Global Standard for the Paper and Forest Products

papiNet ISS tool user guide
V2R20
February 2010

papiNet ISS tool user guide

Table of Contents

papiNet ISS tool user guide

Introduction

Background

When implementing a papiNet message all information content defined in a papiNet schema is never needed. The implementation project will always restrict use of the schema by defining what elements, attributes and enumerations are actually used; papiNet calls this a message 'subset'.

Overview of papiNet ISS

The papiNet ISS tool is a Microsoft Excel Visual Basic application to create and edit papiNet ISS Excel files.

- To create an ISS Excel worksheet the tool takes a papiNet XML schema as input and creates an Excel worksheet of the schema content where each row has detailed information about an element or an attribute.
- To edit a ISS the papiNet ISS tool presents the Excel ISS worksheet in a tree view where you can navigate & edit the information in the ISS sheet

Excel file created by papiNet ISS

When papiNet ISS creates the Excel worksheet the following information is extracted from the XML schema:

- element and attribute names
- information whether element / attribute is optional or required
- maximum occurrence of element / attribute.
- data type of element / attribute.
- available enumerations of element / attribute.
- xpath of element / attribute

To serve as a documentation tool for an implementation of a papiNet schema subset, the worksheet is pre-configured to enable collecting detailed information about:

- what elements / attributes of the schema are used in the implementation subset and whether these are required or optional
- how many times repeatable elements / attributes may occur
- what enumerations are used
- what processing rules are enforced
- how elements / attributes relate to information held in backend system(s), e.g. database tables
- space for remarks for each element / attribute regarding how its been implemented in the subset and how each element / attribute relates to information held in backend systems

> **NOTE!**
> **As of Excel 2007 a worksheet can have up to 1 048 576 rows, earlier versions of Excel restrict the number of rows to 65 536 and this is also a restriction when creating papiNet ISS using earlier versions of Excel. The workaround to be able to create ISS worksheets for very large schemas is to edit the schema file and exclude nodes you don't need in the ISS.**

papiNet ISS tool user guide

papiNet ISS requires Microsoft XML Core Services (MSXML)

MSXML is required to create papiNet ISS Excel worksheets of papiNet XSD schemas.

The papiNet ISS tool will detect what version of MSXML has been installed and functionality requiring MSXML will be disabled in case MSXML isn't detected. papiNet ISS requires at least version 4 of MSXML.

If you don't have MSXML installed on your computer please refer to Microsoft web-pages for information on where it can be downloaded and how to install it.

At the time of writing this document MSXML was available for download at

http://www.microsoft.com/downloads/Browse.aspx?displaylang=en&productID=6513D9C7-36D7-40D0-AAD7-BA86E35E8332

papiNet ISS tool disclaimer

THE PAPINET ISS SOFTWARE IS DISTRIBUTED "AS IS". NO WARRANTY OF ANY KIND IS EXPRESSED OR IMPLIED. YOU USE THIS SOFTWARE COMPLETELY AT YOUR OWN RISK.

THE AUTHOR WILL NOT BE LIABLE FOR DATA LOSS, DAMAGES, LOSS OF PROFITS OR ANY OTHER KIND OF LOSS WHILE USING OR MISUSING THIS SOFTWARE.

You will be asked to accept these conditions when you use the tool for the first time and will not be able to use it unless you accept them.

Contents of this document

This document go into further detail concerning:

- How to create a papiNet ISS Excel worksheet of a papiNet schema.
- How to edit a papiNet ISS Excel worksheet using the papiNet ISS tool
- What information the created papiNet ISS worksheet contains and how it can be used to document a papiNet implementation.

papiNet ISS main menu & preferences

This chapter describes how to use the papiNet ISS tool to create and edit an Excel papiNet ISS worksheet of an XML schema.
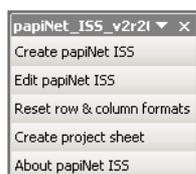
papiNet ISS main menu

Open the papiNet ISS Excel file.

The papiNet ISS menu is displayed

- 'Create papiNet ISS' to open the create ISS form
- 'Edit papiNet ISS' to open the edit ISS form
- 'Reset row & column formats' to indent item names, compress row groups and reset column widths of active papiNet ISS
- 'Create project sheet' to create a project worksheet in active ISS
- 'About papiNet ISS' to show the about ISS form

On the main page you can also select some default data for the Create ISS & Edit ISS forms.

Defaults for papiNet ISS creation:
- default folder for papiNet XML schemas to be listed in selection box
- three checkboxes that control ISS creation
  - 'Use '?' instead of 'No' for 'Used in subset'' – Controls whether to use '?' or 'No' as default value for 'Used in subset' column for optional elements / attributes.
  - 'Default subset max occurrence from schema' – Controls whether to copy max occurrence from schema as default value for subset.
  - 'Default subset enumerations from schema' – Controls whether to copy enumerations from schema as default value for subset.

Defaults for papiNet Edit ISS:
- 'Select Data dictionary file' – Filename of papiNet data dictionary Word document used in Edit ISS
- 'Select SIG business rules file' – Filename of SIG rules Word document used in Edit ISS
- 'SIG rule format' format of SIG rule in word documentation, e.g. PAP_xx_999 where
  - "PAP_" is the SIG prefix
  - "xx" is replaced in the actual rule with the message prefix, e.g. PAP_PO in case of Purchase Order related SIG rules, number of X:es indicate the length of the message prefix, in this case 2 characters
  - '999' indicates that rule are number; the number of nines indicate the length of rule numbering, in this case 3 digits; shorter numbers must be preceded zeroes
  - Lookup uses the characters until 'xx' to find rules within other text in the rule column of the ISS
  - SIG rules must be defined as bookmarks in the Word documentation you want to use for lookup

- ▪ 'Update 'Used in subset' for child elements' checkbox controls how child items are updated when changing used in subset in ISS treeview; if box is un-ticked child items are not updated, if box is ticked child items are updated as described below
  - ISS item is changed changed to 'Yes' - all child items required in schema are update to 'Yes' optional items are updated to 'No'
  - Changed to 'No' – all child items are changed to 'No'

- ▪ Default export / import folder
- ▪ 'Set Used in subset value to '?' for items not found in import file' checkbox – When importing a subset 'Used in subset' column of items not found in import file is set to '?'
- ▪ 'Import subset' – subset information columns are updated in import
- ▪ 'Import backend system mapping' – backend system mapping columns are updated in import
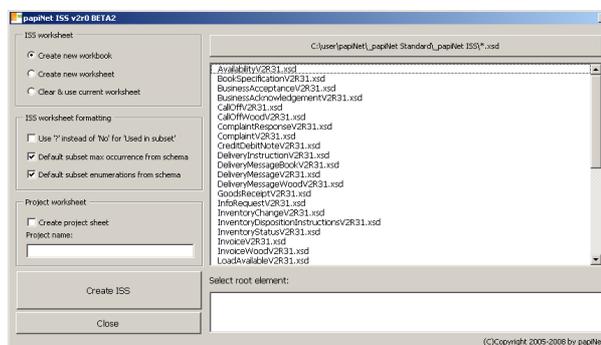
How to create a papiNet ISS

Creating a papiNet ISS worksheet

Creating an ISS Excel worksheet

Select a schema from list showing schema files located in folder papiNet ISS was opened from, to select another folder press button with current folder name. Please note that you can also change the default schema folder on the main page of papiNet ISS.

Once you have selected a schema file the possible root elements are listed in the selection box below. Select a root element.

Once you have edited the other information on the form to your liking (see below for explanation) click 'Create ISS' to create the Excel ISS worksheet.

ISS Worksheet box

'Create new workbook' – Creates the ISS worksheet in a new Excel workbook.

'Create new worksheet' – Creates a new ISS worksheet in the current Excel file.

'Clear & Use current worksheet' – Use current worksheet after clearing existing data from it.

ISS worksheet formatting box

'Use '?' instead of 'No' for 'Used in subset'' – Controls whether to use '?' or 'No' as default value for 'Used in subset' column for optional elements / attributes.

'Default subset max occurrence from schema' – Controls whether to copy max occurrence from schema as default value for subset.

'Default subset enumerations from schema' – Controls whether to copy enumerations from schema as default value for subset.

Please note that the default value for these also can be set on the main page of the papiNet ISS.

Creating project sheet

'Create project sheet' – Creates an additional worksheet where you can record information about the project and ISS versioning.

NOTE!
As of Excel 2007 a worksheet can have up to 1 048 576 rows, earlier versions of Excel restrict the number of rows to 65 536 and this is also a restriction when creating papiNet ISS using earlier versions of Excel. The work-around to be able to create ISS worksheets for very large schemas is to edit the schema file and exclude nodes you don't need in the ISS.

---

papiNet ISS tool user guide

Description of the Excel worksheet created by papiNet ISS

Overview

Once papiNet ISS has completed the worksheet, it hides all but the 3 leftmost columns of the ISS and all the rows where the hierarchical level is greater than 2.

The worksheet created by papiNet ISS is pre-formatted as described below.

Default formatting of the worksheet

Worksheet row and column grouping

The rows in the ISS worksheet are grouped based on the information in the 'Level' column so that levels 1 & 2 are always visible and levels 3 to 9 are by default hidden.

The ISS worksheet has 4 column groups:

- The 1st group has the Sequence number, element name and hierarchical level of the schema item
- The 2nd group is used to define the XML schema subset
- The 3rd group has the information about the item as defined in the XML schema
- The 4th group is used to document the backend system mapping of the XML schema subset

The 4 column groups and the use of them are described in detail later in this document.

The row and column groups can be displayed or hidden by clicking the ⊞ button or one of the group numbers.

Worksheet auto filter

Excel AutoFilter is enabled by default so that rows can be filtered based on information in the columns.

Worksheet freeze panes

Worksheet Freeze Panes is set so that rows 1 to 5 and columns A to C are always visible when scrolling the worksheet.

Validation of cell value

Values in columns 'Used in subset' and 'Optional/Required' are validated and can include only pre-defined values:

- 'Used in subset' can contain only 'Yes', 'No' or '?'
- 'Optional/Required' can contain only 'Required' or 'Optional'

Conditional formatting

Row background colour is controlled by Excel conditional formatting as described in the table below.

'Used in subset'	**'Optional/Required'**	of '**Subset definition column group**'
Yes	Required	green background.
Yes	Optional	yellow background.
?	n/a	pink background.
No	n/a	Grey text on white background (default format).

Row background is pink if '**Status**' column of '**Backend system mapping column group**' has text and text value is not = 'OK'.

1st column group - Basic information

The three leftmost columns in the ISS worksheet are:

'Seq'   Sequential numbering of the elements and attributes in the schema.

> NOTE!
> Excel 2007 allows worksheets with up to 1048576 rows, earlier versions however restricts the number of rows to 65536 and this is also a restriction when creating papiNet ISS using these Excel versions.

'Element'   Name of element or attribute. To increase readability the text in this column is indented based on the 'Level' number in the next column.
The '@' character is added as first character of all attribute names.
This column contains the link if you have selected to include in the ISS the hyperlink to papiNet Word format data dictionary.

'Level'   Hierarchical level in schema of element or attribute.

2nd column group - Subset definitions column group

'Subset definition' columns are designed to be used to document the schema subset, i.e. what and how elements and attributes are used in an implementation.

'Used in subset' column has three possible values (contents of this column controls conditional formatting of rows):

- 'Yes' indicates that that element or attribute is used in implementation.
- 'No' indicates that element or attribute is NOT used in implementation.
- '?' indicates that it is not yet defined whether element or attribute will be used or not.

Only above values are allowed for this column.

'Optional/Required' column has two possible values (contents of this column controls conditional formatting of rows):

- 'Optional' indicates that element or attribute MAY be used in implementation
- 'Required' indicates that element or attribute MUST be used.

Only above values are allowed for this column if 'Use cell value validation' was selected when creating worksheet.

'Max occurrence' is used to document maximum occurrence of element, in the cases where schema defines element as repeatable. Default value can be copied from schema when creating ISS.

'Enumeration' column is used to document element and attribute enumerations available in implementation. Default value can be copied from schema when creating ISS.

'Rule' column is used to document any rules relating to use of element or attribute.

'Remarks' column is used to document any remarks.

3rd column group - papiNet definitions column group

'papiNet definitions' columns are extracted from the XML schema when ISS worksheet is created and contain additional information about elements and attributes as defined in schema. You advised not to change any of the information in this column group, as all the information here is copied here as it has been defined in the XML schema.

'Optional/Required' column has two possible values

- 'Optional' - schema defines element or attribute as optional
- 'Required' - schema defines element or attribute as required

'Max occurrence' column contains maximum occurrence of element or attribute

'Data type' column contains data type of element or attribute.

'Enumeration' column contains available enumerations of element or attribute.

'Path' column contains XML path of element or attribute.

4th column group - Backend system mapping definitions column group

'Backend system mapping' columns are designed to be used to document how subset elements and attributes relate to backend system receiving or sending data, e.g. a database table.

'Fieldname' column is used to document what information element or attribute relates to in backend system, e.g. database table name & fieldname.

'Mapping rule' column is used to document any rule relating to handling of information.

'Status' column is designed to be used in development phase of backend system mapping. The contents of this column controls conditional formatting of rows, i.e. if text is entered in this column and the text value is not = 'OK' the row will be highlighted using pink background colour.

'Remarks' column is used to document any remarks.

papiNet ISS tool user guide

How to edit a papiNet ISS

Overview

A papiNet ISS can be edited in Excel, but the ISS tool also has a form which enables viewing & editing the ISS in tree-view.

Editing a papiNet ISS worksheet

Select papiNet ISS to edit

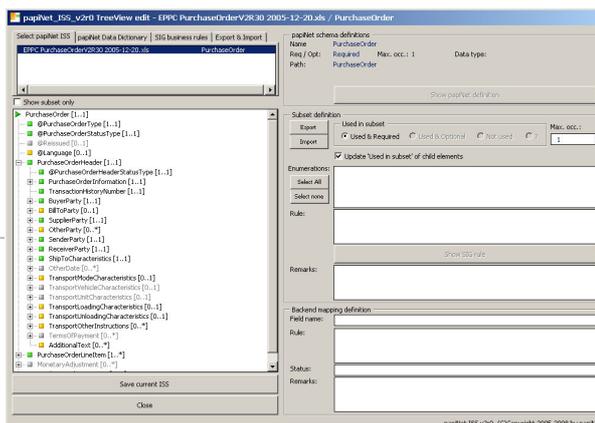All open Excel worksheets that contain a papiNet ISS are show in the list (top left corner of form).

When you click on one of the papiNet ISS workbooks it is opened in the tree view window.

To save the papiNet ISS displayed in the treeview, click the 'Save' button.

Navigating the papiNet ISS in the tree view

To select an item click on it in the tree view, to open a subtree click n the plus sign, to close a subtree click on the minus sign.

The right hand side of the form shows the information of the selected item; here you can also edit the information.

The icon of the item indicates whether the item has been selected to be used in the subset or not. The currently selected icon has the shape of an arrow; otherwise the icon is a square. The colour of the icon indicates its status as part of the subset.

- ▪ ☐ - item is used & required
- ▪ ☐ - item is used & optional
- ▪ ☐ - item usage has not been agreed yet, i.e. 'Used in subset' in ISS is indicated with '?'
- ▪ ☐ - item is NOT used in subset

By selecting / deselecting the "Show subset only" checkbox the tree view will show either the whole schema or just the subset.

Changing 'Used in subset" information of an item

To select whether an item is included in the subset or not, either

- ▪ right click the item in the treeview and select the value from the opened menu or
- ▪ maintain the information in the form ('Used in subset' frame).

When changing 'Used in subset' of an element containing child elements, 'Used in subset' of child elements is changed only if the appropriate check box is selected. If selected child elements are changed as follows:

- ▪ to 'Yes'
    - - 'Used in subset' of all child elements is changed to 'Yes' if parent 'Used in Subset' = 'Yes' and child element is defined as 'Required' in the papiNet schema.
    - - 'Optional/Required' of child elements is changed to value from papiNet schema
- ▪ to 'No'
    - - 'Used in subset' of all child elements is changed to 'No'
    - - 'Optional/Required' of child elements is not changed
- ▪ to '?' does not change 'Used in subset' and 'Optional/Required' of child elements

Editing enumerations used in subset

Please select the enumerations used in the subset from the list. The list shows the enumeration defined in the papiNet XML schema. The enumerations are sorted alphabetically with the selected enumerations appearing in the beginning of the list. Use the appropriate button to select all / none of the enumerations.

papiNet ISS tool user guide

papiNet data dictionary & SIG rules lookup

Additional information from the papiNet data Dictionary or SIG rules word documents can be shown.

To show the information click on either button, which will bring up the word document at the defined point:

- In the case of the papiNet Data Dictionary ISS uses the bookmarks to navigate to the correct place in the document
- In case of SIG rule the lookup works only for SIG rule numbers; in the case that the ISS item contains several SIG rules a window will open where you can select the rule.

To move back to ISS tool click ⊕ in Word menu.

papiNet data dictionary lookup defaults

To enable the lookup the data dictionary & SIG rules word documents must be selected, either on the main worksheet or on the Edit ISS form. Press the button to open window where you can browse your folders for the correct word document.
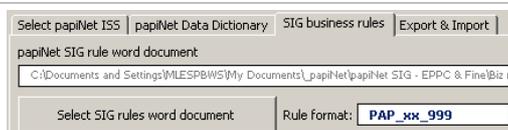
SIG rules lookup defaults

There's two conditions that must be met to make sure the SIG rule lookup works correctly:

1. the SIG rules must appear as bookmarks in the word document

2. the SIG rules must follow a predefined format

   - rule name starts with a prefix which ends with 'xx_999', the prefix is used to find the rules in the text of the ISS SIG rule column
   - in the actual rule the ending xx_999 is replaced as follows:
     - xx = two letter message abbreviation (PO = purchase order, OC=order confirmation, DM=delivery message, IV=invoice)
     - 999 = the rule number, with leading zeroes

The naming standard used in the Paper SIG is PAP_xx_99.

Exporting / Importing ISS subset information

You can export & import whole ISS worksheets or just parts of one. The export & import is done via an XML file.

- If you export the whole ISS worksheet the import XML file can only be imported to a worksheet containing an ISS of the same XML message.
- If you export only a part of the message, you can import to items of the same data type. This enables for instance export & import in the following scenarios
  - party data type; export BuyerParty, import to BuyerParty or BillToParty
  - product; i.e. copy the product specifications between messages

To export or import do as follows:

1. in treeview right click the item where you want to start; i.e. the root element in case of whole message or just a part of it
2. select export or import from the menu
3. a file dialogue will open; choose the export / import filename; press 'Cancel' to abort the export / import
4. in case of export the export file is created by writing the selected item and all it's children to the file
5. in case of import papiNet ISS will make sure there is a match between the selected ISS item & the information in the import file; once this is confirmed the ISS sheets is scanned through row by row starting from the selected item and through it's children updating the subset information with that in the import file

Please note that export or import can also be started by selecting the item in the treeview and by pressing the 'Export' or 'Import' button.

When importing you select whether to import subset definitions and / or backend system mapping definitions.

Export / Import defaults

Two default values can be set for Export & Import:

- The check box 'Set Used In subset value to ? for items not found in import file' controls what happens in import in case the ISS element cannot be found in the import file.
- The check boxes 'Import subset' & 'Import backend system mapping' control what is imported.
- The text box contains the default folder for Export / Import.