830 Planning Schedule with Release Capability

Functional Group ID=PS

Introduction:

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.

Heading:

Adient Attributes	Pos. No.	Seg. ID	Name	Base Attributes	Max.Use	Loop Repeat	Notes and Comments
M	010	ST	Transaction Set Header	M	1		
M	020	BFR	Beginning Segment for Planning Schedule	M	1		
Must Use	130	DTM	Date/Time Reference	O	1		
			LOOP ID N1			4	
M	230	N1	Name	M	1		

Detail:

Adient Attributes	Pos. No.	Seg. ID	Name	Base Attributes	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - LIN			>1	
M	010	LIN	Item Identification	M	1		
Must Use	020	UIT	Unit Detail	O	1		
Must Use	080	PID	Product/Item Description	O	1		
	140	REF	Reference Identification	O	1		
	150	PER	Administrative Communications Contact	O	1		
	230	ATH	Resource Authorization	O	3		
			LOOP ID - SDP			260	
Must Use	450	SDP	Ship/Delivery Pattern	O	1		
Must Use	460	FST	Forecast Schedule	O	260		
			LOOP ID - SHP			2	
Must Use	470	SHP	Shipped/Received Information	O	1		
	480	REF	Reference Identification	O	5		

Summary:

Adient Attributes	Pos. No.	Seg. ID	Name	Base Attributes	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	CTT	Transaction Totals	O	1		n1
M	020	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. 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.

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:
Business Rules: Variable Name: STST
Notes: **Data Examples**

```
ST*830*350001~
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 830 Planning Schedule with Release Capability	**M ID 3/3**
M	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M AN 4/9**

Segment: **BFR** **Beginning Segment for Planning Schedule**
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of a planning schedule transaction set; whether a ship or delivery based forecast; and related forecast envelope dates
Syntax Notes:
1 At least one of BFR02 or BFR03 is required.
Semantic Notes:
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.
6 BFR09 is the date forecast updated: The date the forecast was updated with "net change" data. (Used only when data element 353 in BFR01 contains the value "04", meaning net change.)
Comments:
Notes: **Data Examples**

BFR*05*20180117-001**DL*A*20180122*20180702*20180117~

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes	
M	**BFR01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set 05 Replace	**M**	**ID 2/2**
M	**BFR02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier **Notes to Trading Partner:** This field will contain the Adient release number. The format of the release number will be CCYYMMDD-###. If multiple releases are generated on the same day, each release will have a unique release suffix number.	**M**	**AN 1/30**
M	**BFR04**	**675**	**Schedule Type Qualifier** Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast DL Delivery Based SH Shipment Based	**M**	**ID 2/2**
M	**BFR05**	**676**	**Schedule Quantity Qualifier** Code identifying the type of quantities used when defining a schedule or forecast A Actual Discrete Quantities	**M**	**ID 1/1**
M	**BFR06**	**373**	**Date** Date expressed as CCYYMMDD **Notes to Trading Partner:** Horizon Start Date	**M**	**DT 8/8**
Must Use	**BFR07**	**373**	**Date** Date expressed as CCYYMMDD **Notes to Trading Partner:** Horizon End Date	**O**	**DT 8/8**
M	**BFR08**	**373**	**Date** Date expressed as CCYYMMDD **Notes to Trading Partner:**	**M**	**DT 8/8**

Release Creation Date

Segment: **DTM** **Date/Time Reference**
Position: 130
Loop:
Level: Heading
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:
Notes: **Data Examples**

DTM*097*20180117*1030~

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes	
M	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 097 Transaction Creation	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**
Must Use	**DTM03**	**337**	**Time** 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)	**X**	**TM 4/8**

Segment: **N1** **Name**
Position: 230
Loop: N1 Mandatory
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.
Notes: **Adient Notes**

Adient will send 4 N1 segments with the following information:

N1(SF)04 element = Supplier code assigned to supplier by Adient
N1(ST)04 element = 4-digit site code of Adient plant
N1(MI)04 element = DUNS number of Adient plant issuing the release
N1(SU)04 element = Supplier code assigned to supplier by Adient

Data Examples

```
N1*SF*SHIP-FROM NAME*92*313203~
N1*ST*ADIENT CLANTON INC.*92*1351~
N1*MI*ADIENT CLANTON INC.*1*125658950~
N1*SU*SUPPLIER NAME*92*313203~
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name		Attributes	
M	**N101**	**98**	**Entity Identifier Code**		**M**	**ID 2/3**
			Code identifying an organizational entity, a physical location, property or an individual			
			MI	Planning Schedule/Material Release Issuer		
			SF	Ship From		
			ST	Ship To		
			SU	Supplier/Manufacturer		
Must Use	**N102**	**93**	**Name**		**X**	**AN 1/60**
			Free-form name			
Must Use	**N103**	**66**	**Identification Code Qualifier**		**X**	**ID 1/2**
			Code designating the system/method of code structure used for Identification Code (67)			
			1	D-U-N-S Number, Dun & Bradstreet		
			92	Assigned by Buyer or Buyer's Agent		
Must Use	**N104**	**67**	**Identification Code**		**X**	**AN 2/80**
			Code identifying a party or other code			

Segment: **LIN** **Item Identification**
Position: 010
Loop: LIN Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To specify basic item identification data
Syntax Notes:
1 If either LIN04 or LIN05 is present, then the other is required.
2 If either LIN06 or LIN07 is present, then the other isrequired.
3 If either LIN08 or LIN09 is present, then the other isrequired.
4 If either LIN10 or LIN11 is present, then the other isrequired.
5 If either LIN12 or LIN13 is present, then the other isrequired.
6 If either LIN14 or LIN15 is present, then the other isrequired.
7 If either LIN16 or LIN17 is present, then the other isrequired.
8 If either LIN18 or LIN19 is present, then the other isrequired.
9 If either LIN20 or LIN21 is present, then the other isrequired.
10 If either LIN22 or LIN23 is present, then the other isrequired.
11 If either LIN24 or LIN25 is present, then the other isrequired.
12 If either LIN26 or LIN27 is present, then the other isrequired.
13 If either LIN28 or LIN29 is present, then the other isrequired.
14 If either LIN30 or LIN31 is present, then the other isrequired.
Semantic Notes:
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 eachitem. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., orSKU.
Notes: **Adient Notes**

The LIN segment will contain Adient's item number following qualifier "BP". Any of the following may also be sent in the LIN segment:

Qualifier "PO" - PO Number
Qualifier "VP" - Vendor's Part Number
Qualifier "EC" - Engineering Change Level

Data Examples

LIN**BP*14321638-B*PO*55123003*VP*187340*EC*B~

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes	
M	**LIN02**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) BP Buyer's Part Number	**M**	**ID 2/2**
M	**LIN03**	**234**	**Product/Service ID** Identifying number for a product or service	**M**	**AN 1/48**
	LIN04	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) PO Purchase Order Number	**X**	**ID 2/2**
	LIN05	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN 1/48**
	LIN06	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) VP Vendor's (Seller's) Part Number	**X**	**ID 2/2**
	LIN07	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN 1/48**
	LIN08	**235**	**Product/Service ID Qualifier**	**X**	**ID 2/2**

		Code identifying the type/source of the descriptive number used in Product/Service ID (234) EC Engineering Change Level		
LIN09	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN 1/48**

Segment: **UIT** **Unit Detail**
Position: 020
Loop: LIN Mandatory
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify item unit data
Syntax Notes: **1** If UIT03 is present, then UIT02 is required.
Semantic Notes:
Comments:
Notes: **Data Examples**

UIT*EA~

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**UIT01**	**C001**	**Composite Unit of Measure** To identify a composite unit of measure (See Figures Appendix for examples of use)	**M**
M	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 004010 Data Element Dictionary for acceptable code values.	**M ID 2/2**

Segment: **PID** **Product/Item Description**
Position: 080
Loop: LIN Mandatory
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To describe a product or process in coded or free-form format
Syntax Notes:
1 If PID04 is present, then PID03 is required.
2 At least one of PID04 or PID05 isrequired.
3 If PID07 is present, then PID03 isrequired.
4 If PID08 is present, then PID04 isrequired.
5 If PID09 is present, then PID05 isrequired.
Semantic Notes:
1 Use PID03 to indicate the organization that publishes the code list being referredto.
2 PID04 should be used for industry-specific product description codes.
3 PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4 PID09 is used to identify the language being used in PID05.
Comments:
1 If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2 Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3 PID07 specifies the individual code list of the agency specified in PID03.
Notes: **Data Examples**

```
PID*F****BRACKET - FLOOR -FRONT~
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**PID01**	**349**	**Item Description Type** Code indicating the format of a description F Free-form	**M ID 1/1**
Must Use	**PID05**	**352**	**Description** A free-form description to clarify the related data elements and their content **Adient Notes:** Adient itemdescription	**X AN 1/80**

Segment: **REF** **Reference Identification**
Position: 140
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:
Notes: **Data Examples**

```
REF*DK*A146~
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification Refer to 004010 Data Element Dictionary for acceptable code values.	**M ID 2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **PER** **Administrative Communications Contact**
Position: 150
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To identify a person or office to whom administrative communications should bedirected
Syntax Notes: **1** If either PER03 or PER04 is present, then the other is required.
2 If either PER05 or PER06 is present, then the other is required.
3 If either PER07 or PER08 is present, then the other is required.
Semantic Notes:
Comments:
Notes: **Data Examples**

PER*EX*JOE SMITH*TE*999-999-9999~

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**PER01**	**366**	**Contact Function Code** Code identifying the major duty or responsibility of the person or group named EX Expeditor	**M ID 2/2**
	PER02	**93**	**Name** Free-form name	**O AN 1/60**
	PER03	**365**	**Communication Number Qualifier** Code identifying the type of communication number Refer to 004010 Data Element Dictionary for acceptable code values.	**X ID 2/2**
	PER04	**364**	**Communication Number** Complete communications number including country or area code when applicable	**X AN 1/80**

Segment: **ATH** **Resource Authorization**
Position: 230
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 3
Purpose: To specify resource authorizations (i.e., finished labor, material, etc.) in the planning schedule
Syntax Notes:
1 At least one of ATH02 or ATH03 is required.
2 If ATH03 is present, then ATH05 isrequired.
3 If ATH04 is present, then ATH05 isrequired.
Semantic Notes:
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.
Notes: **Data Examples**

```
ATH*PQ**48000**20180112~
ATH*FI*20180223*36000**20180102~
ATH*MT*20180223*36000**20180102
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**ATH01**	**672**	**Resource Authorization Code** Code identifying the resource which the buyer is authorizing the seller to commit to FI Finished (Labor, Material, and Overhead/Burden) MT Material PQ Cumulative Quantity Required Prior to First Schedule Period	**M ID 2/2**
Must Use	**ATH02**	**373**	**Date** ATH02 represents firm date for Forecast lines. Any forecast line with date less then ATH02 can be considered firm for ATH01 code. Date expressed as CCYYMMDD	**X DT 8/8**
Must Use	**ATH03**	**380**	**Quantity** Numeric value of quantity	**X R 1/15**
Must Use	**ATH05**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **SDP** **Ship/Delivery Pattern**
Position: 450
Loop: SDP Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To identify specific ship/delivery requirements
Syntax Notes:
Semantic Notes:
Comments: **1** The intent of this segment is to define the routine ship or delivery patterns, as required, when order quantities are in "buckets", such as weekly, monthly. Ship/delivery patterns eliminate the need to transmit discrete quantities and dates for each required shipment or delivery. It is assumed that a "bucketed" quantity is to be divided equally by the ship/delivery pattern. For example, a weekly quantity of 100 with a delivery pattern of Monday and Wednesday would result in 50 to be delivered on Monday and 50 to be delivered on Wednesday.
Notes: **Data Examples**

```
SDP*D*G~
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**SDP01**	**678**	**Ship/Delivery or Calendar Pattern Code** Code which specifies the routine shipments, deliveries, or calendar pattern Refer to 004010 Data Element Dictionary for acceptable code values.	**M ID 1/2**
M	**SDP02**	**679**	**Ship/Delivery Pattern Time Code** Code which specifies the time for routine shipments or deliveries Refer to 004010 Data Element Dictionary for acceptable code values.	**M ID 1/1**

Segment: **FST** **Forecast Schedule**
Position: 460
Loop: SDP Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 260
Purpose: To specify the forecasted dates and quantities
Syntax Notes:
1 If either FST06 or FST07 is present, then the other is required.
2 If either FST08 or FST09 is present, then the other is required.
Semantic Notes:
1 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:
1 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.
2 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.
Notes: **Data Examples**

```
FST*6000*D*W*20180129~
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes	
M	**FST01**	**380**	**Quantity** Numeric value of quantity	**M**	**R 1/15**
M	**FST02**	**680**	**Forecast Qualifier** Code specifying the sender's confidence level of the forecast data or an action associated with a forecast C Firm D Planning	**M**	**ID 1/1**
M	**FST03**	**681**	**Forecast Timing Qualifier** Code specifying interval grouping of the forecast D Discrete M Monthly Bucket (Calendar Months) W Weekly Bucket (Monday through Sunday)	**M**	**ID 1/1**
M	**FST04**	**373**	**Date** Date expressed as CCYYMMDD **Adient Notes:** Delivery or ship date as qualified by the value sent in the BFR04 element.	**M**	**DT 8/8**

Segment: **SHP** **Shipped/Received Information**
Position: 470
Loop: SHP Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify shipment and/or receipt information
Syntax Notes:
1 If SHP01 is present, then SHP02 is required.
2 If SHP03 is present, then at least one of SHP04 or SHP05 is required.
3 If SHP04 is present, then SHP03 isrequired.
4 If SHP05 is present, then SHP03 isrequired.
Semantic Notes:
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.
Notes: **Data Examples**

SHP*01*12000*050*20180115~
SHP*02*36000*051*20180102**20180115~

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
Must Use	**SHP01**	**673**	**Quantity Qualifier** Code specifying the type of quantity 01 Discrete Quantity 02 Cumulative Quantity	**O ID 2/2**
Must Use	**SHP02**	**380**	**Quantity** Numeric value of quantity	**X R 1/15**
	SHP03	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 050 Received 051 Cumulative Quantity Start	**X ID 3/3**
	SHP04	**373**	**Date** Date expressed as CCYYMMDD **Adient Notes:** Receipt date or cumulative quantity start date as qualified by SHP03	**X DT 8/8**
	SHP06	**373**	**Date** Date expressed as CCYYMMDD **Adient Notes:** Date cumulative quantityreached	**O DT 8/8**

Segment: **REF** **Reference Identification**
Position: 480
Loop: SHP Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 5
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:
Notes: **Data Examples**

```
REF*SI*163991693~
```

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification SI Shipper's Identifying Number for Shipment (SID) A unique number (to the shipper) assigned by the shipper to identify the shipment	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **CTT** **Transaction Totals**
Position: 010
Loop:
Level: Summary
Usage: Optional (Must Use)
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes: **1** If either CTT03 or CTT04 is present, then the other is required.
2 If either CTT05 or CTT06 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment is intended to provide hash totals to validate transaction completeness and correctness.
Notes: **Data Examples**

```
CTT*5*180000~
```

Data Element Summary

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

Segment: **SE** **Transaction Set Trailer**
Position: 020
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.
Notes: **Data Examples**

SE*51*3500001~

Data Element Summary

User Attribute	Ref. Des.	Data Element	Name	Attributes
M	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments	**M N0 1/10**
M	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M AN 4/9**

Data Example

```
ISA*00*          *00*          *ZZ*ADNTICHGID      *ZZ*SUPPICHGID
*170828*1559*U*00401*000000001*0*P*>~
GS*PS*ADNTGRPID*SUPPGRPID*20170828*1559*1*X*004010~
ST*830*0001~
BFR*05*20180125-001**DL*A*20170904*20171127*20170828~
DTM*097*20170828*160312~
N1*SF*SHIP-FROM NAME*92*399999~
N1*ST*ADIENT ELDON*92*1463~
N1*MI*ADIENT ELDON*1*933841074~
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UIT*EA~
PID*F****BRACKET - FLOOR - FRONT~
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UIT*EA~
PID*F****BRACKET - FLOOR - BACK~
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PER*EX*SHIP-TO CONTACT NAME1*TE*0012057559999~
ATH*PQ**208000**20170827~
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Document Revision

Version	Date	Comment	Author
1.0	Jan-18-2018	Document creation.	Laurel A Kreimes
1.1	May-15-2019	ATH02 data element added under ATH Segment.	Hemant Bhardwaj