# Introduction

This guideline provides a description and technical layout of the data segments used when creating 3M's EDI Planning Schedules with Release Capability (Forecast) (ASC X12 transaction set 830) sent to 3M's suppliers. This guideline includes the data segments and elements most commonly sent.

The ASC X12 version presented in this guideline is 004010. If you cannot receive Planning Schedules with Release Capability information in 004010, please consult your 3M EDI contact.

The majority of 3M's EDI Planning Schedule with Release Capability information will be sent to suppliers by 3M manufacturing facilities. There may be variations in the Planning Schedule sent to a supplier based on each manufacturing facility's requirements.

The purpose of this transaction is to communicate information to the supplier that will assist the supplier in providing complete shipments as required by 3M.

Some general comments are:

1. During implementation, a supplier receiving 3M's EDI Planning Schedule with Release Capability information will verify that the forecaster and the supplier have a common understanding of the meaning and use of the information being transmitted.

2. This transaction is used to share information and plans with a supplier in order to assist the supplier in providing 3M with needed supplies on a timely basis.

3. 3M's EDI Planning Schedule with Release Capability (Forecast) may be used in conjunction with the 852 Product Activity Data transaction set in order to communicate forecasts and inventory level information within an SMI (Supplier Managed Inventory) framework. In an SMI framework, the 856 Ship Notice/Manifest or an 855 Purchase Order Acknowledgement will be used by the supplier to communicate shipment information back to the manufacturing facility. In these more complex cases, additional documentation will be provided by 3M.

An example of a paper copy Planning Schedules with Release Capability and its ASC X12 interpretation can be found at the back of this guideline.

**Note: For illustration purposes only, all examples use an asterisk (*) as the data element separator and a caret (^) as the segment terminator. In actual practice, values must be chosen that do not conflict with the data.**

# 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:

| Page No. | Pos. No. | Seg. ID | Name | Req. Des. | Max.Use | Loop Repeat | Notes and Comments |
|---|---|---|---|---|---|---|---|
| 4 | 010 | ST | Transaction Set Header | M | 1 | | |
| 5 | 020 | BFR | Beginning Segment for Planning Schedule | M | 1 | | |
| 7 | 025 | XPO | Preassigned Purchase Order Numbers | O | >1 | | |
| Not Used | 040 | CUR | Currency | O | 1 | | |
| 8 | 050 | REF | Reference Identification | O | 12 | | |
| Not Used | 060 | PER | Administrative Communications Contact | O | 3 | | |
| Not Used | 070 | TAX | Tax Reference | O | 3 | | |
| Not Used | 080 | FOB | F.O.B. Related Instructions | O | 1 | | |
| Not Used | 090 | CTP | Pricing Information | O | 25 | | |
| Not Used | 100 | SAC | Service, Promotion, Allowance, or Charge Information | O | 25 | | |
| Not Used | 110 | CSH | Sales Requirements | O | 1 | | |
| Not Used | 120 | ITD | Terms of Sale/Deferred Terms of Sale | O | 2 | | |
| 9 | 130 | DTM | Date/Time Reference | O | 10 | | |
| Not Used | 140 | PID | Product/Item Description | O | 200 | | |
| Not Used | 150 | MEA | Measurements | O | 40 | | |
| Not Used | 160 | PWK | Paperwork | O | 25 | | |
| Not Used | 170 | PKG | Marking, Packaging, Loading | O | 25 | | |
| Not Used | 180 | TD1 | Carrier Details (Quantity and Weight) | O | 2 | | |
| Not Used | 190 | TD5 | Carrier Details (Routing Sequence/Transit Time) | O | 12 | | |
| Not Used | 200 | TD3 | Carrier Details (Equipment) | O | 12 | | |
| Not Used | 210 | TD4 | Carrier Details (Special Handling, or Hazardous Materials, or Both) | O | 5 | | |
| Not Used | 220 | MAN | Marks and Numbers | O | 10 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | LOOP ID - N1 | | | 200 | |
| 10 | 230 | N1 | Name | O | 1 | | |
| Not Used | 240 | N2 | Additional Name Information | O | 2 | | |
| Not Used | 250 | N3 | Address Information | O | 2 | | |
| Not Used | 260 | N4 | Geographic Location | O | 1 | | |
| Not Used | 270 | REF | Reference Identification | O | 12 | | |
| Not Used | 280 | PER | Administrative Communications Contact | O | 3 | | |
| Not Used | 290 | FOB | F.O.B. Related Instructions | O | 1 | | |
| | | | LOOP ID - LM | | | >1 | |
| Not Used | 300 | LM | Code Source Information | O | 1 | | |
| Not Used | 310 | LQ | Industry Code | M | 100 | | |

## Detail:

| Page No. | Pos. No. | Seg. ID | Name | Req. Des. | Max.Use | Loop Repeat | Notes and Comments |
|---|---|---|---|---|---|---|---|
| | | | LOOP ID - LIN | | | >1 | |
| 11 | 010 | LIN | Item Identification | M | 1 | | |
| 13 | 020 | UIT | Unit Detail | O | 1 | | |
| Not Used | 021 | DTM | Date/Time Reference | O | 10 | | |
| Not Used | 030 | CUR | Currency | O | 1 | | |
| Not Used | 060 | PO3 | Additional Item Detail | O | 25 | | |
| Not Used | 070 | CTP | Pricing Information | O | 25 | | |
| Not Used | 080 | PID | Product/Item Description | O | 1000 | | |
| Not Used | 090 | MEA | Measurements | O | 40 | | |
| Not Used | 100 | PWK | Paperwork | O | 25 | | |
| Not Used | 110 | PKG | Marking, Packaging, Loading | O | 25 | | |
| Not Used | 120 | PO4 | Item Physical Details | O | 1 | | |
| Not Used | 130 | PRS | Part Release Status | O | 1 | | |
| Not Used | 140 | REF | Reference Identification | O | 12 | | |
| 14 | 150 | PER | Administrative Communications Contact | O | 3 | | |
| Not Used | 170 | SAC | Service, Promotion, Allowance, or Charge Information | O | 25 | | |
| Not Used | 180 | ITD | Terms of Sale/Deferred Terms of Sale | O | 2 | | |
| Not Used | 190 | TAX | Tax Reference | O | 3 | | |
| Not Used | 200 | FOB | F.O.B. Related Instructions | O | 1 | | |
| Not Used | 210 | LDT | Lead Time | O | 12 | | |
| Not Used | 220 | QTY | Quantity | O | >1 | | n1 |
| Not Used | 230 | ATH | Resource Authorization | O | 20 | | |
| Not Used | 240 | TD1 | Carrier Details (Quantity and Weight) | O | 1 | | |
| Not Used | 250 | TD5 | Carrier Details (Routing Sequence/Transit Time) | O | 12 | | |
| Not Used | 260 | TD3 | Carrier Details (Equipment) | O | 12 | | |
| Not Used | 270 | TD4 | Carrier Details (Special Handling, or Hazardous Materials, or Both) | O | 5 | | |
| Not Used | 280 | MAN | Marks and Numbers | O | 10 | | |
| Not Used | 290 | DD | Demand Detail | O | 10 | | |
| | | | LOOP ID - SLN | | | 100 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Not Used | 300 | SLN | Subline Item Detail | O | 1 | | |
| Not Used | 310 | PID | Product/Item Description | O | 1000 | | |
| Not Used | 315 | NM1 | Individual or Organizational Name | O | 10 | | |
| | | | LOOP ID - N1 | | | 200 | |
| Not Used | 320 | N1 | Name | O | 1 | | |
| Not Used | 330 | N2 | Additional Name Information | O | 2 | | |
| Not Used | 340 | N3 | Address Information | O | 2 | | |
| Not Used | 350 | N4 | Geographic Location | O | 1 | | |
| Not Used | 360 | REF | Reference Identification | O | 12 | | |
| Not Used | 370 | PER | Administrative Communications Contact | O | 3 | | |
| Not Used | 380 | FOB | F.O.B. Related Instructions | O | 1 | | |
| | | | LOOP ID - LM | | | >1 | |
| Not Used | 390 | LM | Code Source Information | O | 1 | | |
| Not Used | 400 | LQ | Industry Code | M | 100 | | |
| | | | LOOP ID - FST | | | >1 | |
| 15 | 410 | FST | Forecast Schedule | O | 1 | | n2 |
| 17 | 415 | QTY | Quantity | O | >1 | | |
| Not Used | 420 | SDQ | Destination Quantity | O | 50 | | |
| | | | LOOP ID - LM | | | >1 | |
| Not Used | 430 | LM | Code Source Information | O | 1 | | |
| Not Used | 440 | LQ | Industry Code | M | 100 | | |
| | | | LOOP ID - SDP | | | 260 | |
| Not Used | 450 | SDP | Ship/Delivery Pattern | O | 1 | | |
| Not Used | 460 | FST | Forecast Schedule | O | 260 | | |
| | | | LOOP ID - SHP | | | 25 | |
| Not Used | 470 | SHP | Shipped/Received Information | O | 1 | | |
| Not Used | 480 | REF | Reference Identification | O | 5 | | |

## Summary:

| Page No. | Pos. No. | Seg. ID | Name | Req. Des. | Max.Use | Loop Repeat | Notes and Comments |
|---|---|---|---|---|---|---|---|
| 18 | 010 | CTT | Transaction Totals | O | 1 | | n3 |
| 19 | 020 | SE | Transaction Set Trailer | M | 1 | | |

## Transaction Set Notes

**1.** QTY is used to specify supplemental quantities relevant to the forecast function. However, QTY is not related to the actual forecast quantity in the FST segments.

**2.** 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.** 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:**
**Notes:** 3M Example(s): ST*830*200004275^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **ST01** | **143** | **Transaction Set Identifier Code**<br>Code uniquely identifying a Transaction Set<br>830 Planning Schedule with Release Capability | **M ID 3/3** |
| **Required** | **ST02** | **329** | **Transaction Set Control Number**<br>Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set<br>Sender-assigned sequential control number to match control number on SE segment. | **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:** 3M Example(s): BFR*00*990101**DL*A*19990101*19991231*20000103^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **BFR01** | **353** | **Transaction Set Purpose Code**<br>Code identifying purpose of transaction set<br>00 Original<br>05 Replace | **M ID 2/2** |
| **Required** | **BFR02** | **127** | **Reference Identification**<br>Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier<br>Forecast Start Date | **X AN 1/30** |
| **Required** | **BFR04** | **675** | **Schedule Type Qualifier**<br>Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast<br>BB Customer Production (Consumption) Based<br>DL Delivery Based<br>SH Shipment Based | **M ID 2/2** |
| **Required** | **BFR05** | **676** | **Schedule Quantity Qualifier**<br>Code identifying the type of quantities used when defining a schedule or forecast<br>A Actual Discrete Quantities | **M ID 1/1** |

| | | | | | |
|---|---|---|---|---|---|
| **Required** | **BFR06** | **373** | **Date** | **M** | **DT 8/8** |
| | | | Date expressed as CCYYMMDD | | |
| | | | Forecast Start Date | | |
| **Required** | **BFR07** | **373** | **Date** | **O** | **DT 8/8** |
| | | | Date expressed as CCYYMMDD | | |
| | | | Forecast End Date | | |
| **Required** | **BFR08** | **373** | **Date** | **M** | **DT 8/8** |
| | | | Date expressed as CCYYMMDD | | |
| | | | Date the forecast was created. | | |
| | **BFR09** | **373** | **Date** | **O** | **DT 8/8** |
| | | | Date expressed as CCYYMMDD | | |
| | | | Date the forecast was changed. | | |

**Segment:** **XPO** **Preassigned Purchase Order Numbers**
**Position:** 025
**Loop:**
**Level:** Heading
**Usage:** Optional
**Max Use:** >1
**Purpose:** To transmit preassigned purchase order numbers
**Syntax Notes:** **1** If either XPO03 or XPO04 is present, then the other is required.
**Semantic Notes:** **1** XPO01 is the preassigned purchase order number. If a range of purchase order numbers is to be transmitted, use XPO01 for the first number and XPO02 as the ending number.
**Comments:** **1** XPO03 and XPO04 specify the location to which the purchase order numbers apply.
**Notes:** 3M Comments: Used if the purchase order number applies to the whole forecast If the purchase order number applies to the line item, the purchase order number will be sent on the LIN segment.

3M Example(s): XPO*S999999^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **XPO01** | **324** | **Purchase Order Number** | **M AN 1/22** |
| | | | Identifying number for Purchase Order assigned by the orderer/purchaser | |

**Segment:** **REF** **Reference Identification**
**Position:** 050
**Loop:**
**Level:** Heading
**Usage:** Optional
**Max Use:** 12
**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:** 3M Example(s): REF*ZZ*I2 RHYTHM^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **REF01** | **128** | **Reference Identification Qualifier**<br>Code qualifying the Reference Identification<br>ZZ Mutually Defined | **M ID 2/3** |
| **Required** | **REF02** | **127** | **Reference Identification**<br>Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier | **X AN 1/30** |

**Segment:** **DTM** **Date/Time Reference**
**Position:** 130
**Loop:**
**Level:** Heading
**Usage:** Optional
**Max Use:** 10
**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:** 3M Example(s): DTM*346*19990101*0000^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **DTM01** | **374** | **Date/Time Qualifier**<br>Code specifying type of date or time, or both date and time<br>346 Plan Begin<br>Date on which the plan begins | **M ID 3/3** |
| **Required** | **DTM02** | **373** | **Date**<br>Date expressed as CCYYMMDD | **X DT 8/8** |
| **Required** | **DTM03** | **337** | **Time**<br>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 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:** 3M Comments: Required by 3M

3M Example(s):
N1*ST*3M HUTCHINSON*92*0150^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **N101** | **98** | **Entity Identifier Code**<br>Code identifying an organizational entity, a physical location, property or an individual<br>ST Ship To | **M ID 2/3** |
| **Required** | **N102** | **93** | **Name**<br>Free-form name<br>3M forecasting facility name | **X AN 1/60** |
| | **N103** | **66** | **Identification Code Qualifier**<br>Code designating the system/method of code structure used for Identification Code (67)<br>N104 will contain a four-character or eight-character 3M destination code. Upon request, suppliers are provided with a table of 3M destination codes.<br>92 Assigned by Buyer or Buyer's Agent | **X ID 1/2** |
| | **N104** | **67** | **Identification Code**<br>Code identifying a party or other code | **X AN 2/80** |

**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.
**Notes:** 3M Comments: UPC Number (element LIN05) will be sent when available.

3M Example(s):
LIN*1*BP*11001168001^
LIN*2*BP*26100032478*PO*T123456^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **LIN01** | **350** | **Assigned Identification**<br>Alphanumeric characters assigned for differentiation within a transaction set<br>Sequential number | **O AN 1/20** |
| **Required** | **LIN02** | **235** | **Product/Service ID Qualifier**<br>Code identifying the type/source of the descriptive number used in Product/Service ID (234)<br>LIN03 will contain 3M product ID without dashes.<br>BP Buyer's Part Number | **M ID 2/2** |
| **Required** | **LIN03** | **234** | **Product/Service ID**<br>Identifying number for a product or service | **M AN 1/48** |

| | | | | |
|---|---|---|---|---|
| **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)<br>PO Purchase Order Number | | |
| **LIN05** | **234** | **Product/Service ID** | **X** | **AN 1/48** |
| | | Identifying number for a product or service | | |

**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:**
**Notes:** 3M Example(s): UIT*LB^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **UIT01** | **C001** | **Composite Unit of Measure**<br>To identify a composite unit of measure (See Figures Appendix for examples of use) | **M** |
| **Required** | **C00101** | **355** | **Unit or Basis for Measurement Code**<br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken<br>3M uses many codes from the ASC X12 code list. | **M ID 2/2** |

**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:**
**Notes:** 3M Example(s): PER*PL*JANE DOE*TE*651/555-1234^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **PER01** | **366** | **Contact Function Code**<br>Code identifying the major duty or responsibility of the person or group named<br>PL Manufacturing Plant Contact | **M ID 2/2** |
| **Required** | **PER02** | **93** | **Name**<br>Free-form name | **O AN 1/60** |
| **Required** | **PER03** | **365** | **Communication Number Qualifier**<br>Code identifying the type of communication number<br>TE Telephone | **X ID 2/2** |
| **Required** | **PER04** | **364** | **Communication Number**<br>Complete communications number including country or area code when applicable | **X AN 1/80** |

**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:** 3M Comments: This number will be defined and understood by both 3M and the supplier.

3M Example(s): FST*19842*D*C*20000102*20000103^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **FST01** | **380** | **Quantity**<br>Numeric value of quantity<br>This number will be defined and understood by 3M and the supplier. | **M R 1/15** |
| **Required** | **FST02** | **680** | **Forecast Qualifier**<br>Code specifying the sender's confidence level of the forecast data or an action associated with a forecast<br>C Firm<br>D Planning | **M ID 1/1** |
| **Required** | **FST03** | **681** | **Forecast Timing Qualifier**<br>Code specifying interval grouping of the forecast<br>A Annually (Calendar Year)<br>C Daily<br>F Flexible Interval (from Date X through Date Y)<br>M Monthly Bucket (Calendar Months)<br>Q Quarterly (Calendar Quarters)<br>T Four week bucket (13 buckets per year)<br>W Weekly Bucket (Monday through Sunday) | **M ID 1/1** |
| **Required** | **FST04** | **373** | **Date** | **M DT 8/8** |

| | | | | |
|---|---|---|---|---|
| | | Date expressed as CCYYMMDD | | |
| | | Beginning forecast date - Beginning of a forecast timing period; week, month, or flexible period. | | |
| **FST05** | **373** | **Date** | **O** | **DT 8/8** |
| | | Date expressed as CCYYMMDD | | |
| | | Ending forecast - End of a flexible period. | | |
| **FST06** | **374** | **Date/Time Qualifier** | **X** | **ID 3/3** |
| | | Code specifying type of date or time, or both date and time<br>007 Effective | | |
| **FST07** | **337** | **Time** | **X** | **TM 4/8** |
| | | 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) | | |

**Segment:** **QTY** **Quantity**
**Position:** 415
**Loop:** FST Optional
**Level:** Detail
**Usage:** Optional
**Max Use:** >1
**Purpose:** To specify quantity information
**Syntax Notes:** **1** At least one of QTY02 or QTY04 is required.
**2** Only one of QTY02 or QTY04 may be present.
**Semantic Notes:** **1** QTY04 is used when the quantity is non-numeric.
**Comments:**
**Notes:** 3M Example(s): QTY*47*19842.000*LB^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **QTY01** | **673** | **Quantity Qualifier**<br>Code specifying the type of quantity<br>47 Primary Net Quantity<br>48 Secondary Net Quantity<br>99 Quantity Used | **M ID 2/2** |
| **Required** | **QTY02** | **380** | **Quantity**<br>Quantity of units used<br>Numeric value of quantity | **X R 1/15** |
| | **QTY03** | **C001** | **Composite Unit of Measure**<br>To identify a composite unit of measure (See Figures Appendix for examples of use) | **O** |
| **Required** | **C00101** | **355** | **Unit or Basis for Measurement Code**<br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken | **M ID 2/2** |

**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.
**Notes:** 3M Example(s): CTT*1^

**Data Element Summary**

| | Ref. Des. | Data Element | Name | Attributes |
|---|---|---|---|---|
| **Required** | **CTT01** | **354** | **Number of Line Items**<br>Total number of line items in the transaction set | **M N0 1/6** |

**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:** 3M Example(s): SE*32*200004275^

**Data Element Summary**

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

## Planning Schedule Example

This section contains an example to illustrate the use of transaction set 830.

**3M HUTCHINSON, #0150**
**ORIGINAL PLANNING SCHEDULE**

**START DATE:** 01/01/1999
**END DATE:** 12/31/1999
**CREATE DATE:** 01/03/2000

| Buyer's Part # | Planning Quantity | Beginning Date | End Date | Qty, on Hand | Starting Balance | Ending Balance |
|---|---|---|---|---|---|---|
| 11001168001 | 19842 | 1/2/2000 | 1/3/2000 | 6612 lbs | 19842 lbs | 13230 lbs |
| | 18405 | 1/3/2000 | 1/4/2000 | 13230 lbs | 18405 lbs | -1575 lbs |
| | 0 | 1/4/2000 | 1/5/2000 | 0 | -5175 | -5175 |
| | 3125 | 1/5/2000 | 1/6/2000 | 3125 | -5175 | -8300 |
| | 4231 | 1/6/2000 | 1/7/2000 | 4231 | -8300 | -12534 |
| | 24502 | 1/7/2000 | 1/8/2000 | 24502 | -12531 | -37033 |

| ASC X12 FORMAT | INTREPRETATION |
|---|---|
| **ST*830*200004275^** | ASC X12 Transaction Set: 830<br>Transaction Set Control Number: 200004275 |
| **BFR*00*990101**DL*A*19990101 *19991231*20000103^** | Original Planning Schedule ID: 990101<br>(Forecast Start Date is 01/01/1999)<br>Schedule Type Qualifier: DL = delivery based<br>(Consumption) Based Quantity Qualifier:<br>A = actual discrete quantities<br>Forecast Start Date: 01/01/1999<br>Forecast End Date: 12/31/1999<br>Forecast Generated Date: 01/03/2000 |
| **REF*ZZ*I2 RYTHYM^** | Plant Type of Forecasting Tool: I2 Rhythm |
| **N1*ST*3M HUTCHINSON*92*0150^** | Ship To: 3M Hutchinson<br>3M Facility Code: 0150 |
| **LIN*1*BP*11001168001^** | Line Item Number: 1<br>Buyer's Part Number: 11001168001 |
| **UIT*LB^** | Unit of Measure Code: LB = pound |
| **FST*19842*D*C*20000102*20000103^** | Daily Planning Quantity: 19842<br>Beginning Date: 01/02/2000<br>Ending Date: 01/03/2000 |
| **QTY*47*19842.0000*LB^** | Starting Balance: 19842 pounds |
| **QTY*99*6612.00000*LB^** | Quantity on Hand: 6612 pounds |
| **QTY*48*13230.0000*LB^** | Ending Balance: 13230 pounds |
| **FST*18405*D*C*20000101*20000104^** | Daily Planning Quantity: 18405<br>Beginning Date : 01/01/2000<br>Ending Date: 01/04/2000 |
| **QTY*99*18405.0000*LB^** | Quantity on Hand: 18405 pounds |
| **QTY*47*13230.0000*LB^** | Starting Balance: 13230 pounds |
| **QTY*48*-5175.00000*LB^** | Ending Balance: -1575 pounds |
| **FST*0*D*C*20000104*20000105^** | Daily Planning Quantity: 0<br>Beginning Date: 01/04/2000<br>Ending Date: 01/05/2000 |
| **QTY*99*0*LB^** | Quantity on Hand: 0 pounds |
| **QTY*47*-5175.00000*LB^** | Starting Balance: -5175 |
| **QTY*48*-5175.00000*LB** | Ending Balance: -5175 |

| | |
|---|---|
| **FST*3125*D*C*20000105*20000106^** | Daily Planning Quantity: 3125<br>Beginning Date: 01/05/2000<br>Ending Date: 01/06/2000 |
| **QTY*99*3125.00000*LB^** | Quantity on Hand: 3125 |
| **QTY*47*-5175.00000*LB^** | Starting Balance: -5175 |
| **QTY*48*-8300.00000*LB^** | Ending Balance: -8300 |
| **FST*4231*D*C*20000106*20000107^** | Daily Planning Quantity: 4231<br>Beginning Date: 01/06/2000<br>Ending Date: 01/07/2000 |
| **QTY*99*4231.00000*LB^** | Quantity on Hand: 4231 |
| **QTY*47*-8300.00000*LB^** | Starting Balance: -8300 |
| **QTY*48*-12534.0000*LB^** | Ending Balance: -12534 |
| **FST*24502*D*C*20000107*20000108^** | Daily Planning Quantity: 24502<br>Beginning Date: 01/07/2000<br>Ending Date: 01/08/2000 |
| **QTY*99*24502.0000*LB^** | Quantity on Hand: 24502 |
| **QTY*47*-12531.0000*LB^** | Starting Balance: -12531 |
| **QTY*48*-37033.0000*LB^** | Ending Balance: -37033 |
| **CTT*1^** | Number of Line Items: 1 |
| **SE*32*200004275** | Number of Segments: 32<br>Transaction Set Control Number: 200004275 |

**NOTE: Sample planning schedule contains fictitious data.**