

Pubnet Enveloping Segments – ISA/IEA, GS/GE, ST/SE for all Pubnet Trading Communities

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NOTES:

- a) The ISA segment (record) is fixed length with Data Element Separators used between each data element.
- b) BookNet Canada trading community has their own specs but some of their syntax is noted here.
- c) Anytime a printable character is used to control the translation of data that control character cannot be used as data within the transmission.
- d) The Data Element Separator is defined by the control character in position #4 of the ISA segment. The following control characters for the Element Separator are most often used with these Pubnet trading groups:
 - 1. BookNet Canada “*” (asterisk) ASCII HEX “2A” or EBCDIC HEX “5C”
 - 2. US Trade & Higher Ed “|” (vertical bar) ASCII HEX “7C” or EBCDIC HEX “6A”
 - 3. US ECPA Christian “*” (asterisk) ASCII HEX “2A” or EBCDIC HEX “5C”
- e) Segment Terminator to be used in this Interchange is defined by the control character in position #106 of the ISA segment. The following control characters for the Segment Terminator have been defined for use in the Book Industry:
 - 1. New Line ASCII HEX “0A” or EBCDIC HEX “25” (Preferred)
 - 2. Carriage Return ASCII HEX “0D” or EBCDIC HEX “0D”
 - 3. “~” (Tilde) ASCII HEX “7E” or EBCDIC HEX “A1”

Note: Do not use a “?” (question mark) or “!” (explanation point).
- f) ISA13 – Interchange Control Numbers must be unique within a file of Interchanges and over all Interchanges sent to the Receiver; otherwise Pubnet will not process it, as it is seen as a duplicate.
- g) SAN is the Standard Address Number
- h) Only include one Transaction type (850-PO, 855-POA, 856-ASN, 810-Invoice, etc.) within a GS/GE envelope.
- i) Only include one GS/GE envelope per ISA/IEA envelope.

ISA Segment – Interchange Envelope Header

[REQUIRED]

| Segment | Name | Min/Max Length | Supported Codes | Code Definitions | Format / Value | Req | Notes |
|---------|------------------------------|----------------|-----------------|--|---|-----|---|
| ISA01 | Authorization Qualifier Code | 2/2 | 00 | | 00 | X | <ul style="list-style-type: none"> • Integer |
| ISA02 | Authorization Info (APRF) | 10/10 | | | APRF Designation (identifier for document type), <ul style="list-style-type: none"> • For US Retail & Higher Ed, nnnBKvvvv and for 997's use just 997 • For ECPA or BookNet, all blanks | X | APRF Designation (identifier for document type), <ul style="list-style-type: none"> • For US Retail & Higher Ed, nnn is Doc ID # 850 = PO 855= POA 856= ASN 857= Ship & Billing Notice 810 = Invoice and vvvv=EDI spec. version Ex: 855BK3060 <ul style="list-style-type: none"> • For ECPA / BookNet, if blanks; APRF value used in FTP command “get %%aprfl% filename” is obtained from ST01 Ex: get %%850% PO850.txt Retrieves all unretrieved 850's where the ISA02 is blank & ST02=850. |
| ISA03 | Security Qualifier Code | 2/2 | 00 | | | X | <ul style="list-style-type: none"> • Integer |
| ISA04 | Security Information | 10/10 | | | Pubnet Mailbox Password | X | <ul style="list-style-type: none"> • If Password information is included the password must be correct. • Passwords are case-sensitive • Passwords are stripped off before Receiver receives the interchange. |
| ISA05 | Sender Qualifier Code | 2/2 | ZZ | <ul style="list-style-type: none"> • Mutually Defined | ZZ | X | |

| | | | | | | | |
|-------|----------------------------|------|--------|-------------------------------|-----------------------------------|---|---|
| ISA06 | Sender ID | 2/20 | | | 2-20 chars, blank filled on right | X | Preferred: • SAN • “S” plus SAN for BookNet |
| ISA07 | Receiver Qualifier Code | 2/2 | ZZ | • Mutually Defined | ZZ | X | |
| ISA08 | Receiver ID | 2/20 | | | 2-20 chars, blank filled on right | X | Preferred: • SAN • “S” plus SAN for BookNet |
| ISA09 | Interchange Date | 6/6 | | | YYMMDD | X | • Integer |
| ISA10 | Interchange Time | 4/4 | | | HHMM | X | • Integer |
| ISA11 | Standards ID | 1/1 | U | U.S. EDI Community of ASC X12 | U | X | • ‘U’ designates X12 Community |
| ISA12 | Interchange Version | 5/5 | | | 00nnn | X | 00200, 00300, 00400 |
| ISA13 | Interchange Control Number | 9/9 | | | iiiiiii | X | • Integer • Must match element in IEA02 in corresponding IEA segment • See Note a) at top of document • about uniqueness |
| ISA14 | Acknow Requested | 1/1 | 0 | Do not send a TA1 | 0 | X | • Integer |
| ISA15 | Test Indicator | 1/1 | P T | • Production • Test | Alpha | X | • “P” or ”T” • Receiver’s EDI translator may not process this value. • Do not rely on receiver’s system to Acknowledge “T” as a Test. |
| ISA16 | Sub-Element Separator | 1/1 | | | > | X | “>” is ASCII HEX “3E” and EBCDIC HEX “6E” |

GS Segment – Functional Group Header

[REQUIRED]

| Segment | Name | Min/Max Length | Supported Codes | Code Definitions | Format/Value | Req | Notes |
|---------|----------------------|----------------|--------------------------------|--|--------------------|-----|--|
| GS01 | Function ID | 2/2 | PO PR SH BS IN | Purchase Order (850) PO Acknowledgement (856) Advanced Shipment Notice (856) Shipment & Billing Notice (857) Invoice (810) | FF | X | • Where FF is one of the supported Functional ID codes identifying the Transaction Sets type enveloped by the GS/GE segments • Multiple Transactions Sets allowed but all must be the same type within GS/GE envelope • Only one GS envelope per Interchange |
| GS02 | Sender SAN | 2/15 | | | | X | Recommend it be same as the ISA06 |
| GS03 | Receiver SAN | 2/15 | | | | X | Recommend it be same as the ISA08 |
| GS04 | Current Date | 6/6 8/8 | | | YYMMDD YYYYMMDD | X | • Integer • For version 3060, 6 digit date • For version 4010, 8 digit date |
| GS05 | Time | 4/4 | | | HHMM | X | • Integer |
| GS06 | Group Control Number | 1/9 | | | ggggggggg | X | • Integer • Best Practice: It be unique among all Interchanges sent to this receiver because it is used in the 997 to identify the Interchange. • Suggestion: Make the Group Control # (GS06) = Interchange Control # (ISA13), which is allowed. Helps match the 997 with the Interchange. • Must match the value of element GE02 in the related GE segment |
| GS07 | Agency Code | 1/2 | X | | X | X | • ‘X’ designates X12 committee |
| GS08 | Version/Release | 1/12 | | | 003060 004010 | X | • Integer • For version 3060 • For version 4010 |

ST Segment – Transaction Set Header**[REQUIRED]**

| Segment | Name | Min/Max Length | Supported Codes | Code Definitions | Format/Value | Req | Notes |
|---------|---------------------------------|----------------|---------------------------------|---|--------------|-----|---|
| ST01 | Transaction Set Identifier Code | 3/3 | 850 855 856 857 810 | Purchase Order PO Acknowledgement Adv. Shipment Notice Ship. & Billing Notice Invoice | nnn | X | <ul style="list-style-type: none"> Integer 3 digit ID # identifying the Transaction Set (document) type |
| ST02 | Transaction Set Control Number | 4/9 | | | ssssssss | X | <ul style="list-style-type: none"> Integer Must be unique within the transaction set functional group assigned by the originator for a transaction set Must match the number in SE02 in the related SE segment |

SE Segment – Transaction Set Trailer**[REQUIRED]**

| Segment | Name | Min/Max Length | Supported Codes | Code Definitions | Format/Value | Req | Notes |
|---------|--------------------------------|----------------|-----------------|------------------|--------------|-----|--|
| SE01 | Number of Included Segments | 1/10 | | | nnnnnnnn | X | <ul style="list-style-type: none"> Integer Total Number of Segments included in a Transaction Set including ST and SE Segments |
| SE02 | Transaction Set Control Number | 4/9 | | | ssssssss | X | <ul style="list-style-type: none"> Integer Must match the number in ST02 in the corresponding ST segment |

GE Segment – Functional Group Trailer**[REQUIRED]**

| Segment | Name | Min/Max Length | Supported Codes | Code Definitions | Format/Value | Req | Notes |
|---------|-------------------------------------|----------------|-----------------|------------------|--------------|-----|--|
| GE01 | Number of included Transaction Sets | 1/6 | | | nnnnnn | X | <ul style="list-style-type: none"> Integer # of Transaction sets (ST/SE pairs) |
| GE02 | Group Control Number | 1/9 | | | gggggggg | X | <ul style="list-style-type: none"> Integer Must match the number in GS06 in the related GS Segment |

IEA Segment – Interchange Trailer**[REQUIRED]**

| Segment | Name | Min/Max Length | Supported Codes | Code Definitions | Format/Value | Req | Notes |
|---------|---------------------------|----------------|-----------------|------------------|--------------|-----|--|
| IEA01 | Number of Included Groups | 1/5 | | | nnnnn | X | <ul style="list-style-type: none"> Integer # of Functional Groups (GS/GE pairs) included in this Interchange |
| IEA02 | Control Number | 9/9 | | | iiiiiiii | X | <ul style="list-style-type: none"> Integer Must match the number in ISA13 in the related ISA Segment |

General Layout of the EDI X.12 file:

Note: Only include one document type in an Interchange (ISA/IEA)
Below shows an example layout for a “nested” Interchange of 2 Transaction sets of the same type.

```
ISA
  GS
    ST
      (Transaction Set #1 segments)
    SE
    ST (opt)
      (Transaction Set #2's segments)
    SE (opt)
    :
    :
  GE
IEA
```