

Electronic Data Interchange Implementation Guide

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SPX Filtran

875 Seegers Road

Des Plaines, IL 60016-3045

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Contents

Introduction.....	6
Overview.....	6
Filtran EDI Processing.....	7
General Information.....	7
Forecasts – 830's	7
Shipments – 862's.....	8
Advance Shipment Notifications – 856's	8
Ship to Locations:.....	9
Information Required from Trading Partner	9
EDI Testing	9
Text Messages (formal communications).....	10
Data Requirements	10
Certification	10
Resources.....	11
Contacts at SPX Filtran	11
Communications Networks.....	11
EDI Software and Education	11
EDI Standards Documentation.....	12
<i>ANSI X.12 Publications</i>	12
AIAG Standards and Publications.....	12
Network	13
Communications.....	13
FTP.....	13
Data Format.....	13
Separators/Terminators.....	13
EDI Trading Partner Questionnaire Instructions	16

EDI Trading Partner Profile Questionnaire.....	17
Trading Partner Identification	17
ISA Envelope Worksheet	17
GS Envelope Worksheet	18
Separators/Terminators.....	18
Interchange Envelopes	19
ISA Envelope.....	19
GS Envelope	20
GE Envelope	20
IEA Envelope.....	21
Example of ISA, GS, GE and IEA Segments	21
830 Mapping Specifications	22
General Information.....	22
830 Sample Data.....	22
830 Mapping Information	23
ISA Segment – Interchange Control Header Detail.....	23
GS Segment – Functional Group Header Detail	23
ST Segment – Transaction Set Header Detail.....	24
BFR Segment – Beginning Segment for Planning Schedule	24
N1 Segment – Name (2 required, SU and ST)	24
LIN Segment – Item Identification	25
UIT Segment – Unit Detail – (required only if FST02 = C)	25
FST Segment – Forecast Schedule	25
CTT Segment – Transaction Totals.....	26
SE Segment – Transaction Set Trailer Detail	26
GE Segment – Functional Group Trailer Detail	26
IEA Segment – Interchange Control Trailer Detail	26
Legend:.....	27
830 Examples:.....	28
862 Mapping Specifications	30
General Information.....	30

862 Sample Data	30
862 Mapping Information	31
ISA Segment – Interchange Control Header Detail.....	31
GS Segment – Functional Group Header Detail	31
ST Segment – Transaction Set Header Detail.....	32
BSS Segment – Beginning Segment for Shipping Schedule	32
N1 Segment – Name (3 required, MI, SU and ST)	32
LIN Segment – Item Identification	33
UIT Segment – Unit Detail.....	33
FST Segment – Forecast Schedule	33
SHP Segment – Received Information (Last Receipt)	34
CTT Segment – Transaction Totals.....	34
SE Segment – Transaction Set Trailer Detail	34
GE Segment – Functional Group Trailer Detail	34
IEA Segment – Interchange Control Trailer Detail	34
Legend:.....	35
862 Examples:.....	35
856 Mapping Specifications:	36
General Information.....	36
856 Sample Data	36
856 Mapping Information	37
ISA Segment – Interchange Control Header Detail.....	37
GS Segment – Functional Group Header Detail	37
ST Segment – Transaction Set Header Detail.....	37
BSN Segment – Beginning Segment for Ship Notice.....	38
DTM Segment – Date/Time Reference	38
HL Segment – Hierarchical Level S	38
TD1 Segment – Carrier Details (Quantity and Weight).....	38
TD5 Segment – Carrier Details (Routing Sequence/Transit Time)	38
TD3 Segment – Carrier Details (Equipment)	39

REF Segment – Reference Identification.....	39
N1 Segment – Name (Shipped To).....	39
N1 Segment – Name (Supplier).....	39
HL Segment – Hierarchical Level O	40
REF Segment – Reference Identification.....	40
HL Segment – Hierarchical Level I	40
LIN Segment – Item Identification	40
SN1 Segment – Item Detail (Shipment)	41
PID Segment – Product/Item Description (optional)	41
PRF Segment – Purchase Order Reference	41
CTT Segment – Transaction Totals	41
SE Segment – Transaction Set Trailer Detail	41
GE Segment – Functional Group Trailer Detail	42
IEA Segment – Interchange Control Trailer Detail	42
Legend:.....	42

Introduction

As a valued supplier to our company, we welcome your willingness to join us in establishing EDI as the medium for the exchange of business documents between our two enterprises. We anticipate that EDI will enable both our companies to conduct business in a more efficient and cost-effective manner to our mutual benefit.

This Guide is your reference to the subset of the EDI standards adopted by SPX Filtran for exchange of business documents electronically with its vendors.

SPX Filtran employs the American National Standards Institute (**ANSI**) X.12 EDI Standards. You may wish to consult the **Resources** section in this guidebook for a list of organizations that can provide you with information about the X.12 standards and implementation of EDI at your company.

Included in the **Resources** section is a list of contacts at SPX Filtran that can assist you during the implementation and testing phases. Although the primary responsibility for implementing and administering EDI at your site must reside within your own organization, SPX Filtran will strive to facilitate and assist your project where possible.

You may be interested to know that the information systems resource at SPX Filtran for EDI consists of the TrustedLink EDI/400 translator (a computer software product) published by Inovis installed on an IBM AS/400 minicomputer, and several in-house written application interface programs which handle the task of moving EDI data into our business applications database. A major advantage of using the EDI standards and a communications network service is that it is not necessary for our two companies to own compatible computers or business systems: merely that we connect to the same network using a common data interchange standard.

To find out more about EDI and how it works, check the **Resources** section for sources of information and education.

Overview

This document pertains only to the SPX Filtran divisions. Questions regarding EDI and Inovis should be addressed to Loran Wangler, SPX Filtran, Information Services Manager/EDI Coordinator at (847) 635-3855 or email to EDI.Info@Filtran.spx.com.

Before a trading partner begins to trade electronically with SPX Filtran, the trading partner must be certified. To be certified by SPX Filtran, trading partners must be compatible with SPX Filtran in the following areas:

- Network

- Communication
- Data format

Certification is formally completed when SPX Filtran's Information Services group has completed all network and transaction testing. The length of testing will be determined by SPX Filtran.

The documents that SPX Filtran will be transmitting are:

- 830 – Planning Schedule with Release Capability (Based on AIAG EG-8 Document)
- 862 – Shipping Schedule (Based on AIAG EG-8 Document)

The documents that you will be required to transmit to SPX Filtran are:

- 997 – Functional Acknowledgement (Based on AIAG EG-8 Document)
- 856 – Advance Ship Notice (Based on AIAG EG-8 Document)

Filtran EDI Processing

General Information

Filtran has two locations that may receive product – our manufacturing plant in Des Plaines, IL and our kitting facility at USI in Pleasant Prairie, WI. Our 830 forecast document will combine the demand for both locations. Our 862 shipment releases will be for only one location.

Generally, we plan to send 830 forecasts and 862 shipment releases weekly, on Wednesday evenings after our MRP run. If there is a significant change in forecasts or shipment releases after the weekly transmission, we will send a replacement transaction.

All of our forecasts and shipments are based on delivery dates.

All of our forecasts and shipments are replacements for previous transactions. If a forecast demand or a shipment release is canceled, a zero quantity transaction will be sent.

Filtran will use blanket PO's per part number in its ERP system. The PO will have multiple releases dates. For vendors that ship daily to Filtran, we have a PO per part number per Filtran work order.

Forecasts – 830's

Filtran will send a single 830 forecast document weekly. The horizon for this forecast will be 4 months depending upon demand in our ERP system. For most vendors the forecast will be in monthly buckets. For vendors who ship daily to Filtran, the forecast will be in weekly buckets.

For monthly forecasts, the forecast date will be the first calendar day of the month. For weekly forecasts, the forecast date will be the Monday of the week.

A single 830 document will be sent for all parts and forecasts.

Firm purchase orders in our ERP system, will be included in our monthly or weekly forecast. They will be identified as discrete demand for the part for the requested delivery date. Forecast data without firm purchase orders for the same month or week will be identified as planned demand **with optional PO Number of "FORECAST" if requested so**. To see the total demand for a month or week, you will have to add both the discrete and planned demand data.

Unit prices will be sent for all discrete demand.

Shipments – 862's

Filtran will send a single 862 shipment release document weekly. Shipment releases will be for 14 calendar days out and are based on requested delivery date.

An 862 shipment release will be for one ship-to location only – either Des Plaines, IL or USI at Pleasant Prairie, WI.

For each part, Filtran will send a Shipment Received segment that shows the last shipment quantity and receipt date. If no quantity has been received, this segment will not be sent. Filtran processes all supplier receipts daily in its ERP system.

Unit prices will be sent for all shipment releases.

We also have the capability to send a Release Number with each line (PO Number, Line Number, Date, Release Number) as we can send multiple quantities per day for the same PO Number/Line Number. This is optional to receive.

Advance Shipment Notifications – 856's

Advance Shipment Notifications – 856's must be sent to Filtran the day the part is shipped. An ASN may have multiple purchase orders and part numbers.

The information that must be sent includes:

- Date & Time of Shipment
- Shipment Quantity & Gross Weight
- SCAC Code & Transportation Method



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- Trailer Number
- Bill of Lading Number
- Ship To Location – Des Plaines, IL or USI at Pleasant Prairie, WI
- Packing List Number
- Filtran Part Number & Quantity Shipped
- Purchase Order & Line Number & Requested Delivery Date

Ship to Locations:

DUNS No: 020954889

SPX Filtran

875 Seegers Road

Des Plaines, IL 60016-3045

DUNS No: 612771477

Unified Solutions Inc

9801 80th Avenue

Pleasant Prairie, WI 53158

Information Required from Trading Partner

The following information is required before the trading partner begins certification to exchange information electronically with SPX Filtran. Email the following information to EDI.Info@Filtran.spx.com.

- EDI contact name, address, phone/fax number and e-mail address
- Plant name, plant contact, address, phone/fax number and duns number
- Date you will be ready to test

EDI Testing

Prior to testing, you will need to setup an inter-connect between your VAN (value added network) and our VAN, Inovis. If you use Inovis as your Van, you do not need to setup the inter-connect. Our qualifier and ID is (ID is our Duns No.):

01 – 020954889

Testing for all documents will occur simultaneously and will not be put into production until your company has successfully tested on all document. When you are ready to receive a test document, contact Loran Wangler, SPX Filtran's EDI Coordinator, at (847) 635-3855 or email at EDI.Info@Filtran.spx.com.

Text Messages (formal communications)

SPX Filtran will issue text messages or bulletins periodically. These messages will be transmitted to trading partners via e-mail.

Data Requirements

Standard	ANSI X12 – AIAG – Version 4010
Document Changes	SPX Filtran will give trading partners a minimum of four weeks notice before implementing any format changes unless requested by trading partner.
Wrapped	All data will be transmitted and received in an 80 byte record length.
Data Transmission Frequency	Outbound – Daily as Needed Inbound – approximately Every Hour from 5:00 am ct till 3:00 pm ct then every two (2) hours till 7:00 pm ct
Value Added Network (VAN)	Inovis http://www.inovis.com/contact/
Inter-Connect	Thru Inovis – work with SPX Filtran I.T. to establish.

Certification

To be certified on the 830 Planning Schedule you must successfully transmit to SPX Filtran a 997 Functional Acknowledgement.

To be certified on the 862 Shipping Schedule you must successfully transmit to SPX Filtran a 997 Functional Acknowledgement.

To be certified on the 856 Advance Ship Notice you must successfully transmit to SPX Filtran a 856 using the test 862 as the shipping schedule.

You will be notified by email when you become certified for each document.

Resources

Contacts at SPX Filtran

EDI Coordinator

Loran Wangler
Information Services Manager
847-635-3855
EDI.Info@Filtran.spx.com

Communications Networks

Value-Added Network

Inovis
Brad Vargas
Corporate Account Executive
404-467-3361
brad.vargas@inovis.com
www.inovis.com
<http://www.inovis.com/contact/>

EDI Software and Education

iConnect

Tom Carroll
iConnect Inc.
Director, Strategic Accounts
Ann Arbor, MI
734-930-4274
www.icconnect-corp.com

Trubiquity

Norm Whiteside
1688 Star Batt Drive
Rochester Hills, MI 48309
248-564-7835
Or 248-601-7160
E-mail: norm.whiteside@trubiquity.com
<http://www.trubiquity.com>

or any of these:

www.aalstec.com
www.j-com.com
www.supplyworks.com

EDI Standards Documentation***ANSI X.12 Publications***

Washington Publishing Company

747 177th Lane NE

Bellevue, WA 98008

425-562-2245

<http://www.wpc-edi.com>

AIAG Standards and Publications

Automotive Industry Action Group

26200 Lahser Road, Suite 200

Southfield, MI 48033-7100 USA

248-358-3003

<http://www.aiag.org>

Network

SPX Filtran utilizes Inovis as its **Value-Added Network (VAN)**. If you are currently exchanging EDI documents with other trading partners over a different network, you may wish to contact that network's customer service department to find out if an Inter-connect VAN service is available. You will have to evaluate the relative costs to determine if you will communicate via Inter-connect VAN or establish an account with Inovis.

Information and customer service numbers for Inovis are listed in the **Resources** section.

Communications

EDI communications between SPX Filtran and its trading partners is routed through a third party communications services firm known as a **VAN**. A subscriber to a VAN is assigned a mailbox into which electronic documents destined for the subscriber are placed. Your EDI software is designed to retrieve documents from your mailbox and send documents to other subscribers' mailboxes for later retrieval.

Utilization of a VAN for communications as opposed to establishing a direct connection between our computers has several advantages.

- **The VAN resolves any differences that may exist in our computers communications attributes, such as protocol, line speed and so forth.**
- **There is no requirement for coordination of communications activities, since documents sent via the network are stored for later retrieval by the addressee. This strategy obviates any need for a specific transmission schedule.**
- **Security concerns are diminished, since your communications to the VAN are always initiated by you and are under the control of a limited function communications utility. Neither trading partner has direct access to the other's computer, nor is a communications line left open to possible unauthorized access.**

FTP

Please contact SPX Filtran EDI Coordinator to discuss this option.

Data Format

ANSI X12 – AIAG – Version 4010

Separators/Terminators

SPX Filtran uses non-displayable, non-printable characters for embedded separators. This allows full use of displayable characters in free-form text elements without the concern that such usage may result in translation errors. For example: the tilda symbol '~' is often used by EDI implementors as the element separator, even though it is common for input clerks to use the

tilda in free form notes for emphasis (e.g. ~~~RUSH ORDER~~~). Most EDI translators will fail to correctly interpret the data segment in this type of situation.

In order to eliminate this concern, we have selected three hexadecimal character values that are undefined in both the ASCII and EBCDIC character sets. We recognize, however, that some EDI products may not allow the user to specify these characters for the given functions. Please indicate on the **EDI Trading Partner Profile Questionnaire** whether these character codes are supported by your EDI translator.

Element Separator

SPX Filtran utilizes the hexadecimal value '7E' for the element separator.

SubElement Separator

SPX Filtran utilizes the hexadecimal value '2A' for the subelement separator.

Segment Terminator

SPX Filtran utilizes the value '@' for the segment terminator.

Function	Default Value
Element Separator	~ or HEX '7E'
Subelement Separator	* or HEX '2A'
Segment Terminator	@

EDI Trading Partner Questionnaire Instructions

Please complete the following EDI Trading Partner Questionnaire (2 pages) and email them to Loran.Wangler@spx.com

EDI Trading Partner Profile Questionnaire

Trading Partner Identification

Name: _____

Address.....: _____

City/State/Zip: _____

DUNS Number: _____

Phone Number.....: _____

Contact.....: _____

VAN Provider.....: _____

ISA Envelope Worksheet

This table lists network security and address information that you will require in order to set up your EDI software to communicate with SPX Filtran via the Inovis network. In turn, SPX Filtran will need the corresponding information (indicated by the blank boxes) in order to communicate with you. Most of this information is dependent on decisions you have made when setting up your Value Added Network (VAN) account: your VAN account representative can assist you in filling out this information.

Element	Function	SPX Filtran Sends	SPX Filtran Receives
ISA01	Authorization Information Qualifier		00
ISA02	Authorization Information		blanks
ISA03	Security Information Qualifier		00
ISA04	Security Information		blanks
ISA05	Interchange Sender ID Qualifier	01	
ISA06	Interchange Sender ID	020954889	
ISA07	Interchange Receiver ID Qualifier		01
ISA08	Interchange Receiver ID		020954889

GS Envelope Worksheet

Our requirement for GS envelope information is essentially the same as for the ISA envelope on the prior table. You will note that SPX Filtran places our DUNS number in GS02 for documents sent and expects our DUNS number in GS03 for documents we receive. These are the same values you will find in our ISA segment maps for the ISA06 (Send mode) and ISA08 (Receive mode) respectively. This is a customary arrangement, although we can accommodate a different strategy if you choose.

Element	Function	SPX Filtran Sends	SPX Filtran Receives
GS02	Application Sender's Code	020954889	
GS03	Application Receiver's Code		020954889

Separators/Terminators

The following table lists our choices for element/subelement separators and the segment terminator symbol. If our default values are acceptable, simply specify the same values in the boxes indicated, otherwise please specify the hexadecimal or character representations of the symbols you would like to be utilized for the given function.

Function	Default Value	Specify Default or New Value
Element Separator	~ or HEX '7E'	
Subelement Separator	* or HEX '2A'	
Segment Terminator	@	

Interchange Envelopes

This section specifies the contents of the ISA and GS envelopes for the send and receive modes. Certain information in these tables is indicated as “partner specific”. Element values for these entries will be determined based on your responses to the corresponding boxes on the **EDI Trading Partner Profile Questionnaire** section of this guide.

Each transaction set you transmit to SPX Filtran must begin with an ISA and GS segment and end with an IEA and GE segment.

ISA Envelope

<u>Element</u>	<u>Function</u>	<u>SPX Filtran Sends</u>	<u>SPX Filtran Receives</u>
ISA01	Authorization Information Qualifier	Partner Specific	00
ISA02	Authorization Information	Partner Specific	blanks
ISA03	Security Information Qualifier	Partner Specific	00
ISA04	Security Information	Partner Specific	blanks
ISA05	Interchange Sender ID Qualifier	01	Partner Specific
ISA06	Interchange Sender ID	020954889	Partner Specific
ISA07	Interchange Receiver ID Qualifier	Partner Specific	01
ISA08	Interchange Receiver ID	Partner Specific	020954889
ISA09	Interchange Date	Date Of Transmission	Date Of Transmission
ISA10	Interchange Time	Time Of Transmission	Time Of Transmission
ISA11	Interchange Standards ID	U	U
ISA12	Interchange Version ID	00401	00401
ISA13	Interchange Control Number	Unique Ascending Integer	Unique Ascending Integer
ISA14	Acknowledgement Requested	0	0
ISA15	Test Indicator	T=Test/P=Production	T=Test/P=Production
ISA16	Component Element Separator	~	~

GS Envelope

Transaction Set ID:

- PS = 830
- SS = 862
- SH = 856
- FA = Functional Acknowledgement
- For others see AIAG Standard Specifications

<u>Element</u>	<u>Function</u>	<u>SPX Filtran Sends</u>	<u>SPX Filtran Receives</u>
GS01	Functional ID Code	Transaction Set ID	Transaction Set ID
GS02	Application Sender Code	020954889	Partner Specific
GS03	Application Receiver Code	Partner Specific	020954889
GS04	Data Interchange Date	Transmission Date	Transmission Date
GS05	Data Interchange Time	Transmission Time	Transmission Time
GS06	Data Interchange Control Number	Unique Ascending Integer Within The ISA Envelope	Unique Ascending Integer Within The ISA Envelope
GS07	Responsible Agency Code	X	X
GS08	Version/Release/Industry	004010	004010

GE Envelope

<u>Element</u>	<u>Function</u>	<u>SPX Filtran Sends</u>	<u>SPX Filtran Receives</u>
GE01	Number of Transaction Sets Included	Total Number of ST segments	Total Number of ST segments
GE02	Group Control Number	Same as GS06 element	Same as GS06 element

IEA Envelope

<u>Element</u>	<u>Function</u>	<u>SPX Filtran Sends</u>	<u>SPX Filtran Receives</u>
IEA01	Number of Included Functional Groups	Number of GS segments included between ISA and this IEA	Number of GS segments included between ISA and this IEA
IEA02	Interchange Control Number	Same as ISA13 element	Same as ISA13 element

Example of ISA, GS, GE and IEA Segments

ISA~00~~00~~01~020954889~01~123456789~050115~~1839~U~00401~000000530~0~P~@

GS~PS~020954889~123456789~20050115~1839~84~X~004010@

.
.
 .

GE~1~84@

IEA~1~000000530@

830 Mapping Specifications

General Information

Please Note that these specifications are provided as reference to our formats and are subject to change at any time.

- PO Data is included in the 830 as well as the 862 – This will be considered Firm Data
- Forecast Data (PLO) will be thru four months out – this will be considered Planning Data
- PO Data that is a Blanket PO will not show the unscheduled (99/99/99) data

830 Sample Data

```
ISA~00~00~01~020954889~01~YourDUNSNo~081114~1420~U~00401~00001~0~P~~~@
GS~PS~020954889~YourDUNSNo~20081114~1420~10002~X~004010@
ST~830~000000002@
BFR~05~200811141420~DL~A~090201~~~~~~@
N1~SU~Supplier Name~01~YourDUNSNo@
N1~ST~SPX Filtran, Des Plaines, IL~01~020954889@
LIN~~BP~202033~PO~49700-001@
UIT~EA~1.3431~@
FST~24000~C~D~20081114~RL~000000412@
FST~24000~C~D~20081121~RL~000000413@
FST~24000~C~D~20081212~RL~000000414@
LIN~~BP~202033~PO~FORECAST@
UIT~EA~~@
FST~63000~D~W~20090101@
FST~54000~D~W~20090201@
CTT~2~10@
SE~15~000000002@
GE~2~10002@
IEA~2~10002@
```

830 Mapping Information

ISA Segment – Interchange Control Header Detail

ISA~00~~00~~01~020954889~01~YourDUNSNo~081114~1420~U~00401~00001~0~P~~~@

Element	Description	Size Min-Max		Value - Sample Data	Usage
ISA01	Authorization Information Qualifier	2	2	00	M
ISA02	Authorization Information	10	10	Blank	M
ISA03	Security Information Qualifier	2	2	00	M
ISA04	Security Information	10	10	Blank	M
ISA05	Interchange Sender ID Qualifier	2	2	01	M
ISA06	Interchange Sender ID	15	15	020954889	M
ISA07	Interchange receiver ID Qualifier	2	2	01	M
ISA08	Interchange Receiver ID – Your DUNS Number	15	15	YourDUNSNo	M
ISA09	Interchange Date – YYMMDD format	6	6	081114	M
ISA10	Interchange Time – HHMM format	4	4	1420	M
ISA11	Interchange Standards ID	1	1	U	M
ISA12	Interchange Control Version Number	5	5	00401	M
ISA13	Interchange Control Number – assigned by Filtran	9	9	000001	M
ISA14	Acknowledgement Requested	1	1	0	M
ISA15	Test indicator (T = Test, P = Production)	1	1	T or P	M
ISA16	Component Element Separator	1	1	~	M

GS Segment – Functional Group Header Detail

GS~PS~020954889~YourDUNSNo~20081114~1420~10002~X~004010@

Element	Description	Size Min-Max		Value - Sample Data	Usage
GS01	Functional Identifier Code	2	2	PS	M
GS02	Application Sender's Code	2	15	020954889	M
GS03	Application Receiver's Code – Your DUNS Number – must match ISA08	2	15	YourDUNSNo	M
GS04	Date of Interchange	8	8	20081114	M
GS05	Time of Interchange – HHMM format	4	8	1420	M
GS06	Group Control Number – assigned by Filtran	1	9	10002	M
GS07	Responsible Agency Code	1	2	X	M
GS08	Version/Release/Industry Code	1	12	004010	M

ST Segment – Transaction Set Header Detail
ST~830~000000002@

Element	Description	Size Min-Max		Value - Sample Data	Usage
ST01	Transaction Set Identifier Code	3	3	830	M
ST02	Transaction Set Control Number – Unique identifying control number for transaction set - Assigned by Mapping Specs in Inovis	4	9	000000002	M

BFR Segment – Beginning Segment for Planning Schedule
BFR~05~200811141420~DL~A~20081101~20090301~20081114~@

Element	Description	Size Min-Max		Value - Sample Data	Usage
BFR01	Transaction Set Purpose Code 05 – Replace	2	2	05	M
BFR02	Reference Identification - Date and Time for reference (CCYYMMDDHHMMSS)	1	30	200811141420	M
BFR03	Release Number	1	30	Blank	NU
BFR04	Schedule Type Qualifier DL – Delivery Based	2	2	DL	M
BFR05	Schedule Quantity Qualifier A – Actual Discrete Quantities	1	1	A	M
BFR06	Forecast Horizon Start Date – Earliest Date in Transaction	8	8	20081119	M
BFR07	Forecast Horizon End Date – We will be sending 4 months out date	8	8	20090301	M
BFR08	Date Forecast Generated – Current Date	8	8	20081114	M
BFR09	Not Used			Blank	NU
BFR10	Contract Number	1	30	Blank	NU
BFR11	Purchase Order Number	1	11	Blank	NU
BFR12	Not Used			Blank	NU
BFR13	Not Used			Blank	NU

N1 Segment – Name (2 required, SU and ST)
N1~SU~Supplier Name~01~DUNS Number@
N1~ST~SPX Filtran, Des Plaines, IL~01~020954889@

Element	Description	Size Min-Max		Value - Sample Data	Usage
N101	Entity Identifier Code SU – Supplier Name ST – Ship To Name	2	2	SU ST	M



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EDI Implementation Guide

N102	Name	1	60		M
N103	Identification Code Qualifier 01 – D-U-N-S Number	1	2	01	M
N104	Identification Code – D-U-N-S Number 020954889: SPX Filtran, Des Plaines, IL 612771477: USI, Pleasant Prairie, WI	2	80	020954889	M
N105	Not Used			Blank	NU
N106	Not Used			Blank	NU

LIN Segment – Item Identification

LIN~~BP~202033~PO~49700-001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
LIN01	Not Used	1	20	Blank	NU
LIN02	Product ID Qualifier: BP – Buyer’s Part Number	2	2	BP	M
LIN03	Buyer’s Part Number	1	15	202033	M
LIN04	Product ID Qualifier PO – Purchase Order Number and Line – Required only if FST02 = “C”	2	2	PO	R
LIN05	Purchase Order Number and Line – Format of “PO#-Line#” – Required only if FST02 = “C”	1	11	49700-001	R

UIT Segment – Unit Detail – (required only if FST02 = C)

UIT~EA~1.3431~@

Element	Description	Size Min-Max		Value - Sample Data	Usage
UIT01	Unit of Measure	2	2	EA	M
UIT02	Unit Price	1	12	1.3431	M

FST Segment – Forecast Schedule

FST~24000~C~D~20081114@

Element	Description	Size Min-Max		Value - Sample Data	Usage
FST01	Quantity	1	9	63000	M
FST02	Forecast Qualifier C – PO Data within Date Horizon D – Planning Data Only	1	1	C or D	M
FST03	Forecast Timing Qualifier D – Discrete W – Weekly Buckets (Monday of Week) M – Monthly Buckets (First day of	1	1	D, W or M	M

	Month)				
FST04	Date	8	8	20081114	M
FST05				Blank	NU
FST06				Blank	NU
FST07				Blank	NU
FST08	Qualifier for FST09	2	2	RL	O
FST09	Release Number	9	9	000000412	O

CTT Segment – Transaction Totals

CTT~2~10@

Element	Description	Size Min-Max		Value - Sample Data	Usage
CTT01	Number of Line Items	1	6	2	M
CTT02	Hash Total - Quantity Value Total – from all FST Segments	1	10	10	M

SE Segment – Transaction Set Trailer Detail

SE~15~000000002@

Element	Description	Size Min-Max		Value - Sample Data	Usage
SE01	Number of Included Segments - Total number of segments including ST and SE	1	10	15	M
SE02	Transaction Set Control Number - Unique identifying control number – must match ST02	4	9	000000002	M

GE Segment – Functional Group Trailer Detail

GE~2~10002@

Element	Description	Size Min-Max		Value - Sample Data	Usage
GE01	Number of Transaction Sets Included - Number of transaction sets included within GS/GE	1	6	2	M
GS02	Group Control Number – Group control number – must match GS06	1	9	10002	M

IEA Segment – Interchange Control Trailer Detail

IEA~2~10002@

Element	Description	Size Min-Max		Value - Sample Data	Usage
IEA01	Number of Included Functional Groups - within ISA/IEA	1	5	2	M
IEA02	Interchange Control Number –	9	9	10002	M

	Unique – must match ISA13				
--	---------------------------	--	--	--	--

Legend:

- M = Mandatory
- O = Optional
- NU = Not Used
- R = Required only if (based on condition)
- **All Dates (8 characters long) are CCYYMMDD unless noted**

830 Examples:

```

ISA~00~00~01~020954889~01~YourDUNSNo~081114~1420~U~00401~00001~0~P~~~@
GS~PS~020954889~YourDUNSNo~20081114~1420~10002~X~004010@
ST~830~000000002@
BFR~05~200811141420~DL~A~20081105~20090301~20081105~~~~~@
N1~SU~Supplier Name~01~YourDUNSNo@
N1~ST~SPX Filtran, Des Plaines, IL@
LIN~~BP~203581~PO~49609-001@
UIT~EA~2.303~@
FST~700~C~D~20081110~~~~RL~000000501@
LIN~~BP~203581~PO~49761-001@
UIT~EA~2.303~@
FST~16800~C~D~20081117~~~~RL~000000502@
LIN~~BP~203581~PO~FORECAST@
FST~5600~D~M~20081201@
FST~50400~D~M~20090101@
FST~39200~D~M~20090201@
FST~22400~D~M~20090301@
LIN~~BP~204966~PO~FORECAST@
FST~19200~D~M~20081201@
FST~19200~D~M~20090101@
LIN~~BP~205416~PO~49299-006@
UIT~EA~2.303~@
FST~1300~C~D~20081106~~~~RL~000000503@
LIN~~BP~205416~PO~49382-006@
UIT~EA~2.303~@
FST~5200~C~D~20081106~~~~RL~000000504@
LIN~~BP~205416~PO~49691-003@
UIT~EA~2.303~@
FST~5200~C~D~20081117~~~~RL~000000505@
LIN~~BP~205416~PO~FORECAST@
FST~5200~D~M~20081201@
FST~15600~D~M~20090101@
FST~10400~D~M~20090201@
FST~5200~D~M~20090301@
LIN~~BP~206128~PO~49609-003@
UIT~EA~2.303~@
FST~900~C~D~20081105~~~~RL~000000506@
LIN~~BP~206128~PO~49691-007@
UIT~EA~2.303~@
FST~30800~C~D~20081110~~~~RL~000000507@
LIN~~BP~206128~PO~49761-008@
FST~26400~C~D~20081117~~~~RL~000000508@
LIN~~BP~206128~PO~FORECAST@
FST~26400~D~M~20081201@
FST~52800~D~M~20090101@
FST~17600~D~M~20090201@

```



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FST~17600~D~M~20090301@

LIN~~BP~206282~PO~49531-006@

UIT~EA~2.304~@

FST~8000~C~D~20081117~~~~RL~000000509@

LIN~~BP~206282~PO~49531-006@

UIT~EA~2.304~@

FST~8000~C~D~20081124~~~~RL~000000510@

LIN~~BP~206282~PO~49531-006@

UIT~EA~2.303~@

FST~8000~C~D~20081201~~~~RL~000000512@

CTT~15~@

SE~60~0000000002@

GE~1~10002@

IEA~1~10002@

ISA~00~~00~~01~020954889~01~YourDUNSNo~081114~1420~U~00401~00001~0~P~~~~@

GS~PS~020954889~YourDUNSNo~20081114~1420~10003~X~004010@

ST~830~000000003@

BFR~05~200811141420~DL~A~20081205~20090301~20081205~~~~~@

N1~SU~Supplier Name~01~YourDUNSNo@

N1~ST~USI, Pleasant Prairie, WI@

LIN~~BP~200026~PO~49181-001@

UIT~EA~2.06~@

FST~12000~C~D~20081205~~~~RL~000000513@

LIN~~BP~200026~PO~49771-001@

UIT~EA~2.06~@

FST~12000~C~D~20090107~~~~RL~000000514@

LIN~~BP~204469~PO~48844-003@

UIT~EA~2.07~@

FST~36000~C~D~20081114~~~~RL~000000515@

LIN~~BP~204469~PO~48844-003@

UIT~EA~2.07~@

FST~36000~C~D~20081205~~~~RL~000000516@

LIN~~BP~204469~PO~FORECAST@

FST~4500~D~M~20090301@

CTT~5~@

SE~20~0000000003@

GE~1~10003@

IEA~1~10003@

862 Mapping Specifications

General Information

Please Note that these specifications are provided as reference to our formats and are subject to change

- PO Data is included in the 862 – This will be considered Firm Data and will only show current week and next week shipments
- All PO Data shipment requirements are subject to change daily

862 Sample Data

```
ISA~00~01~020954889~01~YourDUNSNo~081114~1420~U~00401~10001~0~P~~~@
GS~SS~020954889~YourDUNSNo~20081114~1420~10001~X~004010@
ST~862~000000001@
BSS~05~200811141420~20081114~DL~20081114~~~~~A@
N1~MI~Salley Mouse~02~8476356670@
N1~SU~Supplier Name~01~YourDUNSNo@
N1~ST~SPX Filtran~01~020954889@
LIN~~BP~202033~PO~49812-001@
UIT~EA~1.3431@
FST~200~C~D~20081110~~~~RL~000000412@
FST~200~C~D~20081111~~~~RL~000000413@
FST~100~C~D~20081112~~~~RL~000000414@
FST~200~C~D~20081124~~~~RL~000000415@
FST~1000~C~D~20081201~~~~RL~000000416@
LIN~~BP~802503~PO~49812-002@
UIT~EA~1.3431~@
FST~1000~C~D~20081110~~~~RL~000000421@
CTT~4~10@
SE~1~000000001@
GE~2~10001@
IEA~1~10001@
```

862 Mapping Information

ISA Segment – Interchange Control Header Detail

ISA~00~~00~~01~020954889~01~YourDUNSNo~081114~1420~U~00401~10001~0~P~~~@

Element	Description	Size Min-Max		Value - Sample Data	Usage
ISA01	Authorization Information Qualifier	2	2	00	M
ISA02	Authorization Information	10	10	Blank	M
ISA03	Security Information Qualifier	2	2	00	M
ISA04	Security Information	10	10	Blank	M
ISA05	Interchange Sender ID Qualifier	2	2	01	M
ISA06	Interchange Sender ID	15	15	020954889	M
ISA07	Interchange Receiver ID Qualifier	2	2	01	M
ISA08	Interchange Receiver ID – Your DUNS Number	15	15	YourDUNSNo	M
ISA09	Interchange Date – YYMMDD format	6	6	081114	M
ISA10	Interchange Time – HHMM format	4	4	1420	M
ISA11	Interchange Standards ID	1	1	U	M
ISA12	Interchange Control Version Number	5	5	00401	M
ISA13	Interchange Control Number – assigned by Filtran	9	9	10001	M
ISA14	Acknowledgement Requested	1	1	0	M
ISA15	Test indicator (T = Test, P = Production)	1	1	T or P	M
ISA16	Component Element Separator	1	1	~	M

GS Segment – Functional Group Header Detail

GS~SS~020954889~YourDUNSNo~20081114~1420~10001~X~004010@

Element	Description	Size Min-Max		Value - Sample Data	Usage
GS01	Functional Identifier Code	2	2	SS	M
GS02	Application Sender's Code	2	15	020954889	M
GS03	Application Receiver's Code – Your DUNS Number – must match ISA08	2	15	YourDUNSNo	M
GS04	Date of Interchange	8	8	20081114	M
GS05	Time of Interchange – HHMM format	4	8	1420	M
GS06	Group Control Number – assigned by Filtran	1	9	10001	M
GS07	Responsible Agency Code	1	2	X	M
GS08	Version/Release/Industry Code	1	12	004010	M

ST Segment – Transaction Set Header Detail
ST~862~000000001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
ST01	Transaction Set Identifier Code	3	3	862	M
ST02	Transaction Set Control Number – Unique identifying control number for transaction set - Assigned by Mapping Specs in Inovis	4	9	000000001	M

BSS Segment – Beginning Segment for Shipping Schedule
BSS~05~200811141420~20081114~DL~20081110~20081116~~~~~A@

Element	Description	Size Min-Max		Value - Sample Data	Usage
BSS01	Transaction Set Purpose Code 05 – Replace	2	2	05	M
BSS02	Reference Identification - Date and Time for reference (CCYYMMDDHHMMSS)	1	30	200811141420	M
BSS03	Date – Current Date	8	8	20081114	M
BSS04	Schedule Type Qualifier DL – Delivery Based (at Filtran)	2	2	DL	M
BSS05	Schedule Horizon Start Date	8	8	20081110	M
BSS06	Schedule Horizon End Date	8	8	20081116	M
BSS07	Not Used			Blank	NU
BSS08	Not Used			Blank	NU
BSS09	Not Used			Blank	NU
BSS10	Purchase Order Number	1	11	Blank	NU
BSS11	Schedule Quantity Qualifier A – Actual Discrete Quantities	1	1	A	M

N1 Segment – Name (3 required, MI, SU and ST)
N1~MI~Craig Brown~02~8476353828@
N1~SU~Supplier Name~01~YourDUNSNo@
N1~ST~SPX Filtran, Des Plaines, IL~01~020954889@
N1~ST~USI, Pleasant Prairie, WI~01~612771477@

Element	Description	Size Min-Max		Value - Sample Data	Usage
N101	Entity Identifier Code MI – Planning Schedule Issuer SU – Supplier Name ST – Ship To Name	2	2	MI SU ST	M
N102	Name	1	60		M
N103	Identification Code Qualifier	1	2		M



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EDI Implementation Guide

	01 – D-U-N-S Number 02 – Issuer Phone Number 92 – Mutually Defined			01 02 92	
N104	Identification Code MI – Phone Number SU – Supplier DUNS Number ST – Ship to DUNS Number 020954889: SPX Filtran, Des Plaines, IL 612771477: USI, Pleasant Prairie, WI	2	80	8476353828 YourDUNSNo 020954889	M

LIN Segment – Item Identification

LIN~~BP~202033~PO~49812-001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
LIN01	Not Used	1	20	Blank	NU
LIN02	Product ID Qualifier: BP – Buyer’s Part Number	2	2	BP	M
LIN03	Buyer’s Part Number	1	15	202033	M
LIN04	Product ID Qualifier PO – Purchase Order Number and Line	2	2	PO	M
LIN05	Purchase Order Number and Line – Format of “PO#-Line#”	1	11	49812-001	M

UIT Segment – Unit Detail

UIT~EA~1.3431@

Element	Description	Size Min-Max		Value - Sample Data	Usage
UIT01	Unit of Measure	2	2	EA	M
UIT02	Unit Price	1	12	1.3431	M

FST Segment – Forecast Schedule

FST~200~C~D~20081110~~~~RL~000000412@

Element	Description	Size Min-Max		Value - Sample Data	Usage
FST01	Quantity – Balance Due	1	9	6300	M
FST02	Forecast Qualifier C – PO Data	1	1	C	M
FST03	Forecast Timing Qualifier D – Discrete	1	1	D	M
FST04	Date - CCYYMMDD	8	8	20081110	M
FST05	Not Used			Blank	NU
FST06	Date Qualifier - 002 – Delivery Requested (due at dock)			Blank	NU
FST07	Not Used			Blank	NU
FST08	Qualifier for FST09	2	2	RL	O

FST09	Release Number (RL)	9	9	000000415	O
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SHP Segment – Received Information (Last Receipt)

SHP~01~200~050~20081110~~@

Element	Description	Size Min-Max		Value - Sample Data	Usage
SHP01	Quantity Qualifier – 01 Discrete Quantity	2	2	01	M
SHP02	Quantity Last Received	1	15	200	M
SHP03	Date/Time Qualifier – 050 Received	3	3	050	M
SHP04	Date Last Received - CCYYMMDD	8	8	20081110	M
SHP05	Time	4	8	Blank	NU

CTT Segment – Transaction Totals

CTT~4~10@

Element	Description	Size Min-Max		Value - Sample Data	Usage
CTT01	Number of Line Items	1	6	4	M
CTT02	Hash Total – Quantity Value Total – from all FST Segments	1	10	10	M

SE Segment – Transaction Set Trailer Detail

SE~1~000000001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
SE01	Number of Included Segments – Total number of segments including ST and SE	1	10	1	M
SE02	Transaction Set Control Number – Unique identifying control number – must match ST02	4	9	000000001	M

GE Segment – Functional Group Trailer Detail

GE~2~10001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
GE01	Number of Transaction Sets Included – within GS/GE	1	6	2	M
GS02	Group Control Number – must match GS06	1	9	10001	M

IEA Segment – Interchange Control Trailer Detail

IEA~1~10001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
IEA01	Number of Included Functional Groups - within ISA/IEA	1	5	1	M
IEA02	Interchange Control Number – Unique – must match ISA13	9	9	10001	M

Legend:

- M = Mandatory
- O = Optional
- NU = Not Used
- All Dates (8 characters long) are CCYYMMDD unless noted

862 Examples:

ISA~00~00~01~020954889~01~YourDUNSNo~081114~1420~U~00401~10001~0~P~~~@
 GS~SS~020954889~YourDUNSNo~20081114~1420~10001~X~004010@
 ST~862~000000001@
 BSS~05~200811141420~20081114~DL~20081110~20081116~~~~~A@
 N1~MI~Craig Brown~2~8476353828@
 N1~SU~Supplier Name~01~YourDUNSNo@
 N1~ST~SPX Filtran, Des Plaines, IL~01~020954889@
 LIN~~BP~202033~PO~49812-001@
 UIT~EA~1.3431@
 FST~200~C~D~20081110~~~~RL~000000512@
 SHP~01~200~050~20081110~~~@
 CTT~4~10@
 SE~1~000000001@
 GE~2~10001@
 IEA~1~10001@

856 Mapping Specifications:

General Information

Please Note that these specifications are provided as reference to our formats and are subject to change at any

856 Sample Data

```
ISA~00~00~01~YourDUNSNo~01~020954889~081114~1420~U@
GS~SH~YourDUNSNo~020954889~20081114~1420~10001~X~004010@
ST~856~000000001@
BSN~00~200811141420~20081114~1220@
DTM~011~20081114~1230@
HL~1~~S@
TD1~PLT90~360~~~~G~1220@
TD5~B~2~RDWY~T@
TD3~TL~~12345678@
REF~BM~12345@
N1~ST~SPX Filtran, Des Plaines, IL~01~020954889@
N1~SU~ABC Company, Des Plaines, IL~01~YourDUNSNo@
HL~2~1~O@
REF~PK~123456@
HL~3~2~I@
LIN~~BP~202033~PO~49812-001@
SN1~~202~EA@
PID~F~~~~Resin@
PRF~14181-001~000000412~~20081110@
CTT~4~10@
SE~1~000000001@
GE~2~10001@
IEA~1~10001@
```

856 Mapping Information

ISA Segment – Interchange Control Header Detail

ISA~00~00~01~YourDUNSNo~01~020954889~081114~1420~U@

Element	Description	Size Min-Max		Value - Sample Data	Usage
ISA01	Authorization Information Qualifier	2	2	00	M
ISA02	Authorization Information	10	10	Blank	M
ISA03	Security Information Qualifier	2	2	00	M
ISA04	Security Information	10	10	Blank	M
ISA05	Interchange Sender ID Qualifier	2	2	01	M
ISA06	Interchange Sender ID – Your DUNS Number	15	15	YourDUNSNo	M
ISA07	Interchange Receiver ID Qualifier	2	2	01	M
ISA08	Interchange Receiver ID	15	15	020954889	M
ISA09	Interchange Date – YYMMDD format	6	6	081114	M
ISA10	Interchange Time – HHMM format	4	4	1420	M
ISA11	Interchange Standards ID	1	1	U	M

GS Segment – Functional Group Header Detail

GS~SH~YourDUNSNo~020954889~20081114~1420~10001~X~004010@

Element	Description	Size Min-Max		Value - Sample Data	Usage
GS01	Functional Identifier Code	2	2	SH	M
GS02	Application Sender's Code – Your DUNS Number – must match ISA06	2	15	YourDUNSNo	M
GS03	Application Receiver's Code	2	15	020954889	M
GS04	Date of Interchange	8	8	20081114	M
GS05	Time of Interchange – HHMM format	4	8	1420	M
GS06	Group Control Number – assigned by sender	1	9	10001	M
GS07	Responsible Agency Code	1	2	X	M
GS08	Version/Release/Industry Code	1	12	004010	M

ST Segment – Transaction Set Header Detail

ST~856~000000001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
ST01	Transaction Set Identifier Code	3	3	856	M
ST02	Transaction Set Control Number – Unique identifying control number for transaction set - Assigned by sender	4	9	000000001	M

BSN Segment – Beginning Segment for Ship Notice

BSN~00~200811141420~20081114~1220@

Element	Description	Size Min-Max		Value - Sample Data	Usage
BSN01	Transaction Set Purpose Code 00 – Original 05 – Replacement	2	2	00	M
BSN02	Reference Identification – Assigned by sender	2	30	200811141420	M
BSN03	Date – Current Date	8	8	20081114	M
BSN04	Time – Current Time	4	4	1220	M

DTM Segment – Date/Time Reference

DTM~011~20081114~1230@

Element	Description	Size Min-Max		Value - Sample Data	Usage
DTM01	Date/Time Qualifier – 011 Shipped	3	3	011	M
DTM02	Date Shipped	8	8	20081114	M
DTM03	Time Shipped	4	4	1230	M

HL Segment – Hierarchical Level S

HL~1~~S@

Element	Description	Size Min-Max		Value - Sample Data	Usage
HL01	Hierarchical ID Number	1	12	1	M
HL02	Hierarchical Parent ID Number	1	12		NU
HL03	Hierarchical Level Code	1	2	S	M

TD1 Segment – Carrier Details (Quantity and Weight)

TD1~PLT90~360~~~~G~1220@

Element	Description	Size Min-Max		Value - Sample Data	Usage
TD101	Packaging Code	3	5	PLT90	M
TD102	Lading Quantity	1	7	360	M
TD103					NU
TD104					NU
TD105					NU
TD106	Weight Qualifier – Gross Weight	1	2	G	M
TD107	Weight	1	10	1220	M

TD5 Segment – Carrier Details (Routing Sequence/Transit Time)

TD5~B~2~RDWY~T@

Element	Description	Size Min-Max		Value - Sample Data	Usage
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TD501	Routing Sequence Code	1	2	B	M
TD502	Identification Code Qualifier	1	2	2	M
TD503	Identification Code (SCAC Code)	2	80	RDWY	M
TD504	Transportation Method/Type Code	1	2	T	M

TD3 Segment – Carrier Details (Equipment)

TD3~TL~12345678@

Element	Description	Size Min-Max		Value - Sample Data	Usage
TD301	Equipment Description Code	2	2	TL	M
TD302					NU
TD303	Equipment Number	1	10	12345678	M

REF Segment – Reference Identification

REF~BM~12345@

Element	Description	Size Min-Max		Value - Sample Data	Usage
REF01	Reference Identification Qualifier	2	2	BM	M
REF02	Reference Identification	1	30	12345	M

N1 Segment – Name (Shipped To)

N1~ST~SPX Filtran, Des Plaines, IL~01~020954889@

N1~ST~USI, Pleasant Prairie, WI~01~020954889@

Element	Description	Size Min-Max		Value - Sample Data	Usage
N101	Entity Identifier Code ST – Ship To Name	2	2	ST	M
N102	Name SPX Filtran, Des Plaines, IL USI, Pleasant Prairie, WI	1	60	SPX Filtran, Des Plaines, IL	M
N103	Identification Code Qualifier 01 – D-U-N-S Number 92 – Mutually Defined ID	1	2	01 92	M
N104	Identification Code SU – Supplier DUNS Number or ID ST – Ship to DUNS Number 020954889: SPX Filtran, Des Plaines, IL 612771477: USI, Pleasant Prairie, WI	2	80	YourDUNSNo or ID 020954889	M

N1 Segment – Name (Supplier)

N1~SU~ABC Company, Des Plaines, IL~92~UNV100@

Element	Description	Size Min-Max		Value - Sample Data	Usage
N101	Entity Identifier Code SU – Supplier Name	2	2	SU	M

N102	Name	1	60	ABC Company, Des Plaines, IL	M
N103	Identification Code Qualifier 1 – D-U-N-S Number 92 – Mutually Defined ID	1	2	1 92	M
N104	Identification Code SU – Supplier DUNS Number or ID	2	80	UNV100	M

HL Segment – Hierarchical Level O

HL~2~1~O@

Element	Description	Size Min-Max		Value - Sample Data	Usage
HL01	Hierarchical ID Number	1	12	2	M
HL02	Hierarchical Parent ID Number	1	12	1	M
HL03	Hierarchical Level Code	1	2	O	M

REF Segment – Reference Identification

REF~PK~123456@

Element	Description	Size Min-Max		Value - Sample Data	Usage
REF01	Reference identification Qualifier	2	3	PK	M
REF02	Reference Identification – Packing List Number	1	30	123456	M

HL Segment – Hierarchical Level I

HL~3~2~I@

Element	Description	Size Min-Max		Value - Sample Data	Usage
HL01	Hierarchical ID Number	1	12	3	M
HL02	Hierarchical Parent ID Number	1	12	2	M
HL03	Hierarchical Level Code	1	2	I	M

LIN Segment – Item Identification

LIN~~BP~202033~PO~49812-001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
LIN01	Not Used	1	20	Blank	NU
LIN02	Product ID Qualifier: BP – Buyer's Part Number	2	2	BP	M
LIN03	Buyer's Part Number	1	48	202033	M
LIN04	Product ID Qualifier PO – Purchase Order Number and Line	2	2	PO	M
LIN05	Purchase Order Number and Line –	1	48	49812-001	M

	Format of "PO#-Line#"				
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SN1 Segment – Item Detail (Shipment)

SN1~202~EA@

Element	Description	Size Min-Max		Value - Sample Data	Usage
SN101	Assigned Identification	1	20		NU
SN102	Number of Units Shipped	1	10	202	M
SN103	Unit of Measure	2	2	EA	M

PID Segment – Product/Item Description (optional)

PID~F~~~~Resin@

Element	Description	Size Min-Max		Value - Sample Data	Usage
PID01	Item Description Type	1	1	F	O
PID02					NU
PID03					NU
PID04					NU
PID05	Description	1	80	Resin	O

PRF Segment – Purchase Order Reference

PRF~14181-001~000000412~~20081110@

Element	Description	Size Min-Max		Value - Sample Data	Usage
PRF01	Purchase Order Number-Line	1	22	14181-001	M
PRF02	Release Number – required if we send to you	1	30	000000412	O
PRF03					NU
PRF04	Date – PO Requested Date	8	8	20081110	M

CTT Segment – Transaction Totals

CTT~4~10@

Element	Description	Size Min-Max		Value - Sample Data	Usage
CTT01	Number of Line Items	1	6	4	M
CTT02	Hash Total – Quantity Value Total – from all Segments	1	10	10	NU

SE Segment – Transaction Set Trailer Detail

SE~1~000000001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
SE01	Number of Included Segments – Total number of segments including ST and SE	1	10	1	M

SE02	Transaction Set Control Number – Unique identifying control number – must match ST02	4	9	000000001	M
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GE Segment – Functional Group Trailer Detail

GE~2~10001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
GE01	Number of Transaction Sets Included – within GS/GE	1	6	2	M
GS02	Group Control Number – must match GS06	1	9	10001	M

IEA Segment – Interchange Control Trailer Detail

IEA~1~10001@

Element	Description	Size Min-Max		Value - Sample Data	Usage
IEA01	Number of Included Functional Groups - within ISA/IEA	1	5	1	M
IEA02	Interchange Control Number – Unique – must match ISA13	9	9	10001	M

Legend:

- M = Mandatory
- O = Optional
- NU = Not Used
- All Dates (8 characters long) are CCYYMMDD unless noted