

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.

Notes:

- 1/0100 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.
- 1/0200 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.
- 1/0300 AK2 is used to start the acknowledgment 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.

Heading:

<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>
0100	ST	Transaction Set Header	M	1		N1/0100	Must use
0200	AK1	Functional Group Response Header	M	1		N1/0200	Must use
LOOP ID - AK2					999999		
0300	AK2	Transaction Set Response Header	O	1		N1/0300	Recommended
LOOP ID - AK3					999999		
0400	AK3	Data Segment Note	O	1			Used
0500	AK4	Data Element Note	O	99			Used
0600	AK5	Transaction Set Response Trailer	M	1			Must use
0700	AK9	Functional Group Response Trailer	M	1			Must use
0800	SE	Transaction Set Trailer	M	1			Must use

ST Transaction Set Header

Pos: 0100	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 3

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

Semantics:

1. The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
2. The implementation convention reference (ST03) is used by the translation routines of the interchange partners to select the appropriate implementation convention to match the transaction set definition.

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	Transaction Set Identifier Code Description: Code uniquely identifying a Transaction Set	M	ID	3/3	Must use
		<u>Code</u> <u>Name</u> 997 Functional Acknowledgment				
ST02	329	Transaction Set Control Number Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set Implementation Note: <i>The number is assigned by the sender's translation software to identify the transaction set.</i>	M	AN	4/9	Must use
* ST03	1705	Implementation Convention Reference Description: Reference assigned to identify Implementation Convention	O	AN	1/35	Not used

AK1 Functional Group Response Header

Pos: 0200	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

To start acknowledgment of a functional group

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.

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	Functional Identifier Code	M	ID	2/2	Must use
		Description: Code identifying a group of application related transaction sets				
		<u>Code</u>		<u>Name</u>		
		PT		Product Transfer and Resale Report (867)		
		RD		Royalty Regulatory Report (185)		
		RT		Report of Test Results (863)		
		TF		Electronic Filing of Tax Return Data (813)		
AK102	28	Group Control Number	M	N0	1/9	Must use
		Description: Assigned number originated and maintained by the sender				

AK2 Transaction Set Response Header

Pos: 0300	Max: 1
Heading - Optional	
Loop: AK2	Elements: 2

To start acknowledgment of a single 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.

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	Transaction Set Identifier Code	M	ID	3/3	Must use
		Description: Code uniquely identifying a Transaction Set				
		<u>Code</u>		<u>Name</u>		
		185		Royalty Regulatory Report		
		813		Electronic Filing of Tax Return Data		
		863		Report of Test Results		
		867		Product Transfer and Resale Report		
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				

AK3 Data Segment Note

Pos: 0400	Max: 1
Heading - Optional	
Loop: AK3	Elements: 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	Segment ID Code Description: Code defining the segment ID of the data segment in error (See Appendix A - Number 77)	M	ID	2/3	Must use																		
AK302	719	Segment Position in Transaction Set Description: 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	Loop Identifier Code Description: 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	Segment Syntax Error Code Description: Code indicating error found based on the syntax editing of a segment	O	ID	1/3	Used																		
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Unrecognized segment ID</td> </tr> <tr> <td>2</td> <td>Unexpected segment</td> </tr> <tr> <td>3</td> <td>Mandatory segment missing</td> </tr> <tr> <td>4</td> <td>Loop Occurs Over Maximum Times</td> </tr> <tr> <td>5</td> <td>Segment Exceeds Maximum Use</td> </tr> <tr> <td>6</td> <td>Segment Not in Defined Transaction Set</td> </tr> <tr> <td>7</td> <td>Segment Not in Proper Sequence</td> </tr> <tr> <td>8</td> <td>Segment Has Data Element Errors</td> </tr> </tbody> </table>	<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				
<u>Code</u>	<u>Name</u>																							
1	Unrecognized segment ID																							
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5	Segment Exceeds Maximum Use																							
6	Segment Not in Defined Transaction Set																							
7	Segment Not in Proper Sequence																							
8	Segment Has Data Element Errors																							

AK4 Data Element Note

Pos: 0500	Max: 99
Heading - Optional	
Loop: AK3	Elements: 4

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

Semantics:

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

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	Position in Segment Description: Code indicating the relative position of the simple data element or composite data structure in error within a segment, count beginning with 1 for the position immediately following the segment ID; additionally indicating the relative position of a repeating structure in error, count beginning with 1 for the position immediately following the preceding element separator; additionally indicating the relative position of a component of a composite data structure in error, count beginning with 1 for the position following the preceding element or repetition separator	M	Comp		Must use
	722	Element Position in Segment 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	M	N0	1/2	Must use
	1528	Component Data Element Position in Composite Description: To identify the component data element position within the composite that is in error	O	N0	1/2	Used
	1686	Repeating Data Element Position Description: To identify the specific repetition of a data element that is in error	O	N0	1/4	Used
AK402	725	Data Element Reference Number Description: Reference number used to locate the data element in the Data Element Dictionary	O	N0	1/4	Used
AK403	723	Data Element Syntax Error Code Description: Code indicating the error found after syntax edits of a data element	M	ID	1/3	Must use
		<u>Code</u>	<u>Name</u>			
		1	Mandatory data element missing			

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		<u>Code</u>				
		<u>Name</u>				
		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
		12				Too Many Repetitions
		13				Too Many Components
AK404	724	Copy of Bad Data Element	O	AN	1/99	Used
		Description:				This is a copy of the data element in error

AK5 Transaction Set Response Trailer

Pos: 0600	Max: 1
Heading - Mandatory	
Loop: AK2	Elements: 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	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				
		<u>Code</u>		<u>Name</u>		
		A		Accepted		
		E		Accepted But Errors Were Noted		
		R		Rejected		
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				
		<u>Code</u>		<u>Name</u>		
		1		Transaction Set Not Supported		
		2		Transaction Set Trailer Missing		
		3		Transaction Set Control Number in Header and Trailer Do Not Match		
		4		Number of Included Segments Does Not Match Actual Count		
		5		One or More Segments in Error		
		6		Missing or Invalid Transaction Set Identifier		
		7		Missing or Invalid Transaction Set Control Number		
		8		Authentication Key Name Unknown		
		9		Encryption Key Name Unknown		
		10		Requested Service (Authentication or Encrypted) Not Available		
		11		Unknown Security Recipient		
		12		Incorrect Message Length (Encryption Only)		
		13		Message Authentication Code Failed		
		15		Unknown Security Originator		
		16		Syntax Error in Decrypted Text		
		17		Security Not Supported		
		23		Transaction Set Control Number Not Unique within the Functional Group		
		24		S3E Security End Segment Missing for S3S Security Start Segment		
		25		S3S Security Start Segment Missing for S3E Security End		

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		<u>Code</u>				
		<u>Name</u>				
		Segment				
	26	S4E Security End Segment Missing for S4S Security Start Segment				
	27	S4S Security Start Segment Missing for S4E Security End Segment				
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				
		<u>Code</u>				
		<u>Name</u>				
	1	Transaction Set Not Supported				
	2	Transaction Set Trailer Missing				
	3	Transaction Set Control Number in Header and Trailer Do Not Match				
	4	Number of Included Segments Does Not Match Actual Count				
	5	One or More Segments in Error				
	6	Missing or Invalid Transaction Set Identifier				
	7	Missing or Invalid Transaction Set Control Number				
	8	Authentication Key Name Unknown				
	9	Encryption Key Name Unknown				
	10	Requested Service (Authentication or Encrypted) Not Available				
	11	Unknown Security Recipient				
	12	Incorrect Message Length (Encryption Only)				
	13	Message Authentication Code Failed				
	15	Unknown Security Originator				
	16	Syntax Error in Decrypted Text				
	17	Security Not Supported				
	23	Transaction Set Control Number Not Unique within the Functional Group				
	24	S3E Security End Segment Missing for S3S Security Start Segment				
	25	S3S Security Start Segment Missing for S3E Security End Segment				
	26	S4E Security End Segment Missing for S4S Security Start Segment				
	27	S4S Security Start Segment Missing for S4E Security End Segment				
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				
		<u>Code</u>				
		<u>Name</u>				

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		<u>Code</u>				
		<u>Name</u>				
		1				
		Transaction Set Not Supported				
		2				
		Transaction Set Trailer Missing				
		3				
		Transaction Set Control Number in Header and Trailer Do Not Match				
		4				
		Number of Included Segments Does Not Match Actual Count				
		5				
		One or More Segments in Error				
		6				
		Missing or Invalid Transaction Set Identifier				
		7				
		Missing or Invalid Transaction Set Control Number				
		8				
		Authentication Key Name Unknown				
		9				
		Encryption Key Name Unknown				
		10				
		Requested Service (Authentication or Encrypted) Not Available				
		11				
		Unknown Security Recipient				
		12				
		Incorrect Message Length (Encryption Only)				
		13				
		Message Authentication Code Failed				
		15				
		Unknown Security Originator				
		16				
		Syntax Error in Decrypted Text				
		17				
		Security Not Supported				
		23				
		Transaction Set Control Number Not Unique within the Functional Group				
		24				
		S3E Security End Segment Missing for S3S Security Start Segment				
		25				
		S3S Security Start Segment Missing for S3E Security End Segment				
		26				
		S4E Security End Segment Missing for S4S Security Start Segment				
		27				
		S4S Security Start Segment Missing for S4E Security End Segment				
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

<u>Code</u>	<u>Name</u>
1	Transaction Set Not Supported
2	Transaction Set Trailer Missing
3	Transaction Set Control Number in Header and Trailer Do Not Match
4	Number of Included Segments Does Not Match Actual Count
5	One or More Segments in Error
6	Missing or Invalid Transaction Set Identifier
7	Missing or Invalid Transaction Set Control Number
8	Authentication Key Name

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		<u>Code</u>				
		<u>Name</u>				
		Unknown				
	9	Encryption Key Name Unknown				
	10	Requested Service (Authentication or Encrypted) Not Available				
	11	Unknown Security Recipient				
	12	Incorrect Message Length (Encryption Only)				
	13	Message Authentication Code Failed				
	15	Unknown Security Originator				
	16	Syntax Error in Decrypted Text				
	17	Security Not Supported				
	23	Transaction Set Control Number Not Unique within the Functional Group				
	24	S3E Security End Segment Missing for S3S Security Start Segment				
	25	S3S Security Start Segment Missing for S3E Security End Segment				
	26	S4E Security End Segment Missing for S4S Security Start Segment				
	27	S4S Security Start Segment Missing for S4E Security End Segment				
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				
		<u>Code</u>				
		<u>Name</u>				
	1	Transaction Set Not Supported				
	2	Transaction Set Trailer Missing				
	3	Transaction Set Control Number in Header and Trailer Do Not Match				
	4	Number of Included Segments Does Not Match Actual Count				
	5	One or More Segments in Error				
	6	Missing or Invalid Transaction Set Identifier				
	7	Missing or Invalid Transaction Set Control Number				
	8	Authentication Key Name Unknown				
	9	Encryption Key Name Unknown				
	10	Requested Service (Authentication or Encrypted) Not Available				
	11	Unknown Security Recipient				
	12	Incorrect Message Length (Encryption Only)				
	13	Message Authentication Code Failed				
	15	Unknown Security Originator				
	16	Syntax Error in Decrypted Text				
	17	Security Not Supported				

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		<u>Code</u>				
						<u>Name</u>
		23				Transaction Set Control Number Not Unique within the Functional Group
		24				S3E Security End Segment Missing for S3S Security Start Segment
		25				S3S Security Start Segment Missing for S3E Security End Segment
		26				S4E Security End Segment Missing for S4S Security Start Segment
		27				S4S Security Start Segment Missing for S4E Security End Segment

AK9 Functional Group Response Trailer

Pos: 0700	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 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

Comments:

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

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	Functional Group Acknowledge Code Description: Code indicating accept or reject condition based on the syntax editing of the functional group	M	ID	1/1	Must use								
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Accepted</td> </tr> <tr> <td>E</td> <td>Accepted, But Errors Were Noted.</td> </tr> <tr> <td>P</td> <td>Partially Accepted, At Least One Transaction Set Was Rejected</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	A	Accepted	E	Accepted, But Errors Were Noted.	P	Partially Accepted, At Least One Transaction Set Was Rejected				
<u>Code</u>	<u>Name</u>													
A	Accepted													
E	Accepted, But Errors Were Noted.													
P	Partially Accepted, At Least One Transaction Set Was Rejected													
AK902	97	Number of Transaction Sets Included Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	M	N0	1/6	Must use								
AK903	123	Number of Received Transaction Sets Description: Number of Transaction Sets received	M	N0	1/6	Must use								
AK904	2	Number of Accepted Transaction Sets Description: Number of accepted Transaction Sets in a Functional Group	M	N0	1/6	Must use								
* AK905	716	Functional Group Syntax Error Code Description: Code indicating error found based on the syntax editing of the functional group header and/or trailer	O	ID	1/3	Not used								
* AK906	716	Functional Group Syntax Error Code Description: Code indicating error found based on the syntax editing of the functional group header and/or trailer	O	ID	1/3	Not used								
* AK907	716	Functional Group Syntax Error Code Description: Code indicating error found based on the syntax editing of the functional group header and/or trailer	O	ID	1/3	Not used								
* AK908	716	Functional Group Syntax Error Code Description: Code indicating error found based on the syntax editing of the functional group	O	ID	1/3	Not used								

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		header and/or trailer				
* AK909	716	Functional Group Syntax Error Code	O	ID	1/3	Not used
		Description: Code indicating error found based on the syntax editing of the functional group header and/or trailer				

SE Transaction Set Trailer

Pos: 0800	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 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)

Comments:

- SE is the last segment of each 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>
SE01	96	Number of Included Segments Description: Total number of segments included in a transaction set including ST and SE segments	M	N0	1/10	Must use
SE02	329	Transaction Set Control Number Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set Implementation Note: <i>The number is assigned by the sender's translation software to identify the transaction set.</i>	M	AN	4/9	Must use