# 997 Functional Acknowledgment

## Version: 1.0 Draft

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**Notes:**

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# 997 Functional Acknowledgment

## Functional Group=FA

**Purpose:** This Draft Standard for Trial Use contains the format and establishes the data contents of the Functional Acknowledgment Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used 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:

| Pos | Id | Segment Name | Req | Max Use | Repeat | Notes | Usage |
|-----|-----|------|-----|-----|-----|-----|-----|
| 010 | ST | Transaction Set Header | M | 1 | | N1/010 | Must use |
| 020 | AK1 | Functional Group Response Header | M | 1 | | N1/020 | Must use |
| **LOOP ID - AK2** | | | | | 999999 | N1/030L | |
| 030 | AK2 | Transaction Set Response Header | O | 1 | | N1/030 | Used |
| **LOOP ID - AK3** | | | | | 999999 | C1/040L | |
| 040 | AK3 | Data Segment Note | O | 1 | | C1/040 | Used |
| 050 | AK4 | Data Element Note | O | 99 | | | Used |
| 060 | AK5 | Transaction Set Response Trailer | M | 1 | | | Must use |
| 070 | AK9 | Functional Group Response Trailer | M | 1 | | | Must use |
| 080 | SE | Transaction Set Trailer | M | 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).

1/040    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).

# ST   Transaction Set Header

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

**User Option (Usage):** Must use

**Purpose:** 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 |
|---|---|---|---|---|---|---|
| ST01 | 143 | **Transaction Set Identifier Code** | M | ID | 3/3 | Must use |

**Description:** Code uniquely identifying a Transaction Set

**All valid standard codes are used. (Total Codes: 298)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| ST02 | 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

## 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).

## User Note 1:

*The 997 FA is required in response to all received transmissions, per X12 standards for EDI processing.  The 997 FA is a handshake, acknowledging a specific set of data has been received.  The AK1 and AK9 segments must be transmitted.  The AK2 detail loop is not required, but may be transmitted if desired.  One of the functions of EDI translation software is to create the 997 FA as part of the inbound process.  All customers are required to send this transmission as a response, as this is the only receipt IEI will have that our data has been received successfully by the customer.*

# AK1 Functional Group Response Header

| | |
|---|---|
| **Pos: 020** | **Max: 1** |
| **Heading - Mandatory** | |
| **Loop: N/A** | **Elements: 2** |

**User Option (Usage):** Must use

**Purpose:** To start acknowledgment of a functional group

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| AK101 | 479 | **Functional Identifier Code** | M | ID | 2/2 | Must use |

> **Description:** Code identifying a group of application related transaction sets
> **All valid standard codes are used. (Total Codes: 234)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| AK102 | 28 | **Group Control Number** | M | N0 | 1/9 | Must use |

> **Description:** Assigned number originated and maintained 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

| | |
|---|---|
| **Pos: 030** | **Repeat: 999999** |
| **Optional** | |
| **Loop: AK2** | **Elements: N/A** |

**User Option (Usage):** Used

**Purpose:** To start acknowledgment of a single transaction set

## Loop Summary:

| Pos | Id | Segment Name | Req | Max Use | Repeat | Usage |
|---|---|---|---|---|---|---|
| 030 | AK2 | Transaction Set Response Header | O | 1 | | Used |
| 040 | | Loop AK3 | O | | 999999 | Used |
| 060 | AK5 | Transaction Set Response Trailer | M | 1 | | Must use |

# AK2 Transaction Set Response Header

Pos: 030           Max: 1
Heading - Optional
Loop: AK2     Elements: 2

**User Option (Usage):** Used

**Purpose:** To start acknowledgment of a single transaction set

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK201 | 143 | **Transaction Set Identifier Code** | M | ID | 3/3 | Must use |

**Description:** Code uniquely identifying a Transaction Set
**All valid standard codes are used. (Total Codes: 298)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK202 | 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

## 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 | Id | Segment Name | Req | Max Use | Repeat | Usage |
|-----|-----|--------------|-----|---------|--------|-------|
| 040 | AK3 | Data Segment Note | O | 1 | | Used |
| 050 | AK4 | Data Element Note | O | 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:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|--------------|-----|------|---------|-------|
| AK301 | 721 | **Segment ID Code** | M | ID | 2/3 | Must use |

**Description:** Code defining the segment ID of the data segment in error (See Appendix A - Number 77)

| | | | | | | |
|-----|-----|--------------|-----|------|---------|-------|
| AK302 | 719 | **Segment Position in Transaction Set** | M | N0 | 1/6 | Must use |

**Description:** The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1

| | | | | | | |
|-----|-----|--------------|-----|------|---------|-------|
| AK303 | 447 | **Loop Identifier Code** | O | AN | 1/6 | Used |

**Description:** The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE

| | | | | | | |
|-----|-----|--------------|-----|------|---------|-------|
| AK304 | 720 | **Segment Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of a segment

**All valid standard codes are used. (Total Codes: 8)**

# 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:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| AK401 | C030 | **Position in Segment** | M | Comp | | Must use |

**Description:** Code indicating the relative position of a simple data element, or the relative position of a composite data structure combined with the relative position of the component data element within the composite data structure, in error; the count starts with 1 for the simple data element or composite data structure immediately following the segment ID

| | | | | | | |
|---|---|---|---|---|---|---|
| AK401-01 | 722 | **Element Position in Segment** | M | N0 | 1/2 | Must use |

**Description:** This is used to indicate the relative position of a simple data element, or the relative position of a composite data structure with the relative position of the component within the composite data structure, in error; in the data segment the count starts with 1 for the simple data element or composite data structure immediately following the segment ID

| | | | | | | |
|---|---|---|---|---|---|---|
| AK401-02 | 1528 | **Component Data Element Position in Composite** | O | N0 | 1/2 | Used |

**Description:** To identify the component data element position within the composite that is in error

| | | | | | | |
|---|---|---|---|---|---|---|
| AK402 | 725 | **Data Element Reference Number** | O | N0 | 1/4 | Used |

**Description:** Reference number used to locate the data element in the Data Element Dictionary

| | | | | | | |
|---|---|---|---|---|---|---|
| AK403 | 723 | **Data Element Syntax Error Code** | M | ID | 1/3 | Must use |

**Description:** Code indicating the error found after syntax edits of a data element
**All valid standard codes are used. (Total Codes: 10)**

| | | | | | | |
|---|---|---|---|---|---|---|
| AK404 | 724 | **Copy of Bad Data Element** | O | AN | 1/99 | Used |

**Description:** This is a copy of the data element in 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:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK501 | 717 | **Transaction Set Acknowledgment Code** | M | ID | 1/1 | Must use |

**Description:** Code indicating accept or reject condition based on the syntax editing of the transaction set
**All valid standard codes are used. (Total Codes: 6)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK502 | 718 | **Transaction Set Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of a transaction set
**All valid standard codes are used. (Total Codes: 25)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK503 | 718 | **Transaction Set Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of a transaction set
**All valid standard codes are used. (Total Codes: 25)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK504 | 718 | **Transaction Set Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of a transaction set
**All valid standard codes are used. (Total Codes: 25)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK505 | 718 | **Transaction Set Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of a transaction set
**All valid standard codes are used. (Total Codes: 25)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK506 | 718 | **Transaction Set Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of a transaction set
**All valid standard codes are used. (Total Codes: 25)**

# 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:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK901 | 715 | **Functional Group Acknowledge Code** | M | ID | 1/1 | Must use |

**Description:** Code indicating accept or reject condition based on the syntax editing of the functional group
**All valid standard codes are used. (Total Codes: 7)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK902 | 97 | **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

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK903 | 123 | **Number of Received Transaction Sets** | M | N0 | 1/6 | Must use |

**Description:** Number of Transaction Sets received

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK904 | 2 | **Number of Accepted Transaction Sets** | M | N0 | 1/6 | Must use |

**Description:** Number of accepted Transaction Sets in a Functional Group

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK905 | 716 | **Functional Group Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of the functional group header and/or trailer
**All valid standard codes are used. (Total Codes: 23)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK906 | 716 | **Functional Group Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of the functional group header and/or trailer
**All valid standard codes are used. (Total Codes: 23)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK907 | 716 | **Functional Group Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of the functional group header and/or trailer
**All valid standard codes are used. (Total Codes: 23)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK908 | 716 | **Functional Group Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of the functional group header and/or trailer
**All valid standard codes are used. (Total Codes: 23)**

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-------------|-----|------|---------|-------|
| AK909 | 716 | **Functional Group Syntax Error Code** | O | ID | 1/3 | Used |

**Description:** Code indicating error found based on the syntax editing of the functional group header and/or trailer
**All valid standard codes are used. (Total Codes: 23)**

## Comments:

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

# SE Transaction Set Trailer

<table>
<tr><td>Pos: 080</td><td>Max: 1</td></tr>
<tr><td colspan="2">Heading - Mandatory</td></tr>
<tr><td>Loop: N/A</td><td>Elements: 2</td></tr>
</table>

**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:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-----|-----|-----|-----|-----|
| SE01 | 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

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-----|-----|-----|-----|-----|
| SE02 | 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

## Comments:

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