

997 - Functional Acknowledgment

Caterpillar Inc.

|   |    |
|---|----|
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**PREFACE**

This writing is intended to give details on how to process an electronic Functional Acknowledgment Transaction Set 997 sent by Caterpillar in response to various transaction sets received from trading partners.

This transaction should be used to acknowledge receipt of transmissions, either at the group level or at the transaction level, that have been sent to Caterpillar.

Caterpillar is committed to supporting and using the AIAG/ASC X12 national standards. However, the standards are broad in scope and flexible in methods of implementing. These are the Caterpillar specific requirements for the Functional Acknowledgment.

Any questions or concerns regarding the Caterpillar EDI Application Advice and/or Caterpillar's EDI communication network may be directed to:

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**TRANSACTION SEQUENCE WITH LEVELS**

Shown below are the segments used by the Functional Acknowledgment transaction set (997).

| LEVEL   | SEGMENT<br>TYPE | DATA CONTAINED IN SEGMENT           |
|---------|-----------------|-------------------------------------|
| HEADER  | ISA             | INTERCHANGE CONTROL HEADER SEGMENT  |
|         | GS              | FUNCTIONAL GROUP HEADER SEGMENT     |
|         | ST              | TRANSACTION SET HEADER SEGMENT      |
|         | AK1             | FUNCTIONAL GROUP RESPONSE HEADER    |
|         | AK2             | TRANSACTION SET RESPONSE HEADER     |
|         | AK3             | DATA SEGMENT NOTE                   |
|         | AK4             | DATA ELEMENT NOTE                   |
|         | AK5             | TRANSACTION SET RESPONSE TRAILER    |
|         | AK9             | FUNCTIONAL GROUP RESPONSE TRAILER   |
| -----   |                 |                                     |
| DETAIL  | ** NONE **      |                                     |
| -----   |                 |                                     |
| SUMMARY | SE              | TRANSACTION SET TRAILER SEGMENT     |
|         | GE              | FUNCTIONAL GROUP TRAILER SEGMENT    |
|         | IEA             | INTERCHANGE CONTROL TRAILER SEGMENT |

## **ASC X12 REQUIRED CONTROL DATA**

### SEGMENT SEQUENCE

1. 'ISA' WILL BE THE FIRST RECORD OR PRECEDED BY 'IEA'.
2. 'IEA' WILL BE THE LAST RECORD.
3. 'GS' WILL BE PRECEDED BY 'ISA' OR 'GE'.
4. 'ST' WILL BE PRECEDED BY 'GS' OR 'SE'.
5. 'GE' WILL BE PRECEDED BY 'SE'.
6. 'IEA' WILL BE PRECEDED BY 'GE'.
7. THE INTERCHANGE CONTROL NUMBER IN 'IEA' (FIELD IEA02) WILL BE THE SAME AS THE PREVIOUS 'ISA' (FIELD ISA13).
8. THE DATA INTERCHANGE CONTROL NUMBER IN 'GE' (FIELD GE02) WILL BE THE SAME AS THE PREVIOUS 'GS' (FIELD GS06).
9. THE TRANSACTION SET CONTROL NUMBER IN 'SE' (FIELD SE02) WILL BE THE SAME AS THE PREVIOUS 'ST' (FIELD ST02).

### COUNT BALANCING

1. THE 'NUMBER OF INCLUDED FUNCTIONAL GROUPS' IN 'IEA' (FIELD IEA01) WILL EQUAL THE NUMBER OF 'GS' RECORDS SINCE THE PREVIOUS 'ISA'.
2. THE 'NUMBER OF INCLUDED TRANSACTION SETS' IN 'GE' (FIELD GE01) WILL EQUAL THE NUMBER OF 'ST' RECORDS SINCE THE PREVIOUS 'GS'.
3. THE 'NUMBER OF INCLUDED SEGMENTS' IN 'SE' (FIELD SE01) WILL EQUAL THE NUMBER OF RECORDS READ SINCE THE PREVIOUS 'ST'. THE 'ST' AND 'SE' RECORDS ARE INCLUDED IN THIS COUNT.

**SEGMENT/ELEMENT DEFINITION EXPLANATION**

Shown below is a segment sample from the Functional Acknowledgment transaction set. The fields are numbered with an explanation below. This should assist you in reading or programming the incoming 997 transaction.

(1)  
FUNCTIONAL GROUP RESPONSE HEADER (HEADER DATA)

(2)  
AK1\*SH\*000000001@  
A B C

|  |                      |        |                            |   |
|--|----------------------|--------|----------------------------|---|
| (3) CONTAINS DATA TO START ACKNOWLEDGMENT OF A FUNCTIONAL GROUP.<br>(THERE WILL BE ONE "AK1" SEGMENT PER FUNCTIONAL ACKNOWLEDGMENT.) |                      |        |                            |   |
|  | ASC X12<br>REFERENCE |        | ELEMENT<br>CHARACTERISTICS | DESCRIPTION   |
|  | A. AK1               |        | (AN-3) REQUIRED            | DATA SEGMENT IDENTIFIER   |
|  | (4) (5)              | (6)    | (7)                        | (8)   |
|  | B. AK101 479         | (ID-2) | REQUIRED                   | FUNCTIONAL IDENTIFIER CODE  |
|  |                      |        | (9)                        | MULTIPLE VALUES   |
|  | C. AK102 28          | (N0-9) | REQUIRED                   | GROUP CONTROL NUMBER<br>INCREMENTED BY 1 WITH EACH<br>FUNCTIONAL ACKNOWLEDGMENT<br>GROUP. |
| (10) INDICATES THE BEGINNING OF AN ACTUAL FUNCTIONAL<br>ACKNOWLEDGMENT TRANSACTION SET.  |                      |        |                            |   |

- (1) ASC X12 segment name
- (2) Layout of the segment fields
- (3) Description of purpose and use of the segment
- (4) AIAG data element reference number
- (5) ASC X12 data dictionary reference number
- (6) Type and size of field (size may be a range)
  - ID = identification data
  - AN = alphanumeric data
  - NUM = numeric data
  - DATE = date in YYMMDD format
  - TIME = time in HHMM format
- (7) Indication if segment element is required or optional
- (8) ASC X12 data element title
- (9) Explanation of what the field contains
- (10) Notes pertaining to use of the segment

We have indicated the field lengths (6) as used by Caterpillar.

You may also wish to refer to the ASC X12 and AIAG standards for further clarification.

The ASC X12 data dictionary reference number can be used to access the definitions and/or allowable values from the ASC X12 or JEDI data dictionary if additional definitions are required.

The '@' at the end of each record represents the segment terminator. This segment terminator is defined in the 'ISA' record. It need not be, and probably will not be, a '@'. The '@' is only used so the end of record can be visualized.

The '\*' between each field represents the field separator. The field separator is defined in the 'ISA' record. As with the segment terminator, any character may be used as a separator unless it is also contained in the data being sent.

**ISA-INTERCHANGE CONTROL HEADER SEGMENT**

```

ISA*00*          *00*          *09*005070479ff      *ZZ*X0000X0      *
A BC D          E F          G H          I J
931001*1020*U*00200*000000001*0*P*\@
K          L          M N          O          P Q RS
    
```

| THIS IS THE START OF THE INTERCHANGE ENVELOPE. IT IDENTIFIES THE SOURCE (CATERPILLAR) AND RECEIVER (SUPPLIER) OF THE DATA. IT IDENTIFIES SEPARATORS AND TERMINATORS TO BE USED IN THE TRANSMISSION. THIS IS DATA REQUIRED BY ASC X12 TO CONTROL THE THE INTERCHANGE OF DATA BETWEEN THE SENDER AND RECEIVER. ALL DATA IS IN A FIXED POSITION. (THERE WILL BE ONE 'ISA' SEGMENT FOR EACH CATERPILLAR LOCATION SENDING THE APPLICATION ADVICE) |                         |          |  |   |
|--|-------------------------|----------|--|---|
| ASC X12 REFERENCE  | ELEMENT CHARACTERISTICS |          |  | DESCRIPTION   |
| A. ISA   | (AN-3)                  | REQUIRED |  | DATA SEGMENT IDENTIFIER. ISA = INTERCHANGE CONTROL HEADER.  |
| B. ISA   | (AN-1)                  | REQUIRED |  | DATA ELEMENT SEPARATOR. * = FOR THESE CATERPILLAR RECORDS.  |
| C. ISA01 744   | (ID-2)                  | REQUIRED |  | AUTH. INFO QUALIFIER. ALWAYS "00".  |
| D. ISA02 745   | (AN-10)                 | REQUIRED |  | AUTH. INFORMATION. ALWAYS SPACES.   |
| E. ISA03 746   | (ID-2)                  | REQUIRED |  | SECURITY INFO QUALIFIER. ALWAYS "00".   |
| F. ISA04 747   | (AN-10)                 | REQUIRED |  | SECURITY INFORMATION. ALWAYS SPACES.  |
| G. ISA05 704   | (ID-2)                  | REQUIRED |  | SENDER ID QUALIFIER. "09" = DUNS NUMBER plus SUFFIX   |
| H. ISA06 705   | (ID-15)                 | REQUIRED |  | SENDER ID. "005070479" = CATERPILLAR DUNS CODE PLUS ff = CATERPILLAR FACILITY CODE (SEE APPENDIX).                                    |
| I. ISA07 704   | (ID-2)                  | REQUIRED |  | RECEIVER ID QUALIFIER. "ZZ" = MUTUALLY DEFINED  |
| J. ISA08 706   | (ID-15)                 | REQUIRED |  | RECEIVER ID. CATERPILLAR ASSIGNED SUPPLIER CODE.  |
| K. ISA09 373   | (DATE-6)                | REQUIRED |  | SUBMIT DATE. YYMMDD FORMAT.   |
| L. ISA10 337   | (TIME-4)                | REQUIRED |  | SUBMIT TIME. HHMM FORMAT.   |
| M. ISA11   | (ID-1)                  | REQUIRED |  | INTERCHANGE STANDARD. "U" FOR ASC X12.  |
| N. ISA12 703   | (ID-5)                  | REQUIRED |  | INTERCHANGE VERSION. ALWAYS "00200".  |
| O. ISA13 709   | (NUM-9)                 | REQUIRED |  | INTERCHANGE CONTROL NUMBER. UNIQUE NUMBER ASSIGNED TO CONTROL TRANSMISSION, ALSO USED IN IEA02 SEGMENT. (SAME AS SENT IN BY PARTNER). |
| P. ISA14 749   | (ID-1)                  | REQUIRED |  | ACKNOWLEDGE REQUESTED.  |



|    |           |        |          |                           |
|----|-----------|--------|----------|---------------------------|
|    |           |        |          | ALWAYS "0" = NO KNOWLEDGE |
|    |           |        |          | REQUESTED.                |
| Q. | ISA15 748 | (ID-1) | REQUIRED | INDICATOR.                |
| R. | ISA16 701 | (AN-1) | REQUIRED | ALWAYS "P" = PRODUCTION.  |
|    |           |        |          | SUBELEMENT SEPERATOR.     |
| S. | ISA17     | (AN-1) | REQUIRED | ALWAYS '\.'               |
|    |           |        |          | SEGMENT TERMINATOR.       |

**GS -FUNCTIONAL GROUP HEADER SEGMENT**

GS\*FA\*40\*X0000X0\*931001\*1418\*000000004\*X\*003010@  
 A B C D E F G H I

| IDENTIFIES THE FUNCTIONAL GROUP OF THE TRANSACTION SET BEING TRANSMITTED AS WELL AS ADDITIONAL INTERCHANGE CONTROL DATA USED IN THE TRANSMISSION. (ONE "GS" SEGMENT PER "ISA") |                         |  |  |   |
|--|-------------------------|--|--|---|
| ASC X12 REFERENCE  | ELEMENT CHARACTERISTICS |  |  | DESCRIPTION   |
| A. GS  | (AN-2) REQUIRED         |  |  | DATA SEGMENT IDENTIFIER.  |
| B. GS01 479  | (ID-2) REQUIRED         |  |  | FUNCTIONAL ID.<br>FA = FUNCTIONAL ACKNOWLEDGMENT.   |
| C. GS02 142  | (AN-12) REQUIRED        |  |  | APPLICATION SENDER'S CODE.<br>CATERPILLAR SENDING FACILITY CODE.                                    |
| D. GS03 124  | (AN-12) REQUIRED        |  |  | APPLICATION RECEIVER'S CODE.<br>CATERPILLAR ASSIGNED SUPPLIER CODE.                                 |
| E. GS04 29   | (DATE-6) REQUIRED       |  |  | DATA INTERCHANGE DATE.<br>TRANSMISSION DATE IN YYMMDD FORMAT.                                       |
| F. GS05 30   | (TIME-4) REQUIRED       |  |  | DATA INTERCHANGE TIME.<br>TRANSMISSION TIME IN HHMM FORMAT.   |
| G. GS06 28   | (NUM-9) REQUIRED        |  |  | DATA INTERCHANGE CONTROL NUMBER ASSIGNED TO CONTROL TRANSMISSION, ALSO USED IN "GE" SEGMENT (GE02). |
| H. GS07 455  | (ID-2) REQUIRED         |  |  | RESPONSIBLE AGENCY CODE.<br>"X" = ASC X12 STANDARD.   |
| I. GS08 480  | (AN-6) REQUIRED         |  |  | VERSION<br>BASED ON THE VERSION OF THE TRANSACTION SET SENT IN.                                     |

**ST -TRANSACTION SET HEADER SEGMENT**

ST\*997\*000000001@

A B C

| IDENTIFIES START OF A TRANSACTION SET FOR A FUNCTIONAL<br>ACKNOWLEDGMENT. (THERE WILL BE ONE "ST" SEGMENT PER<br>FUNCTIONAL ACKNOWLEDGMENT.) |                      |  |                            |  |
|--|----------------------|--|----------------------------|--|
|  | ASC X12<br>REFERENCE |  | ELEMENT<br>CHARACTERISTICS | DESCRIPTION  |
| A.   | ST                   |  | (AN-2) REQUIRED            | DATA SEGMENT IDENTIFIER.   |
| B.   | ST01 143             |  | (ID-3) REQUIRED            | TRANSACTION SET IDENTIFIER.<br>997 = FUNCTIONAL ACKNOWLEDGMENT   |
| C.   | ST02 329             |  | (AN-9) REQUIRED            | TRANSACTION SET CONTROL NUMBER.<br>INCREMENTED BY 1 WITH EACH<br>FUNCTIONAL ACKNOWLEDGMENT<br>WITHIN THE SUPPLIER<br>TRANSMISSION.<br>SAME AS IN THE FOLLOWING SE02. |

**AK1-FUNCTIONAL GROUP RESPONSE HEADER**

AK1\*IM\*000000001@

A B C

| CONTAINS DATA TO START ACKNOWLEDGMENT OF A FUNCTIONAL GROUP.<br>(THERE WILL BE ONE "AK1" SEGMENT PER FUNCTIONAL ACKNOWLEDGMENT) |                            |          |  |  |
|---|----------------------------|----------|--|--|
| ASC X12<br>REFERENCE  | ELEMENT<br>CHARACTERISTICS |          | DESCRIPTION  |  |
| A. AK1  | (AN-3)                     | REQUIRED | DATA SEGMENT IDENTIFIER.   |  |
| B. AK101 479  | (ID-2)                     | REQUIRED | FUNCTIONAL IDENTIFIER CODE.<br>MULTIPLE VALUES                               |  |
| C. AK102 28   | (N0-9)                     | REQUIRED | GROUP CONTROL NUMBER.<br>CONTROL NUMBER FROM 'GS' SET<br>BEING ACKNOWLEDGED. |  |

**AK2-TRANSACTION SET RESPONSE HEADER**

AK2\*856\*000011111@

A B C

| CONTAINS DATA TO START ACKNOWLEDGMENT OF A SINGLE TRANSACTION SET. (LOOP CAN REPEAT 999999 TIMES.) |                         |          |  |  |
|--|-------------------------|----------|--|--|
| ASC X12 REFERENCE  | ELEMENT CHARACTERISTICS |          | DESCRIPTION  |  |
| A. AK2   | (AN-3)                  | REQUIRED | DATA SEGMENT IDENTIFIER.   |  |
| B. AK201 143   | (ID-3)                  | REQUIRED | TRANSACTION SET IDENTIFIER. IDENTIFIES THE TRANSACTION SET BEING ACKNOWLEDGED. "856" EXAMPLE IS ADVANCE SHIP NOTICE TRANSACTION SET. |  |
| C. AK202 329   | (AN-9)                  | REQUIRED | TRANSACTION SET CONTROL NUMBER. UNIQUE WITHIN THE TRANSACTION SET. ASSIGNED BY THE ORIGINATOR.                                       |  |

**AK3-DATA SEGMENT NOTE**

AK3\*PRF\*000035\*\*7@  
A B C DE

| CONTAINS DATA TO REPORT ERRORS IN A DATA SEGMENT AND TO IDENTIFY THE LOCATION OF THE DATA SEGMENT.<br>(LOOP CAN REPEAT 999999 TIMES.) |                         |          |   |  |
|---|-------------------------|----------|---|--|
| ASC X12 REFERENCE   | ELEMENT CHARACTERISTICS |          | DESCRIPTION   |  |
| A. AK3  | (AN-3)                  | REQUIRED | DATA SEGMENT IDENTIFIER.  |  |
| B. AK301 721  | (ID-3)                  | REQUIRED | SEGMENT ID CODE.<br>SEGMENT CONTAINING THE ERROR.   |  |
| C. AK302 719  | (N0-6)                  | REQUIRED | SEGMENT POSITION IN THE TRANSACTION SET.<br>NUMERICAL COUNT POSITION OF THIS DATA SEGMENT FROM THE START OF THE TRANSACTION SET.  |  |
| D. AK303 447  | (AN-4)                  | OPTIONAL | LOOP IDENTIFIER CODE.<br>LOOP WITHIN THE TRANSACTION SET.   |  |
| E. AK304 720<br>AK305<br>AK306<br>AK307<br>AK308  | (ID-3)                  | OPTIONAL | SEGMENT SYNTAX ERROR CODE.<br>1 = UNRECOGNIZED SEGMENT ID.<br>2 = UNEXPECTED SEGMENT.<br>3 = MANDATORY SEGMENT MISSING.<br>4 = LOOP OCCUR OVER THE MAXIMUM ALLOWED TIMES.<br>5 = SEGMENT EXCEEDS MAXIMUM USE ALLOWED.<br>6 = SEGMENT NOT DEFINED IN THE TRANSACTION SET.<br>7 = SEGMENT NOT IN PROPER SEQUENCE. |  |
| NOTE: SYNTAX ERROR CODES CAN OCCUR IN AK304 THROUGH AK308.  |                         |          |   |  |

**AK4-DATA ELEMENT NOTE**

AK4\*2\*0328\*7@

A B C D

| CONTAINS DATA TO REPORT ERRORS IN A DATA ELEMENT AND TO IDENTIFY THE LOCATION OF THE DATA ELEMENT. |                         |          |  |
|--|-------------------------|----------|--|
| ASC X12 REFERENCE  | ELEMENT CHARACTERISTICS |          | DESCRIPTION  |
| A. AK4   | (AN-3)                  | REQUIRED | DATA SEGMENT IDENTIFIER.   |
| B. AK401 722   | (N0-2)                  | REQUIRED | ELEMENT POSITION IN SEGMENT. POSITION OF THE DATA ELEMENT IN ERROR IN THIS SEGMENT.  |
| C. AK402 725   | (N0-4)                  | OPTIONAL | DATA ELEMENT REFERENCE NUMBER. REFERENCE NUMBER IN THE DATA ELEMENT DICTIONARY.  |
| D. AK403 723   | (ID-3)                  | REQUIRED | DATA ELEMENT SYNTAX ERROR. CODE INDICATING THE ERROR FOUND AFTER SYNTAX EDITS.<br>1 = MANDATORY DATA ELEMENT MISSING.<br>2 = CONDITIONAL REQUIRED DATA ELEMENT MISSING.<br>3 = TOO MANY DATA ELEMENTS.<br>4 = DATA ELEMENT TOO SHORT.<br>5 = DATA ELEMENT TOO LONG.<br>6 = INVALID CHARACTER IN DATA ELEMENT.<br>7 = INVALID CODE VALUE.<br>8 = INVALID DATE.<br>9 = INVALID TIME. |
| E. AK404 724   | (AN-99)                 | OPTIONAL | COPY OF BAD DATA ELEMENT. COPY OF THE DATA ELEMENT IN ERROR.   |

**AK5-TRANSACTION SET RESPONSE TRAILER**

AK5\*A@  
 AK5\*E\*5@  
 A B C

| CONTAINS DATA TO ACKNOWLEDGE ACCEPTANCE OR REJECTION<br>AND TO REPORT ERRORS IN A TRANSACTION SET. |                            |          |  |
|--|----------------------------|----------|--|
| ASC X12<br>REFERENCE   | ELEMENT<br>CHARACTERISTICS |          | DESCRIPTION  |
| A. AK5   | (AN-3)                     | REQUIRED | DATA SEGMENT IDENTIFIER.   |
| B. AK501 717   | (ID-3)                     | REQUIRED | TRANSACTION SET ACKNOWLEDGMENT<br>CODE.<br>A = ACCEPTED.<br>E = ACCEPTED WITH ERRORS.<br>R = REJECTED.   |
| C. AK502 718<br>AK503<br>AK504<br>AK505<br>AK506   | (ID-3)                     | OPTIONAL | TRANSACTION SET SYNTAX ERROR<br>CODE.<br>1 = TRANSACTION SET NOT<br>SUPPORTED.<br>2 = TRANSACTION SET TRAILER<br>MISSING.<br>3 = TRANSACTION SET CONTROL<br>NUMBER IN HEADER AND<br>TRAILER DO NOT MATCH.<br>4 = NUMBER OF INCLUDED<br>SEGMENTS DOES NOT MATCH<br>ACTUAL COUNT.<br>5 = ONE OR MORE SEGMENTS IN<br>ERROR.<br>6 = MISSING OR INVALID<br>TRANSACTION SET IDENTIFIER<br>7 = MISSING OR INVALID<br>TRANSACTION SET CONTROL<br>NUMBER. |
| NOTE: SYNTAX ERROR CODES CAN OCCUR IN AK502 THROUGH AK506.   |                            |          |  |



**AK9-FUNCTIONAL GROUP RESPONSE TRAILER**

AK9\*A\*3\*3\*3@  
 A B C D E  
 AK9\*P\*000813\*000813\*000809\*3@  
 A B C D E F

| CONTAINS DATA TO ACKNOWLEDGE ACCEPTANCE OR REJECTION OF A FUNCTIONAL GROUP AND TO REPORT THE NUMBER OF INCLUDED, RECEIVED, AND ACCEPTED SETS IN THIS FUNCTIONAL GROUP. |                         |  |  |  |
|--|-------------------------|--|--|--|
| ASC X12 REFERENCE  | ELEMENT CHARACTERISTICS |  |  | DESCRIPTION  |
| A. AK9   | (AN-2) REQUIRED         |  |  | DATA SEGMENT IDENTIFIER.   |
| B. AK901 715   | (ID-1) REQUIRED         |  |  | FUNCTIONAL GROUP ACKNOWLEDGMENT CODE.<br>A = ACCEPTED.<br>E = ACCEPTED WITH ERRORS.<br>P = PARTIALLY ACCEPTED - AT LEAST ONE REJECTED.<br>R = REJECTED.  |
| C. AK902 97  | (N0-6) REQUIRED         |  |  | NUMBER OF TRANSACTION SETS INCLUDED.   |
| D. AK903 123   | (N0-6) REQUIRED         |  |  | NUMBER OF TRANSACTION SETS RECEIVED (RECEIVERS COUNT).   |
| E. AK904 2   | (N0-6) REQUIRED         |  |  | NUMBER OF TRANSACTION SETS ACCEPTED.   |
| F. AK905 716<br>AK906<br>AK907<br>AK908<br>AK909   | (ID-3) OPTIONAL         |  |  | FUNCTIONAL GROUP SYNTAX ERROR CODE.<br>1 = FUNCTIONAL GROUP NOT SUPPORTED.<br>2 = FUNCTIONAL GROUP VERSION NOT SUPPORTED.<br>3 = FUNCTIONAL GROUP TRAILER MISSING.<br>4 = DATA INTERCHANGE CONTROL NUMBER IN THE FUNCTIONAL GROUP HEADER AND TRAILER DO NOT AGREE.<br>5 = NUMBER OF INCLUDED TRANSACTION SETS DOES NOT MATCH ACTUAL COUNT. |
| NOTE: SYNTAX ERROR CODES CAN OCCUR IN AK905 THROUGH AK909  |                         |  |  |  |

**SE -TRANSACTION SET TRAILER SEGMENT**

SE\*11\*0001@

A B C

| IDENTIFIES THE END OF A TRANSACTION SET. THIS SEGMENT<br>CONTAINS THE SEGMENT COUNT AND INTERCHANGE CONTROL NUMBER<br>USED TO INSURE ALL RECORDS HAVE BEEN CORRECTLY PROCESSED.<br>(ONE 'SE' SEGMENT PER 'ST' SEGMENT PROCESSED.) |                            |  |   |
|---|----------------------------|--|---|
| ASC X12<br>REFERENCE  | ELEMENT<br>CHARACTERISTICS |  | DESCRIPTION   |
| A. SE   | (AN-2) REQUIRED            |  | DATA SEGMENT IDENTIFIER.  |
| B. SE01 96  | (NUM-6) REQUIRED           |  | NUMBER OF INCLUDED SEGMENTS.<br>ACCUMULATED TOTAL NUMBER OF<br>SEGMENTS FROM LAST "ST"<br>SEGMENT, INCLUDING THE "ST"<br>AND "SE" SEGMENTS. |
| C. SE02 329   | (AN-9) REQUIRED            |  | TRANSACTION SET CONTROL NUMBER.<br>SAME CONTROL NUMBER AS THE ONE<br>USED IN THE PREVIOUS "ST"<br>SEGMENT (ST02).                           |

**GE -FUNCTIONAL GROUP TRAILER SEGMENT**

GE\*1\*000000004@

A B C

| IDENTIFIES THE END OF A FUNCTIONAL GROUP. THIS SEGMENT<br>CONTAINS THE COUNT OF INCLUDED TRANSACTION SETS AND THE<br>DATA INTERCHANGE CONTROL NUMBER USED TO INSURE ALL<br>FUNCTIONAL GROUPS HAVE BEEN CORRECTLY PROCESSED.<br>(ONE "GE" SEGMENT PER "GS" SEGMENT PROCESSED) |           |    |                  |  |
|--|-----------|----|------------------|--|
|  | ASC X12   |    | ELEMENT          |  |
|  | REFERENCE |    | CHARACTERISTICS  | DESCRIPTION  |
| A.   | GE        |    | (AN-2) REQUIRED  | DATA SEGMENT IDENTIFIER.   |
| B.   | GE01      | 97 | (NUM-6) REQUIRED | NUMBER OF INCLUDED TRANSACTIONS.<br>ACCUMULATED TOTAL NUMBER OF<br>"ST" SEGMENTS INCLUDED IN<br>THIS FUNCTIONAL GROUP. |
| C.   | GE02      | 28 | (NUM-9) REQUIRED | INTERCHANGE CONTROL NUMBER.<br>SAME CONTROL NUMBER USED<br>IN THE PREVIOUS "GS"<br>SEGMENT (GS06).                     |

**IEA-INTERCHANGE CONTROL TRAILER SEGMENT**

IEA\*1\*000000001

A B C

| IDENTIFIES THE END OF THE INTERCHANGE FOR A GIVEN SENDING FACILITY. THIS SEGMENT CONTAINS THE COUNT OF INCLUDED FUNCTIONAL GROUPS AND THE INTERCHANGE CONTROL NUMBER USED TO INSURE THE TOTAL INTERCHANGE HAS BEEN CORRECTLY PROCESSED (ONE "IEA" SEGMENT PER "ISA" SEGMENT PROCESSED) |                         |  |   |
|--|-------------------------|--|---|
| ASC X12 REFERENCE  | ELEMENT CHARACTERISTICS |  | DESCRIPTION   |
| A. IEA   | (AN-3) REQUIRED         |  | DATA SEGMENT IDENTIFIER.  |
| B. IEA01 710   | (NUM-6) REQUIRED        |  | NUMBER OF INCLUDED GROUPS. ACCUMULATED TOTAL NUMBER OF "GS" SEGMENTS INCLUDED IN THIS INTERCHANGE (SINCE THE LAST "ISA" SEGMENT). |
| C. IEA02 709   | (NUM-9) REQUIRED        |  | INTERCHANGE CONTROL NUMBER. SAME CONTROL NUMBER AS USED IN THE PREVIOUS ISA13.  |

**SAMPLE DATA FOR APPLICATION ADVICE**

| SEGMENT  | DESCRIPTION   |
|--|---|
| ISA*00*<br>931001*1020*U*00200*000000001*0*P*\@<br>GS*FA*40*X0000X0*931001*1030*000000004*X*003010@<br>ST*997*0001@<br>AK1*IM*000000001@ | INVOICES FOR MOTOR CARRIER,<br>CONTROL NUMBER 1.  |
| AK2*210*000011111@   | ACKNOWLEDGING A "210" TRANSACTION.<br>TRANSACTION CONTROL NUMBER 11111                        |
| AK3*PRF*000035**7@   | "PRF" SEGMENT IN ERROR.<br>35TH POSITION FROM THE START.<br>SEGMENT OUT OF SEQUENCE.          |
| AK4*2*0328*7@  | 2ND ELEMENT OF THE SEGMENT.<br>ELEMENT NO. 0328 IN DICTIONARY.<br>SYNTAX ERROR CODE NUMBER 7. |
| AK5*E*5@   | ACCEPTED WITH ERRORS.<br>ONE OR MORE SEGMENTS IN ERROR.                                       |
| AK9*P*000813*000813*000809*3@  | PARTIALLY ACCEPTED.<br>813 SETS SENT AND RECEIVED, 809<br>SETS ACTUALLY ACCEPTED.             |
| SE*8*0001@<br>GE*1*000000004@<br>IEA*1*000000001@  |   |