# Boscov's Department Stores 

# Electronic Data Interchange <br> 856 - Ship Notice/Manifest <br> (VICS Version - 4010) 

February 2001

Powered By:
@RS
Outsourcing

## Purpose

This document provides detailed guidelines and conventions for implementing electronic ship notice/manifests with Boscov's Department Stores. Our 856 Ship Notice Manifest, as detailed in this document, will provide you with all of the information necessary to fill our requirements.

These guidelines comply with published VICS standards for EDI version 4010 for all data elements and segments.
Mandatory segments and elements are always required on every document. Optional segments and elements that are required by Boscov's Department Stores are marked as "Must Use". Segment usage is marked at the top of each page under Usage. Element usage is marked in the far-left column beside each element. If the column is blank, the element is optional. Information in the Attributes column is from the VICS standards and is provided for reference only. Trading Partners must adhere to our requirements as indicated by "Must Use".

## Business Rules

## Contacts

Transaction Testing: QRS Corporation 1-800-872-8255 Select Option 2, Option 2 again, then Option 1.
Production Support: QRS Corporation 1-800-872-8255 Select Option 2, Option 1, then Option 1 again.
Boscov's Department Stores:

## Communication IDs

## Testing

S/R ID:
Account/User ID:
VAN:

## Production

S/R ID: 01/014492501
Account/User ID: QRS4/ELINKP
VAN: AT\&T Global Network Services

## Delimiters

Element Separator - "*"
(HEX "2A" in ASCII) (HEX "5C" in EBCDIC)
Component (Sub Element) Separator - ">"
(HEX "3E" in ASCII) (HEX "6E" in EBCDIC)
Segment Terminator - "~"
(HEX "7E" in ASCII) (HEX "A1" in EBCDIC)

## Need an EDI Solution?

We have selected QRS Corporation to administer our EDI operations and to enable our trading partners. For those trading partners who do not trade documents electronically, QRS offers a number of electronic commerce solutions to assist you.

For Service Bureau, call 1-800-872-8255. Select Option 2, then Option 3.
For all other solutions, call 1-800-872-8255. Select Option 1, then Option 4.

# Boscov's Department Stores 856 Ship Notice/Manifest 

Functional Group ID=SH

## Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Ship Notice/Manifest Transaction Set (856) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment. The transaction set enables the sender to describe the contents and configuration of a shipment in various levels of detail and provides an ordered flexibility to convey information. The sender of this transaction is the organization responsible for detailing and communicating the contents of a shipment, or shipments, to one or more receivers of the transaction set. The receiver of this transaction set can be any organization having an interest in the contents of a shipment or information about the contents of a shipment.

## Envelope:

| Page <br> No. | Pos. <br> No. | Seg. <br> ID | Name | Req. <br> Des. | Max.Use | Loop <br> Repeat | Notes and Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6-7 | $\overline{010}$ | ISA | Interchange Control Header | M | 1 |  |  |
| 8 | 020 | GS | Functional Group Header | M | 1 |  |  |

## Heading:

| Page | Pos. | Seg. |
| :--- | :--- | :--- |
| $\underline{\text { No. }}$ | $\underline{\text { No. }}$ | $\underline{\underline{D}}$ |
| 9 | 010 | ST |
| 10 | 020 | BSN |

Name
Transaction Set Header
Beginning Segment for Ship Notice

| Req. <br> Des. | Max.Use | Loop <br> Repeat | Notes and <br> Comments |
| :--- | ---: | ---: | ---: |
| M | 1 |  |  |
| M | 1 |  |  |

## Detail:

| Page <br> No. | Pos. <br> No. | Seg. <br> ID | Name | Req. Des. | Max.Use | Loop Repeat | Notes and <br> Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | LOOP ID - HL |  |  | 200000 |  |
| 11 | 010 | HL | Hierarchical Level - Shipment | M | 1 |  | c1 |
| 12 | 110 | TD1 | Carrier Details (Quantity and Weight) | O | 20 |  |  |
| 13-14 | 120 | TD5 | Carrier Details (Routing Sequence/Transit Time) | O | 12 |  |  |
| 15 | 130 | TD3 | Carrier Details (Equipment) | O | 12 |  |  |
| 16 | 150 | REF | Reference Identification | O | >1 |  |  |
| 17 | 200 | DTM | Date/Time Reference | O | 10 |  |  |
| 18 | 210 | FOB | F.O.B. Related Instructions | O | 1 |  |  |
|  |  |  | LOOP ID - N1 |  |  | 200 |  |
| 19 | 220 | N1 | Name | O | 1 |  |  |
| 20 | 240 | N3 | Address Information | O | 2 |  |  |
| 21 | 250 | N4 | Geographic Location | O | 1 |  |  |
|  |  |  | LOOP ID - HL |  |  | 200000 |  |
| 22 | 010 | HL | Hierarchical Level - Order | M | 1 |  |  |
| 23 | 050 | PRF | Purchase Order Reference | O | 1 |  |  |
| 24 | 150 | REF | Reference Identification | O | >1 |  |  |
|  |  |  | LOOP ID - N1 |  |  | 200 |  |
| 25 | 220 | N1 | Name | O | 1 |  |  |
|  |  |  | LOOP ID - HL |  |  | 200000 |  |
| 26 | 010 | HL | Hierarchical Level - Tare | M | 1 |  |  |
| 27 | 145 | TSD | Trailer Shipment Details | O | 1 |  |  |



## Summary:

| Page <br> No. | Pos. <br> No. | Seg. <br> ID | Name | Req. Des. | Max.Use | Loop Repeat | Notes and <br> Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 010 | CTT | Transaction Totals | O | 1 |  |  |
| 38 | 020 | SE | Transaction Set Trailer | M | 1 |  |  |

## Envelope:

| Page | Pos. | Seg. | Neq. | Req. <br> No. | $\underline{\text { No. }}$ | $\underline{\text { ID }}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Transaction Set Notes

1. Number of line items (CTT01) is the accumulation of the number of HL segments. If used, hash total (CTT02) is the sum of the value of units shipped (SN102) for each SN1 segment.

## Transaction Set Comments

1. The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

Segment: Position: Loop: Level: Usage:
Max Use:
Purpose:
Syntax Notes: Semantic Notes: Comments:

TNA Interchange Control Header
010

Mandatory
1
To start and identify an interchange of zero or more functional groups and interchangerelated control segments

## Data Element Summary

|  | Ref. <br> Des. | Data <br> Element | Name $\underline{\text { Attributes }}$ |
| :---: | :---: | :---: | :---: |
| Must Use | ISA01 | I01 | Authorization Information Qualifier $\quad$ M ID 2/2 |
|  |  |  | Code to identify the type of information in the Authorization Information 00 No Authorization Information Present (No Meaningful Information in I02) |
| Must Use | ISA02 | 102 | Authorization Information M AN 10/10 |
|  |  |  | 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 (IO1) <br> " " 10 blank spaces |
| Must Use | ISA03 | 103 | Security Information Qualifier M ID 2/2 |
|  |  |  | Code to identify the type of information in the Security Information |
|  |  |  | $00 \quad \begin{array}{ll}\text { No Security Information Present (No Meaningful } \\ \text { Information in I04) }\end{array}$ |
| Must Use | ISA04 | 104 | Security Information M AN 10/10 |
|  |  |  | 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 (IO3) |
|  |  |  | " " 10 blank spaces |
| Must Use | ISA05 | 105 | Interchange ID Qualifier $\quad$ M ID 2/2 |
|  |  |  | Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified |
|  |  |  | Refer to 004010 Data Element Dictionary for acceptable code values. |
| Must Use | ISA06 | I06 | Interchange Sender ID M AN 15/15 |
|  |  |  | 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 |
| Must Use | ISA07 | 105 | Interchange ID Qualifier $\quad$ M ID 2/2 |
|  |  |  | Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified <br> 01 <br> Duns (Dun \& Bradstreet) |
| Must Use | ISA08 | I07 | Interchange Receiver ID M AN 15/15 |
|  |  |  | 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 |
|  |  |  | Boscov's Department Stores ID is "014492501" |
| Must Use | ISA09 | 108 | Interchange Date M DT 6/6 |
|  |  |  | Date of the interchange |
| Must Use | ISA10 | 109 | Interchange Time $\quad$ M $\quad$ TM 4/4 |
|  |  |  | Time of the interchange |
| Must Use | ISA11 | 110 | Interchange Control Standards Identifier M ID 1/1 |
|  |  |  | Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer |
|  |  |  | U U.S. EDI Community of ASC X12, TDCC, and UCS |
| BC8564102 |  |  | 6 Draft |



| Segment: | GS Functional Group Header |
| :---: | :---: |
| Position: | 020 |
| Loop: |  |
| Level: |  |
| Usage: | Mandatory |
| Max Use: | 1 |
| Purpose: | To indicate the beginning of a functional group and to provide control information |
| Semantic Notes: |  |
|  | 1 GS04 is the group date. |
|  | 2 GS05 is the group time. |
|  | 3 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. |

## Data Element Summary



## Comments:

## Example: <br> ST*856*856000706~

|  | Ref. <br> Des. |
| :--- | :--- |
| Must Use | ST01 |
| Must Use | ST02 |

ST02

Must Use
Data
Element Name

329 Transaction Set Control Number
Segment: ST Transaction Set Header
010
Heading
Mandatory
1
To indicate the start of a transaction set and to assign a control number
1 The transaction set identifier (ST01) is used by the translation routines of the 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).
Position:
Loop:
Level:
Usage:
Max Use:
Purpose:
Syntax Notes:
Semantic Notes:

## Data Element Summary

## Attributes

143 Transaction Set Identifier Code M ID 3/3
Code uniquely identifying a Transaction Set 856 Ship Notice/Manifest

M AN 4/9
Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set
The number is sequentially assigned by the sender, starting with one within each functional group. For each functional group, the first transaction set control number will be 0001 and incremented by one for each additional transaction set within the group.

| Segment: | BSN Beginning Segment for Ship Notice |
| ---: | :--- |
| Position: | 020 |
| Loop: |  |
| Level: | Heading |
| Usage: | Mandatory |
| Max Use: | 1 |
| Purpose: | To transmit identifying numbers, dates, and other basic data relating to the transaction set |
| Syntax Notes: | $\mathbf{1}$ If BSN07 is present, then BSN06 is required. |
| Semantic Notes: | $\mathbf{1}$ BSN03 is the date the shipment transaction set is created. |
|  | $\mathbf{2}$ BSN04 is the time the shipment transaction set is created. |
| 3BSN06 is limited to shipment related codes. |  |
| Comments: | $\mathbf{1}$ BSN06 and BSN07 differentiate the functionality of use for the transaction set. |
| Notes: | In some implementations, it may be appropriate to omit the unit load level and packaging |
|  | levels, i.e., tare and pack, from the transaction set. Depending on the retailer's receiving |
|  | systems, carton identification may not be required. Code 0004 in BSN05 indicates the use <br> of a hierarchical structure that does not include a unit load level or any packaging levels. |

Example:
BSN*00*007111*20001031*0745*0001~

Segment: Position: Loop: Level: Usage:
Max Use: Purpose:

## Syntax Notes:

 Semantic Notes: Comments:HL Hierarchical Leevel - Shipment
010
HL Mandatory
Detail
Mandatory
1
To identify dependencies among and the content of hierarchically related groups of data segments

1 The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to lineitem data.
The HL segment defines a top-down/left-right ordered structure.
2 HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
4 HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
Notes: The HL segment is used to identify levels of detail information using a hierarchical structure.

HL01 shall contain a unique number for each occurrence of the HL segment within the transaction set. The value assigned to the first HL segment will be 1, and is incremented by one for each subsequent HL segment within the transaction set.

HL02 identifies the hierarchical ID of the HL segment to which it is subordinate (child of). HL02 will be omitted for the first occurrence of the HL segment in the transaction set, since it has no parent. HL03 identifies the application content of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT or SE segment, e.g., Shipment, Unit Load, Order, Tare, Pack and Item.

## Example: <br> HL* ${ }^{*} * *$ S

| Data Element Summary |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Must Use | Ref. <br> Des. <br> HL01 | Data <br> Element628 | $\begin{aligned} & \text { Name } \\ & \text { Hierarchical ID Number } \end{aligned}$ | Attributes |
|  |  |  |  | M AN 1/12 |
|  |  |  | A unique number assigned by the sender to identify a particular data segment in a hierarchical structure |  |
| Must Use | HL03 | 735 | The value for this level (shipment) is 1. |  |
|  |  |  | Hierarchical Level Code | M ID 1/2 |
|  |  |  | Code defining the characte S <br> Shipm | ucture |


| Segment: | TMT Carrier Details (Quantity and Weight) |
| ---: | :--- |
| Position: | 110 |
| Loop: | HL Mandatory |
| Level: | Detail |
| Usage: | Optional |
| Max Use: | 20 |
| Purpose: | To specify the transportation details relative to commodity, weight, and quantity |
| Syntax Notes: | $\mathbf{1}$ If TD101 is present, then TD102 is required. |
|  | $\mathbf{2}$ If TD103 is present, then TD104 is required. |
|  | $\mathbf{3}$ If TD106 is present, then TD107 is required. |
|  | $\mathbf{4}$ If either TD107 or TD108 is present, then the other is required. |
| Semantic Notes: | $\mathbf{5}$ If either TD109 or TD110 is present, then the other is required. |
| Comments: |  |
| Notes: | This segment, at the shipment level, is used to specify total containers and gross weight <br> of the shipment. |

## Example:

TD1*BAG*7****G*147*LB~


| Segment: | TD5 Carrier Details (Routing Sequence/Transit Time) |
| :---: | :---: |
| Position: | 120 |
| Loop: | HL Mandatory |
| Level: | Detail |
| Usage: | Optional |
| Max Use: | 12 |
| Purpose: | To specify the carrier and sequence of routing and provide transit time information |
| Syntax Notes: | 1 At least one of TD502 TD504 TD505 TD506 or TD512 is required. |
|  | 2 If TD502 is present, then TD503 is required. |
|  | 3 If TD507 is present, then TD508 is required. |
|  | 4 If TD510 is present, then TD511 is required. |
|  | 5 If TD513 is present, then TD512 is required. |
|  | 6 If TD514 is present, then TD513 is required. |
|  | 7 If TD515 is present, then TD512 is required. |
| Semantic Notes: | 1 TD515 is the country where the service is to be performed. |
| Comments: | 1 When specifying a routing sequence to be used for the shipment movement in lieu of specifying each carrier within the movement, use TD502 to identify the party responsible for defining the routing sequence, and use TD503 to identify the actual routing sequence, specified by the party identified in TD502. |
| Notes: | This segment is used to specify every carrier in the routing sequence or a specific routing sequence that has been previously identified (usually from a routing guide). The segment can also be used to indicate estimated transit time in days. Only use TD501 if needed for clarity; this is not a requirement in most retail applications. When referring to a preestablished routing guide, use code 91 or 92 in TD502 and identify the routing sequence, from the routing guide, in TD503. To identify a specific private parcel service, TD502 will contain code 2 and TD503 will contain the corresponding SCAC. TD510 and TD511 are used to specify transit time. |
|  | When using a small package service provider as the carrier, TD502 will contain code 2 , TD503 will contain the carrier's SCAC, and TD504 will contain code U to inform the receiver of a small package service shipment. |

## Example: TD5 ${ }^{*}$ * $2 *$ CENF~

## Data Element Summary

Ref.
Des.
TD501

66 Identification Code Qualifier
X ID 1/2
Code designating the system/method of code structure used for Identification Code (67)

2 Standard Carrier Alpha Code (SCAC)
TD503
67 Identification Code

Attributes
O ID 1/2

## 387 Routing

X AN 2/80
Code identifying a party or other code
Free-form description of the routing or requested routing for shipment, or the originating carrier's identity
TD506 368 Shipment/Order Status Code X ID 2/2
Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction

| BK | Back Ordered from Previous Order |
| :--- | :--- |
| BP | Shipment Partial, Back Order to Ship on (Date) |
| CC | Shipment Complete on (Date) |
| CM | Shipment Complete with Additional Quantity |

CP
CS
DE
IC
IS
PR
SS

Partial Shipment on (Date), Considered No Backorder
Shipment Complete with Substitution
Deleted Order
Item Canceled
Item Represents Substitution from Original Order
Partial Shipment
Split Shipment

## Segment: TD3 Carrier Details (Equipment) <br> Position: 130

Loop: HL Mandatory
Level: Detail
Usage: Optional
Max Use: 12
Purpose: To specify transportation details relating to the equipment used by the carrier
Syntax Notes: 1 Only one of TD301 or TD310 may be present.
2 If TD302 is present, then TD303 is required.
3 If TD304 is present, then TD305 is required.
4 If either TD305 or TD306 is present, then the other is required.

## Semantic Notes:

Comments:
Notes: This segment is used to specify the trailer number for a truckload shipment.

## Example: <br> TD3*TL**123456~



| Segment: | REF Reference Identification |
| ---: | :--- |
| Position: | 150 |
| Loop: | HL Mandatory |
| Level: | Detail |
| Usage: | Optional |
| Max Use: | $>1$ |
| Purpose: | To specify identifying information |
| Syntax Notes: | $\mathbf{1}$ At least one of REF02 or REF03 is required. |
|  | $\mathbf{2}$ If either C04003 or C04004 is present, then the other is required. |
| Semantic Notes: | $\mathbf{3}$ If either C04005 or C04006 is present, then the other is required. |
| Comments: | In some cases, individual shipments with bill of lading may be grouped under a Master |
| Notes: | Bill of Lading. Under this circumstance, specifying both the bill of lading and the |
|  | associated Master Bill of Lading Number will facilitate tracking. |

## Example:

REF*BM*13828700000A~


$$
\begin{aligned}
\text { Segment: } & \text { DTMM Date/Time Reference } \\
\text { Position: } & 200 \\
\text { Loop: } & \text { HL Mandatory } \\
\text { Level: } & \text { Detail } \\
\text { Usage: } & \text { Optional (Must Use) } \\
\text { Max Use: } & 10 \\
\text { Purpose: } & \text { To specify pertinent dates and times } \\
\text { Syntax Notes: } & \mathbf{1} \text { At least one of DTM02 DTM03 or DTM05 is required. } \\
& \mathbf{2} \text { If DTM04 is present, then DTM03 is required. } \\
& \mathbf{3} \text { If either DTM05 or DTM06 is present, then the other is required. }
\end{aligned}
$$

## Semantic Notes:

Comments:

Example:<br>DTM*011*20000202~

| Data Element Summary |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Must Use |  | Data Element 374 | Name |  |  | butes |
|  |  |  | Date/Time Qualifier |  | M | ID 3/3 |
|  |  |  | Code specifying type | of date or time, or both date and time |  |  |
|  |  |  | 011 | Shipped |  |  |
|  |  |  | 017 | Estimated Delivery |  |  |
|  |  |  | 067 | Current Schedule Delivery |  |  |
|  |  |  | 068 | Current Schedule Ship |  |  |
| Must Use | DTM02 | 373 | DateDate expressed as CCYYMMDD |  | X | DT 8/8 |
|  |  |  |  |  |  |  |

```
    Segment: FOB f.O.B. Related Instructions
    Position: }21
        Loop: HL Mandatory
        Level: Detail
        Usage: Optional
    Max Use: 1
        Purpose: To specify transportation instructions relating to shipment
        Syntax Notes: }1\mathrm{ If FOB03 is present, then FOB02 is required.
        2 If FOB04 is present, then FOB05 is required.
        3 If FOB07 is present, then FOB06 is required.
        4 If FOB08 is present, then FOB09 is required.
Semantic Notes: 1 FOB01 indicates which party will pay the carrier.
        2 FOB02 is the code specifying transportation responsibility location.
        3 FOB06 is the code specifying the title passage location.
        4 FOB08 is the code specifying the point at which the risk of loss transfers. This may
        be different than the location specified in FOB02/FOB03 and FOB06/FOB07.
```

    Comments:
    Example:
FOB*PP~


|  | N1 Name |
| ---: | :--- |
| Segment: | Nosition: |
| Loop: | 220 |
| Level: 1 | Detail Optional |
| Usage: | Optional |
| Max Use: | 1 |
| Purpose: | To identify a party by type of organization, name, and code |
| Syntax Notes: | $\mathbf{1}$ At least one of N102 or N103 is required. |
|  | $\mathbf{2}$ 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: N103 and N104 are required except when N101 contains code MA or OB.
When the ship to is the end consumer (customer of retailer), N103 and N104 are not required.;

In some EDI implementations, it may be necessary to identify the sender and/or receiver of the transaction set within each transaction set. To identify the sender of the transaction set, N101 will contain code FR, N103 will contain code 93, and N104 will contain the actual identification number. To identify the receiver of the transaction set, N101 will contain code TO, N103 will contain code 94 , and N104 will contain the actual identification number. These four codes may be used only in the combination listed above and may be used only to identify the sender and/or receiver of the transaction set.

## Example:

N1*ST*BOSCOV*92*87447~


```
            Segmen: N3 Address Intormation
            Position: }24
                Loop: N1 Optional
                Level: Detail
            Usage: Optional
                Max Use: 2
                Purpose: To specify the location of the named party
    Syntax Notes:
Semantic Notes:
                            Comments:
```


## Example:

N3* 100 MAIN ST~

## Data Element Summary

|  | Ref. <br> Des. | Data <br> Element | Name | Attributes <br> Must Use |
| :---: | :---: | :---: | :---: | :---: |
| N301 | $\mathbf{1 6 6}$ | Address information <br> AN 1/55 |  |  |
|  | $\mathbf{N 3 0 2}$ | $\mathbf{1 6 6}$ | Address Information <br> Address information | O AN 1/55 |

```
            Segment: N4 Geographic Location
            Position: 250
            Loop: N1 Optional
            Level: Detail
            Usage: Optional
            Max Use: 1
            Purpose: To specify the geographic place of the named party
        Syntax Notes: }1\mathrm{ If N406 is present, then N405 is required.
Semantic Notes:
            Comments:
                                    1 A combination of either N401 through N404, or N405 and N406 may be adequate to
                                    specify a location.
                            2 N402 is required only if city name (N401) is in the U.S. or Canada.
Notes: N401 and N402 are required unless N405 and N406 are used.
```


## Example:

N4*SAN FRANCISCO*CA*94111~

| Data Element Summary |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Must Use | Ref. <br> $\xrightarrow[\text { Des. }]{\mathbf{N} 401}$ | Data $\frac{\text { Element }}{19}$ | Name | Attributes |
|  |  |  |  |  |
|  |  |  | City Name | O AN 2/30 |
|  |  |  | Free-form text for city name |  |
| Must Use | N402 | 156 | State or Province Code | O ID 2/2 |
|  |  |  | Code (Standard State/Provinc | ernment agency |
|  | N403 | 116 | Postal Code | O ID 3/15 |
|  |  |  | Code defining international p (zip code for United States) | ation and blanks |
|  | N404 | 26 | Country Code | O ID 2/3 |
|  |  |  | Code identifying the country |  |

Segment: Position: Loop: Level: Usage:<br>Max Use: Purpose:<br>Syntax Notes: Semantic Notes: Comments:

Notes:

## $\mathbf{H L}_{\text {Hierarchical Level - Order }}$

010
HL Mandatory
Detail
Mandatory
1
To identify dependencies among and the content of hierarchically related groups of data segments

1 The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to lineitem data.
The HL segment defines a top-down/left-right ordered structure.
2 HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
4 HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
The HL segment is used to identify levels of detail information using a hierarchical structure.

HL01 shall contain a unique number for each occurrence of the HL segment within the transaction set. The value assigned to the first HL segment will be 1, and is incremented by one for each subsequent HL segment within the transaction set.

HL02 identifies the hierarchical ID of the HL segment to which it is subordinate (child of). HL02 will be omitted for the first occurrence of the HL segment in the transaction set, since it has no parent. HL03 identifies the application content of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT or SE segment, e.g., Shipment, Unit Load, Order, Tare, Pack and Item.

## Example:

$\mathrm{HL} * 2 * 1 * \mathrm{O} \sim$


| Segment: | PRF Purchase Order Reference |
| ---: | :--- | :--- |
| Position: | 050 |
| Loop: | HL Mandatory |
| Level: | Detail |
| Usage: | Optional (Must Use) |
| Max Use: | 1 |
| Purpose: | To provide reference to a specific purchase order |
| Semantic Notes: <br> Comments: | $\mathbf{1} \quad$ PRF04 is the date assigned by the purchaser to purchase order. |

Example:
PRF*835490-1***20000114~

## Data Element Summary



| Segment: | RF Reference Identification |
| ---: | :--- |
| Position: | 150 |
| Loop: | HL Mandatory |
| Level: | Detail |
| Usage: | Optional |
| Max Use: | $>1$ |
| Purpose: | To specify identifying information |
| Syntax Notes: | $\mathbf{1}$ At least one of REF02 or REF03 is required. |
|  | $\mathbf{2}$ If either C04003 or C04004 is present, then the other is required. |
|  | $\mathbf{3}$ If either C04005 or C04006 is present, then the other is required. |
| Semantic Notes: | $\mathbf{1}$ REF04 contains data relating to the value cited in REF02. |
| Comments: |  |

Example:
REF*IV*807764626~


```
            Segment: N1 Name
            Position: 220
            Loop: N1 Optional (Must Use)
            Level: Detail
            Usage: Optional (Must Use)
Max Use:
            Purpose:
Syntax Notes:
To identify a party by type of organization, name, and code
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:

\section*{Example:}

N1*BY**92*1900~

Segment:
Position:
Loop:
Level:
Usage:
Max Use:
Purpose:

Syntax Notes:
Semantic Notes:
Comments:

Notes:

HL Hierarchical Level - Tare
010
HL Mandatory
Detail
Mandatory
1
To identify dependencies among and the content of hierarchically related groups of data segments

1 The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to lineitem data.
The HL segment defines a top-down/left-right ordered structure.
2 HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
4 HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
The HL segment is used to identify levels of detail information using a hierarchical structure.

HL01 shall contain a unique number for each occurrence of the HL segment within the transaction set. The value assigned to the first HL segment will be 1, and is incremented by one for each subsequent HL segment within the transaction set.

HL02 identifies the hierarchical ID of the HL segment to which it is subordinate (child of). HL02 will be omitted for the first occurrence of the HL segment in the transaction set, since it has no parent. HL03 identifies the application content of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT or SE segment, e.g., Shipment, Unit Load, Order, Tare, Pack and Item.

\section*{Example:}
\(\mathrm{HL} * 3 * 2 * T \sim\)
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{6}{|c|}{Data Element Summary} \\
\hline \multirow{4}{*}{Must Use} & \multirow[t]{4}{*}{Ref. Des. HL01} & \multirow[t]{3}{*}{Data Element 628} & \multirow[t]{2}{*}{Name} & \multicolumn{2}{|l|}{\multirow[b]{2}{*}{Attributes}} \\
\hline & & & & & \\
\hline & & & Hierarchical ID Number & M & AN 1/12 \\
\hline & & & \multicolumn{3}{|l|}{A unique number assigned by the sender to identify a particular data segment in a hierarchical structure} \\
\hline \multirow[t]{2}{*}{Must Use} & \multirow[t]{2}{*}{HL02} & \multirow[t]{2}{*}{734} & \multicolumn{3}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
Hierarchical Parent ID Number \\
O AN 1/12 \\
Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to
\end{tabular}}} \\
\hline & & & & & \\
\hline \multirow[t]{5}{*}{Must Use} & \multirow[t]{2}{*}{HL03} & \multirow[t]{2}{*}{735} & Hierarchical Level Code & M & ID 1/2 \\
\hline & & & \multicolumn{3}{|l|}{Code defining the characteristic of a level in a hierarchical structure T Shipping Tare} \\
\hline & \multirow[t]{3}{*}{HL04} & \multirow[t]{3}{*}{736} & \multicolumn{3}{|l|}{\multirow[t]{3}{*}{\begin{tabular}{l}
Hierarchical Child Code \\
O ID 1/1 \\
Code indicating if there are hierarchical child data segments subordinate to the level being described Refer to 004010VICS Data Element Dictionary for acceptable code values.
\end{tabular}}} \\
\hline & & & & & \\
\hline & & & & & \\
\hline
\end{tabular}
```

            Segment: TTSD Trailer Shipment Details
            Position: }14
            Loop: HL Mandatory
            Level: Detail
            Usage: Optional
            Max Use:
            Purpose:
        Syntax Notes:
    Semantic Notes:
        Comments:
            Notes:
    ```

\section*{Example: \\ TSD*001*1}

Data Element Summary
Ref. Data
Des. Element Name
Attributes

TSD01

Must Use TSD02

350 Assigned Identification
O AN 1/20
Alphanumeric characters assigned for differentiation within a transaction set Indicates the loading sequence
219 Position
O AN 1/3
Relative position of shipment in car, trailer, or container (mutually defined)
1 First quarter of the trailer/container
2 Second quarter of the trailer/container
3 Third quarter of the trailer/container
4 Fourth quarter of the trailer/container
```

            Segment: MAN Marks and Numbers
            Position: 190
            Loop: HL Mandatory
            Level: Detail
            Usage: Optional
            Max Use: >1
            Purpose: To indicate identifying marks and numbers for shipping containers
                    Syntax Notes: }1\mathrm{ If either MAN04 or MAN05 is present, then the other is required.
                    2 If MAN06 is present, then MAN05 is required.
                    Semantic Notes: }1\mathrm{ MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks
                and numbers assigned to the same physical container.
    2 When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3 When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

```

\section*{Comments:}

Notes:
```

1 When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2 MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.
This segment, at the tare level, is used to specify the identification numbers for the pallet.;

```

\section*{Example:}

MAN*GM \({ }^{*} 00007000320000113901\) ~

\section*{Data Element Summary}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{4}{*}{Must Use} & \multirow[t]{4}{*}{} & \multirow[t]{4}{*}{Data \(\frac{\text { Element }}{88}\)} & \multicolumn{2}{|l|}{\begin{tabular}{l}
Name \\
Marks and Numbers Qualifier
\end{tabular}} & \multicolumn{2}{|l|}{Attributes} \\
\hline & & & \multicolumn{4}{|l|}{Code specifying the application or source of Marks and Numbers (87)} \\
\hline & & & GM & \multicolumn{3}{|l|}{SSCC-18 and Application Identifier} \\
\hline & & & & \multicolumn{3}{|l|}{Shipping Container Code (SSCC-18) that includes the two digit application identifier. The symbology code and the modulo 103 check digit are not included.} \\
\hline Must Use & MAN02 & 87 & \multicolumn{4}{|l|}{Marks and Numbers M AN 1/48} \\
\hline & & & Marks and numbers u & used to iden & hipn & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline Segment: & PAL Pallet Information \\
\hline Position: & 215 \\
\hline Loop: & HL Mandatory \\
\hline Level: & Detail \\
\hline Usage: & Optional \\
\hline Max Use: & 1 \\
\hline Purpose: & To identify the type and physical attributes of the pallet, and, gross weight, gross volume, and height of the load and the pallet \\
\hline Syntax Notes: & 1 If either PAL05 or PAL06 is present, then the other is required. \\
\hline & 2 If PAL07 is present, then PAL10 is required. \\
\hline & 3 If PAL08 is present, then PAL10 is required. \\
\hline & 4 If PAL09 is present, then PAL10 is required. \\
\hline & 5 If PAL10 is present, then at least one of PAL07 PAL08 or PAL09 is required. \\
\hline & 6 If either PAL11 or PAL12 is present, then the other is required. \\
\hline & 7 If either PAL13 or PAL14 is present, then the other is required. \\
\hline Semantic Notes: & 1 PAL04 (Pack) is the number of pieces on the pallet. \\
\hline & 2 PAL05 (Unit Weight) is the weight of the pallet alone, before loading. \\
\hline & 3 PAL07 and PAL08 (Length and Width) are the dimensions of the pallet before loading. \\
\hline & 4 PAL09 (Height) is the height of the pallet and load. \\
\hline & 5 PAL11 and PAL13 (Gross Weight and Gross Volume) are measured after loading and includes the pallet. \\
\hline Comments: & \\
\hline
\end{tabular}

\section*{Example:}

PAL*4*4*9*36

Segment:
Position:
Loop:
Level:
Usage:
Max Use:
Purpose:

Syntax Notes:
Semantic Notes:
Comments:

Notes:

HL Hierarchical Level - Pack
010
HL Mandatory
Detail
Mandatory
1
To identify dependencies among and the content of hierarchically related groups of data segments

1 The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to lineitem data.
The HL segment defines a top-down/left-right ordered structure.
2 HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be " 1 " for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
4 HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
The HL segment is used to identify levels of detail information using a hierarchical structure.

HL01 shall contain a unique number for each occurrence of the HL segment within the transaction set. The value assigned to the first HL segment will be 1, and is incremented by one for each subsequent HL segment within the transaction set.

HL02 identifies the hierarchical ID of the HL segment to which it is subordinate (child of). HL02 will be omitted for the first occurrence of the HL segment in the transaction set, since it has no parent. HL03 identifies the application content of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT or SE segment, e.g., Shipment, Unit Load, Order, Tare, Pack and Item.

Example:
HL* \(4 * 3 * \mathrm{P} \sim\)

\section*{Data Element Summary}

```

            Segmen: MAN Marts and Numbers
            Position: }19
            Loop: HL Mandatory
            Level: Detail
            Usage: Optional
            Max Use: >1
            Purpose: To indicate identifying marks and numbers for shipping containers
                    Syntax Notes: }1\mathrm{ If either MAN04 or MAN05 is present, then the other is required.
            2 If MAN06 is present, then MAN05 is required.
    Semantic Notes: }1\mathrm{ MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks
and numbers assigned to the same physical container.
2 When both MAN02 and MAN03 are used, MAN02 is the starting number of a
sequential range and MAN03 is the ending number of that range.
3 When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.
Comments: 1 When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2 MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.
Notes: When the shipping container is the same as the consumer unit, the U.P.C. may be the only UCC identification code on the container. In many applications, it is necessary to positively identify what identification code is to be scanned and matched at point of receipt. Since the U.P.C. is not a unique serial shipping container code, only one pack level for each item is required when using the pick and pack structure. The total number of shipping units for this item is the same as the quantity for the item in the SN1 segment at the item level.

```

\section*{Example: \\ MAN*GM*00007000320000113906~}

\section*{Data Element Summary}
\begin{tabular}{lcccc} 
& \begin{tabular}{c} 
Ref. \\
Des.
\end{tabular} & \begin{tabular}{c} 
Data \\
Element \\
MAN01
\end{tabular} & \(\mathbf{8 8}\) & \begin{tabular}{l} 
Name
\end{tabular} \\
Must Use \\
Marks and Numbers Qualifier \\
Code specifying the application or source of Marks and Numbers (87) \\
GM
\end{tabular}
Segment: Position: Loop: Level: Usage:
Max Use: Purpose:
Syntax Notes: Semantic Notes: Comments:

\section*{Example:}
\(\mathrm{HL} * 5 * 4 * \mathrm{I} \sim\)

\begin{tabular}{|c|c|}
\hline Segment: & LTN Item Identification \\
\hline Position: & 020 \\
\hline Loop: & HL Mandatory \\
\hline Level: & Detail \\
\hline Usage: & Optional (Must Use) \\
\hline Max Use: & 1 \\
\hline Purpose: & To specify basic item identification data \\
\hline Syntax Notes: & 1 If either LIN04 or LIN05 is present, then the other is required. \\
\hline & 2 If either LIN06 or LIN07 is present, then the other is required. \\
\hline & 3 If either LIN08 or LIN09 is present, then the other is required. \\
\hline & 4 If either LIN10 or LIN11 is present, then the other is required. \\
\hline & 5 If either LIN12 or LIN13 is present, then the other is required. \\
\hline & 6 If either LIN14 or LIN15 is present, then the other is required. \\
\hline & 7 If either LIN16 or LIN17 is present, then the other is required. \\
\hline & 8 If either LIN18 or LIN19 is present, then the other is required. \\
\hline & 9 If either LIN20 or LIN21 is present, then the other is required. \\
\hline & 10 If either LIN22 or LIN23 is present, then the other is required. \\
\hline & 11 If either LIN24 or LIN25 is present, then the other is required. \\
\hline & 12 If either LIN26 or LIN27 is present, then the other is required. \\
\hline & 13 If either LIN28 or LIN29 is present, then the other is required. \\
\hline & 14 If either LIN30 or LIN31 is present, then the other is required. \\
\hline Semantic Notes: & 1 LIN01 is the line item identification \\
\hline Comments: & 1 See the Data Dictionary for a complete list of IDs. \\
\hline & 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. \\
\hline Notes: & The codes listed for LIN02 apply to every occurrence of Data Element 235 in the LIN segment. \\
\hline & See Section III for complete U.P.C. and EAN code definitions. \\
\hline
\end{tabular}

\section*{Example:}

LIN**UP*700032591261*VA*20191~


Identifying number for a product or service
\begin{tabular}{|c|c|c|c|c|}
\hline \multirow[t]{9}{*}{LIN06} & \multirow[t]{9}{*}{235} & \multicolumn{2}{|l|}{Product/Service ID Qualifier X} & \multirow[t]{9}{*}{ID 2/2} \\
\hline & & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Code identifying the type/source of the descriptive number used in Product/Service ID (234)}} & \\
\hline & & & & \\
\hline & & EN & European Article Number (EAN) (2-5-5-1) & \\
\hline & & SZ & Vendor Alphanumeric Size Code (NRMA) & \\
\hline & & UP & U.P.C. Consumer Package Code (1-5-5-1) & \\
\hline & & VA & Vendor's Style Number & \\
\hline & & VC & Vendor's (Seller's) Catalog Number & \\
\hline & & VE & Vendor Color & \\
\hline \multirow[t]{2}{*}{LIN07} & \multirow[t]{2}{*}{234} & Product/Service ID & X & AN 1/48 \\
\hline & & Identifying number fo & for a product or service & \\
\hline \multirow[t]{9}{*}{LIN08} & \multirow[t]{9}{*}{235} & \multicolumn{2}{|l|}{Product/Service ID Qualifier X} & \multirow[t]{9}{*}{ID 2/2} \\
\hline & & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Code identifying the type/source of the descriptive number used in Product/Service ID (234)}} & \\
\hline & & & & \\
\hline & & EN & European Article Number (EAN) (2-5-5-1) & \\
\hline & & SZ & Vendor Alphanumeric Size Code (NRMA) & \\
\hline & & UP & U.P.C. Consumer Package Code (1-5-5-1) & \\
\hline & & VA & Vendor's Style Number & \\
\hline & & VC & Vendor's (Seller's) Catalog Number & \\
\hline & & VE & Vendor Color & \\
\hline \multirow[t]{2}{*}{LIN09} & \multirow[t]{2}{*}{234} & Product/Service ID & X & \multirow[t]{2}{*}{AN 1/48} \\
\hline & & Identifying number for & for a product or service & \\
\hline \multirow[t]{9}{*}{LIN10} & \multirow[t]{9}{*}{235} & \multicolumn{2}{|l|}{Product/Service ID Qualifier X} & \multirow[t]{9}{*}{ID 2/2} \\
\hline & & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Code identifying the type/source of the descriptive number used in Product/Service ID (234)}} & \\
\hline & & & & \\
\hline & & EN & European Article Number (EAN) (2-5-5-1) & \\
\hline & & SZ & Vendor Alphanumeric Size Code (NRMA) & \\
\hline & & UP & U.P.C. Consumer Package Code (1-5-5-1) & \\
\hline & & VA & Vendor's Style Number & \\
\hline & & VC & Vendor's (Seller's) Catalog Number & \\
\hline & & VE & Vendor Color & \\
\hline LIN11 & 234 & Product/Service ID & X & AN 1/48 \\
\hline & & Identifying number for & for a product or service & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline Segment: & SN1 Item Detail (Shipment) \\
\hline Position: & 030 \\
\hline Loop: & HL Mandatory \\
\hline Level: & Detail \\
\hline Usage: & Optional (Must Use) \\
\hline Max Use: & 1 \\
\hline Purpose: & To specify line-item detail relative to shipment \\
\hline Syntax Notes: & 1 If either SN105 or SN106 is present, then the other is required. \\
\hline Semantic Notes: & 1 SN101 is the ship notice line-item identification. \\
\hline Comments: & 1 SN103 defines the unit of measurement for both SN102 and SN104. \\
\hline Notes: & This segment is used to specify the quantities associated with the item identified in the LIN at the item level. \\
\hline & When specifying an item, which is comprised of two or more components that are in unique shipping containers, SN103 will contain code ST for set and the quantity specified in SN102 is the number of sets as identified in the LIN segment. Each different component is identified in one pack level. See the VICS Note, on the SLN segment, at the pack level. \\
\hline
\end{tabular}

\section*{Example:}

SN \(1 * * 1 * E A * 100 * 200 * E A \sim\)


\section*{Segment: \\ Position: Loop: Level: Usage: \\ Max Use: Purpose: Syntax Notes:}

Semantic Notes:

Comments:

\section*{Example:}

PO4*1*2*EA~

\section*{PO4 Item Physical Details}

060
HL Mandatory
Detail
Optional
1
To specify the physical qualities, packaging, weights, and dimensions relating to the item
1 If either PO402 or PO403 is present, then the other is required.
2 If PO405 is present, then PO406 is required.
3 If either PO406 or PO407 is present, then the other is required.
4 If either PO 408 or PO 409 is present, then the other is required.
5 If PO410 is present, then PO413 is required.
6 If PO411 is present, then PO413 is required.
7 If PO412 is present, then PO413 is required.
8 If PO413 is present, then at least one of PO410 PO411 or PO412 is required.
9 If PO 417 is present, then PO 416 is required.
10 If PO418 is present, then PO404 is required.
1 PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2 PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3 PO 417 is the ending package identifier in a range of identifiers.
4 PO418 is the number of packages in this layer.
1 PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the pack (PO401) /size (PO402) measure which indicates the quantity in the inner pack unit. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element \(356=\) " 24 "; Data element 357 = "12"; Data element \(355=\) "OZ".
2 PO413 defines the unit of measure for PO410, PO411, and PO412.
Notes: This segment is used to specify the packaging of the item in the case or carton. There may be two levels of packaging specified. The first level is always specified by using PO401 (Pack). The first level may be actual items, e.g., consumer units, or it may be the number of smaller containers within the case. The second level, specified using PO414 (Inner Pack), is the number of eaches in each inner container when PO401 is the number of smaller containers within the case. See Section V (Pack/Inner Pack Usage) for usage examples.

This segment can be used also to specify the weight and/or volume (cube) for the item by using PO406 and PO407, and/or PO408 and PO409.

\section*{Data Element Summary}

Segment: CTT \({ }_{\text {Tranasation Toalas }}\)
Position: ..... 010Loop:Level: Summary
            Usage: Optional
        Max Use:
        Purpose:
        Syntax Notes:
        To transmit a hash total for a specific element in the transaction set
    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.

\section*{Example:}

CTT*9~
\begin{tabular}{llll} 
& \multicolumn{4}{c}{\begin{tabular}{l} 
Ref. \\
Des.
\end{tabular}} & \begin{tabular}{c} 
Data \\
Element
\end{tabular} & \begin{tabular}{l} 
Name
\end{tabular} & \begin{tabular}{l} 
Attributes \\
Must Use \\
CTT01
\end{tabular} & \begin{tabular}{l} 
Number of Line Items \\
Total number of line items in the transaction set
\end{tabular} \\
The number of HL segments present in the transaction set
\end{tabular}
```

            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.

```

\section*{Example:}

SE*40*856000706~
Must Use \(\quad\)\begin{tabular}{l} 
Ref. \\
Des.
\end{tabular}
SE01

Must Use SE02

Data Element Summary
Data
Element Name
96 Number of Included Segments
Attributes
Total number of segments included in a transaction set including ST and SE segments
329 Transaction Set Control Number
M AN 4/9
Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set This must be the same number as is in the ST segment (ST02) for the transaction set.
\begin{tabular}{|c|c|}
\hline Segment: & GE Functional Group Trailer \\
\hline Position: & \multirow[t]{3}{*}{030} \\
\hline Loop: & \\
\hline Level: & \\
\hline Usage: & Mandatory \\
\hline Max Use: & 1 \\
\hline Purpose: & \multirow[t]{2}{*}{To indicate the end of a functional group and to provide control information} \\
\hline Syntax Notes: & \\
\hline Semantic Notes: & 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. \\
\hline 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. \\
\hline
\end{tabular}

Data Element Summary

```

            Segment: IEA Interchange Control Trailer
            Position: 040
                Loop:
                Level:
            Usage:
                Max Use:
                Purpose:
                            To define the end of an interchange of zero or more functional groups and interchange-
                                related control segments
    ```
    Syntax Notes:
Semantic Notes:
    Comments:
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Data Element Summary} \\
\hline \multirow[b]{3}{*}{Must Use} & Ref. & Data & \multirow[b]{2}{*}{Name} & \multirow[b]{2}{*}{Attributes} \\
\hline & Des. & Element & & \\
\hline & IEA01 & I16 & Number of Included Functional Groups & M N0 1/5 \\
\hline & & & \multicolumn{2}{|l|}{A count of the number of functional groups included in an interchange} \\
\hline Must Use & IEA02 & 112 & Interchange Control Number & M \(\mathrm{N} 09 / 9\) \\
\hline & & & A control number assigned by the interchan & \\
\hline
\end{tabular}

\section*{Example}

Sample Ship Notice/Manifest Transaction
ST*856*856000706~
BSN \(* 00 * 007111 * 20001031 * 0745 * 0001 \sim\)
HL* \(1 * *\) S
\(\mathrm{TD} 1 * \mathrm{BAG}^{*} 7 * * * * \mathrm{G}^{*} 147 * \mathrm{LB} \sim\)
TD5*O*2*CENF~
TD3*TL**123456~
REF*BM*13828700000A~
DTM*011*20000202~
FOB*PP~
N1*ST*BOSCOV*92*87447~
N3*100 MAIN ST~
N4*SAN FRANCISCO*CA*94111~
\(\mathrm{HL} * 2 * 1 * \mathrm{O} \sim\)
PRF*835490-1***20000114~
REF*IV*807764626~
N1*BY**92*1900~
HL*3*2*T~
TSD*001*1~
MAN*GM*00007000320000113901~
PAL*4*4*9*36~
HL* \(4 * 3 * \mathrm{P} \sim\)
MAN*GM*00007000320000113906~
HL*5*4* \(\sim\)
LIN**UP*700032591261*VA*20191~
SN1**1*EA*100*200*EA~
PO4*1*2*EA~
HL* \(6 * 2 * T \sim\)
MAN*GM*00007000320000113831~ HL*7*6*P~
MAN*GM*00007000320000113838~ HL*8*7*I~
LIN**UP*700032591285*VA*20195~
SN1**2*EA* \(400 * 600 * E A \sim\)
PO4*2*3*EA~
HL*9*7*I~
LIN**UP*700032591339*VA*20205~
SN1**1*EA*800*900*EA~
PO4* \(3 * 4 *\) EA~
CTT*9~
SE*40*856000706~```

