Federal Implementation Guideline for Electronic Data Interchange

ASC X12 003040 Transaction Set 997 Functional Acknowledgment

Implementation Convention

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NIST

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Reports on Information Technology

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997 Functional Acknowledgment

<div align="right">Functional Group ID=FA</div>

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.

Notes:

1. Use this transaction set to acknowledge the receipt, and acceptance of rejection of a functional group and the transaction set(s) contained within it based upon EDI translation software syntax edits.

2. No acknowledgment of a Functional Acknowledgment transaction set, in the case of receipt and acceptance notification, shall be provided.

3. Trading Partners should limit the scope of the data provided in the case of transaction set receipt and rejection notification to the transaction set level, i.e., the 1/AK3/040 loop should not be used. However, if separate arrangements with trading partners of flexibility within the translation software do not permit this level of response, the procedures identified herein, as applicable to the 1/AK3/040 loop should be followed.

Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
010	ST	Transaction Set Header	M	1		n1
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		
060	AK5	Transaction Set Response Trailer	M	1		
070	AK9	Functional Group Response Trailer	M	1		
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.
   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 syntatical 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	
Notes:		
Syntax Notes:		
Semantic Notes:	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).
Comments:		

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
>> ST01	143	**Transaction Set Identifier Code**	M ID 3/3
		Code uniquely identifying a Transaction Set.	
		997 X12.20 Functional Acknowledgment	
>> ST02	329	**Transaction Set Control Number**	M AN 4/9
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	
		Use to transmit a unique number assigned by the originator of the transaction set. This number may be system generated.	

Segment:	**AK1** Functional Group Response Header	
Position:	020	
Loop:		
Level:		
Usage:	Mandatory	
Max Use:	1	
Purpose:	To start acknowledgment of a functional group.	
Notes:	1. Use to identify the unique identification number of the functional group in which the transaction set(s) being acknowledged was received.	
	2. Only one functional group may be referenced in a single 997 acknowledgment transaction set.	

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 data interchange control number found in the GS segment in the functional group being acknowledged.
Comments:		

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
>> AK101	479	**Functional Identifier Code**	**M ID 2/2**
		Code identifying a group of application related Transaction Sets.	

CA	Purchase Order Change Acknowledgement/Request - Seller Initiated (865)
FA	Functional Acknowledgement (997)
	Use only when rejecting a Functional Acknowledgment, 997 transaction set, containing syntactical errors.
IN	Invoice Information (810, 819)
MS	Material Safety Data Sheet (848)
PC	Purchase Order Change Request - Buyer Initiated (860)
PO	Purchase Order (850)
PR	Purchase Order Acknowledgement (855)
RA	Payment Order/Remittance Advice (820)
RQ	Request for Quotation (840) and Contract Award (836)
RR	Response to Request For Quotation (843)
RS	Order Status Information (869, 870)
SC	Price/Sales Catalog (832)
SH	Ship Notice/Manifest (856)
SP	Specifications/Technical Information (841)
TD	Trading Partner Profile (838)

Ref. Des.	Data Element	Name	Attributes
>> AK102	28	**Group Control Number**	**M N0 1/9**
		Assigned number originated and maintained by the sender.	
		Use to identify the number cited in GS06 of the functional group being acknowledged.	

Segment:	**AK2** Transaction Set Response Header	
Position:	030	
Loop:	AK2	
Level:		
Usage:	Optional	
Max Use:	1	
Purpose:	To start acknowledgment of a single transaction set.	
Notes:	Use to identify the unique identification number of the transaction set being acknowledged.	

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

Ref. Des.	Data Element	Name	Attributes
>> AK201	143	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set.	M ID 3/3
		810 X12.2 Invoice	
		820 X12.4 Payment Order/Remittance Advice	
		832 X12.13 Price/Sales Catalog	
		836 X12.54 Contract Award	
		838 X12.17 Trading Partner Profile	
		840 X12.7 Request for Quotation	
		841 X12.51 Specifications/Technical Information	
		843 X12.8 Response to Request for Quotation	
		848 X12.36 Material Safety Data Sheet	
		850 X12.1 Purchase Order	
		855 X12.9 Purchase Order Acknowledgment	
		856 X12.10 Ship Notice/Manifest	
		860 X12.15 Purchase Order Change Request - Buyer Initiated	
		865 X12.16 Purchase Order Change Acknowledgment/Request - Seller Initiated	
		869 X12.11 Order Status Inquiry	
		870 X12.23 Order Status Report	
		997 X12.20 Functional Acknowledgment	
		Use only when rejecting a Functional Acknowledgment, 997, transaction set, containing syntactical errors.	
>> AK202	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 *Use to identify the number cited in the ST02 of the transaction set being*	M AN 4/9

acknowledged.

6

Segment:	**AK3** Data Segment Note	
Position:	040	
Loop:	AK3	
Level:		
Usage:	Optional	
Max Use:	1	
Purpose:	To report errors in a data segment and to identify the location of the data segment.	
Notes:	1. Use the 1/AK3/040 loop only when Trading Partner Agreements or translation software do not permit the level of receipt and rejection reporting to be limited to the group or transaction set level.	

2. This 1/AK3/040 loop is used only to identify one or more segments containing syntactical errors resulting in rejection of the transaction set or functional group. This loop is not used when transaction set and functional group receipt and acceptance is being acknowledged.

3. Use to identify one or more segments containing syntax errors.

Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
>> AK301	721	**Segment ID Code**	M ID 2/3
		Code defining the segment ID of the data segment in error. See Appendix A - Number 77.	
		Use to identify the segment containing syntactical errors, as it appears in the ASC X12 Data Segment Dictionary, e.g., REF.	
>> AK302	719	**Segment Position in Transaction Set**	M N0 1/6
		The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1.	
		Use to identify the segment sequential position within the data stream of the transaction set as transmitted. This is not the segment portrayed in the transaction set structure.	
X AK303	447	**Loop Identifier Code**	O AN 1/4
		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
		Code indicating error found based on the syntax editing of a segment	
		1. Use only when a segment is being rejected to identify the basis for transaction set rejection.	
		2. Do not use when the error is in a data element within the segment.	
		3. Use any code.	
		Refer to 003040 Data Element Dictionary for acceptable code values.	
X AK305	720	**Segment Syntax Error Code**	O ID 1/3
		Code indicating error found based on the syntax editing of a segment	
X AK306	720	**Segment Syntax Error Code**	O ID 1/3
		Code indicating error found based on the syntax editing of a segment	

X	AK307	720	**Segment Syntax Error Code**	O	ID	1/3
			Code indicating error found based on the syntax editing of a segment			
X	AK308	720	**Segment Syntax Error Code**	O	ID	1/3
			Code indicating error found based on the syntax editing of a segment			

Segment:	**AK4** Data Element Note	
Position:	050	
Loop:	AK3	
Level:		
Usage:	Optional	
Max Use:	99	
Purpose:	To report errors in a data element and to identify the location of the data element.	
Notes:	1. Use to identify an erroneous data element. The segment which contains the erroneous data element must be identified in the preceding AK3 segment.	
	2. Use multiple occurrences of this segment to identify one or more data element errors within the segment specified in the preceding AK3 segment.	
Syntax Notes:		
Semantic Notes:		
Comments:		

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	AK401	722	**Element Position in Segment**	M	N0	1/2

This is used to indicate the relative position of the data element in error in this data segment. The count starts with 1 for the data element immediately following the segment ID. This value is 0 for an error in the segment ID.
Use to indicate the relative position of the data element containing the syntactical error within the segment. for example, in the N1 segment: 1 indicates an error in element N101, 2 indicates and error in element N102, etc. (Note: An error in the segment ID is identified in the AK3 segment and need not be identified at this level.

	Ref. Des.	Data Element	Name	Attributes		
	AK402	725	**Data Element Reference Number**	O	N0	1/4

Reference number used to locate the Data Element Dictionary.
Use to identify the data element number as it appears in the ASC X12 data Element Dictionary. For example, the data element number for the AK402 data element is 725.

	Ref. Des.	Data Element	Name	Attributes		
>>	AK403	723	**Data Element Syntax Error Code**	M	ID	1/3

Code indicating the error found after syntax edits of a data element.
Use any code.
Refer to 003040 Data Element Dictionary for acceptable code values.

	Ref. Des.	Data Element	Name	Attributes		
X	AK404	724	**Copy of Bad Data Element**	O	AN	1/99

This is a copy of the data element in error.

Segment:	**AK5** Transaction Set Response Trailer	
Position:	060	
Loop:	AK2	
Level:		
Usage:	Mandatory	
Max Use:	1	
Purpose:	To acknowledge acceptance or rejection and to report errors in a transaction set.	
Notes:	1. Use to indicate whether the transaction set indicated in the corresponding AK2 segment was accepted or rejected.	
	2. If the transaction set is rejected, use to identify up to five (5) syntax errors at the transaction set level.	

Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes		
>>	AK501	717	**Transaction Set Acknowledgment Code**	M	ID	1/1

Code indicating accept or reject condition based on the syntax editing of the transaction set.

A	Accepted
E	Accepted But Errors Were Noted
R	Rejected
X	Rejected, Content After Decryption Could Not Be Analyzed

	Ref. Des.	Data Element	Name	Attr		
	AK502	718	**Transaction Set Syntax Error Code**	O	ID	1/3

Code indicating error found based on the syntax editing of a transaction set.

1. Use only when a transaction set is being rejected to identify the basis for rejection.

2. Use any code. Codes may also be used in AK503-06 but no individual code may be used more than once.

3. When the 1/AK3/040 loop is not used and syntactical errors occurred below the transaction set level, use code 5.
Refer to 003040 Data Element Dictionary for acceptable code values.

	Ref. Des.	Data Element	Name	Attr		
	AK503	718	**Transaction Set Syntax Error Code**	O	ID	1/3

Code indicating error found based on the syntax editing of a transaction set.
Refer to 003040 Data Element Dictionary for acceptable code values.

	AK504	718	**Transaction Set Syntax Error Code**	O	ID	1/3

Code indicating error found based on the syntax editing of a transaction set.
Refer to 003040 Data Element Dictionary for acceptable code values.

	AK505	718	**Transaction Set Syntax Error Code**	O	ID	1/3

Code indicating error found based on the syntax editing of a transaction set.
Refer to 003040 Data Element Dictionary for acceptable code values.

	AK506	718	**Transaction Set Syntax Error Code**	O	ID	1/3

Code indicating error found based on the syntax editing of a transaction set. Refer to 003040 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.	
Notes:	1. Use only to indicate whether the functional group was accepted or rejected based on syntax errors in the functional group header or trailer.	
	2. If the functional group is rejected, use to identify up to five (5) syntax errors at the functional group level.	
Syntax Notes:		
Semantic Notes:		
Comments:	1 If AK901 is 'A' or 'E', then the transmitted functional group is accepted. If AK901 is 'R', then the transmitted group is rejected.	

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
>>	AK901	715	**Functional Group Acknowledge Code**	M	ID	1/1

Code indicating accept or reject condition based on the syntax editing of the functional group.

A	Accepted
E	Accepted, But Errors Were Noted.
P	Partially Accepted, At Least One Transaction Set Was Rejected
R	Rejected

	Ref. Des.	Data Element	Name		Attributes	
>>	AK902	97	**Number of Transaction Sets Included**	M	N0	1/6

Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element.

	Ref. Des.	Data Element	Name		Attributes	
>>	AK903	123	**Number of Received Transaction Sets**	M	N0	1/6

Number of Transaction Sets received.

	Ref. Des.	Data Element	Name		Attributes	
>>	AK904	2	**Number of Accepted Transaction Sets**	M	N0	1/6

Number of accepted Transaction Sets in a Functional Group.

	Ref. Des.	Data Element	Name		Attributes	
	AK905	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.

1. Use only when a functional group is being rejected to identify the basis for rejection.

2. Use any code. Codes may also be used in AK906-09 but no individual code may be used more than once.

Refer to 003040 Data Element Dictionary for acceptable code values.

	Ref. Des.	Data Element	Name		Attributes	
	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 003040 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 003040 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 003040 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 003040 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).
Notes:	
Syntax Notes:	
Semantic Notes:	
Comments:	1 SE is the last segment of each transaction set.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes		
>> SE01	96	**Number of Included Segments**	**M**	**N0**	**1/10**
		Total number of segments included in a transaction set including ST and SE segments.			
>> SE02	329	**Transaction Set Control Number**	**M**	**AN**	**4/9**
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set			
		Use the same number cited in ST02.			

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