

# ICS Interchange Control Structures

Functional Group ID=

## Introduction:

ICS,2,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 env

Page No.	Pos. No.	Seg. ID	Name	Base Status	User Status	Max.Use	Loop Repeat	Notes and Comments								
2	010	ISA	Interchange Control Header	M	M	1										
5	020	GS	Functional Group Header	M	M	1										
7	030	GE	Functional Group Trailer	M	M	1										
8	040	IEA	Interchange Control Trailer	M	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:**

<b>Notes:</b>	Outbound document example: ISA*00* *00* *ZZ*ARIBAEDI *ZZ*ABCMUSICSUPPLY *040415*1314*U*00401*000601828*0*P*>~  Inbound document example: ISA*00* *00* *ZZ*ABCMUSICSUPPLY*ZZ*ARIBAEDI *040415*1314*U*00401*000601828*0*P*>~
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**Data Element Summary**

Ref. Des.	Data Element	Name	Base Attributes	User Attributes
ISA01	I01	Authorization Information Qualifier	M   ID 2/2	M
		Code to identify the type of information in the Authorization Information		
		00	No Authorization Information Present (No Meaningful Information in I02)	
ISA02	I02	Authorization Information	M   AN 10/10	M
		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)		
		Ariba leaves this blank		
ISA03	I03	Security Information Qualifier	M   ID 2/2	M
		Code to identify the type of information in the Security Information		
		00	No Security Information Present (No Meaningful Information in I04)	
ISA04	I04	Security Information	M   AN 10/10	M
		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)		
		Ariba leaves this blank		
ISA05	I05	Interchange ID Qualifier	M   ID 2/2	M
		Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified		
		In case of inbound documents (like Invoice(810), Order confirmation document(855) etc), this (ISA05) must have supplier defined Interchange qualifier from EDI profile.		
		ZZ	Mutually Defined	
ISA06	I06	Interchange Sender ID	M   AN 15/15	M
		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		
		ARIBAEDI is always used. Ariba Network does not use a separate sender id for test data. Test interchanges are to be determined by ISA15.		
		In case of inbound documents (like Invoice(810), Order confirmation document(855) etc), this (ISA06) must have supplier defined Interchange Id from EDI profile.		
ISA07	I05	Interchange ID Qualifier	M   ID 2/2	M

	Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified
	In case of inbound documents (like Invoice(810), Order confirmation document(855) etc), this (ISA07) must have ISA receiver qualifier of the Ariba Network. Ariba Network ISA Receiver qualifier is ZZ.
01	Duns (Dun & Bradstreet)
02	SCAC (Standard Carrier Alpha Code)
03	FMC (Federal Maritime Commission)
04	IATA (International Air Transport Association)
08	UCC EDI Communications ID (Comm ID)
09	X.121 (CCITT)
10	Department of Defense (DoD) Activity Address Code
11	DEA (Drug Enforcement Administration)
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)
14	Duns Plus Suffix
15	Petroleum Accountants Society of Canada Company Code
16	Duns Number With 4-Character Suffix
17	American Bankers Association (ABA) Transit Routing Number (Including Check Digit, 9 Digit)
18	Association of American Railroads (AAR) Standard Distribution Code
19	EDI Council of Australia (EDICA) Communications ID Number (COMM ID)
20	Health Industry Number (HIN)
21	Integrated Postsecondary Education Data System, or (IPEDS)
22	Federal Interagency Commission on Education, or FICE
23	National Center for Education Statistics Common Core of Data 12-Digit Number for Pre-K-Grade 12 Institutes, or NCES
24	The College Board's Admission Testing Program 4-Digit Code of Postsecondary Institutes, or ATP
25	American College Testing Program 4-Digit Code of Postsecondary Institutions, or ACT
26	Statistics of Canada List of Postsecondary Institutions
27	Carrier Identification Number as assigned by Health Care Financing Administration (HCFA)
28	Fiscal Intermediary Identification Number as assigned by Health Care Financing Administration (HCFA)
29	Medicare Provider and Supplier Identification Number as assigned by Health Care Financing Administration (HCFA)
30	U.S. Federal Tax Identification Number
31	Jurisdiction Identification Number Plus 4 as assigned by the International Association of Industrial Accident Boards and Commissions (IAIABC)
32	U.S. Federal Employer Identification Number (FEIN)
33	National Association of Insurance Commissioners Company Code (NAIC)
34	Medicaid Provider and Supplier Identification Number as assigned by individual State Medicaid Agencies in conjunction with Health Care Financing Administration (HCFA)

		35	Statistics Canada Canadian College Student Information System Institution Codes
		36	Statistics Canada University Student Information System Institution Codes
		37	Society of Property Information Compilers and Analysts
		AM	Association Mexicana delCodigo de Producto (AMECOP) Communication ID
		NR	National Retail Merchants Association (NRMA) - Assigned
		SN	Standard Address Number
		ZZ	Mutually Defined
<b>ISA08</b>	<b>I07</b>	<b>Interchange Receiver ID</b>	
		<b>M</b>	<b>AN 15/15</b> <b>M</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	
		Supplier defined Interchange Id from EDI profile.	
		In case of inbound documents (like Invoice(810), Order confirmation document(855) etc), this (ISA08) must have ISA Receiver ID of the Ariba Network. Ariba Network ISA Receiver ID is ARIBAEDI.	
<b>ISA09</b>	<b>I08</b>	<b>Interchange Date</b>	
		<b>M</b>	<b>DT 6/6</b> <b>M</b>
		Date of the interchange	
<b>ISA10</b>	<b>I09</b>	<b>Interchange Time</b>	
		<b>M</b>	<b>TM 4/4</b> <b>M</b>
		Time of the interchange	
<b>ISA11</b>	<b>I10</b>	<b>Interchange Control Standards Identifier</b>	
		<b>M</b>	<b>ID 1/1</b> <b>M</b>
		Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer	
		Refer to 004010 Data Element Dictionary for acceptable code values.	
<b>ISA12</b>	<b>I11</b>	<b>Interchange Control Version Number</b>	
		<b>M</b>	<b>ID 5/5</b> <b>M</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</b>	<b>N0 9/9</b> <b>M</b>
		A control number assigned by the interchange sender	
<b>ISA14</b>	<b>I13</b>	<b>Acknowledgment Requested</b>	
		<b>M</b>	<b>ID 1/1</b> <b>M</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</b>	<b>ID 1/1</b> <b>M</b>
		Code to indicate whether data enclosed by this interchange envelope is test, production or information	
		ISA15 is the sole indicator of test or production data.	
		P	Production Data
		T	Test Data
<b>ISA16</b>	<b>I15</b>	<b>Component Element Separator</b>	
		<b>M</b>	<b>AN 1/1</b> <b>M</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	

**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:**

- 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.

<b>Notes:</b>	Outbound example: GS*PO*AN02000014900*ABCMUSIC*20040415*134118*15449*X*004010~  Inbound example: GS*IN*ABCMUSIC*AN02000014900*20040415*134118*15449*X*004010~
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**Data Element Summary**

Ref. Des.	Data Element	Name	Base Attributes		User Attributes	
<b>GS01</b>	<b>479</b>	<b>Functional Identifier Code</b>	<b>M</b>	<b>ID 2/2</b>	<b>M</b>	
Code identifying a group of application related transaction sets						
		FA				Functional Acknowledgment (997)
		IN				Invoice Information (810,819)
		PO				Purchase Order (850)
		PR				Purchase Order Acknowledgement (855)
		RA				Payment Order/Remittance Advice (820)
		SH				Ship Notice/Manifest (856)
<b>GS02</b>	<b>142</b>	<b>Application Sender's Code</b>	<b>M</b>	<b>AN 2/15</b>	<b>M</b>	
Code identifying party sending transmission; codes agreed to by trading partners						
This is the Ariba NetworkID of the sender. There is no trailing -T for test accounts.						
In case of inbound documents (like Invoice(810), Order confirmation document(855) etc), this (ISA05) must have supplier's defined GS Identifier (App Receiver Identifier).						
<b>GS03</b>	<b>124</b>	<b>Application Receiver's Code</b>	<b>M</b>	<b>AN 2/15</b>	<b>M</b>	
Code identifying party receiving transmission; codes agreed to by trading partners						
GS03 is Supplier's GS Identifier (App Receiver Identifier) for outbound documents.						
In case of inbound documents (like Invoice(810), Order confirmation document(855) etc), this (ISA05) must have Ariba NetworkID of your customer.						
<b>GS04</b>	<b>373</b>	<b>Date</b>	<b>M</b>	<b>DT 8/8</b>	<b>M</b>	
Date expressed as CCYYMMDD						
<b>GS05</b>	<b>337</b>	<b>Time</b>	<b>M</b>	<b>TM 4/8</b>	<b>M</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)						
<b>GS06</b>	<b>28</b>	<b>Group Control Number</b>	<b>M</b>	<b>N0 1/9</b>	<b>M</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>	<b>M</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>	<b>M</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.

<b>Notes:</b>	Example: GE*4*15449~
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**Data Element Summary**

Ref. Des.	Data Element	Name	Base Attributes		User Attributes	
GE01	97	<b>Number of Transaction Sets Included</b>	M	N0 1/6	M	
		Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element				
GE02	28	<b>Group Control Number</b>	M	N0 1/9	M	
		Assigned number originated and maintained by the sender				

**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:**

<b>Notes:</b>	Example: IEA*1*000601828~
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**Data Element Summary**

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Base Attributes</u>		<u>User Attributes</u>	
			M	N	M	N
IEA01	I16	Number of Included Functional Groups	M	N0 1/5	M	
		A count of the number of functional groups included in an interchange				
IEA02	I12	Interchange Control Number	M	N0 9/9	M	
		A control number assigned by the interchange sender				