



**papiNet**

**DeliveryPlanning**

**papiNet Standard - Version 2.31**

**Documentation**

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

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# Delivery Planning

## papiNet Standard – Version 2.31

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### DeliveryPlanning Documentation

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#### DeliveryPlanning e-Document Overview

The DeliveryPlanning e-Document provides a tool for trading partners to exchange information about logistics planning for deliveries, transports and resources. Information can be specified for various levels such as a Budget, a Forecast, a Demand or a detailed Plan for a certain period. Actual outcome to date related to a plan can also be reported.

Reason for deviation between a plan and the actual outcome can be reported. Opening times and/or contingencies can be specified for locations for a given day or period.

The DeliveryPlanning e-Document can supply a complete sourcing plan for a certain planning region containing for example many mills. Origin and destination for products can be specified as well as various transport modes and other transport details.

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#### The Scope of the DeliveryPlanning

The DeliveryPlanning e-Document includes

- Specification of the planning period
- References to planning source documents
- Origins and destinations of products
- Planned outcome for the whole planning period as well as for buckets during the planning period, for example a monthly plan with weekly details and/or daily details.
- Outcome for various contexts can be communicated, for example Delivery, Transport, Production, Consumption, ForestForwarding etc.
- Planned outcome can be specified for various transport modes, for example Road, Rail, Sea etc.
- Plans can be updated during the planning period. Actual outcome to date related to a plan can be reported as well as reasons for deviations from the plan.
- Available resources can be communicated for a planning period.

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#### DeliveryPlanningType [attribute]

DeliveryPlanningType defines the type of DeliveryPlanning.

*This item is restricted to the following list.*

##### **DeliveryPlan**

A DeliveryPlanningType used to inform about quantities and times for the planned deliveries to the delivery destinations.

##### **ResourcePlan**

A DeliveryPlanningType used to inform about planned resource availability.

##### **TransportPlan**

A DeliveryPlanningType used to inform about quantities and times for the planned transports to the delivery destinations.

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### Business Rules for DeliveryPlanning

#### General Business Rules

| Identifier | Business Rule  |
|------------|--|
| DP001      | DeliveryPlanningSequenceLineItem is mandatory for DeliveryPlanningType DeliveryPlan and TransportPlan.   |
| DP002      | DeliveryDestination is mandatory for DeliveryPlanningType DeliveryPlan and TransportPlan.  |
| DP003      | PlanningOutcomeContextType in PlanningOutcome is mandatory for DeliveryPlanningType DeliveryPlan and TransportPlan.  |
| DP004      | TransportModeType in PlanningOutcome is mandatory for DeliveryPlanningType TransportPlan.  |
| DP005      | ResourceInformation in PlanningOutcome is used only for DeliveryPlanningType ResourcePlan and it is not a valid choice for DeliveryPlan and TransportPlan. |

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### Processing the DeliveryPlanning

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

#### Status Values Used When Processing the DeliveryPlanning

The following status values of DeliveryPlanningStatusType are used at the DeliveryPlanning root level:

- Original - The supplied information is the first version of that information.
- Cancelled - The supplied information is cancelled. Items that have been cancelled are not included in Totals on the Summary levels of the e-Document.
- Replaced - The supplied information is replacing earlier supplied information. The receiver should revalidate the information in their system based upon the entire information received.

DeliveryPlanning e-Documents must be processed in ascending date time order using DeliveryPlanningIssueDate to ensure the correct processing of replacements and/or cancellations.

When a replaced e-Document is received as the first version of the e-Document, then the receiving party must be able to accept this version without having the original e-Document.

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E.g. the replaced e-Document might be the first one that arrives and it is updated in the system of the receiver. Then later the original e-Document arrives having an earlier issue date. In this case the second e-Document must be stopped.

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### 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](http://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

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

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(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.

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### DeliveryPlanning Root Element

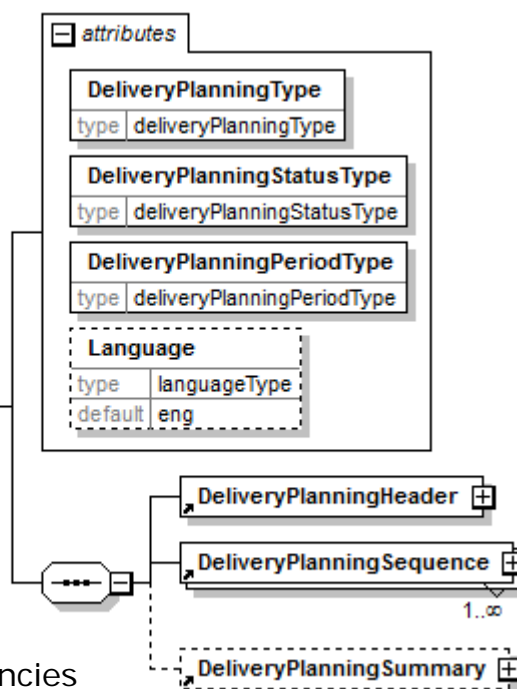
#### DeliveryPlanning

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

The DeliveryPlanning e-Document provides a tool for trading partners to exchange information about logistics planning for deliveries, transports and resources. Information can be specified for various levels such as a Budget, a Forecast, a Demand or a detail Plan for a certain period. Actual outcome to date related to a plan can also be reported.

Reason for deviation between a plan and the actual outcome can be reported. Opening times and/or contingencies can be specified for locations for a given day or period.

The DeliveryPlanning e-Document can supply a complete sourcing plan for a certain planning region containing for example many mills. Origin and destination for products can be specified as well as various transport modes and other transport details.



#### **DeliveryPlanningType [attribute]**

*DeliveryPlanningType is mandatory. A single instance is required.*

DeliveryPlanningType defines the type of DeliveryPlanning.

*This item is restricted to the following list.*

#### **DeliveryPlan**

A DeliveryPlanningType used to inform about quantities and times for the planned deliveries to the delivery destinations.

#### **ResourcePlan**

A DeliveryPlanning type that contains information about all the planned resources available for a certain period. The resources can be for example vehicles or personnel.

#### **TransportPlan**

A DeliveryPlanningType used to inform about quantities and times for the planned transports to the delivery destinations.

#### **DeliveryPlanningStatusType [attribute]**

*DeliveryPlanningStatusType is mandatory. A single instance is required.*

Identifies the status of the entire DeliveryPlanning e-Document.



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*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 received.

### **DeliveryPlanningPeriodType [attribute]**

*DeliveryPlanningPeriodType is mandatory. A single instance is required.*

Indicates the used planning period in the entire DeliveryPlanning e-Document.

*This item is restricted to the following list.*

#### **Day**

Daily period

#### **Month**

Monthly period

#### **Week**

Weekly period.

#### **Year**

Yearly period.

### **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 sequence of items below is mandatory. A single instance is required.*

#### **DeliveryPlanningHeader**

*DeliveryPlanningHeader is mandatory. A single instance is required.*

The DeliveryPlanningHeader contains information common to the entire DeliveryPlanning e-Document.

#### **DeliveryPlanningSequence**

*DeliveryPlanningSequence is mandatory. One instance is required, multiple*

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*instances might exist.*

A grouping element that contains information for planned deliveries, transports or resources. For example a monthly delivery plan of products to a mill.

### **DeliveryPlanningSummary**

*DeliveryPlanningSummary is optional. A single instance might exist.*

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

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### Primary Elements

#### DeliveryPlanningHeader

The DeliveryPlanningHeader contains information common to the entire DeliveryPlanning e-Document.

**(sequence)**

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

##### DeliveryPlanningNumber

*DeliveryPlanningNumber is mandatory. A single instance is required.*

The unique identifier for the DeliveryPlanning e-Document.

##### DeliveryPlanningIssueDate

*DeliveryPlanningIssueDate is mandatory. A single instance is required.*

The date and time when the DeliveryPlanning 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 except in the case where TransactionHistoryConfirmation is used, in which case the TransactionHistoryNumber refers to the trigger transaction for which the confirmation is being sent.

##### SenderParty

*SenderParty is mandatory. A single instance is required.*

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

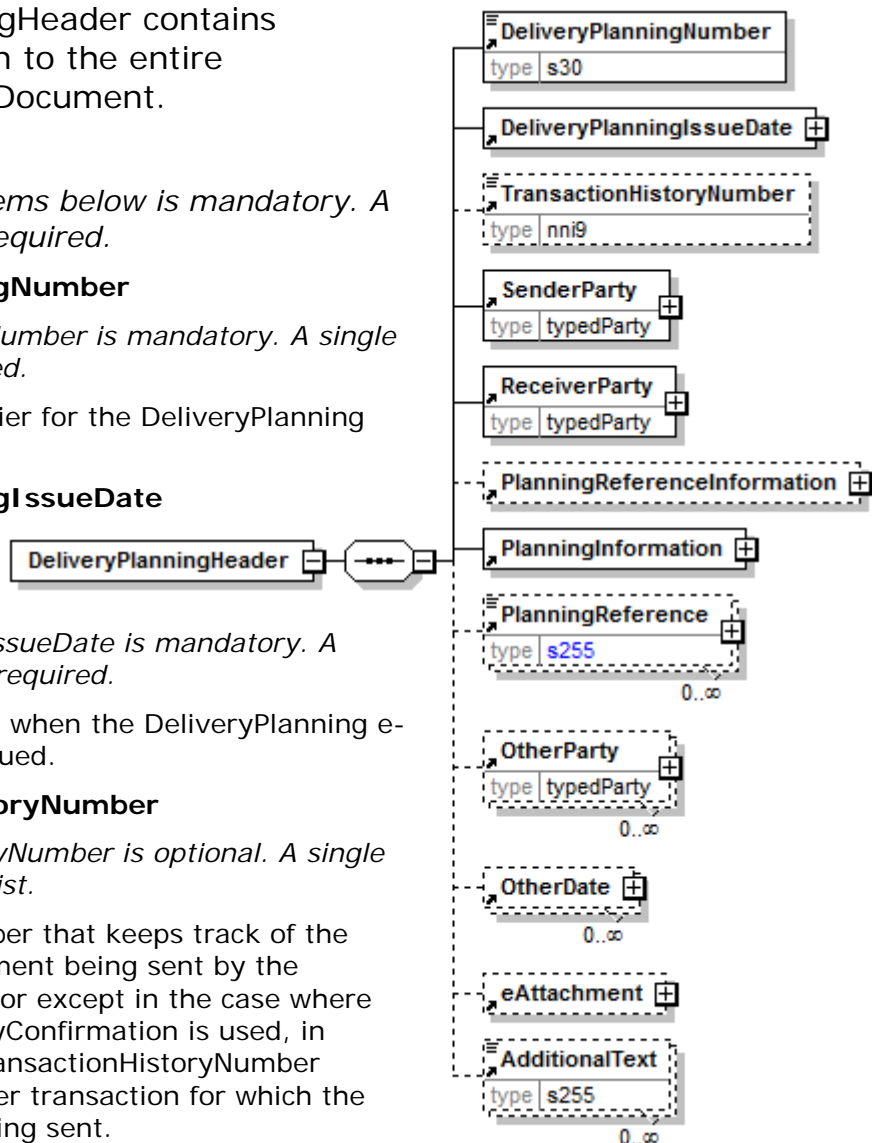
- The entity responsible for the content. If the sender party has out sourced the message service to a third party the SenderParty is the issuer of the e-Document and not the party performing the transmission service of the electronic message.

##### ReceiverParty

*ReceiverParty is mandatory. One instance is required, 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



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electronic message.

### **PlanningReferenceInformation**

*PlanningReferenceInformation is optional. A single instance might exist.*

A grouping element specifying detailed reference information used for the supplied plan in the e-Document. For example if a transport plan is created as a response to a requested delivery plan, then the delivery plan can be referenced with document details such as document date and version.

### **PlanningInformation**

*PlanningInformation is mandatory. A single instance is required.*

A grouping element that provides information about the planning period and details of the plan.

### **PlanningReference**

*PlanningReference is optional. Multiple instances might exist.*

An element detailing relevant references pertaining to the Planning and DeliveryPlanning e-Documents.

### **OtherParty**

*OtherParty is optional. Multiple instances might exist.*

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

### **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).

### **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**

*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.

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### DeliveryPlanningSequence

A grouping element that contains information for planned deliveries, transports or resources. For example a monthly delivery plan of products to a mill.

**(sequence)**

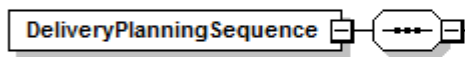
*The sequence of items below is mandatory. A single instance is required.*

**DeliveryPlanningSequenceNumber**

*DeliveryPlanningSequenceNumber is mandatory. A single instance is required.*

A sequential number that uniquely identifies the sequence of a DeliveryPlanning.

**DeliveryOrigin**



*DeliveryOrigin is optional. Multiple instances might exist.*

A group item that represents the start of one leg in a route. Compare to DeliveryDestination.

- The DeliveryOrigin specifies the start of one leg of the delivery.
- In order to comply with the US Trade Act of 2002 you would use this element with a LocationParty/@PartyType of Port.

**DeliveryDestination**

*DeliveryDestination is optional. Multiple instances might exist.*

The DeliveryDestination specifies the end of one leg of the delivery. In order to comply with the US Trade Act of 2002 you would use this element with a LocationParty/@PartyType of Port.

**PlanningReference**

*PlanningReference is optional. Multiple instances might exist.*

An element detailing relevant references pertaining to the Planning and DeliveryPlanning e-Documents.

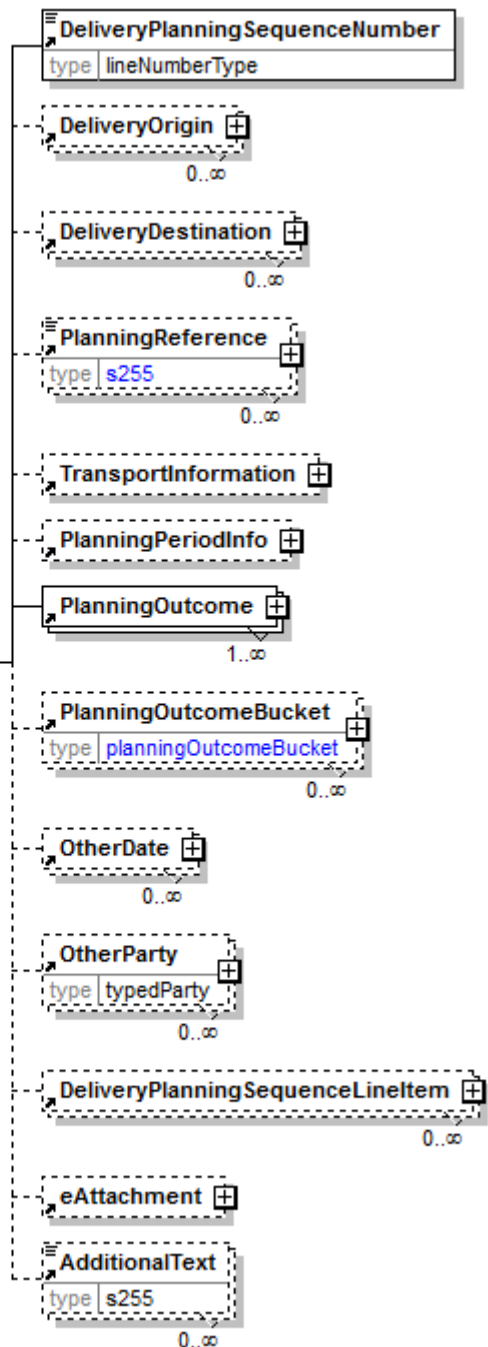
**TransportInformation**

*TransportInformation is optional. A single instance might exist.*

A grouping element for transport information.

**PlanningPeriodInfo**

*PlanningPeriodInfo is optional. A single instance might exist.*



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A grouping element detailing the information about the planning period.

### **PlanningOutcome**

*PlanningOutcome is mandatory. One instance is required, multiple instances might exist.*

A grouping element that communicates the planned, actual, forecasted etc. quantities or resources. Also the deviations and reasons for these can be given.

### **PlanningOutcomeBucket**

*PlanningOutcomeBucket is optional. Multiple instances might exist.*

PlanningOutcomeBucket groups together the elements required to communicate the time and quantity for a planning bucket.

### **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).

### **OtherParty**

*OtherParty is optional. Multiple instances might exist.*

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

### **DeliveryPlanningSequenceLineItem**

*DeliveryPlanningSequenceLineItem is optional. Multiple instances might exist.*

The group item DeliveryPlanningSequenceLineItem contains information for a line item of a DeliveryInstruction sequence. The line item specifies detail information about product and quantities.

### **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**

*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.

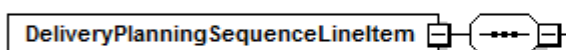
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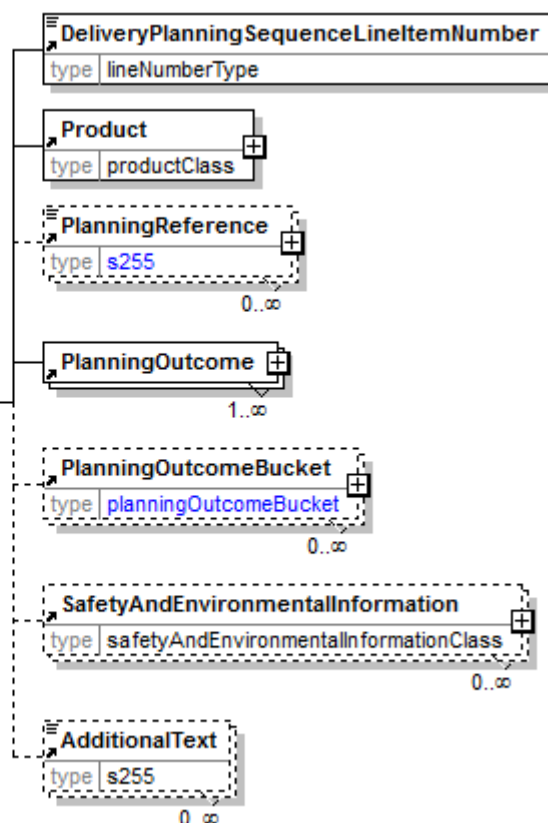
### DeliveryPlanningSequenceLineItem

The group item DeliveryPlanningSequenceLineItem contains information for a line item of a DeliveryInstruction sequence. The line item specifies detail information about product and quantities.

**(sequence)**



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



#### DeliveryPlanningSequenceLineItemNumber

*DeliveryPlanningSequenceLineItemNumber is mandatory. A single instance is required.*

A sequential number that uniquely identifies the line item of a DeliveryPlanningSequence.

#### 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.

#### PlanningReference

*PlanningReference is optional. Multiple instances might exist.*

An element detailing relevant references pertaining to the Planning and DeliveryPlanning e-Documents.

#### PlanningOutcome

*PlanningOutcome is mandatory. One instance is required, multiple instances might exist.*

A grouping element that communicates the planned, actual, forecasted etc. quantities or resources. Also the deviations and reasons for these can be given.

#### PlanningOutcomeBucket

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*PlanningOutcomeBucket is optional. Multiple instances might exist.*

PlanningOutcomeBucket groups together the elements required to communicate the time and quantity for a planning bucket.

### 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).

### 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.

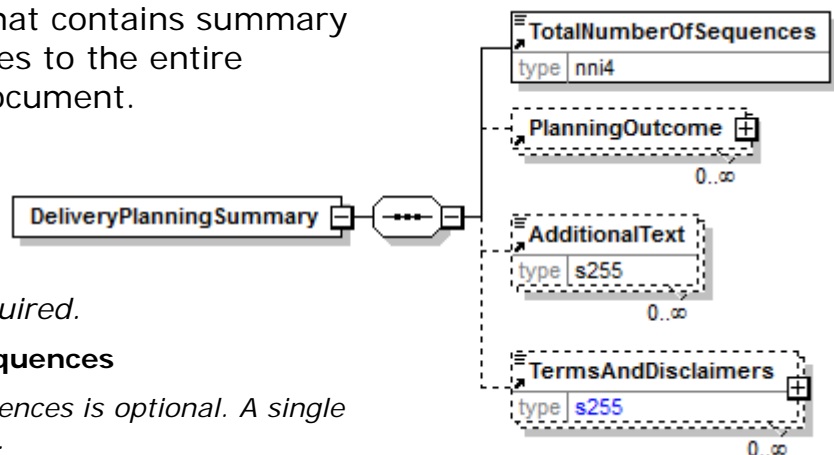
---

## DeliveryPlanningSummary

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

### (sequence)

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



### TotalNumberOfSequences

*TotalNumberOfSequences is optional. A single instance might exist.*

The total number of sequences in the document.

### PlanningOutcome

*PlanningOutcome is optional. Multiple instances might exist..*

A grouping element that communicates the planned, actual, forecasted etc. quantities or resources. Also the deviations and reasons for these can be given.

### AdditionalText

*AdditionalTexts 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.

### TermsAndDisclaimers

*TermsAndDisclaimers is optional. Multiple instances might exist.*

An element that contains legal information with an indication of what the Language is.



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## DeliveryPlanning Business Scenarios

### DeliveryPlanning Scenario Listing

|                   |   |
|-------------------|---|
| <b>Scenario A</b> | <p>The Forest Company is supplying roundwood to several mills in a region. The Forest Company is the buyer of the transport services and acts as Forwarder. The Main Carrier is responsible for transport planning of deliveries assigned to him. The Forest Company issues a Delivery Plan with a monthly planning period to the Main Carrier to inform about the planned deliveries in a month, especially quantities per delivery destination and product.</p> <p>In this scenario the Delivery Plan has no information concerning the delivery origin(s).</p> |
| <b>Scenario B</b> | <p>The Main Carrier then sends a TransportPlan to the Forest Company to inform about the planned transports in the planning period referring to the DeliveryPlan earlier received from the Forest Company.</p> <p>The Main Carrier plans the transports to fulfil the planned deliveries to each delivery destination considering stock levels at available delivery origins.</p>   |
| <b>Scenario C</b> | <p>The Forest Company is supplying roundwood to several mills in a region. The Forest Company is the buyer of the transport services and acts as Forwarder. The Main Carrier is responsible for transport planning of deliveries assigned to him.</p> <p>The Forest Company issues a weekly Delivery Plan to the Main Carrier to inform about product quantities to deliver per delivery destination for each workday of that week.</p> <p>In this scenario the Delivery Plan has no information concerning the delivery origin.</p>                              |
| <b>Scenario D</b> | <p>The Forest Company is supplying roundwood to several mills in a region. The Forest Company is the buyer of the transport services. The Forest Company does the planning of the deliveries and the transports.</p> <p>The Main Carrier informs about the number and the details of his transporting resources that are available for the deliveries of the Forest Company for the planning period.</p>  |

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### Scenario A

|                      |   |
|----------------------|---|
| <b>E-document</b>    | DeliveryPlanning  |
| <b>Type</b>          | DeliveryPlan  |
| <b>Scenario</b>      | The Forest Company is supplying roundwood to several mills in a region. The Forest Company is the buyer of the transport services and acts as Forwarder. The Main Carrier is responsible for transport planning of deliveries assigned to him. The Forest Company issues a Delivery Plan with a monthly planning period to the Main Carrier to inform about the planned deliveries in a month, especially quantities per delivery destination and product. In this scenario the Delivery Plan has no information concerning the delivery origin(s). |
| <b>Outcome</b>       | The Main Carrier is informed about planned product quantities that the Forest Company is going to deliver to each delivery destination in each planning period. It is an essential input that enables the Main Carrier to create a detailed transport plan.   |
| <b>Initiator</b>     | Forest Company  |
| <b>Receiver</b>      | Main Carrier  |
| <b>Preconditions</b> | <p>The Forest Company has already sent an Availability Instruction to the Main Carrier, in which Delivery Origins and their Supply Points are specified.</p> <p>The Forest Company has also planned what product quantities to deliver to at least one delivery destination in the upcoming month. The Forest Company has also planned how large quantities that are to be transported by each Main Carrier.</p>  |
| <b>Trigger</b>       | The Forest Company has planned the product quantities to deliver per delivery destination for one month.  |
| <b>Step 1.</b>       | <p>The Forest Company sends the DeliveryPlanning e-Document to the Main Carrier. The following information that is included in the DeliveryPlanning is particular to this scenario.</p> <p>Root</p> <ul style="list-style-type: none"> <li>• DeliveryPlanningType = "DeliveryPlan"</li> </ul>   |

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|               |   |
|---------------|---|
|               | <ul style="list-style-type: none"> <li>• DeliveryPlanningStatusType = "Original"</li> <li>• DeliveryPlanningPeriodType = "Month"</li> </ul> <p>Header</p> <ul style="list-style-type: none"> <li>• PlanningInformation.TimePeriod.DateTimeRange with DateTimeFrom = first date of 1<sup>st</sup> planning period and<br/>DateTimeTo = last date of the last planning period</li> <li>• PlanningPeriodInfo.PlanningDuration.DurationType = "Workday" with number of workdays in the planning period</li> </ul> <p>Sequence</p> <ul style="list-style-type: none"> <li>• One DeliverPlanningSequence per DeliveryDestination</li> <li>• DeliveryDestination</li> <li>• PlanningOutcome with <ul style="list-style-type: none"> <li>• PlanningOutcomeType = "Plan"</li> <li>• PlanningOutcomeContextType= "Delivery"</li> <li>• TransportModeType = "Road"</li> <li>• PlanningOutcome.Quantity = Sum of quantity in all Line Items</li> </ul> </li> </ul> <p>Line Item</p> <ul style="list-style-type: none"> <li>• One DeliveryPlanningSequenceLineItem per Product</li> <li>• Product</li> <li>• PlanningOutcome for the product.</li> </ul> |
| <b>Result</b> | The Main Carrier knows the deliveries that need to be fulfilled in the upcoming month per delivery destination and product.   |

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### Scenario B

|                      |  |
|----------------------|--|
| <b>E-document</b>    | DeliveryPlanning   |
| <b>Type</b>          | TransportPlan  |
| <b>Scenario</b>      | <p>TransportPlan</p> <p>After having received</p> <ol style="list-style-type: none"> <li>1. An AvailabilityInstruction with all allowed origin Supply Points and</li> <li>2. InventoryStatus with current stock levels at these points and</li> <li>3. A DeliveryPlan with planned product quantities per delivery destination in one month</li> </ol> <p>from the Forest Company, the Main Carrier plans the transports to fulfil the planned deliveries to each delivery destination considering stock levels at available delivery origins.</p> <p>The Main Carrier then sends a TransportPlan to the Forest Company to inform about the planned transports in the planning period referring to the DeliveryPlan.</p> |
| <b>Outcome</b>       | <p>The Forest Company is informed about planned product quantities that the Main Carrier is going to transport to each delivery destination in each planning period. The origins for the transports are specified per delivery destination.</p> <p>Reason(s) for any deviation between planned transport quantity and planned delivery quantity can be specified.</p>  |
| <b>Initiator</b>     | Main Carrier   |
| <b>Receiver</b>      | Forest Company   |
| <b>Preconditions</b> | <p>The Main Carrier has received an Availability Instruction from the Forwarder, in which Delivery Origins and their Supply Points are specified.</p> <p>The Main Carrier has received a DeliveryPlan for a month with product quantities to deliver to each DeliveryDestination. The DeliveryPlan has a TransactionHistoryNumber.</p>   |

## DeliveryPlanning

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|                | <p>The Main Carrier has received stock level data for the Supply Points of the Delivery Origins.</p> <p>The Main Carrier has planned the transports to fulfil the DeliveryPlan. There might be some deliveries that cannot be fulfilled by the Main Carrier.</p>   |
| <b>Trigger</b> | The Main Carrier has planned the product quantities to transport per delivery destination for one month.   |
| <b>Step 1.</b> | <p>The Main Carrier sends the DeliveryPlanning e-Document to the Forest Company. The following information that is included in the DeliveryPlanning is particular to this scenario.</p> <p>Root</p> <ul style="list-style-type: none"> <li>• DeliveryPlanningType = "TransportPlan"</li> <li>• DeliveryPlanningStatusType = "Original"</li> <li>• DeliveryPlanningPeriodType = "Month"</li> </ul> <p>Header</p> <ul style="list-style-type: none"> <li>• PlanningReferenceInformation referring the DeliveryPlan used for transport planning with <ul style="list-style-type: none"> <li>• DocumentName = "DeliveryPlanning"</li> <li>• DocumentNumber = DeliveryPlanningNumber of the Delivery Plan</li> <li>• DocumentDate of the Delivery Plan</li> <li>• TransactionHistoryNumber of the Delivery Plan</li> </ul> </li> <li>• PlanningInformation.TimePeriod.DateTimeRange with DateTimeFrom = first date of 1<sup>st</sup> planning period and DateTimeTo = last date of the last planning period</li> <li>• PlanningPeriodInfo.PlanningDuration.DurationType = "Workday" with number of workdays in the planning period</li> </ul> <p>Sequence</p> <ul style="list-style-type: none"> <li>• One DeliverPlanningSequence per DeliveryDestination</li> <li>• DeliveryOrigin</li> <li>• DeliveryDestination</li> <li>• DeliveryPlanningReference with reference to OrderNumber assigned by Supplier</li> <li>• PlanningOutcome for Transport with <ul style="list-style-type: none"> <li>• PlanningOutcomeType = "Plan"</li> <li>• PlanningOutcomeContextType = "Transport"</li> <li>• TransportModeType = "Road"</li> <li>• PlanningOutcome.Quantity = Sum of quantity in all</li> </ul> </li> </ul> |

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|               | <p>Line Items concerning Transport</p> <ul style="list-style-type: none"> <li>• Reason(s) for any deviation from DeliveryPlan can be described in DeviationReason</li> <li>• PlanningOutcome for Delivery from the DeliveryPlan with <ul style="list-style-type: none"> <li>• PlanningOutcomeType = "Plan"</li> <li>• PlanningOutcomeContextType= "Delivery"</li> <li>• TransportModeType</li> <li>• PlanningOutcome.Quantity = Sum of quantity in all Line Items concerning Delivery</li> </ul> </li> </ul> <p>Line Item</p> <ul style="list-style-type: none"> <li>• One DeliveryPlanningSequenceLineItem per Product</li> <li>• Product</li> <li>• PlanningOutcome for Transport</li> <li>• PlanningOutcome for Delivery from DeliveryPlan</li> </ul> |
| <b>Result</b> | The Forest Company knows the monthly transport plan that the Main Carrier has created to fulfil the deliveries previously communicated in a monthly Delivery Plan.   |

### Scenario C

|                   |  |
|-------------------|--|
| <b>E-document</b> | DeliveryPlanning   |
| <b>Type</b>       | DeliveryPlan   |
| <b>Scenario</b>   | <p>The Forest Company is supplying roundwood to several mills in a region. The Forest Company is the buyer of the transport services and acts as Forwarder. The Main Carrier is responsible for transport planning of deliveries assigned to him.</p> <p>The Forest Company issues a weekly Delivery Plan to the Main Carrier to inform about product quantities to deliver per delivery destination for each workday of that week.</p> <p>In this scenario the Delivery Plan has no information concerning the delivery origin.</p> |
| <b>Outcome</b>    | The Main Carrier is informed about planned product quantities that the Forest Company is going to deliver to each delivery destination in each planning period. It is an essential input that enables the Main Carrier to create a detailed transport plan.  |

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|----------------------|---|
| <b>Initiator</b>     | Forest Company  |
| <b>Receiver</b>      | Main Carrier  |
| <b>Preconditions</b> | <p>The Forest Company has already sent an Availability Instruction to the Main Carrier, in which Delivery Origins and their Supply Points are specified.</p> <p>The Forest Company has also planned what product quantities to deliver to at least one delivery destination in the week outlined in the Delivery Plan. The Forest Company has also planned how large quantities that are to be transported by each Main Carrier in the planning period.</p>   |
| <b>Trigger</b>       | The Forest Company has planned the product quantities for Main Carrier to deliver per delivery destination and product for each workday of a specific week.   |
| <b>Step 1.</b>       | <p>The Forest Company sends the DeliveryPlanning e-Document to the Main Carrier. The following information that is included in the DeliveryPlanning is particular to this scenario.</p> <p>Root</p> <ul style="list-style-type: none"> <li>• DeliveryPlanningType = "DeliveryPlan"</li> <li>• DeliveryPlanningStatusType = "Original"</li> <li>• DeliveryPlanningPeriodType = "Week"</li> </ul> <p>Header</p> <ul style="list-style-type: none"> <li>• PlanningInformation.TimePeriod.DateTimeRange with DateTimeFrom = first date of the planning period and DateTimeTo = last date of the planning period</li> <li>• PlanningPeriodInfo.PlanningDuration.DurationType = "Workday" with number of workdays in the planning period</li> </ul> <p>Sequence</p> <ul style="list-style-type: none"> <li>• One DeliverPlanningSequence per DeliveryDestination</li> <li>• DeliveryDestination</li> <li>• PlanningOutcome for the entire week with <ul style="list-style-type: none"> <li>• PlanningOutcomeType = "Plan"</li> <li>• PlanningOutcomeContextType = "Delivery"</li> <li>• TransportModeType = "Road"</li> <li>• PlanningOutcome.Quantity = Sum of quantities in all Line Items</li> </ul> </li> </ul> |

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|               | <p>Line Item</p> <ul style="list-style-type: none"> <li>• One DeliveryPlanningSequenceLineItem per Product</li> <li>• Product</li> <li>• PlanningOutcome for the product for the entire week</li> <li>• One PlanningOutcomeBucket for each day of the week with at least these data: <ul style="list-style-type: none"> <li>• TimePeriod.PeriodType = "Day"</li> <li>• TimePeriod.Date</li> <li>• PlanningOutcomeType = "Plan"</li> <li>• PlanningOutcomeContextType= "Delivery"</li> <li>• TransportModeType = "Road"</li> <li>• Quantity = Planned quantity for the day</li> </ul> </li> </ul> |
| <b>Result</b> | The Main Carrier knows the deliveries that need to be fulfilled each day in the planning period per delivery destination and product.  |

### Scenario D

|                  |  |
|------------------|--|
| <b>Message</b>   | DeliveryPlanning   |
| <b>Type</b>      | ResourcePlan   |
| <b>Scenario</b>  | <p>The Forest Company is supplying roundwood to several mills in a region. The Forest Company is the buyer of the transport services. The Forest Company does the planning of the deliveries and the transports.</p> <p>The Main Carrier informs about the number and the details of his transporting resources that are available for the deliveries of the Forest Company for the planning period.</p>   |
| <b>Outcome</b>   | The Forest Company is informed about all the transporting resources that are at its disposal for the deliveries during the specified planning period. The information includes the number of the vehicles and transporting units, their equipment, human resources as well as the working time and shift information and properties of each resource. Based on this information the Forest Company can do the capacity calculation and the planning of the deliveries. |
| <b>Initiator</b> | Main Carrier   |
| <b>Receiver</b>  | Forest Company   |



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|----------------------|---|
| <b>Preconditions</b> | Forest Company and Main Carrier have a contract of logistics services.  |
| <b>Trigger</b>       | The Main Carrier either sends the resource information for the first time to the Forest Company or there is a change in the resources and it is needed to update the information.   |
| <b>Step 1.</b>       | <p>The Main Carrier sends the DeliveryPlanning e-Document to the Forest Company. The following information that is included in the DeliveryPlanning is particular to this scenario.</p> <p>Root</p> <ul style="list-style-type: none"> <li>• DeliveryPlanningType = "ResourcePlan"</li> <li>• DeliveryPlanningStatusType = "Original"</li> <li>• DeliveryPlanningPeriodType = "Month"</li> </ul> <p>Header</p> <ul style="list-style-type: none"> <li>• PlanningInformation.TimePeriod.DateTimeRange with DateTimeFrom = first date of the planning period and<br/>DateTimeTo = last date of the planning period</li> </ul> <p>Sequence</p> <ul style="list-style-type: none"> <li>• PlanningOutcome for Resources with <ul style="list-style-type: none"> <li>• PlanningOutcomeType = "Plan"</li> <li>• PlanningOutcomeContextType = "Transport"</li> <li>• TransportModeType = "Road"</li> <li>• ResourceInformation.ResourceCharacteristics = specified information of the resources <ul style="list-style-type: none"> <li>• ResourceTypeCode = user specified resource code</li> <li>• ResourceIDInfo = resource identification information</li> <li>• ResourceIntroductionDate = date when the resource has been taken into use</li> <li>• ResourceAvailability.DateTimeRange with DateTimeFrom = first date of the period when the resource is available and DateTimeTo = last date of the period when the resource is available</li> <li>• ResourceAvailability.ResourceShiftInformation = user specified code and its description for describing the working shifts of the resource</li> <li>• ResourcePropertyValue = properties of the resource with PropertyCode = user specified code for a property and its description in PropertyDescription</li> </ul> </li> </ul> </li> </ul> <p>There is no Line Item in DeliveryPlanning type ResourcePlan.</p> |
| <b>Result</b>        | The Forest Company knows what transport resources that can be used during the planning period.  |

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