

997 Functional Acknowledgment

Functional Group ID = FA
ASC X12

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INTRODUCTION

This section provides the necessary information to enable trading partners to utilize the ASC X12 standards for the exchange of electronic business documents within the electronics industry.

Examples

N/A

Abbreviations and Notations

N/A

General Recommendations and Best Practices

N/A

Additional References

N/A

OVERVIEW

1. FUNCTIONAL DEFINITION

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.

2. CONSIDERATIONS

The Functional Acknowledgment (FA) is used to report to the sender the results of the syntactical analysis of a functional group of transaction sets. The FA does not acknowledge the ability of the receiver to comply with the request of the sender.

3. TRADING PARTNERS

1. Any sender to any receiver.

4. FIELD OF APPLICATION

This transaction may be applied for both national and international trade. It is based on universal commercial practice and is not dependent on the type of business or industry.

5. FORMAT

The transmission in the ASC X12 format uses two required envelopes. One is the ISA Interchange Control Header Segment, which starts and identifies an interchange of zero or more functional groups and interchange-related control segments. The ISA includes the sender's mailbox address and a receiver's mailbox address, and specifies which delimiter (a/k/a control, service) characters (data element separator, component element separator and data segment terminator) are being used.

There are no default service characters reserved for use in ASC X12. Allowable service characters should be discussed between trading partners.

The second required envelope is GS Functional Group Header, which indicates the beginning of a functional group and provides group level control information. The GS segment includes functional group level sender and receiver addresses, typically used by the trading partner(s) for internal routing. The GS also includes the GS08 ASC X12 Version/Release/Industry Identifier Code. Freight Trust does not recommend the use of an Industry Identifier code.

The functional groups are analogous to batches of like documents, i.e. purchase orders, invoices, etc. Each functional group contains one or more transaction sets (electronic documents).

Each transaction set is an ordered collection of segments.

Each segment is an ordered collection of data elements. Each segment has been assigned a two or three character identifier. This identifier marks the beginning of each segment. Each element within the segment is separated by a data element delimiter. Freight Trust recommends the use of the asterisk (*) character as a data element delimiter. A segment terminator character is used to mark the end of a segment.

Any shaded areas indicate Freight Trust recommended usage and comment.

7. ATTRIBUTES

Each data element has three ANSI attributes: Element usage, element type and minimum/maximum length. Freight Trust has additional usage indicated for optional segments and elements which are noted in the following table.

MARGIN	ATTRIBUTE	DE NOTE	MEANING
Must Use	M (Mandatory)	N/A	If a segment, composite, or stand alone data element is mandatory according to the standard, Freight Trust cannot change the mandatory status on that component. <i>DATA ELEMENT within a COMPOSITE:</i> A data element within a composite is mandatory only if the composite is used.
X	C or X (Conditional) or O (Optional)	No note or NOT USED	Freight Trust has determined no value in supplying the composite or data element; hence, it need not be generated.
Blank	C or X (Conditional) or O (Optional)	REQUIRED	Freight Trust members agree that the data concerned must be sent.
Blank	C or X (Conditional) or O (Optional)	No note	Indicates that Freight Trust makes no recommendation regarding usage. The trading partners must agree on usage.
Blank	C or X (Conditional) or O (Optional)	ADVISED	Freight Trust has determined value in supplying the data element; hence, it should be generated.
Blank	C or X (Conditional) or O (Optional)	DEPENDING	Data must be sent if a particular defined condition or set of conditions exist. The associated conditions must be explained at the appropriate level of detail.

8. CHANGES FROM VERSION 3020

Only segments, elements or codes used by Freight Trust are listed. Some fields which have increased in maximum length are not listed.

- All date fields changed from 6/6 (YYMMDD) to 8/8 (CCYYMMDD)
- AK305 through AK308 deleted from the standard. These were repetitions of DE 720 Segment Syntax Error Code on this segment. AK304 remains on the segment for reporting this data.
- For AK401, simple DE 722 Element Position in Segment replaced by composite DE C030 Position in Segment. DE C030 is made of of DE 722 Element Position in Segment and DE 1528 Component Data Element Position.
- Max length of DE 96 Number of Included Segments in SE01 changed from 6 to 10.
- New codes available in 4010 were not used by Freight Trust previously and are now added to Freight Trust code list:
 - AK304, DE 720 (Segment Syntax Error Code): Added codes 6, 7 and 8
 - AK403, DE 723 (Data Element Syntax Error Code): Added codes 8, 9, and 10
 - AK501, DE 717 (Transaction Set Acknowledgment Code): Added codes M, W, and X
 - AK502, DE 718 (Transaction Set Syntax Error Code): Added codes 6 thru 27
 - AK901, DE715 (Functional Group Acknowledge Code): Added codes M, W, and X
 - AK905, DE716 (Functional Group Syntax Error Code): Added codes 6 and 10 thru 26

SEGMENT TABLES

997 Functional Acknowledgment - List of Used and Not Used Segments

	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

- 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.

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

	Ref. Des.	Data Element	Name	Attributes	
Must Use	ST01	143	Transaction Set Identifier Code	M	ID 3/3
Code uniquely identifying a Transaction Set					
997 Functional Acknowledgment					
Must Use	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					

The control number is assigned by the sender. It should be sequentially assigned within each functional group to aid in error recovery and research. The control number in the SE segment (SE02) must be identical to the control number in the ST segment for each transaction.

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

	Ref. Des.	Data Element	Name	Attributes	
Must Use	AK101	479	Functional Identifier Code	M	ID 2/2
Code identifying a group of application related transaction sets					
See semantic note #1.					
Refer to 004010 Data Element Dictionary for acceptable code values.					
Must Use	AK102	28	Group Control Number	M	NO 1/9
Assigned number originated and maintained by the sender					
Control number as it appears in the GS06 if the functional group being acknowledged.					

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:

Notes:

Freight Trust USAGE: Recommended when any error condition is detected (if AK901 does not equal "A").

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	AK201	143	Transaction Set Identifier Code	M	ID 3/3
Code uniquely identifying a Transaction Set					
See semantic note #1.					
Refer to 004010 Data Element Dictionary for acceptable code values.					
Must Use	AK202	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					
Control number as it appears in the ST02 of the transaction being acknowledged.					

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:****Notes:**

Freight Trust USAGE: Optional. If multiple errors per segment need to be identified then the entire AK3 loop should be repeated for each segment error condition with that error being properly reported in AK304.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	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)	
Must Use	AK302	719	Segment Position in Transaction Set	M NO 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	
	AK303	447	Loop Identifier Code	O AN 1/6
			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	
			If the code is a single character in length, any space before or after the single character will not be considered to be an equivalent value. For example, this means that "1" is valid, and " 1" (blank-1) and "1 " (1-blank) are not valid.	
		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:****Notes:** Freight Trust USAGE: Optional.**Data Element Summary**

	Ref. Des.	Data Element	Name	Attributes	
Must Use	AK401	C030	Position in Segment	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		
Must Use	C0300 1	722	Element Position in Segment	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		
	C0300 2	1528	Component Data Element Position in Composite	O	N0 1/2
			To identify the component data element position within the composite that is in error		
	AK402	725	Data Element Reference Number	O	N0 1/4
			Reference number used to locate the data element in the Data Element Dictionary		

**Must
Use**

AK403

723

Data Element Syntax Error Code

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

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 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

	Ref. Des.	Data Element	Name	Attributes	
Must Use	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					
The transmitted transaction set is accepted.					
E Accepted But Errors Were Noted					
The transmitted transaction set is accepted, but errors are noted. This means that the sender must not resend the data.					
M Rejected, Message Authentication Code (MAC) Failed					
R Rejected					
The transmitted transaction set is rejected. Depending on the error reason, the sender may resend the data.					
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					

Freight Trust USAGE: Optional

1 Transaction Set Not Supported

This indicates that a trading partner agreement has not been made for this transaction type, or the value provided is invalid.

2 Transaction Set Trailer Missing

Self-explanatory.

3 Transaction Set Control Number in Header and Trailer Do Not Match

The transaction set control number in the header and trailer do not match. The value from the header is used in the acknowledgment.

4 Number of Included Segments Does Not Match Actual Count

5 One or More Segments in Error

This code is used as the general response when detail of the actual error is provided in the AK3 and/or AK4 segments.

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

AK503 718 Transaction Set Syntax Error Code 0 ID 1/3

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

See code values in AK502.

AK504 718 Transaction Set Syntax Error Code 0 ID 1/3

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

See code values in AK502.

AK505	718	Transaction Set Syntax Error Code	0	ID 1/3
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Code indicating error found based on the syntax editing of a transaction set

See code values in AK502.

AK506	718	Transaction Set Syntax Error Code	0	ID 1/3
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Code indicating error found based on the syntax editing of a transaction set

See code values in AK502.

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

	Ref. Des.	Data Element	Name	Attributes	
Must Use	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

The transmitted functional group is accepted. An acceptance of a functional group is an acceptance of all transaction sets in that functional group.

E Accepted, But Errors Were Noted.

The transmitted functional group is accepted, but errors are noted. This means that the sender must not resend this data.

M Rejected, Message Authentication Code (MAC) Failed

P Partially Accepted, At Least One Transaction Set Was Rejected

Part of the transmitted functional group is accepted by transaction set.

R Rejected

The transmitted functional group is rejected. A rejection of a functional group is a rejection of all transaction sets in that functional group. Depending on the error reason, the sender may resend this data.

W

Rejected, Assurance Failed Validity Tests

X

Rejected, Content After Decryption Could Not Be Analyzed

Must Use	AK902	97	Number of Transaction Sets Included	M	NO 1/6
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Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element

Total number of transaction sets included in the functional group as indicated in the GE01 of the original transmission.

Must Use	AK903	123	Number of Received Transaction Sets	M	NO 1/6
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Number of Transaction Sets received

Number of transaction sets received as calculated by the receiving system.

Must Use	AK904	2	Number of Accepted Transaction Sets	M	NO 1/6
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Number of accepted Transaction Sets in a Functional Group

Number of transaction sets received without error.

	AK905	716	Functional Group Syntax Error Code	O	ID 1/3
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Code indicating error found based on the syntax editing of the functional group header and/or trailer

Freight Trust USAGE: OPTIONAL.

1	Functional Group Not Supported
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The value sent in the GS01 of the group being acknowledged is not supported.

2	Functional Group Version Not Supported
---	--

The value specified in the GS08 is not supported by the receiver.

3	Functional Group Trailer Missing
---	----------------------------------

4	Group Control Number in the Functional Group Header and Trailer Do Not Agree
---	--

The functional group control number in the header and trailer do not match. The value from the header is used in the acknowledgment.

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
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 0 ID 1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer

Refer to 004010 Data Element Dictionary for acceptable code values.

AK907 716 Functional Group Syntax Error Code 0 ID 1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer

Refer to 004010 Data Element Dictionary for acceptable code values.

AK908 716 Functional Group Syntax Error Code 0 ID 1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer

Refer to 004010 Data Element Dictionary for acceptable code values.

AK909 716 Functional Group Syntax Error Code 0 ID 1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer

Refer to 004010 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. Des.	Data Element	Name	Attributes	
Must Use	SE01	96	Number of Included Segments	M	NO 1/10
			Total number of segments included in a transaction set including ST and SE segments		
Must Use	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		
			The control number is assigned by the sender. It should be sequentially assigned within each functional group to aid in error recovery and research. The control number in the SE segment (SE02) must be identical to the control number in the ST segment (ST02) for each transaction.		

997 FUNCTIONAL ACKNOWLEDGMENT EXAMPLES

997 Example 1 – Functional Acknowledgment, all Sent Transaction Sets Accepted

This is an example of a 997 (FA) to a PO functional group containing five transaction sets. All five sets were accepted.

Example 1 Summary

ST*997*12345'	The transaction is a 997, with a transaction set control number of 12345.
AK1*PO*125'	A functional group of type 'PO' is being acknowledged; the control number of the group being acknowledged is 125.
AK9*A*5*5*5'	All transaction sets in the functional group are accepted; 5 transaction sets were included in the functional group, 5 transactions sets were actually received, and 5 transaction sets were accepted.
SE*4*12345'	There are 4 segments in this transaction set, and the transaction set control number is 12345.

Example 1 Explanation

ST*997*12345'	ST Transaction Set Header
	ST01/143 Transaction Set Identifier Code [M/ID 3/3]: 997 (Functional Acknowledgment)
	ST02/329 Transaction Set Control Number [M/AN 4/9]: 12345
AK1*PO*125'	AK1 Functional Group Response Header
	AK101/479 Functional Identifier Code [M/ID 2/2]: PO (Functional Group type PO being acknowledged)
	AK102/28 Group Control Number [M/NO 1/9]: 125 (Control number of the functional group being acknowledged)
AK9*A*5*5*5'	AK9 Functional Group Response Trailer
	AK901/715 Functional Group Acknowledge Code [M/ID 1/1]: A (All transaction sets in the functional group are accepted)
	AK902/97 Number of Transaction Sets Included [M/NO 1/6]: 5 (from the GS01 of the functional group being acknowledged)
	AK903/123 Number of Received Transaction Sets [M/NO 1/6]: 5 (sets actually received)
	AK904/2 Number of Accepted Transaction Sets [M/NO 1/6]: 5 (sets accepted)

SE*4*12345'	SE Transaction Set Trailer
	SE01/96 Number of Included Segments [M/N0 1/10]: 4 (count of segments in this transaction set including ST and SE)
	SE02/329 Transaction Set Control Number [M/AN 4/9]: 12345

997 Example 2 – Functional Acknowledgment – Mixed Acceptance and Rejection of Sent Transaction Sets, No Details

This is an example of a 997 (FA) to a PO functional group containing five transaction sets. Four of the five transaction sets were accepted and one was rejected. This 997 identifies the transaction set that contained the fatal error.

NOTE: The minimum requirement is to indicate the set(s) that were rejected. The assumption is that those not indicated are accepted. Some software may require that an AK2 and AK5 be returned for each set that was received.

Example 2 Summary

ST*997*12345'	The transaction is a 997, with a transaction set control number of 12345.
AK1*PO*125'	A functional group of type 'PO' is being acknowledged; the control number of the group being acknowledged is 125.
AK2*850*9876'	Acknowledgment detail is included for an 850 with transaction set control number of 9876.
AK5*R*5'	The transaction is rejected because one or more segments is in error.
AK9*P*5*5*4'	The functional group was partially accepted (some but not all transaction sets accepted); 5 transaction sets were included in the functional group, 5 transactions sets were actually received, and 4 transaction sets were accepted (1 was rejected).
SE*6*12345'	There are 6 segments in this transaction set, and the transaction set control number is 12345.

Example 2 Explanation

ST*997*12345'	ST Transaction Set Header
	ST01/143 Transaction Set Identifier Code [M/ID 3/3]: 997 (Functional Acknowledgment)
	ST02/329 Transaction Set Control Number [M/AN 4/9]: 12345
AK1*PO*125'	AK1 Functional Group Response Header
	AK101/479 Functional Identifier Code [M/ID 2/2]: PO (Functional Group type PO being acknowledged)
	AK102/28 Group Control Number [M/NO 1/9]: 125 (Control number of the functional group being acknowledged)

AK2*850*9876'	AK2 Transaction Set Response Header
	AK201/143 Transaction Set Identifier Code [M/ID 3/3]: 850 (Transaction type being acknowledged)
	AK202/329 Transaction Set Control Number M/AN 4/9]: 9876 (control number of the transaction set being acknowledged)
AK5*R*5'	AK5 Transaction Set Response Trailer
	AK501/717 Transaction Set Acknowledgment Code [M/ID 1/1]: R (Transaction set referenced in AK2 is rejected)
	AK502/718 Transaction Set Syntax Error Code [O/ID 1/3]: 5 (One or more segments in error)
AK9*P*5*5*4'	AK9 Functional Group Response Trailer
	AK901/715 Functional Group Acknowledge Code [M/ID 1/1]: P (Functional group partially accepted)
	AK902/97 Number of Transaction Sets Included [M/NO 1/6]: 5 (from the GS01 of the functional group being acknowledged)
	AK903/123 Number of Received Transaction Sets [M/NO 1/6]: 5 (sets actually received)
	AK904/2 Number of Accepted Transaction Sets [M/NO 1/6]: 4 (sets accepted - implies 1 set rejected)
SE*6*12345'	SE Transaction Set Trailer
	SE01/96 Number of Included Segments [M/NO 1/10]: 6 (count of segments in this transaction set including ST and SE)
	SE02/329 Transaction Set Control Number [M/AN 4/9]: 12345

997 Example 3 - Functional Acknowledgment – Mixed Acceptance and Rejection of Sent Transaction Sets With Segment Level Details

This is an example of a 997 (FA) to a PO functional group containing five transaction sets. Four of the five transaction sets were accepted and one was rejected. This 997 identifies the transaction set and the segment that contained the fatal error.

Example 3 Summary

ST*997*12345'	The transaction is a 997, with a transaction set control number of 12345.
AK1*PO*125'	A functional group of type 'PO' is being acknowledged; the control number of the group being acknowledged is 125.
AK2*850*9876'	Acknowledgment detail is included for an 850 with transaction set control number of 9876.
AK3*PO1*10'	The PO1 segment in the 850 (transaction set referenced in the AK2 segment) contains an error; it is the 10 th segment in that transaction set.
AK5*R*5'	The transaction is rejected because one or more segments is in error.
AK9*P*5*5*4'	The functional group was partially accepted (some but not all transaction sets accepted); 5 transaction sets were included in the functional group, 5 transactions sets were actually received, and 4 transaction sets were accepted (1 was rejected).
SE*7*12345'	There are 7 segments in this transaction set, and the transaction set control number is 12345.

Example 3 Explanation

ST*997*12345'	ST Transaction Set Header
	ST01/143 Transaction Set Identifier Code [M/ID 3/3]: 997 (Functional Acknowledgment)
	ST02/329 Transaction Set Control Number [M/AN 4/9]: 12345
AK1*PO*125'	AK1 Functional Group Response Header
	AK101/479 Functional Identifier Code [M/ID 2/2]: PO (Functional Group type PO being acknowledged)
	AK102/28 Group Control Number [M/NO 1/9]: 125 (Control number of the functional group being acknowledged)

AK2*850*9876'	AK2 Transaction Set Response Header
	AK201/143 Transaction Set Identifier Code [M/ID 3/3]: 850 (Transaction type being acknowledged)
	AK202/329 Transaction Set Control Number M/AN 4/9]: 9876 (control number of the transaction set being acknowledged)
AK3*PO1*10'	AK3 Data Segment Note
	AK301/721 Segment ID Code [M/ID 2/3]: PO1 (segment that contained fatal error)
	AK302/719 Segment Position in Transaction Set [M/NO 1/6]: 10 (tenth segment in the transaction set being acknowledged)
AK5*R*5'	AK5 Transaction Set Response Trailer
	AK501/717 Transaction Set Acknowledgment Code [M/ID 1/1]: R (Transaction set referenced in AK2 is rejected)
	AK502/718 Transaction Set Syntax Error Code [O/ID 1/3]: 5 (One or more segments in error)
AK9*P*5*5*4'	AK9 Functional Group Response Trailer
	AK901/715 Functional Group Acknowledge Code [M/ID 1/1]: P (The functional group is partially accepted)
	AK902/97 Number of Transaction Sets Included [M/NO 1/6]: 5 (from the GS01 of the functional group being acknowledged)
	AK903/123 Number of Received Transaction Sets [M/NO 1/6]: 5 (sets actually received)
	AK904/2 Number of Accepted Transaction Sets [M/NO 1/6]: 4 (sets accepted - implies 1 set rejected)
SE*7*12345'	SE Transaction Set Trailer
	SE01/96 Number of Included Segments [M/NO 1/10]: 7 (count of segments in this transaction set including ST and SE)
	SE02/329 Transaction Set Control Number [M/AN 4/9]: 12345

997 Example 4 - Functional Acknowledgment – Mixed Acceptance and Rejection of Sent Transaction Sets With Data Element Level Details

This is an example of a 997 (FA) to a PO functional group containing five transaction sets. Four of the five transaction sets were accepted and one was rejected. This 997 identifies the transaction set, the segment that contained the fatal error, and the missing data element.

Example 4 Summary

ST*997*12345'	The transaction is a 997, with a transaction set control number of 12345.
AK1*PO*125'	A functional group of type 'PO' is being acknowledged; the control number of the group being acknowledged is 125.
AK2*850*9876'	Acknowledgment detail is included for an 850 with transaction set control number of 9876.
AK3*PO1*10'	The PO1 segment in the 850 (transaction set referenced in the AK2 segment) contains an error; it is the 10 th segment in that transaction set.
AK4*3*355*1'	The data element in the third position of the PO1 segment (referenced in the AK3 segment), which is data element number 355, is missing, and this data element is mandatory on the segment.
AK5*R*5'	The transaction is rejected because one or more segments is in error.
AK9*P*5*5*4'	The functional group was partially accepted (some but not all transaction sets accepted); 5 transaction sets were included in the functional group, 5 transactions sets were actually received, and 4 transaction sets were accepted (1 was rejected).
SE*8*12345'	There are 8 segments in this transaction set, and the transaction set control number is 12345.

Example 4 Explanation

ST*997*12345'	ST Transaction Set Header
	ST01/143 Transaction Set Identifier Code [M/ID 3/3]: 997 (Functional Acknowledgment)
	ST02/329 Transaction Set Control Number [M/AN 4/9]: 12345
AK1*PO*125'	AK1 Functional Group Response Header
	AK101/479 Functional Identifier Code [M/ID 2/2]: PO (Functional Group type PO being acknowledged)
	AK102/28 Group Control Number [M/NO 1/9]: 125 (Control number of the functional group being acknowledged)

AK2*850*9876'	AK2 Transaction Set Response Header
	AK201/143 Transaction Set Identifier Code [M/ID 3/3]: 850 (Transaction type being acknowledged)
	AK202/329 Transaction Set Control Number M/AN 4/9]: 9876 (control number of the transaction set being acknowledged)
AK3*PO1*10'	AK3 Data Segment Note
	AK301/721 Segment ID Code [M/ID 2/3]: PO1 (segment that contained fatal error)
	AK302/719 Segment Position in Transaction Set [M/NO 1/6]: 10 (tenth segment in the transaction set being acknowledged)
AK4*3*355*1'	AK4 Data Element Note
	AK401/C030 Position in Segment [M]
	C03001/722 Element Position in Segment [M/NO 1/2]: 3 (data element is in third position of the segment referenced in AK3).
	AK402/725 Data Element Reference Number [O/NO 1/4]: 355 (data element number in X12 data element dictionary)
	AK403/723 Data Element Syntax Error Code [M/ID 1/3]: 1 (Mandatory data element missing)
AK5*R*5'	AK5 Transaction Set Response Trailer
	AK501/717 Transaction Set Acknowledgment Code [M/ID 1/1]: R (Transaction set referenced in AK2 is rejected)
	AK502/718 Transaction Set Syntax Error Code [O/ID 1/3]: 5 (One or more segments in error)
AK9*P*5*5*4'	AK9 Functional Group Response Trailer
	AK901/715 Functional Group Acknowledge Code [M/ID 1/1]: P (The functional group is partially accepted)
	AK902/97 Number of Transaction Sets Included [M/NO 1/6]: 5 (from the GS01 of the functional group being acknowledged)
	AK903/123 Number of Received Transaction Sets [M/NO 1/6]: 5 (sets actually received)

	AK904/2 Number of Accepted Transaction Sets [M/N0 1/6]: 4 (sets accepted - implies 1 set rejected)
SE*8*12345'	SE Transaction Set Trailer
	SE01/96 Number of Included Segments [M/N0 1/10]: 8 (count of segments in this transaction set including ST and SE)
	SE02/329 Transaction Set Control Number [M/AN 4/9]: 12345

