

Utility Industry Group Implementation Standard

for

Electronic
Data
Interchange

TRANSACTION SET

997

**Functional
Acknowledgment**

Ver/Rel 003030

Summary of Changes

April 14, 1998 Initial release.

? Utility Industry Group, 1998
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997 Functional Acknowledgment Introduction

The function of the Utility Industry Group is:

To represent Electric, Gas, and Combination Utilities, their suppliers, their customers, and other interested parties as an Industry Action Group to the American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12, specifically in the standards-setting process, for their Electronic Data Interchange business needs.

To encourage, promote, and establish conventions for the use of ASC X12 standards as the “recommended” method of EDI. To develop and coordinate, as required, implementation guidelines and tools to promote the growth and timely implementation of Electronic Commerce/EDI within the industry.

To provide a forum for the exchange of ideas related to Electronic Commerce/EDI and its influence on the business needs of the industry.

The UIG will represent the Edison Electric Institute (EEI) and its members to facilitate implementation of Electronic Commerce/EDI in the Utility Industry.

Purpose

This Utility Industry Group (UIG) Implementation Guideline contains the format and establishes the data contents of the Functional Acknowledgment Transaction Set (997) as adopted by the UIG for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business and industry practice relative to the placement of purchase orders for goods and services.

Overview

The 997 Functional Acknowledgment transaction set consists of a single header group structure. In general, the header segments identify the interchanging partners, establish control numbers, and specify the use and purpose of the transaction set.

General

Trading partners are encouraged to transmit and receive functional acknowledgments. These documents are used to ascertain the functional receipt of the document and syntactical correctness of its content.

997 Functional Acknowledgments

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

- 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.
- 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.
- 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

- 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.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set 997 X12.20 Functional Acknowledgment Refer to 003030 Data Element Dictionary for acceptable code values.	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 Sender will assure that this control number will be unique within the "GS" segment.	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 data interchange control number found in the GS segment in the functional group being acknowledged.

Comments:

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK101	479	Functional Identifier Code Code identifying a group of application related transaction sets This is the functional group ID of the group that is being acknowledged. It is the value sent in the GS01 for the original transmission.	M ID 2/2
M	AK102	28	Group Control Number Assigned number originated and maintained by the sender This is the control number assigned to the group being acknowledged. It is the value sent in the GS06 for the original transmission.	M N0 1/9

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>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK201	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set This is the transaction set ID of the transaction set being acknowledged. It is the value sent in the ST01 for the original transmission. Refer to 003030 Data Element Dictionary for acceptable code values.	M ID 3/3
M	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 This is the control number assigned to the transaction set being acknowledged. It is the value sent in the ST02 for the original transmission.	M AN 4/9

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	Segment ID Code Code defining the segment ID of the data segment in error (See Appendix A - Number 77)	M ID 2/3
M	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 Code identifying a loop within the transaction set which is bounded by the related LS and LE segments (corresponding LS and LE segments must have the same value for loop identifier). (Note: The loop ID number given on the transaction set diagram is recommended as 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 1 Unrecognized segment ID 2 Unexpected segment 3 Mandatory segment missing 4 Loop Occurs Over Maximum Times 5 Segment Exceeds Maximum Use	O ID 1/3
	AK305	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment See AK304. Refer to 003030 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK306	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment See AK304. Refer to 003030 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK307	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment See AK304. Refer to 003030 Data Element Dictionary for acceptable code values.	O ID 1/3
	AK308	720	Segment Syntax Error Code Code indicating error found based on the syntax editing of a segment See AK304. Refer to 003030 Data Element Dictionary for acceptable code values.	O ID 1/3

Segment: **AK4** Data Element Note
Position: 050
Loop: AK3 Optional
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

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK401	722	Element Position in Segment 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.	M N0 1/2
	AK402	725	Data Element Reference Number Reference number used to locate the Data Element Dictionary.	O N0 1/4
M	AK403	723	Data Element Syntax Error Code Code indicating the error found after syntax edits of a data element	M ID 1/3
			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	
	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 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>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK501	717	Transaction Set Acknowledgment Code 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	M ID 1/1
	AK502	718	Transaction Set Syntax Error Code 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	O ID 1/3
	AK503	718	Transaction Set Syntax Error Code Code indicating error found based on the syntax editing of a transaction set See AK502. Refer to 003030 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 See AK502. Refer to 003030 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 See AK502. Refer to 003030 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 See AK502. Refer to 003030 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

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
M	AK901	715	Functional Group Acknowledge Code 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	M ID 1/1
M	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
M	AK903	123	Number of Received Transaction Sets Number of Transaction Sets received	M N0 1/6
M	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 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	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 See AK905. Refer to 003030 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 See AK905. Refer to 003030 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	O ID 1/3

AK909	716	Functional Group Syntax Error Code	O ID 1/3
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See AK905.
Refer to 003030 Data Element Dictionary for acceptable code values.
Code indicating error found based on the syntax editing of the functional group header and/or trailer

See AK905.
Refer to 003030 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

	Ref.	Data	Name	Attributes
	Des.	Element		
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 Must match the number assigned in the ST segment (ST02).	M AN 4/9