Electronic Data Interchange

EDI 204

Motor Carrier Load Tender

Version 006010

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204 Motor Carrier Load Tender Transaction Set – Introduction

Logico uses the EDI 204 to tender loads of freight to carriers. The EDI 204 is used in conjunction with the EDI 990 (Response To A Load Tender). The EDI 204 will include all load information including the Logico Load Identifier and any other relevant reference numbers.

Functional Acknowledgement

An EDI 997 transaction set is required within fifteen minutes of Logico's creation of an EDI 204.

Response To A Load Tender (EDI 990)

Unless agreed to beforehand with Logico, all loads tendered to your organization must be responded to with an EDI 990 indicating if the load tender is accepted or rejected. The EDI 990 must be received by the "Must Respond By Date/Time" that will be included in the EDI 204 (Header – G62 Segment). If the EDI 990 is not received by this time the load is subject to reassignment to another carrier.

Definitions

To facilitate a clear understanding of Logico's EDI 204 construct, the following definitions are offered:

> ***Shipment*** – a collection of items (freight) that are being shipped from a single location and are consigned to a single location and will be accompanied by a single Bill of Lading. Logico will assign each shipment a unique shipment identifier (shipment id).

> ***Load*** – a collection of shipments (bills of lading) that will be transported together and tendered to an individual carrier. The load may contain one or multiple shipments. Given that a load may contain multiple shipments, the load may require the carrier to stop at more than one pickup and/or delivery location (aka a "milkrun"). Logico will assign each load a unique load identifier (load id). Commonly, a carrier will assign a unique PRO number to each load tendered and generate a single freight invoice for each load.

Load Tender Charges

Logico utilizes the AT5 Loop in the Header of the Load Tender to convey the anticipated and agreed upon charges (i.e. the "rates") associated with the Load Tender. See AT5/RTT/C3 sections of this guide for more information.

Given that loads are most often tendered for pickup in the future, fuel surcharge amounts are commonly not known at the time of tender and therefore may not be itemized in the AT5 loop. The appropriate fuel schedule and distance (miles) that should be applied to the load tender when calculating fuel surcharges are identified in the L11 segment of the Header. See L11 segment of this guide for more information.

Direct (Point-to-Point) Example:

The first example represents the simplest scenario, a load which contains only one shipment and transits directly from the shipper to the consignee.

Notice how the same L11 001 (Logico shipment id – with an SI qualifier) is presented on two different stops (S5). The first stop indicates where the shipment is being shipped from (SF) and is being loaded (LD), while the second stop indicates where the shipment is being shipped to (ST) and will be unloaded (UL).

```
ISA*00*          *00*          *32*999999999     *32*888888888
*220225*1310*U*00601*000000025*1*P*>~
GS*SM*999999999*888888888*20220225*1310*25*X*006010~
ST*204*000000024~
B2**XXXX**2096889**CC*L~
B2A*00*FR~
L11*SMC LTL - USA (USA)*XX7*Fuel Schedule: SMC LTL - USA (USA)~
L11*538*ZZ*Total Distance:538~
L11*12372*RN*Route ID:12372~
G62*64*20220225*1*1410*LT~
AT5*400**Transport~
RTT*FC*78~
C3*USD~
N1*BT*XYZ Co % Grupo Logico*93*22722~
N3*42400 Grand River Ave~
N4*Novi*MI*48375*USA~
N7**Unknown*********53****0630*****110*98~
S5*1*LD~
L11*3695763*SI~
L11*XXX*IT~
G62*69*20220211*U*1600*LT~
NTE*BBO*Aptiv Services~
NTE*CAI*XYZ Co c/o XX Warehouse~
N1*SF*Aptiv Services*93*30000~
N3*123 Main St~
N4*Warren*OH*44483*USA~
OID*3695763~
LAD*******PU*16653*PN*70***Class 70~
L5*1**70*N~
S5*2*UL~
L11*3695763*SI~
L11*XXX*IT~
G62*70*20220215*X*1500*LT~
NTE*BBO*Aptiv Services~
NTE*CAI*XYZ Co c/o XX Warehouse~
N1*ST*XYZ Co c/o XX Warehouse*93*19339~
N3*987 Main St~
N4*Gallatin*TN*37066*USA~
OID*3695763~
LAD*******PU*16653*PN*70***Class 70~
L5*1**70*N~
L3*0*FR*********0*L~
SE*40*000000024~
```

```
GE*1*25~
IEA*1*000000025~
```

In-Direct (Multi-Stop) Example:

The second example represents a more complex scenario, a load which contains multiple shipments and transits indirectly (aka a "milkrun"). Each stop (S5 Loop occurrence) represents a specific activity (Load or Unload), at a specific location (ship-from or ship-to), at a specific date/time, <u>for a specific shipment</u> (bill of lading).

```
ISA*00*          *00*          *32*999999999     *32*888888888
*220225*1323*U*00601*000000026*1*P*>~
GS*SM*999999999*888888888*20220225*1323*26*X*006010~
ST*204*000000025~
B2**XXXX**2099022**CC*L~
B2A*00*FR~
L11*Schedule C - OTR Per Mile (USA*XX7*Fuel Schedule: Schedule C - OTR Per
Mile (USA)~
L11*378*ZZ*Total Distance:378~
L11*15971*RN*Route ID:15971~
G62*64*20220225*1*1423*LT~
AT5*400**Transport~
RTT*FC*695~
C3*USD~
AT5*SOC**Stop-off~
RTT*FC*50~
C3*USD~
N1*BT*Grupo Logico*93*7563~
N3*42400 Grand River Ave*Suite 103~
N4*Novi*MI*48375*USA~
G61*LG*Contact Phone*TE*248-669-0478 ext 3~
G61*LG*Contact Email*EM*email@company.com~
N7**Unknown*********53****0630*****110*98~
S5*1*LD~
L11*3699084*SI~
L11*XXXX*IT~
G62*69*20220204*U*1200*LT~
NTE*BBO*AAA Company~
NTE*CAI*XXX Company~
N1*SF*AAA Company*93*16696~
N3*123 Main St~
N4*Duncan*SC*29334*USA~
G61*CN*Contact Phone*TE*555-555-5555~
G61*CN*Contact Mobile*CP*555-555-5555~
G61*CN*Contact Email*EM*email@company.com~
OID*3699084~
LAD*******PU*264*PN*FAK***Freight All Kinds~
S5*2*UL~
L11*3699084*SI~
L11*XXXX*IT~
G62*70*20220204*X*1600*LT~
NTE*BBO*AAA Company~
NTE*CAI*XXX Company~
N1*ST*XXX Company*93*26834~
```

```
N3*987 Main St~
N4*Ladson*SC*29456*USA~
OID*3699084~
LAD*******PU*264*PN*FAK***Freight All Kinds~
S5*3*LD~
L11*3699085*SI~
L11*XXXX*IT~
G62*69*20220204*U*1715*LT~
NTE*BBO*BBB Inc % BB~
NTE*CAI*AAA Company~
N1*SF*BBB Inc % BB*93*27728~
N3*234 Main St~
N4*Ladson*SC*29456*USA~
OID*3699085~
LAD*******PU*264*PN*FAK***Freight All Kinds~
S5*4*UL~
L11*3699085*SI~
L11*XXXX*IT~
G62*70*20220204*X*2200*LT~
NTE*BBO*BBB Inc % BB~
NTE*CAI*AAA Company~
N1*ST*AAA Company*93*16696~
N3*123 Main St~
N4*Duncan*SC*29334*USA~
G61*CN*Contact Phone*TE*555-555-5555~
G61*CN*Contact Mobile*CP*555-555-5555~
G61*CN*Contact Email*EM*email@company.com~
OID*3699085~
LAD*******PU*264*PN*FAK***Freight All Kinds~
L3*0*FR*********0*L~
SE*71*000000025~
GE*1*26~
IEA*1*000000026~
```

Intermediate Location (Cross-Dock) Example:

The third example represents a load which contains multiple shipments and begins at a cross-dock and then transits to a location where freight is delivered and then more freight is picked up ("kick-n-pick") and then returns to the cross-dock. Each shipment was originally shipped from various shippers in to the cross-dock and then consolidated on to this example load. Notice how the Shipper (identified in the NTE segment) for each shipment does not match the Ship From (SF) location. That is due to the shipments being picked up from the cross-dock, not the original shipper's location.

Notice how it is possible for two stops in the S5 loop to contain the same activity (LD or UL), the same ship-from or ship-to information (SF or ST), the same date/time (G62 segment), but a different shipment id (L11 001), and different shipper (ST) or consignee (CN) information (NTE segment). This is since it is possible to pick up or deliver multiple shipments (each being referenced by a unique shipment id and bill of lading number) at the same physical location (SF or ST) at the same time.

```
ISA*00*          *00*          *32*999999999     *32*888888888
*220225*1214*U*00601*000000025*1*P*>~
GS*SM*999999999*888888888*20220225*1214*25*X*006010~
ST*204*000000024~
B2**XXXX**2098146**CC*L~
B2A*00*FR~
L11*jaf12445*CN~
L11*Schedule B Fuel (USA)*XX7*Fuel Schedule: Schedule B Fuel - Pct of LH
(USA)~
L11*84*ZZ*Total Distance:84~
L11*9891*RN*Route ID:9891~
G62*64*20220224*1*1701*LT~
AT5*400**Transport~
RTT*FC*375~
C3*USD~
NTE*ORI*Special Instructions~
N1*BT*XYZ Co % Grupo Logico*93*22970~
N3*42400 Grand River Ave*Suite 103~
N4*Novi*MI*48375*USA~
N7**444*********53****0630****110*98~
S5*1*LD~
L11*3697549*SI~
L11*999333*BM~
L11*XXX*IT~
G62*69*20220207*U*0200*LT~
NTE*CUS*Radix Group International dba DHL Global~
NTE*BBO*Hatch Stamping~
NTE*CAI*XYZ Co~
N1*SF*Cross Dock*93*24332~
N3*123 Main St~
N4*Brownstown*MI*48193*USA~
G61*CN*Contact Phone*TE*555-555-5555 ext 2~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697549~
LAD*PLT*2***L*2005*PU*264*PN*FAK***Freight All Kinds~
L5*1**55*N~
OID*3697549~
LAD*PLT*4***L*4259*PU*16659*PN*125***Class 125~
L5*2**125*N~
S5*2*LD~
L11*3697548*SI~
L11*aq1233*BM~
L11*XXX*IT~
G62*69*20220207*U*0200*LT~
NTE*CUS*Livingston~
NTE*BBO*Kuester Automotive c-o Schenker~
NTE*CAI*XYZ Co~
N1*SF*Cross Dock*93*24332~
N3*123 Main St~
N4*Brownstown*MI*48193*USA~
G61*CN*Contact Phone*TE*555-555-5555 ext 2~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697548~
LAD*PLT*1***L*14500*PU*264*PN*FAK***Test~
```

```
S5*3*LD~
L11*3697697*SI~
L11*XXX*IT~
G62*69*20220207*U*0200*LT~
NTE*BBO*Mantaline~
NTE*CAI*XYZ Co~
N1*SF*Cross Dock*93*24332~
N3*123 Main St~
N4*Brownstown*MI*48193*USA~
G61*CN*Contact Phone*TE*555-555-5555 ext 2~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697697~
LAD*******PU*16653*PN*70***Class 70~
L5*1**70*N~
S5*4*LD~
L11*3697544*SI~
L11*XXX*IT~
G62*69*20220207*U*0200*LT~
NTE*BBO*Pioneer Metal - (UACJ)~
NTE*CAI*XYZ Co~
N1*SF*Cross Dock*93*24332~
N3*123 Main St~
N4*Brownstown*MI*48193*USA~
G61*CN*Contact Phone*TE*555-555-5555 ext 2~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697544~
LAD*******PU*264*PN*FAK***Freight All Kinds~
S5*5*UL~
L11*3697549*SI~
L11*999333*BM~
L11*XXX*IT~
G62*70*20220207*X*0600*LT~
NTE*CUS*Radix Group International dba DHL Global~
NTE*BBO*Hatch Stamping~
NTE*CAI*XYZ Co~
N1*ST*XYZ Co*93*9744~
N3*987 Main St~
N4*Auburn Hills*MI*48326*USA~
G61*CN*Contact Phone*TE*555-555-5555~
G61*CN*Contact Mobile*CP*555-555-5555~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697549~
LAD*PLT*2***L*2005*PU*264*PN*FAK***Freight All Kinds~
L5*1**55*N~
OID*3697549~
LAD*PLT*4***L*4259*PU*16659*PN*125***Class 125~
L5*2**125*N~
S5*6*UL~
L11*3697548*SI~
L11*aq1233*BM~
L11*XXX*IT~
G62*70*20220207*X*0600*LT~
NTE*CUS*Livingston~
NTE*BBO*Kuester Automotive c-o Schenker~
```

```
NTE*CAI*XYZ Co~
N1*ST*XYZ Co*93*9744~
N3*987 Main St~
N4*Auburn Hills*MI*48326*USA~
G61*CN*Contact Phone*TE*555-555-5555~
G61*CN*Contact Mobile*CP*555-555-5555~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697548~
LAD*PLT*1***L*14500*PU*264*PN*FAK***Test~
S5*7*UL~
L11*3697697*SI~
L11*XXX*IT~
G62*70*20220207*X*0600*LT~
NTE*BBO*Mantaline~
NTE*CAI*XYZ Co~
N1*ST*XYZ Co*93*9744~
N3*987 Main St~
N4*Auburn Hills*MI*48326*USA~
G61*CN*Contact Phone*TE*555-555-5555~
G61*CN*Contact Mobile*CP*555-555-5555~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697697~
LAD******PU*16653*PN*70***Class 70~
L5*1**70*N~
S5*8*UL~
L11*3697544*SI~
L11*XXX*IT~
G62*70*20220207*X*0600*LT~
NTE*BBO*Pioneer Metal - (UACJ)~
NTE*CAI*XYZ Co~
N1*ST*XYZ Co*93*9744~
N3*987 Main St~
N4*Auburn Hills*MI*48326*USA~
G61*CN*Contact Phone*TE*555-555-5555~
G61*CN*Contact Mobile*CP*555-555-5555~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697544~
LAD******PU*264*PN*FAK***Freight All Kinds~
S5*9*LD~
L11*3697556*SI~
L11*XXX*IT~
G62*69*20220207*U*0600*LT~
NTE*BBO*XYZ Co~
NTE*CAI*Hatch Stamping~
N1*SF*XYZ Co*93*9744~
N3*987 Main St~
N4*Auburn Hills*MI*48326*USA~
G61*CN*Contact Phone*TE*555-555-5555~
G61*CN*Contact Mobile*CP*555-555-5555~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697556~
LAD******PU*264*PN*FAK***Freight All Kinds~
S5*10*UL~
L11*3697556*SI~
```

```
L11*XXX*IT~
G62*70*20220207*X*1100*LT~
NTE*BBO*XYZ Co~
NTE*CAI*Hatch Stamping~
N1*ST*Cross Dock*93*24332~
N3*123 Main St~
N4*Brownstown*MI*48193*USA~
G61*CN*Contact Phone*TE*555-555-5555 ext 2~
G61*CN*Contact Email*EM*contact@company.com~
OID*3697556~
LAD*******PU*264*PN*FAK***Freight All Kinds~
L3*20764*FR*********7*L~
SE*171*000000024~
GE*1*25~
IEA*1*000000025~
```

204 Motor Carrier Load Tender

Not Define:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
	ISA	Interchange Control Header	M	1			Must Use
	GS	Functional Group Header	M	1			Must Use

Heading:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
100	ST	Transaction Set Header	M	1			Must Use
200	B2	Beginning Segment for Shipment Information Transaction	M	1			Must Use
300	B2A	Set Purpose	M	1			Must Use
800	L11	Business Instructions and Reference Number	O	99999			Used
900	G62	Date/Time	O	1			Used
LOOP ID _ AT5					**6**		
1100	AT5	Bill of Lading Handling Requirements	O	1			Used
1120	RTT	Freight Rate Information	O	1			Used
1150	C3	Currency Identifier	O	1			Used
1300	NTE	Note/Special Instruction	O	10			Used
LOOP ID _ N1					**5**		
1400	N1	Party Identification	O	1			Used
1600	N3	Party Location	O	2			Used
1700	N4	Geographic Location	O	1			Used
1900	G61	Contact	O	3			Used
LOOP ID _ N7					**10**		
2000	N7	Equipment Details	O	1			Used

Detail:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
LOOP ID _ S5					**999**		
LOOP ID _ S5					**999**		
100	S5	Stop-off Details	M	1			Must Use
100	L11	Business Instructions	O	99999			Used

100		and Reference Number					
100	G62	Date/Time	O	3			Used
100	NTE	Note/Special Instruction	O	20			Used
LOOP ID _ N1					**1**		
100	N1	Party Identification	O	1			Used
100	N3	Party Location	O	2			Used
100	N4	Geographic Location	O	1			Used
100	G61	Contact	O	3			Used
LOOP ID _ OID					**99999**		
100	OID	Order Information Detail	O	1			Used
100	LAD	Lading Detail	O	99999			Used
LOOP ID _ L5					**99999**		
100	L5	Description, Marks and Numbers	O	1			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>
100	L3	Total Weight and Charges	O	1			Used
200	SE	Transaction Set Trailer	M	1			Must Use

Not Define:

	GE	Functional Group Header	M	1			Must Use
	IEA	Interchange Control Trailer	M	1			Must Use

ISA — Interchange Control Header

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

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ISA01	I01	Authorization Information Qualifier	M	ID	2/2	Must use
		Description: Code to identify the type of information in the Authorization Information.				
ISA02	I02	Authorization Information	M	AN	10/10	Must use
		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).				
ISA03	I03	Security Information Qualifier	M	ID	2/2	Must use
		Description: Code to identify the type of information in the Security Information.				
ISA04	I04	Security Information	M	AN	10/10	Must use
		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).				
ISA05	I05	Interchange Sender ID Qualifier	M	ID	2/2	Must use
		Code **Purpose** 32 U.S. Federal Employer Identification Number (FEIN) ZZ Mutually Defined 02 SCAC (Standard Carrier Alpha Code)				
		Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified.				
ISA06	I06	Interchange Sender ID	M	AN	15/15	Must use
		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				
ISA07	I07	Interchange Receiver ID Qualifier	M	ID	2/2	Must use
		Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified				
ISA08	I08	Interchange Receiver ID	M	AN	15/15	Must use
		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				
ISA09	I09	Interchange Date	M	DT	6/6	Must use
		Description: Date of the interchange				
ISA10	I10	Interchange Time	M	TM	4/4	Must use
		Description: Time of the interchange				
ISA11	I11	Interchange Control Standards Identifier	M	ID	1/1	Must use
		Description: Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer				
ISA12	I12	Interchange Control Version Number	M	ID	5/5	Must use
		Description: Code specifying the version number of the interchange control segments				
ISA13	I13	Interchange Control Number	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				
ISA14	I14	Acknowledgment Requested	M	ID	1/1	Must use
		Description: Code sent by the sender to request an interchange acknowledgment (TA1)				
ISA15	I15	Usage Indicator	M	ID	1/1	Must use
		Description: Code to indicate whether data enclosed by this interchange envelope is test, production or information. 'P' for Production, 'T' for Test.				
ISA16	I16	Component Element Separato	M		1/1	Must use
		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				

GS   Functional Group Header

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

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
GS01	GS01	Functional Identifier Coder	M	ID	2/2	Must use
		Description: Code identifying a group of application related transaction sets				
GS02	GS02	Application Sender's Code	M	AN	2/15	Must use
		Description: Code identifying party sending transmission; codes agreed to by trading partners				
GS03	GS03	Application Receiver's Code	M	AN	2/15	Must use
		Description: Code identifying party receiving transmission; codes agreed to by trading partners				
GS04	GS04	Date	M	DT	8/8	Must use
		Description: Date expressed as YYYYMMDD				
GS05	GS05	Time	M	TM	4/8	Must use
		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)				
GS06	GS06	Group Control Number	M	N0	1/9	Must use
		Description: Assigned number originated and maintained by the sender				
GS07	GS07	Responsible Agency Code	M	ID	1/2	Must use
		Description: Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480				
GS08	GS08	Version / Release / Industry Identifier Code	M	AN	1/12	Must use
		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				

ST

Transaction Set Header

Pos: 100	Max: 1
Header - Mandatory	
Loop: N/A	Elements: 2

*See ASC X12 Nomenclature, to review the transaction set structure, including descriptions of segments, data elements, levels, and loops

Used

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ST001	143	Transaction Set Identifier Code	M/Z	ID	3/3	Used
		Code **Purpose** 204 Motor Carrier Load Tender				
		Description: Code identifying a Transaction Set				
ST002	329	Transaction Set Control Number	M	AN	4/9	Must use
		Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set.				

B2 Beginning Segment for Shipment Information Transaction

Used
To transmit basic data relating to load (shipment) information.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
B2002	140	Standard Carrier Alpha Code	M	ID	2/4	Must use
		Description: SCAC of the carrier that the load is being tendered to. Return SCAC on EDI 990 in B1.001. Return SCAC on EDI 214 in B10.003. Return SCAC on EDI 210 in B3.011.				
B2004	145	Shipment Identification Number	M	AN	1/30	Must use
		Description: Identification number assigned to the load by the tendering party that uniquely identifies the load from origin to ultimate destination and is not subject to modification. The Logico Load ID. Return Load ID on EDI 990 in B1.002. Return Load ID on EDI 214 in B10.002. Return Load ID on EDI 210 in B3.003.				
B2006	146	Shipment Method of Payment	M	ID	2/2	Must use
		Code　　**Purpose** CC　　Collect PP　　Prepaid (by Seller)				
		Description: Code identifying payment terms for transportation charges.				
B2007	147	Shipment Qualifier	M	ID	1/1	Must use
		Code　　**Purpose** L　　Single Load (Blind Memo) Memo--Incomplete Documentation				
		Description: Code specifying relationship of this shipment with respect to other shipments given to the carrier at the same time.				

B2A   Set Purpose

Used
To allow for positive identification of transaction set purpose.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
B2A001	353	Transaction Set Purpose Code	M	ID	2/2	Must use
		Code **Purpose** 00 Original 01 Cancellation				
		Description: Logico does not issue load tender changes (04). If a load tender must be changed, the original tender (00) will be cancelled by issuing a cancellation tender (01) and a new load tender (00) will then be issued.				
B2A002	346	Application Type	M	ID	2/2	Must use
		Code **Purpose** FR Freight Tender				
		Description: Code identifying an application.				

| L11 | **Business Instructions and Reference Number** | | Pos: 800   Max: 99999
Header - Optional
Loop: N/A   Elements: 3 |

Used
To specify instructions relating to this load tender or provide additional reference information.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
L11001	127	Reference Identification	X	AN	1/80	Used
		Description: If either L11 001 or L11 002 is present, then the other is required. Return Carrier PRO on EDI 990 in L11 001 (CN qualifier). Return Carrier PRO on EDI 214 in B10 001 (CN qualifier). Return Carrier PRO on EDI 210 in L11 001 (CN qualifier). If Carrier's PRO also acts as the invoice number for the load, then also return Carrier PRO on EDI 210 in B3 002.				
L11002	128	Reference Identification Qualifier	X	ID	2/3	Used
		Code **Purpose** CN Carrier's Reference Number (PRO/Invoice) XX7 Schedule Type Code ZZ Mutually Defined RN Run Number				
		Description: CN - Used to provide the carrier's PRO number if it is known by the tendering party at the time of load tender. XX7 - Used to identify the fuel surcharge schedule that applies to the load tender. ZZ - Used to provide the total distance (miles) of the load tender. RN - Used to identify the Logico Route identifier.				
L11003	352	Description	X	AN	1/80	Used
		Description: A free-form description to clarify the related data elements and their content.				

G62 Date/Time

Pos: 900   Max: 1
Header - Optional
Loop: N/A   Elements: 5

Used
To specify pertinent dates and times
This segment is used to transmit the date and time the EDI 990 must be received by the tendering party in order to accept or reject the load tender.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
G62001	432	Date Qualifier	X	ID	2/2	Used
		Code **Purpose** 64 Must Respond By				
		Description: Code specifying type of date. If G62.001 or G62.002 is present, then the other is required.				
G62002	373	Date	X	DT	8/8	Used
		Description: Date expressed as YYYYMMDD				
G62003	176	Time Qualifier	X	ID	1/2	Used
		Code **Purpose** 1 Must Respond By				
		Description: Code specifying the reported time. If G62.003 or G62.004 is present, then the other is required.				
G62004	337	Time	X	TM	4/8	Used
		Description: Time expressed in 24-hour clock time (HHMM).				
G62005	623	Time Code	O	ID	2/2	Used
		Code **Purpose** ET Eastern Time				
		Description:				

AT5 Bill of Lading Handling Requirements

		Pos: 1100 Max: 1
		Header - Optional
		Loop: AT5 Elements: 2

Used
To identify Bill of Lading handling and service requirements.
This segment is used to transmit the agreed upon charges that pertain to this load tender (i.e. the accrual).
These same charge codes and corresponding amounts, along with any additional charges, should be returned on the EDI 210 L1 segment.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
AT501	150	Special Charge or Allowance Code	O	ID	3/3	Used
		Description: Element 152 has been replaced with element 150 in this segment to provide the charge codes on the EDI 204 that are expected in return on the EDI 210. See Appendix B for valid codes.				
AT503	153	Special Handling Description	X	AN	2/30	Used
		Description: If AT5.001 is present, then AT5.003 is required.				

RTT Freight Rate Information

Pos: 1120		**Max: 1**
	Header - Optional	
Loop: AT5		**Elements: 2**

Used
The authorized amount for each charge code transmitted in AT5.001.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
RTT001	122	Rate/Value Qualifier	M	ID	2/2	Must use
		Code **Purpose** FC Flat Charge				
		Description: Code identifying how to extend charges or interpret value.				
RTT002	60	Freight Rate	M	RD	1/15	Must use
		Description: Rate that applies to the specific charge.				

C3　Currency Identifier

Used
The currency for the corresponding charge code transmitted in AT5.001.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
C3001	100	Currency Code	M/Z	ID	3/3	Used
		Description: If AT5.001 is present, then C3.001 is required.				

NTE Note/Special Instruction

			Pos: 1300	Max: 10
			Header - Optional	
			Loop: N/A	Elements: 2

Used
To transmit any special instructions pertaining to this load tender in a free-form text format, if necessary.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
NTE001	363	Note Reference Code	O	ID	3/3	Used
		Code **Purpose** ORI Order Instructions				
		Description: Code identifying the functional area or purpose for which the note applies.				
NTE002	352	Description	M	AN	1/80	Must use
		Description: A free-form description to clarify the related data elements and their content.				

N1　Party Identification

<table>
<tr><td>Pos: 1400</td><td>Max: 1</td></tr>
<tr><td colspan="2">Header - Optional</td></tr>
<tr><td>Loop: N1</td><td>Elements: 4</td></tr>
</table>

Used
To identify a party by type of organization, name, and code.
This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency, the "ID Code" (N1 004) must provide a key to the table maintained by the tendering party and should be used by the carrier to build a cross-reference table. This segment is utilized to communicate the physical location that any hard-copy freight invoices or other supporting documents that pertain to this load tender should be sent to.
All hard-copy freight invoices and documents MUST be shipped to this location regardless of the payment terms code specified in the EDI 204 B2 006.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N1001	98	Entity Identifier Code	M	ID	2/3	Must use
		Code **Purpose** BT　　Bill-to-Party				
		Description: Code identifying an organizational entity, a physical location, property or an individual. If N1.001 is present, then N1.002, N1.003, and N1.004 are required.				
N1002	93	Name	M	AN	1/60	Must use
		Description: Location name.				
N1003	66	Identification Code Qualifier	M	ID	1/2	Must use
		Code **Purpose** 93　　Code assigned by the organization originating the transaction set				
		Description: Code specifying the system/method of code structure used for Identification Code (67).				
N1004	67	Identification Code	M	AN	2/80	Must use
		Description: The Logico Location Identifier.				

N3

Party Location

Used
To specify the address information of the named party.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N3001	166	Address Information	M	AN	1/55	Must use
		Description: Address 1				
N3002	166	Address Information	O	AN	1/55	Used
		Description: Address 2				

N4   Geographic Location

<table>
<tr><td colspan="3">Pos: 1700   Max: 1
Header - Optional
Loop: N1   Elements: 4</td></tr>
</table>

Used
To specify the geographic information of the named party.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N4001	19	City Name	O	AN	2/30	Used
		Description: Free-form text for city name.				
N4002	156	State or Province Code	X	ID	2/2	Used
		Description: Code specifying the Standard State/Province as defined by appropriate government agency. If N4.001 is present, then N4.002 is required.				
N4003	116	Postal Code	O	ID	3/15	Used
		Description: Code specifying international postal zone code (zip code for United States).				
N4004	26	Country Code	X	ID	2/3	Used
		Description: ISO-3166 three character code. If N4.003 is present, then N4.004 is required.				

G61   Contact

<table>
<tr><td>Pos: 1900</td><td>Max: 3</td></tr>
<tr><td colspan="2">Header - Optional</td></tr>
<tr><td>Loop: N1</td><td>Elements: 4</td></tr>
</table>

Used
To identify a person or office to whom communications regarding this load tender should be directed.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
G61001	366	Contact Function Code	M	ID	2/2	Must use
		Code **Purpose** CN General Contact				
		Description: Code identifying the major duty or responsibility of the person or group named.				
G61002	93	Name	M	AN	1/60	Must use
		Description: Free-form name.				
G61003	365	Communication Number Qualifier	X	ID	2/2	Used
		Code **Purpose** CP Cellular Phone EM Electronic Mail TE Telephone				
		Description: Code identifying the type of communication number. If G61 001 and G61 002 are present, then G61 003 is required.				
G61004	364	Communication Number	X	AN	1/256	Used
		Description: Complete communications number including country or area code when applicable. If G61 003 is present, then G61 004 is required.				

N7 Equipment Details

Used
To identify the asset type (equipment) required for this load tender.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N7002	207	Equipment Number	M	AN	1/15	Must use
		Description: The carrier's equipment unit number (i.e. trailer number). If at the time of tender, the equipment number is unknown by the tendering party, then a hard-coded value of "Unknown" will be provided in this field.				
N711	40	Equipment Description Code	O	ID	2/2	Used
		Description: Code identifying the specific asset type (equipment) required for this load tender. See Appendix A for list of valid codes. Return this code on the EDI 210 N7.011.				
N715	567	Equipment Length	O	N0	4/5	Used
		Description: Length (specified in inches) of the asset type (equipment) required for the load tender. Example: 636 inches (53ft) expressed as 0636.				
N719	56	Type of Service Code	O	ID	2/2	Used
		Code Purpose DR Door to Ramp RD Ramp to Door RE Ramp to Ramp				
		Description: Code specifying extent of transportation service requested. Used for our freight consolidation network. Identifies what type of load is being tendered: DR = Shipper(s)-to-CrossDock (Consolidation Pickups) RD = CrossDock-to-Consignee(s) (Consolidation Deliveries) RE = CrossDock-to-CrossDock or CrossDock-to-Plant or Plant-to-CrossDock (Linehauls)				
N720	65	Height	O	RD	1/8	Used
		Description: Height (specified in inches) of the asset type (equipment) required for the load tender.				
N721	189	Width	O	RD	1/8	Used
		Description: Width (specified in inches) of the asset type (equipment) required for the load tender.				

S5   Stop-off Details

<table>
<tr><td>Pos: 100</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Mandatory</td></tr>
<tr><td>Loop: S5</td><td>Elements: 2</td></tr>
</table>

Used
To specify stop-off detail reference numbers and stop reason codes.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
S5001	165	Stop Sequence Number	M	N0	1/3	Must use
		Description: Identifying number for the specific stop and the sequence in which the stop is to be performed. Stop Sequence Number starts at 1 (first stop) and increments by 1.				
S5002	163	Stop Reason Code	M	ID	2/2	Must use
		Code **Purpose** LD Load UL Unload				
		Description: Code that indicates the type of activity that will take place at the specified stop. The load tender may contain multiple stops (with different sequence numbers) indicated at the same location, at the same time, and utilizing the same stop reason code. This would reflect a scenario where the carrier is scheduled to pickup (LD) or deliver (UL) multiple shipments (Bills of Lading) at the same location at the same time.				

L11 Business Instructions and Reference Number

Pos: 100		**Max: 99999**
	Detail - Optional	
Loop: S5		**Elements: 2**

Used
To specify instructions or reference numbers pertaining to the specified stop.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
L11001	127	Reference Identification	X	AN	1/80	Used
		Description: If either L11.001 or L11.002 is present, then the other is required.				
L11002	128	Reference Identification Qualifier	X	ID	2/3	Used
		Code **Purpose** BM Bill of Lading Number IT Internal Customer Number SI Shipper's Identifying Number for Shipment (SID)				
		Description: SI = The Logico Shipment Identifier. The SI will always be provided. The SI must be returned on EDI 214 in the LX Loop, L11.001 with an SI qualifier. BM = The shipper's bill of lading number as displayed on the paperwork given to the driver. The BM may optionally be provided if it is known by the tendering party at the time of load tender. The BM must be returned on the EDI 214 in the LX Loop, L11.001 with a BM qualifier. IT = The Logico customer code. The IT will always be provided.				

G62 Date/Time

Pos: 100   **Max: 3**
Detail - Optional
Loop: S5   **Elements: 5**

Used
To specify dates and times pertaining to the stop.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
G62001	432	Date Qualifier	X	ID	2/2	Used
		Code **Purpose** 69 Scheduled Pickup Date 70 Scheduled Delivery Date				
		Description: Code specifying type of date. If either G62.001 or G62.002 is present, then the other is required.				
G62002	373	Date	X	DT	8/8	Used
		Description: Date expressed as YYYYMMDD.				
G62003	176	Time Qualifier	X	ID	1/2	Used
		Code **Purpose** U Scheduled Pickup Time X Scheduled Delivery Time				
		Description: Code specifying the reported time. If either G62.003 or G62.004 is present, then the other is required.				
G62004	337	Time	X	TM	4/8	Used
		Description: Time expressed in 24-hour clock time (HHMM).				
G62005	623	Time Code	O	ID	2/2	Used
		Code **Purpose** LT Local Time				
		Description: All times will be presented in the time zone which corresponds to the location specified in the N1 Segment. "LT" is the only valid value for this element. Logico takes an "all times local" approach and will present the date/time in the G62 segment in the time zone that corresponds to the location being reported.				

NTE Note/Special Instruction

Pos: 100	Max: 20
Detail - Optional	
Loop: S5	Elements: 2

Used
To transmit any special instructions pertaining to this load tender in a free-form text format, if necessary.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
NTE001	363	Note Reference Code	O	ID	3/3	Used
		Code **Purpose** CUS Customs declaration BBO Business Origin Description CAI General Business Description				
		Description: Code identifying the functional area or purpose for which the note applies. CUS = Name of Customs Broker for the Shipment. IF this is known at time of tender, it will be included. BBO = Name of the original Shipper of the material (as identified on the bill of lading) CAI = Name of the ultimate Consignee of the material (as identified on the bill of lading) Shipper and Consignee will always be provided The Shipper (SH), which is identified on the bill of lading, and the Ship-From (SF), which is identified in the N1 segment may not be the same in the case when the carrier is picking the material up from a cross-dock. The Consignee (CN), which is identified on the bill of lading, and the Ship-To (ST), which is identified in the N1 segment may not be the same in the case when the carrier is delivering the material to a cross-dock.				
NTE002	352	Description	M	AN	1/80	Must use
		Description: A free-form description to clarify the related data elements and their content.				

N1   Party Identification

<table>
<tr><td>Pos: 100</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Optional</td></tr>
<tr><td>Loop: N1</td><td>Elements: 4</td></tr>
</table>

Used
To identify a party by type of organization, name, and code.
This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency, the "ID Code" (N1 004) must provide a key to the table maintained by the tendering party and should be used by the carrier to build a cross-reference table.
This segment is utilized to identify the physical location of the stop (either ship-from or ship-to). The physical location (ship-from or ship-to) may be different from either the shipper or consignee identified on the BOL. This would reflect a scenario where the carrier is being instructed to pickup (LD) or deliver (UL) one or more shipments (BOLs) at an intermediate location (e.g. warehouse, cross-dock, etc.).
The Shipper and Consignee Names are provided in the NTE segment
Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N1001	98	Entity Identifier Code	M	ID	2/3	Must use
		Code **Purpose** SF Ship From ST Ship To				
		Description: Code identifying an organizational entity, a physical location, property or an individual.				
N1002	93	Name	X	AN	1/60	Used
		Description: Location name. If N1.001 is present, then N1.002 is required.				
N1003	66	Identification Code Qualifier	X	ID	1/2	Used
		Code **Purpose** 93 Code assigned by the organization originating the transaction set				
		Description: Code specifying the system/method of code structure used for Identification Code (67).				
N1004	67	Identification Code	X	AN	2/80	Used
		Description: The Logico Location Identifier.				

N3 Party Location

	Pos: 100 Max: 2
	Detail - Optional
	Loop: N1 Elements: 2

Used
To specify the address information of the named party.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N3001	166	Address Information	M	AN	1/55	Must use
		Description: Address 1.				
N3002	166	Address Information	O	AN	1/55	Used
		Description: Address 2.				

N4   Geographic Location

<table>
<tr><td colspan="2">Pos: 100</td><td>Max: 1</td></tr>
<tr><td colspan="3">Detail - Optional</td></tr>
<tr><td colspan="2">Loop: N1</td><td>Elements: 4</td></tr>
</table>

Used
To specify the geographic information of the named party.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N4001	19	City Name	O	AN	2/30	Used
		Description: Free-form text for city name.				
N4002	156	State or Province Code	X	ID	2/2	Used
		Description: Code specifying the Standard State/Province as defined by appropriate government agency. If N4.001 is present, then N4.002 is required.				
N4003	116	Postal Code	O	ID	3/15	Used
		Description: Code specifying international postal zone code (zip code for United States).				
N4004	26	Country Code	X	ID	2/3	Used
		Description: ISO-3166 three character code. If N4.003 is present, then N4.004 is required.				

G61 Contact

Used
To identify a person or office to whom communications regarding this stop should be directed.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
G61001	366	Contact Function Code	M	ID	2/2	Must use
		Code **Purpose** CN General Contact				
		Description: Code identifying the major duty or responsibility of the person or group named.				
G61002	93	Name	M	AN	1/60	Must use
		Description: Free-form name.				
G61003	365	Communication Number Qualifier	X	ID	2/2	Used
		Code **Purpose** CP Cellular Phone EM Electronic Mail TE Telephone				
		Description: Code identifying the type of communication number. If G61.001 and G61.002 are present, then G61.003 is required.				
G61004	364	Communication Number	X	AN	1/256	Used
		Description: Complete communications number including country or area code when applicable. If G61.003 is present, then G61.004 is required.				

OID Order Information Detail

Used
To specify order information detail

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
OID001	127	Reference Identification	X/Z	AN	1/80	Used
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier The Logico Shipment identifier.				

LAD   Lading Detail

Used
To transmit detailed lading data pertinent to a specific stop.
This segment is used to communicate details (identifiers, quantities, weights, etc.) for items being shipped, if they are known at the time of load tender.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LAD001	211	Packaging Form Code	X	ID	3/3	Used
		Code **Purpose** BDL Bundle BIN Bin BOX Box CNT Container CRT Crate DRM Drum LSE Loose PCS Pieces PLT Pallet RCK Rack ROL Roll TBN Tote Bin				
		Description: Code for packaging form of the lading quantity. The type of shipping container/handling unit (e.g pallet, rack, etc.) for the identified item.				
LAD002	80	Lading Quantity	X	N0	1/7	Used
		Description: The number of shipping containers/handling units for the identified item. If LAD.002 is present, then LAD.001 is required.				
LAD005	188	Weight Unit Code	X	ID	1/1	Used
		Code **Purpose** K Kilograms L Pounds				
		Description: Code specifying the weight unit.				
LAD006	81	Weight	X	RD	1/10	Used
		Description: Numeric value of weight. If LAD.006 is present, then LAD.005 is required.				
LAD007	235	Product/Service ID Qualifier	X	ID	2/2	Used
		Code **Purpose** PU Part Reference Number				
		Description: Code specifying the type of item identifier. PU = The Logico item identifier (NOT the shippers item number).				

LAD008	234	Product/Service ID	X	AN	1/80	Used
		Description: The Logico Item Identifier. If either LAD.007 or LAD.008 is present, then the other is required.				
LAD009	235	Product/Service ID Qualifier	X	ID	2/2	Used
		Code **Purpose** PN Company Part Number				
		Description: Code specifying the type of item identifier. PN = The item name (e.g. part number).				
LAD10	234	Product/Service ID	X	AN	1/80	Used
		Description: The item name. If either LAD.009 or LAD.010 is present, then the other is required.				
LAD13	79	Lading Description	O	AN	1/50	Used
		Description: Description of an item as required for rating and billing purposes. The item description.				
LAD14	148	Lading Value	O	RD	2/9	Used
		Description: The declared value of a specific item.				

L5   Description, Marks and Numbers

			Pos: 100		Max: 1

Pos: 100   Max: 1
Detail - Optional
Loop: L5   Elements: 3

Used
To specify the line item in terms of description, quantity, packaging, and marks and numbers.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
L5001	213	Lading Line Item Number	O	N0	1/6	Used
		Description: The line-item number for a specific item on a lading. Sequential number starting at 1.				
L5003	22	Commodity Code	X	AN	1/30	Used
		Description: The code describing a commodity or group of commodities. The freight class. If either L5.003 or L5.004 is present, then the other is required.				
L5004	23	Commodity Code Qualifier	X	ID	1/1	Used
		Code **Purpose** N National Motor Freight Classification (NMFC)				
		Description: The code identifying the commodity coding system used for a specific item of a lading.				

L3   Total Weight and Charges

Pos: 100   Max: 1
Summary - Optional
Loop: N/A   Elements: 4

Used
To specify the total load in terms of weight, volume, rates, charges, advances and prepaid amounts applicable to one or more line items.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
L3001	81	Weight	X	RD	1/10	Used
		Description: Numeric value of weight. Total weight of the load.				
L3002	187	Weight Qualifier	X	ID	1/2	Used
		Code **Purpose** FR Freight Weight				
		Description: Code defining the type of weight. If L3.001 is present, then L3.002 is required.				
L311	80	Lading Quantity	O	N0	1/7	Used
		Description: Total number of shipping containers/handling units for the load.				
L312	188	Weight Unit Code	O	ID	1/1	Used
		Code **Purpose** K Kilograms L Pounds				
		Description: Code specifying the weight unit. If L3.001 is present, then L3.012 is required.				

SE

Transaction Set Trailer

Pos: 200	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

Used
To indicate the end of the transaction set and provide the count of the transmitted segments
(including the beginning (ST) and ending (SE) segments)

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SE001	96	Number of Included Segments	M	N0	1/10	Must use
		Description: Total number of segments included in a transaction set including ST and SE segments				
SE002	329	Transaction Set Control Number	M	AN	4/9	Must use
		Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set				

GE Functional Group Header

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

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

Element Summary:

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

IEA   Interchange Control Trailer

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

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

Element Summary:

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

ASC X12 Nomenclature
Interchange and Application Control Structures
Interchange Control Structure
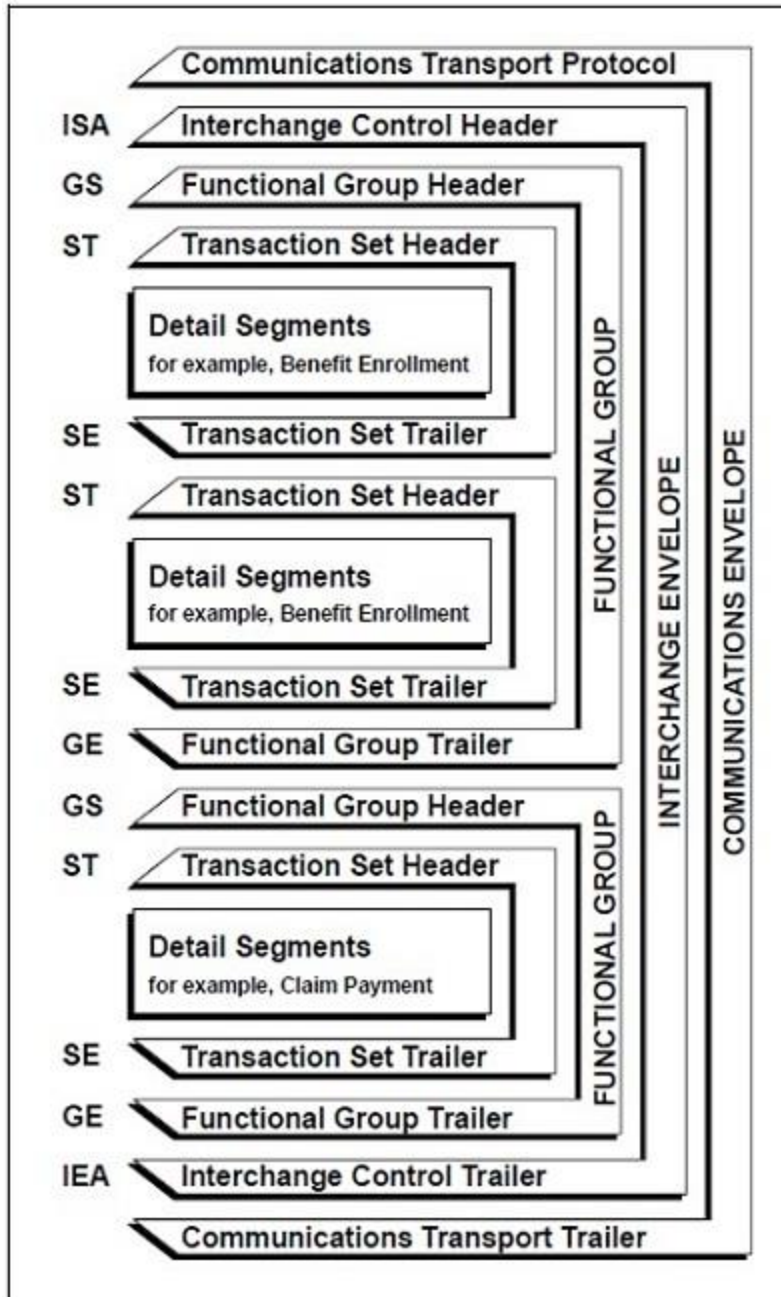
Figure A1. Transmission Control Schematic

The transmission of data proceeds according to very strict format rules to ensure the integrity and maintain the efficiency of the interchange. Each business grouping of data is called a transaction set. For instance, a group of benefit enrollments sent from a sponsor to a payer is considered a transaction set. Each transaction set contains groups of logically related data in units called segments. For instance, the N4 segment used in the transaction set conveys the city, state, ZIP Code, and other geographic information. A transaction set contains multiple segments, so the addresses of the different parties, for example, can be conveyed from one computer to the other. An analogy would be that the transaction set is like a freight train; the segments are like the train's cars; and each segment can contain several data elements the same as a train car can hold multiple crates. The sequence of the elements within one

segment is specified by the ASC X12 standard as well as the sequence of segments in the transaction set. In a more conventional computing environment, the segments would be equivalent to records, and the elements equivalent to fields. Similar transaction sets, called "functional groups," can be sent together within a transmission. Each functional group is prefaced by a group start segment; and a functional group is terminated by a group end segment. One or more functional groups are prefaced by an interchange header and followed by an interchange trailer. Figure A1, Transmission Control Schematic, illustrates this interchange control. The interchange header and trailer segments envelop one or more functional groups or interchange-related control segments and perform the following functions:

1. Define the data element separators and the data segment terminator.
2. Identify the sender and receiver.
3. Provide control information for the interchange.
4. Allow for authorization and security information.

Application Control Structure Definitions and Concepts

Basic Structure

A data element corresponds to a data field in data processing terminology. The data element is the smallest named item in the ASC X12 standard. A data segment corresponds to a record in data processing terminology. The data segment begins with a segment ID and contains related data elements. A control segment has the same structure as a data segment; the distinction is in the use. The data segment is used primarily to convey user information, but the control segment is used primarily to convey control information and to group data segments.

Basic Character Set

A...Z	0...9	!	"	&	'	(	)	*	+
,	-	.	/	:	;	?	=	" " (space)	

Figure A2. Basic Character Set

The section that follows is designed to have representation in the common character code schemes of EBCDIC, ASCII, and CCITT International Alphabet 5. The ASC X12 standards are graphic-character-oriented; therefore, common character encoding schemes other than those specified herein may be used as long as a common mapping is available. Because the graphic characters have an implied mapping across character code schemes, those bit patterns are not provided here.

The basic character set of this standard, shown in figure A2, Basic Character Set, includes those selected from the uppercase letters, digits, space, and special characters as specified below.

Extended Character Set

a..z	%	~	@	[	]	_	{
}	\			<	>	#	$	

Figure A3. Extended Character Set

An extended character set may be used by negotiation between the two parties and includes the lowercase letters and other special characters as specified in figure A3, Extended Character Set.

Note that the extended characters include several character codes that have multiple graphical representations for a specific bit pattern. The complete list appears in other standards such as CCITT S.5. Use of the USA graphics for these codes presents no problem unless data is exchanged with an international partner. Other problems, such as the translation of item descriptions from English to

French, arise when exchanging data with an international partner, but minimizing the use of codes with multiple graphics eliminates one of the more obvious problems.

Control Characters

Two control character groups are specified; they have only restricted usage. The common notation for these groups is also provided, together with the character coding in three common alphabets. In the matrix A1, Base Control Set, the column IA5 represents CCITT V.3 International Alphabet 5.

Base Control Set

NOTATION	NAME	EBCDIC	ASCII	IA5
BEL	bell	2F	07	07
HT	horizontal tab	05	09	09
LF	line feed	25	0A	0A
VT	vertical tab	0B	0B	0B
FF	form feed	0C	0C	0C
CR	carriage return	0D	0D	0D
FS	file separator	1C	1C	1C
GS	group separator	1D	1D	1D
RS	record separator	1E	1E	1E
US	unit separator	1F	1F	1F
NL	new line	15		

Matrix A1. Base Control Set

The base control set includes those characters that will not have a disruptive effect on most communication protocols. These are represented by: The Group Separator (GS) may be an exception in this set because it is used in the 3780 communications protocol to indicate blank space compression.

Extended Control Set

NOTATION	NAME	EBCDIC	ASCII	IA5
SOH	start of header	01	01	01
STX	start of text	02	02	02
ETX	end of text	03	03	03
EOT	end of transmission	37	04	04
ENQ	enquiry	2D	05	05
ACK	acknowledge	2E	06	06
DC1	device control 1	11	11	11
DC2	device control 2	12	12	12
DC3	device control 3	13	13	13
DC4	device control 4	3C	14	14
NAK	negative acknowledge	3D	15	15
SYN	synchronous idle	32	16	16
ETB	end of block	26	17	17

Matrix A2. Extended Control Set

The extended control set includes those that may have an effect on a transmission system. These are shown in matrix A2, Extended Control Set.

Delimiters

CHARACTER	NAME	DELIMITER
*	Asterisk	Data Element Separator
:	Colon	Subelement Separator
~	Tilde	Segment Terminator

Matrix A3. Delimiters

A delimiter is a character used to separate two data elements (or subelements) or to terminate a segment. The delimiters are an integral part of the data.

Delimiters are specified in the interchange header segment, ISA. The ISA segment is a 105 byte fixed length record. The data element separator is byte number 4; the component element separator is byte number 105; and the segment terminator is the byte that immediately follows the component element separator. Once specified in the interchange header, the delimiters are not to be used in a data element value elsewhere in the interchange. For consistency, this implementation guide uses the delimiters shown in matrix A3, Delimiters, in all examples of EDI transmissions.

The delimiters above are for illustration purposes only and are not specific recommendations or requirements. Users of this implementation guide should be aware that an application system may use some valid delimiter characters within the application data. Occurrences of delimiter characters in transmitted data within a data element can result in errors in translation programs. The existence of asterisks (*) within transmitted application data is a known issue that can affect translation software.

Business Transaction Structure Definitions and Concepts

The ASC X12 standards define commonly used business transactions (such as a health care claim) in a formal structure called "transaction sets." A transaction set is composed of a transaction set header control segment, one or more data segments, and a transaction set trailer control segment. Each segment is composed of the following:

· A unique segment ID
· One or more logically related data elements each preceded by a data element separator
· A segment terminator

Data Element

SYMBOL	TYPE
Nn	Numeric
R	Decimal
ID	Identifier
AN	String
DT	Date
TM	Time
B	Binary

Matrix A4. Data Element Types

The data element is the smallest named unit of information in the ASC X12 standard. Data elements are identified as either simple or component. A data element that occurs as an ordinarily positioned member of a composite data structure is identified as a component data element. A data element that

occurs in a segment outside the defined boundaries of a composite data structure is identified as a simple data element. The distinction between simple and component data elements is strictly a matter of context because a data element can be used in either capacity.

Data elements are assigned a unique reference number. Each data element has a name, description, type, minimum length, and maximum length. For ID type data elements, this guide provides the applicable ASC X12 code values and their descriptions or references where the valid code list can be obtained. Each data element is assigned a minimum and maximum length. The length of the data element value is the number of character positions used except as noted for numeric, decimal, and binary elements.

The data element types shown in matrix A4, Data Element Types, appear in this implementation guide.

Numeric

A numeric data element is represented by one or more digits with an optional leading sign representing a value in the normal base of 10. The value of a numeric data element includes an implied decimal point. It is used when the position of the decimal point within the data is permanently fixed and is not to be transmitted with the data.

This set of guides denotes the number of implied decimal positions. The representation for this data element type is "Nn" where N indicates that it is numeric and n indicates the number of decimal positions to the right of the implied decimal point.

If n is 0, it need not appear in the specification; N is equivalent to N0. For negative values, the leading minus sign (-) is used. Absence of a sign indicates a positive value. The plus sign (+) should not be transmitted.

EXAMPLE

A transmitted value of 1234, when specified as numeric type N2, represents a value of 12.34.

Leading zeros should be suppressed unless necessary to satisfy a minimum length requirement. The length of a numeric type data element does not include the optional sign.

Decimal

A decimal data element may contain an explicit decimal point and is used for numeric values that have a varying number of decimal positions. This data element type is represented as "R."

The decimal point always appears in the character stream if the decimal point is at any place other than the right end. If the value is an integer (decimal point at the right end) the decimal point should be omitted. For negative values, the leading minus sign (-) is used. Absence of a sign indicates a positive value. The plus sign (+) should not be transmitted.

Leading zeros should be suppressed unless necessary to satisfy a minimum length requirement. Trailing zeros following the decimal point should be suppressed unless necessary to indicate precision. The use of triad separators (for example, the commas in 1,000,000) is expressly prohibited. The length of a decimal type data element does not include the optional leading sign or decimal point.

EXAMPLE

A transmitted value of 12.34 represents a decimal value of 12.34.

Identifier

An identifier data element always contains a value from a predefined list of codes that is maintained by the ASC X12 Committee or some other body recognized by the Committee. Trailing spaces should be suppressed unless they are necessary to satisfy a minimum length. An identifier is always left justified. The representation for this data element type is "ID."

String

A string data element is a sequence of any characters from the basic or extended character sets. The significant characters shall be left justified. Leading spaces, when they occur, are presumed to be significant characters. Trailing spaces should be suppressed unless they are necessary to satisfy a

minimum length. The representation for this data element type is "AN."

Date

A date data element is used to express the standard date in either YYMMDD or CCYYMMDD format in which CC is the first two digits of the calendar year, YY is the last two digits of the calendar year, MM is the month (01 to 12), and DD is the day in the month (01 to 31). The representation for this data element type is "DT." Users of this guide should note that all dates within transactions are 8-character dates (millennium compliant) in the format CCYYMMDD. The only date data element that is in format YYMMDD is the Interchange Date data element in the ISA segment, and also used in the TA1 Interchange Acknowledgment, where the century can be readily interpolated because of the nature of an interchange header.

Time

A time data element is used to express the ISO standard time HHMMSSd..d format in which HH is the hour for a 24 hour clock (00 to 23), MM is the minute (00 to 59), SS is the second (00 to 59) and d..d is decimal seconds. The representation for this data element type is "TM." The length of the data element determines the format of the transmitted time.
 EXAMPLE
 Transmitted data elements of four characters denote HHMM. Transmitted data elements of six characters denote HHMMSS.

Composite Data Structure

The composite data structure is an intermediate unit of information in a segment. Composite data structures are composed of one or more logically related simple data elements, each, except the last, followed by a sub-element separator. The final data element is followed by the next data element separator or the segment terminator. Each simple data element within a composite is called a component. Each composite data structure has a unique four-character identifier, a name, and a purpose. The identifier serves as a label for the composite. A composite data structure can be further defined through the use of syntax notes, semantic notes, and comments. Each component within the composite is further characterized by a reference designator and a condition designator. The reference designators and the condition designators are described below.

Data Segment

The data segment is an intermediate unit of information in a transaction set. In the data stream, a data segment consists of a segment identifier, one or more composite data structures or simple data elements each preceded by a data element separator and succeeded by a segment terminator.
 Each data segment has a unique two- or three-character identifier, a name, and a purpose. The identifier serves as a label for the data segment. A segment can be further defined through the use of syntax notes, semantic notes, and comments. Each simple data element or composite data structure within the segment is further characterized by a reference designator and a condition designator.

Syntax Notes

Syntax notes describe relational conditions among two or more data segment units within the same segment, or among two or more component data elements within the same composite data structure.

Semantic Notes

Simple data elements or composite data structures may be referenced by a semantic note within a particular segment. A semantic note provides important additional information regarding the intended meaning of a designated data element, particularly a generic type, in the context of its use within a specific data segment. Semantic notes may also define a relational condition among data elements in a segment based on the presence of a specific value (or one of a set of values) in one of the data elements.

Comments

A segment comment provides additional information regarding the intended use of the segment.

Reference Designator

Each simple data element or composite data structure in a segment is provided a structured code that indicates the segment in which it is used and the sequential position within the segment. The code is composed of the segment identifier followed by a two-digit number that defines the position of the simple data element or composite data structure in that segment.

For purposes of creating reference designators, the composite data structure is viewed as the hierarchical equal of the simple data element. Each component data element in a composite data structure is identified by a suffix appended to the reference designator for the composite data structure of which it is a member. This suffix is a two-digit number, prefixed with a hyphen, that defines the position of the component data element in the composite data structure.

EXAMPLE

· The first simple element of the CLP segment would be identified as CLP01.

· The first position in the SVC segment is occupied by a composite data structure that contains seven component data elements, the reference designator for the second component data element would be SVC01-02.

Condition Designator

This section provides information about X12 standard conditions designators. It is provided so that users will have information about the general standard. Implementation guides may impose other conditions designators.

Data element conditions are of three types: mandatory, optional, and relational. They define the circumstances under which a data element may be required to be present or not present in a particular segment.

DESIGNATOR	DESCRIPTION
M- Mandatory	The designation of mandatory is absolute in the sense that there is no dependency on other data elements. This designation may apply to either simple data elements or composite data structures. If the designation applies to a composite data structure, then at least one value of a component data element in that composite data structure shall be included in the data segment.
O- Optional	The designation of optional means that there is no requirement for a simple data element or composite data structure to be present in the segment. The presence of a value for a simple data element or the presence of value for any of the component data elements of a composite data structure is at the option of the sender.
X- Relational	Relational conditions may exist among two or more simple data elements within the same data segment based on the presence or absence of one of those data elements (presence means a data element must not be empty). Relational conditions are specified by a condition code (see table below) and the reference designators of the affected data elements. A data element may be subject to more than one relational condition. The definitions for each of the condition codes used within syntax notes are detailed below:

CONDITION CODE	DEFINITION
P- Paired or Multiple	If any element specified in the relational condition is present, then all of the elements specified must be present.

R- Required	At least one of the elements specified in the condition must be present.
E- Exclusion	Not more than one of the elements specified in the condition may be present.
C- Conditional	If the first element specified in the condition is present, then all other elements must be present. However, any or all of the elements not specified as the first element in the condition may appear without requiring that the first element be present. The order of the elements in the condition does not have to be the same as the order of the data elements in the data segment.
L- List Conditional	If the first element specified in the condition is present, then at least one of the remaining elements must be present. However, any or all of the elements not specified as the first element in the condition may appear without requiring that the first element be present. The order of the elements in the condition does not have to be the same as the order of the data elements in the data segment.

Control Segments

A control segment has the same structure as a data segment, but it is used for transferring control information rather than application information.

Loop Control Segments

Loop control segments are used only to delineate bounded loops. Delineation of the loop shall consist of the loop header (LS segment) and the loop trailer (LE segment). The loop header defines the start of a structure that must contain one or more iterations of a loop of data segments and provides the loop identifier for this loop. The loop trailer defines the end of the structure. The LS segment appears only before the first occurrence of the loop, and the LE segment appears only after the last occurrence of the loop. Unbounded looping structures do not use loop control segments.

Transaction Set Control Segments

The transaction set is delineated by the transaction set header (ST segment) and the transaction set trailer (SE segment). The transaction set header identifies the start and identifier of the transaction set. The transaction set trailer identifies the end of the transaction set and provides a count of the data segments, which includes the ST and SE segments.

Functional Group Control Segments

The functional group is delineated by the functional group header (GS segment) and the functional group trailer (GE segment). The functional group header starts and identifies one or more related transaction sets and provides a control number and application identification information. The functional group trailer defines the end of the functional group of related transaction sets and provides a count of contained transaction sets.

Relations among Control Segments

The control segment of this standard must have a nested relationship as is shown and annotated in this subsection. The letters preceding the control segment name are the segment identifier for that control segment. The indentation of segment identifiers shown below indicates the subordination among control segments.

 GS Functional Group Header, starts a group of related transaction sets.

ST Transaction Set Header, starts a transaction set.
LS Loop Header, starts a bounded loop of data segments but is not part of the loop.
LS Loop Header, starts an inner, nested, bounded loop.
LE Loop Trailer, ends an inner, nested bounded loop.
LE Loop Trailer, ends a bounded loop of data segments but is not part of the loop.
SE Transaction Set Trailer, ends a transaction set.
GE Functional Group Trailer, ends a group of related transaction sets.
More than one ST/SE pair, each representing a transaction set, may be used within one functional group. Also more than one LS/LE pair, each representing a bounded loop, may be used within one transaction set.

Transaction Set

The transaction set is the smallest meaningful set of information exchanged between trading partners. The transaction set consists of a transaction set header segment, one or more data segments in a specified order, and a transaction set trailer segment. See figure A1, Transmission Control Schematic.

Transaction Set Header and Trailer

A transaction set identifier uniquely identifies a transaction set. This identifier is the first data element of the Transaction Set Header Segment (ST). A user assigned transaction set control number in the header must match the control number in the Trailer Segment (SE) for any given transaction set. The value for the number of included segments in the SE segment is the total number of segments in the transaction set, including the ST and SE segments.

Data Segment Groups

The data segments in a transaction set may be repeated as individual data segments or as unbounded or bounded loops.

Repeated Occurrences of Single Data Segments

When a single data segment is allowed to be repeated, it may have a specified maximum number of occurrences defined at each specified position within a given transaction set standard. Alternatively, a segment may be allowed to repeat an unlimited number of times. The notation for an unlimited number of repetitions is ">1."

Loops of Data Segments

Loops are groups of semantically related segments. Data segment loops may be unbounded or bounded.

Unbounded Loops

To establish the iteration of a loop, the first data segment in the loop must appear once and only once in each iteration. Loops may have a specified maximum number of repetitions. Alternatively, the loop may be specified as having an unlimited number of iterations. The notation for an unlimited number of repetitions is ">1."
A specified sequence of segments is in the loop. Loops themselves are optional or mandatory. The requirement designator of the beginning segment of a loop indicates whether at least one occurrence of the loop is required. Each appearance of the beginning segment defines an occurrence of the loop.
The requirement designator of any segment within the loop after the beginning segment applies to that segment for each occurrence of the loop. If there is a mandatory requirement designator for any data segment within the loop after the beginning segment, that data segment is mandatory for each occurrence of the loop. If the loop is optional, the mandatory segment only occurs if the loop occurs.

Bounded Loops

The characteristics of unbounded loops described previously also apply to bounded loops. In addition, bounded loops require a Loop Start Segment (LS) to appear before the first occurrence and a Loop End Segment (LE) to appear after the last occurrence of the loop. If the loop does not occur, the LS and LE segments are suppressed.

Data Segments in a Transaction Set
When data segments are combined to form a transaction set, three characteristics are applied to each data segment: a requirement designator, a position in the transaction set, and a maximum occurrence.
Data Segment Requirement Designators
A data segment, or loop, has one of the following requirement designators for health care and insurance transaction sets, indicating its appearance in the data stream of a transmission. These requirement designators are represented by a single character code.

DESIGNATOR	DESCRIPTION
M- Mandatory	This data segment must be included in the transaction set. (Note that a data segment may be mandatory in a loop of data segments, but the loop itself is optional if the beginning segment of the loop is designated as optional.)
O- Optional	The presence of this data segment is the option of the sending party.

Data Segment Position
The ordinal positions of the segments in a transaction set are explicitly specified for that transaction. Subject to the flexibility provided by the optional requirement designators of the segments, this positioning must be maintained.
Data Segment Occurrence
A data segment may have a maximum occurrence of one, a finite number greater than one, or an unlimited number indicated by ">1."

Functional Group
A functional group is a group of similar transaction sets that is bounded by a functional group header segment and a functional group trailer segment. The functional identifier defines the group of transactions that may be included within the functional group. The value for the functional group control number in the header and trailer control segments must be identical for any given group. The value for the number of included transaction sets is the total number of transaction sets in the group. See figure A1, Transmission Control Schematic.

Envelopes and Control Structures

Interchange Control Structures
Typically, the term "interchange" connotes the ISA/IEA envelope that is transmitted between trading/business partners. Interchange control is achieved through several "control" components. The interchange control number is contained in data element ISA13 of the ISA segment. The identical control number must also occur in data element 02 of the IEA segment. Most commercial translation software products will verify that these two fields are identical. In most translation software products, if these fields are different the interchange will be "suspended" in error.

There are many other features of the ISA segment that are used for control measures. For instance, the ISA segment contains data elements such as authorization information, security information, sender identification, and receiver identification that can be used for control purposes. These data elements are agreed upon by the trading partners prior to transmission and are contained in the written trading partner agreement. The interchange date and time data elements as well as the interchange control number within the ISA segment are used for debugging purposes when there is a problem with the transmission or the interchange. Data Element ISA12, Interchange Control Version Number, indicates the version of the ISA/IEA envelope. The ISA12 does not indicate the version of the transaction set that is being transmitted but rather the envelope that encapsulates the transaction. An Interchange Acknowledgment can be denoted through data element ISA14. The acknowledgment that would be sent in reply to a "yes" condition in data element ISA14 would be the TA1 segment. Data element ISA15, Test

Indicator, is used between trading partners to indicate that the transmission is in a "test" or "production" mode. This becomes significant when the production phase of the project is to commence. Data element ISA16, Subelement Separator, is used by the translator for interpretation of composite data elements. The ending component of the interchange or ISA/IEA envelope is the IEA segment. Data element IEA01 indicates the number of functional groups that are included within the interchange. In most commercial translation software products, an aggregate count of functional groups is kept while interpreting the interchange. This count is then verified with data element IEA01. If there is a discrepancy, in most commercial products, the interchange is suspended. The other data element in the IEA segment is IEA02 which is referenced above.

Functional Groups

Control structures within the functional group envelope include the functional identifier code in GS01. The Functional Identifier Code is used by the commercial translation software during interpretation of the interchange to determine the different transaction sets that may be included within the functional group. If an inappropriate transaction set is contained within the functional group, most commercial translation software will suspend the functional group within the interchange.

 The Application Sender's Code in GS02 can be used to identify the sending unit of the transmission. The Application Receiver's Code in GS03 can be used to identify the receiving unit of the transmission.

 The functional group contains a creation date (GS04) and creation time (GS05) for the functional group. The Group Control Number is contained in GS06. These data elements (GS04, GS05, AND GS06) can be used for debugging purposes during problem resolution. GS08,Version/Release/Industry Identifier Code is the version/release/sub-release of the transaction sets being transmitted in this functional group. The GS08 does not represent the version of the interchange (ISA/IEA) envelope but rather the version/release/sub-release of the transaction sets that are encompassed within the GS/GE envelope.

 The Functional Group Control Number in GS06 must be identical to data element 02 of the GE segment. Data element GE01 indicates the number of transaction sets within the functional group. In most commercial translation software products, an aggregate count of the transaction sets is kept while interpreting the functional group. This count is then verified with data element GE01.