



papiNet

Service Instruction

papiNet Standard - Version 2.31

Documentation

**Global Standard for the Paper and Forest
Products Supply Chain**

Build V2R31_20201021

Date 2020-11-14

Production Release

Service Instruction

papiNet Standard – Version 2.31

Copyright

Copyright 2000 - 2020 papiNet G.I.E (“papiNet”) and International Digital Enterprise Alliance, Inc. (“IDEAlliance”) 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, IDEAlliance, and the members of all papiNet Groups (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 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.

ServiceInstruction papiNet Standard – Version 2.31

Table of Contents

Copyright	2
Use of Documents in papiNet Implementations	2
Table of Contents	3
ServiceInstruction Documentation	4
ServiceInstruction e-Document Overview	4
The Scope of the ServiceInstruction	4
ServiceInstructionType [attribute]	4
Business Rules for ServiceInstruction	5
Processing the ServiceInstruction	5
Understanding the Diagrams and Content	6
ServiceInstruction Root Element	8
ServiceInstruction	8
Primary Elements	10
ServiceInstructionHeader	10
ServiceInstructionLineItem	12
ServiceInstructionSummary	14
ServiceInstruction Business Scenarios	15
ServiceInstruction Scenario Listing	15
Scenario A	16
Scenario B	17

ServiceInstruction papiNet Standard – Version 2.31

ServiceInstruction Documentation

ServiceInstruction e-Document Overview

The ServiceInstruction e-Document can be used to instruct a party to carry out a service. Characteristics for the service can be specified.

Instructions for deliveries and measuring of products have dedicated e-Documents DeliveryInstruction and MeasuringInstruction.

The ServiceInstructionType controls the usage of the ServiceInstruction e-Document. For example, it can be used to instruct what products to produce in a forest logging operation or how to carry out destining of products to end users.

The ServiceInstruction e-Document is typically used by the Forest Wood Supply & Bioproducts business, but it can also be used by other businesses.

More service instruction types can be added on request to papiNet.

The Scope of the ServiceInstruction

The ServiceInstruction e-Document can include:

- Characteristics for the service.
- Business parties involved in the service.
- Information about where the service shall be carried out.
- Various dates related to the service.
- Validity period for the service instruction.
- Information about resources related to the service.
- Line items with information about
 - Product.
 - Quantity.
 - Ship to destination.
 - Delivery schedule
 - Measuring specification for the product.
 - Safety and environmental information
- Summary information for the ServiceInstruction

ServiceInstructionType [attribute]

ServiceInstructionType defines the type of ServiceInstruction e-Document.

This item is restricted to the following list.

ForestLoggingInstruction

An instruction specifying what products to produce in a forest logging and

ServiceInstruction

papiNet Standard – Version 2.31

forwarding operation.

ProductDestiningInstruction

An instruction requesting the receiver to destine product(s) to end users.

Business Rules for ServiceInstruction

General Business Rules

Identifier	Business Rule
SI001	ServiceInstructionLineItem is mandatory for ServiceInstructionType ForestLoggingInstruction and ProductDestiningInstruction.

Processing the ServiceInstruction

ServiceInstruction processing depends on the value in the status field ServiceInstructionStatusType at the e-Document root level. There is only one status field in the e-Document.

Status Values Used When Processing the ServiceInstruction

The following status values of ServiceInstructionStatusType are used at the ServiceInstruction root level:

- Original - The supplied information is the first version of that information.
- Replaced - The supplied information is replacing earlier supplied information. The receiver should revalidate the information in their system based upon the entire information received.
- Cancelled - The supplied information is cancelled.

ServiceInstruction e-Document versions must be processed in an ascending order to ensure the correct processing of replacements and/or cancellations. Versions of ServiceInstruction are controlled by TransactionHistoryNumber when it is supplied in the e-document. Otherwise it is controlled by the issue date and time of the e-document (DocumentIssueDate). Use of TransactionHistoryNumber is recommended. When TransactionHistoryNumber is not used, then the sender has to secure that two versions don't get the same issue date and time.

Processing order of a new version is determined by

1. TransactionHistoryNumber is higher in the new version than in earlier processed versions of ServiceInstruction with the same DocumentNumber and the same SenderParty.
2. If TransactionHistoryNumber isn't used, then the issue date of the new version has to be later than the issue date of earlier processed versions of ServiceInstruction with the same DocumentNumber and

Service Instruction

papiNet Standard – Version 2.31

the same SenderParty.

When a replaced e-document comes as the first e-document the receiving party must be able to accept a replace without having the original e-document.

E-document versions not fulfilling above rules have to be rejected.

E.g. the replaced e-document might be the first one that arrives and it is updated in the system. Then later the original e-document arrives. In this case the original e-document must be rejected.

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 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

Service Instruction

papiNet Standard – Version 2.31

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.

ServiceInstruction

papiNet Standard – Version 2.31

ServiceInstruction Root Element

ServiceInstruction

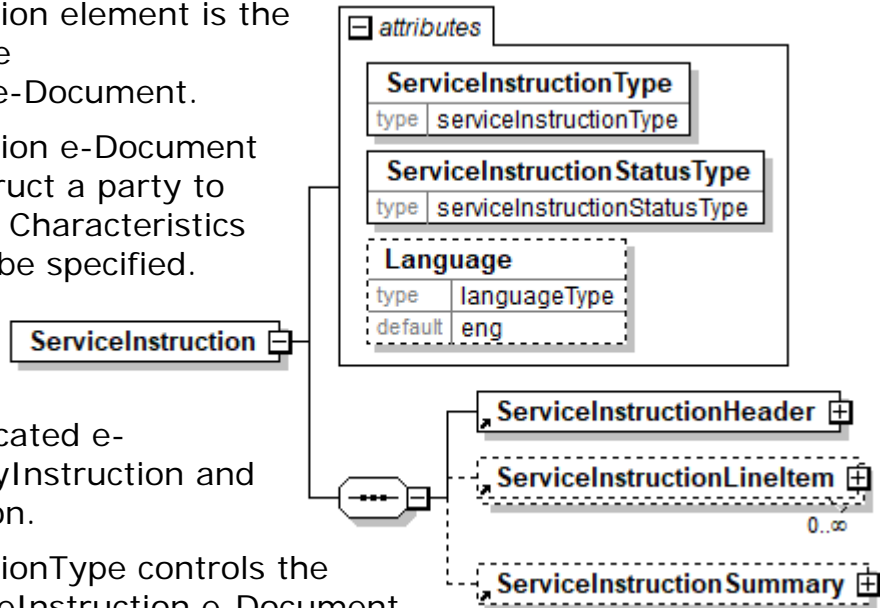
The ServiceInstruction element is the root element for the ServiceInstruction e-Document.

The ServiceInstruction e-Document can be used to instruct a party to carry out a service. Characteristics for the service can be specified.

Instructions for deliveries and measuring of products have dedicated e-Documents DeliveryInstruction and MeasuringInstruction.

The ServiceInstructionType controls the usage of the ServiceInstruction e-Document.

For example, it can be used to instruct what products to produce in a forest logging operation or how to carry out destining of products to end users.



ServiceInstructionType [attribute]

ServiceInstructionType is mandatory. A single instance is required.

ServiceInstructionType defines the type of ServiceInstruction e-Document.

This item is restricted to the following list.

ForestLoggingInstruction

An instruction specifying what products to produce in a forest logging and forwarding operation.

ProductDestiningInstruction

An instruction requesting the receiver to destine product(s) to end users.

ServiceInstructionStatusType [attribute]

ServiceInstructionStatusType is mandatory. A single instance is required.

Identifies the status of the entire ServiceInstruction e-Document.

This item is restricted to the following list.

Cancelled

The supplied information has been cancelled. Items that have been cancelled are not included in totals on the summary levels of the e-document.

Original

The supplied information is the first version of that information.

Replaced

The supplied information is replacing earlier supplied information. The receiver should revalidate the information in their system based upon the entire information

ServiceInstruction

papiNet Standard – Version 2.31

received.

Language [attribute]

Language is optional. A single instance might exist.

The valid Alpha 2- and Alpha 3-character list of language codes in the ISO 639-1 and 639-2 international standards.

Information on the content of this attribute is available at:
https://www.loc.gov/standards/iso639-2/php/code_list.php

(sequence)

The sequence of items below is mandatory. A single instance is required.

ServiceInstructionHeader

ServiceInstructionHeader is mandatory. A single instance is required.

The MeasuringTicketHeader contains information common to the entire MeasuringTicket e-Document.

ServiceInstructionLineItem

ServiceInstructionLineItem is optional. Multiple instances might exist.

A grouping element that contains information for a line item of the ServiceInstruction. The line item specifies detail information associated with a product.

ServiceInstructionSummary

ServiceInstructionSummary is optional. A single instance might exist.

A grouping element that contains summary information that applies to the entire ServiceInstruction e-Document.

ServiceInstruction papiNet Standard – Version 2.31

Primary Elements

ServiceInstructionHeader

The ServiceInstructionHeader contains information common to the entire ServiceInstruction e-Document.

ServiceInstructionNumber

ServiceInstructionNumber mandatory. A single instance is required.

The unique identifier of a ServiceInstruction e-Document.

DocumentIssueDate

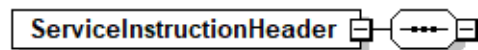
DocumentIssueDate is mandatory. A single instance is required.

The date and time when the e-Document was issued.

TransactionHistoryNumber

TransactionHistoryNumber is optional. A single instance might exist.

A



sequential number that keeps track of the version of a document being sent by the document originator. However when the document is a confirmation document, in which case the TransactionHistoryNumber refers to the trigger transaction for which the confirmation is being sent.

SenderParty

SenderParty is optional. A single instance might exist.

The business entity issuing the e-Document, the source of the document.

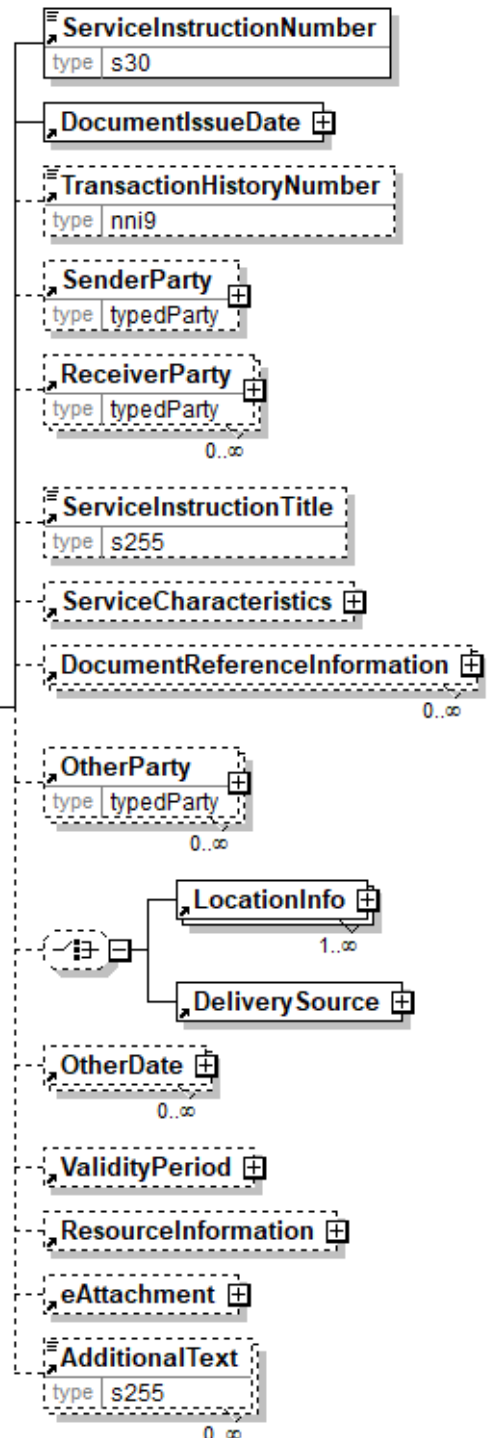
- The entity responsible for the content. If the sender party has out sourced the message service to a third party the SenderParty is the issuer of the e-Document and not the party performing the transmission service of the electronic message.

ReceiverParty

ReceiverParty is optional. Multiple instances might exist.

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

- The entity interested in the content. If the receiver party has outsourced the message service to a third party the ReceiverParty is the intended party for the e-Document and not the party performing the receiving service of the



ServiceInstruction

papiNet Standard – Version 2.31

electronic message.

ServiceInstructionTitle

ServiceInstructionTitle is optional. A single instance might exist.

A text describing the context of the ServiceInstruction.

ServiceCharacteristics

ServiceCharacteristics is optional. A single instance might exist.

A grouping element that contains information related to the service.

DocumentReferenceInformation

DocumentReferenceInformation is optional. Multiple instances might exist.

A group item containing reference information applicable to a document.

OtherParty

OtherParty is optional. Multiple instances might exist.

An organisation or business entity other than those specifically detailed within a e-Document.

(choice)

[choice] is optional. A single instance might exist.

LocationInfo

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

A grouping element that contains information about a geographical location.

DeliverySource

DeliverySource is is mandatory. One instance is required.

A grouping element with information that identifies and specifies the source of a delivery, e.g. a logging area.

OtherDate

OtherDate is optional. Multiple instances might exist.

A date that may not be specifically detailed within a document (example: print date at the PurchaseOrderLineItem).

ValidityPeriod

ValidityPeriod is optional. A single instance might exist.

The validity period for a specific item, e.g. the validity period for an e-Document.

ResourceInformation

ResourceInformation is optional. A single instance might exist.

A group item that contains information for specification of resources.

eAttachment

eAttachment is optional. A single instance might exist.

eAttachment enables the sender to provide information about attachments to the document.

- Note: An element "e-Attachment" also exists. papiNet will no longer use hyphens in our element and attribute names as this causes issues with BizTalk.

AdditionalText

ServiceInstruction papiNet Standard – Version 2.31

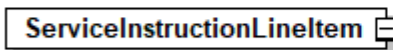
AdditionalText is optional. Multiple instances might exist.

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.

ServiceInstructionLineItem

A grouping element that contains information for a line item of the ServiceInstruction. The line item specifies detail information associated with a product.

ValidityStatus [attribute]



ValidityStatus is optional. A single instance might exist.

The validity status for a specific item.

This item is restricted to the following list.

Active

The item is active. Business transactions can be executed with reference to the item during the validity period.

Closed

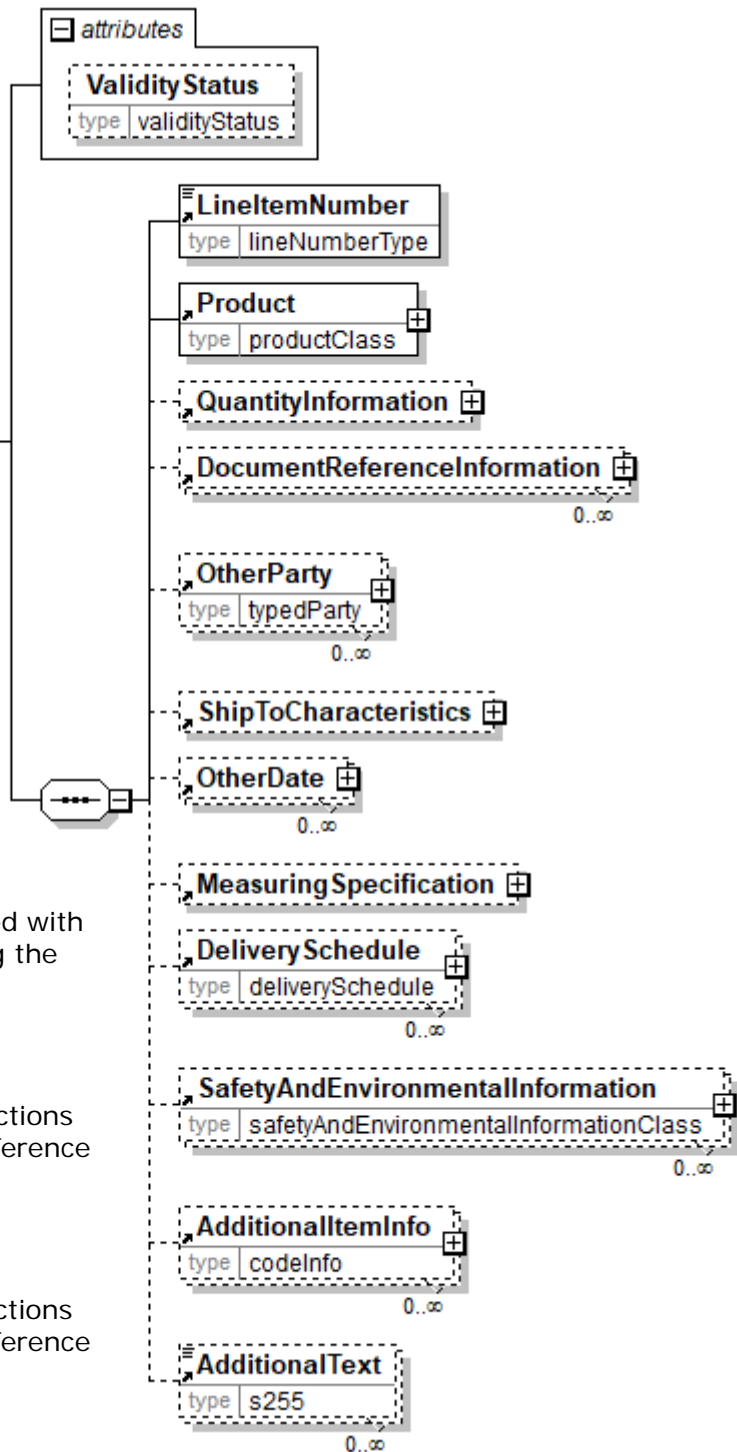
The item is terminated or completed. Business transactions cannot be executed with reference to the item.

Pending

The item is preliminary or unfinished. Business transactions cannot be executed with reference to the item.

(sequence)

The sequence of items below is mandatory. A single instance is required.



Service Instruction

papiNet Standard – Version 2.31

LineItemNumber

LineItemNumber is mandatory. A single instance is required.

A sequential number that uniquely identifies the line item of an e-Document.

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, Forest Wood, 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.

QuantityInformation

QuantityInformation is optional. A single instance might exist.

A group item containing information about quantity and informational quantity of similar items.

DocumentReferenceInformation

DocumentReferenceInformation is optional. Multiple instances might exist.

A group item containing reference information applicable to a document.

OtherParty

OtherParty is optional. Multiple instances might exist.

An organisation or business entity other than those specifically detailed within a e-Document.

ShipToCharacteristics

ShipToCharacteristics is optional. A single instance might exist.

A group item that provides information important for the Ship-To Party.

OtherDate

OtherDate is optional. Multiple instances might exist.

A date that may not be specifically detailed within a document (example: print date at the PurchaseOrderLineItem).

MeasuringSpecification

MeasuringSpecification is optional. A single instance might exist.

A grouping element that contains a specification for measurement procedures.

DeliverySchedule

DeliverySchedule is optional. Multiple instances might exist.

A group item defining a series of DeliveryDateWindow(s) in which specified quantities must be delivered.

SafetyAndEnvironmentalInformation

SafetyAndEnvironmentalInformation is optional. Multiple instances might exist.

Name of certification type, if any, on the goods (For example, FSC, PEFC). SafetyAndEnvironmental needs a value or measurement to communicate the percentage of the product is certified (for example, 75% is certified by the indicated agency).

Service Instruction

papiNet Standard – Version 2.31

AdditionalItemInfo

AdditionalItemInfo is optional. Multiple instances might exist.

A grouping element that contains information about additional items specified by an agency. Restricted use of this element is recommended.

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.

ServiceInstructionSummary

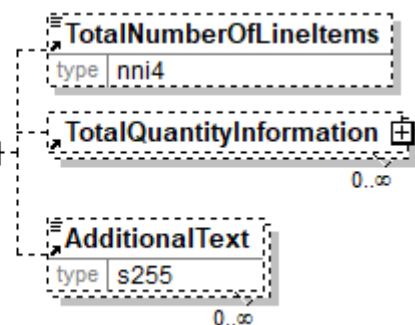
A grouping element that contains summary information that applies to the entire ServiceInstruction e-Document.

sequence)

ServiceInstructionSummary



The sequence of items below is mandatory. A single instance is required.



TotalNumberOfLineItems

TotalNumberOfLineItems is optional. A single instance might exist.

The total number of individual line items in the document, regardless of the status or type.

TotalQuantityInformation

TotalQuantityInformation is optional. Multiple instances might exist.

A group item containing information about the total quantity and total informational quantity of similar items in the document.

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.

ServiceInstruction papiNet Standard – Version 2.31

ServiceInstruction Business Scenarios

ServiceInstruction Scenario Listing

Scenario A	A ServiceInstruction for what products shall be produced at a forest logging operation is sent to a ForestHarvestingRequestor.
Scenario B	A ServiceInstruction requesting products to be destined to end users, when products are produced in a forest logging operation.

ServiceInstruction papiNet Standard – Version 2.31

Scenario A

E-document	ServiceInstruction
Type	ForestLoggingInstruction
Scenario	A ServiceInstruction for what products shall be produced at a forest logging operation is sent to a ForestHarvestingRequestor.
Outcome	The ForestHarvestingRequestor knows what products shall be produced at a logging area.
Initiator	Buyer (a forest company buying forest wood products from a forest owner)
Receiver	ForestHarvestingRequestor
Preconditions	A contract about logging has been agreed between the forest company and the forest owner.
Trigger	Logging according to the contract is planned to start.
Step 1	<p>The Buyer sends a ServiceInstruction to the ForestHarvestingRequestor. The following information that is included in the ServiceInstruction is particular to this scenario.</p> <p>Root:</p> <ul style="list-style-type: none"> • ServiceInstructionType = ForestLoggingInstruction • ServiceInstructionStatusType= Original <p>Header:</p> <ul style="list-style-type: none"> • SenderParty = Buyer • ReceiverParty = ForestHarvestingRequestor • DocumentReferenceInformation = Reference to a ContractNumber • OtherParty = Buyer • OtherParty = ForestHarvestingRequestor • OtherParty = ContractParty • LocationInfo = Logging area • ValidityPeriod = Validity period for the ServiceInstruction <p>Line Item:</p> <ul style="list-style-type: none"> • Product = A product to be produced • DocumentReferenceInformation = Reference to a ContractLineNumber • OtherParty = MainForestHarvester

ServiceInstruction papiNet Standard – Version 2.31

	<p>ServiceInstructionSummary:</p> <ul style="list-style-type: none"> • Summary information for the whole e-Document.
Result	<p>The ForestHarvestingRequestor knows what products shall be produced at a logging area. The ForestHarvestingRequestor can then instruct the MainForestHarvester what products shall be produced at the logging area.</p>

Scenario B

E-document	ServiceInstruction
Type	ProductDestiningInstruction
Scenario	A ServiceInstruction requesting products to be destined to end users is sent to an order party, when products are produced in a forest logging operation.
Outcome	The order party knows what products to destine to end users from a logging area.
Initiator	Buyer (a forest company buying forest wood products from a forest owner)
Receiver	Order party (the forest company has outsourced to an order party to destine products to end users)
Preconditions	A contract about logging has been agreed between the forest company and the forest owner.
Trigger	A ServiceInstruction of type ForestLoggingInstruction has been sent to a ForestLoggingRequestor.
Step 1	<p>The Buyer sends a ServiceInstruction to the OrderParty. The following information that is included in the ServiceInstruction is particular to this scenario.</p> <p>Root:</p> <ul style="list-style-type: none"> • ServiceInstructionType = ProductDestiningInstruction • ServiceInstructionStatusType= Original <p>Header:</p> <ul style="list-style-type: none"> • SenderParty = Buyer • ReceiverParty = OrderParty • DocumentReferenceInformation = Reference to a ContractNumber • OtherParty = Buyer • OtherParty = OrderParty

ServiceInstruction papiNet Standard – Version 2.31

	<ul style="list-style-type: none"> • OtherParty = ContractParty • LocationInfo = Logging area <p>Line Item:</p> <ul style="list-style-type: none"> • Product = A product to be destined • DocumentReferenceInformation = Reference to a ContractLineItemNumber <p>ServiceInstructionSummary:</p> <ul style="list-style-type: none"> • Summary information for the whole e-Document.
Result	<p>The order party knows what products to destine to end users from a logging area. The order party can then destine products from the logging area based on agreed quantities in existing trading contracts.</p>