

## **SDC Use Case C for papiNet<sup>®</sup>**

### **E-Invoicing of Roundwood**

***A Forest Company sends an e-Invoice and an Invoice Specification for roundwood to a buying company.***

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## 2. Document Version History

A change to the version history requires an update of date and version in the page header.

The numbering format is Revision.Version, where Revision is an official document release and Version exceeding 0 is an internal work document. Please note that only if the document version has suffix 0 it is an official SDC version, e.g. 1.0, 2.0, 3.0, but NEITHER 0.1, 1.2 nor 1.10. The version suffix is initialized for each new revision level.

Version	Date	Description	Signature
1.0	14-12-18	Initial public version	JeNo

## 3. SDC Use Case C "E-Invoicing of Roundwood"

### 3.1 Overview

This use case describes the scenario "E-Invoicing of Roundwood".

The Forest Company invoices roundwood to a buying company. Deliveries of roundwood are measured and both the Forest Company and the buying company have received measuring tickets for the deliveries from SDC. SDC has calculated price and amounts for measured products as well as additions and deductions when applicable. This information is supplied in the measuring tickets.

Measuring information can be updated and recalculated, for example by correction of the physical measurements of the products, by price changes or by statistical adjustments. SDC generates and distributes new versions of the measuring information after such changes. The invoicing process of the Forest Company has to handle that many versions of the measuring information might exist.

The Forest Company can also add special additions and deductions during the invoicing process depending on their contract with the buyer.

The Forest Company creates an e-Invoice and a detailed Invoice Specification which are both sent to the buying company as separate e-documents. The Invoice Specification contains a specification of each measuring information for all invoiced measured deliveries as well as the invoiced versions of the measuring information.

The e-Invoice is a papiNet **Invoice(Invoice)** e-document and the Invoice Specification is a papiNet **MeasuringTicket(InvoiceSpecification)** e-document. An invoice with negative total amount must be created as a papiNet **Invoice(CreditNote)** e-document. The buying company responds by sending a papiNet **BusinessAcknowledgement** for both the **Invoice(Invoice)** and the **MeasuringTicket(InvoiceSpecification)**. The Business Acknowledgement confirms if the received e-document has been validated OK and stored correctly into the receiving system database or if there are any errors in the received e-document causing processing errors.

The buying company can automatically reconcile if all versions of measuring information are correctly invoiced by comparing the content of the Invoice Specification with the received measuring tickets from SDC.

Sample xml-files are provided for MeasuringTicket(InvoiceSpecification), Invoice(Invoice) and Invoice(CreditNote). A printout in PDF-format of the e-document is provided for each xml-file to show the content of the xml-file.

All papiNet e-documents must be acknowledged by sending a papiNet BusinessAcknowledgement to secure that the e-document is received and can be processed by the receiver. Examples of BusinessAcknowledgement are only provided for MeasuringTicket(InvoiceSpecification) and Invoice(Invoice) in section 3.3 and 3.5. The principle is the same for all other e-documents.

In this use case the Forest Company is the supplier as well as the legal seller.

papiNet e-documents must be wrapped into a **papiNet Envelope** before they are sent. The xml-file that is sent to the receiving partner consists of the papiNet Envelope and the papiNet e-document. Routing and processing of e-documents are much easier to implement in a consistent way by using the papiNet Envelope. Attachments to the e-document can also be wrapped and sent in the papiNet Envelope. Additional transmission envelopes can be used by the message service when transmitting the message.

### 3.2 MeasuringTicket(InvoiceSpecification)

The Forest Company creates an Invoice Specification with measuring information for all measured deliveries that will be invoiced to a buying company for a specific time period. Invoiced versions of measuring information are specified. The Invoice Specification has a reference to the invoice number of the e-Invoice.

Forest Company sends a **MeasuringTicket(InvoiceSpecification)** to the buying company.

**Scope:** The Invoice Specification contains a specification of measuring information for deliveries to two ship-to locations. It is the first version of the Invoice Specification (TransactionHistoryNumber = 1). Only original versions of measuring information exist.

PDF- file: C3.2 Invoice Specification IS245016 yyyy-mm-dd.pdf

XML-file: C3.2 MeasuringTicket(InvoiceSpecification) IS245016 yyyy-mm-dd.xml

### 3.3 BusinessAcknowledgement of MeasuringTicket

The buying company responds to the sender of the **MeasuringTicket** with a **BusinessAcknowledgement** as a system acknowledgement for the received papiNet e-document **MeasuringTicket(InvoiceSpecification)**. The Business Acknowledgement confirms if the received e-document has been validated OK and stored correctly into the receiving system database or if there are any errors in the received e-document causing processing errors.

The sender of the **MeasuringTicket** e-document should have in place an error resolution process that routes the errors to the correct organisation for resolution.

**Scope:** Acknowledgement of the received Invoice Specification in section 3.2. Status is Success.

XML-file: C3.3 BusinessAcknowledgement of MeasuringTicket(InvoiceSpecification) IS245016 yyyy-mm-dd.xml

### 3.4 Invoice(Invoice)

The Forest Company creates an Invoice for all measured deliveries that will be invoiced to a buying company for a specific time period. An Invoice Specification specifies all invoiced versions of measuring information for all measured deliveries. The Invoice has a reference to the document number and the version of the Invoice Specification.

Forest Company sends an **Invoice(Invoice)** to the buying company.

**Scope:** Deliveries to two ship-to locations are invoiced. The content of the Invoice is specified in detail by the Invoice Specification in section 3.2.

PDF- file: C3.4 Invoice 245016 yyyy-mm-dd.pdf

XML-file: C3.4 Invoice(Invoice) 245016 yyyy-mm-dd.xml

### 3.5 BusinessAcknowledgement of Invoice

The buying company responds to the sender of the **Invoice** with a **BusinessAcknowledgement** as a system acknowledgement for the received papiNet e-document **Invoice(Invoice)**. The Business Acknowledgement confirms if the received e-document has been validated OK and stored correctly into the receiving system database or if there are any errors in the received e-document causing processing errors.

The sender of the **Invoice** e-document should have in place an error resolution process that routes the errors to the correct organisation for resolution.

**Scope:** Acknowledgement of the received Invoice in section 3.4. Status is Success.

XML-file: C3.5 BusinessAcknowledgement for Invoice(Invoice) 245016 yyyy-mm-dd.xml

### 3.6 Invoice(CreditNote)

An invoice is cancelled by issuing a Credit Note. The Forest Company creates a Credit Note to cancel an Invoice that was issued incorrectly. The Credit Note has to contain a reason for issuing the Credit Note. The amounts credited are positive in the Credit Note. The Credit Note must have a reference to the invoice number of the original Invoice.

Forest Company sends an **Invoice(CreditNote)** to the buying company.

**Scope:** The Invoice in section 3.4 is credited. There is no Invoice Specification when a whole invoice is credited.

PDF- file: C3.6 CreditNote 245019 yyyy-mm-dd.pdf

XML-file: C3.6 Invoice(CreditNote) 245019 yyyy-mm-dd.xml

## 4. Supported variants of the use case

### 4.1 Invoicing of several versions of measuring information for the same measured delivery

The Forest Company is invoicing measured deliveries for a specific time period. There are two new versions of measuring information for an already invoiced delivery. Quantities have changed for the already invoiced delivery. The first new version has negative quantities and amounts that cancels earlier invoiced version. The second new version has the updated quantities and current amounts that is invoiced. Both versions are specified on the Invoice Specification. The Invoice has a reference to the document number and the version of the Invoice Specification.

The Forest Company sends a **MeasuringTicket(InvoiceSpecification)** and an **Invoice(Invoice)** to the buying company.

**Scope:** Invoiced are two versions of measuring information for an already invoiced delivery and a new original version of measuring information for another measured delivery. There are two ShipTo locations. Quantities have changed for the already invoiced delivery.

PDF- file: C4.1 Invoice Specification IS245025 yyyy-mm-dd.pdf

PDF- file: C4.1 Invoice 245025 yyyy-mm-dd.pdf

XML-file: C4.1 MeasuringTicket(InvoiceSpecification) IS245025 yyyy-mm-dd.xml

XML-file: C4.1 Invoice(Invoice) 245025 yyyy-mm-dd.xml

### 4.2 Invoicing of price corrections for products and additions/deductions

The price list is updated and price has changed for products and additions/deductions. New versions of measuring information are created for already invoiced deliveries that are affected by the new prices. The new versions for this price change contain only the billable difference to earlier invoiced amounts. The invoiced quantities are not changed.

The Forest Company sends a **MeasuringTicket(InvoiceSpecification)** and an **Invoice(Invoice)** to the buying company.

**Scope:** Invoiced are new versions of measuring information for three already invoiced deliveries because of price changes. The new versions contain only the billable difference to earlier invoiced amounts. The invoiced quantities are not changed. There are two ShipTo locations.

PDF- file: C4.2 Invoice Specification IS245030 yyyy-mm-dd.pdf

PDF- file: C4.2 Invoice 245030 yyyy-mm-dd.pdf

XML-file: C4.2 MeasuringTicket(InvoiceSpecification) IS245030 yyyy-mm-dd.xml

XML-file: C4.2 Invoice(Invoice) 245030 yyyy-mm-dd.xml

### 4.3 Invoicing of products when both quantity and price have changed

Both quantities and prices have changed for already invoiced deliveries, for example caused by statistical adjustments. New versions of measuring information are created for already invoiced deliveries that are affected by the changes. The new versions contain only the billable difference to earlier invoiced quantities and amounts.

The Forest Company sends a **MeasuringTicket(InvoiceSpecification)** and an **Invoice(Invoice)** to the buying company.

**Scope:** Invoiced are new versions of measuring information for three already invoiced deliveries because of quantity and price changes. The new versions contain only the billable difference to earlier invoiced quantities and amounts. There are two ShipTo locations.

PDF- file: C4.3 Invoice Specification IS245040 yyyy-mm-dd.pdf

PDF- file: C4.3 Invoice 245040 yyyy-mm-dd.pdf

XML-file: C4.3 MeasuringTicket(InvoiceSpecification) IS245040 yyyy-mm-dd.xml

XML-file: C4.3 Invoice(Invoice) 245040 yyyy-mm-dd.xml



#### 4.4 Invoicing when total amount is negative

Both price corrections for an already invoiced delivery and an original version of measuring information for a measured delivery are invoiced. The total amount in the Invoice Specification is negative. A Credit Note is then issued instead of an Invoice, since an Invoice may not have a negative total amount. Credited amounts are positive in the Credit Note.

The Forest Company sends a **MeasuringTicket(InvoiceSpecification)** and an **Invoice(CreditNote)** to the buying company.

**Scope:** The total amount in the Invoice Specification is negative. A Credit Note is issued. Two versions of measuring information are invoiced. The version of the measuring information for the price correction contains only the billable difference to earlier invoiced amounts. The original version of measuring information for the measured delivery contains two products. There is one ShipTo location.

PDF- file: C4.4 Invoice Specification IS245050 yyyy-mm-dd.pdf

PDF- file: C4.4 Invoice 245050 yyyy-mm-dd.pdf

XML-file: C4.4 MeasuringTicket(InvoiceSpecification) IS245050 yyyy-mm-dd.xml

XML-file: C4.4 Invoice(Invoice) 245050 yyyy-mm-dd.xml