

papiNet

Inventory Disposition Instructions

papiNet Standard - Version 2.31

Documentation

Global Standard for the Paper and Forest Products Supply Chain

January 2009

Production Release

Copyright

Copyright 2000 – 2009 papiNet G.I.E ("papiNet"), International Digital Enterprise Alliance, Inc. ("IDEAlliance"), and American Forest & Paper Association, Inc. ("AF&PA"), collectively "Copyright Owner". All rights reserved by the Copyright Owner under the laws of the United States, Belgium, the European Economic Community, and all states, domestic and foreign. This document may be downloaded and copied provided that all copies retain and display the copyright and any other proprietary notices contained in this document. This document may not be sold, modified, edited, or taken out of context such that it creates a false or misleading statement or impression as to the purpose or use of the papiNet specification, which is an open standard. Use of this Standard, in accord with the foregoing limited permission, shall not create for the user any rights in or to the copyright, which rights are exclusively reserved to the Copyright Owner.

papiNet (formerly known as the European Paper Consortium for e-business - EPC), IDEAlliance (formerly known as the Graphic Communications Association - GCA), the parent organisation of IDEAlliance the Printing Industries of America (PIA), the American Forest and Paper Association (AF&PA), and the members of the papiNet Working Group (collectively and individually, "Presenters") make no representations or warranties, express or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, title, or non-infringement. The presenters do not make any representation or warranty that the contents of this document are free from error, suitable for any purpose of any user, or that implementation of such contents will not infringe any third party patents, copyrights, trademarks or other rights. By making use of this document, the user assumes all risks and waives all claims against Presenters.

In no event shall Presenters be liable to user (or other person) for direct, indirect, special or consequential damages arising from or related to any use of this document, including, without limitation, lost profits, business interruption, loss of programs, or other data on your information handling system even if Presenters are expressly advised of the possibility of such damages.

Use of Documents in papiNet Implementations

Documents may be used as templates for a papiNet implementation. The Presenters grant the right to modify and edit them to fit an actual

Page: 2 of 18 Production Release

implementation project provided all copies display the copyright and any other proprietary notices contained in this document. Such modified documents must not be distributed beyond the trading partners implementing or maintaining a papiNet connection.

Additional Copyright Information

Additional copyrights may be referenced throughout this document in the appropriate section.

Page: 3 of 18 Production Release

| Table of Contents | |
|---|----|
| Copyright | 2 |
| Use of Documents in papiNet Implementations | 2 |
| Additional Copyright Information | |
| Table of Contents | |
| InventoryDispositionInstructions Documentation | 5 |
| An Overview of the InventoryDispositionInstructions Message | |
| The Scope of Inventory Disposition Instructions Message | |
| InventoryDispositionInstructionsType [attribute] | |
| Business Rules for Inventory Disposition Instructions | |
| InventoryDispositionInstructions Structure | |
| Understanding the Diagrams and Content | |
| Inventory Disposition Instructions Root Element | |
| InventoryDispositionInstructions | |
| Primary Elements | |
| InventoryDispositionInstructionsHeader | 11 |
| InventoryDispositionInstructionsDetail | 12 |
| Inventory Disposition Instructions Business Scenarios | |
| InventoryDispositionInstructions Scenario Listing | |
| Scenario A | |
| Scenario B | 16 |
| Scenario C | 17 |
| Scenario D | 17 |
| | |

InventoryDispositionInstructions Documentation

An Overview of the InventoryDispositionInstructions Message

The purpose of the InventoryDispositionInstructions message is for the owner of inventory stored at a third party location to request the inventory be destroyed, shipped to another location, held in inventory, or physically changed. The receiving party makes the requested changes to the inventory and sends an InventoryChange Message and ShippingInstructions, if required, to the requestor so their systems can be updated.

The parties sending and receiving the message can be different. As well as supporting the reporting relationship between a publisher owning stock at a printer or a warehouse operator and a supplier the message can also support a Paper Mill Vendor Managed Inventory at a printer.

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

- Slitting Paper or cutting rolls to sheets.
- Shipment from the current printer location to another location.
- Request to hold excess inventory from a job for future production.
- Request to destroy excess raw materials or Work in Process that will not be used by the owner (publisher).

Prior to implementing the InventoryDispositionInstructions 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 business use 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 InventoryDispositionInstructions message to another trading partner on the event basis agreed to.

The Scope of Inventory Disposition Instructions Message

The InventoryDispositionInstructions message can include:

- Product specifications, such as product identifier.
- Warehouse/customer locations.
- Product details such as width, diameter, pallet size, etc.'
- Reel ID/Package ID

The InventoryDispositionInstructions message must include:

- InventoryDispositionInstructionsType, indicating the type of disposition
- ProductIdentifier

Page: 5 of 18 Production Release

InventoryDispositionInstructionsType [attribute]

Indicates the type of inventory disposition that is required. As this attribute is at the line level multiple dispositions can be communicated in a single message.



This item is restricted to the following list.

Scrap

Raw Material or Work in Process to be scrapped.

Destroy

Finished Goods or Work in Process containing copyrighted information that must be physically destroyed.

Hold

Excess raw materials, Work in Process, or Finished Goods that should be held for future production or until other Disposition Instructions are received at the current location .

Transfer

Raw materials or Work in Process that will be shipped to another location.

Business Rules for InventoryDispositionInstructions

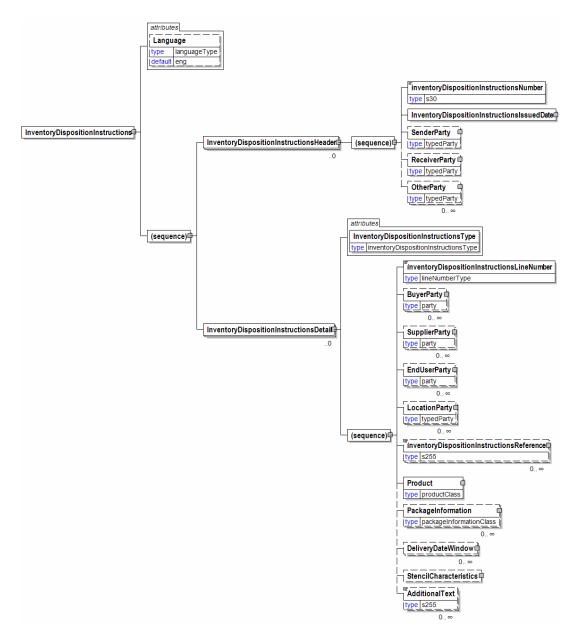
General Business Rules

The following table lists the business rules that apply to all Inventory message types. Rules that apply to a single inventory Disposition Instructions message type are described in separate tables.

| Identifier | Business Rule |
|------------|--|
| IC001 | Inventory Disposition Instructions message line requires a Disposition Instructions type. |
| IC002 | The Inventory Disposition Instructions message can originate from any trading party. The business flow is the same regardless of sender or receiver. |
| IC003 | An amendment to the Inventory Disposition Instructions message is handled through a new message. |

Page: 6 of 18 Production Release

InventoryDispositionInstructions Structure



Understanding the Diagrams and Content

This section provides a graphical view of the schema structures, a discussion of the item's children. You can find additional information about papiNet and the standard at www.papiNet.org.

The graphics contain content model indicators, cardinality indicators, and data type information.

Associated with each graphic are the definitions for the parent item and any associated child items. All attributes are listed first, followed by the

Page: 7 of 18 Production Release

elements.

The following information should help you interpret and understand this standard. Please note the following:

- Content Model and Cardinality operate together to determine if the element or attribute are required in the instance document.
- The same attribute can never appear multiple times in the same element so, you will never see a multiple cardinality indicator.

Content model indicators:

There are three possible types of content: "sequence", "choice", and "all". The papiNet standard currently does not use the "all" construct.

• (sequence)

The sequence of the items to the right of the graphic (or below the text) is required.

• (choice)

A choice of the items to the right of the graphic (or below the text) is permitted.

• (all)

All the items to the right of the graphic are required.

Cardinality indicators:

• Dotted line around element or attribute.

A single instance of the item can optionally exist.

Dotted line around item with range indicated below.

Multiple instances of the item can optionally exist.

Solid line around item.

A single instance of the item must exist.

Solid line around item with range indicated below

At least one instance must exist; multiple instances can optionally exist.

Datatype indication:

When a data type is assigned to an element (either a simple type or complex type the name of the data type is presented beneath the item name in the graphic.

• In some cases additional information about the data type is presented (the default value).

Elements can either have content that is textual/numeric in nature or content that is made up of additional elements and/or attributes.

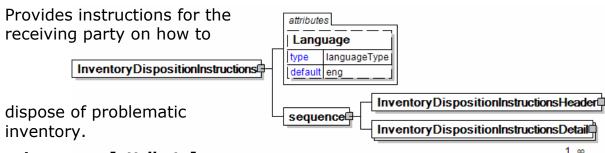
- When the content is textual/numeric in nature "three straight horizontal lines" will appear in the upper left-hand corner of the graphic. Pay attention to these elements because they are where you will be entering your information.
- When the content is made up of additional elements and/or attributes a "gray-box" will appear on the right-hand side of the graphic.
- If the graphic shows both the horizontal lines and the gray-box then, in the papiNet standard, the content below the element are attributes.

Page: 8 of 18 Production Release

Page: 9 of 18 Production Release

Inventory Disposition Instructions Root Element

InventoryDispositionInstructions



Language [attribute]

Language is optional. A single instance might exist.

XML has embraced 2 and 3 digit language codes through the application of an addendum to the standard.

Information on the content of this attribute is available at http://www.loc.gov/standards/iso639-2/ this is the official site of the ISO 639-2 Registration Authority.

- http://www.w3.org/International/O-HTML-tags.html provides an explanation of the errata updating XML.
- http://www.ietf.org/rfc/rfc3066.txt is the key document that is referenced in the above errata.

(sequence)

The contents of (sequence) are mandatory. A single instance is required.

InventoryDispositionInstructionsHeader

InventoryDispositionInstructionsHeader is mandatory. A single instance is required.

Provides information that is common for the instructions on how to dispose of problematic inventory.

InventoryDispositionInstructionsDetail

InventoryDispositionInstructionsDetail is mandatory. One instance is required, multiple instances might exist.

InventoryDispositionInstructionsDetail provides information about the product to be disposed of and the method of disposal.

Page: 10 of 18 Production Release

Primary Elements

InventoryDispositionInstructionsHeader

Provides information that is common for InventoryDispositionInstructionsNumber the instructions on how to dispose of type s30 problematic inventory. InventoryDispositionInstructionsIssuedDate (sequence) SenderParty ... Inventory DispositionInstructions Header sequence type typedParty ReceiverParty# type typedParty The contents of (sequence) are OtherParty | mandatory. A single instance is required. type typedParty

${\bf Inventory Disposition Instructions Number}$

InventoryDispositionInstructionsNumber is mandatory. A single instance is required.

The identifying number for the Inventory Disposition message.

${\bf Inventory Disposition Instructions Is sued Date}$

InventoryDispositionInstructionsIssuedDate is mandatory. A single instance is required.

The date that the disposition instructions were issued.

SenderParty

SenderParty is optional. A single instance might exist.

The business entity issuing the business document, the source of the document.

• This is the same entity as the "From" party in the ebXML message service envelope. The entity responsible for the content. If the sender party has out sourced the transmission function to a third party the sender party is the original party not the party performing the transmission service.

ReceiverParty

ReceiverParty is optional. A single instance might exist.

The business entity for whom the business document is intended, the destination of the document.

• This is the same entity as the "To" party in the ebXML message service envelop. The entity interested in the content. If the receiver party has outsourced the message receipt function to a third party the receiver party is the intended party not the party performing the receiving process.

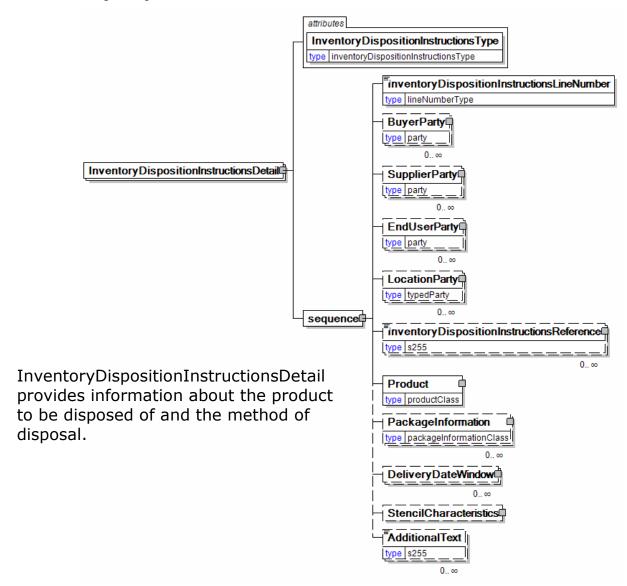
OtherParty

OtherParty is optional. Multiple instances might exist.

An organisation or business entity other than those specifically detailed within a business document.

Page: 11 of 18 Production Release

InventoryDispositionInstructionsDetail



InventoryDispositionInstructionsType [attribute]

InventoryDispositionInstructionsType is mandatory. A single instance is required.

Indicates the type of inventory disposition that is required. As this attribute is at the line level multiple dispositions can be communicated in a single message.

This item is restricted to the following list.

Scrap

Raw Material or Work in Process to be scrapped.

Destroy

Finished Goods or Work in Process containing copyrighted information that must be physically destroyed.

Hold

Excess raw materials, Work in Process, or Finished Goods that should be held for future production or until other Disposition Instructions are received at the current location .

Transfer

Raw materials or Work in Process that will be shipped to another location.

(sequence)

The contents of (sequence) are mandatory. A single instance is required.

InventoryDispositionInstructionsLineNumber

InventoryDispositionInstructionsLineNumber is mandatory. A single instance is required.

The sequential number that uniquely identifies the inventory disposition instructions line item.

BuyerParty

BuyerParty is optional. Multiple instances might exist.

The legal entity to which the product is sold. Also commonly referred to as the sold-to party or customer. If no OtherParty is defined as the Payer, the Buyer is the Payer.

SupplierParty

SupplierParty is optional. Multiple instances might exist.

The organisation or business entity responsible for providing the product. SupplierParty is also the seller of the product, if Seller is not specified as OtherParty = Seller.

EndUserParty

EndUserParty is optional. Multiple instances might exist.

The party using, consuming, or converting the product. For example, a printer using paper reels for a print job for a publisher. The final ShipTo destination for a product is normally to the end user's facilities.

LocationParty

LocationParty is optional. Multiple instances might exist.

The organization or business entity where the business event took place or will take place.

InventoryDispositionInstructionsReference

InventoryDispositionInstructionsReference is optional. Multiple instances might exist.

Contains references that pertain to the Inventory Disposition Instructions message.

Page: 13 of 18 Production Release

Product

Product is mandatory. A single instance is required.

Product is a group item defining the article and its characteristics. Product is used to specify product characteristics organized by ProductIdentifier, ProductDescription, and Classification. Book Manufacturing, Label Stock, Paper, Pulp, Recovered Paper, Wood Products, and Virgin Fibre market segments have defined their product characteristics and conversion features for implementation in papiNet.

PackageInformation

PackageInformation is optional. Multiple instances might exist.

The purpose of the PackageInformation structure is to clearly identify physical handling items that constitute the delivery.

PackageInformation is the highest level of product packaging it describes the shipping or warehousing unit.

- If you are communicating a package, usually for logistics or transport purposes, you should include the PackageType, Identifier, ItemCount, and Quantity. (Note: you still have the ability to describe the item with one of the "named" items.)
- If you are communicating one of the named Items there is no need to include PackageType, Identifier, ItemCount, and Quantity.

Since either of these two approaches can be used the entie contents of this element are optional even though the parent may be required. It is expected that you will fill in the appropriate details.

DeliveryDateWindow

DeliveryDateWindow is optional. Multiple instances might exist.

A group item defining the date/time interval for delivery to take place. An element which may contain the estimated date for which delivery is expected. This date is not absolute.

StencilCharacteristics

StencilCharacteristics is optional. A single instance might exist.

A group element specifying attributes of a stencil to be applied to an item, and optional text.

AdditionalText

AdditionalText is optional. Multiple instances might exist.

A text field that is used to communicate information not previously defined or for special instructions. To be used only for circumstances not covered by specific elements.

Page: 14 of 18 Production Release

InventoryDispositionInstructions Business Scenarios

InventoryDispositionInstructions Scenario Listing

| Scenario A | Paper owned by publisher, held at printer location, to be scrapped. |
|------------|--|
| Scenario B | Paper owned by publisher, held at one printer location, to be shipped to another printer location. |
| Scenario C | Extra covers from job, owned by publisher, held at printer location, to be held for future printing. |
| Scenario D | Finished excess book sections held at printer location to be destroyed. |

Scenario A

| enario A | | |
|-----------|---|--|
| Message | InventoryDispositionInstructions | |
| Туре | Scrap | |
| Scenario | Publisher requests that butt roll in publisher's inventory at printer location be scrapped. | |
| Outcome | Paper is scrapped; inventory figures at printer and publisher are updated | |
| Initiator | Publisher/Customer | |
| Receiver | Printer/Supplier | |
| Trigger | Inventory Status report from printer location to publisher shows 1 butt roll of Paper Grade, no longer used, in inventory | |
| Step 1. | Publisher/Customer sends an InventoryDispositionInstructions message with the type scrap to the supplier. | |
| | The following information included in the InventoryDispositionInstructions message is particular to this Use Case. • InventoryDispositionInstructions Type • Sender • Receiver • Product Identifier • Quantity | |

Page: 15 of 18 Production Release

| Step 2. | Message received by Printer/Supplier; sections are destroyed. |
|---------|---|
| | Destroyed quantity entered in supplier ERP updating inventory quantity for Text Sections to 0. This also generates an InventoryChange Message to the Publisher/Customer with an InventoryChangeType of Destroy. |

Scenario B

| епагіо в | <u></u> |
|---------------|--|
| Message | InventoryDispositionInstructions |
| Туре | Transfer |
| Scenario | Publisher requests that paper in publisher's inventory at printer location be sent to another printer location. |
| Outcome | Paper is shipped from Printer holding paper (Printer A)to another Printer Location (Printer B). Inventory Change and Delivery message are sent by Printer "A" enabling Publisher to update ERP. |
| Initiator | Publisher/Customer |
| Receiver | Printer/Supplier |
| Preconditions | What exists prior to the start? |
| XML File | The name of any sample file. |
| Trigger | Publisher ERP determines required paper for job at Printer B is available and unallocated at Printer A. |
| Step 1. | Publisher sends InventoryDispositionInstructions message to Printer A. |
| | The following information included in the InventoryDispositionInstructions message is particular to this Use Case. • Sender • Receiver • InventoryDispositionInstructions Type • Product information • Quantity |

Page: 16 of 18 Production Release

| | ShipTo Location |
|---|--|
| _ | Message received by Printer A. Paper is shipped to Printer B. InventoryChange message is sent to Publisher. DeliveryMessage is sent to printer B with a copy to Publisher. |

Scenario C

| Message | InventoryDispositionInstructions |
|---------------|--|
| Туре | Hold |
| Scenario | Extra covers at printer to be held for future jobs. |
| Outcome | No change to quantity of Covers in Printer and Publisher ERP Inventory Systems. |
| Initiator | Publisher/Customer |
| Receiver | Printer/Supplier |
| Preconditions | InventoryStatus message from Printer to Publisher has Covers with QuantityTypeContext of Balance. |
| Trigger | Production of Books ordered is completed and there are excess covers. |
| Step 1. | Publisher sends message to Printer. The following information included in the InventoryDispositionInstructions message is particular to this Use Case. • Sender • Receiver • InventoryDispositionInstructions Type • Product information • Quantity |
| Step 2. | Message received by Printer and classification of stock is updated in ERP. |

Scenario D

| Message | InventoryDispositionInstructions |
|---------|----------------------------------|
| Туре | Destroy |

Page: 17 of 18 Production Release

| Scenario | Publisher has printed book sections at a Printer location that must be destroyed because they contain copyrighted material. |
|---------------|---|
| Outcome | Text Section is Destroyed; inventory figures at printer and publisher are updated |
| Initiator | Publisher/Customer |
| Receiver | Printer/Supplier |
| Preconditions | Excess text sections produced were being held in inventory. |
| XML File | The name of any sample file. |
| Trigger | Publisher ERP shows no future demand for this inventory. |
| Step 1. | Publisher/Customer sends an InventoryDispositionInstructions message with the type destroy to the Printer/Supplier. |
| | The following information included in the InventoryDispositionInstructions message is particular to this Use Case. • InventoryDispositionInstructions Type • Sender • Receiver • Product Identifier • Quantity |
| Step 2. | Message received by supplier and customer and downgraded stock updated in supplier and Customer ERP and correct stock figures are obtained in respective ERP. Message also generates info for further actions, costs and tracking in supplier ERP |

Page: 18 of 18 Production Release