papiNet

Global Transaction Standards for the Paper Supply Chain

An Overview of the Standard

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An Overview of the ProductAttributes Message

The purpose of the ProductAttributes message is to provide the means to communicate information about products between business partners.

The ProductAttributes message gives a supplier the ability to send information about available products to a buyer or other business partner, so that the receiving party can create and maintain a database of the products available from the supplier. The product definitions consist of one or more product codes and enough product attribute values to define the product, such as product codes, brand name, supplier, producing mill, basis weight, and whether it's supplied in reels or sheets, sizes, as well as many more possibilities.

The ProductAttributes message is also designed to enable exchange of product codes used in electronic trading. Once a buyer has received the information from a supplier he returns the information updated with the cross reference to his product codes.

The ProductAttributes message assumes that a previous agreement between the parties exchanging the information has taken place. The parties exchange the information on a frequency or event basis agreed between them. The agreement would include frequency, the event that triggers messages, content detail, units of measure, and other message aspects.

An Overview of the RFQ Message

A buyer sends an RFQ message to a supplier to initiate a request for quotation. This message, which is a request for product information, represents a request for the supplier to provide a quotation for product availability, shipping, and price.

An RFQ is not a firm commitment to buy; however, an RFQ may lead to a purchase order to buy. It may also refer to prior agreements between the parties such as:

- A contract, which is an agreement between a buyer and a supplier that can specify price, terms and conditions, products, and quantities to be provided over a given period of time.
- A blanket order, which is an agreement between a buyer and a supplier for a given period of time. A blanket order, which typically specifies a particular product, may also specify limits to the volume or amount to be spent with a supplier. An RFQ can be preceded by a blanket order.

An Overview of the Purchase Order Message

A buyer sends a purchase order message to a supplier to initiate a trade transaction. This message, which is a request for product, represents a firm commitment to buy. (For one type of purchase order, called a reservation order, the purchase order is not a firm commitment to buy.)

A purchase order may be preceded by a quotation request. It may also refer to prior agreements between the parties such as:

- A contract, which is an agreement between a buyer and a supplier that can specify price, terms and conditions, products, and quantities to be provided over a given period of time.
- A specification, which is a definition of the manufacturing requirements for a specified product.
- A blanket order, which is an agreement between a buyer and a supplier for a given period of time. A blanket order, which typically specifies a particular product, may also specify the maximum volume or amount to be spent with a supplier.

There are seven types of purchase orders. These messages can be used to specify quantities of product(s) to be purchased, release product(s) to be manufactured, order product samples, book manufacturing capacity, and confirm an order placed by fax, phone, or email.

An Overview of the Order Confirmation Message

A seller sends an order confirmation message to a buyer after receiving a purchase order message from that buyer. The message contains a response to the conditions specified in the purchase order. A supplier may also send an order confirmation message to convey changes that the supplier has made in the order or to convey new information such as a Supplier Reference Number or Job Number.

An Overview of the Call-off Message

A call-off is a delivery schedule for product(s) supported by a purchase order. After a buyer sends a seller a purchase order, any party included on that purchase order could send a call-off. Each line item in a call-off message refers either to a product included in the purchase order or to the product specifications contained in a line item of the purchase order. The call-off message specifies delivery schedule(s) and quantities for the product(s) in the purchase order. The schedule may define a specific date and/or time for delivery or include a time range (defined by date and/or time). All products covered by a call-off message must be delivered to a single location.

The buyer sends the first call-off message, which can then be accepted, amended, cancelled, or rejected by the seller via a call-off confirmation. Subsequent call-off messages can be sent by the buyer with the seller responding using a call-off confirmation. It is not mandatory to respond with a call-off confirmation.
Notes:

- A buyer can include delivery schedule(s) for the product(s) either in a call-off message or in the purchase order itself.
- While a call-off does not need to refer to purchase order a purchase order must exist for the seller to apply the delivery to. A call-off message cannot be used as a purchase order.
- When calling-off by product a purchase order must have been sent to the supplier prior to the call-off message as the supplier must have a purchase order in order to carry out the delivery. A call-off message cannot be used as a purchase order.

An Overview of the Delivery Message

This message specifies the details of a shipment that is either being despatched or will be despatched at a later time. A seller sends a delivery message to one or more receivers, including the ship-to and/or buyer parties. A delivery message fulfils the same or similar role as a delivery note, manifest, weight list, tally sheet, advanced shipping notice, or packing list.

The seller should send the delivery message in sufficient time so the recipient can process the information before the goods arrive. The recipient can then prepare efficiently for the reception of the goods. A delivery message can trigger either an invoice or a direct payment.

There are two types of delivery message. The first, the initial shipment advice, is used to provide general information of a planned or actual shipment and can be used as an advanced notice of delivery. The second, the delivery message, is used to communicate to trading partners that a shipment has occurred with details of the items shipped and tracking information.

An Overview of the Goods Receipt Message

The ShipTo party, or authorised agent, sends a Goods Receipt message to the Supplier and/or to the Buyer acknowledging that a delivery has been received.

The Goods Receipt message is useful for the Supplier or Buyer who needs to know that a ShipTo party has received the goods into inventory. The Supplier or Buyer uses the Goods Receipt message to monitor physical inventory at the ShipTo Location. In some cases the Supplier or Buyer is only interested in the quantity delivered and the Purchase Order Number. The Supplier or Buyer can

use the Goods Receipt message to monitor in-transit inventory, to determine transportation time, or to receive estimated transit damage information.

The Goods Receipt message may include estimated transit damage information, which is early notification prior to an actual damage claim. It is not the start of the claims process, but may be used to prevent reporting the transit damage as available inventory at the ShipTo location.

A Goods Receipt reports on the physical receipt of goods that have been specified in a Delivery Message. It can report if goods were received as specified in the Delivery Message. If there are variances, it can detail the variances. If there are transit problems, it can report on the estimated transit damage. Based on the severity of the damage, or for other reasons, an entire shipment can be rejected.

An Overview of the Invoice Message

A seller sends an invoice message to a buyer after delivering the product(s) specified in a purchase order. The invoice is a list of the goods shipped and their quantities, or services rendered, which usually indicates the prices and terms of sale, supplemental charges, allowances, and communicates the payment required for the delivery of the identified items.

There are a variety of invoice types designed to fulfil different payment or documentation requirements. Sellers can use invoices described in this standard to claim payment for goods supplied (a "regular" invoice), resend an invoice that the buyer misplaced or never received, request payment in advance of delivery, or provide information (usually to a third-party) without claiming payment.

An Overview of the Credit/Debit Note Message

The Credit/Debit Note Message is generally used by the SupplierParty to compensate or charge the trading parties (ShipToParty, BuyerParty, OtherParty, etc.) for matters outside the scope of the invoice. Typically these matters include commercial claims, logistical claims, technical claims, invoice corrections, commissions, and rebates.

A Credit/Debit Note Message can also originate from other trading parties involved in the transaction due to unforeseen circumstances or costs incurred.

Therefore this message is multi-directional between trading parties.

An Overview of the Complaint Message

Typically, a Complaint is sent from the customer or end user to the supplier to communicate information regarding products or services. A response from the supplier is desired and corrective actions, if required.

This message must specify all the necessary details that will enable the supplier to trigger an internal process to verify whether the complaint reason corresponds to the supplier-assessed reason.

The result of this process will generate a separate Complaint Response message.

An Overview of the Complaint Response

Typically, a Complaint Response message is sent from the supplier or sender parties to the party who has originated the Complaint or possibly to the RespondToParty. The message is sent to communicate the acceptance, partial acceptance, or rejection, of the proceeding complaint(s) with supporting information. Whatever the decision, this message must specify how the complaint will be processed.

An Overview of the Usage Message

The Usage message is used to notify a supplier or buyer that material has been consumed within the end users manufacturing process. The Usage message can be used to support different managed inventory processes such as vendor-managed inventory and inventory replenishment. It can also be used to support an invoicing-on-usage arrangement. The Usage message describes the product and the amount of product consumed. It may contain either detail or aggregated information of the physical items consumed. Within the supply chain process, this message can be used to help monitor physical inventory.

Prior to implementing a Usage message it is assumed that the parties involved have already opened a dialogue and a collaborative agreement has been reached. Such an agreement would include the frequency of messages, the point in the manufacturing process at which the product is considered consumed, content detail, units of measure, and how invoicing should be done.

An Overview of the Inventory Change Message

The purpose of the Inventory Change message is to inform involved parties about changes in the inventory at a specific warehouse location managed by one warehouse operator. The message then allows the receiving party to

update these changes to their systems in order to update tracking data for costs, performance, and financial reporting.

The warehouse location can report the change information in different levels of detail that is by warehouse, location, order, package, or item level.

The parties sending and receiving the message can be different. As well as supporting the reporting relationship between a warehouse operator and a supplier the message can also support a printer managing the stock for a publisher.

The types of changes that can be reported through the inventory change message are:

- Damages in the warehouse that causes weight changes through slab off and rewrapping
- Damages or actions in the warehouse that causes downgrading, or total loss of goods
- Physical stock count differences, adjustment of booked value to actual counted value
- Stock and order transfers

Prior to implementing the Inventory Change message it is assumed that the parties involved have already opened a dialogue and a collaborative agreement has been reached. Such an agreement would include frequency of messages, content detail, units of measure, and other areas. Additionally, agreement on when and how to use the message between the parties will have been reached. Based on these agreements a trading partner sends an Inventory Change message to another trading partner on the event basis agreed to.

An Overview of the ProductQuality Message

The ProductQuality message assumes that a previous agreement between buyer and seller has taken place.

Prior to implementing business processes that require a ProductQuality message, it is necessary for the parties involved to have opened a dialogue and reached a collaborative agreement including such items as:

frequency of messages,
form of detail, whether by period, purchase order, or shipment.
content detail, such as

- ✧ the particular quality properties to be sent,
- ✧ which statistical values associated with the properties will be sent,
- ✧ level of aggregation, whether summary and/or detailed information

rules for arriving at measurement values,
rules for replacing and cancelling messages, and
units of measure.

A Supplier sends a ProductQuality message to another trading partner on a frequency or event basis agreed between them, or in response to an electronic request using the papiNet InfoRequest message.

The degree of detail and extent of the information exchanged will vary between Suppliers and their trading partners. The ProductQuality message has been designed to support aggregated information at the period, purchase order, or shipment level, as well as, optionally, details of the items involved.

It is anticipated there will be increased demand for suppliers to provide individual item quality data as the spread of more sophisticated warehousing, process control and database systems increases. Such systems exist already; some attempting to utilise the paper test information to optimise performance of the product on a press, others to group like products in automated warehouses.

The ProductQuality message fully supports providing quality data for individual items. The agreed properties of the product that are exchanged can include statistical values such as minimum and maximum, standard deviation, sample size, two-sigma (lower-limit, upper-limit).

An Overview of the ProductPerformance Message

The ProductPerformance Message is a document created by the product consumer that communicates back to the manufacturer the performance of the product. This message will enable the manufacturer to focus on improvements related to product defects that create inefficiency during performance. The aggregation of performance factors by product will provide the mechanism for achieving the value aspect of the message. The goal is to keep the products of the Pulp & Paper Industry attractive to competing alternatives.

An Overview of the Information Request Message

The purpose of the information request message (InfoRequest) is for the requesting party to indicate to the receiver party an update regarding the current status of either a purchase order or inventory status. The messages that may be returned in response to an InfoRequest are the OrderStatus, InventoryStatus, or Availability. The InfoRequest may originate directly from a buying organization, or indirectly via a web page or an internet-based industry exchange. The requests for inventory status or order status are mutually exclusive within the information request. If the Buyer Party wishes to receive both order status and inventory status, they must be requested by separate InfoRequest messages.

An Overview of the Inventory Status Message

The InventoryStatus message informs involved parties about physical inventory levels at specific stock location/locations, e.g. warehouse, terminal, printer etc., at a certain time, snap-shot information.

The message can be used for:

- The total stock situation or for the situation on a specific order item.
- VMI (Vendor managed inventory)
- Stock reconciliation

Prior to implementing an Inventory Status message it is assumed that the parties involved have already opened a dialogue and a collaborative agreement has been reached. Such an agreement would include frequency of messages, content details, units of measure, etc.

A trading partner sends an Inventory Status message to another trading partner on an agreed event basis, monthly, weekly, upon stock-take etc. or as a response to an Information Request message of InventoryStatus type. If the request includes a StatusAsOfDate the "snapshot" of the inventory should be taken at that time.

An Overview of the OrderStatus Message

The purpose of the OrderStatus message is for the Manufacturer or Supplier to report the current status of an order, specific order line items, or to obtain a list of orders based upon some specified criteria. The message enables the sender to indicate a primary status as well as an additional secondary status at the order level as well as for each line.

Prior to implementing an OrderStatus message it is assumed that the parties involved have already opened a trading partner relationship and a collaborative agreement has been reached. Such an agreement might include frequency of messages, content details, etc.

A trading partner sends an OrderStatus message to another trading partner on an event basis agreed between them. The event that triggers an OrderStatus message might be the receipt of an InfoRequest message, a time interval or perhaps a manufacturing stage.

An Overview of the Planning Message

The purpose of the Planning message is to provide a tool for trading partners to exchange forecasted or planned information for a specific product or event within a specified timeframe. The message is designed to support a variety of

business processes, which may include securing needed supplies or simply to exchange information.

The recipient of the message could use the Planning message to match to their understanding of the senders demand. In situations where lead times are very short, for example a Just-In-Time (JIT) arrangement, the intent is to facilitate the matching of supply to demand. This may include more detailed or timely information as opposed to other processes.

The Planning message can be used in a variety of ways:

- A supplier can communicate a production plan that would include purchase order and shipment detail information.
- A printer can communicate anticipated aggregated usage at a facility to aid the supplier to better plan logistics.
- The Planning message could release against a blanket purchase order or a contract to support various replenishment models or, situations where paper is produced to satisfy communicated demand without issuing a separate purchase order.
- Typically, trading partners send Planning messages on a frequency or event basis agreed between them.

For the purposes of the Planning message, a plan is:

production of, requirements for, or delivery of a product
aggregated in time-periods
for a location or group of locations

Where:

- product defines the item for which the quantities are specified populated by different types of orders, job specifications, or planned shipments that consume the capacity
- time-period defines the time intervals for which quantities are specified
- location defines the physical point in the supply chain

An Overview of the Availability Message

The purpose of the Availability message is to provide a means to ask a supplier about the availability of the specified product. The amount of the product immediately available (on-hand) is anticipated to be returned. Optionally, the supplier may also provide the anticipated availability of the product in future manufacturing cycles. The Availability message returns to the requestor the answer to the question, “Does the product exist?”

Prior to implementing an Availability message it is assumed that the parties involved have already opened a trading partner relationship and a collaborative agreement has been reached. Such an agreement might include frequency of messages, content details, etc.

A trading partner sends an Availability message to another trading partner on an event basis agreed between them. The event that triggers an Availability message might be the receipt of an InfoRequest message, a time interval, or perhaps a manufacturing stage. An RFQ or a PurchaseOrder may optionally follow in the business process.

Availability Message Contrasted with Other Messages

The Availability message differs from the RFQ/RFQResponse message pair in that:

- The RFQ pair may actually reserve the product for a period of time.
- The RFQ communicates pricing information, shipping conditions, terms of payment, and other financial information.
- A PurchaseOrder frequently follows an RFQ with the PurchaseOrder referencing the RFQResponse number
- An RFQ also has a 'life'. That is, it may continue to exist for a specified length of time before the receiver of the RFQ either receives a Purchase Order that references the RFQ or until the expiry period comes to an end.

The Availability message differs from the Planning message in that:

- the Availability message will not specify purchase order related information
- the Availability message does not specify shipping details related to the product for the requesting party or buyer party
- the available product information itself may or may not be as firm as the same information in the Planning message would be.

An Overview of the Business Acknowledgement

The message receiver uses the Business Acknowledgement message to notify the message sender how a message was processed in the receiver's ERP system. It can be used to acknowledge any papiNet message. Although the message is optional between two trading partners, its use is strongly recommended since it provides positive verification of the end result of an electronic exchange.

If the Business Acknowledgement message is used, the sender of the original message should have in place an error resolution process. This process should monitor errors received via the Business Acknowledgement, routing them to the correct organisation for resolution. The monitoring process may also check for unacknowledged messages to increase the verification that all sent messages have been processed.