID 2/17</b>
<p><b>Recommended by AVNET</b></p>			

SEGMENT: **N2** Additional Name Information  
LEVEL: Detail  
LOOP: IT1/N1  
USAGE: Optional  
MAX USE: 2  
PURPOSE: To specify additional names or those longer than 35 characters in length

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
N201	93	Name Free-form name.	M AN 1/35
N202	93	Name Free-form name.	O AN 1/35

SEGMENT: **N3** Address Information  
 LEVEL: Detail  
 LOOP: IT1/N1  
 USAGE: Optional  
 MAX USE: 2  
 PURPOSE: To specify the location of the named party

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
<b>N301</b>	<b>166</b>	<b>Address Information</b> Address information	<b>M AN 1/35</b>
<b>N302</b>	<b>166</b>	<b>Address Information</b> Address information	<b>O AN 1/35</b>

SEGMENT: **N4** Geographic Location  
 LEVEL: Detail  
 LOOP: IT1/N1  
 USAGE: Optional  
 MAX USE: 1  
 PURPOSE: To specify the geographic place of the named party  
 SYNTAX: 1 At least one of N401 or N405 must be present.  
 2 If N401 is present, then N402 is required.  
 3 If either N405 or N406 is present, then the other is required.  
 COMMENTS: **A** A combination of either N401 through N404 (or N405 and N406)  
 may be adequate to specify a location.  
**B** N402 is required only if city name (N401) is in the USA or  
 Canada.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
N401	19	<b>City Name</b> Free-form text for city name.	C AN 2/19
N402	156	<b>State or Province Code</b> Code (Standard State/Province) defined by appropriate governmental agencies.	C ID 2/2
N403	116	<b>Postal Code</b> Code defining international postal zone code excluding punctuation and blanks (zip code for United States).	O ID 4/9
N404	26	<b>Country Code</b> Code identifying the country.	O ID 2/2
N405	309	<b>Location Qualifier</b> Code identifying type of location.	O ID 1/2
N406	310	<b>Location Identifier</b> Code which identifies a specific location.	C AN 1/25

SEGMENT: **REF** Reference Numbers

LEVEL: Detail

LOOP: IT1/N1

USAGE: Optional

MAX USE: 12

PURPOSE: To specify identifying numbers.

SYNTAX: 1 Either REF02 or REF03 is required.

NOTES: **Business Requirement: Receiving Sub-Location (#86)  
Used in the first of four possible N1 loops.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
REF01	128	<b>Reference Number Qualifier</b> Code qualifying the Reference Number.	<b>M ID 2/2</b>
<b>Recommended by AVNET</b>			
REF02	127	<b>Reference Number</b> Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	<b>C AN 1/30</b>
<b>Recommended by AVNET</b>			
REF03	352	<b>Description</b> A free-form description to clarify the related data elements and their content.	<b>C AN 1/80</b>

SEGMENT: **TDS** Total Monetary Value Summary  
 LEVEL: Summary  
 LOOP: \_\_\_\_\_  
 USAGE: Mandatory  
 MAX USE: 1  
 PURPOSE: To specify the total invoice discounts and amounts  
 COMMENTS: **A** TDS02 is required if the dollar value subject to discount is not equal to the dollar value of TDS01.  
 NOTES: **Total invoice amount can be done with or without taxes.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
TDS01	361	<b>Total Invoice Amount</b> Amount of invoice (including charges, less allowances) before terms discount (if discount is applicable).	<b>M N2 1/10</b>
TDS02	390	<b>Amount Subject to Terms Discount</b> Amount upon which the terms discount amount is calculated.	<b>C N2 1/10</b>
TDS03	391	<b>Discounted Amount Due</b> Amount of invoice due if paid by terms discount due date (total invoice or installment amount less cash discount.)	<b>O N2 1/10</b>
TDS04	362	<b>Terms Discount Amount</b> Total amount of terms discount.	<b>O N2 1/10</b>

SEGMENT: **TXI** Tax Information  
 LEVEL: Summary  
 LOOP: \_\_\_\_\_  
 USAGE: Optional  
 MAX USE: 10  
 PURPOSE: To specify tax information.  
 SYNTAX: **1** Either TXI02 or TXI03 is required  
           **2** If either TXI04 or TXI05 is present, then the other is required.  
 COMMENTS: **A** TXI02 is the monetary amount of the tax.  
               **B** TXI03 is the tax percent expressed as a decimal.  
               **C** If TXI02 is not used, then the application of the percent (TXI03)  
                   is between trading partners.  
 NOTES: **Total tax amount in invoice currency.**

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
TXI01	963	<b>Tax Type Code</b> Code specifying the type of tax.	M ID 2/2
<b>VA Value Added Tax</b>			
TXI02	782	<b>Monetary Amount</b> Monetary amount.	C R 1/15
<b>Recommended by AVNET</b>			
<b>Enter the tax amount in the invoice currency.</b>			
TXI03	954	<b>Percent</b> Percentage expressed as a decimal	C R 1/10
TXI04	955	<b>Tax Jurisdiction Code Qualifier</b> Code identifying the source of the data used in tax jurisdiction code.	C ID 2/2
<b>Use TXI04 and TXI05 to identify currency of tax.</b>			
TXI05	956	<b>Tax Jurisdiction Code</b> Code identifying the taxing jurisdiction.	C AN 1/10

SEGMENT: **CTT** Transaction Totals  
 LEVEL: Summary  
 LOOP: \_\_\_\_\_  
 USAGE: Mandatory  
 MAX USE: 1  
 PURPOSE: To transmit a hash total for a specific element in the transaction set  
 SYNTAX: 1 If CTT03 is present, then CTT04 is required.  
 2 If CTT05 is present, then CTT06 is required.  
 COMMENTS: **A** This segment is intended to provide hash totals to validate transaction completeness and correctness.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
CTT01	354	Number of Line Items	M NO 1/6
		Total number of line items in the transaction set.	

The ASC X12 003010 segment "CTT" contains six additional data elements not used by AVNET.

SEGMENT: **SE** Transaction Set Trailer  
 LEVEL: Summary  
 LOOP: \_\_\_\_\_  
 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: **A** SE is the last segment of each transaction set.

**Data Element Summary**

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES	
SE01	96	<b>Number of Included Segments</b> Total number of segments included in a transaction set including ST and SE segments.	M	NO 1/6
SE02	329	<b>Transaction Set Control Number</b> Identifying control number assigned by the originator for a transaction set.	M	AN 4/9