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:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
M	010	ST	Transaction Set Header	M	1		
M	020	BFR	Beginning Segment for Planning Schedule	M	1		
	080	FOB	F.O.B. Related Instructions	O	1		
			LOOP ID - N1			200	
	230	N1	Name	O	1		
	240	N2	Additional Name Information	O	2		
	250	N3	Address Information	O	2		
	260	N4	Geographic Location	O	1		
	270	REF	Reference Identification	O	12		

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - LIN			>1	
M	010	LIN	Item Identification	M	1		

	020	UIT	Unit Detail	O	1		
	021	DTM	Date/Time Reference	O	10		
	030	CUR	Currency	O	1		
	110	PKG	Marking, Packaging, Loading	O	25		
	120	PO4	Item Physical Details	O	1		
	140	REF	Reference Identification	O	12		
			LOOP ID - FST			>1	
	410	FST	Forecast Schedule	O	1		n1
			LOOP ID - SHP			25	
	470	SHP	Shipped/Received Information	O	1		
	480	REF	Reference Identification	O	5		

Summary:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
	010	CTT	Transaction Totals	O	1		n2
M	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

	Ref. Des.	Data Element	Name	Attributes
M	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set Refer to 004010UCS Data Element Dictionary for acceptable code values.	**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 The control number is comprised of the functional group control number (Data Element 28 in the GS segment) followed by a four-digit sequence number. The sequence number is sequentially assigned by the sender, starting with one within each functional group. For each functional group, the first sequence number will be 0001 and will incremented by one for each additional transaction set within the group.	**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

	Ref. Des.	Data Element	Name	Attributes	
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**
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 SH Shipment Based	**M**	**ID 2/2**
M	**BFR05**	**676**	**Schedule Quantity Qualifier** Code identifying the type of quantities used when defining a schedule or forecast A Actual Discrete Quantities	**M**	**ID 1/1**
M	**BFR06**	**373**	**Date** Date expressed as CCYYMMDD	**M**	**DT 8/8**

	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

	Ref. Des.	Data Element	Name		Attributes
M	**FOB01**	**146**	**Shipment Method of Payment**	**M**	**ID 2/2**
			Code identifying payment terms for transportation charges For all air shipments, use code in IATA rule 650. For Warehouse Transaction Set usage only		
			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		
		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		
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. Des.	Data Element	Name	Attributes
M	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual ST Ship To	**M ID 2/3**
	N102	**93**	**Name** Free-form name	**X AN 1/60**
	N103	**66**	**Identification Code Qualifier** 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 Code may be used to identify payer's internal identification number.	**X ID 1/2**
	N104	**67**	**Identification Code** Code identifying a party or other code Parties may define multiple identification codes for a location in order to support warehouse or depositor processing. For example, multiple identification codes might be used to differentiate product lines or stocks for a depositor. Also see Data Elements 66 (Identification Code Qualifier) and 98 (Entity Identifier Code).	**X AN 2/80**

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

	Ref. Des.	Data Element	Name	Attributes	
M	**N201**	**93**	**Name** Free-form name	**M**	**AN 1/60**
	N202	**93**	**Name** Free-form name	**O**	**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

	Ref. Des.	Data Element	Name	Attributes	
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: **1** A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2 N402 is required only if city name (N401) is in the U.S. or Canada.
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

Ref. Des.	Data Element	Name	Attributes	
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 When this data element is used in the N4 segment, it is used only if the country is other than the USA.	**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: **REF** **Reference Identification**
Position: 270
Loop: N1 Optional
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification PE Plant Number	**M**	**ID 2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**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. Des.	Data Element	Name	Attributes	
	LIN01	**350**	**Assigned Identification** Alphanumeric characters assigned for differentiation within a transaction set	**O**	**AN 1/20**
M	**LIN02**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) BP Buyer's Part Number	**M**	**ID 2/2**
M	**LIN03**	**234**	**Product/Service ID** Identifying number for a product or service	**M**	**AN 1/48**
	LIN04	**235**	**Product/Service ID Qualifier** 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	**X**	**ID 2/2**
	LIN05	**234**	**Product/Service ID** 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	**X**	**AN 1/48**

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
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
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
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
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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

	Ref. Des.	Data Element	Name	Attributes	
M	**UIT01**	**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) Refer to 004010UCS Data Element Dictionary for acceptable code values.	**M**	**ID 2/2**
	UIT02	**212**	**Unit Price** Price per unit of product, service, commodity, etc.	**X**	**R4 1/17**
	UIT03	**639**	**Basis of Unit Price Code** Code identifying the type of unit price for an item	**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

	Ref. Des.	Data Element	Name	Attributes	
M	**DTM01**	**374**	**Date/Time Qualifier** 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	**M**	**ID 3/3**
	DTM02	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**
	DTM03	**337**	**Time** 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)	**X**	**TM 4/8**

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

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

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:
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:
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:
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

Ref. Des.	Data Element	Name	Attributes
PO402	**357**	**Size** Size of supplier units in pack For WINS, this data element expresses the size of the packages within a case.	**X R3 1/8**
PO403	**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 The unit or basis for measurement code is used to qualify the contents of various data elements. It will vary depending on the data element it qualifies and the convention within industry groups. PC Piece	**X ID 2/2**

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.
Semantic Notes:
Comments:
Notes: Optional segment REF (reference information)
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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification For WINS, Data Elements 145 (Shipment Identification Number), 285 (Depositor Order Number), 324 (Purchase Order Number), and 531 (Agent Shipment ID Number) are specific data elements and should be sent in the appropriate segments where they appear and not in the Reference Number Segment (N9). Used for cross reference to other invoices to be associated with the invoice defined in G0102 Used for cross reference to other purchase orders to be associated with the purchase order defined in G5003 Used to identify a manufacturing batch (includes lot and/or production code) Used to list the purchase orders (other than the purchase order in G0104) to be considered with the invoice being transmitted A number assigned by the receiving company to uniquely identify a particular invoice, typically for direct store delivery Used to provide a means for brokers to transmit a vendor assigned terms code on a purchase order using the N9 segment A number assigned by the receiving company to uniquely identify a vendor, typically for direct store delivery For Warehouse Transaction Set usage only 55 Sequence Number 5M Previous Sequence DK Dock Number DP Department Number LF Assembly Line Feed Location	**M ID 2/3**
	REF02	**127**	**Reference Identification** 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.	**X AN 1/30**

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

	Ref. Des.	Data Element	Name	Attributes	
M	**FST01**	**380**	**Quantity** Numeric value of quantity	**M**	**R3 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 FST04 is the start date of the flexible interval and the Forecast Horizon Start date for the item(s) identified in the line item detail.	**M**	**DT 8/8**
	FST08	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification For WINS, Data Elements 145 (Shipment Identification Number), 285 (Depositor Order Number), 324 (Purchase Order Number), and 531 (Agent Shipment ID Number) are specific data elements and should be sent in the appropriate segments where they appear and not in the Reference Number Segment (N9). Used for cross reference to other invoices to be associated with the invoice defined in G0102 Used for cross reference to other purchase orders to be associated with the purchase order defined in G5003	**X**	**ID 2/3**

		Used to identify a manufacturing batch (includes lot and/or production code) Used to list the purchase orders (other than the purchase order in G0104) to be considered with the invoice being transmitted A number assigned by the receiving company to uniquely identify a particular invoice, typically for direct store delivery Used to provide a means for brokers to transmit a vendor assigned terms code on a purchase order using the N9 segment A number assigned by the receiving company to uniquely identify a vendor, typically for direct store delivery For Warehouse Transaction Set usage only			
		SH	Sender Defined Clause		
FST09	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		**X**	**AN 1/30**
		Date/Quantity was previously confirmed by phone			

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:
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:
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:
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: 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.
- 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

Ref. Des.	Data Element	Name		Attributes	
SHP01	**673**	**Quantity Qualifier**		**O**	**ID 2/2**
		Code specifying the type of quantity			
		01	Discrete Quantity		
		02	Cumulative Quantity		
SHP02	**380**	**Quantity**		**X**	**R3 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: **1** At least one of REF02 or REF03 is required.
Semantic Notes:
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

	Ref. Des.	Data Element	Name	Attributes
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification For WINS, Data Elements 145 (Shipment Identification Number), 285 (Depositor Order Number), 324 (Purchase Order Number), and 531 (Agent Shipment ID Number) are specific data elements and should be sent in the appropriate segments where they appear and not in the Reference Number Segment (N9). Used for cross reference to other invoices to be associated with the invoice defined in G0102 Used for cross reference to other purchase orders to be associated with the purchase order defined in G5003 Used to identify a manufacturing batch (includes lot and/or production code) Used to list the purchase orders (other than the purchase order in G0104) to be considered with the invoice being transmitted A number assigned by the receiving company to uniquely identify a particular invoice, typically for direct store delivery Used to provide a means for brokers to transmit a vendor assigned terms code on a purchase order using the N9 segment A number assigned by the receiving company to uniquely identify a vendor, typically for direct store delivery For Warehouse Transaction Set usage only SI Shipper's Identifying Number for Shipment (SID) A unique number (to the shipper) assigned by the shipper to identify the shipment	**M ID 2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Ship ID of last receipt	**X AN 1/30**

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

	Ref. Des.	Data Element	Name	Attributes
M	**CTT01**	**354**	**Number of Line Items** Total number of line items in the transaction set CTT01 contains the number of LIN segments present in the transaction set.	**M N0 1/6**
	CTT02	**347**	**Hash Total** 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.	**O R0 1/10**

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

	Ref. Des.	Data Element	Name	Attributes
M	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments When used in the SE segment, the count includes the total number of segments in the transaction including the 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 The transaction set control number (SE02) is the same as that used in the corresponding header (ST02).	**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
REF*PE*PlantCode
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