Eaton Corporation
Electronic Data Interchange (EDI) Standards
830 Material Release / Forecast
Version 4010

Revision date: 10/10/2006
Author: Kathy Grubar

Copyright ©2002 Eaton Corporation. All rights reserved. The content of this Web site may not be copied, replaced, distributed, published, displayed, modified or transferred in any form or by any means except with the prior written permission of Eaton Corporation ("Eaton"). Copyright infringement is a violation of federal law subject to criminal and civil penalties.

830 Planning Schedule with Release Capability

Functional Group=PS

Purpose: This Standard 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	Id	Segment Name	Req	Max Use	Repeat	Notes
010	ST	Transaction Set Header	M	1		
020	BFR	Beginning Segment for Planning Schedule	M	1		
030	PER	Administrative Communications Contact	O	3		
LOOP ID - N1					**200**	
040	N1	Name	O	1		

Detail:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes
LOOP ID - LIN					**>1**	
010	LIN	Item Identification	M	1		
020	UIT	Unit Detail	O	1		
030	REF	Reference Identification	O	12		
040	ATH	Resource Authorization	O	20		
LOOP ID - FST					**>1**	**N2/050L**
050	FST	Forecast Schedule	O	1		N2/050
LOOP ID - SHP					**25**	
060	SHP	Shipped/Received Information	O	1		
070	REF	Reference Identification	O	5		

Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes
010	CTT	Transaction Totals	O	1		N3/010
020	SE	Transaction Set Trailer	M	1		

Notes:

2/050L	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.
2/050	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.

ST Transaction Set Header

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

Purpose: To indicate the start of a transaction set and to assign a control number

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ST01	143	**Transaction Set Identifier Code**	M	ID	3/3	Must use	1
		Code **Name** 830 Planning Schedule with Release Capability					
ST02	329	**Transaction Set Control Number**	M	AN	4/9	Must use	1

Semantics:

1. 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: 8

Purpose: To indicate the beginning of a planning schedule transaction set; whether a ship or delivery based forecast; and related forecast envelope dates

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
BFR01	353	**Transaction Set Purpose Code**	M	ID	2/2	Must use	1
		Code **Name** 05 Replace					
BFR02	127	**Reference Identification**	C	AN	1/30	Not used	1
BFR03	328	**Release Number**	C	AN	1/30	Must use	1
BFR04	675	**Schedule Type Qualifier**	M	ID	2/2	Must use	1
		Code **Name** DL Delivery Based SH Shipment Based					
BFR05	676	**Schedule Quantity Qualifier**	M	ID	1/1	Must use	1
		Code **Name** A Actual Discrete Quantities					
BFR06	373	**Date**	M	DT	8/8	Must use	1
BFR07	373	**Date**	O	DT	8/8	Used	1
BFR08	373	**Date**	M	DT	8/8	Must use	1

Syntax Rules:

1. 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.
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.)

PER Administrative Communications Contact

Pos: 030 **Max: 3**
Heading - Optional
Loop: N/A **Elements: 4**

Purpose: To identify a person or office to whom administrative communications should be directed

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
PER01	366	**Contact Function Code**	M	ID	2/2	Must use	1
		Code **Name** EX Expeditor					
PER02	93	**Name**	O	AN	1/60	Used	1
PER03	365	**Communication Number Qualifier**	C	ID	2/2	Used	1
		Code **Name** TE Telephone					
PER04	364	**Communication Number**	C	AN	1/80	Used	1

Syntax Rules:

1. P0304 - If either PER03 or PER04 is present, then the other is required.
2. P0506 - If either PER05 or PER06 is present, then the other is required.
3. P0708 - If either PER07 or PER08 is present, then the other is required.

Loop N1

Pos: 040	Repeat: 200
Optional	
Loop: N1	Elements: N/A

Purpose: To identify a party by type of organization, name, and code

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat
040	N1	Name	O	1	

N1 Name

Pos: 040	Max: 1
Heading - Optional	
Loop: N1	Elements: 4

Purpose: To identify a party by type of organization, name, and code

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
N101	98	**Entity Identifier Code**	M	ID	2/3	Must use	1
		Code Name MI Planning Schedule/Material Release Issuer SF Ship From ST Ship To SU Supplier/Manufacturer					
N102	93	**Name**	C	AN	1/60	Used	1
N103	66	**Identification Code Qualifier**	C	ID	1/2	Used	1
		Code Name 1 D-U-N-S Number,Dun & Bradstreet					
N104	67	**Identification Code**	C	AN	2/80	Used	1

Syntax Rules:

1. R0203 - At least one of N102 or N103 is required.
2. P0304 - If either N103 or N104 is present, then the other is 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.
2. N105 and N106 further define the type of entity in N101.

Loop LIN

Pos: 010	Repeat: >1
Mandatory	
Loop: LIN	Elements: N/A

Purpose: To specify basic item identification data

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat
010	LIN	Item Identification	M	1	
020	UIT	Unit Detail	O	1	
030	REF	Reference Identification	O	12	
040	ATH	Resource Authorization	O	20	
050		Loop FST	O		>1
060		Loop SHP	O		25

LIN Item Identification

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

Purpose: To specify basic item identification data

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
LIN01	350	**Assigned Identification**	O	AN	1/20	Used	1
LIN02	235	**Product/Service ID Qualifier**	M	ID	2/2	Must use	1
		Code **Name** BP Buyer's Part Number EC Engineering Change Level PD Part Number Description PO Purchase Order Number VP Vendor's (Seller's) Part Number					
LIN03	234	**Product/Service ID**	M	AN	1/48	Must use	1
LIN04	235	**Product/Service ID Qualifier**	C	ID	2/2	Used	1
LIN05	234	**Product/Service ID**	C	AN	1/48	Used	1
LIN06	235	**Product/Service ID Qualifier**	C	ID	2/2	Used	1
LIN07	234	**Product/Service ID**	C	AN	1/48	Used	1
LIN08	235	**Product/Service ID Qualifier**	C	ID	2/2	Used	1
LIN09	234	**Product/Service ID**	C	AN	1/48	Used	1
LIN10	235	**Product/Service ID Qualifier**	C	ID	2/2	Used	1
LIN11	234	**Product/Service ID**	C	AN	1/48	Used	1

Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.
4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.
9. P2021 - If either LIN20 or LIN21 is present, then the other is required.
10. P2223 - If either LIN22 or LIN23 is present, then the other is required.
11. P2425 - If either LIN24 or LIN25 is present, then the other is required.
12. P2627 - If either LIN26 or LIN27 is present, then the other is required.
13. P2829 - If either LIN28 or LIN29 is present, then the other is required.
14. P3031 - If either LIN30 or LIN31 is present, then the other is 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

Purpose: To specify item unit data

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
UIT01	C001	**Composite Unit of Measure**	M	Comp		Must use	1
	355	**Unit or Basis for Measurement Code**	M	ID	2/2	Must use	1

Code	Name
KG	Kilogram
PC	Piece

Syntax Rules:

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

REF Reference Identification

Pos: 030	Max: 12
Detail - Optional	
Loop: LIN	Elements: 2

Purpose: To specify identifying information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	Must use	1
		Code **Name** DK Dock Number RF Export Reference Number					
REF02	127	**Reference Identification**	C	AN	1/30	Used	1

Syntax Rules:

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

Semantics:

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

ATH Resource Authorization

Pos: 040	Max: 20
Detail - Optional	
Loop: LIN	Elements: 4

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ATH01	672	**Resource Authorization Code**	M	ID	2/2	Must use	1
		Code **Name** FI Finished (Labor,and Overhead/Burden) MT Material PQ Cumulative Quantity Required Prior to First Schedule Period					
ATH02	373	**Date**	C	DT	8/8	Used	1
ATH03	380	**Quantity**	C	R	1/15	Used	1
ATH05	373	**Date**	C	DT	8/8	Used	1

Syntax Rules:

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

Loop FST

Pos: 050	Repeat: >1
Optional	
Loop: FST	Elements: N/A

Purpose: To specify the forecasted dates and quantities

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat
050	FST	Forecast Schedule	O	1	

FST Forecast Schedule

Pos: 050	Max: 1
Detail - Optional	
Loop: FST	Elements: 6

Purpose: To specify the forecasted dates and quantities

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
FST01	380	**Quantity**	M	R	1/15	Must use	1
FST02	680	**Forecast Qualifier**	M	ID	1/1	Must use	1
		Code Name C Firm D Planning					
FST03	681	**Forecast Timing Qualifier**	M	ID	1/1	Must use	1
		Code Name D Discrete W Weekly Bucket (Monday through Sunday)					
FST04	373	**Date**	M	DT	8/8	Must use	1
FST08	128	**Reference Identification Qualifier**	C	ID	2/3	Used	1
		Code Name RE Release Number					
FST09	127	**Reference Identification**	C	AN	1/30	Used	1
		User: Qualifier 'RE' is used to indicate the release and shipment number for the quantity. Release will appear first and will be separated by shipment number by use of the hypen (-). If used, this information must be returned to Eaton on all documents (both paper and EDI).					

Syntax Rules:

1. P0607 - If either FST06 or FST07 is present, then the other is required.
2. P0809 - If either FST08 or FST09 is present, then the other is required.

Semantics:

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.

Loop SHP

Pos: 060	Repeat: 25
Optional	
Loop: SHP	Elements: N/A

Purpose: To specify shipment and/or receipt information

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat
060	SHP	Shipped/Received Information	O	1	
070	REF	Reference Identification	O	5	

SHP Shipped/Received Information

Pos: 060	Max: 1
Detail - Optional	
Loop: SHP	Elements: 5

Purpose: To specify shipment and/or receipt information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
SHP01	673	**Quantity Qualifier**	O	ID	2/2	Used	1
		Code **Name** 01 Discrete Quantity 02 Cumulative Quantity					
SHP02	380	**Quantity**	C	R	1/15	Used	1
SHP03	374	**Date/Time Qualifier**	C	ID	3/3	Used	1
		Code **Name** 011 Shipped 050 Received 051 Cumulative Quantity Start					
SHP04	373	**Date**	C	DT	8/8	Used	1
SHP06	373	**Date**	O	DT	8/8	Used	1

Syntax Rules:

1. C0102 - If SHP01 is present, then SHP02 is required.
2. L030405 - If SHP03 is present, then at least one of SHP04 or SHP05 is required.
3. C0403 - If SHP04 is present, then SHP03 is required.
4. 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: 070	Max: 5
Detail - Optional	
Loop: SHP	Elements: 2

Purpose: To specify identifying information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	Must use	1
		Code **Name** SI Shipper's Identifying Number for Shipment (SID)					
REF02	127	**Reference Identification**	C	AN	1/30	Used	1

Syntax Rules:

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

Semantics:

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

CTT Transaction Totals

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

Purpose: To transmit a hash total for a specific element in the transaction set

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
CTT01	354	**Number of Line Items**	M	N0	1/6	Must use	1
CTT02	347	**Hash Total**	O	R	1/10	Used	1

Syntax Rules:

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

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)

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
SE01	96	**Number of Included Segments**	M	N0	1/10	Must use	1
SE02	329	**Transaction Set Control Number**	M	AN	4/9	Must use	1

Comments:

1. SE is the last segment of each transaction set.

Eaton Corporation
EDI Planning Forecast (830) sample

ST*830*53625

BFR*05**20001108-53625*DL*A*20001108*20010831*20001108

Schedule **20001108-53625**, dated **11/08/22** is a **replacement** to prior forecast documents and covers the period from **11/08/00** to **08/31/00**. Dates are **delivery** based and quantities are **actual**(discrete).

N1*SU**1*001687975

Supplier duns is **001687975**

N1*ST**1*956894069

Ship to Eaton plant duns of **956894069**

N1*SF**1*001687975

Ship from duns is **001687975**

LIN*11*BP*4303479*PO*1397

Requirements are from purchase order **1397**, line **11**, Eaton part **4303479**

UIT*PC

Unit of measure is **pieces**.

FST*200*C*D*20001108****RE*193-1

Forecasted need for **200** pieces to be delivered on **11/08/00**. Release **193**, shipment **1**.

SHP*02*0*051*20000101**20001108

Zero pieces have been **received** between **01/01/00** and **11/08/00**.

LIN*34*BP*16800*PO*1397

Requirement is from purchase order **1397**, line **34**, Eaton part **16800**

UIT*PC

Unit of measure is **pieces**.

FST*1*C*D*20001108****RE*192-1

Forecasted need is for **1** piece on **11/08/00**. Release is **192**, shipment is **1**.

FST*2*C*D*20001109****RE*192-2

Forecasted need is for **2** pieces on **11/09/00**. Release is **192**, shipment is **2**.

FST*1*C*D*20001110

Forecasted need is for **1** piece on **11/10/00**.

SHP*01*15*050*20000228

15 pieces of this part were most recently received on **2/28/00**.

SHP*02*70*051*20000101**20001108

Between **01/01/00** and **11/08/00**, a total of **70** pieces have been received.

CTT*2

SE*18*53625