997 - Functional Acknowledgment

Version: 004010 X12

Company: DOT FOODS, INC.

997   Functional Acknowledgment

Functional Group=FA

Purpose: 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.

Not Defined:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
	ISA	Interchange Control Header	M	1			Must use
	GS	Functional Group Header	M	1			Must use

Heading:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
010	ST	Transaction Set Header	M	1		N1/010	Must use
020	AK1	Functional Group Response Header	M	1		N1/020	Must use
070	AK9	Functional Group Response Trailer	M	1			Must use
080	SE	Transaction Set Trailer	M	1			Must use

Not Defined:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
	GE	Functional Group Trailer	M	1			Must use
	IEA	Interchange Control Trailer	M	1			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.

ISA — Interchange Control Header

		Pos:	Max: 1
		Not Defined - Mandatory	
		Loop: N/A	Elements: 16

User Option (Usage): Must use

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA01	I01	**Authorization Information Qualifier**	M	ID	2/2	Must use	1

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

CodeList Summary (Total Codes: 7, Included: 1)

Code	Name
00	No Authorization Information Present (No Meaningful Information in I02)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA02	I02	**Authorization Information**	M	AN	10/10	Must use	1

Description: Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA03	I03	**Security Information Qualifier**	M	ID	2/2	Must use	1

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

CodeList Summary (Total Codes: 2, Included: 1)

Code	Name
00	No Security Information Present (No Meaningful Information in I04)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA04	I04	**Security Information**	M	AN	10/10	Must use	1

Description: This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA05	I05	**Interchange ID Qualifier**	M	ID	2/2	Must use	1

Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA06	I06	**Interchange Sender ID**	M	AN	15/15	Must use	1

Description: Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA07	I05	**Interchange ID Qualifier**	M	ID	2/2	Must use	1

Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified

CodeList Summary (Total Codes: 38, Included: 1)

Code	Name
08	UCC EDI Communications ID (Comm ID)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ISA08	I07	**Interchange Receiver ID**	M	AN	15/15	Must use	1

Description: Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them

ISA09	I08	**Interchange Date**	M	DT	6/6	Must use	1
		Description: Date of the interchange					
ISA10	I09	**Interchange Time**	M	TM	4/4	Must use	1
		Description: Time of the interchange					
ISA11	I10	**Interchange Control Standards Identifier**	M	ID	1/1	Must use	1
		Description: Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer					

CodeList Summary (Total Codes: 1, Included: 1)

Code	Name
U	U.S. EDI Community of ASC X12, TDCC, and UCS

ISA12	I11	**Interchange Control Version Number**	M	ID	5/5	Must use	1
		Description: Code specifying the version number of the interchange control segments					

CodeList Summary (Total Codes: 14, Included: 1)

Code	Name
00401	Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997

ISA13	I12	**Interchange Control Number**	M	N0	9/9	Must use	1
		Description: A control number assigned by the interchange sender					
ISA14	I13	**Acknowledgment Requested**	M	ID	1/1	Must use	1
		Description: Code sent by the sender to request an interchange acknowledgment (TA1)					

CodeList Summary (Total Codes: 2, Included: 1)

Code	Name
0	No Acknowledgment Requested

ISA15	I14	**Usage Indicator**	M	ID	1/1	Must use	1
		Description: Code to indicate whether data enclosed by this interchange envelope is test, production or information					

CodeList Summary (Total Codes: 3, Included: 1)

Code	Name
P	Production Data

ISA16	I15	**Component Element Separator**	M		1/1	Must use	1
		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

User Option (Usage): Must use
Purpose: To indicate the beginning of a functional group and to provide control information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS01	479	**Functional Identifier Code**	M	ID	2/2	Must use	1

Description: Code identifying a group of application related transaction sets

CodeList Summary (Total Codes: 240, Included: 1)

Code	Name
FA	Functional Acknowledgment (997)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS02	142	**Application Sender's Code**	M	AN	2/15	Must use	1

Description: Code identifying party sending transmission; codes agreed to by trading partners

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS03	124	**Application Receiver's Code**	M	AN	2/15	Must use	1

Description: Code identifying party receiving transmission; codes agreed to by trading partners

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS04	373	**Date**	M	DT	8/8	Must use	1

Description: Date expressed as CCYYMMDD

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS05	337	**Time**	M	TM	4/8	Must use	1

Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS06	28	**Group Control Number**	M	N0	1/9	Must use	1

Description: Assigned number originated and maintained by the sender

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS07	455	**Responsible Agency Code**	M	ID	1/2	Must use	1

Description: Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480

CodeList Summary (Total Codes: 2, Included: 1)

Code	Name
X	Accredited Standards Committee X12

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GS08	480	**Version / Release / Industry Identifier Code**	M	AN	1/12	Must use	1

Description: Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed

CodeList Summary (Total Codes: 39, Included: 1)

Code	Name
004010	Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997

Semantics:

1. GS04 is the group date.
2. GS05 is the group time.
3. 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:

1. 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

User Option (Usage): Must use

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ST01	143	**Transaction Set Identifier Code**	M	ID	3/3	Must use	1

Description: Code uniquely identifying a
Transaction Set

CodeList Summary (Total Codes: 298, Included: 1)

Code	Name
997	Functional Acknowledgment

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
ST02	329	**Transaction Set Control Number**	M	AN	4/9	Must use	1

Description: Identifying control number that
must be unique within the transaction set
functional group assigned by the originator for
a transaction set

Semantics:

1. The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set
definition (e.g., 810 selects the Invoice Transaction Set).

AK1   Functional Group Response Header

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

User Option (Usage): Must use
Purpose: To start acknowledgment of a functional group

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
AK101	479	**Functional Identifier Code**	M	ID	2/2	Must use	1

Description: Code identifying a group of application related transaction sets

CodeList Summary (Total Codes: 234, Included: 1)

Code	Name
PT	Product Transfer and Resale Report (867)

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
AK102	28	**Group Control Number**	M	N0	1/9	Must use	1

Description: Assigned number originated and maintained by the sender

Semantics:

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.

AK9 Functional Group Response Trailer

Pos: 070   **Max: 1**
Heading - Mandatory
Loop: N/A   **Elements: 5**

User Option (Usage): Must use
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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
AK901	715	**Functional Group Acknowledge Code**	M	ID	1/1	Must use	1

Description: Code indicating accept or reject condition based on the syntax editing of the functional group

CodeList Summary (Total Codes: 7, Included: 7)

Code	Name
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

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
AK902	97	**Number of Transaction Sets Included**	M	N0	1/6	Must use	1

Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
AK903	123	**Number of Received Transaction Sets**	M	N0	1/6	Must use	1

Description: Number of Transaction Sets received

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
AK904	2	**Number of Accepted Transaction Sets**	M	N0	1/6	Must use	1

Description: Number of accepted Transaction Sets in a Functional Group

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
AK905	716	**Functional Group Syntax Error Code**	O	ID	1/3	Used	1

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

CodeList Summary (Total Codes: 23, Included: 23)

Code	Name
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
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

Comments:

1. 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**

User Option (Usage): Must use
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)

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
SE01	96	**Number of Included Segments**	M	N0	1/10	Must use	1
		Description: Total number of segments included in a transaction set including ST and SE segments					
SE02	329	**Transaction Set Control Number**	M	AN	4/9	Must use	1
		Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set					

Comments:

1. SE is the last segment of each transaction set.

GE   Functional Group Trailer

User Option (Usage): Must use
Purpose: To indicate the end of a functional group and to provide control information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
GE01	97	**Number of Transaction Sets Included**	M	N0	1/6	Must use	1
		Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element					
GE02	28	**Group Control Number**	M	N0	1/9	Must use	1
		Description: Assigned number originated and maintained by the sender					

Semantics:

1. 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:

1. 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

<table>
<tr><td>Pos:</td><td></td><td>Max: 1</td></tr>
<tr><td colspan="3" align="center">Not Defined - Mandatory</td></tr>
<tr><td>Loop: N/A</td><td></td><td>Elements: 2</td></tr>
</table>

User Option (Usage): Must use
Purpose: To define the end of an interchange of zero or more functional groups and interchange-related control segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage	Rep
IEA01	I16	**Number of Included Functional Groups**	M	N0	1/5	Must use	1
		Description: A count of the number of functional groups included in an interchange					
IEA02	I12	**Interchange Control Number**	M	N0	9/9	Must use	1
		Description: A control number assigned by the interchange sender					

EDI 997 Sample
ST*997*1000001~
AK1*PT*27~
AK9*A*1591*1591*1591~
SE*000004*1000001~