Plex Systems

IMPLEMENTATION GUIDELINES FOR
ANSI X12 EDI CONVENTIONS

830 TRANSACTION SET
MATERIAL RELEASE
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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:

	Pos. No.	Seg. ID	Name	Req. Des.	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		
	130	DTM	Date/Time Reference	O	10		
			LOOP ID - N1			200	
M	230	N1	Name	M	1		
M	250	N3	Address Information	M	2		
M	260	N4	Geographic Location	M	1		
	280	PER	Administrative Communications Contact	O	2		

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - LIN			>1	
M	010	LIN	Item Identification	M	1		
	020	UIT	Unit Detail	O	1		
	080	PID	Product/Item Description	O	1000		
	150	PER	Administrative Communications Contact	O	3		
	230	ATH	Resource Authorization	O	20		
	678	SDP	Ship/Delivery Pattern	M	1		
			LOOP ID - FST			>1	
	410	FST	Forecast Schedule	O	1		n1
			LOOP ID - SHP			25	

| | 470 | SHP | Shipped/Received Information | O | 1 | | |

Summary:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
M	010	CTT	Transaction Totals	M	1		n2
M	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).	
Comments:			

Data Element Summary

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

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:		

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
M	BFR01	353	**Transaction Set Purpose Code**	M ID 2/2
			Code identifying purpose of transaction set	
			05 Replace	
	BFR02	127	**Reference Identification**	X AN 1/30
				X AN 1/20
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
			If a release number is not used this field is mandatory - either BFR02 or BFR03 must be used	
	BFR03	328	**Release Number**	X AN 1/30
				X AN 1/10
			Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction	
			If a Reference ID is not used this field is mandatory - either BPR02 or BPR03 must be used	
M	BFR04	675	**Schedule Type Qualifier**	M ID 2/2
			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	BFR05	676	**Schedule Quantity Qualifier**	M ID 1/1
			Code identifying the type of quantities used when defining a schedule or forecast	
			A Actual Discrete Quantities	
			C Cumulative Quantities	
M	BFR07	373	**Date**	M DT 8/8
			Date expressed as CCYYMMDD	

			Forecast start date		
M	**BFR08**	**373**	**Date**	**M**	**DT 8/8**
			Date expressed as CCYYMMDD		
			Date forecast created		
O	**BFR09**	**373**	**Date**	**M**	**DT 8/8**
			Date expressed as CCYYMMDD		
			Date forecast updated		
M	**BFR11**	**324**	**Purchase Order Number**	**O**	**AN 1/22**
			Purchase order		

Segment: **PER** Administrative Communications Contact
Position: 060
Loop: N1
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To identify a person or office to whom administrative communications should be directed.
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:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
M	PER03	365	**Communication Number Qualifier**	M ID 2/2

Code identifying the type of communication number.

FX	Facsimile
TE	Telephone

	Ref. Des.	Data Element	Name	Attributes
M	PER04	364	**Communication Number**	X AN 1/80
				M AN 1/15

Complete communications number including country or area code when applicable.

Segment: **DTM** Date/Time Reference

Position:	130
Loop:	
Level:	Heading
Usage:	Optional
Max Use:	10
Purpose:	To specify identifying information
Syntax Notes:	
Semantic Notes:	
Comments:	

Data Element Summary

	Ref. Des.	Data Element	Name		ANSI / BW	Attributes Features
M	**DTM01**	**374**	**Date/Time Qualifier**		**M**	**ID 3/3**
			Date Code			
			168	Release		
	DTM02	**373**	**Date**		**X**	**DT 8/8**
			CCCCMMDD			
	DTM03	**337**	**Time**		**X**	**TM 6/6**
			HHMMSS			

	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.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
M	N101	98	**Entity Identifier Code**	M ID 4/4
			Code identifying an organizational entity, a physical location, property or an individual	
			MI Planning Schedule/Material Release Issuer	
			ST Ship To	
			SU Supplier/Manufacturer	
			SF Ship From	
	N102	93	**Name**	X AN 1/60
			Free-form name	
	N103	66	**Identification Code Qualifier**	X ID ½
			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	
	N104	67	**Identification Code**	X AN 2/80
				X AN 2/30
			Code identifying a party or other code	

Segment: **N3** Address Information
Position: 250
Loop: N1   Optional
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	ANSI / BW	Attributes Features
M	N301	166	**Address Information**	M	AN 1/55
				M	AN 1/40
			Address information		
	N302	166	**Address Information**	O	AN 1/55
				O	AN 1/40
			Address information		

Segment: **N4** Geographic Location
Position: 260
Loop: N1   Optional
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes: 1   If N406 is present, then N405 is required.
Semantic Notes:
Comments: 1   A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
        2   N402 is required only if city name (N401) is in the U.S. or Canada.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes ANSI / BW Features		
N401	**19**	**City Name**	O	AN	2/30
			O	AN	2/10
		Free-form text for city name			
N402	**156**	**State or Province Code**	O	ID	2/2
		Code (Standard State/Province) as defined by appropriate government agency			
N403	**116**	**Postal Code**	O	ID	3/15
		Code defining international postal zone code excluding punctuation and blanks (zip code for United States)			
N404	**26**	**Country Code**	O	ID	2/3
		Code identifying the country			

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 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.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
	LIN 01	350	**Assigned Identification**	**O AN 1/20**
				O AN 1/10
			Not Used	
M	**LIN02**	235	**Product/Service ID Qualifier**	**M ID 2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
			Buyers part number is mandatory and will always be in LIN04.	
			BP Buyer's Part Number	
M	**LIN03**	234	**Product/Service ID**	**M AN 1/48**
				M AN 1/25
			Identifying number for a product or service	
	LIN04	235	**Product/Service ID Qualifier**	**X ID 2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
			PO Purchase Order Number	
	LIN05	234	**Product/Service ID**	**X AN 1/48**
				X AN 1/15
			Identifying number for a product or service	

LIN06   **235**   **Product/Service ID Qualifier**

EC   Engineering Change Level

LIN07   **234**   **Product/Service ID**

Identifying number for product

Segment: # UIT Unit Detail

Position:	020
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:	

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
M	UIT01	355	**Unit or Basis for Measurement Code**	M ID 2/2

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

CH	Container
DZ	Dozen
EA	Each
FT	Foot
GA	Gallon
LB	Pound
PR	Pair
ST	Set
UN	Unit
YD	Yard

Segment:	**PID** Product/Item Description	
Position:	080	
Loop:	LIN Mandatory	
Level:	Detail	
Usage:	Optional	
Max Use:	1000	
Purpose:	To describe a product or process in coded or free-form format	
Syntax Notes:		
Semantic Notes:		
Comments:		
Notes:		

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
M	PID01	349	**Item Description Type**	M ID 1/1
			Code indicating the format of a description	
			F Free-form	
	PID05	352	**Description**	X AN 1/80
				X AN 1/25
			A free-form description to clarify the related data elements and their content	

Segment:	**PER** Administrative Communications Contact	
Position:	150	
Loop:	LIN Mandatory	
Level:	Detail	
Usage:	Optional	
Max Use:	3	
Purpose:	To identify a person or office to whom administrative communications should be directed	
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:		

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
O	**PER01**	**366**	**Contact Function Code**	**M ID 2/2**
			Code identifying the major duty or responsibility of the person or group named	
			EX Expeditor	
			BD Buyer Name or Department	
			Buyer or material scheduler name	
	PER02	**93**	**Name**	**O AN 1/60**
				O AN 1/20
			Free-form name	
	PER03	**365**	**Communication Number Qualifier**	**X ID 2/2**
			Code identifying the type of communication number	
			TE Telephone	
	PER04	**364**	**Communication Number**	**X AN 1/80**
				X AN 1/15
			Complete communications number including country or area code when applicable	

Segment:	**ATH** Resource Authorization	
Position:	230	
Loop:	LIN	Mandatory
Level:	Detail	
Usage:	Optional	
Max Use:	20	
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 is required.
	3	If ATH04 is present, then ATH05 is required.
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.

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
M	ATH01	672	**Resource Authorization Code**		M	ID 3/3
			Code identifying the resource which the buyer is authorizing the seller to commit to			
			FI	Finished (Labor, Material, and Overhead/Burden)		
			MT	Material		
			PQ	Previous Quantity Authorized		
	ATH02	373	**Date**		X	DT 8/8
			Date expressed as CCYYMMDD			
			Authorization through date			
	ATH03	380	**Quantity**		X	R 1/15
			Numeric value of quantity			
			Authorization cumulated quantity			
	ATH05	373	**Date**		X	DT 8/8
			Date expressed as CCYYMMDD			
			Start date for cumulative quantity authorization			

Segment:SDP Ship/Delivery Pattern

Position:	678
Loop:	LIN Mandatory
Level:	Detail
Usage:	Mandatory
Max Use:	1000
Purpose:	To identify specific ship/delivery requirements
Syntax Notes:	
Semantic Notes:	
Comments:	
Notes:	

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
M	SDP01	678	Ship/Delivery Code	M ID 1/2
			Code which specifies the delivery pattern	
			N As Directed	
	SDP02	678	Ship/Delivery Code	X ID 1/2
			Code which specifies the routine delivery pattern	

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.

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes ANSI / BW	Features
M	FST01	380	**Quantity**		M	R 1/15
			Numeric value of quantity			
M	FST02	680	**Forecast Qualifier**		M	ID 1/1
			Code specifying the sender's confidence level of the forecast data or an action associated with a forecast			
			C	Firm		
			D	Planning		
M	FST03	681	**Forecast Timing Qualifier**		M	ID 1/1
			Code specifying interval grouping of the forecast			
			C	Daily		
			D	Discrete		
			F	Flexible Interval (from Date X through Date Y)		
			M	Monthly Bucket (Calendar Months)		
			Q	Quarterly (Calendar Quarters)		
			T	Four week bucket (13 buckets per year)		
			W	Weekly Bucket (Monday through Sunday)		
			X	Weekly Bucket (7 day interval)		
M	FST04	373	**Date**		M	DT 8/8
			Date expressed as CCYYMMDD			
			Scheduled date			

Segment: **SHP** Shipped/Received Information

Position:	470
Loop:	SHP
Level:	Detail
Usage:	Used
Max Use:	2
Purpose:	To specify shipment and/or receipt information.
Syntax Notes:	
Semantic Notes:	
Comments:	
Notes:	

Data Element Summary

Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
SHP01	673	**Quantity Qualifier**	O ID 2/2
		Code which specifies 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 which specifies the type of date.	
		011　　　　　　Shipped	
		051　　　　　　Cumulative Quantity Start	
SHP04	373	**Date**	O DT 8/8
		Date received (011) or Cumulative Quantity Start Date (CCYYMMDD)	
SHP06	373	**Date**	O DT 8/8
		Cumulative Quantity End Date (CCYYMMDD)	

Segment: **REF** Reference Numbers

Position:	480
Loop:	SHP
Level:	Detail
Usage:	Used
Max Use:	2
Purpose:	To specify indentifying information
Syntax Notes:	
Semantic Notes:	
Comments:	
Notes:	

Data Element Summary

Ref. Des.	Data Element	Name	Attributes ANSI / BW Features
SHP01	**128**	**Reference Qualifier**	M ID 2/2
		Code qualifying the reference ID	
		SI Shipper	
SHP02	**127**	**Reference ID**	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.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	CTT01	354	**Number of Line Items**	M N0 1/6
			Total number of line items in the transaction set	
			Total number of LIN segments	

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.

Data Element Summary

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