



# 997 Functional Acknowledgment

Functional Group ID=**FA**

## Introduction:

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.

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
M	010	ST	Transaction Set Header	M	1		n1
M	020	AK1	Functional Group Response Header	M	1		n2
			LOOP ID - AK2			999999	
	030	AK2	Transaction Set Response Header	O	1		n3
			LOOP ID - AK3			999999	
	040	AK3	Data Segment Note	O	1		c1
	050	AK4	Data Element Note	O	99		
M	060	AK5	Transaction Set Response Trailer	M	1		
M	070	AK9	Functional Group Response Trailer	M	1		
M	080	SE	Transaction Set Trailer	M	1		

## Transaction Set Notes

1. 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.
2. 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.
3. 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.

## Transaction Set Comments

1. 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).

**Segment:** **ST** Transaction Set Header  
**Position:** 010  
**Loop:**  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the start of a transaction set and to assign a control number  
**Syntax Notes:**  
**Semantic Notes:** 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).  
**Comments:**

**Data Element Summary**

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set 997 Functional Acknowledgment	M ID 3/3
M	ST02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M AN 4/9

**Segment:** **AK1** Functional Group Response Header  
**Position:** 020  
**Loop:**  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To start acknowledgment of a functional group  
**Syntax Notes:**  
**Semantic Notes:**

- 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.

**Comments:**

**Data Element Summary**

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>	<u>Functional Identifier Code</u>	<u>M ID 2/2</u>
M	AK101	479	
		Code identifying a group of application related transaction sets	
		AG Application Advice (824)	
		AR Warehouse Stock Transfer Shipment Advice (943)	
		CF Corporate Financial Adjustment Information (844 and 849)	
		IB Inventory Inquiry/Advice (846)	
		IN Invoice Information (810,819)	
		LB Lockbox (823)	
		OW Warehouse Shipping Order (940)	
		PA Price Authorization Acknowledgment/Status (845)	
		PD Product Activity Data (852)	
		PO Purchase Order (850)	
		PR Purchase Order Acknowledgement (855)	
		PT Product Transfer and Resale Report (867)	
		RA Payment Order/Remittance Advice (820)	
		RC Receiving Advice/Acceptance Certificate (861)	
		RQ Request for Quotation (840) and Procurement Notices (836)	
		RR Response to Request For Quotation (843)	
		SC Price/Sales Catalog (832)	
		SH Ship Notice/Manifest (856)	
M	AK102	28	
		<b>Group Control Number</b>	<b>M NO 1/9</b>
		Assigned number originated and maintained by the sender	

**Segment:** **AK2** Transaction Set Response Header  
**Position:** 030  
**Loop:** AK2 Optional  
**Level:**  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To start acknowledgment of a single transaction set  
**Syntax Notes:**  
**Semantic Notes:**

- 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.

**Comments:**

**Data Element Summary**

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>	<u>Transaction Set Identifier Code</u>	<u>M ID 3/3</u>
M	AK201	143	
		Code uniquely identifying a Transaction Set	
		810 Invoice	
		816 Organizational Relationships	
		820 Payment Order/Remittance Advice	
		823 Lockbox	
		824 Application Advice	
		832 Price/Sales Catalog	
		840 Request for Quotation	
		843 Response to Request for Quotation	
		844 Product Transfer Account Adjustment	
		845 Price Authorization Acknowledgment/Status	
		846 Inventory Inquiry/Advice	
		849 Response to Product Transfer Account Adjustment	
		850 Purchase Order	
		852 Product Activity Data	
		855 Purchase Order Acknowledgment	
		856 Ship Notice/Manifest	
		861 Receiving Advice/Acceptance Certificate	
		867 Product Transfer and Resale Report	
		940 Warehouse Shipping Order	
		943 Warehouse Stock Transfer Shipment Advice	
M	AK202	329	
		<b>Transaction Set Control Number</b>	<b>M AN 4/9</b>
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	

**Segment:** **AK3** Data Segment Note  
**Position:** 040  
**Loop:** AK3 Optional  
**Level:**  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To report errors in a data segment and identify the location of the data segment  
**Syntax Notes:**  
**Semantic Notes:**  
**Comments:**

**Data Element Summary**

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK301	721	<b>Segment ID Code</b> Code defining the segment ID of the data segment in error (See Appendix A - Number 77)	<b>M ID 2/3</b>
M	AK302	719	<b>Segment Position in Transaction Set</b> The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1	<b>M N0 1/6</b>
	AK303	447	<b>Loop Identifier Code</b> The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE	<b>O AN 1/6</b>
	AK304	720	<b>Segment Syntax Error Code</b> Code indicating error found based on the syntax editing of a segment	<b>O ID 1/3</b>
		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	

**Segment:** **AK4** Data Element Note

**Position:** 050

**Loop:** AK3 Optional

**Level:**

**Usage:** Optional

**Max Use:** 99

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

**Syntax Notes:**

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

**Comments:**

#### Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK401	C030	<b>Position in Segment</b>	M
			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	C03001	722	<b>Element Position in Segment</b>	M N0 1/2
			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	
	C03002	1528	<b>Component Data Element Position in Composite</b>	O N0 1/2
			To identify the component data element position within the composite that is in error	
	AK402	725	<b>Data Element Reference Number</b>	O N0 1/4
			Reference number used to locate the data element in the Data Element Dictionary	
M	AK403	723	<b>Data Element Syntax Error Code</b>	M ID 1/3
			Code indicating the error found after syntax edits of a data element	
			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	
	AK404	724	<b>Copy of Bad Data Element</b>	O AN 1/99
			This is a copy of the data element in error	

**Segment:** **AK5** Transaction Set Response Trailer  
**Position:** 060  
**Loop:** AK2 Optional  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To acknowledge acceptance or rejection and report errors in a transaction set  
**Syntax Notes:**  
**Semantic Notes:**  
**Comments:**

**Data Element Summary**

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
M	AK501	717	<b>Transaction Set Acknowledgment Code</b>	<b>M ID 1/1</b>
			Code indicating accept or reject condition based on the syntax editing of the transaction set	
			A Accepted	
			E Accepted But Errors Were Noted	
			M Rejected, Message Authentication Code (MAC) Failed	
			R Rejected	
			W Rejected, Assurance Failed Validity Tests	
			X Rejected, Content After Decryption Could Not Be Analyzed	
	AK502	718	<b>Transaction Set Syntax Error Code</b>	<b>O ID 1/3</b>
			Code indicating error found based on the syntax editing of a transaction set	
			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	
			19 S1E Security End Segment Missing for S1S Security Start Segment	
			20 S1S Security Start Segment Missing for S1E Security End Segment	
			21 S2E Security End Segment Missing for S2S Security Start Segment	
			22 S2S Security Start Segment Missing for S2E Security End Segment	
			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	
<b>AK503</b>	<b>718</b>	<b>Transaction Set Syntax Error Code</b>		<b>O ID 1/3</b>
			Code indicating error found based on the syntax editing of a transaction set	
			Refer to 004010HIBCC Data Element Dictionary for acceptable code values.	
<b>AK504</b>	<b>718</b>	<b>Transaction Set Syntax Error Code</b>		<b>O ID 1/3</b>
			Code indicating error found based on the syntax editing of a transaction set	
			Refer to 004010HIBCC Data Element Dictionary for acceptable code values.	
<b>AK505</b>	<b>718</b>	<b>Transaction Set Syntax Error Code</b>		<b>O ID 1/3</b>
			Code indicating error found based on the syntax editing of a transaction set	
			Refer to 004010HIBCC Data Element Dictionary for acceptable code values.	
<b>AK506</b>	<b>718</b>	<b>Transaction Set Syntax Error Code</b>		<b>O ID 1/3</b>
			Code indicating error found based on the syntax editing of a transaction set	
			Refer to 004010HIBCC Data Element Dictionary for acceptable code values.	

**Segment:** **AK9** Functional Group Response Trailer  
**Position:** 070  
**Loop:**  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**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

**Syntax Notes:**

**Semantic Notes:**

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

### Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK901	715	<b>Functional Group Acknowledge Code</b> Code indicating accept or reject condition based on the syntax editing of the functional group A Accepted E Accepted, But Errors Were Noted. M Rejected, Message Authentication Code (MAC) Failed P Partially Accepted, At Least One Transaction Set Was Rejected R Rejected W Rejected, Assurance Failed Validity Tests X Rejected, Content After Decryption Could Not Be Analyzed	M ID 1/1
M	AK902	97	<b>Number of Transaction Sets Included</b> 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
M	AK903	123	<b>Number of Received Transaction Sets</b> Number of Transaction Sets received	M N0 1/6
M	AK904	2	<b>Number of Accepted Transaction Sets</b> Number of accepted Transaction Sets in a Functional Group	M N0 1/6
	AK905	716	<b>Functional Group Syntax Error Code</b> Code indicating error found based on the syntax editing of the functional group header and/or trailer 1 Functional Group Not Supported 2 Functional Group Version Not Supported 3 Functional Group Trailer Missing 4 Group Control Number in the Functional Group Header and Trailer Do Not Agree 5 Number of Included Transaction Sets Does Not Match Actual Count 6 Group Control Number Violates Syntax 10 Authentication Key Name Unknown 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	O ID 1/3

- 17 Incorrect Message Length (Encryption Only)
- 18 Message Authentication Code Failed
- 19 S1E Security End Segment Missing for S1S Security Start Segment
- 20 S1S Security Start Segment Missing for S1E End Segment
- 21 S2E Security End Segment Missing for S2S Security Start Segment
- 22 S2S Security Start Segment Missing for S2E Security End Segment
- 23 S3E Security End Segment Missing for S3S Security Start Segment
- 24 S3S Security Start Segment Missing for S3E End Segment
- 25 S4E Security End Segment Missing for S4S Security Start Segment
- 26 S4S Security Start Segment Missing for S4E Security End Segment

- AK906 716 Functional Group Syntax Error Code O ID 1/3**  
Code indicating error found based on the syntax editing of the functional group header and/or trailer  
Refer to 004010HIBCC Data Element Dictionary for acceptable code values.
- AK907 716 Functional Group Syntax Error Code O ID 1/3**  
Code indicating error found based on the syntax editing of the functional group header and/or trailer  
Refer to 004010HIBCC Data Element Dictionary for acceptable code values.
- AK908 716 Functional Group Syntax Error Code O ID 1/3**  
Code indicating error found based on the syntax editing of the functional group header and/or trailer  
Refer to 004010HIBCC Data Element Dictionary for acceptable code values.
- AK909 716 Functional Group Syntax Error Code O ID 1/3**  
Code indicating error found based on the syntax editing of the functional group header and/or trailer  
Refer to 004010HIBCC Data Element Dictionary for acceptable code values.

**Segment:** **SE** Transaction Set Trailer

**Position:** 080

**Loop:**

**Level:**

**Usage:** Mandatory

**Max Use:** 1

**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)

**Syntax Notes:**

**Semantic Notes:**

**Comments:** 1 SE is the last segment of each transaction set.

#### Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	SE01	96	Number of Included Segments Total number of segments included in a transaction set including ST and SE segments	M N0 1/10
M	SE02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M AN 4/9