

830 Planning Schedule with Release Capability

Functional Group ID=**PS**

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Planning Schedule with Release Capability Transaction Set (830) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business practice relative to the transfer of forecasting/material release information between organizations. The planning schedule transaction may be used in various ways or in a combination of ways, such as: (1) a simple forecast; (2) a forecast with the buyer's authorization for the seller to commit to resources, such as labor or material; (3) a forecast that is also used as an order release mechanism, containing such elements as resource authorizations, period-to-date cumulative quantities, and specific ship/delivery patterns for requirements that have been represented in "buckets," such as weekly, monthly, or quarterly. The order release forecast may also contain all data related to purchase orders, as required, because the order release capability eliminates the need for discrete generation of purchase orders.

Notes:

830 Business process narrative -- John Deere as the customer

General: The transaction is used to send information on a Blanket PO Release or on a Scheduling Agreement Release to a supplier to communicate the part numbers, due dates and associated quantities needed by the customer location. There is normally a paper copy of the Blanket Order Agreement or the Scheduling Agreement that has been sent prior to this 830 Release transaction. The agreement establishes the terms of the relationship and communicates much of the repetitive, standard information that both parties require. Since the customer has previously had communication with the supplier to set up pricing, item description information, contact information, etc that does not change with each release of requirements, this type data is not contained in the subsequent 830 releases.

John Deere sends only one accumulated quantity, the total receipted quantity for the item since the beginning of the blanket order or scheduling agreement. John Deere units might continue to order the same material(s) on the same order number for the life of the part number. This situation may result in a receipt quantity accumulated over multiple years. John Deere also sends the receipt quantity and the date of the last receipt.

The dates and quantities contain an indicator for the supplier to use in order to determine if the requirement is only a forecasted quantity or if it is in fact a quantity which is committed and may be delivered based on the agreed window around the due date or ship date.

Heading:

<u>Page No.</u>	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
3	010	ST	Transaction Set Header	M	1		
4	020	BFR	Beginning Segment for Planning Schedule	M	1		
6	080	FOB	F.O.B. Related Instructions	O	1		
LOOP ID - N1						200	
8	230	N1	Name	O	1		
9	240	N2	Additional Name Information	O	2		
10	250	N3	Address Information	O	2		
11	260	N4	Geographic Location	O	1		

Detail:

<u>Page No.</u>	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
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			LOOP ID - LIN		>1	
12	010	LIN	Item Identification	M	1	
15	020	UIT	Unit Detail	O	1	
16	021	DTM	Date/Time Reference	O	10	
17	030	CUR	Currency	O	1	
18	110	PKG	Marking, Packaging, Loading	O	25	
19	120	PO4	Item Physical Details	O	1	
20	140	REF	Reference Identification	O	12	
			LOOP ID - FST		>1	
21	410	FST	Forecast Schedule	O	1	n1
			LOOP ID - SHP		25	
22	470	SHP	Shipped/Received Information	O	1	
23	480	REF	Reference Identification	O	5	

Summary:

Page No.	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
24	010	CTT	Transaction Totals	O	1		n2
25	020	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. At least one occurrence of segment FST is required, either in the FST loop or within the SDP loop. These two loops are mutually exclusive.
2. Number of line items (CTT01) is the accumulation of the number of LIN segments. If used, hash total (CTT02) is the sum of the values of the quantities (FST01) for each FST segment.

Segment: **ST** Transaction Set Header
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: 1 The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set 830 Planning Schedule with Release Capability	M ID 3/3
M	ST02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M AN 4/9

Segment: **BFR** Beginning Segment for Planning Schedule
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of a planning schedule transaction set; whether a ship or delivery based forecast; and related forecast envelope dates
Syntax Notes: 1 At least one of BFR02 or BFR03 is required.
Semantic Notes: 1 If BFR01 contains the value "04" (Net Change), BFR09 is required.
2 BFR02 is the identifying number for a forecast assigned by the orderer/purchaser.
3 BFR06 is the forecast horizon start date: The date when the forecast horizon (envelope) begins.
4 BFR07 is the forecast horizon end date: The date when the forecast horizon (envelope) ends.
5 BFR08 is the date forecast generated: The date the forecast data was generated.
6 BFR09 is the date forecast updated: The date the forecast was updated with "net change" data. (Used only when data element 353 in BFR01 contains the value "04", meaning net change.)

Comments:

Notes:

The segment always indicates a replacement of the delivery schedule for the material number on the specified order number. The entire schedule of dates and quantities is sent and should replace other previously transmitted delivery plans for the material number and associated order number. (NOTE: Suppliers must not adjust any other order number or any other part number than what is contained in the data transmitted. Do not assume that a part number not contained has been deleted; or that an order number not sent is to be deleted. Those items not transmitted are still valid, they just do not have any revisions to be processed for this transmission of information.)

The dates in the BFR have little significance to John Deere, but the standard requires the dates in the transaction.

The codes of "DL"/"SH" and "A" are sent to indicate actual discrete quantity expected delivered/shipped.

- When BFR04 is "DL", the enclosed dates are the expected date of delivery at the customer's dock, so suppliers must consider transportation time in order to determine the required ship date from their facility.

- When BFR04 is "SH", the enclosed dates are the expected date of shipment.

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	BFR01	353	Transaction Set Purpose Code Code identifying purpose of transaction set 05 Replace	M ID 2/2
	BFR02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Deere uses Julian Date or Date/Time Stamp	X AN 1/30
	BFR03	328	Release Number Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction	X AN 1/30
M	BFR04	675	Schedule Type Qualifier Code identifying the type of dates used when defining a shipping or delivery time in a schedule or forecast DL Delivery Based	M ID 2/2

M	BFR05	676	SH	Shipment Based	M	ID 1/1
			Schedule Quantity Qualifier			
			Code identifying the type of quantities used when defining a schedule or forecast			
M	BFR06	373	A	Actual Discrete Quantities	M	DT 8/8
			Date			
			Date expressed as CCYYMMDD			
	BFR07	373	Date		O	DT 8/8
			Date expressed as CCYYMMDD			
			Deere will send this date.			
M	BFR08	373	Date		M	DT 8/8
			Date expressed as CCYYMMDD			

Segment:	FOB	F.O.B. Related Instructions
Position:	080	
Loop:		
Level:	Heading	
Usage:	Optional	
Max Use:	1	
Purpose:	To specify transportation instructions relating to shipment	
Syntax Notes:	1	If FOB03 is present, then FOB02 is required.
	2	If FOB04 is present, then FOB05 is required.
	3	If FOB07 is present, then FOB06 is required.
	4	If FOB08 is present, then FOB09 is required.
Semantic Notes:	1	FOB01 indicates which party will pay the carrier.
	2	FOB02 is the code specifying transportation responsibility location.
	3	FOB06 is the code specifying the title passage location.
	4	FOB08 is the code specifying the point at which the risk of loss transfers. This may be different than the location specified in FOB02/FOB03 and FOB06/FOB07.
Comments:		

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	FOB01	146	Shipment Method of Payment	M ID 2/2
			Code identifying payment terms for transportation charges	
			DE	Per Contract
				Destination with exceptions as agreed between buyer and seller
	FOB05	335	Transportation Terms Code	X ID 3/3
			Code identifying the trade terms which apply to the shipment transportation responsibility	
			CFR	Cost and Freight
				Seller pays cost and freight to named port of destination; buyer assumes all risks of loss and damage and additional costs incurred once goods are delivered on board the vessel; these are assumed by the buyer when the goods pass over the rail of the ship at the port of shipment
			CIF	Cost, Insurance, and Freight
				Seller pays cost and freight to named port of destination; buyer assumes all risks of loss and damage and additional costs incurred once goods are delivered onboard the vessel; risks are assumed by the buyer when the goods pass over the rail of the ship at the port of shipment; seller must in addition procure (i.e. contract and pay for) marine insurance against the buyer's risk of loss or damage during shipment
			CIP	Carriage and Insurance Paid To
				Seller pays cost and freight to named port of destination; buyer assumes all risk of damage or loss and additional costs incurred once goods are delivered on board the vessel; these risks are assumed by the buyer when the goods pass over the rail of the ship at the port of shipment; seller must procure (i.e. contract and pay for) marine insurance against the buyer's risk of loss or damage during carriage; seller must in addition procure (i.e. contract and pay for) cargo insurance against the buyer's risk of loss or damage to the goods during carriage
			CPT	Carriage Paid To
				Seller pays freight charges named to destination; the risk of loss or damage to the goods, as well as any additional

			costs due to events occurring after the time the goods have been delivered to other carrier, is transferred from the seller to the buyer when the goods have been delivered into the custody of the carrier
		DAP	Delivered at Place John Deere preferred
		DAT	Delivered at Terminal John Deere preferred
		DDP	Delivered Duty Paid Seller bears costs and risks involved in bringing goods to the named place in the country of importation including duties, taxes, and other official charges payable upon import
		EXW	Ex Works Buyer bears all costs and risks in taking the goods from the seller's premises to the desired location
		FAS	Free Alongside Ship Seller's obligation ends when goods have been placed alongside the vessel on the quay or in lighters at the named port of shipment; buyer bears all costs and risks thereafter
		FCA	Free Carrier Seller fulfills his obligation when goods are handed over, cleared for export, and into the charge of the carrier named by the buyer at the named place or location John Deere preferred
		FOB	Free on Board
FOB06	309	Location Qualifier	X ID 1/2
			Code identifying type of location
		PD	Place of Delivery
FOB07	352	Description	O AN 1/80
			A free-form description to clarify the related data elements and their content

Segment:	N1 Name
Position:	230
Loop:	N1 Optional
Level:	Heading
Usage:	Optional
Max Use:	1
Purpose:	To identify a party by type of organization, name, and code
Syntax Notes:	1 At least one of N102 or N103 is required. 2 If either N103 or N104 is present, then the other is required.
Semantic Notes:	
Comments:	1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party. 2 N105 and N106 further define the type of entity in N101.
Notes:	Name Loop (N1-N4) can have multiple occurrences. At least one N1 segment will always contain an indicator ("ST") for the ship to location. There will be an associated DUNS number or another John Deere unique number to cross reference all the address information. If the code "92" is used to indicate a Deere unique number, the supplier must be sure there is associated address information in the supplier data base or in the 830 data being transmitted.

Data Element Summary

Ref.	Data	Name	Attributes
Des.	Element		
M	N101	98 Entity Identifier Code	M ID 2/3
		Code identifying an organizational entity, a physical location, property or an individual	
		FS Final Scheduled Destination	
		ST Ship To	
	N102	93 Name	X AN 1/60
		Free-form name	
	N103	66 Identification Code Qualifier	X ID 1/2
		Code designating the system/method of code structure used for Identification Code (67)	
		1 D-U-N-S Number, Dun & Bradstreet	
		92 Assigned by Buyer or Buyer's Agent	
	N104	67 Identification Code	X AN 2/80
		Code identifying a party or other code	

Segment: N2 Additional Name Information
Position: 240
Loop: N1 Optional
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify additional names or those longer than 35 characters in length
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u> <u>Name</u>	<u>Attributes</u>
M	N201	93	Name Free-form name	M AN 1/60

Segment: N3 Address Information
Position: 250
Loop: N1 Optional
Level: Heading
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	N301	166	Address Information Address information	M AN 1/55
	N302	166	Address Information Address information	O AN 1/55

Segment:	N4 Geographic Location
Position:	260
Loop:	N1 Optional
Level:	Heading
Usage:	Optional
Max Use:	1
Purpose:	To specify the geographic place of the named party
Syntax Notes:	1 If N406 is present, then N405 is required.
Semantic Notes:	
Comments:	<p>1 A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.</p> <p>2 N402 is required only if city name (N401) is in the U.S. or Canada.</p>
Notes:	The optional data contained in N405/N406 is the John Deere unloading (possibly receiving gate and dept) storage location. This information is required on the material's shipping documents to insure delivery at the intended location.

Data Element Summary			
<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
N401	19	City Name Free-form text for city name	O AN 2/30
N402	156	State or Province Code Code (Standard State/Province) as defined by appropriate government agency	O ID 2/2
N403	116	Postal Code Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	O ID 3/15
N404	26	Country Code Code identifying the country	O ID 2/3
N405	309	Location Qualifier Code identifying type of location DE Destination (Shipping)	X ID 1/2
N406	310	Location Identifier Code which identifies a specific location	O AN 1/30

Segment:	LIN	Item Identification
Position:	010	
Loop:	LIN	Mandatory
Level:	Detail	
Usage:	Mandatory	
Max Use:	1	
Purpose:	To specify basic item identification data	
Syntax Notes:	1 If either LIN04 or LIN05 is present, then the other is required. 2 If either LIN06 or LIN07 is present, then the other is required. 3 If either LIN08 or LIN09 is present, then the other is required. 4 If either LIN10 or LIN11 is present, then the other is required. 5 If either LIN12 or LIN13 is present, then the other is required. 6 If either LIN14 or LIN15 is present, then the other is required. 7 If either LIN16 or LIN17 is present, then the other is required. 8 If either LIN18 or LIN19 is present, then the other is required. 9 If either LIN20 or LIN21 is present, then the other is required. 10 If either LIN22 or LIN23 is present, then the other is required. 11 If either LIN24 or LIN25 is present, then the other is required. 12 If either LIN26 or LIN27 is present, then the other is required. 13 If either LIN28 or LIN29 is present, then the other is required. 14 If either LIN30 or LIN31 is present, then the other is required.	
Semantic Notes:	1 LIN01 is the line item identification	
Comments:	1 See the Data Dictionary for a complete list of IDs. 2 LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.	
Notes:	This segment contains the Deere material number being ordered, and possibly some other information related to the part (see the code definitions in the guideline). The Deere PO number will also be included on this segment.	

Data Element Summary

	Ref.	Data	Element	Name	Attributes
	LIN01	350	Assigned Identification		O AN 1/20
				Alphanumeric characters assigned for differentiation within a transaction set	
M	LIN02	235	Product/Service ID Qualifier		M ID 2/2
				Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
				BP Buyer's Part Number	
M	LIN03	234	Product/Service ID		M AN 1/48
				Identifying number for a product or service	
	LIN04	235	Product/Service ID Qualifier		X ID 2/2
				Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
				CR Contract Number	
				EC Engineering Change Level	
				HD International Harmonized Commodity Code	
				For customs authority purposes, the class and description of a subject part or material item per harmonized agreements on tariff commodity codes	
				MF Manufacturer	
				RC Returnable Container Number	
				non-SAP units only	
				VP Vendor's (Seller's) Part Number	
	LIN05	234	Product/Service ID		X AN 1/48
				Identifying number for a product or service	
				Paired elements LIN04/LIIN05 thru LIN10/LIN11 will be sent based on the	

		dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.	
LIN06	235	Product/Service ID Qualifier	X ID 2/2
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		CR	Contract Number
		EC	Engineering Change Level
		HD	International Harmonized Commodity Code
		For customs authority purposes, the class and description of a subject part or material item per harmonized agreements on tariff commodity codes	
		MF	Manufacturer
		RC	Returnable Container Number
		non-SAP units only	
		VP	Vendor's (Seller's) Part Number
LIN07	234	Product/Service ID	X AN 1/48
		Identifying number for a product or service	
		Paired elements LIN04/LIIN05 thru LIN10/LIN11 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.	
LIN08	235	Product/Service ID Qualifier	X ID 2/2
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		CR	Contract Number
		EC	Engineering Change Level
		HD	International Harmonized Commodity Code
		For customs authority purposes, the class and description of a subject part or material item per harmonized agreements on tariff commodity codes	
		MF	Manufacturer
		RC	Returnable Container Number
		non-SAP units only	
		VP	Vendor's (Seller's) Part Number
LIN09	234	Product/Service ID	X AN 1/48
		Identifying number for a product or service	
		Paired elements LIN04/LIIN05 thru LIN10/LIN11 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the business relevance of the value.	
LIN10	235	Product/Service ID Qualifier	X ID 2/2
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		CR	Contract Number
		EC	Engineering Change Level
		HD	International Harmonized Commodity Code
		For customs authority purposes, the class and description of a subject part or material item per harmonized agreements on tariff commodity codes	
		MF	Manufacturer
		RC	Returnable Container Number
		non-SAP units only	
		VP	Vendor's (Seller's) Part Number
LIN11	234	Product/Service ID	X AN 1/48
		Identifying number for a product or service	
		Paired elements LIN04/LIIN05 thru LIN10/LIN11 will be sent based on the dynamic existence of data. The qualifier must be used in identifying the	

business relevance of the value.

Segment: **UIT** **Unit Detail**
Position: 020
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify item unit data
Syntax Notes: 1 If UIT03 is present, then UIT02 is required.
Semantic Notes:
Comments:

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	UIT01	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	M
M	C00101	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken (Example PC = Pieces)	M ID 2/2
	UIT02	212	Unit Price Price per unit of product, service, commodity, etc.	X R 1/17
	UIT03	639	Basis of Unit Price Code Code identifying the type of unit price for an item Refer to 004010 Data Element Dictionary for acceptable code values.	O ID 2/2

Segment: **DTM** **Date/Time Reference**
Position: 021
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:

- 1 At least one of DTM02 DTM03 or DTM05 is required.
- 2 If DTM04 is present, then DTM03 is required.
- 3 If either DTM05 or DTM06 is present, then the other is required.

Semantic Notes:
Comments:

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	DTM01	374	Date/Time Qualifier	M ID 3/3
			Code specifying type of date or time, or both date and time	
			152 Effective Date of Change	
			Date on which the change went into effect	
		636	Date of Last Update	
	DTM02	373	Date	X DT 8/8
			Date expressed as CCYYMMDD	
	DTM03	337	Time	X TM 4/8
			Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	

Segment: **CUR** Currency
Position: 030
Loop: LIN Mandatory
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify the currency (dollars, pounds, francs, etc.) used in a transaction
Syntax Notes:

- 1 If CUR08 is present, then CUR07 is required.
- 2 If CUR09 is present, then CUR07 is required.
- 3 If CUR10 is present, then at least one of CUR11 or CUR12 is required.
- 4 If CUR11 is present, then CUR10 is required.
- 5 If CUR12 is present, then CUR10 is required.
- 6 If CUR13 is present, then at least one of CUR14 or CUR15 is required.
- 7 If CUR14 is present, then CUR13 is required.
- 8 If CUR15 is present, then CUR13 is required.
- 9 If CUR16 is present, then at least one of CUR17 or CUR18 is required.
- 10 If CUR17 is present, then CUR16 is required.
- 11 If CUR18 is present, then CUR16 is required.
- 12 If CUR19 is present, then at least one of CUR20 or CUR21 is required.
- 13 If CUR20 is present, then CUR19 is required.
- 14 If CUR21 is present, then CUR19 is required.

Semantic Notes:
Comments:

- 1 See Figures Appendix for examples detailing the use of the CUR segment.

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	CUR01	98	Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual BY Buying Party (Purchaser)	M ID 2/3
M	CUR02	100	Currency Code Code (Standard ISO) for country in whose currency the charges are specified (Example: USD = US Dollars)	M ID 3/3

Segment:	PKG	Marking, Packaging, Loading
Position:	110	
Loop:	LIN	Mandatory
Level:	Detail	
Usage:	Optional	
Max Use:	25	
Purpose:	To describe marking, packaging, loading, and unloading requirements	
Syntax Notes:	1 At least one of PKG04 PKG05 or PKG06 is required. 2 If PKG04 is present, then PKG03 is required. 3 If PKG05 is present, then PKG01 is required.	
Semantic Notes:	1 PKG04 should be used for industry-specific packaging description codes.	
Comments:	1 Use the MEA (Measurements) Segment to define dimensions, tolerances, weights, counts, physical restrictions, etc. 2 If PKG01 equals "F", then PKG05 is used. If PKG01 equals "S", then PKG04 is used. If PKG01 equals "X", then both PKG04 and PKG05 are used. 3 Use PKG03 to indicate the organization that publishes the code list being referred to. 4 Special marking or tagging data can be given in PKG05 (description).	

Data Element Summary

Ref.	Data	Name	Attributes
Des.	Element		
PKG01	349	Item Description Type	X ID 1/1
		Code indicating the format of a description	
		F Free-form	
PKG02	753	Packaging Characteristic Code	O ID 1/5
		Code specifying the marking, packaging, loading and related characteristics being described	
		CB Container Type	
		CUD Cushioning and Dunnage	
PKG05	352	Description	X AN 1/80
		A free-form description to clarify the related data elements and their content	

Segment:	PO4 Item Physical Details
Position:	120
Loop:	LIN Mandatory
Level:	Detail
Usage:	Optional
Max Use:	1
Purpose:	To specify the physical qualities, packaging, weights, and dimensions relating to the item
Syntax Notes:	<ol style="list-style-type: none"> 1 If either PO402 or PO403 is present, then the other is required. 2 If PO405 is present, then PO406 is required. 3 If either PO406 or PO407 is present, then the other is required. 4 If either PO408 or PO409 is present, then the other is required. 5 If PO410 is present, then PO413 is required. 6 If PO411 is present, then PO413 is required. 7 If PO412 is present, then PO413 is required. 8 If PO413 is present, then at least one of PO410 PO411 or PO412 is required. 9 If PO417 is present, then PO416 is required. 10 If PO418 is present, then PO404 is required.
Semantic Notes:	<ol style="list-style-type: none"> 1 PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package. 2 PO416 is the package identifier or the beginning package identifier in a range of identifiers. 3 PO417 is the ending package identifier in a range of identifiers. 4 PO418 is the number of packages in this layer.
Comments:	<ol style="list-style-type: none"> 1 PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the pack (PO401) /size (PO402) measure which indicates the quantity in the inner pack unit. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ". 2 PO413 defines the unit of measure for PO410, PO411, and PO412.
Notes:	This optional segment may be included to indicate John Deere's packaging expectations.

Data Element Summary

<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
PO402	357	Size	X R 1/8
		Size of supplier units in pack	
PO403	355	Unit or Basis for Measurement Code	X ID 2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	
		PC Piece	

Segment:	REF	Reference Identification
Position:	140	
Loop:	LIN	Mandatory
Level:	Detail	
Usage:	Optional	
Max Use:	12	
Purpose:	To specify identifying information	
Syntax Notes:	1 At least one of REF02 or REF03 is required. 2 If either C04003 or C04004 is present, then the other is required. 3 If either C04005 or C04006 is present, then the other is required.	
Semantic Notes:	1 REF04 contains data relating to the value cited in REF02.	
Comments:		
Notes:	Optional segment REF (reference information)	
	<p>This segment may be included to provide additional delivery location information. The "DK" qualifier indicates a particular factory location beyond the receiving gate which the receiving customer would expect to be attached to the shipping information, so that material can be routed efficiently to the correct internal location.</p>	

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	REF01	128	Reference Identification Qualifier	M ID 2/3
			Code qualifying the Reference Identification	
			55 Sequence Number	
			5M Previous Sequence	
			DK Dock Number	
			DP Department Number	
			LF Assembly Line Feed Location	
	REF02	127	Reference Identification	X AN 1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
			More discrete location than defined in N4 segment, element 06, at the header level.	

Segment:	FST Forecast Schedule
Position:	410
Loop:	FST Optional
Level:	Detail
Usage:	Optional
Max Use:	1
Purpose:	To specify the forecasted dates and quantities
Syntax Notes:	1 If either FST06 or FST07 is present, then the other is required. 2 If either FST08 or FST09 is present, then the other is required.
Semantic Notes:	1 If FST03 equals "F" (indicating flexible interval), then FST04 and FST05 are required. FST04 would be used for the start date of the flexible interval and FST05 would be used for the end date of the flexible interval.
Comments:	1 As qualified by FST02 and FST03, FST04 represents either a discrete forecast date, the first date of a forecasted bucket (weekly, monthly, quarterly, etc.) or the start date of a flexible interval. 2 FST06 qualifies the time in FST07. The purpose of the FST07 element is to express the specific time of day in a 24-hour clock to satisfy "just-in-time" requirements. As an alternative, the ship/delivery pattern segment (SDP) may be used to define an approximate time, such as a.m. or p.m.
Notes:	This segment contains the date (refer to BFR04 for meaning) and required quantity. The field following the quantity is the indicator of firm, committed ("C") requirements, versus only forecasted or planning ("D") requirements. There will one FST line for every date and quantity combination. If a supplier is not able to provide the material as expected on these segments, contacting a John Deere representative is required.

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	FST01	380	Quantity Numeric value of quantity	M R 1/15
M	FST02	680	Forecast Qualifier Code specifying the sender's confidence level of the forecast data or an action associated with a forecast A Immediate C Firm D Planning	M ID 1/1
M	FST03	681	Forecast Timing Qualifier Code specifying interval grouping of the forecast D Discrete	M ID 1/1
M	FST04	373	Date Date expressed as CCYYMMDD	M DT 8/8
	FST08	128	Reference Identification Qualifier Code qualifying the Reference Identification SH Sender Defined Clause	X ID 2/3
	FST09	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Date/Quantity was previously confirmed by phone.	X AN 1/30

Segment:	SHP Shipped/Received Information
Position:	470
Loop:	SHP Optional
Level:	Detail
Usage:	Optional
Max Use:	1
Purpose:	To specify shipment and/or receipt information
Syntax Notes:	<ol style="list-style-type: none"> 1 If SHP01 is present, then SHP02 is required. 2 If SHP03 is present, then at least one of SHP04 or SHP05 is required. 3 If SHP04 is present, then SHP03 is required. 4 If SHP05 is present, then SHP03 is required.
Semantic Notes:	<ol style="list-style-type: none"> 1 SHP04 is the date shipped, delivered, received, or the cumulative quantity start date (as qualified by SHP03). 2 SHP06 is the cumulative quantity end date.
Comments:	<ol style="list-style-type: none"> 1 The SHP segment is used to communicate shipment, delivery, or receipt information and may include discrete or cumulative quantities, dates, and times. 2 If SHP01 equals "02", "07", "08", "09", or "10" (indicating cumulative quantities), then SHP04 and SHP06 are required to identify the start and end dates of the quantity count.
Notes:	<p>The SHP segment may appear twice. If present, this data is intended to help the supplier determine if material was shipped but not yet receipted at the time of the customer requirement generation activity. If material was in fact in transit at that time, then the supplier deducts the quantity in transit from the earliest delivery date(s) provided in the FST segments.</p> <ul style="list-style-type: none"> - most recent date of receipt activity may be provided, and associated quantity is the total receipt quantity for the material on the specified date. - a second occurrence may be provided with the accumulated receipts since the beginning of the order.

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
SHP01	673	Quantity Qualifier		O ID 2/2
			Code specifying the type of quantity	
			01 Discrete Quantity	
			02 Cumulative Quantity	
SHP02	380	Quantity		X R 1/15
			Numeric value of quantity	
SHP03	374	Date/Time Qualifier		X ID 3/3
			Code specifying type of date or time, or both date and time	
			050 Received	
			051 Cumulative Quantity Start	
SHP04	373	Date		X DT 8/8
			Date expressed as CCYYMMDD	

Segment:	REF Reference Identification
Position:	480
Loop:	SHP Optional
Level:	Detail
Usage:	Optional
Max Use:	5
Purpose:	To specify identifying information
Syntax Notes:	<ol style="list-style-type: none"> 1 At least one of REF02 or REF03 is required. 2 If either C04003 or C04004 is present, then the other is required. 3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	<ol style="list-style-type: none"> 1 REF04 contains data relating to the value cited in REF02.
Comments:	
Notes:	This optional REF segment may contain the ship ID number associated with the most recent receipt referenced in the SHP segment.

Data Element Summary			
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u> <u>Name</u>	<u>Attributes</u>
M	REF01	128 Reference Identification Qualifier	M ID 2/3
		Code qualifying the Reference Identification	
		SI Shipper's Identifying Number for Shipment (SID)	
		A unique number (to the shipper) assigned by the shipper to identify the shipment	
	REF02	127 Reference Identification	X AN 1/30
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
		Ship ID of last receipt	

Segment: **CTT** Transaction Totals
Position: 010
Loop:
Level: Summary
Usage: Optional
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes: 1 If either CTT03 or CTT04 is present, then the other is required.
2 If either CTT05 or CTT06 is present, then the other is required.
Semantic Notes:
Comments: 1 This segment is intended to provide hash totals to validate transaction completeness and correctness.

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	CTT01	354	Number of Line Items	M N0 1/6
			Total number of line items in the transaction set	
			Number of line items (CTT01) is the accumulation of the number of LIN segments.	
	CTT02	347	Hash Total	O R 1/10
			Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element.	
			Example:	
			-.0018 First occurrence of value being hashed.	
			.18 Second occurrence of value being hashed.	
			1.8 Third occurrence of value being hashed.	
			18.01 Fourth occurrence of value being hashed.	

			1855 Hash total prior to truncation.	
			855 Hash total after truncation to three-digit field.	
			Hash total (CTT02) is the sum of the values of the quantities (FST01) for each FST segment.	

Segment: **SE** Transaction Set Trailer
Position: 020
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: 1 SE is the last segment of each transaction set.

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	SE01	96	Number of Included Segments Total number of segments included in a transaction set including ST and SE segments	M N0 1/10
M	SE02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M AN 4/9

SAMPLE 830 DATA

ISA*00* *00* *01*DEEREID *12*SUPPLIERID
*171122*0042*U*00401*000033939*0*P*>
GS*PS*DEEREID*SUPPLIERID*20171122*0042*33959*X*004010
ST*830*339590001
BFR*05*20171122004241*20171122004241*SH*A*20170923*20190626*20171122
FOB*DE****DAP*PD*FREE-FORM DATA ELEMENT
N1*ST*JOHN DEERE PARTS DIST CENTER*1*789603131
N2*XPAC N3*525 E 10TH AVE BLDG 4 N4*MILAN*IL*61264*US
LIN*00010*BP*DEEREPART*VP*VENDPART*EC*C*CR*5500999999*PD*PART DESCRIPTION
UIT*PC*558*TC DTM*152*20170812*235624
DTM*636*20170801*224411
CUR*BY*USD PKG*F*CB***RCG25
PKG*F*CUD***DUNNAGE
PO4**44*PC
REF*DK*Z11
REF*DP*035
REF*LF*DRFA2
REF*KB* 008908730010
REF*55*REFERENCE INFO
REF*5M*REFERENCE INFO
FST*100*C*D*20171117
FST*0*C*D*20171129
FST*100*D*D*20180503
FST*100*D*D*20180628
FST*100*D*D*20180802
SHP*01*100*050*20170720
REF*SI*5134-69
SHP*02*4582*051*20081008
CTT*1*500
SE*21*339590001
GE*1*33959
IEA*1*000033939