# Application of ANSI X12

## *General*

ANSI X12 or ASC X12 (Accredited Standards Committee) develops and maintains EDI standards. X12 was the sequential designator assigned by ANSI at the time of accreditation. Membership of ASC X12 includes over 3000 business experts from a large range of industries including health care, finance, government and others.

Listed here are descriptions of the interchange and group control segments. For full explanation of these segments, their purposes, and their data elements, refer to X12.5 Interchange Control Structures, X12.6 Application Control Structure, X12.22 Segment Directory, and X12.3 Data Element Dictionary.

## *Envelope Details*

| Segment: | ISA | Mandatory | Max Occ.: | 1 |

Name:        **Interchange Control Header**

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 |
|-----|-----|--------------|-----|------|---------|-------|
| ISA01 | I01 | **Authorization Information Qualifier** | M | ID | 2/2 | Must use |
|  |  | **Description:** Code to identify the type of information in the Authorization Information |  |  |  |  |

### Standard Code List_I01

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

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|--------------|-----|------|---------|-------|
| ISA02 | I02 | **Authorization Information** | O | AN | 10/10 | Optional |
|  |  | **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) |  |  |  |  |
| ISA03 | I03 | **Security Information Qualifier** | M | ID | 2/2 | Must use |
|  |  | **Description:** Code to identify the type of information in the Security Information |  |  |  |  |

### Standard Code List_I03

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

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-----|-----|-----|-----|-----|
| ISA04 | I04 | **Security Information** | O | AN | 10/10 | Optional |
|  |  | **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) |  |  |  |  |
| ISA05 | I05 | **Interchange ID Qualifier** | M | ID | 2/2 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified |  |  |  |  |

### Standard Code List_I05

| Code | Name |
|-----|-----|
| 08 | UCC EDI Communications ID (Comm ID) |

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-----|-----|-----|-----|-----|
| ISA06 | I06 | **Interchange Sender ID** | M | AN | 15/15 | Must use |
|  |  | **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 |  |  |  |  |
| ISA07 | I05 | **Interchange ID Qualifier** | M | ID | 2/2 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified |  |  |  |  |

### Standard Code List_I05

| Code | Name |
|-----|-----|
| 12 | Phone (Telephone Companies) |

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|-----|-----|-----|-----|-----|-----|
| ISA08 | I07 | **Interchange Receiver ID** | M | AN | 15/15 | Must use |
|  |  | **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 |
|  |  | **Description:** |  |  |  |  |
|  |  | Date of the interchange |  |  |  |  |
|  |  | Format: YYMMDD |  |  |  |  |
| ISA10 | I09 | **Interchange Time** | M | TM | 4/4 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Time of the interchange |  |  |  |  |
|  |  | Format: HHMM |  |  |  |  |
| ISA11 | I10 | **Interchange Control Standards Identifier** | M | ID | 1/1 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer |  |  |  |  |
|  |  | **All valid standard codes are used.** |  |  |  |  |

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| ISA12 | I11 | **Interchange Control Version Number**<br>**Description:**<br>This version number covers the interchange control segments | M | ID | 5/5 | Must use |

**Standard Code List_I11**

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

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| ISA13 | I12 | **Interchange Control Number**<br>**Description:**<br>A control number assigned by the interchange sender | M | N0 | 9/9 | Must use |
| ISA14 | I13 | **Acknowledgment Requested**<br>**Description:**<br>Code sent by the sender to request an interchange acknowledgment (TA1) | M | ID | 1/1 | Must use |

**Standard Code List_I13**

| Code | Name |
|---|---|
| 1 | Interchange Acknowledgment Requested |

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| ISA15 | I14 | **Usage Indicator**<br>**Description:**<br>Code to indicate whether data enclosed by this interchange envelope is test, production or information | M | ID | 1/1 | Must use |

**Standard Code List_I14**

| Code | Name |
|---|---|
| P | Production Data |

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| ISA16 | I15 | **Component Element Separator**<br>**Description:**<br>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 | M | AN | 1/1 | Must use |

**Example:**

```
ISA*00*          *00*          *01*005515414     *14*15483732901622
*120120*0900*U*00401*000000149*0*P*:~
```

| Segment: | GS | Mandatory | Max Occ.: | 1 |

Name: **Functional Group Header**

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

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|----|--------------| ----|------|---------|-------|
| GS01 | 479 | **Functional Identifier Code** | M | ID | 2/2 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Code identifying a group of application related transaction sets |  |  |  |  |

### Standard Code List_479

| Code | Name |
|------|------|
| IN | Invoice (810) |
| AG | Application Advice (824) |
| PO | Purchase Order (850) |
| SH | Advanced Ship Notice (856) |
| RS | Order Status Report (870) |
| FA | Functional Acknowledgement (997) |

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|-----|----|--------------| ----|------|---------|-------|
| GS02 | 142 | **Application Sender's Code** | M | AN | 2/15 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Code identifying party sending transmission; codes agreed to by trading partners |  |  |  |  |
| GS03 | 124 | **Application Receiver's Code** | M | AN | 2/15 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Code identifying party receiving transmission. Codes agreed to by trading partners |  |  |  |  |
| GS04 | 373 | **Date** | M | DT | 8/8 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Date expressed as CCYYMMDD |  |  |  |  |
| GS05 | 337 | **Time** | M | TM | 4/8 | Must use |
|  |  | **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) |  |  |  |  |
| GS06 | 28 | **Group Control Number** | M | N0 | 1/9 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Assigned number originated and maintained by the sender |  |  |  |  |
| GS07 | 455 | **Responsible Agency Code** | M | ID | 1/2 | Must use |
|  |  | **Description:** |  |  |  |  |
|  |  | Code used in conjunction with Data Element 480 to identify the issuer of the standard |  |  |  |  |

### Standard Code List_455

| Code | Name |
|------|------|
| X | Accredited Standards Committee X12 |

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

**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

**Standard Code List_480**

| 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.

## Example:

```
GS*SH*005515414*15483732901622*20120120*0900*72*X*004010~
```

| Segment: | | Mandatory | Max Occ.: | 1 |
|---|---|---|---|---|

GE

Name:     **Functional Group Trailer**

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

## Element Summary:

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

## 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.

**Example:**
GE*1*72~

# VOLVO

Segment: **IEA**  Mandatory  Max Occ.: 1

Name:   **Interchange Control Trailer**

To indicate 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 |
|-----|-----|-------------|-----|------|---------|-------|
| IEA01 | I16 | **Number of Included Functional Groups** | M | N0 | 1/5 | Must use |
| | | **Description:** | | | | |
| | | A count of the number of functional groups included in an interchange | | | | |
| IEA02 | I12 | **Interchange Control Number** | M | N0 | 9/9 | Must use |
| | | **Description:** | | | | |
| | | A control number assigned by the interchange sender | | | | |

**Example:**

IEA*1*000000149~