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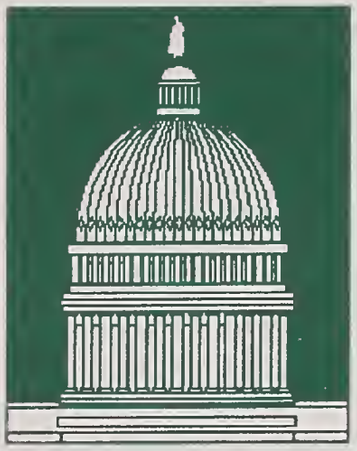
NIST Special Publication 881-35



Federal Implementation Guideline for Electronic Data Interchange

ASC X12 003050 Transaction Set 997 Functional Acknowledgment (Revision 1)

Implementation Convention

U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Institute of
Standards and Technology

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[1] At Boulder, CO 80303.
[2] Some elements at Boulder, CO.

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Electronic Commerce Acquisition Program Management Office
Standard Management Committee - Secretariat
National Institute of Standards and Technology
Gaithersburg, MD 20899-0001

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997 Functional Acknowledgement

Functional Group ID=FA

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Functional Acknowledgement 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 acknowledgements 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.

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1		n1
Must Use	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		
Must Use	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		

Transaction Set Notes

1. These acknowledgements shall not be acknowledged, thereby preventing an endless cycle of acknowledgements of acknowledgements.
   The Functional Group Header Segment (GS) is used to start the envelope for the Functional Acknowledgement Transaction Sets. In preparing the functional group of acknowledgements, the application sender's code and the application receiver's code, taken from the functional group being acknowledged, are exchanged; therefore, one acknowledgement 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 Acknowledgement 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
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
Must Use	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 997 X12.20 Functional Acknowledgement	**M ID 3/3**
Must Use	**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 acknowledgement 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

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**AK101**	**479**	**Functional Identifier Code** Code identifying a group of application related transaction sets Refer to 003050 Data Element Dictionary for acceptable code values.	**M**	**ID 2/2**
Must Use	**AK102**	**28**	**Group Control Number** Assigned number originated and maintained by the sender	**M**	**N0 1/9**

Segment: **AK2** **Transaction Set Response Header**
Position: 030
Loop: AK2
Level:
Usage: Optional
Max Use: 1
Purpose: To start acknowledgement 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

	Ref. Des.	Data Element	Name	Attributes
Must Use	**AK201**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set Refer to 003050 Data Element Dictionary for acceptable code values.	**M ID 3/3**
Must Use	**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	**M AN 4/9**

Segment: **AK3** **Data Segment Note**
Position: 040
Loop: AK3
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

	Ref. Des.	Data Element	Name	Attributes
Must Use	**AK301**	**721**	**Segment ID Code** 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** 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**
	AK303	**447**	**Loop Identifier Code** The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE	**O AN 1/4**
	AK304	**720**	**Segment Syntax Error Code** Code indicating error found based on the syntax editing of a segment Refer to 003050 Data Element Dictionary for acceptable code values.	**O ID 1/3**

Segment: **AK4** **Data Element Note**
Position: 050
Loop: AK3
Level:
Usage: Optional
Max Use: 99
Purpose: To report errors in a data element and identify the location of the data element
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	AK401	C030	**Position in Segment** 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	
Must Use	C03001	722	**Element Position in Segment** 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
	C03002	1528	**Component Data Element Position in Composite** To identify the component data element position within the composite that is in error	O	N0 1/2
Must Use	AK402	725	**Data Element Reference Number** Reference number used to locate the data element in the Data Element Dictionary	O	N0 1/4
Must Use	AK403	723	**Data Element Syntax Error Code** Code indicating the error found after syntax edits of a data element Refer to 003050 Data Element Dictionary for acceptable code values.	M	ID 1/3
	AK404	724	**Copy of Bad Data Element** This is a copy of the data element in error	O	AN 1/99

Segment: **AK5** **Transaction Set Response Trailer**
Position: 060
Loop: AK2
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

	Ref. Des.	Data Element	Name	Attributes
Must Use	AK501	717	**Transaction Set Acknowledgement Code** Code indicating accept or reject condition based on the syntax editing of the transaction set Refer to 003050 Data Element Dictionary for acceptable code values.	M ID 1/1
	AK502	718	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK503	718	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK504	718	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK505	718	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK506	718	**Transaction Set Syntax Error Code** Code indicating error found based on the syntax editing of a transaction set Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3

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 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
Must Use	AK901	715	**Functional Group Acknowledge Code** Code indicating accept or reject condition based on the syntax editing of the functional group Refer to 003050 Data Element Dictionary for acceptable code values.	M ID 1/1
Must Use	AK902	97	**Number of Transaction Sets Included** 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** Number of Transaction Sets received	M N0 1/6
Must Use	AK904	2	**Number of Accepted Transaction Sets** Number of accepted Transaction Sets in a Functional Group	M N0 1/6
	AK905	716	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK906	716	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK907	716	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK908	716	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK909	716	**Functional Group Syntax Error Code** Code indicating error found based on the syntax editing of the functional group header and/or trailer Refer to 003050 Data Element Dictionary for acceptable code values.	O ID 1/3

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

	Ref. Des.	Data Element	Name	Attributes
Must Use	**SE01**	**96**	**Number of Included Segments** 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** 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**

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