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.

Notes:

General: The transaction is used to send information on a Blanket PO Release or on a Scheduling Agreement Release to a supplier to communicate the part numbers, due dates and associated quantities needed by the customer location. There is normally a paper copy of the Blanket Order Agreement or the Scheduling Agreement that has been sent prior to this 830 Release transaction. The agreement establishes the terms of the relationship and communicates much of the repetitive, standard information that both parties require.

Since the customer has previously had communication with the supplier to set up pricing, item description information, contact information, etc that does not change with each release of requirements, this type data is not contained in the subsequent 830 releases.

The shipment dates and quantities contain an indicator for the supplier to use in order to determine if the shipment date is only a forecasted quantity or if it is in fact a quantity which is committed and may be shipped based on the agreed window around the due date.

For EDI envelope specifications see EMP's ISA & GS Enveloping Standard – Version 004010 document.

Heading:

Page No.	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
3	010	ST	Transaction Set Header	M	1		
4	020	BFR	Beginning Segment for Planning Schedule	M	1		
			LOOP ID - N1			200	
5	230	N1	Name	O	1		

Detail:

Page No.	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - LIN			>1	
6	010	LIN	Item Identification	M	1		
7	020	UIT	Unit Detail	M	1		
8	030	ATH	Reference Authorization	M	1		
			LOOP ID - FST			>1	
9	410	FST	Forecast Schedule	O	1		n1
			LOOP ID - SHP			25	
10	470	SHP	Shipped/Received Information	O	1		
11	480	REF	Reference Identification	O	5		

Summary:

Page No.	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
12	010	CTT	Transaction Totals	O	1		n2
13	020	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. 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.

2. 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).
Example: ST*830*0023~

Data Element Summary

	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.)
Notes: The segment always indicates a replacement of the delivery schedule for the material number on the specified order number. The entire schedule of dates and quantities is sent and should replace other previously transmitted delivery plans for the material number and associated order number.

Suppliers must not adjust any other order number or any other part number than what is contained in the data transmitted. Do not assume that a part number not contained has been deleted; or that an order number not sent is to be deleted. Those items not transmitted are still valid, they just do not have any revisions to be processed for this transmission of information.

The codes of "SH" and "A" are always sent. EMP units always send expected ship date from the supplier as opposed to date due to be receipted.
Example: BFR*05**20030204-002*SH*A*20030204*20030803*20030204~

Data Element Summary

	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**
	BFR03	**328**	**Release Number** Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction	**X**	**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 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 Horizon Start Date	**M**	**DT 8/8**
	BFR07	**373**	**Date** Date expressed as CCYYMMDD Horizon End Date	**O**	**DT 8/8**
M	**BFR08**	**373**	**Date** Date expressed as CCYYMMDD	**M**	**DT 8/8**

Segment: **N1** **Name**
Position: 230
Loop: N1 Optional
Level: Heading
Usage: Optional
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: At least one N1 segment will always contain an indicator ("ST") for the ship to location. There will be an associated DUNS number or another EMP unique number to cross reference all the address information.

If the code "92" is used to indicate a EMP unique assigned number, the supplier must ensure the associated address information for the EMP unique assigned number is correct. Please reference the EMP address document.

Example: N1*ST**1*093557085~
N1*SU**92*00005100~

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual ST Ship To SU Supplier Code	**M ID 2/3**
	N102	**93**	**Name** Free-form name	**X AN 1/60**
	N103	**66**	**Identification Code Qualifier** 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	**X ID ½**
	N104	**67**	**Identification Code** Code identifying a party or other code	**X AN 2/80**

Segment: **LIN** **Item Identification**
Position: 310
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 is required.
3 If either LIN08 or LIN09 is present, then the other is required.
4 If either LIN10 or LIN11 is present, then the other is required.
5 If either LIN12 or LIN13 is present, then the other is required.
6 If either LIN14 or LIN15 is present, then the other is required.
7 If either LIN16 or LIN17 is present, then the other is required.
8 If either LIN18 or LIN19 is present, then the other is required.
9 If either LIN20 or LIN21 is present, then the other is required.
10 If either LIN22 or LIN23 is present, then the other is required.
11 If either LIN24 or LIN25 is present, then the other is required.
12 If either LIN26 or LIN27 is present, then the other is required.
13 If either LIN28 or LIN29 is present, then the other is required.
14 If either LIN30 or LIN31 is present, then the other is required.
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 each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.
Notes: This segment contains the EMP material number being ordered and associated PO number.
Example: LIN**BP*1820653C1*PO*G0005100~

Data Element Summary

	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	**X**	**ID 2/2**
	LIN05	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN 1/48**

Segment: **UIT** **Unit Detail**
Position: 320
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify item unit data
Syntax Notes: **1** If UIT03 is present, then UIT02 is required.
Semantic Notes:
Comments:
Example: UIT*EA~

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**UIT01**	**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 (Example: EA = Each)	**M ID 2/2**

Segment: **ATH** **Resource Authorization**
Position: 320
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify resource authorization
Syntax Notes:
Semantic Notes:
Comments:
Example: ATH*PQ*20030101*960**20030203~
Notes: Prior cumulative quantity required at time of schedule generation date. This defines our total quantity received at time of schedule generation plus any past due requirements.

Our prior cum required quantity is used for comparison against your cum shipped quantity.

If our prior cum required quantity is larger than your cum shipped quantity, the difference represents past due requirements.

If our prior cum quantity is less than your cum shipped quantity, this represents an over-shipment and this quantity should be subtracted from our current requirement quantity to determine net quantity to ship.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	**ATH01**	**672**	**Resource Authorization Code**	**M**	**ID 2/2**
			To identify resource authorization		
			PQ Prior Cum		
	ATH02	**373**	**Date**	**X**	**DT 8/8**
			Date expressed as CCYYMMDD		
			Cum Start Date		
	ATH03	**380**	**Quantity**	**X**	**R 1/15**
			Numeric value of quantity		
			Prior Cum required at time of schedule generation date		
	ATH05	**373**	**Date**	**X**	**DT 8/8**
			Date expressed as CCYYMMDD		
			Cum End Date		

Segment: **FST** **Forecast Schedule**
Position: 410
Loop: FST Optional
Level: Detail
Usage: Optional
Max Use: 1
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: These segments contain the date and quantity for supplier ship date. There will be one FST line for every date and quantity combination.

If a supplier is not able to deliver as expected on these segments, contact to the EMP material representative is required.

The field following the quantity is the indicator of firm, committed ("C") deliveries versus only forecasted or planning ("D") deliveries or ("Z") to communicate changes for no requirements within current horizon, but material number and associated order number are valid.
Example:
FST*2390*D*W*20030217~
FST*2880*D*M*20030407~
FST*0*Z*Z*20030204~

Data Element Summary

	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 Z Mutually Defined Z= 0 current requirements, however material number and PO are valid	**M ID 1/1**
M	**FST03**	**681**	**Forecast Timing Qualifier** Code specifying interval grouping of the forecast D Daily M Monthly W Weekly Z Mutually Defined Z= 0 current requirements, however material number and PO are valid	**M ID 1/1**
M	**FST04**	**373**	**Date** Date expressed as CCYYMMDD	**M DT 8/8**

Segment: **SHP** **Shipped/Received Information**
Position: 470
Loop: SHP Optional
Level: Detail
Usage: Optional
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 is required.
4 If SHP05 is present, then SHP03 is required.
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: The most recent date of receipt activity is provided. The associated quantity is the total receipt quantity for the material on the specified date.

A second SHP segment is provided with the accumulated receipts since the beginning of the order. This data is intended to help the supplier determine if material was shipped and in-transit, but not yet receipted at the time of the customer requirement generation activity.

Example:
SHP*01*0*050*20030117~
SHP*02*1910*051*20030101**20030117~

Data Element Summary

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

Segment: **REF** **Reference Identification**
Position: 480
Loop: SHP Optional
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: This REF segment will contain the ship ID number associated with the most recent receipt referenced in the SHP segment.
Example: REF*SI*5100226~

Data Element Summary

	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**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Ship ID of last receipt	**X AN 1/30**

Segment: **CTT** **Transaction Totals**
Position: 010
Loop:
Level: Summary
Usage: Optional
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.
Example: CTT*3*15782~

Data Element Summary

	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**
	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.
Example: SE*36*0023~

Data Element Summary

	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**

Based on AIAG Implementation Guideline - Version 4010

Sample EDI Transmission

ISA*00* *00* *01*093557085 *01*781520283 *030212*1706*U*00401*000000023*0*P*>~
GS*PS*093557085*781520283*20030212*1706*23*X*004010~
ST*830*0023~
BFR*05**20030204-002*SH*A*20030204*20030803*20030204~
N1*ST**1*093557085~
N1*SU**92*00005100~
LIN**BP*1820653C1*PO*G0005100~
UIT*EA~
ATH*PQ*20030101*960**20030203~
FST*2390*D*W*20030217~
FST*1920*D*W*20030303~
FST*1440*D*W*20030317~
FST*1920*D*W*20030331~
FST*2880*D*M*20030407~
FST*480*D*M*20030505~
SHP*01*0*050*20030117~
SHP*02*1910*051*20030101**20030117~
LIN**BP*1822851C2*PO*G0005100~
UIT*EA~
ATH*PQ*20030101*4104**20030203~
FST*2088*D*W*20030217~
FST*288*D*W*20030303~
FST*432*D*W*20030317~
FST*432*D*W*20030331~
FST*936*D*M*20030407~
FST*576*D*M*20030505~
SHP*01*288*050*20030205~
REF*SI*5100226~
SHP*02*4104*051*20030101**20030205~
LIN**BP*4010041*PO*G0005100~
UIT*EA~
ATH*PQ*20030101*144**20030203~
FST*0*Z*Z*20030204~
SHP*01*177*050*20030124~
REF*SI*11706~
SHP*02*261*051*20030101**20030124~
CTT*3*15782~
SE*36*0023~
GE*1*23~
IEA*1*000000023~