EDI X12 Invoice - 810
Implementation Guideline

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Document History

Version	Date	Modified By	Reviewed By	Reason	Change items
0.1	23-April-14	Hitesh S		Draft	Initial Draft
0.2	29-April-14	Hitesh S			Update: IT1 Segment
0.3	12-May-14	Hitesh S		Review Comments	Update: REF and DTM segment added at header and item level.
0.4, 0.5	13-May-14	Hitesh S			Update: PER01 Segment Field, ITD Segment, DTM Segment, SAC Segment
0.6, 0.7	14-May-14	Hitesh S			REF Segment at Line Level made Mandatory for PO-Line-Number Mapping
0.8, 0.9, 0.10	06-JUN-14	Hitesh S			IT1 and ITD Segment update

Document Manager	GEP-Interface Team

Distribution List

Function	Name	Action (Review, information)
GEP Suppliers		

1. Introduction

The EDI (Electronic Data Interchange) Standard (X12), version (4010) and Transaction Set (810) is a globally standardized Invoice format developed by ANSI (American National Standards Institute), a private not-for-profit organization that oversees the creation, promulgation and use of thousands of norms and guidelines that directly impact businesses.

Because this format is most commonly used in the United States, the SMARTbyGEP platform has implemented support in receiving Invoice from suppliers via Sterling-VAN. This format support will allow suppliers to send EDI Invoices to the SMARTbyGEP platform.

The purpose of this document is to detail on the meaning and the information contained in the segments of the EDI X12 format as received by the SMARTbyGEP platform. Find below explained the typical structure used by the SMARTbyGEP Platform when receiving the ANSI X12 810 transaction set.

Note: More information regarding ANSI X12-4010 transaction sets can be found at http://www.disa.org. Please note publications are available at a cost.

2. General Information

2.1 Document Area Specification

The different areas of the document are as follows:

Column Name	Usage/Definition	Sample Value
Elem. ID	The position of the element with the segment	ITA14
Elem. #	The ANSI X12 Data Element Dictionary Reference Number	150
Name	The ANSI X12 Data Element Name	Special Charge Code
ANSI/GEP Features	**This area contains three different sections.**	
Section 1 – element usage		O
	M – Mandatory (if the segment is used the element must occur)	
	O – Optional (the use of the segment is at the trading partners discretion)	
	C – Conditional (the use of this element is predicated on the existence of another element within the segment)	
Section 2 – type of element		ID
	AN – Alphanumeric	
	R – Numeric with explicit decimal	
	DT – Date (YYYYMMDD)	
	ID – Identifier (using explicit ANSI codes	
	Nn – Numeric with implied decimal	
	TM – Time	
Section 3 minimum and maximum length of element	Data to the left of the '/' is the minimum number of bytes. Data to the right of the '/' is the maximum number of bytes '3/3' is a minimum of three and a maximum of three bytes (in other words you must send three bytes. '3/10' is a minimum of three bytes but no more than 10 bytes can be sent.	3/3
Comments	This is the area where code values that are utilized by GEP will be defined. The code value will be presented, and its definition follows.	BLD - Billed Demand
Separators	The separator characters normally used are: Segment Terminator: ~ (tilde) - 106TH Character of ISA Data Element Separator: * (start/asterisk) - 4TH Character in ISA Segment Component Element Separator: > (greater than) - ISA16	*,>,~

2.2 GEP Interchange Control

GEP ISA Sender ID	Test: 835433830T Production: 835433830	
GEP ISA Sender ID Qualifier	01	
	Hex Code	ASCII Character
Data Element Delimiter	2A	*
Data Segment Terminator	7E	~
Data Sub-element Separator	3E	>
GEP's Transmit and Receive Time	TBD	

2.3 Data Segment Sequence Chart

Segment Information							
Pos. No.	Segment Id		Name	Req. Des.	Max Use	Loop Repeat	
Envelope Header							
	ISA		Interchange Control Header	M	1	1	
	GS		Functional Group Control Header	M	1	1	
	ST		Transaction Set Header	M	1	1	
Header							
	BIG		Beginning Segment for Invoice	M	1	1	
	NTE		Notes/Special Instructions	O	100	100	
	CUR		Currency	M	1	1	
	REF		Reference Identification	O	2	12	
	N1Loop	N1	Name	M	1	1	200
		N2	Name additional Information	O	1	1	
		N3	Address	M	1	1	
		N4	Geographic Location	M	1	1	
		PER	Communications Contact	O	1	1	
	ITD		Terms of Sale/Deferred Terms of Sale	M	2	2	
	DTM		Date/Time Reference	O	2	10	
	N9	N9	Reference Identification	O	1	1	1
		MSG	Free Form Text - Comments/Notes	O	10	10	
	TDS		Total Monetary Value Summary	M	1		
	TXI_4		Tax Information	O	10	10	
	SACLoop2	SAC_3	Service, Promotion, Allowance, or Charge Information	O	1	1	25
		TXI_5	Tax Information **NOTE:** *TXI_5 is used to supply Tax Detail only when SAC01="C" and SAC02="H850"(This will be sum of TXI_5 > TXI02), without SAC Segment TAX Details can be passed*	O	10	10	

			using TXI_4. By Default TXI_4 will be considered and SAC02_H850 will be ignored if both presents, otherwise SAC02="H850" will be considered (If TXI_4 is not present).				
Detail							
	IT1Loop1		Loop for Baseline Item Data (Invoice)	M	200000	200000	
	IT1		Baseline Item Data (Invoice)	M	1	1	
	CUR_2		Currency	O	1	1	
	TXI		Tax Information	O	10	10	
	PIDLoop1	PID	Product/Item Description	M	1000	1	1000
	REF_3		Reference Identification	M	1	Many	
	DTM_3		Date/Time Reference	O	10	10	
	SACLoop1	SAC	Service, Promotion, Allowance, or Charge Information	O	1	1	25
		TXI_2	Tax Information **NOTE:** *TXI_2 is used to supply Tax Detail only when SAC01="C" and SAC02="H850" (This will be sum of TXI_2 > TXI02), without SAC Segment TAX Details can be passed using TXI. By Default TXI will be considered and SAC02_H850 will be ignored if both presents, otherwise SAC02="H850" will be considered (If TXI is not present).*	O	10	1	
Summary Section							
	CTT		Transaction Totals	O	1	1	
	SE		Transaction Set Trailer	M	1	1	

3. Header Level Segment Information

3.1 ISA Segment - Interchange Control Header

LEVEL	Header
MAX USAGE/LOOPS	1/none
PURPOSE	To start and identify an interchange of one or more functional groups and interchange related control segments.
GENERAL INFORMATION	This segment is mandatory. The interchange control number occurring in the interchange header must match the control number in the interchange control trailer. This segment is a fixed length segment of 106 bytes. This is the only segment where blank elements are permitted.
Example/Sample Data	ISA*00* *00* *XX*YOUR SENDER ID *01*835433830T *091106*1326*^*00401*000000027*0*T*>~
Syntax Notes	

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
ISA01	I01	Authoriz. Info. Qual.	M	ID	2/2	"00"
ISA02	I02	Authoriz. Info.	M	AN	10/10	Spaces
ISA03	I03	Security Info. Qual	M	ID	2/2	"00"
ISA04	I04	Security Info.	M	AN	10/10	Spaces
ISA05	I05	Interchg. ID Qual.	M	ID	2/2	"01" – DUNS
ISA06	I06	Interchg. Sender ID	M	AN	15/15	"835433830T"
ISA07	I05	Interchg. ID Qual.	M	ID	2/2	Your ID Qualifier; E.g. 01 = DUNS, 12 = Phone #, ZZ = Mutually Defined, etc.
ISA08	I07	Interchg. Receiver ID	M	AN	15/15	Your receiver ID
ISA09	I08	Interchg. Date	M	DT	6/6	Date (YYMMDD)
ISA10	I09	Interchg. Time	M	TM	4/4	Time (HHMM); Time expressed in 24 hour format.
ISA 11	I65	Interchange Control Standard Identifier	M		1/1	"U" This should be "U" for version 4010. It is used as the Repetition Separator from version 4020 onwards.
ISA12	I11	Interchange control version number	M	ID	5/5	"00401"
ISA 13	I12	Interchange control number	M	NO	9/9	"000000026" Consider this to be Sequential number starting with 000000001 and incremented by 1 for each subsequent ISA between sender and receiver. This uniqueness behavior of the control number could be set by using the Trading partner configuration.
ISA14	I13	Acknowledgement requested	M	ID	1/1	"0" If you want to receive 997, as acknowledgement,

						this value should be "1".
ISA15	I14	Interchange usage indicator	M	ID	1/1	"P" – Production, "T" – Test
ISA16	I15	Component Element Separator	M		1/1	">"

3.2 GS Segment - Functional Group Control Header

LEVEL	Header
MAX USAGE/LOOPS	1/none
PURPOSE	To indicate the start of a Functional Group and to provide control information
GENERAL INFORMATION	This segment is mandatory. The control number occurring in the functional group header must match the control number in the functional group control trailer.
Example/Sample Data	GS*IN*YOUR SENDER ID*835433830T*20091106*1326*000000027*X*004010~
Syntax Notes	

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
GS01	0479	Functional ID Code	M	ID	2/2	"IN"
GS02	0142	Application Sender Code	M	AN	2/15	"835433830T"
GS03	0124	Application Receiver Cd.	M	AN	2/15	Same as ISA 07
GS04	0029	Group Date	M	DT	8/8	Date when generated (CCYYMMDD)
GS05	0030	Group Time	M	ID	4/8	Time when generated (HHMMSS); Time expressed in 24 hour format.
GS06	0028	Group Control Nbr.	M	NO	1/9	Payload ID
GS07	0455	Responsible Agency Cd.	M	ID	1/2	"X"
GS08	0480	Version/Rel. ID Code	M	ID	1/12	"004010"

3.3 ST Segment - Transaction Set Header

LEVEL	Header
MAX USAGE/LOOPS	1/none
PURPOSE	To indicate the start of a transaction set and to assign a control number.
GENERAL INFORMATION	This segment is mandatory. The transaction set control number (ST02) in this header must match the transaction set control number (SE02) in the transaction set trailer (SE).
Example/Sample Data	ST*810*000000001~
Syntax Notes	

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
ST01	0143	Transaction Set ID	M	ID	3/3	810 '
ST02	0329	Transaction Set	M	AN	4/9	A unique Number assigned to each transaction set within a functional group.

| | | | | | | This number must match the value in SE02. |

3.4 BIG Segment - Beginning Segment for Invoice

LEVEL	Header
MAX USAGE/LOOPS	1/none
PURPOSE	To indicate the beginning of an inventory advice transaction set and to transmit identifying numbers and dates.
GENERAL INFORMATION	
Example/Sample Data	BIG*20091106*00525882-0001**00468001*00001*01*DI*00~
Syntax Notes	

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
BIG01	0373	Invoice Date	M	DT	8/8	Statement Date (CCYYMMDD)
BIG02	0076	Invoice Number	M	AN	1/22	Unique invoice number
BIG03	0373	Order Date	O	DT	8/8	CCYYMMDD
BIG04	0324	P.O. Number	M	AN	1/22	"00478310"
BIG05	0328	Release Number	O	N	1/30	"001"
BIG06	0327	Chg. Order Seq. No.	O	N	1/8	"001"
BIG07	0640	Transaction Type	O	ID	2/2	"DI" - Debit Invoice "CR" - Credit Memo "DR" - Debit Memo "CN" – Credit Invoice
BIG08	353	Transaction Set Purpose Code	O	ID	2/2	"00" - Original "03" - Delete

3.5 NTE Segment - Notes/Special Instructions

LEVEL	Header
MAX USAGE/LOOPS	0/100
PURPOSE	To Specify the header level notes/instructions, if any
GENERAL INFORMATION	
Example/Sample Data	NTE*GEN*If any discount, credit, rebate or other incentive is paid~
Syntax Notes	

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
NTE01	363	Note Reference Code	M	ID	3/3	"ADD" – Additional

						Information "GEN" – Entire Transaction Set "INV" – Invoice Instruction "IVC" – Invoice Verification Comments "OTH" – Other Instructions "ZZZ" – Mutually Defined
NTE02	352	Description	M	AN	1/80	Free Text

3.6 CUR Segment - Currency

LEVEL	Header					
MAX USAGE/LOOPS	1/1					
PURPOSE	To specify the currency (dollars, pounds, francs, etc.) used in a transaction					
GENERAL INFORMATION						
Example/Sample Data	CUR*BY*USD~					
Syntax Notes						
Element ID	**Element #**	**Name**	**Req.**	**Type**	**Length Min / Max**	**Sample Value**
CUR01	0098	Entity ID Code	M	ID	2/3	"SE" – Seller "BY" – Buyer
CUR02	0100	Currency Code	M	ID	3/3	"USD"

3.7   REF Segment - Reference Identification

LEVEL	Header					
MAX USAGE/LOOPS	0/many					
PURPOSE	To specify identifying information					
GENERAL INFORMATION						
Example/Sample Data	REF*IV*123456848210~					
Syntax Notes	• At least one of REF02 or REF03 is required • If REF01 is present, then REF02 is required					
Element ID	**Element #**	**Name**	**Req.**	**Type**	**Length Min / Max**	**Sample Value**
REF01	128	Reference Identification Qualifier	M	ID	2/3	"IV" - Seller's Invoice Number [If supplier needs to specify an invoice number longer than 22 Char's, REF*IV can be used to convey up to 30 char's in REF02. If

						present, REF02 takes priority over the invoice number found in BIG02. REF03 is ignored.] "PO" - Purchase Order Number [Provided to support order numbers longer than 22 chars. If REF*PO is present, then REF02 overrides the order number found in BIG04. REF03 is ignored.]
REF02	127	Reference Identification	C	AN	1/30	PO Number/ Invoice Number

3.8   N1Loop Segment - Loop for Remit-To/Bill-To/Ship-To Information

3.8.1 N1 Segment - Name

LEVEL	Header
MAX USAGE/LOOPS	1/per N1 loop
PURPOSE	To identify a party by type of organization, name and code
GENERAL INFORMATION	
Example/Sample Data	N1*BT*Mumbai*92*111~ N1*RI*Remit To Address Name, LLC~
Syntax Notes	• At least N102 or N103 is required • If N103 is present then N104 is required

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
N101	0098	Entity ID Code	M	ID	2/3	"BT" - Bill-To Location "RI" - Remit-To Location "ST" – Ship-To Location
N102	0093	Name	C	AN	1/60	Bill-To Location Name / Remit-To Location Name
N103	0066	Identification Code Qualifier	O	ID	1/2	"92" - Assigned by Buyer or Buyer's Agent
N104	0067	Identification Code	C	AN	2/80	Bill-To Location Number Remit-To Location Number

3.8.2 N2 Segment - Additional Name Information

LEVEL	Header
MAX USAGE/LOOPS	2/per N1 loop
PURPOSE	To specify additional names or those longer than 35 characters in length
GENERAL INFORMATION	

Example/Sample Data	N2*Another line for address~					
Syntax Notes						
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
N201	0093	Name	M	AN	1/60	
N202	0093	Name	O	AN	1/60	

3.8.3 N3 Segment - Address Information

LEVEL	Header					
MAX USAGE/LOOPS	1/per N1 loop					
PURPOSE	To specify the location of the named party					
GENERAL INFORMATION						
Example/Sample Data	N3*Near Aasan Square, 23, Palayam Airport Rd,*University of Kerala Senate House Campus, Palayam~					
Syntax Notes						
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
N301	0166	Address	M	AN	1/55	AddressLine1
N302	0166	Address	O	AN	1/55	AddressLine2

3.8.4 N4 Segment - Geographic Information

LEVEL	Header					
MAX USAGE/LOOPS	1/per N1 loop					
PURPOSE	To specify the geographic place of the named party					
GENERAL INFORMATION						
Example/Sample Data	N4*Berwick*PA*18603*US~					
Syntax Notes						
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
N401	0019	City Name	O	AN	2/30	"Clark"
N402	0156	State/Prov. Code	O	AN	2/2	"NJ"
N403	0116	Postal Code	O	ID	3/15	"07066"
N404	0026	Country Code	O	ID	2/3	"US"

3.8.5 PER Segment - Administrative Communication Contact for Remit-To

LEVEL	Header
MAX USAGE/LOOPS	3/none

PURPOSE	To identify a person or office to whom administrative communications should be directed
GENERAL INFORMATION	
Example/Sample Data	PER*BD*John Doe*TE*(555) 555-2930*EM*john.doe@acme.com~
Syntax Notes	• If either PER03 or PER04 is present, then the other is required. • If either PER05 or PER06 is present, then the other is required. • If either PER07 or PER08 is present, then the other is required.

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
PER01	0366	Contact Function Code	M	ID	2/2	"CN" - General Contact
PER02	0093	Name	O	AN	1/60	"John Smith"
PER03	0365	Communications Number Qualifier	C	ID	2/2	"TE" – Telephone
PER04	0364	Communications number	C	AN	1/80	"555-555-5555"
PER05	0365	Communications Number Qualifier	C	ID	2/2	"EM" – Electronic Mail
PER06	0364	Communications number	C	AN	1/80	"Sample@gep.com"
PER07	0365	Communications Number Qualifier	C	ID	2/2	"FX" – Facsimile
PER08	0364	Communications number	C	AN	1/80	"555-555-555"

3.9 ITD Segment - Terms of Sale/Deferred Terms of Sale

LEVEL	Header
MAX USAGE/LOOPS	1/many
PURPOSE	To specify terms of sale
GENERAL INFORMATION	Either ITD01 field with 01 qualifier or ITD01 with 05 & 52 qualifier will be considered (means two times loop will get repeated with qualifier 05 and 52).
Example/Sample Data	ITD*52*3*2**10~ (A 2% discount for prompt payment in < 10 days) ITD*05*3*****30********15~ (No discount offered, but a 15% penalty if they're over 30 days) ITD*01*3*2**10**365********40~ (2% discount within 10 days, or a 40% penalty if over a year, in one segment)

Syntax Notes	• If ITD03 is present, then at least one of ITD04 ITD05 or ITD13 is required
	• If ITD08 is present, then at least one of ITD04 ITD05 or ITD13 is required
	• If ITD09 is present, then at least one of ITD10 or ITD11 is required
	   o If the code in ITD01 is "04", then ITD07 or ITD09 is required and either ITD10 or
	   o ITD11 is required; if the code in ITD01 is "05", then ITD06 or ITD07 is required

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
ITD01	0336	Terms Type Code	O	ID	2/2	"01" – Basic (ITD 03, 05, 07, and 15 are all required) [Note: ITD01 empty will be

						considered as 01 by default] "05" - Discount Not Applicable (ITD07 and ITD15 become Mandatory) "52" - Discount with Prompt Pay (ITD03 and ITD05 are required)
ITD02	0333	Terms Basis Date Code	O	ID	1/2	"3" – Invoice Date
ITD03	0338	Terms Discount Percent	O	R	1/6	"0"
ITD05	0351	Terms Discount Days Due	C	NO	1/3	"0"
ITD07	0446	Terms Net Due Date	O	NO	1/3	"30"
ITD15	954	Percent	O	R	1/10	Penalty [Not applicable]

3.10 DTM Segment – Date/Time Reference

LEVEL	Header					
MAX USAGE/LOOPS	0/many					
PURPOSE	To specify pertinent dates and times. This segment can be used to provide a complete date/time/zone					
GENERAL INFORMATION						
Example/Sample Data	DTM*004*20000415*0830*ED~					
Syntax Notes	• At least one of DTM02 DTM03 or DTM05 is required. • If DTM04 is present, then DTM03 is required.					
Element ID	**Element #**	**Name**	**Req.**	**Type**	**Length Min / Max**	**Sample Value**
DTM01	0374	Date/Time Qualifier	M	ID	3/3	"003" – Invoice Date "004" – Purchase Order Date "011" – Shipped Date
DTM02	0373	Date	C	DT	8/8	Date expressed as CCYYMMDD
DTM03	0337	Time	C	TM	4/8	HHMM HHMMSS
DTM04	0623	Time Code	O	ID	2/2	Code identifying the time

3.11 N9Loop Segment - Loop for Description/Comments/Notes

3.11.1 N9 Segment - Reference Number

LEVEL	Header
MAX USAGE/LOOPS	0/1
PURPOSE	To transmit identifying numbers and descriptive information as specified by the reference number qualifier.
GENERAL INFORMATION	
Example/Sample	N9*L1**Letter or Notes~

Data	
Syntax Notes	At least one of N902 or N903 is required.

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
N901	0128	Reference Number Qualifier	M	ID	2/2	"L1" - Letter or Notes
N903	0369	Description	C	AN	1/45	Letter or Notes

3.11.2 MSG Segment - Free From Text

LEVEL	Header
MAX USAGE/LOOPS	0/10
PURPOSE	To descriptive information as specified by the reference number qualifier and description in N901 and N903
GENERAL INFORMATION	
Example/Sample Data	MSG*Test Order - Do not ship~
Syntax Notes	• If comments is more than 264 character than MSG will be repeated with chunk of strings

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
MSG01	0933	Free-Form Message Text	O	AN	1/264	Comments

3.12 TDS Segment – Total Monetary Value Summary

LEVEL	Summary
MAX USAGE/LOOPS	1/none
PURPOSE	To specify the total invoice discounts and amounts.
GENERAL INFORMATION	
Example/Sample Data	TDS*475.00~
Syntax Notes	

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
TDS01	0610	Total Invoice Amount	M	N2	1/15	Total Balance Due

3.13 TXI_4 Segment - Tax Information

LEVEL	Header
MAX USAGE/LOOPS	0/10
PURPOSE	To specify tax information
GENERAL INFORMATION	

Example/Sample Data	TXI*TX*4.000000~ TXI*LS*4.000000~					
Syntax Notes	• At least one of TXI02 TXI03 or TXI06 is required.					
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
TXI01	963	Tax Type Code	M	ID	2/2	"TX" - Total Tax
TXI02	782	Monetary Amount	X	R	1/18	Tax amount

3.14 SACLoop Segment - Loop for Service, Promotion, Allowances or Charge Information

3.14.1 SAC Segment - Charge and Allowance Information

LEVEL	Header					
MAX USAGE/LOOPS	0/25					
PURPOSE	To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance or charge.					
GENERAL INFORMATION						
Example/Sample Data	SAC*C*F050***39800**********Additional Charges~ SAC*C*G830***50000**********Shipping Charges~					
Syntax Notes	• At least one of SAC02 or SAC03 is required. • If SAC01 is "A" or "C", then SAC05 is required.					
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
SAC01	0248	Allowance or Charge Indicator	M	ID	1/1	Code indicates an allowance or charge for the service specified "A" – Allowance "C" – Charge "N" - No Allowance or Charge "R" – Allowance Request
SAC02	1300	Service, Promotion, Allowance or Charge Code	C	ID	4/4	Code identifying the service, promotion, allowance or charge "G830" – Shipping & Handling Charges "F050" – Other/Additional Charge (See SAC15 for description) See Appendix 7.1 for more codes
SAC05	0610	Amount	C	N2	1/15	Total amount for service, promotion, allowance or

						charge.
SAC15	0352	Description	O	AN	1/80	Free From Text / Descriptions

4. Item Level Segment Information – IT1Loop1 Segment

4.1   IT1 Segment – Baseline Item Data

LEVEL	Detail
MAX USAGE/LOOPS	1/many
PURPOSE	To specify the basic and most frequently used line item data for the invoice and related transactions.
GENERAL INFORMATION	
Example/Sample Data	IT1*1*6*EA*275.00**BP*0001003609~
Syntax Notes	- If either IT02 IT03 or IT04 are present, then the others are required. - If either IT06 or IT07 is present, then the other is required. - If either IT108 or IT109 is present, then the other is required. - If either IT110 or IT111 is present, then the other is required. - If either IT112 or IT113 is present, then the other is required.

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
IT101	0350	Assigned Id	O	AN	1/20	"1" – Line Item Number
IT102	0358	Quantity Invoiced	C	R	1/10	Number of Units Invoiced (Always a whole number)
IT103	0355	Unit of Measure Code	C	ID	2/2	"EA"
IT104	0212	Unit Price	C	R	1/17	Used to show settlement charge. Credits are prefixed with a minus sign.
IT106	0235	Product/Service id qualifier	O	ID	2/2	"VP" – Vendor's(Seller's) Part Number "VC" - Vendor's(Seller's) Catalog Number
IT107	0234	Product/Service id	C	AN	1/48	Supplier Part ID
IT108	0235	Product/Service id qualifier	O	ID	2/2	"VS" – Vendor's Supplemental Item Number
IT109	0234	Product/Service id	C	AN	1/48	Supplier part auxiliary ID
IT110	0235	Product/Service id qualifier	O	ID	2/2	"MG" - Manufacture Part Number
IT111	0234	Product/Service id	C	AN	1/48	Mfg. Part Id
IT112	0235	Product/Service id qualifier	O	ID	2/2	"MF" - Manufacture Name

IT113	0234	Product/Service id	C	AN	1/48	Mfg. Name
IT114	0235	Product/Service id qualifier	O	ID	2/2	"CB" - Buyer's Catalog Number Qualifier "BP" - Buyer's Part Number
IT115	0234	Product/Service id	C	AN	1/48	Buyer's Catalog Number

4.2 CUR Segment - Currency

LEVEL	Detail
MAX USAGE/LOOPS	0/1 per Item
PURPOSE	To specify the currency (dollars, pounds, francs, etc.) used in a transaction
GENERAL INFORMATION	
Example/Sample Data	CUR*BY*USD~
Syntax Notes	

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
CUR01	0098	Entity ID Code	M	ID	2/3	"SE" – Seller, "BY" – Buyer
CUR02	0100	Currency Code	M	ID	3/3	"USD"

4.3 TXI Segment - Tax Information

LEVEL	Detail
MAX USAGE/LOOPS	0/10
PURPOSE	To specify tax information
GENERAL INFORMATION	
Example/Sample Data	TXI*TX*4.000000****2~
Syntax Notes	• At least one of TXI02 TXI03 or TXI06 is required.

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
TXI01	963	Tax Type Code	M	ID	2/2	"TX" - Total Tax
TXI02	782	Monetary Amount	M	R	1/18	Tax amount
TXI06	441	Tax Exempt Code	O	ID	1/1	"1" - Yes (Tax Exempt) "2" - No (Not Tax Exempt)

4.4 PIDLoop Segment - Loop for Product Description

4.4.1 PID Segment - Product/Item Description

LEVEL	Detail

MAX USAGE/LOOPS	0/ 1000 per Item
PURPOSE	To describe a product or process in coded or free-form format.
GENERAL INFORMATION	
Example/Sample Data	PID*F****REDUCER, PIPE, CONCENTRIC, 6 IN X 3 IN, CARBON STEEL, SCH 40 X SCH 80, BUTT WELD~ PID*F****Painting~
Syntax Notes	• This loop will be created multiple times if length is greater than 80 characters for item description. • If PID01 is "F", then PID05 is used.

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
PID01	0349	Item Description Type	M	ID	1/1	"F" – Free form
PID05	0352	Description	C	AN	1/80	"QT Perennials"

4.5 REF_3 Segment - Reference Identification

LEVEL	Detail
MAX USAGE/LOOPS	1/many
PURPOSE	To specify identifying information
GENERAL INFORMATION	
Example/Sample Data	REF*FJ*1~
Syntax Notes	• At least one of REF02 or REF03 is required • If REF01 is present, then REF02 is required

Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
REF01	128	Reference Identification Qualifier	M	ID	2/3	"FJ" - Line Item Control Number
REF02	127	Reference Identification	C	AN	1/30	PO Line Number

4.6 DTM_3 Segment – Date/Time References

LEVEL	Detail
MAX USAGE/LOOPS	0/many
PURPOSE	To specify pertinent dates and times
GENERAL INFORMATION	
Example/Sample Data	DTM*150*20000415*0830*ED~ DTM*151*20000415*0830*ED~
Syntax Notes	• At least one of DTM02 DTM03 or DTM05 is required. • If DTM04 is present, then DTM03 is required. • Service Item, Both Start Date and End Date is required.

Element ID	Element #	Name	Req.	Type	Length Min /	Sample Value

					Max	
DTM01	0374	Date/Time Qualifier	M	ID	3/3	"150" – Service Period Start "151" – Service Period End
DTM02	0373	Date	C	DT	8/8	Date expressed as CCYYMMDD
DTM03	0337	Time	C	TM	4/8	HHMM HHMMSS
DTM04	0623	Time Code	O	ID	2/2	Code identifying the time

4.7   SACLoop Segment - Loop for Service, Promotion, Allowances, or Charge Information

4.7.1 SAC Segment - Charges and Allowance Information

LEVEL	Detail					
MAX USAGE/LOOPS	0/25					
PURPOSE	To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance or charge.					
GENERAL INFORMATION						
Example/Sample Data	SAC*C*F050***39800**********Additional Charges~ SAC*C*G830***50000**********Shipping Charges~					
Syntax Notes	• At least one of SAC02 or SAC03 is required. • If SAC01 is "A" or "C", then SAC05, SAC07 or SAC08 is required.					
Element ID	**Element #**	**Name**	**Req.**	**Type**	**Length Min / Max**	**Sample Value**
SAC01	0248	Allowance or Charge Indicator	M	ID	1/1	Code indicates an allowance or charge for the service specified "A" – Allowance "C" – Charge "N" - No Allowance or Charge "R" – Allowance Request
SAC02	1300	Service, Promotion, Allowance or Charge Code	C	ID	4/4	Code identifying the service, promotion, allowance or charge "G830" – Shipping & Handling Charges "F050" – Other/Additional Charge (See SAC15 for description) See Appendix 7.1 for more codes
SAC05	0610	Amount	C	N2	1/15	Total amount for service, promotion, allowance or charge.

SAC15	0352	Description	O	AN	1/80	Free From Text / Descriptions

5. Summary Level Segment Information

5.1 CTT Segment – Transaction Totals

LEVEL	Summary					
MAX USAGE/LOOPS	1/1					
PURPOSE	To transmit a hash total for a specific element in the transaction set.					
GENERAL INFORMATION						
Example/Sample Data	CTT*2~					
Syntax Notes						
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
CTT01	0354	Number of Line Items	M	NO	1/6	Count of line items

5.2 SE Segment - Transaction Set Trailer

LEVEL	Summary					
MAX USAGE/LOOPS	1/none					
PURPOSE	To indicate the end of the transaction set and provide the count of the transmitted segments including the Transaction Set Header (ST) and Trailer (SE) segments).					
GENERAL INFORMATION	The number of included segments is the total of all segments used in the transaction set including the ST and SE segments. The transaction set control number (SE02) in the trailer must match the transaction set control number (ST02) in the transaction set header segment (ST).					
Example/Sample Data	SE*23*000000592~					
Syntax Notes	Count the total number of segments and map it to SE01					
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
SE01	0096	Number of Included Segments	M	NO	1/10	Total number of segments in transaction set including ST and SE
SE02	0329	Transaction Set Control Number	M	AN	4/9	Same as corresponding ST02

5.3 GE Segment - Functional Group Trailer

LEVEL	Summary
MAX USAGE/LOOPS	1/none
PURPOSE	To indicate the end of a functional group and control information
GENERAL INFORMATION	The number of transaction sets is the total of all transaction sets in the functional group. The functional group control number (GE02) must match the control number in the functional group header (GS06)

Example/Sample Data	GE*01*000000592~					
Syntax Notes	Count the number of ST segments and map it to GE01					
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
GE01	97	Number of Included Sets	M	NO	1/6	Total number of transaction sets in functional group
GE02	28	Group Control Number	M	AN	9/9	Same as corresponding GS06

5.4   *IEA Segment - Interchange Control Trailer*

LEVEL	Summary					
MAX USAGE/LOOPS	1/none					
PURPOSE	To indicate the end of an interchange of one or functional groups and interchange-related control segments					
GENERAL INFORMATION	The number of included groups is the total number of all functional groups within the interchange. The interchange control number (IEA02) must match the control number in the interchange control header the (ISA13)					
Example/Sample Data	IEA*01*000000592~					
Syntax Notes	Count the number of GS segments and map it to IEA01					
Element ID	Element #	Name	Req.	Type	Length Min / Max	Sample Value
IEA01	I16	Number of Included Groups	M	NO	1/5	Total number of functional groups in interchange
IEA02	I12	Interchange Control Number	M	AN	9/9	Same as corresponding ISA13

6. Sample(s) of X12 810 Invoice

6.1   Sample-1

ISA*00*   *00*   *XX*YOUR SENDER ID *01*835433830T
*091106*1326*^*00401*000000027*0*T*>~
GS*IN*YOUR SENDER ID*835433830T*20091106*1326*000000027*X*004010~
ST*810*000000001~
BIG*20091106*00525882-0001**00468001*00001*01*DI~
N1*RI*Remit To Address Name, LLC~~
N2*Another line for address~
N3*1 Main Street~
N4*Berwick*PA*18603*US~
IT1*1*6*EA*275.00**BP*0001003609~
PID*F****REDUCER, PIPE, CONCENTRIC, 6 IN X 3 IN, CARBON STEEL, SCH 40 X SCH 80, BUTT
WELD~
PID*F****, ASTM: A234, GR. WPB~
SAC*C*G830***300~
IT1*2*1*EA*200.00**BP*0001003608~
PID*F****REDUCER, PIPE, CONCENTRIC, 8 IN X 6 IN, CARBON STEEL ASTM A234 GR. WPB, SCH 40,
~
PID*F****BUTT WELD~
TDS*475.00~
SAC*C*D240***888~
CTT*2~
SE*15*000000001~
GE*1*000000027~
IEA*1*000000027~

6.2   Sample-2

ISA*00*   *00*   *XX*YOUR SENDER ID *01*835433830T
*091106*1326*^*00401*000000027*0*T*>~
GS*IN*YOUR SENDER ID*835433830T*20091106*1326*000000027*X*004010~
ST*810*180001~
BIG*20140418*9104750961*20140417*1400006567***DI~
NTE*GEN*Comments and General Notes~
CUR*BY*USD~
N1*BT*CHARLESTON AREA MEDICAL CENTER*91*0001090500~
N3*PO Box 2069~
N4*CHARLESTON*WV*253041227~
N1*RI*TestBuyer*21*D8DN7OG00SY~
N3*25565 Network Place~
N4*Chicago*IL*60673-125~
PER*BD*GEP Admin*TE*33333*EM*test@gep.com*FX*3333~
ITD**1*0**30**30*****Up to 05/18/2014 without deduction~
ITD**1*****30*****Net 30 Days from invoice date~
N9*L1*ADVISEMENTS~
MSG*This statement serves as notice to buyer of its obligations~

MSG*to report each earned discount under applicable federal~
MSG*advertisement programs~
IT1*1*100*EA*2.72**VP*MP1000*VS*MP1000*MG*MP1000-C*MF*TestMfg~
CUR*BY*USD~
TXI*VA*15.987~
TXI*LS*10.75~
PID*F****Health Care Product~
SAC*C*G830***1020~
SAC*C*F050***13~
SAC*C*A310***24~
TDS*272~
TXI*LS*18.25~
SAC*C*G830***889*******06~
CTT*1~
SE*31*180001~
GE*1*18~
IEA*1*000000018~

6.3 Appendix

6.4 SAC02 Codes

Element_No   ~DispKey~ID~Description~Desc

1300~   ~A170~Adjustments~Adjustments
1300~   ~A250~Advances~Advances
1300~   ~A260~Advertising allowance~Advertising
1300~   ~A310~Air Freight~Air Freight
1300~   ~A360~Alcoholic Beverage Report Charge~Alcoholic
1300~   ~A400~Allowance Non-performance~Allowance
1300~   ~A600~Bill of Lading Charge~Bill
1300~   ~A630~Blocking or Bracing Charge~Blocking
1300~   ~A720~Broken Package Charge~Broken Package
1300~   ~A930~Carrier Credit Allowance~Carrier Credit
1300~   ~A940~Carrier Debit Allowance~Carrier Debit
1300~   ~B190~Closing & Sealing~Closing
1300~   ~B210~Co-op Credit~Co-op
1300~   ~B230~COD Amount~COD Amount
1300~   ~B240~COD Charges~COD Charges
1300~   ~B290~Combination~Combination
1300~   ~B320~Competitive Allowance~Competitive
1300~   ~B560~Container Allowance~Container
1300~   ~B570~Container Deposits~Container
1300~   ~B630~Container/Trailer Allowance~Container/Trail
1300~   ~B660~Contract Allowance~Contract
1300~   ~B720~Cooperative Advertising/Merchanding Allowance
(Performance)~Cooperative
1300~   ~B750~Core Charge~Core
1300~   ~B785~Coupon Reimbursement~Coupon
1300~   ~B800~Credit~Credit
1300~   ~B940~Cutting Charge~Cutting Charge
1300~   ~B950~Damaged Merchandise~Damaged
1300~   ~C000~Defective Allowance~Defective
1300~   ~C040~Delivery~Delivery
1300~   ~C090~Deposit Charges~Deposit
1300~   ~C110~Deposit~Deposit
1300~   ~C260~Discount - Incentive~Discount
1300~   ~C300~Discount - Special~Discount
1300~   ~C310~Discount~Discount
1300~   ~C320~Display Allowance~Display
1300~   ~C350~Distributor Discount/Allowance~Distributor
1300~   ~C420~Drayage~Drayage
1300~   ~C440~Driver Assisted Unloading~Driver Unloadng
1300~   ~C530~Duty Charge~Duty Charge
1300~   ~C540~Early Buy Allowance~Early
1300~   ~C560~Early Ship Allowance~Early
1300~   ~C680~Environmental Protection Service~Environmental
1300~   ~C940~Export/Import Charge~Export/Import

1300~	~C970~Extra Length~Extra
1300~	~D170~Free Goods~Free
1300~	~D200~Freight to Destination~Freight
1300~	~D240~Freight~Freight
1300~	~D250~Freshness/Leaker Allowance~Freshness/Leake
1300~	~D270~Fuel Surcharge~Fuel
1300~	~D290~Full Truckload Allowance~Full
1300~	~D340~Goods & Service Charge~Goods
1300~	~D350~Goods & Service Charge Credit Allowance~Goods
1300~	~D360~Goods & Service Tax (Canada use only)~Goods
1300~	~D500~Handling~Handling
1300~	~D505~Hangars~Hangars
1300~	~D530~Hazardous Cargo Charge~Hazardous
1300~	~D750~Inbound Freight Charges~Inbound
1300~	~D820~Inside Delivery~Inside Delivery
1300~	~D920~Insurance Fee~Insurance
1300~	~D980~Insurance~Insurance
1300~	~E065~Invoice Adjustment~Invoice
1300~	~E070~Invoice Services~Invoice
1300~	~E080~Invoice with Goods~Invoice
1300~	~E170~Labeling~Labeling
1300~	~E550~Market Development Funds~Market
1300~	~E580~Memo Returnable Container~Memo
1300~	~E660~Monthly Rental~Monthly
1300~	~E710~New Discount~New
1300~	~E720~New Distribution Allowance~New
1300~	~E730~New Item Allowance~New
1300~	~E740~New Store Allowance~New
1300~	~E750~New Store Discount~New
1300~	~E760~New Warehouse Discount~New
1300~	~E800~No Return Credit Allowance~No
1300~	~F050~Other~Other
1300~	~F150~Packaging Service~Packaging
1300~	~F170~Pallet Exchange Charge~Pallet
1300~	~F180~Pallet~Pallet
1300~	~F190~Palletizing~Palletizing
1300~	~F240~Per Item Charge~Per
1300~	~F280~Performance Allowance~Performance
1300~	~F340~Pick/Up~Pick/Up
1300~	~F670~Price and Marketing Allowance~Price
1300~	~F730~Priority Service~Priority
1300~	~F750~Processing Charge~Processing
1300~	~F780~Pro Forma Invoice~Pro
1300~	~F800~Promotional Allowance~Promotional
1300~	~F810~Promotional Discount~Promotional
1300~	~F910~Quantity Discount~Quantity
1300~	~F920~Quantity Surcharge~Quantity
1300~	~F970~Rebate~Rebate
1300~	~G160~Redelivery~Redelivery
1300~	~G170~Redistribution Allowance~Redistribution
1300~	~G240~Refund~Refund
1300~	~G290~Regulatory Fee~Regulatory

1300~	~G360~Repack Charge~Repack
1300~	~G470~Restocking Charge~Restocking
1300~	~G730~Service Charge (with Cash Discount)~Service w/Disc
1300~	~G740~Service Charge~Service
1300~	~G821~Shipping~Shipping
1300~	~G830~Shipping & Handling Charges (Footlocker)~Shipping
1300~	~G870~Shrink-Wrap Charge~Shrink-Wrap
1300~	~G880~Shrinkage Allowance~Shrinkage
1300~	~G960~Slotting Allowance~Slotting
1300~	~G970~Small Order Charge~Small
1300~	~H000~Special Allowance~Special
1300~	~H020~Special Circus Trains~Special Circus
1300~	~H030~Special Credit~Special
1300~	~H151~Special Services~Spec.Services
1300~	~H400~Stopcharge~Stopcharge
1300~	~H490~Subject to Tax on Resale~Subject
1300~	~H600~Tank Rental~Tank Rental
1300~	~H630~Tax - City Sales Tax (only)~Tax
1300~	~H640~Tax - Excise Tax - Destination~Tax
1300~	~H650~Tax - Excise Tax - Origin~Tax
1300~	~H660~Tax - Federal Excise Tax, FET~Tax
1300~	~H670~Tax - Federal Excise Tax, FET on Tires~Tax
1300~	~H680~Tax - Governmental~Tax
1300~	~H700~Tax - Local Tax~Tax
1300~	~H720~Tax - Regulatory Tax~Tax
1300~	~H730~Tax - Local Sales Tax~Tax
1300~	~H740~Tax - Sales and Use~Tax
1300~	~H750~Tax - Sales Tax (State and Local)~Tax
1300~	~H760~Tax - State Hazardous Substance~Tax
1300~	~H770~Tax - State Tax~Tax
1300~	~H780~Tax - Super Fund Excise Tax~Tax
1300~	~H790~Tax - Use Tax~Tax
1300~	~H850~Tax~Tax
1300~	~H920~Temporary Allowance~Temporary
1300~	~I060~Ticketing Service~Ticketing
1300~	~I170~Trade Discount~Trade
1300~	~I310~Truckload Discount~Truckload
1300~	~I410~Unsaleable Merchandise Allowance~Unsaleable
1300~	~I500~Vendor Freight~Vendor Freight
1300~	~I530~Volume Discount~Volume
1300~	~I570~Warehouse~Warehouse
1300~	~ZZZZ~Mutually Defined~Mutually