

# 997 FunctionalAcknowledgment997 ANSI X12 00401

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# 997 Functional Acknowledgment

Functional Group = FA

This standard provides the format and establishes the data contents of a functional acknowledgment transaction set. The purpose of this standard is to define the control structures for a set of acknowledgments to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. This standard does not cover the semantic meaning of the information encoded in the transaction sets.

#### Heading:

| <b>Pos</b><br>010<br>020 | <mark>ld</mark><br>ST<br>AK1 | Segment Name<br>Transaction Set Header<br>Functional Group Response<br>Header | <u>Req</u><br>M<br>M | <u>Max Use</u><br>1<br>1 | <u>Repeat</u> | <u>Notes</u><br>N1/010<br>N1/020 | <u>Usage</u><br>Must use<br>Must use |
|--------------------------|------------------------------|---|----------------------|--------------------------|---------------|----------------------------------|--------------------------------------|
| LOC                      | <u> PID - AK2</u>            |   |                      |                          | <u>999999</u> | <u>N1/030L</u>                   |                                      |
| 030                      | AK2                          | Transaction Set Response<br>Header  | 0                    | 1                        |               | N1/030                           | Used                                 |
| LOC                      | PID - AK3                    |   | ·                    |                          | 999999        | C1/040L                          |                                      |
| 040                      | AK3                          | Data Segment Note   | 0                    | 1                        |               | C1/040                           | Used                                 |
| 050                      | AK4                          | Data Element Note   | 0                    | 99                       |               |                                  | Used                                 |
| 060                      | AK5                          | Transaction Set Response<br>Trailer   | Μ                    | 1                        |               |                                  | Must use                             |
| 070                      | AK9                          | Functional Group Response<br>Trailer  | Μ                    | 1                        |               |                                  | Must use                             |
| 080                      | SE                           | Transaction Set Trailer   | Μ                    | 1                        |               |                                  | Must use                             |

#### Notes:

- 1/010 These acknowledgments shall not be acknowledged, thereby preventing an endless cycle of acknowledgments of acknowledgments. Nor shall a Functional Acknowledgment be sent to report errors in a previous Functional Acknowledgment. The Functional Group Header Segment (GS) is used to start the envelope for the Functional Acknowledgment Transaction Sets. In preparing the functional group of acknowledgments, the application sender's code and the application receiver's code, taken from the functional group being acknowledged, are exchanged; therefore, one acknowledgment functional group responds to only those functional groups from one application receiver's code to one application sender's code. There is only one Functional Acknowledgment Transaction Set per acknowledged functional group.
- 1/020 AK1 is used to respond to the functional group header and to start the acknowledgement for a functional group. There shall be one AK1 segment for the functional group that is being acknowledged.
- 1/030L AK2 is used to start the acknowledgement of a transaction set within the received functional group. The AK2 segments shall appear in the same order as the transaction sets in the functional group that has been received and is being acknowledged.
- 1/030 AK2 is used to start the acknowledgement of a transaction set within the received functional group. The AK2 segments shall appear in the same order as the transaction sets in the functional group that has been received and is being acknowledged.

## Comments:

1/040L The data segments of this standard are used to report the results of the syntactical analysis of the functional groups of transaction sets; they report the extent to which the syntax complies with the standards for transaction sets and functional groups. They do not report on the semantic meaning of the transaction sets (for example, on the ability of the receiver to comply with the request of the sender).



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# **ST Transaction Set Header**

User Option (Usage):

Must use

#### Purpose:

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

#### **Element Summary:**

| Ref  | ld  | Element Name   | Req | Туре | Min/Max | Usage          |
|------|-----|--|-----|------|---------|----------------|
| ST01 | 143 | Transaction Set Identifier Code  | Μ   | ID   | 3/3     | Must use       |
|      |     | Description: Code uniquely identifying a All valid standard codes are used. (Tot       |     |      |         |                |
| ST02 | 329 | Transaction Set Control Number   | Μ   | AN   | 4/9     | Must use       |
|      |     | Description: Identifying control number the functional group assigned by the originate |     |      |         | ransaction set |

### Semantics:

1. The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).



# **AK1 Functional Group Response Header**

User Option (Usage):

Must use

#### **Purpose:**

To start acknowledgment of a functional group

#### **Element Summary:**

| <u>Ref</u><br>AK101 | <u>ld</u><br>479 | <u>Element Name</u><br>Functional Identifier Code  | <u>Req</u><br>M | <u>Type</u><br>ID | <u>Min/Max</u><br>2/2 | <u>Usage</u><br>Must use |
|---------------------|------------------|--|-----------------|-------------------|-----------------------|--------------------------|
|                     |                  | Description: Code identifying a group of ap<br>All valid standard codes are used. (Total |                 |                   | transaction sets      | 5                        |
| AK102               | 28               | Group Control Number   | Μ               | N0                | 1/9                   | Must use                 |
|                     |                  | Description: Assigned number originated a  | and mair        | tained by         | / the sender          |                          |

#### Semantics:

1. AK101 is the functional ID found in the GS segment (GS01) in the functional group being acknowledged.

2. AK102 is the functional group control number found in the GS segment in the functional group being acknowledged.



## **Loop Transaction Set Response Header**

User Option (Usage):

Used

#### Purpose:

To start acknowledgment of a single transaction set

#### Loop Summary:

| Pos | ld  | Segment Name                     | Req | Max Use | Repeat | <u>Usage</u> |
|-----|-----|----------------------------------|-----|---------|--------|--------------|
| 030 | AK2 | Transaction Set Response Header  | 0   | 1       |        | Used         |
| 040 |     | Loop AK3                         | 0   |         | 999999 | Used         |
| 060 | AK5 | Transaction Set Response Trailer | Μ   | 1       |        | Must use     |

## **AK2 Transaction Set Response Header**

User Option (Usage):

Used

#### Purpose:

To start acknowledgment of a single transaction set

#### **Element Summary:**

| <u>Ref</u><br>AK201 | <u>ld</u><br>143 | Element Name<br>Transaction Set Identifier Code   | <u>Req</u><br>M | <u>Type</u><br>ID | <u>Min/Max</u><br>3/3 | <u>Usage</u><br>Must use |
|---------------------|------------------|---|-----------------|-------------------|-----------------------|--------------------------|
|                     |                  | Description: Code uniquely identifying a Tr<br>All valid standard codes are used. (Total          |                 |                   |                       |                          |
| AK202               | 329              | Transaction Set Control Number  | Μ               | AN                | 4/9                   | Must use                 |
|                     |                  | <b>Description:</b> Identifying control number tha<br>functional group assigned by the originator |                 |                   |                       | saction set              |

Semantics:

1. AK201 is the transaction set ID found in the ST segment (ST01) in the transaction set being acknowledged.

2. AK202 is the transaction set control number found in the ST segment in the transaction set being acknowledged.



# **Loop Data Segment Note**

## User Option (Usage):

Used

#### Purpose:

To report errors in a data segment and identify the location of the data segment

#### Loop Summary:

| Pos | ld  | Segment Name      | Req | Max Use | <b>Repeat</b> | Usage |
|-----|-----|-------------------|-----|---------|---------------|-------|
| 040 | AK3 | Data Segment Note | 0   | 1       |               | Used  |
| 050 | AK4 | Data Element Note | 0   | 99      |               | Used  |

## **AK3 Data Segment Note**

User Option (Usage):

Used

#### Purpose:

To report errors in a data segment and identify the location of the data segment

#### **Element Summary:**

| <u>Ref</u><br>AK301 | <u>ld</u><br>721 | <u>Element Name</u><br>Segment ID Code   | <u>Req</u><br>M | <u>Type</u><br>ID | <u>Min/Max</u><br>2/3 | <u>Usage</u><br>Must use |
|---------------------|------------------|--|-----------------|-------------------|-----------------------|--------------------------|
|                     |                  | <b>Description:</b> Code defining the segment II Number 77)                                  | D of the c      | lata segi         | ment in error (       | (See Appendix A -        |
| AK302               | 719              | Segment Position in Transaction Set  | Μ               | N0                | 1/6                   | Must use                 |
|                     |                  | <b>Description:</b> The numerical count position transaction set: the transaction set header |                 | 0                 |                       | start of the             |
| AK303               | 447              | Loop Identifier Code   | 0               | AN                | 1/6                   | Used                     |
|                     |                  | <b>Description:</b> The loop ID number given on data element in segments LS and LE           | the tran        | saction s         | set diagram is        | the value for this       |
| AK304               | 720              | Segment Syntax Error Code  | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found b<br>All valid standard codes are used. (Tota       |                 |                   | ax editing of a       | a segment                |
| AK304               | 720              | Segment Syntax Error Code  | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found ba<br>All valid standard codes are used. (Total Co  |                 | ne synta          | x editing of a s      | segment                  |
| AK304               | 720              | Segment Syntax Error Code  | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found ba<br>All valid standard codes are used. (Total Co  |                 | ne synta          | x editing of a s      | segment                  |
| AK304               | 720              | Segment Syntax Error Code  | 0               | ID                | 1/3                   | Used                     |

|       |     | Description: Code indicating error found<br>All valid standard codes are used. (Total |   | ,  | tax editing o | of a segment |
|-------|-----|---|---|----|---------------|--------------|
| AK304 | 720 | Segment Syntax Error Code   | 0 | ID | 1/3           | Used         |
|       |     | Description: Code indicating error found<br>All valid standard codes are used. (Total |   |    | tax editing o | of a segment |

## **AK4 Data Element Note**

User Option (Usage):

Used

#### Purpose:

To report errors in a data element or composite data structure and identify the location of the data element

#### **Element Summary:**

| <u>Ref</u><br>AK401-01 | <u>ld</u><br>722 | <u>Element Name</u><br>Element Position in Segment   | Req<br>M                | <u>Type</u><br>Comp         | Min/Max                          | <u>Usage</u><br>Must use     |
|------------------------|------------------|--|-------------------------|-----------------------------|----------------------------------|------------------------------|
|                        |                  | <b>Description:</b> This is used to indicate the rel<br>relative position of a composite data structur<br>within the composite data structure, in error;<br>the simple data element or composite data st | re with t<br>; in the c | he relative  <br>lata segme | position of the nt the count sta | component<br>arts with 1 for |
| AK402                  | 725              | Data Element Reference Number  | Μ                       | N0                          | 1/2                              | Must use                     |
|                        |                  | <b>Description:</b> Reference number used to loc<br>Dictionary   | ate the                 | data eleme                  | nt in the Data                   | Element                      |
| AK403                  | 723              | Data Element Syntax Error Code   | 0                       | N0                          | 1/4                              | Used                         |
|                        |                  | Description: Code indicating the error foun<br>All valid standard codes are used. (Total   |                         |                             | of a data elem                   | ient                         |
| AK404                  | 724              | Copy of Bad Data Element   | Μ                       | ID                          | 1/3                              | Must use                     |
|                        |                  | Description: This is a copy of the data elem   | nent in e               | error                       |                                  |                              |

#### Semantics:

1. In no case shall a value be used for AK404 that would generate a syntax error, e.g., an invalid character.



# **AK5 Transaction Set Response Trailer**

User Option (Usage):

Must use

Purpose:

To acknowledge acceptance or rejection and report errors in a transaction set

## **Element Summary:**

| <u>Ref</u><br>AK501 | <u>ld</u><br>717 | Element Name<br>Transaction Set Acknowledgment Code   | <u>Req</u><br>M | <u>Type</u><br>ID | <u>Min/Max</u><br>1/1 | <u>Usage</u><br>Must use |
|---------------------|------------------|---|-----------------|-------------------|-----------------------|--------------------------|
|                     |                  | Description: Code indicating accept or reje<br>transaction set<br>All valid standard codes are used. (Total |                 |                   | d on the synta        | x editing of the         |
| AK502               | 718              | Transaction Set Syntax Error Code   | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found ba<br>All valid standard codes are used. (Total                    |                 |                   | x editing of a t      | ransaction set           |
| AK503               | 718              | Transaction Set Syntax Error Code   | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found ba<br>All valid standard codes are used. (Total                    |                 |                   | x editing of a t      | ransaction set           |
| AK504               | 718              | Transaction Set Syntax Error Code   | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found ba<br>All valid standard codes are used. (Total                    |                 |                   | x editing of a t      | ransaction set           |
| AK505               | 718              | Transaction Set Syntax Error Code   | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found ba<br>All valid standard codes are used. (Total                    |                 |                   | x editing of a t      | ransaction set           |
| AK506               | 718              | Transaction Set Syntax Error Code   | 0               | ID                | 1/3                   | Used                     |
|                     |                  | Description: Code indicating error found ba<br>All valid standard codes are used. (Total                    |                 |                   | x editing of a t      | ransaction set           |



# **AK9 Functional Group Response Trailer**

User Option (Usage):

Must use

#### Purpose:

To acknowledge acceptance or rejection of a functional group and report the number of included transaction sets from the original trailer, the accepted sets, and the received sets in this functional group

#### **Element Summary:**

| <u>Ref</u><br>AK901 | <u>ld</u><br>715  | <u>Element Name</u><br>Functional Group Acknowledge Code  | <u>Req</u><br>M | Type<br>ID | <u>Min/Max</u><br>1/1 | <u>Usage</u><br>Must use |  |  |  |
|---------------------|---|---|-----------------|------------|-----------------------|--------------------------|--|--|--|
|                     |   | <b>Description:</b> Code indicating accept or reject condition based on the syntax editing of the functional group<br>All valid standard codes are used. (Total Codes: 7)             |                 |            |                       |                          |  |  |  |
| AK902               | 97  | Number of Transaction Sets Included   | Μ               | NO         | 1/6                   | Must use                 |  |  |  |
|                     |   | <b>Description:</b> Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element      |                 |            |                       |                          |  |  |  |
| AK903               | 123   | Number of Received Transaction Sets   | Μ               | NO         | 1/6                   | Must use                 |  |  |  |
|                     |   | Description: Number of Transaction Sets received  |                 |            |                       |                          |  |  |  |
| AK904               | 2   | Number of Accepted Transaction Sets   | Μ               | NO         | 1/6                   | Must use                 |  |  |  |
|                     |   | Description: Number of accepted Transaction Sets in a Functional Group  |                 |            |                       |                          |  |  |  |
| AK905               | 716   | Functional Group Syntax Error Code  | 0               | ID         | 1/3                   | Used                     |  |  |  |
|                     |   | Description: Code indicating error found ba<br>header and/or trailer<br>All valid standard codes are used. (Total   |                 |            | x editing of the      | e functional group       |  |  |  |
| AK906               | 716   | Functional Group Syntax Error Code  | 0               | ID         | 1/3                   | Used                     |  |  |  |
|                     |   | <b>Description:</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer<br>All valid standard codes are used. (Total Codes: 23)     |                 |            |                       |                          |  |  |  |
| AK907               | 716   | Functional Group Syntax Error Code  | 0               | ID         | 1/3                   | Used                     |  |  |  |
|                     |   | <b>Description:</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer <b>All valid standard codes are used. (Total Codes: 23)</b> |                 |            |                       |                          |  |  |  |
| AK908               | 716   | Functional Group Syntax Error Code  | 0               | ID         | 1/3                   | Used                     |  |  |  |
|                     |   | Description: Code indicating error found ba<br>header and/or trailer<br>All valid standard codes are used. (Total   |                 | 2          | x editing of the      | e functional group       |  |  |  |
| AK909               | 716   | Functional Group Syntax Error Code  | 0               | ID         | 1/3                   | Used                     |  |  |  |
|                     | <b>Description:</b> Code indicating error found based on the syntax editing of the functional header and/or trailer <b>All valid standard codes are used. (Total Codes: 23)</b> |   |                 |            |                       |                          |  |  |  |

#### Comments:

1. If AK901 contains the value "A" or "E", then the transmitted functional group is accepted.



# **SE Transaction Set Trailer**

#### User Option (Usage):

Must use

#### Purpose:

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

#### **Element Summary:**

| <u>Ref</u><br>SE01 | <u>ld</u><br>96 | <u>Element Name</u><br>Number of Included Segments  | <u>Req</u><br>M | <u>Type</u><br>N0 | <u>Min/Max</u><br>1/10 | <u>Usage</u><br>Must use |  |  |
|--------------------|-----------------|---|-----------------|-------------------|------------------------|--------------------------|--|--|
|                    |                 | Description: Total number of segments inc<br>segments   | luded in        | a transa          | ction set includ       | ing ST and SE            |  |  |
| SE02               | 329             | Transaction Set Control Number  | Μ               | AN                | 4/9                    | Must use                 |  |  |
|                    |                 | <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set |                 |                   |                        |                          |  |  |

#### Comments:

1. SE is the last segment of each transaction set.

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