

# 4010 Envelope - Inbound

## Revised: July 21, 1998

Functional Group ID=

### Introduction:

The purpose of this standard is to define the control structures for the electronic interchange of one or more encoded business transactions including the EDI (Electronic Data Interchange) encoded transactions of Accredited Standards Committee X12. This standard provides the interchange envelope of a header and trailer for the electronic interchange through a data transmission, and it provides a structure to acknowledge the receipt and processing of this envelope.

The interchange control structure is common to all transaction sets.

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
Must Use	010	ISA	Interchange Control Header	M	1		
Must Use	020	GS	Functional Group Header	M	1		
Must Use	030	GE	Functional Group Trailer	M	1		
Must Use	040	IEA	Interchange Control Trailer	M	1		

**Segment:** **ISA** Interchange Control Header  
**Position:** 010  
**Loop:**  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To start and identify an interchange of zero or more functional groups and interchange-related control segments

**Syntax Notes:**  
**Semantic Notes:**  
**Comments:**  
**Notes:**

```

*****
Sample ISA Segment
-----
ISA*00*000000000*00*000000000*01*1234567890 *08*DHCID
*980415*0342*U*00401*000000001*0*P*>
*****
  
```

**Data Element Summary**

Ref.	Data Element	Name	Attributes
>>	ISA01	<b>I01 Authorization Information Qualifier</b> Code to identify the type of information in the Authorization Information 00 No Authorization Information Present (No Meaningful Information in I02)	<b>M ID 2/2</b>
>>	ISA02	<b>I02 Authorization Information</b> 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) '0000000000' (10 zeroes)	<b>M AN 10/10</b>
>>	ISA03	<b>I03 Security Information Qualifier</b> Code to identify the type of information in the Security Information 00 No Security Information Present (No Meaningful Information in I04)	<b>M ID 2/2</b>
>>	ISA04	<b>I04 Security Information</b> 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) '0000000000' (10 zeroes)	<b>M AN 10/10</b>
>>	ISA05	<b>I05 Interchange ID Qualifier</b> Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified 01 Duns (Dun & Bradstreet) 08 UCC EDI Communications ID (Comm ID) 12 Phone (Telephone Companies) 13 UCS Code (The UCS Code is a Code Used for UCS Transmissions; it includes the Area Code and Telephone Number of a Modem; it Does Not Include Punctuation, Blanks or Access Code) ZZ Mutually Defined	<b>M ID 2/2</b>
>>	ISA06	<b>I06 Interchange Sender ID</b> 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 Sender's ID	<b>M AN 15/15</b>
>>	ISA07	<b>I05 Interchange ID Qualifier</b>	<b>M ID 2/2</b>

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

08 UCC EDI Communications ID (Comm ID)

12 Phone (Telephone Companies)

>>	<b>ISA08</b>	<b>I07</b>	<b>Interchange Receiver ID</b>	<b>M AN 15/15</b>
			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	
			<i>DSD's Partner ID is 6123753151</i>	
			<i>Mervyn's Partner ID is 6111470231</i>	
			<i>Target's Partner ID is 6111470100</i>	
>>	<b>ISA09</b>	<b>I08</b>	<b>Interchange Date</b>	<b>M DT 6/6</b>
			Date of the interchange	
>>	<b>ISA10</b>	<b>I09</b>	<b>Interchange Time</b>	<b>M TM 4/4</b>
			Time of the interchange	
>>	<b>ISA11</b>	<b>I10</b>	<b>Interchange Control Standards Identifier</b>	<b>M ID 1/1</b>
			Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer	
			U U.S. EDI Community of ASC X12, TDCC, and UCS	
>>	<b>ISA12</b>	<b>I11</b>	<b>Interchange Control Version Number</b>	<b>M ID 5/5</b>
			This version number covers the interchange control segments	
			00401 Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997	
>>	<b>ISA13</b>	<b>I12</b>	<b>Interchange Control Number</b>	<b>M N0 9/9</b>
			A control number assigned by the interchange sender	
>>	<b>ISA14</b>	<b>I13</b>	<b>Acknowledgment Requested</b>	<b>M ID 1/1</b>
			Code sent by the sender to request an interchange acknowledgment (TA1)	
			0 No Acknowledgment Requested	
>>	<b>ISA15</b>	<b>I14</b>	<b>Usage Indicator</b>	<b>M ID 1/1</b>
			Code to indicate whether data enclosed by this interchange envelope is test, production or information	
			P Production Data	
			T Test Data	
>>	<b>ISA16</b>	<b>I15</b>	<b>Component Element Separator</b>	<b>M AN 1/1</b>
			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	
			<i>DHC will expect '&gt;'</i>	

**Segment:** **GS** Functional Group Header  
**Position:** 020  
**Loop:**  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the beginning of a functional group and to provide control information  
**Syntax Notes:**  
**Semantic Notes:** 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.

**Notes:** \*\*\*\*\*  
*Sample GS Segment*  
 GS\*IN\*1234567890\*DHCID\*19980415\*0342\*0001\*X\*004010  
 \*\*\*\*\*

**Data Element Summary**

Ref.	Data Element	Name	Attributes
>>	GS01 479	<b>Functional Identifier Code</b>	<b>M ID 2/2</b>
		Code identifying a group of application related transaction sets	
		FA Functional Acknowledgment (997)	
		IN Invoice Information (810,819)	
		PC Purchase Order Change Request - Buyer Initiated (860)	
		PD Product Activity Data (852)	
		PO Purchase Order (850)	
		PR Purchase Order Acknowledgment (855)	
		PS Planning Schedule with Release Capability (830)	
		RS Order Status Information (869, 870)	
		SC Price/Sales Catalog (832)	
		SH Ship Notice/Manifest (856)	
		TX Text Message (864)	
>>	GS02 142	<b>Application Sender's Code</b>	<b>M AN 2/15</b>
		Code identifying party sending transmission; codes agreed to by trading partners	
		<i>Sender's ID</i>	
>>	GS03 124	<b>Application Receiver's Code</b>	<b>M AN 2/15</b>
		Code identifying party receiving transmission. Codes agreed to by trading partners	
		<i>DSD's Partner ID is 6123753151</i>	
		<i>Mervyn's Partner ID is 6111470231</i>	
		<i>Target's Partner ID is 6111470100</i>	
>>	GS04 373	<b>Date</b>	<b>M DT 8/8</b>
		Date expressed as CCYYMMDD	
>>	GS05 337	<b>Time</b>	<b>M TM 4/8</b>
		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)	
>>	GS06 28	<b>Group Control Number</b>	<b>M N0 1/9</b>

Assigned number originated and maintained by the sender

>>	<b>GS07</b>	<b>455</b>	<b>Responsible Agency Code</b>	<b>M</b>	<b>ID 1/2</b>
					Code used in conjunction with Data Element 480 to identify the issuer of the standard
			X		Accredited Standards Committee X12
>>	<b>GS08</b>	<b>480</b>	<b>Version / Release / Industry Identifier Code</b>	<b>M</b>	<b>AN 1/12</b>
					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
			004010		Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997

**Segment:** **GE** Functional Group Trailer  
**Position:** 030  
**Loop:**  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the end of a functional group and to provide control information  
**Syntax Notes:**  
**Semantic Notes:** 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.

**Notes:** \*\*\*\*\*  
*Sample GE Segment*  


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*GE\*1\*0001*  
 \*\*\*\*\*

**Data Element Summary**

Ref.	Data Element	Name	Attributes
>>	GE01 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 <i>Number of transaction sets in this group</i>	<b>M N0 1/6</b>
>>	GE02 28	<b>Group Control Number</b> Assigned number originated and maintained by the sender <i>MUST match GS06 Value/Description, both in size and value</i>	<b>M N0 1/9</b>

**Segment:** **IEA** Interchange Control Trailer  
**Position:** 040  
**Loop:**  
**Level:**  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To define the end of an interchange of zero or more functional groups and interchange-related control segments

**Syntax Notes:**  
**Semantic Notes:**  
**Comments:**  
**Notes:**

```

*****
Sample IEA Segment
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IEA*I*00000001
*****
  
```

**Data Element Summary**

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>		<u>Attributes</u>
>>	IEA01	I16	<b>Number of Included Functional Groups</b> A count of the number of functional groups included in an interchange <i>Number of GS segments</i>	M N0 1/5
>>	IEA02	I12	<b>Interchange Control Number</b> A control number assigned by the interchange sender <i>MUST match ISA13 Value/Description</i>	M N0 9/9