Interchange Envelopes

INTRODUCTION

All EDI communications transmitted to Sears, Roebuck and Co. and our Trading Partners will be grouped into "envelopes". The interchange control structure is common to all transaction sets. The control segment hierarchy is illustrated below.

- The beginning of each EDI document is identified using a Transaction Set Header (ST). The end of every document is marked using a Transaction Set Trailer (SE). Up to 999,999 transaction sets are allowed per functional group.
- EDI documents of a similar nature (same functional group ID) and destined for one Trading Partner are gathered into a functional group, identified by a Functional Group Header (GS) and a Functional Group Trailer (GE). Each GS segment marks the beginning of a functional group. There can be many functional groups within a transmission envelope.
- EDI documents transmitted during a session are identified by an Interchange Header (ISA) and Trailer (IEA). Each ISA marks the beginning of the transmission and provides sender/receiver identification. There can be many interchange envelopes within a communications session.

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Control Segment Hierarchy

ISA Inte	rchange Control Header
GS	Functional Group Header
ST	Transaction Set Header
SE	Transaction Set Trailer
ST	Transaction Set Header
SE	Transaction Set Trailer
GE	Functional Group Trailer
GS	Functional Group Header
ST	Transaction Set Header
SE	Transaction Set Trailer
ST	Transaction Set Header
SE	Transaction Set Trailer
ST	Transaction Set Header
SE	Transaction Set Trailer
GE	Functional Group Trailer
IEA Inter	change Control Trailer

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Control Numbers

ASC X12 standards provide for three levels of control. The levels are Interchange, Group and Transaction Set, as described and illustrated in the segment hierarchy example. Within each level there are control numbers which provide a positive match between the headers and trailers.

- The *interchange control number* allows the receiver to detect a missing or duplicate transmission. However, unlike the functional group, there is no acknowledgment like the 997 which allows the receiver to notify the sender of duplicate or missing envelopes. The receiver must perform this error checking and notify the sender of missing or duplicate data.
- The group control number is assigned sequentially by trading partner. Sears uses the same sender/receiver ID's at the group level as at the interchange level, but in a distributed EDI environment, these may be different ID's, and therefore, different control numbers. At the Group level, the 997 provides positive means of control and can notify the trading partners of missing or duplicate groups.
- At the *transaction set level*, the VICS EDI Guidelines recommend the sequential assignment of the transaction set control number beginning each functional group with 0001 and incrementing by one for each additional transaction set within the group. This allows the receiver to identify a particular transaction within a functional group, but the number is unique only within that functional group.

Version Control

Many functional groups for the same trading partner can be included in the same (ISA/IEA) interchange envelope. The functional group header (GS) identifies the version and release number of the transaction sets within the functional group. This is not the same as the version number in the ISA segment. Since the maps in these guidelines are for Version/Release 4010, 004010 is specified in GS08.

The Industry Identifier Code following the version/release code (in GS08) tells your translator which tables to use to translate the data included in the functional group. Sears does not use the industry identifier in any trading relationship; i.e., this code is omitted. This means that your translator will perform translation using the full ASC X12 tables. We request that you do not specify VICS (code VI) or you will most likely encounter problems processing Sears transactions. Although we adhere as closely as possible to the VICS EDI guidelines, we do implement transactions and conventions that are not published in VICS EDI and, occasionally, we will anticipate the VICS EDI publication.

ISA/GS Sender/Receiver ID's

Many envelopes (ISA/IEA) can be contained within the same communications session. Each envelope is uniquely identified by sender/receiver pair and interchange control number assignment by trading partner. Because of the high volume of data that we process, Sears uniquely identifies each Sears application by assigning a different ID. Further, test data and production data are always separated through the use of unique IDs. The chart that follows includes a current list of ISA/GS Sender/Receiver IDs used by Sears.

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SEARS ISA/GS SENDER/RECEIVER ID's

Interchange ID Qualifier (ISA05/ISA07) = 08

APPLICATION DESCRIPTION	Transaction Sets	PROD
	Supported	
AP EFT, Remittance Data	820	6111250028
DRP Distribution Resource Planning	830, 862	6111250039
DRP/RIM/SAMS/SAS Receiving - "Hot"	856	6111250049
DRP/RIM/SAMS/SAS Receiving -	856	6111250050
"Regular"		
ESPO (new ID)	810, 850, 860	6111250095
Imports Ship Notice	856	6111250086
IPS Invoice Processing	810, 812	6111250001
ISOS Integrated Special Order System	850, 856, 860, 869,	6111250059
(Sears.com Customer Direct)	870	
RIM Vendor Managed Replenishment	855	6111250032
RIM Retail Replenishment	850, 860	6111250011
RIM Retail Sales Reports	852	6111250010
RPC Repair Parts	850, 867, 870	6111250016
RSOS	850, 856, 860, 869,	6111250057
(Sears.com Customer Direct also)	870	
SAS Retail Direct Delivery	846, 850, 860, 870	6111250022
SDC Specialty Distribution Centers	852, 850, 860	6111250084
Sears.com Customer Direct	180, 846	6111250036
Sigma Industrial/Commercial Large	850, 856	6111250005
Tools Warehouse		
Sigma Industrial/Commercial Drop Ship	850, 856 , 860, 869,	6111250006
	870	
Sigma Warehouse	850, 856	6111250040
Sigma Customer Direct - Drop Ship	850, 856, 860, 869,	6111250041
	0/0	0444050044
Sigma Customer Direct - Drop Ship		6111250041
SIMI Exports	850, 856	6111250079
Store Directory	816	6111250055

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Segment:	ISA Interchange Control Header
Loop:	
Usage:	Mandatory
Max Use:	1

- Notes: 1. The ISA header starts and identifies an interchange of one or more functional groups and provides interchange related control. The ISA segment is a fixed length record. Each data element within the ISA is also fixed in length. Data element separators are used between data elements to be consistent with the basic syntax of segment structure.
 - 2. Sears recommends that Trading Partners use the control characters identified for use in the retail industry. The segment terminator that is to be used in the transmission is defined by the first occurrence of the segment terminator in the ISA segment. Whichever character is used for the segment terminator, the same character must be used throughout the transmission. The element separator that is to be used in the transmission is defined by the first occurrence of the element separator in the ISA segment. The same element separator must be used throughout the transmission.
 - 3. The Interchange Sender ID uniquely identifies the sender of the interchange. The UCC-assigned EDI Communications ID is recommended, however the sender may use his Dun and Bradstreet number, a UCS code or his telephone number. Whichever value is selected, the sender always codes this number in the sender ID element (ISA06) after qualifying the number in the ISA05 element. The number must be left justified and blank filled. If a telephone number is used, the number must include the area code without any punctuation.
 - 4. The Interchange Receiver ID uniquely identifies the receiver of the interchange. The ISA07 and ISA08 elements are governed by the same rules as the rules for the ISA05 and ISA06 elements, as noted above.
 - 5. Time is expressed using a 24-hour clock.
 - 6. The test indicator is used to indicate if Test or Production data is enclosed in the transmission envelope. The indicator applies to the entire envelope. Since Sears uses different Sender/Receiver ID's for Test and Production data, Sears will not use the Test indicator. The test data is kept separate from production data by virtue of the different sender/receiver ID.

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Notes continued:	7.	The Interchange Control Number is right justified and zero filled. This is assigned sequentially by the Sender, starting with one for each Sender/Receiver relationship. Each Trading Partner relationship has its own sequentially assigned numbers to allow the Receiver to determine if a duplicate transmission was received or if a transmission was missed. The control number is incremented by one for each interchange envelope sent to the Trading Partner. When the control number reaches 999999999, the control number will releven to 000000001 for the part interchange envelope
		will rollover to 000000001 for the next interchange envelope.

8. Current century is assumed for ISA09.

Data Element Summary

Ref.	Data			Sear	'S'
Des.	<u>Element</u>	<u>Name</u>		<u>Attri</u>	<u>butes</u>
ISA01	I01	Authorization Ir	nformation Qualifier	Μ	ID 2/2
		00	No Authorization Information P	resen	it (No
			Meaningful Information in I02)		
ISA02	102	Authorization Ir	nformation	Μ	AN 10/10
ISA03	103	Security Inform	ation Qualifier	Μ	ID 2/2
		00	No Security Information Preser	nt (No	J
			Meaningful Information in I04)	-	
ISA04	104	Security Inform	ation	Μ	AN 10/10
ISA05	105	Interchange ID	Qualifier	Μ	ID 2/2
		01	Duns (Dun & Bradstreet)		
		02	SCAC (Standard Carrier Alpha	Code	e)
		03	FMC (Federal Maritime Commi	ssion)
		08	UCC EDI Communications ID (Comr	m ID)
		12	Phone (Telephone Companies))	
		13	UCS Code (The UCS Code is a	a Cod	e Used
			for UCS Transmissions; it inclu	des th	ne Area
			Code and Telephone Number of	of a N	lodem; it
			Does Not Include Punctuation,	Blank	<s or<="" th=""></s>
			Access Code)		
		14	Duns Plus Suffix		
		19	EDI Council of Australia (EDIC)	4)	
			Communications ID Number (C	OMN	1 ID)
		ZZ	Mutually Defined		
ISA06	106	Interchange Se	nder ID	Μ	AN 15/15
		See page IENV.	4 for a list of Sears IDs		

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Ref.	Data			Sea	rs'
Des.	Element	Name		Attri	ibutes
ISA07	105	Interchange ID	Qualifier	Μ	ID 2/2
		01	Duns (Dun & Bradstreet)		
		02	SCAC (Standard Carrier Alpha	Code	e)
		08	UCC EDI Communications ID (Com	m ID)
		12	Phone (Telephone Companies)	
		13	UCS Code (The UCS Code is a	a Coc	le Used
			for UCS Transmissions; it inclu	des t	he Area
			Code and Telephone Number	of a N	lodem; it
			Does Not Include Punctuation,	Blan	ks or
			Access Code)		
		14	Duns Plus Suffix		
		19	EDI Council of Australia (EDIC	A)	
			Communications ID Number (C	OMN	/I ID)
		ZZ	Mutually Defined		
ISA08	107	Interchange Re	eceiver ID	Μ	AN 15/15
		See page IENV.	4 for a list of Sears IDs		
ISA09	108	Interchange Da	ite	Μ	DT 6/6
ISA10	109	Interchange Ti	ne	Μ	TM 4/4
ISA11	l10	Interchange Co	ontrol Standards Identifier	Μ	ID 1/1
		U	U.S. EDI Community of ASC X UCS	12, T	DCC, and
ISA12	l11	Interchange Co	ontrol Version Number	Μ	ID 5/5
		00401	Draft Standards for Trial Use A	pprov	/ed for
			Publication by ASC X12 Proce	dures	Review
			Board through October 1997		
ISA13	l12	Interchange Co	ontrol Number	Μ	N0 9/9
ISA14	l13	Acknowledgme	ent Requested	Μ	ID 1/1
		0	No Acknowledgment Requeste	d	
ISA15	l14	Usage Indicato	r	Μ	ID 1/1
		Р	Production Data		
ISA16	l15	Component Ele	ement Separator	Μ	AN 1/1
		>	The value identified for retail us	se [Hl	EX '6E'
		HEX 6E	(EBCDIC)]		

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Segment: Loop: Level:	IEA Interchange Control Trailer				
Usage: Max Use:	Mandatory 1				
Notes:	1. The final segment in a transmission is the IEA. This control segment defines the end of an interchange of one or more				

- segment defines the end of an interchange of one or more functional groups and provides a count of the included functional groups.
 - 2. The IEA segment is a variable length record.
 - 3. The value in IEA02 MUST be equal to the value in ISA13 for the transmission, i.e., the control number in the trailer must match the control number in the corresponding header for the same interchange envelope.

Data Element Summary

Ref.	Data		Sea	rs'
Des.	Element	Name	<u>Attri</u>	ibutes
IEA01	l16	Number of Included Functional Groups	Μ	N0 1/5
IEA02	l12	Interchange Control Number	Μ	N0 9/9

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Segment:

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CC			
	Functional	Groun	Hoodor
	runcuonai	Group	ileauei

Loop: Level: Usage: Mandatory Max Use:

1

- 1. Notes: The GS segment is a variable length record.
 - 2. The Application Sender's Code (GS02) uniquely identifies the sender. Within Sears use, each sending application will be uniquely identified using the same UCC Communications ID expressed in the ISA06. Separate ID's for Test and Production have been assigned to each sending application.
 - The Application Receiver's Code (GS03) uniquely identifies the 3. receiving party. For transmissions received by Sears, each receiving application will be uniquely identified with the same value expressed in the ISA08.
 - 4. The value in GS06 is a sequentially assigned number originated and maintained by the sender. This will be a unique number within each Trading Partner. The uniqueness must be maintained until such time that a Functional Acknowledgment is received for that group. Separate ID's for Test and Production have been assigned to each sending application.
 - 5. The value in GS08 indicates the version and release number of the transaction sets within the functional group. This is not the same as the version number in the ISA segment. Since the maps in these Guidelines are for Version/Release 4010, 004010 is specified. Sears does not use the Industry Identifier Code.

		Data El	ement Summary		
Ref.	Data			Sear	rs'
Des.	<u>Element</u>	<u>Name</u>		<u>Attri</u>	butes
GS01	479	Functional I	dentifier Code	Μ	ID 2/2
		AG	Application Advice (824)		
		AN	Return Merchandise Authorization	and	Notification
		CD	Credit/Debit Adjustment (812)		
		СТ	Application Control Totals (831)		
		FA	Functional Acknowledgment (997))	
		IB	Inventory Inquiry/Advice (846)		
		IN	Invoice Information (810,819)		
		OR	Organizational Relationships (816)	
		PC	Purchase Order Change Request (860)	- Buy	er Initiated

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GS01 continued:PDProduct Activity Data (852)POPurchase Order (850)PRPurchase Order Acknowledgment (855)PSPlanning Schedule with Release CapabilityPTProduct Transfer and Resale Report (867)RAPayment Order/Remittance Advice (820)RSOrder Status Information (869, 870)SCPrice/Sales Catalog (832)SHShip Notice/Manifest (856)SSShipping Schedule (862)		, ility (830) 57)))			
Ref.	Data				
<u>Des.</u>	<u>Element</u>	<u>Name</u>		<u>Attri</u>	butes
GS02	142	Application S	Sender's Code	Μ	AN 2/15
_		See page IEN	V.4 for a list of Sears IDs		_
GS03	124	Application F	Receiver's Code	Μ	AN 2/15
_		See page IEN	V.4 for a list of Sears IDs		
GS04	373	Date		Μ	DT 8/8
GS05	337	Time		Μ	TM 4/8
GS06	28	Group Contro	ol Number	Μ	N0 1/9
GS07	455	Responsible	Agency Code	Μ	ID 1/2
		Х	Accredited Standards Committ	ee X1	2
GS08	480	Version / Rel 004010	ease / Industry Identifier Code Draft Standards Approved for F ASC X12 Procedures Review F October 1997	M Publica Board	AN 1/12 ation by through

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Segment: Loop:	GE Functional Group Trailer
Level: Usage: Max Use	Mandatory

Notes: 1. The GE segment is a variable length record which defines the end of a functional group and provides a count of the included transactional sets within the group.

2. The value in GE02 MUST be equal to the value in GS06 for the group, i.e., the control number in the trailer must match the control number in the corresponding header for the same functional group.

Data Element Summary

Ret.	Data			
Des.	Element	Name	<u>Attributes</u>	
GE01	97	Number of Transaction Sets Included	Μ	N0 1/6
GE02	28	Group Control Number	Μ	N0 1/9

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History of Revisions

February 2009:

Updated envelope information

November 2007:

ESPO 850 purchase orders and 860 purchase order changes will be sent from ID 6111250095 effective November 4th, 2007. 810 invoices returned for these 850 purchase orders must be sent to 6111250095.

All references to SAMS and Fashion Merchandise have been removed from this document. This may have caused some notes and other information to be re-aligned.