

ANSI X12 version 4010 830 Planning Schedule with Release Capability

VERSION: 1.0 FINAL

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830

Planning Schedule with Release Capability

Functional Group=PS

This Draft Standard for Trial Use contains the format and establishes the data contents of the Planning Schedule with Release Capability Transaction Set (830) 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 practice relative to the transfer of forecasting/material release information between organizations. The planning schedule transaction may be used in various ways or in a combination of ways, such as: (1) a simple forecast; (2) a forecast with the buyer's authorization for the seller to commit to resources, such as labor or material; (3) a forecast that is also used as an order release mechanism, containing such elements as resource authorizations, period-to-date cumulative quantities, and specific ship/delivery patterns for requirements that have been represented in "buckets," such as weekly, monthly, or quarterly. The order release forecast may also contain all data related to purchase orders, as required, because the order release capability eliminates the need for discrete generation of purchase orders.

Segments:

<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			Used
	GS	Functional Group Header	M	1			Used

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	BFR	Beginning Segment for Planning Schedule	M	1			Must use

<u>LOOP ID - N1</u>					<u>200</u>		
230	N1	Name	M	1			Must use

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>
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<u>LOOP ID - LIN</u>					<u>>1</u>		
010	LIN	Item Identification	M	1			Must use
020	UIT	Unit Detail	O	1			Used
130	PRS	Part Release Status	O	1			Used
230	ATH	Resource Authorization	O	20			Used

<u>LOOP ID - FST</u>					<u>>1</u>		
410	FST	Forecast Schedule	M	1		N2/410	Must use

<u>LOOP ID - SHP</u>					<u>25</u>		
470	SHP	Shipped/Received Information	O	1			Used
480	REF	Reference Identification	O	5			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>
010	CTT	Transaction Totals	O	1		N3/010	Used
020	SE	Transaction Set Trailer	M	1			Must use

Segments:

<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			Used
	IEA	Interchange Control Trailer	M	1			Used

Notes:

- 2/410 At least one occurrence of segment FST is required, either in the FST loop or within the SDP loop. These two loops are mutually exclusive.
- 3/010 Number of line items (CTT01) is the accumulation of the number of LIN segments. If used, hash total (CTT02) is the sum of the values of the quantities (FST01) for each FST segment.

ISA

Interchange Control Header

Pos:	Max: 1
- Mandatory	
Loop: N/A	Elements: 16

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 Description: Code to identify the type of information in the Authorization Information <u>Code Name</u> 00 No Authorization Information Present (No Meaningful Information in I02)	M	ID	2/2	Must use
ISA02	I02	Authorization Information Description: Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)	M	AN	10/10	Must use
ISA03	I03	Security Information Qualifier Description: Code to identify the type of information in the Security Information <u>Code Name</u> 00 No Security Information Present (No Meaningful Information in I04)	M	ID	2/2	Must use
ISA04	I04	Security Information Description: This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)	M	AN	10/10	Must use
ISA05	I05	Interchange ID Qualifier Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified <u>Code Name</u> 01 Duns (Dun & Bradstreet) 09 X.121 (CCITT) 12 Phone (Telephone Companies) ZZ Mutually Defined	M	ID	2/2	Must use
ISA06	I06	Interchange Sender ID 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	M	AN	15/15	Must use



ISA07	I05	Interchange ID Qualifier Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified <u>Code Name</u> 12 Phone (Telephone Companies)	M	ID	2/2	Must use
ISA08	I07	Interchange Receiver ID 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	M	AN	15/15	Must use
ISA09	I08	Interchange Date Description: Date of the interchange	M	DT	6/6	Must use
ISA10	I09	Interchange Time Description: Time of the interchange	M	TM	4/4	Must use
ISA11	I10	Interchange Control Standards Identifier 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.	M	ID	1/1	Must use
ISA12	I11	Interchange Control Version Number Description: This version number covers the interchange control segments <u>Code Name</u> 00401 Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997	M	ID	5/5	Must use
ISA13	I12	Interchange Control Number Description: A control number assigned by the interchange sender	M	N0	9/9	Must use
ISA14	I13	Acknowledgment Requested Description: Code sent by the sender to request an interchange acknowledgment (TA1) <u>Code Name</u> 0 No Acknowledgment Requested	M	ID	1/1	Must use
ISA15	I14	Usage Indicator Description: Code to indicate whether data enclosed by this interchange envelope is test, production or information <u>Code Name</u> P Production Data T Test Data	M	ID	1/1	Must use
ISA16	I15	Component Element Separator 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	M		1/1	Must use

GS

Functional Group Header

Pos:	Max: 1
- Mandatory	
Loop: N/A	Elements: 8

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 Description: Code identifying a group of application related transaction sets	M	ID	2/2	Must use
		<u>Code Name</u> PS Planning Schedule with Release Capability (830)				
GS02	142	Application Sender's Code Description: Code identifying party sending transmission; codes agreed to by trading partners	M	AN	2/15	Must use
GS03	124	Application Receiver's Code Description: Code identifying party receiving transmission. Codes agreed to by trading partners	M	AN	2/15	Must use
GS04	373	Date Description: Date expressed as CCYYMMDD	M	DT	8/8	Must use
GS05	337	Time Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD	M	TM	4/8	Must use
GS06	28	Group Control Number Description: Assigned number originated and maintained by the sender	M	N0	1/9	Must use
GS07	455	Responsible Agency Code Description: Code used in conjunction with Data Element 480 to identify the issuer of the standard	M	ID	1/2	Must use
		<u>Code Name</u> X Accredited Standards Committee X12				
GS08	480	Version / Release / Industry Identifier Code 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	M	AN	1/12	Must use
		<u>Code Name</u> 004010 Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997				

Semantics:

- GS04 is the group date.
- GS05 is the group time.
- 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:

- 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.

ST**Transaction Set Header**

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

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 Description: Code uniquely identifying a Transaction Set	M	ID	3/3	Must use
		<u>Code Name</u> 830 Planning Schedule with Release Capability				
ST02	329	Transaction Set Control Number Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M	AN	4/9	Must use

Semantics:

- 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).

BFR Beginning Segment for Planning Schedule

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 9

To indicate the beginning of a planning schedule transaction set; whether a ship or delivery based forecast; and related forecast envelope 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>
BFR01	353	Transaction Set Purpose Code Description: Code identifying purpose of transaction set <u>Code Name</u> 00 Original	M	ID	2/2	Must use
BFR02	127	Reference Identification Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	C	AN	1/30	Used
BFR03	328	Release Number Description: Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction	C	AN	1/30	Used
BFR04	675	Schedule Type Qualifier Description: Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast <u>Code Name</u> DL Delivery Based SH Shipment Based	M	ID	2/2	Must use
BFR05	676	Schedule Quantity Qualifier Description: Code identifying the type of quantities used when defining a schedule or forecast <u>Code Name</u> A Actual Discrete Quantities	M	ID	1/1	Must use
BFR06	373	Date Description: Date expressed as CCYYMMDD	M	DT	8/8	Must use
BFR07	373	Date Description: Date expressed as CCYYMMDD	O	DT	8/8	Used
BFR08	373	Date Description: Date expressed as CCYYMMDD	M	DT	8/8	Must use
BFR11	324	Purchase Order Number Description: Identifying number for Purchase Order assigned by the orderer/purchaser	O	AN	1/22	Used

Syntax:

1. BFR02 R0203 -- At least one of BFR02 or BFR03 is required.

Semantics:

1. If BFR01 contains the value "04" (Net Change), BFR09 is required.
2. BFR02 is the identifying number for a forecast assigned by the orderer/purchaser.
3. BFR06 is the forecast horizon start date: The date when the forecast horizon (envelope) begins.
4. BFR07 is the forecast horizon end date: The date when the forecast horizon (envelope) ends.
5. BFR08 is the date forecast generated: The date the forecast data was generated.

N1**Name**

Pos: 230	Max: 1
Heading - Mandatory	
Loop: N1	Elements: 4

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 Description: Code identifying an organizational entity, a physical location, property or an individual <u>Code Name</u> MI Planning Schedule/Material Release Issuer ST Ship To	M	ID	2/3	Must use
N102	93	Name Description: Free-form name	C	AN	1/60	Used
N103	66	Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67) <u>Code Name</u> 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix 12 Telephone Number (Phone) 92 Assigned by Buyer or Buyer's Agent ZZ Mutually Defined	C	ID	1/2	Used
N104	67	Identification Code Description: Code identifying a party or other code	M	AN	2/80	Must use

Syntax:

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

LIN

Item Identification

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

To specify basic item identification 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>
LIN01	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set	O	AN	1/20	Used
LIN02	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number EC Engineering Change Level PD Part Number Description PO Purchase Order Number VP Vendor's (Seller's) Part Number	M	ID	2/2	Must use
LIN03	234	Product/Service ID Description: Identifying number for a product or service	M	AN	1/48	Must use
LIN04	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number EC Engineering Change Level PD Part Number Description PO Purchase Order Number VP Vendor's (Seller's) Part Number	C	ID	2/2	Used
LIN05	234	Product/Service ID Description: Identifying number for a product or service	C	AN	1/48	Used
LIN06	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number EC Engineering Change Level PD Part Number Description PO Purchase Order Number VP Vendor's (Seller's) Part Number	C	ID	2/2	Used



LIN07	234	Product/Service ID Description: Identifying number for a product or service	C	AN	1/48	Used
LIN08	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number EC Engineering Change Level PD Part Number Description PO Purchase Order Number VP Vendor's (Seller's) Part Number	C	ID	2/2	Used
LIN09	234	Product/Service ID Description: Identifying number for a product or service	C	AN	1/48	Used
LIN10	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number EC Engineering Change Level PD Part Number Description PO Purchase Order Number VP Vendor's (Seller's) Part Number	C	ID	2/2	Used
LIN11	234	Product/Service ID Description: Identifying number for a product or service	C	AN	1/48	Used

Syntax:

1. LIN04 P0405 -- If either LIN04 or LIN05 are present, then the others are required.
2. LIN06 P0607 -- If either LIN06 or LIN07 are present, then the others are required.
3. LIN08 P0809 -- If either LIN08 or LIN09 are present, then the others are required.
4. LIN10 P1011 -- If either LIN10 or LIN11 are present, then the others are required.

Semantics:

1. LIN01 is the line item identification

Comments:

1. See the Data Dictionary for a complete list of IDs.
2. LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

UIT

Unit Detail

Pos: 020	Max: 1
Detail - Optional	
Loop: LIN	Elements: 1

To specify item unit 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>
UIT01	C001	Composite Unit of Measure Description: To identify a composite unit of measure(See Figures Appendix for examples of use)	M	Comp		Must use
	355	Unit or Basis for Measurement Code 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.	M	ID	2/2	Must use

Syntax:

1. UIT03 C0302 -- If UIT03 is present, then UIT02 is required

PRS Part Release Status

Pos: 130	Max: 1
Detail - Optional	
Loop: LIN	Elements: 2

To indicate the status of the part being ordered or forecast with respect to this material release or planning document

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>
PRS01	682	Part Release Status Code Description: Code identifying the status of the specific part number being released or forecast or being used in an engineering change All valid standard codes are used.	M	ID	1/2	Must use
PRS02	352	Description Description: A free-form description to clarify the related data elements and their content	O	AN	1/80	Used

ATH Resource Authorization

Pos: 230	Max: 20
Detail - Optional	
Loop: LIN	Elements: 5

To specify resource authorizations (i.e., finished labor, material, etc.) in the planning schedule

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>
ATH01	672	Resource Authorization Code Description: Code identifying the resource which the buyer is authorizing the seller to commit to	M	ID	2/2	Must use
		<u>Code Name</u>				
		FI Finished (Labor, Material, and Overhead/Burden)				
		MT Material				
		PQ Cumulative Quantity Required Prior to First Schedule Period				
ATH02	373	Date Description: Date expressed as CCYYMMDD	C	DT	8/8	Used
ATH03	380	Quantity Description: Numeric value of quantity	C	R	1/15	Used
ATH04	380	Quantity Description: Numeric value of quantity	O	R	1/15	Used
ATH05	373	Date Description: Date expressed as CCYYMMDD	C	DT	8/8	Used

Syntax:

1. ATH02 R0203 -- At least one of ATH02 or ATH03 is required.
2. ATH03 C0305 -- If ATH03 is present, then ATH05 is required
3. ATH04 C0405 -- If ATH04 is present, then ATH05 is required

Semantics:

1. ATH02 is the resource authorization through date: The date through which the buyer authorizes the seller to commit the resource defined in element ATH01.
2. ATH03 is the current cumulative requirements quantity: The cumulative quantity that has been authorized to date from the cumulative start date (ATH05) through the resource authorization through date (ATH02).
3. ATH05 is the cumulative start date: The date where the cumulative quantity count starts. This date might be the start date of a contract period, a calendar or fiscal year, or other.

Comments:

1. It is imperative that negotiations defining financial commitment have previously occurred and are agreed to by both buyer and seller.
2. ATH04 is the maximum cumulative requirements quantity: The maximum cumulative quantity that has been authorized to date from the cumulative start date (ATH05) through the resource authorization through date (ATH02). This is a high water mark. If the forecast decreases, the current cumulative requirements quantity also decreases, but the maximum cumulative requirements quantity does not decrease.

FST Forecast Schedule

Pos: 410	Max: 1
Detail - Mandatory	
Loop: FST	Elements: 5

To specify the forecasted dates and quantities

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>
FST01	380	Quantity Description: Numeric value of quantity	M	R	1/15	Must use
FST02	680	Forecast Qualifier Description: Code specifying the sender's confidence level of the forecast data or an action associated with a forecast <u>Code Name</u> A Immediate C Firm D Planning	M	ID	1/1	Must use
FST03	681	Forecast Timing Qualifier Description: Code specifying interval grouping of the forecast <u>Code Name</u> C Daily D Discrete F Flexible Interval (from Date X through Date Y) M Monthly Bucket (Calendar Months) W Weekly Bucket (Monday through Sunday)	M	ID	1/1	Must use
FST04	373	Date Description: Date expressed as CCYYMMDD	M	DT	8/8	Must use
FST05	373	Date Description: Date expressed as CCYYMMDD	O	DT	8/8	Used

Semantics:

- If FST03 equals "F" (indicating flexible interval), then FST04 and FST05 are required. FST04 would be used for the start date of the flexible interval and FST05 would be used for the end date of the flexible interval.

Comments:

- As qualified by FST02 and FST03, FST04 represents either a discrete forecast date, the first date of a forecasted bucket (weekly, monthly, quarterly, etc.) or the start date of a flexible interval.
- FST06 qualifies the time in FST07. The purpose of the FST07 element is to express the specific time of day in a 24-hour clock to satisfy "just-in-time" requirements. As an alternative, the ship/delivery pattern segment (SDP) may be used to define an approximate time, such as a.m. or p.m.

SHP Shipped/Received Information

Pos: 470	Max: 1
Detail - Optional	
Loop: SHP	Elements: 5

To specify shipment and/or receipt 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>
SHP01	673	Quantity Qualifier Description: Code specifying the type of quantity <u>Code Name</u> 01 Discrete Quantity 02 Cumulative Quantity	O	ID	2/2	Used
SHP02	380	Quantity Description: Numeric value of quantity	C	R	1/15	Used
SHP03	374	Date/Time Qualifier Description: Code specifying type of date or time, or both date and time <u>Code Name</u> 011 Shipped 051 Cumulative Quantity Start	C	ID	3/3	Used
SHP04	373	Date Description: Date expressed as CCYYMMDD	C	DT	8/8	Used
SHP06	373	Date Description: Date expressed as CCYYMMDD	O	DT	8/8	Used

Syntax:

1. SHP01 C0102 -- If SHP01 is present, then SHP02 is required
2. SHP03 L030405 -- If SHP03 is present, then at least one of SHP04 or SHP05 is required.
3. SHP04 C0403 -- If SHP04 is present, then SHP03 is required
4. SHP05 C0503 -- If SHP05 is present, then SHP03 is required

Semantics:

1. SHP04 is the date shipped, delivered, received, or the cumulative quantity start date (as qualified by SHP03).
2. SHP06 is the cumulative quantity end date.

Comments:

1. The SHP segment is used to communicate shipment, delivery, or receipt information and may include discrete or cumulative quantities, dates, and times.
2. If SHP01 equals "02", "07", "08", "09", or "10" (indicating cumulative quantities), then SHP04 and SHP06 are required to identify the start and end dates of the quantity count.

REF Reference Identification

Pos: 480	Max: 5
Detail - Optional	
Loop: SHP	Elements: 3

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 Description: Code qualifying the Reference Identification <u>Code Name</u> SI Shipper's Identifying Number for Shipment (SID)	M	ID	2/3	Must use
REF02	127	Reference Identification Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	C	AN	1/30	Used
REF03	352	Description Description: A free-form description to clarify the related data elements and their content	C	AN	1/80	Used

Syntax:

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

Semantics:

- REF04 contains data relating to the value cited in REF02.

CTT Transaction Totals

Pos: 010	Max: 1
Summary - Optional	
Loop: N/A	Elements: 2

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 Description: Total number of line items in the transaction set	M	N0	1/6	Must use
CTT02	347	Hash Total 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 beinghashed..18 Second occurrence of value beinghashed.1.8 Third occurrence of value beinghashed.18.01 Fourth occurrence of value beinghashed.-----1855 Hash total prior to truncation.855 Hash total after truncation tothree-digit field.	O	R	1/10	Used

Syntax:

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

Comments:

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.

SE

Transaction Set Trailer

Pos: 020	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

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 Description: Total number of segments included in a transaction set including ST and SE segments	M	N0	1/10	Must use
SE02	329	Transaction Set Control Number Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M	AN	4/9	Must use

Comments:

- SE is the last segment of each transaction set.

GE**Functional Group Trailer**

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

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 Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	M	N0	1/6	Must use
GE02	28	Group Control Number Description: Assigned number originated and maintained by the sender	M	N0	1/9	Must use

Semantics:

- 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:

- 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
- Mandatory	
Loop: N/A	Elements: 2

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 Description: A count of the number of functional groups included in an interchange	M	N0	1/5	Must use
IEA02	I12	Interchange Control Number Description: A control number assigned by the interchange sender	M	N0	9/9	Must use