EDI Customer Guide

Appendix B: Functional Acknowledgement - 997 TS

997 Functional Acknowledgment Functional group=FA

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.

Pos	Id ISA GS	Segment Interchange Control Header Functional Group Header	Name M M	Req 1 1	Max	Use	Repea	t Notes	Usage Must use Must use
Headi Pos	ng Id	Segment		Name	Req	Max	Use	Repeat Notes	Usage
010 020	ST AK1	Transaction Set Header Functional Group Response He	eader	M M	1				Must use Must use
LOOP	ID - AK	2 999999							
030	AK2	Transaction Set Response Hea	der	0	1			N1/030	Used
LOOP	ID - AK	3 999999							
040	AK3	Data Segment Note		0	1				Used
050	AK4	Data Element Note		0	99				Used
060	AK5	Transaction Set Response Trai	ler	M	1				Must use
070	AK9	Functional Group Response Tra	ailer	M	1				Must use
080	SE	Transaction Set Trailer		M	1				Must use
	GE IEA	Functional Group Trailer Interchange Control Trailer		M M	1 1				Must use Must use

Notes

1/010

- 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.

1/020





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.

1/030

 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.





ISA Interchange Control Header

Pos: Max: 1

Heading -- Mandatory Loop: N/A Elements: 16

To start and identify an interchange of zero or more functional groups and interchange-related control segments.

Element summary:

Ref	ld	Element Name	Req	Type	Min/Max	Usage
ISA01	101	Authorization Information Qualifier	M	ID	2/2	Must use
		December the control of the title of the control	. (' . (. A. d	- 4 *

Description: Code to identify the type of information in the Authorization Information

		Code 00 03	Name No Authorizat Additional Dat		ation Present (No Me ation	aningful Informatio	on in 102)
ISA02	102	Authorization Information Description: Information used for data in the interchange; the type				•	
ISA03	103	Security Information Qualifier Description: Code to identify the used	M e type of inform	ID ation in the	2/2 Security Information	Must use All valid X12 code	es are
ISA04	104	Security Information Description: This is used for ide in the interchange; the type of ir	, ,	•		•	the data
ISA05	105	Interchange ID Qualifier Description: Qualifier to designareceiver ID element being qualifier.	•	ID method of o	2/2 code structure used t	Must use o designate the se	ender or

Code	Name
01	Duns (Dun & Bradstreet)
08	UCC EDI Communications ID (Comm ID)
12	Phone (Telephone Companies)
14	Duns Plus Suffix
16	Duns Number With 4-Character Suffix
ZZ	Mutually Defined





ISA06	106	Interchange Sender ID Description: Identification code data to them; the sender always				Must use use as the receiver ID to	route
ISA07	105	Interchange ID Qualifier Description: Qualifier to designa receiver ID element being qualif		ID method of cod	2/2 de structure use	Must use ed to designate the sende	er or
		Code 01 08 12 14 16 ZZ	Phone (Telep Duns Plus Su	nmunications hone Compan ffix With 4-Chara	,		
ISA08	107	Interchange Receiver ID Description: Identification code pender as their sending ID, thus to them					
ISA09	108	Interchange Date Description: Date of the intercha	M ange	DT	6/6	Must use	
ISA10	109	Interchange Time Description: Time of the intercha	M ange	TM	4/4	Must use	
ISA11	I10	Interchange Control Standards Description: Code to identify the enclosed by the interchange hea	agency respo				hat is
ISA12	l11	Interchange Control Version Nu Description: This version number		ID nterchange con	5/5 ntrol segments	Must use	
		Code 00401			e Approved for hrough Octobe	Publication by ASC X12 r 1997) -
ISA13	l12	Interchange Control Number Description: A control number a	M ssigned by the	N0 interchange s	9/9 sender	Must use	
ISA14	I13	Acknowledgment Requested Description: Code sent by the scodes are used.	M ender to reque	ID st an intercha	1/1 nge acknowledo	Must use gment (TA1) All valid X1	2
ISA15	l14	Usage Indicator Description: Code to indicate whinformation All valid X12 codes		ID closed by this	1/1 interchange en	Must use velope is test, production	n or

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ISA16 I15 Component Element Separator M 1/1 Must use
Description: Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator





GS Functional Group Header

Pos: Max: 1

Heading -- Mandatory Loop: N/A Elements: 8

To indicate the beginning of a functional group and to provide control information

Element Summary:

Ref GS01	Id 479	Element Name Functional Identifier Code Description: Code identifying a g	Req M group of applica	Type ID tion related trans	Min/Max 2/2 saction sets	Usage Must use
		Code FA	Name Functional Ack	nowledgment (9	97)	
GS02	142	Application Sender's Code Description: Code identifying pa	M arty sending tran	AN nsmission; codes	2/15 agreed to by tra	Must use ading partners
GS03	124	Application Receiver's Code Description: Code identifying pa	M orty receiving tra	AN Insmission. Code	2/15 es agreed to by t	Must use trading partners
GS04	373	Date Description: Date expressed as	M CCYYMMDD	DT	8/8	Must use
GS05	337	Time Description: Time expressed in HHMMSSDD, where H = hours decimal seconds; decimal secong9)	(00-23), M = mi	nutes (00-59), S	= integer secon	ds (00-59) and DD =
GS06	28	Group Control Number Description: Assigned number of	M originated and m	N0 naintained by the	1/9 sender	Must use
GS07	455	Responsible Agency Code Description: Code used in conju	M Inction with Data	ID a Element 480 to	1/2 identify the issu	Must use uer of the standard
		Code X	Name Accredited Sta	ndards Committ	ee X12	
GS08	480	Version/Release/Industry Identification Description: Code indicating the being used, including the GS and positions 1-3 are the version nurse and positions 7-12 are the industry DE455 in GS segment is T, there Code 004010 X12	e version, released GE segments mber; positions stry or trade asset other formats and many praft Standard	s; if code in DE44 4-6 are the relea ociation identifie	55 in GS segments as and subreleases and subreleases (optionally as Publication by AS	nt is X, then in DE480 ase, level of the version; signed by user); ifcode in

Semantics





- GS04 is the group date.
- GS05 is the group time.
- The data interchange control number GS06 in this header must be identical to the same data element in the associated functional group trailer, GE02.

Comments

 A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.



ST Transaction Set Header

Pos: 010 Max: 1 Heading -- Mandatory Loop: N/A Elements: 2

To indicate the start of a transaction set and to assign a control number

Element Summary:

RefIdElement NameReqTypeMin/MaxUsageST01143Transaction Set Identifier CodeMID3/3Must use

Description: Code uniquely identifying a Transaction Set

Code Name

997 Functional Acknowledgment

ST02 329 Transaction Set Control Number M AN 4/9 Must use

Description: Identifying control number that must be unique within the transaction set functional group

assigned by the originator for a transaction set

Semantics

• 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).



AK1Functional Group Response Header

Pos: 020 Max: 1 Heading -- Mandatory Loop: N/A Elements: 2

To start acknowledgment of a functional group

Element Summary:

RefIdElement NameReqTypeMin/MaxUsageAK101 479Functional Identifier CodeMID2/2Must use

Description: Code identifying a group of application related transaction sets

Code Name

CI Consolidated Service Invoice/Statement (811)

AK102 28 Group Control Number M N0 1/9 Must use

Description: Assigned number originated and maintained by the sender

Semantics

- AK101 is the functional ID found in the GS segment (GS01) in the functional group being acknowledged.
- AK102 is the functional group control number found in the GS segment in the functional group being acknowledged.



AK2 Transaction Set Response Header

Pos: 030 Max: 1 Heading -- Optional Loop: AK2 Elements: 2

To start acknowledgment of a single transaction set

Element Summary:

RefIdElement NameReqTypeMin/MaxUsageAK201 143Transaction Set Identifier CodeMID3/3Must use

Description: Code uniquely identifying a Transaction Set

Code Name

811 Consolidated Service Invoice/Statement

AK202 329 Transaction Set Control Number M AN 4/9 Must use

Description: Identifying control number that must be unique within the transaction set functional group

assigned by the originator for a transaction set

Semantics

AK201 is the transaction set ID found in the ST segment (ST01) in the transaction set being acknowledged.

AK202 is the transaction set control number found in the ST segment in the transaction set being acknowledged.







AK3 Data Segment Note

Pos: 040 Max: 1 Heading - Optional Loop: AK3 Elements: 4

To report errors in a data segment and identify the location of the data segment **Element Summary:**

Ref Id AK301 721	Element Name Segment ID Code Description: Code defining the segment ID of the	Req M ne data s	Type ID segment	Min/Max 2/3 in error (See Ap	Usage Must use pendix A - Number 77)
AK302 719	Segment Position in Transaction Set Description: The numerical count position of this transaction set header is count position 1	M s data se	N0 egment f	1/6 from the start of	Must use the transaction set: the
AK303 447	Loop Identifier Code Description: The loop ID number given on the tr segments LS and LE	O ransactio	AN on set dia	1/6 agram is the valu	Used ue for this data element in
AK304 720	Segment Syntax Error Code Description: Code indicating error found based used.	O on the s	ID yntax ec	1/3 liting of a segme	Used nt All valid X12 codes are





AK4 Data Element Note

Pos: 050 Max: 99 **Heading - Optional** Loop: AK3 Elements: 4

To report errors in a data element or composite data structure and identify the location of the data element **Element Summary:**

Ref Id AK401 C030	Element Name Position in Segment Description: Code indicating the relative position composite data structure combined with the relative composite data structure, in error; the count state structure immediately following the segment ID	ative pos	sition of t	he component d	ata element within the
722	Element Position in Segment Description: This is used to indicate the relative of a composite data structure with the relative p structure, in error; in the data segment the cour data structure immediately following the segme	osition o	of the cor	nponent within t	he composite data
AK402 725	Data Element Reference Number Description: Reference number used to locate t	O he data	N0 element	1/4 in the Data Elen	Used nent Dictionary
AK403 723	Data Element Syntax Error Code Description: Code indicating the error found after used.	M er syntax	ID edits of	1/3 a data element	Must use All valid X12 codes are
AK404 724	Copy of Bad Data Element Description: This is a copy of the data element	O n error	AN	1/99	Used

Semantics

In no case shall a value be used for AK404 that would generate a syntax error, e.g., an invalid character.





AK5 Transaction Set Response Trailer

Pos: 060 Max: 1 Heading - Mandatory Loop: AK2 Elements: 6

To acknowledge acceptance or rejection and report errors in a transaction set **Element Summary:**

Ref	ld	Element Name	Req	Type	Min/Max	Usage
AK501	717	Transaction Set Acknowledgment Code	M	ID	1/1	Must use
		Description: Code indicating accept or reject cor All valid X12 codes are used.	ndition ba	ased on	the syntax editir	ng of the transaction set
AK502	718	Transaction Set Syntax Error Code	0	ID	1/3	Used
		Description: Code indicating error found based codes are used.	on the sy	ntax edi	iting of a transac	tion set All valid X12
AK503	718	Transaction Set Syntax Error Code	0	ID	1/3	Used
		Description: Code indicating error found based codes are used.	on the sy	ntax edi	iting of a transac	tion set All valid X12
AK504	718	Transaction Set Syntax Error Code	0	ID	1/3	Used
		Description: Code indicating error found based codes are used.	on the sy	ntax edi	iting of a transac	tion set All valid X12
AK505	718	Transaction Set Syntax Error Code	0	ID	1/3	Used
		Description: Code indicating error found based codes are used.	on the sy	ntax edi	iting of a transac	tion set All valid X12
AK506	718	Transaction Set Syntax Error Code	0	ID	1/3	Used
		Description: Code indicating error found based codes are used.	on the sy	ntax edi		tion set All valid X12



AK9 Functional Group Response Trailer

Pos: 070 Max: 1 Heading - Mandatory Loop: N/A Elements: 9

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

Element Summary:

Ref AK901	Id 715	Element Name Functional Group Acknowledge Code Description: Code indicating accept or reject cor All valid X12 codes are used.	Req M ndition ba	Type ID ased on	Min/Max 1/1 the syntax editin	Usage Must use g of the functional group
AK902	97	Number of Transaction Sets Included Description: Total number of transaction sets inc (transmission) group terminated by the trailer co				Must use nterchange
AK903	123	Number of Received Transaction Sets Description: Number of Transaction Sets received	M ed	N0	1/6	Must use
AK904	2	Number of Accepted Transaction Sets Description: Number of accepted Transaction Set	M ets in a F	N0 unction	1/6 al Group	Must use
AK905	716	Functional Group Syntax Error Code Description: Code indicating error found based of trailer All valid X12 codes are used.	O on the sy	ID ntax edi	1/3 ting of the function	Used onal group header and/or
AK906	716	Functional Group Syntax Error Code Description: Code indicating error found based of trailer. All valid X12 codes are used.	O on the sy	ID ntax edi	1/3 ting of the function	Used onal group header and/or
AK907	716	Functional Group Syntax Error Code Description: Code indicating error found based of trailer. All valid X12 codes are used.	O on the sy	ID ntax edi	1/3 ting of the function	Used onal group header and/or
AK908	716	Functional Group Syntax Error Code Description: Code indicating error found based of trailer. All valid X12 codes are used.	O on the sy	ID ntax edi	1/3 ting of the function	Used onal group header and/or
AK909	716	Functional Group Syntax Error Code Description: Code indicating error found based of trailer. All valid X12 codes are used.	O on the sy	ID ntax edi	1/3 ting of the function	Used onal group header and/or

Comments

If AK901 contains the value A or E, then the transmitted functional group is accepted.



SE Transaction Set Trailer

Pos: 080 Max: 1 Heading - Mandatory Loop: N/A Elements: 2

To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Element Summary:

Ref	ld	Element Name	Req	Type	Min/Max	Usage
SE01	96	Number of Included Segments	M	N0	1/10	Must use
		Description: Total number of segments included	in a trar	nsaction	set including ST	and SE segments
SE02	329	Transaction Set Control Number	М	AN	4/9	Must use
		Description: Identifying control number that mus assigned by the originator for a transaction set	t be unic	que withi	n the transactior	set functional group

Comments

SE is the last segment of each transaction set.







GE Functional Group Trailer

Pos: Max: 1 Mandatory

Loop: N/A Elements: 2

To indicate the end of a functional group and to provide control information **Element Summary:**

ld	Element Name	Req	Type	Min/Max	Usage
97	Number of Transaction Sets Included	M	N0	1/6	Must use
				0 1	or interchange
28	Group Control Number	M	NO	1/9	Must use
	97	 97 Number of Transaction Sets Included Description: Total number of transaction sets in (transmission) group terminated by the trailer of 28 Group Control Number 	97 Number of Transaction Sets Included M Description: Total number of transaction sets included ir (transmission) group terminated by the trailer containing 28 Group Control Number M	97 Number of Transaction Sets Included M N0 Description: Total number of transaction sets included in the fun (transmission) group terminated by the trailer containing this dat 28 Group Control Number M N0	97 Number of Transaction Sets Included M N0 1/6 Description: Total number of transaction sets included in the functional group of (transmission) group terminated by the trailer containing this data element

Semantics

 The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

Comments

The use of identical data interchange control numbers in the associated functional group header and trailer is
designed to maximize functional group integrity. The control number is the same as that used in the
corresponding header.







IEA Interchange Control Trailer

Pos: Max: 1 Mandatory

Loop: N/A Elements: 2

To define the end of an interchange of zero or more functional groups and interchange-related control segments **Element Summary:**

Ref	ld	Element Name	Req	Type	Min/Max	Usage
IEA01	l16	Number of Included Functional Groups	M	N0	1/5	Must use
		Description: A count of the number of functional	groups	included	I in an interchan	ge
IEA02	l12	Interchange Control Number	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				

