

# 997

## Functional Acknowledgment

### Functional Group=FA

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 (Table 1):

<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>
010	ST	Transaction Set Header	M	1		N1/010	Must use
020	AK1	Functional Group Response Header	M	1		N1/020	Must use
<b>LOOP ID - AK2</b>					<b>999999</b>		
030	AK2	Transaction Set Response Header	O	1		N1/030	Used
<b>LOOP ID - AK3</b>					<b>999999</b>		
040	AK3	Data Segment Note	O	1			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 acknowledgment for a functional group. There shall be one AK1 segment for the functional group that 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.

# ST Transaction Set Header

Pos: 010	Max: 1
Heading - Mandatory	
Loop: N/A	Elms: 2

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

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ST01	143	<b>Transaction Set Identifier Code</b> <b>Description:</b> Code uniquely identifying a Transaction Set <u>Code NAME</u> 997 Functional Acknowledgment	M	ID	3/3	Must use
ST02	329	<b>Transaction Set Control Number</b> <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set <b>Note to User:</b> This is the identifying control number assigned and maintained by the sender of the transaction set. This value is assigned by the sender in such a way that it is unique to the transaction being sent. This value must match that in data element SE02.	M	AN	4/9	Must use

## Semantics:

- 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

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elms: 2

To start acknowledgment of a functional group

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
AK101	479	<b>Functional Identifier Code</b> <b>Description:</b> Code identifying a group of application related transaction sets <u>Code NAME</u> AK Student Educational Record (Transcript) Acknowledgment (131) ED Student Educational Record (Transcript) (130) RY Request for Student Educational Record (Transcript) (146) RZ Response to Request for Student Educational Record (Transcript) (147)	M	ID	2/2	Must use
AK102	28	<b>Group Control Number</b> <b>Description:</b> Assigned number originated and maintained by the sender <b>Note to User:</b> This is the same as the Group Control Number (GS06/GE02) received in the GS/GE functional group envelope of the transmission being acknowledged.	M	N0	1/9	Must use

## 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.

# AK2 Transaction Set Response Header

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

To start acknowledgment of a single transaction set

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
AK201	143	<b>Transaction Set Identifier Code</b> <b>Description:</b> Code uniquely identifying a Transaction Set <u>Code NAME</u> 130 Student Educational Record (Transcript) 131 Student Educational Record (Transcript) Acknowledgment 146 Request for Student Educational Record (Transcript) 147 Response to Request for Student Educational Record (Transcript)	M	ID	3/3	Must use
AK202	329	<b>Transaction Set Control Number</b> <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set <b>Note to User:</b> This is the same as the ST02/SE02 Transaction Set Control Number of the transaction set which is being acknowledged.	M	AN	4/9	Must use

## 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.

# AK3 Data Segment Note

Pos: 040	Max: 1
Heading - Optional	
Loop: AK3	Elms: 4

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

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
AK301	721	<p><b>Segment ID Code</b></p> <p><b>Description:</b> Code defining the segment ID of the data segment in error</p> <p><b>Code NAME</b></p> <p>AAA Request Validation</p> <p>ATV Student Activities and Awards</p> <p>BGN Beginning Segment</p> <p>CRS Course record</p> <p>CSU Supplemental Course Data</p> <p>DEG Degree Record</p> <p>DMG Demographic Information</p> <p>DTP Date or Time or Period</p> <p>EMS Employment Position</p> <p>ERP Educational Record Purpose</p> <p>FOS Field of Study</p> <p>HC Health Condition</p> <p>HS Health Screening</p> <p>IMM Immunization Status Code</p> <p>IN1 Individual Identification</p> <p>IN2 Individual Name Structure Components</p> <p>IND Additional Individual Demographic Information</p> <p>LUI Language Use</p> <p>LX Assigned Number</p> <p>MKS Marks Awarded</p> <p>N1 Name</p> <p>N2 Additional Name Information</p> <p>N3 Address Information</p> <p>N4 Geographic Location</p> <p>NTE Note/Special Instruction</p> <p>OPS Program Subject Area and Eligibility</p> <p>OPX Placement Criteria</p> <p>PCL Previous College</p> <p>PER Administrative Communications Contact</p> <p>PWK Paperwork</p> <p>QTY Quantity</p> <p>RAP Requirement, Attribute, and Proficiency</p> <p>REF Reference Identification</p> <p>SBT Subtest</p> <p>SE Transaction Set Trailer</p> <p>SES Academic Session Header</p> <p>SP Special Program</p> <p>SRE Test Scores</p> <p>SSE Entry and Exit Information</p> <p>SST Student Academic Status</p> <p>ST Transaction Set Header</p> <p>SUM Academic Summary</p> <p>TST Test Score Record</p>	M	ID	2/3	Must use

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<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
AK302	719	<b>Segment Position in Transaction Set</b> <b>Description:</b> The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1	M	N0	1/6	Must use
AK303	447	<b>Loop Identifier Code</b> <b>Description:</b> The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE	O	AN	1/6	Used
AK304	720	<b>Segment Syntax Error Code</b> <b>Description:</b> Code indicating error found based on the syntax editing of a segment <u>Code</u> <u>NAME</u> 1 Unrecognized segment ID 2 Unexpected segment 3 Mandatory segment missing 4 Loop Occurs Over Maximum Times 5 Segment Exceeds Maximum Use 6 Segment Not in Defined Transaction Set 7 Segment Not in Proper Sequence 8 Segment Has Data Element Errors	O	ID	1/3	Used

# AK4 Data Element Note

Pos: 050	Max: 99
Heading - Optional	
Loop: N/A	Elms: 4

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

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
AK401	C030	<b>Position in Segment</b> <b>Description:</b> 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	M	Comp		Must use
AK402	725	<b>Data Element Reference Number</b> <b>Description:</b> Reference number used to locate the data element in the Data Element Dictionary	O	N0	1/4	Used
AK403	723	<b>Data Element Syntax Error Code</b> <b>Description:</b> Code indicating the error found after syntax edits of a data element <u>Code</u> <u>NAME</u> 1 Mandatory data element missing 2 Conditional required data element missing. 3 Too many data elements. 4 Data element too short. 5 Data element too long. 6 Invalid character in data element. 7 Invalid code value. 8 Invalid Date 9 Invalid Time 10 Exclusion Condition Violated	M	ID	1/3	Must use
AK404	724	<b>Copy of Bad Data Element</b> <b>Description:</b> This is a copy of the data element in error	O	AN	1/99	Used

## 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

Pos: 060	Max: 1
Heading - Mandatory	
Loop: N/A	Elms: 6

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

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
AK501	717	<p><b>Transaction Set Acknowledgment Code</b></p> <p><b>Description:</b> Code indicating accept or reject condition based on the syntax editing of the transaction set</p> <p><b>Code NAME</b></p> <ul style="list-style-type: none"> <li>A Accepted</li> <li>E Accepted But Errors Were Noted</li> <li>M Rejected, Message Authentication Code (MAC) Failed</li> <li>R Rejected</li> <li>W Rejected, Assurance Failed Validity Tests</li> <li>X Rejected, Content After Decryption Could Not Be Analyzed</li> </ul>	M	ID	1/1	Must use
AK502	718	<p><b>Transaction Set Syntax Error Code</b></p> <p><b>Description:</b> Code indicating error found based on the syntax editing of a transaction set</p> <p><b>Code NAME</b></p> <ul style="list-style-type: none"> <li>1 Transaction Set Not Supported</li> <li>2 Transaction Set Trailer Missing</li> <li>3 Transaction Set Control Number in Header and Trailer Do Not Match</li> <li>4 Number of Included Segments Does Not Match Actual Count</li> <li>5 One or More Segments in Error</li> <li>6 Missing or Invalid Transaction Set Identifier</li> <li>7 Missing or Invalid Transaction Set Control Number</li> <li>8 Authentication Key Name Unknown</li> <li>9 Encryption Key Name Unknown</li> <li>10 Requested Service (Authentication or Encrypted) Not Available</li> <li>11 Unknown Security Recipient</li> <li>12 Incorrect Message Length (Encryption Only)</li> <li>13 Message Authentication Code Failed</li> <li>15 Unknown Security Originator</li> <li>16 Syntax Error in Decrypted Text</li> <li>17 Security Not Supported</li> <li>23 Transaction Set Control Number Not Unique within the Functional Group</li> </ul>	O	ID	1/3	Used
AK503	718	<p><b>Transaction Set Syntax Error Code</b></p> <p><b>Description:</b> Code indicating error found based on the syntax editing of a transaction set</p> <p><b>Note to User:</b> Values are listed under AK502.</p>	O	ID	1/3	Used
AK504	718	<p><b>Transaction Set Syntax Error Code</b></p> <p><b>Description:</b> Code indicating error found based on the syntax editing of a transaction set</p>	O	ID	1/3	Used



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<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		<b>Note to User:</b> Values are listed under AK502.				
<b>AK505</b>	<b>718</b>	<b>Transaction Set Syntax Error Code</b> <b>Description:</b> Code indicating error found based on the syntax editing of a transaction set <b>Note to User:</b> Values are listed under AK502.	<b>O</b>	<b>ID</b>	<b>1/3</b>	<b>Used</b>
<b>AK506</b>	<b>718</b>	<b>Transaction Set Syntax Error Code</b> <b>Description:</b> Code indicating error found based on the syntax editing of a transaction set <b>Note to User:</b> Values are listed under AK502.	<b>O</b>	<b>ID</b>	<b>1/3</b>	<b>Used</b>

# AK9 Functional Group Response Trailer

Pos: 070	Max: 1
Heading - Mandatory	
Loop: N/A	Elems: 9

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>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
AK901	715	<p><b>Functional Group Acknowledge Code</b></p> <p><b>Description:</b> Code indicating accept or reject condition based on the syntax editing of the functional group</p> <p><u>Code</u> <u>NAME</u></p> <p>A Accepted</p> <p>E Accepted But Errors Were Noted</p> <p>M Rejected, Message Authentication Code (MAC) Failed</p> <p>P Partially Accepted, At Least One Transaction Set Was Rejected</p> <p>R Rejected</p> <p>W Rejected, Assurance Failed Validity Tests</p> <p>X Rejected, Content After Decryption Could Not Be Analyzed</p>	M	ID	1/1	Must use
AK902	97	<p><b>Number of Transaction Sets Included</b></p> <p><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</p>	M	N0	1/6	Must use
AK903	123	<p><b>Number of Received Transaction Sets</b></p> <p><b>Description:</b> Number of Transaction Sets received</p> <p><b>Note to User:</b> If there were no discrepancies between reported and received, this number will match the value in AK902.</p>	M	N0	1/6	Must use
AK904	2	<p><b>Number of Accepted Transaction Sets</b></p> <p><b>Description:</b> Number of accepted Transaction Sets in a Functional Group</p> <p><b>Note to User:</b> If there were any rejected transaction sets, this number will be different from the values in AK902 and AK903.</p>	M	N0	1/6	Must use
AK905	716	<p><b>Functional Group Syntax Error Code</b></p> <p><b>Description:</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer</p> <p><u>Code</u> <u>NAME</u></p> <p>1 Functional Group Not Supported</p> <p>2 Functional Group Version Not Supported</p> <p>3 Functional Group Trailer Missing</p> <p>4 Group Control Number in the Functional Group Header and Trailer Do Not Agree</p> <p>5 Number of Included Transaction Sets Does Not Match Actual Count</p> <p>6 Group Control Number Violates Syntax</p> <p>10 Authentication Key Name Unknown</p>	O	ID	1/3	Used

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<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		11 Encryption Key Name Unknown 12 Requested Service (Authentication or Encryption) Not Available 13 Unknown Security Recipient 14 Unknown Security Originator 15 Syntax Error in Decrypted Text 16 Security Not Supported 17 Incorrect Message Length (Encryption Only) 18 Message Authentication Code Failed				
<b>AK906</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b> <b>Description:</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer <b>Note to User:</b> Values are listed under AK905.	<b>O</b>	<b>ID</b>	<b>1/3</b>	<b>Used</b>
<b>AK907</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b> <b>Description:</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer <b>Note to User:</b> Values are listed under AK905.	<b>O</b>	<b>ID</b>	<b>1/3</b>	<b>Used</b>
<b>AK908</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b> <b>Description:</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer <b>Note to User:</b> Values are listed under AK905.	<b>O</b>	<b>ID</b>	<b>1/3</b>	<b>Used</b>
<b>AK909</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b> <b>Description:</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer <b>Note to User:</b> Values are listed under AK905.	<b>O</b>	<b>ID</b>	<b>1/3</b>	<b>Used</b>

**Comments:**

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

# SE Transaction Set Trailer

Pos: 080	Max: 1
Heading - Mandatory	
Loop: N/A	Elms: 2

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>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SE01	96	<b>Number of Included Segments</b> <b>Description:</b> Total number of segments included in a transaction set including ST and SE segments	M	N0	1/10	Must use
SE02	329	<b>Transaction Set Control Number</b> <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set  <b>Note to User:</b> This should contain the same value as that transmitted in ST02.	M	AN	4/9	Must use

## Comments:

- SE is the last segment of each transaction set.