

ARKANSAS  
PUBLIC SERVICE COMMISSION



RULES TO GOVERN  
ELECTRONIC EXCHANGE OF  
DATA - ELECTRIC

# Arkansas

## Implementation Guideline

For

# Electronic Data Interchange

TRANSACTION SET

# 997

## Functional Acknowledgement

Ver 1.0 /Rel 004010

## Summary of Changes

April 7, 2000  
Version 1.0

Initial Release.

# How to Use the Implementation Guideline

**Segment:** **REF** Reference Identification  
**Position:** 030  
**Loop:** LIN Optional  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** >1  
**Purpose:** To specify identifying information  
**Syntax Notes:**  
 1 At least one of REF02 or REF03 is required.  
 2 If either C04003 or C04004 is present, then the other is required.  
 3 If either C04005 or C04006 is present, then the other is required.  
**Semantic Notes:**  
 1 REF04 contains data relating to the value cited in REF02.  
**Comments:**

This section is used to show the X12 Rules for this segment. You must look further into the grayboxes below for State Rules.

<b>Notes:</b>	Recommended by UIG
<b>AR Use:</b>	Must be identical to account number as it appears on the customer's bill, excluding punctuation (spaces, dashes, etc.). Significant leading and trailing zeros must be included.
	Request: Required Accept Response: Required Reject Response: Required
<b>Example:</b>	REF*12*2931839200

The "Notes:" section generally contains notes by the Utility Industry Group (UIG).

This section is used to show the individual State's Rules for implementation of this segment.

One or more examples.

## Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>X12 Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification 12 Billing Account LDC assigned account number for end use customer.	M ID 2/3
Must Use	REF02	127	Reference Identification Qualifier Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X AN 1/30

This column shows the use of each data element. If state rules differ, this will show "Conditional" and the conditions will be explained in the appropriate grayboxes.

These are X12 code descriptions, which often do not relate to the information we are trying to send. Unfortunately, X12 cannot keep up with our code needs so we often change the meanings of existing codes. See graybox for the UIG or state definitions.

This column shows the X12 attributes for each data element. Please refer to Data Dictionary for individual state rules.  
 M = Mandatory, O = Optional, X = Conditional  
 AN = Alphanumeric, N# = Decimal value, ID = Identification, R = Real  
 1/30 = Minimum 1, Maximum 30

# 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.</u> <u>No.</u>	<u>Seg.</u> <u>ID</u>	<u>Name</u>	<u>Req.</u> <u>Des.</u>	<u>Max.Use</u>	<u>Loop</u> <u>Repeat</u>	<u>Notes and</u> <u>Comments</u>
M	010	ST	Transaction Set Header	M	1		n1
M	020	AK1	Functional Group Response Header	M	1		n2
			<b>LOOP ID - AK2</b>			<b>999999</b>	
	030	AK2	Transaction Set Response Header	O	1		n3
			<b>LOOP ID - AK3</b>			<b>999999</b>	
	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. 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.
- 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. 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. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK101	479	<b>Functional Identifier Code</b>	M ID 2/2
			Code identifying a group of application related transaction sets	
			AG Application Advice (824)	
			GE General Request, Response or Confirmation (814)	
			IN Invoice Information (810,819)	
			PT Product Transfer and Resale Report (867)	
			RA Payment Order/Remittance Advice (820)	
			SU Account Assignment/Inquiry and Service/Status (248)	
M	AK102	28	<b>Group Control Number</b>	M N0 1/9
			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>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK201	143	<b>Transaction Set Identifier Code</b> Code uniquely identifying a Transaction Set	M ID 3/3
			248 Account Assignment/Inquiry and Service/Status	
			810 Invoice	
			814 General Request, Response or Confirmation	
			820 Payment Order/Remittance Advice	
			824 Application Advice	
			867 Product Transfer and Resale Report	
M	AK202	329	<b>Transaction Set Control Number</b> 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 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.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
M	AK301	721	<b>Segment ID Code</b> Code defining the segment ID of the data segment in error	M ID 2/3
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	M N0 1/6
	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	O AN 1/6
	AK304	720	<b>Segment Syntax Error Code</b> Code indicating error found based on the syntax editing of a segment	O ID 1/3
			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.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	AK401	C030	<b>Position in Segment</b> 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	<b>M</b>
M	C03001	722	<b>Element Position in Segment</b> 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	<b>M N0 1/2</b>
	C03002	1528	<b>Component Data Element Position in Composite</b> To identify the component data element position within the composite that is in error	<b>O N0 1/2</b>
	AK402	725	<b>Data Element Reference Number</b> Reference number used to locate the data element in the Data Element Dictionary	<b>O N0 1/4</b>
M	AK403	723	<b>Data Element Syntax Error Code</b> Code indicating the error found after syntax edits of a data element	<b>M ID 1/3</b>
			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> This is a copy of the data element in error	<b>O AN 1/99</b>

**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 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	
		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 Transaction Set Syntax Error Code	O ID 1/3
		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 See valid codes above.	
<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 See valid codes above.	
<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 See valid codes above.	
<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 See valid codes above.	

**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.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</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	O ID 1/3

	14	Unknown Security Originator	
	15	Syntax Error in Decrypted Text	
	16	Security Not Supported	
	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	
<b>AK906</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b>	<b>O ID 1/3</b>
		Code indicating error found based on the syntax editing of the functional group header and/or trailer	
		See valid codes above.	
<b>AK907</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b>	<b>O ID 1/3</b>
		Code indicating error found based on the syntax editing of the functional group header and/or trailer	
		See valid codes above.	
<b>AK908</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b>	<b>O ID 1/3</b>
		Code indicating error found based on the syntax editing of the functional group header and/or trailer	
		See valid codes above.	
<b>AK909</b>	<b>716</b>	<b>Functional Group Syntax Error Code</b>	<b>O ID 1/3</b>
		Code indicating error found based on the syntax editing of the functional group header and/or trailer	
		See valid codes above.	

**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**

	<b>Ref.</b>	<b>Data</b>	<b>Name</b>	<b>Attributes</b>
	<b>Des.</b>	<b>Element</b>		
M	SE01	96	<b>Number of Included Segments</b> Total number of segments included in a transaction set including ST and SE segments	M N0 1/10
M	SE02	329	<b>Transaction Set Control Number</b> 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