



November 14, 2003

EDI Guidelines

for

Planning Schedule (830) v. 4010

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830

Planning Schedule with Release Capability

Functional Group=**PS**

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.

Not Defined:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Notes</u> | <u>Usage</u> |
|------------|-----------|----------------------------|------------|----------------|---------------|--------------|--------------|
| | ISA | Interchange Control Header | M | 1 | | | Must use |
| | GS | Functional Group Header | M | 1 | | | Must use |

Heading:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Notes</u> | <u>Usage</u> |
|------------|-----------|---|------------|----------------|---------------|--------------|--------------|
| 010 | ST | Transaction Set Header | M | 1 | | | Must use |
| 020 | BFR | Beginning Segment for Planning Schedule | M | 1 | | | Must use |

| <u>LOOP ID - N1</u> | | | | <u>200</u> | | |
|---------------------|----|-----------------------------|---|------------|--|------|
| 230 | N1 | Name | O | 1 | | Used |
| 240 | N2 | Additional Name Information | O | 2 | | Used |
| 250 | N3 | Address Information | O | 2 | | Used |
| 260 | N4 | Geographic Location | O | 1 | | Used |

Detail:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Notes</u> | <u>Usage</u> |
|----------------------|-----------|---------------------------------------|------------|----------------|---------------|--------------|--------------|
| <u>LOOP ID - LIN</u> | | | | | <u>>1</u> | | |
| 010 | LIN | Item Identification | M | 1 | | | Must use |
| 020 | UIT | Unit Detail | O | 1 | | | Used |
| 140 | REF | Reference Identification | O | 12 | | | Used |
| 150 | PER | Administrative Communications Contact | O | 3 | | | Used |
| 230 | ATH | Resource Authorization | O | 20 | | | Used |
| <u>LOOP ID - SDP</u> | | | | | <u>260</u> | | |
| 450 | SDP | Ship/Delivery Pattern | O | 1 | | | Used |
| 460 | FST | Forecast Schedule | O | 260 | | | Used |
| <u>LOOP ID - SHP</u> | | | | | <u>25</u> | | |
| 470 | SHP | Shipped/Received Information | O | 1 | | | Used |
| 480 | REF | Reference Identification | O | 5 | | | Used |

Summary:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Notes</u> | <u>Usage</u> |
|------------|-----------|-------------------------|------------|----------------|---------------|--------------|--------------|
| 010 | CTT | Transaction Totals | O | 1 | | N3/010 | Used |
| 020 | SE | Transaction Set Trailer | M | 1 | | | Must use |

Not Defined:

WEB830.ecs

2

For internal use only

10/10/03

Planning Schedule with Release Capability - 830

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Notes</u> | <u>Usage</u> |
|------------|-----------|-----------------------------|------------|----------------|---------------|--------------|--------------|
| | GE | Functional Group Trailer | M | 1 | | | Must use |
| | IEA | Interchange Control Trailer | M | 1 | | | Must use |

Notes:

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.

ISA Interchange Control Header

| | |
|-------------------------|--------------|
| Pos: | Max: 1 |
| Not Defined - Mandatory | |
| Loop: N/A | Elements: 16 |

User Option (Usage): Must use

To start and identify an interchange of zero or more functional groups and interchange-related control segments

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| ISA01 | I01 | Authorization Information Qualifier Description: Code identifying the type of information in the Authorization Information All valid standard codes are used. | M | ID | 2/2 | Must use |
| ISA02 | I02 | Authorization Information Description: Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01) | M | AN | 10/10 | Must use |
| ISA03 | I03 | Security Information Qualifier Description: Code identifying the type of information in the Security Information All valid standard codes are used. | M | ID | 2/2 | Must use |
| ISA04 | I04 | Security Information Description: This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03) | M | AN | 10/10 | Must use |
| ISA05 | I05 | Interchange ID Qualifier Description: Code indicating the system/method of code structure used to designate the sender or receiver ID element being qualified All valid standard codes are used. | M | ID | 2/2 | Must use |
| ISA06 | I06 | Interchange Sender ID Description: Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element | M | AN | 15/15 | Must use |
| ISA07 | I05 | Interchange ID Qualifier Description: Code indicating the system/method of code structure used to designate the sender or receiver ID element being qualified All valid standard codes are used. | M | ID | 2/2 | Must use |
| ISA08 | I07 | Interchange Receiver ID Description: Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them | M | AN | 15/15 | Must use |
| ISA09 | I08 | Interchange Date Description: Date of the interchange | M | DT | 6/6 | Must use |
| ISA10 | I09 | Interchange Time Description: Time of the interchange | M | TM | 4/4 | Must use |
| ISA11 | I65 | Repetition Separator Description: Type is not applicable; the repetition separator is a delimiter and not a data element; this field provides the delimiter used to separate repeated occurrences of a simple data element or a composite data | M | | 1/1 | Must use |

| | | | | | | |
|-------|-----|--|---|----|-----|----------|
| | | structure; this value must be different than the data element separator, component element separator, and the segment terminator | | | | |
| ISA12 | I11 | Interchange Control Version Number Description: Code specifying the version number of the interchange control segments All valid standard codes are used. | M | ID | 5/5 | Must use |
| ISA13 | I12 | Interchange Control Number Description: A control number assigned by the interchange sender | M | N0 | 9/9 | Must use |
| ISA14 | I13 | Acknowledgment Requested Description: Code indicating sender's request for an interchange acknowledgment All valid standard codes are used. | M | ID | 1/1 | Must use |
| ISA15 | I14 | Usage Indicator Description: Code indicating whether data enclosed by this interchange envelope is test, production or information All valid standard codes are used. | M | ID | 1/1 | Must use |
| ISA16 | I15 | Component Element Separator Description: Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator | M | | 1/1 | Must use |

GS Functional Group Header

| | |
|-------------------------|-------------|
| Pos: | Max: 1 |
| Not Defined - Mandatory | |
| Loop: N/A | Elements: 8 |

User Option (Usage): Must use

To indicate the beginning of a functional group and to provide control information

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| GS01 | 479 | Functional Identifier Code Description: Code identifying a group of application related transaction sets All valid standard codes are used. | M | ID | 2/2 | Must use |
| GS02 | 142 | Application Sender's Code Description: Code identifying party sending transmission; codes agreed to by trading partners | M | AN | 2/15 | Must use |
| GS03 | 124 | Application Receiver's Code Description: Code identifying party receiving transmission; codes agreed to by trading partners | M | AN | 2/15 | Must use |
| GS04 | 373 | Date Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year | M | DT | 8/8 | Must use |
| GS05 | 337 | Time Description: 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) | M | TM | 4/8 | Must use |
| GS06 | 28 | Group Control Number Description: Assigned number originated and maintained by the sender | M | N0 | 1/9 | Must use |
| GS07 | 455 | Responsible Agency Code Description: Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480 All valid standard codes are used. | M | ID | 1/2 | Must use |
| GS08 | 480 | Version / Release / Industry Identifier Code Description: Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed All valid standard codes are used. | M | AN | 1/12 | Must use |

Semantics:

- GS04 is the group date.
- GS05 is the group time.
- The data interchange control number GS06 in this header must be identical to the same data element in the associated functional group trailer, GE02.

Comments:

1. A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.

ST Transaction Set Header

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

User Option (Usage): Must use

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

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| ST01 | 143 | Transaction Set Identifier Code Description: Code uniquely identifying a Transaction Set All valid standard codes are used. | M | ID | 3/3 | Must use |
| ST02 | 329 | Transaction Set Control Number Description: 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 | Must use |

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 |

User Option (Usage): Must use

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

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| BFR01 | 353 | Transaction Set Purpose Code Description: Code identifying purpose of transaction set | M | ID | 2/2 | Must use |
| | | Code Name | | | | |
| | | 04 Change | | | | |
| | | 14 Advance Notification | | | | |
| BFR02 | 127 | Reference Identification Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier | X | AN | 1/30 | Used |
| BFR03 | 328 | Release Number Description: Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction | X | AN | 1/30 | Used |
| BFR04 | 675 | Schedule Type Qualifier Description: Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast | M | ID | 2/2 | Must use |
| | | Code Name | | | | |
| | | DL Delivery Based | | | | |
| | | ZZ Mutually Defined | | | | |
| BFR05 | 676 | Schedule Quantity Qualifier Description: Code identifying the type of quantities used when defining a schedule or forecast | M | ID | 1/1 | Must use |
| | | Code Name | | | | |
| | | A Actual Discrete Quantities | | | | |
| BFR06 | 373 | Date Description: Date expressed as CCYYMMDD | M | DT | 8/8 | Must use |
| BFR07 | 373 | Date Description: Date expressed as CCYYMMDD | O | DT | 8/8 | Used |
| BFR08 | 373 | Date Description: Date expressed as CCYYMMDD | M | DT | 8/8 | Must use |

Syntax:

1. R0203 - At least one of BFR02,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.)

Loop N1

| | |
|----------|---------------|
| Pos: 230 | Repeat: 200 |
| Optional | |
| Loop: N1 | Elements: N/A |

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

Loop Summary:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Usage</u> |
|------------|-----------|-----------------------------|------------|----------------|---------------|--------------|
| 230 | N1 | Name | O | 1 | | Used |
| 240 | N2 | Additional Name Information | O | 2 | | Used |
| 250 | N3 | Address Information | O | 2 | | Used |
| 260 | N4 | Geographic Location | O | 1 | | Used |

N1

Name

| | |
|--------------------|-------------|
| Pos: 230 | Max: 1 |
| Heading - Optional | |
| Loop: N1 | Elements: 4 |

User Option (Usage): Used

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

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| N101 | 98 | Entity Identifier Code Description: Code identifying an organizational entity, a physical location, property or an individual | M | ID | 2/3 | Must use |
| | | <u>Code</u> <u>Name</u> | | | | |
| | | MA Party for whom Item is Ultimately Intended | | | | |
| | | SF Ship From | | | | |
| | | ST Ship To | | | | |
| | | SU Supplier/Manufacturer | | | | |
| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
| N102 | 93 | Name Description: Free-form name | X | AN | 1/60 | Used |
| N103 | 66 | Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67) | X | ID | 1/2 | Used |
| | | <u>Code</u> <u>Name</u> | | | | |
| | | 1 D-U-N-S Number, Dun & Bradstreet | | | | |
| | | 92 Assigned by Buyer or Buyer's Agent | | | | |
| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
| N104 | 67 | Identification Code Description: Code identifying a party or other code | X | AN | 2/80 | Used |

Syntax:

1. R0203 - At least one of N102,N103 is required
2. P0304 - If either N103,N104 is present, then all are 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.

N2

Additional Name Information

| | |
|--------------------|-------------|
| Pos: 240 | Max: 2 |
| Heading - Optional | |
| Loop: N1 | Elements: 2 |

User Option (Usage): Used

To specify additional names or those longer than 35 characters in length

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| N201 | 93 | Name Description: Free-form name | M | AN | 1/60 | Must use |
| N202 | 93 | Name Description: Free-form name | O | AN | 1/60 | Used |

N3 Address Information

| | |
|--------------------|-------------|
| Pos: 250 | Max: 2 |
| Heading - Optional | |
| Loop: N1 | Elements: 2 |

User Option (Usage): Used

To specify the location of the named party

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| N301 | 166 | Address Information Description: Address information | M | AN | 1/55 | Must use |
| N302 | 166 | Address Information Description: Address information | O | AN | 1/55 | Used |

N4 Geographic Location

| | |
|--------------------|-------------|
| Pos: 260 | Max: 1 |
| Heading - Optional | |
| Loop: N1 | Elements: 4 |

User Option (Usage): Used

To specify the geographic place of the named party

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| N401 | 19 | City Name Description: Free-form text for city name | O | AN | 2/30 | Used |
| N402 | 156 | State or Province Code Description: Code (Standard State/Province) as defined by appropriate government agency | O | ID | 2/2 | Used |
| N403 | 116 | Postal Code Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States) | O | ID | 3/15 | Used |
| N404 | 26 | Country Code Description: Code identifying the country | O | ID | 2/3 | Used |

Syntax:

1. C0605 - If N406 is present, then all of N405 are required

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.

Loop LIN

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

To specify basic item identification data

Loop Summary:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Usage</u> |
|------------|-----------|---------------------------------------|------------|----------------|---------------|--------------|
| 010 | LIN | Item Identification | M | 1 | | Must use |
| 020 | UIT | Unit Detail | O | 1 | | Used |
| 140 | REF | Reference Identification | O | 12 | | Used |
| 150 | PER | Administrative Communications Contact | O | 3 | | Used |
| 230 | ATH | Resource Authorization | O | 20 | | Used |
| 450 | | Loop SDP | O | | 260 | Used |
| 470 | | Loop SHP | O | | 25 | Used |

LIN Item Identification

| | |
|--------------------|-------------|
| Pos: 010 | Max: 1 |
| Detail - Mandatory | |
| Loop: LIN | Elements: 5 |

User Option (Usage): Must use

To specify basic item identification data

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> | | | | | | | | |
|-------------|--------------------------|---|-------------|-------------|----------------|---------------------|----|--------------------------|----|-----------------------|---|----|-----|----------|
| LIN01 | 350 | Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set | O | AN | 1/20 | Used | | | | | | | | |
| LIN02 | 235 | Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <table border="0"> <tr> <td><u>Code</u></td> <td><u>Name</u></td> </tr> <tr> <td>BP</td> <td>Buyer's Part Number</td> </tr> <tr> <td>EC</td> <td>Engineering Change Level</td> </tr> <tr> <td>PO</td> <td>Purchase Order Number</td> </tr> </table> | <u>Code</u> | <u>Name</u> | BP | Buyer's Part Number | EC | Engineering Change Level | PO | Purchase Order Number | M | ID | 2/2 | Must use |
| <u>Code</u> | <u>Name</u> | | | | | | | | | | | | | |
| BP | Buyer's Part Number | | | | | | | | | | | | | |
| EC | Engineering Change Level | | | | | | | | | | | | | |
| PO | Purchase Order Number | | | | | | | | | | | | | |
| LIN03 | 234 | Product/Service ID Description: Identifying number for a product or service | M | AN | 1/48 | Must use | | | | | | | | |
| LIN04 | 235 | Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) | X | ID | 2/2 | Used | | | | | | | | |
| LIN05 | 234 | Product/Service ID Description: Identifying number for a product or service | X | AN | 1/48 | Used | | | | | | | | |

Syntax:

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

User Option (Usage): Used

To specify item unit data

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> | | | | | | |
|-------------|-------------|--|-------------|-------------|----------------|--------------|----|-------|--|--|--|--|
| UIT01 | C001 | Composite Unit of Measure Description: To identify a composite unit of measure(See Figures Appendix for examples of use) | M | Comp | | Must use | | | | | | |
| | 355 | Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken | M | ID | 2/2 | Must use | | | | | | |
| | | <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>LB</td> <td>Pound</td> </tr> <tr> <td>PC</td> <td>Piece</td> </tr> </tbody> </table> | <u>Code</u> | <u>Name</u> | LB | Pound | PC | Piece | | | | |
| <u>Code</u> | <u>Name</u> | | | | | | | | | | | |
| LB | Pound | | | | | | | | | | | |
| PC | Piece | | | | | | | | | | | |

Syntax:

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

REF Reference Identification

| | |
|-------------------|-------------|
| Pos: 140 | Max: 12 |
| Detail - Optional | |
| Loop: LIN | Elements: 2 |

User Option (Usage): Used

To specify identifying information

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| REF01 | 128 | Reference Identification Qualifier | M | ID | 2/3 | Must use |

Description: Code qualifying the Reference Identification

| <u>Code</u> | <u>Name</u> |
|-------------|---|
| SI | Shipper's Identifying Number for Shipment (SID) |

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---------------------------------|------------|-------------|----------------|--------------|
| REF02 | 127 | Reference Identification | X | AN | 1/30 | Used |

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Syntax:

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

Semantics:

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

PER

Administrative Communications Contact

| | |
|-------------------|-------------|
| Pos: 150 | Max: 3 |
| Detail - Optional | |
| Loop: LIN | Elements: 4 |

User Option (Usage): Used

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

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| PER01 | 366 | Contact Function Code Description: Code identifying the major duty or responsibility of the person or group named | M | ID | 2/2 | Must use |
| | | Code Name | | | | |
| | | BD Buyer Name or Department | | | | |
| | | EX Expeditor | | | | |
| PER02 | 93 | Name Description: Free-form name | O | AN | 1/60 | Used |
| PER03 | 365 | Communication Number Qualifier Description: Code identifying the type of communication number | X | ID | 2/2 | Used |
| | | Code Name | | | | |
| | | TE Telephone | | | | |
| PER04 | 364 | Communication Number Description: Complete communications number including country or area code when applicable | X | AN | 1/80 | Used |

Syntax:

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

ATH Resource Authorization

| | |
|-------------------|-------------|
| Pos: 230 | Max: 20 |
| Detail - Optional | |
| Loop: LIN | Elements: 4 |

User Option (Usage): Used

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

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| ATH01 | 672 | Resource Authorization Code Description: Code identifying the resource which the buyer is authorizing the seller to commit to | M | ID | 2/2 | Must use |
| | | Code Name | | | | |
| | | FI Finished (Labor, Material, and Overhead/Burden) | | | | |
| | | MT Material | | | | |
| | | PQ Cumulative Quantity Required Prior to First Schedule Period | | | | |
| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
| ATH02 | 373 | Date Description: Date expressed as CCYYMMDD | X | DT | 8/8 | Used |
| ATH03 | 380 | Quantity Description: Numeric value of quantity | X | R | 1/15 | Used |
| ATH04 | 380 | Quantity Description: Numeric value of quantity | O | R | 1/15 | Used |

Syntax:

1. R0203 - At least one of ATH02,ATH03 is required
2. C0305 - If ATH03 is present, then all of ATH05 are required
3. C0405 - If ATH04 is present, then all of ATH05 are 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 SDP

| | |
|-----------|---------------|
| Pos: 450 | Repeat: 260 |
| Optional | |
| Loop: SDP | Elements: N/A |

To identify specific ship/delivery requirements

Loop Summary:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Usage</u> |
|------------|-----------|-----------------------|------------|----------------|---------------|--------------|
| 450 | SDP | Ship/Delivery Pattern | O | 1 | | Used |
| 460 | FST | Forecast Schedule | O | 260 | | Used |

SDP Ship/Delivery Pattern

| | |
|-------------------|-------------|
| Pos: 450 | Max: 1 |
| Detail - Optional | |
| Loop: SDP | Elements: 2 |

User Option (Usage): Used

To identify specific ship/delivery requirements

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| SDP01 | 678 | Ship/Delivery or Calendar Pattern Code Description: Code which specifies the routine shipments, deliveries, or calendar pattern | M | ID | 1/2 | Must use |

| <u>Code</u> | <u>Name</u> |
|-------------|---|
| 1 | 1st Week of the Month |
| 6 | 1st & 3rd Weeks of the Month |
| A | Monday through Friday |
| Y | None (Also Used to Cancel or Override a Previous Pattern) |

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| SDP02 | 679 | Ship/Delivery Pattern Time Code Description: Code which specifies the time for routine shipments or deliveries | M | ID | 1/1 | Must use |

| <u>Code</u> | <u>Name</u> |
|-------------|---|
| A | 1st Shift (Normal Working Hours) |
| G | Any Shift |
| Y | None (Also Used to Cancel or Override a Previous Pattern) |

Comments:

- The intent of this segment is to define the routine ship or delivery patterns, as required, when order quantities are in "buckets", such as weekly, monthly. Ship/delivery patterns eliminate the need to transmit discrete quantities and dates for each required shipment or delivery. It is assumed that a "bucketed" quantity is to be divided equally by the ship/delivery pattern. For example, a weekly quantity of 100 with a delivery pattern of Monday and Wednesday would result in 50 to be delivered on Monday and 50 to be delivered on Wednesday.

FST Forecast Schedule

| | |
|-------------------|-------------|
| Pos: 460 | Max: 260 |
| Detail - Optional | |
| Loop: SDP | Elements: 4 |

User Option (Usage): Used

To specify the forecasted dates and quantities

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| FST01 | 380 | Quantity Description: Numeric value of quantity | M | R | 1/15 | Must use |
| FST02 | 680 | Forecast Qualifier Description: Code specifying the sender's confidence level of the forecast data or an action associated with a forecast | M | ID | 1/1 | Must use |
| | | <u>Code</u> <u>Name</u> D Planning | | | | |
| FST03 | 681 | Forecast Timing Qualifier Description: Code specifying interval grouping of the forecast | M | ID | 1/1 | Must use |
| | | <u>Code</u> <u>Name</u> D Discrete M Monthly Bucket (Calendar Months) W Weekly Bucket (Monday through Sunday) | | | | |
| FST04 | 373 | Date Description: Date expressed as CCYYMMDD | M | DT | 8/8 | Must use |

Syntax:

1. P0607 - If either FST06,FST07 is present, then all are required
2. P0809 - If either FST08,FST09 is present, then all are 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: 470 | Repeat: 25 |
| Optional | |
| Loop: SHP | Elements: N/A |

To specify shipment and/or receipt information

Loop Summary:

| <u>Pos</u> | <u>Id</u> | <u>Segment Name</u> | <u>Req</u> | <u>Max Use</u> | <u>Repeat</u> | <u>Usage</u> |
|------------|-----------|------------------------------|------------|----------------|---------------|--------------|
| 470 | SHP | Shipped/Received Information | O | 1 | | Used |
| 480 | REF | Reference Identification | O | 5 | | Used |

SHP Shipped/Received Information

Pos: 470 Max: 1
 Detail - Optional
 Loop: SHP Elements: 4

User Option (Usage): Used

To specify shipment and/or receipt information

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| SHP01 | 673 | Quantity Qualifier Description: Code specifying the type of quantity | O | ID | 2/2 | Used |
| | | Code Name | | | | |
| | | 01 Discrete Quantity | | | | |
| | | 02 Cumulative Quantity | | | | |
| | | 64 Past Due Quantity | | | | |
| SHP02 | 380 | Quantity Description: Numeric value of quantity | X | R | 1/15 | Used |
| SHP03 | 374 | Date/Time Qualifier Description: Code specifying type of date or time, or both date and time | X | ID | 3/3 | Used |
| | | Code Name | | | | |
| | | 011 Shipped | | | | |
| | | 051 Cumulative Quantity Start | | | | |
| SHP04 | 373 | Date Description: Date expressed as CCYYMMDD | X | DT | 8/8 | Used |

Syntax:

1. C0102 - If SHP01 is present, then all of SHP02 are required
2. L030405 - If SHP03 is present, then at least one of SHP04, SHP05 is required
3. C0403 - If SHP04 is present, then all of SHP03 are required
4. C0503 - If SHP05 is present, then all of SHP03 are 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: 480 | Max: 5 |
| Detail - Optional | |
| Loop: SHP | Elements: 2 |

User Option (Usage): Used

To specify identifying information

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| REF01 | 128 | Reference Identification Qualifier Description: Code qualifying the Reference Identification | M | ID | 2/3 | Must use |

| <u>Code</u> | <u>Name</u> |
|-------------|---|
| SI | Shipper's Identifying Number for Shipment (SID) |

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| REF02 | 127 | Reference Identification Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier | X | AN | 1/30 | Used |

Syntax:

1. R0203 - At least one of REF02,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 |

User Option (Usage): Used

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

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|---|------------|-------------|----------------|--------------|
| CTT01 | 354 | Number of Line Items Description: Total number of line items in the transaction set | M | N0 | 1/6 | Must use |
| CTT02 | 347 | Hash Total Description: 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 | Used |

Syntax:

1. P0304 - If either CTT03,CTT04 is present, then all are required
2. P0506 - If either CTT05,CTT06 is present, then all are 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 |

User Option (Usage): Must use

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:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| SE01 | 96 | Number of Included Segments Description: Total number of segments included in a transaction set including ST and SE segments | M | NO | 1/10 | Must use |
| SE02 | 329 | Transaction Set Control Number Description: 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 | Must use |

Comments:

- SE is the last segment of each transaction set.

GE Functional Group Trailer

| | |
|-------------------------|-------------|
| Pos: | Max: 1 |
| Not Defined - Mandatory | |
| Loop: N/A | Elements: 2 |

User Option (Usage): Must use

To indicate the end of a functional group and to provide control information

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| GE01 | 97 | Number of Transaction Sets Included Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element | M | N0 | 1/6 | Must use |
| GE02 | 28 | Group Control Number Description: Assigned number originated and maintained by the sender | M | N0 | 1/9 | Must use |

Semantics:

1. The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

Comments:

1. The use of identical data interchange control numbers in the associated functional group header and trailer is designed to maximize functional group integrity. The control number is the same as that used in the corresponding header.

IEA Interchange Control Trailer

| | |
|-------------------------|-------------|
| Pos: | Max: 1 |
| Not Defined - Mandatory | |
| Loop: N/A | Elements: 2 |

User Option (Usage): Must use

To define the end of an interchange of zero or more functional groups and interchange-related control segments

Element Summary:

| <u>Ref</u> | <u>Id</u> | <u>Element Name</u> | <u>Req</u> | <u>Type</u> | <u>Min/Max</u> | <u>Usage</u> |
|------------|-----------|--|------------|-------------|----------------|--------------|
| IEA01 | I16 | Number of Included Functional Groups Description: A count of the number of functional groups included in an interchange | M | N0 | 1/5 | Must use |
| IEA02 | I12 | Interchange Control Number Description: A control number assigned by the interchange sender | M | N0 | 9/9 | Must use |

SAMPLE DATA FILE

```

ISA*00*                *00*                *12*3333333333      *01*006957724
*031008*1025*U*00401*000000070*0*P*~^
GS*PS*3333333333*006957724*20031008*1025*70*X*004010^
ST*830*700001^
BFR*05**031005121*DL*A*20031005*20041005*20031005^
N1*SU**1*006957724^
N1*ST**1*3333333333^
LIN*1*BP*246411140000*PO*34903000^
UIT*LB^
ATH*MT*20040105*39621**20020103^
ATH*PQ*20031007*34555**20020103^
FST*471*D*W*20031013^
FST*543*D*W*20031020^
FST*506*D*W*20031027^
FST*666*D*W*20031103^
FST*350*D*W*20031110^
FST*139*D*W*20031117^
SHP*01*507*011*20030929^
SHP*02*34555^
SHP*64*0^
REF*SI*4G9215^
LIN*2*BP*246421330000*PO*34903000^
UIT*LB^
ATH*MT*20040105*47780**20020103^
ATH*PQ*20031007*41317**20020103^
FST*513*D*W*20031013^
FST*659*D*W*20031020^
FST*612*D*W*20031027^
FST*854*D*W*20031103^
FST*490*D*W*20031110^
FST*164*D*W*20031117^
FST*642*D*W*20031124^
FST*211*D*W*20031201^
SHP*01*991*011*20030929^
SHP*02*41317^
SHP*64*0^
REF*SI*4G9216^
CTT*2^
SE*44*700001^
GE*1*70^
IEA*1*000000070^

```