

Sumehr/SMF/PMF Validation Tool 3.1

User Guide

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1 Introduction

The *ehValidator* is a standalone small tool whose purpose is to perform an advanced syntactic validation of a 'Sumehr transaction', a 'Software Migration Format' file (SMF), a 'Patient Migration Format' file (PMF), a 'Medication Scheme transaction' or an 'Incapacity Notification transaction'. It additionally allows its users to visualise them in a simple HTML format. The tool is not intended to validate the quality of the medical content of the transactions. Furthermore, it is not designed to allow its users to edit the transactions.

The tool follows the rules described at the URL:

Sumehr:

<https://www.ehealth.fgov.be/standards/kmehr/en/transactions/summarised-electronic-healthcare-record-v20>

SMF:

<https://www.ehealth.fgov.be/standards/kmehr/en/page/gp-software-migration-format>

PMF:

<https://www.ehealth.fgov.be/standards/kmehr/en/page/gp-patient-migration-format>

Medication Scheme:

<https://www.ehealth.fgov.be/standards/kmehr/en/transactions/incapacity-notification-20>

Incapacity Notification:

<https://www.ehealth.fgov.be/standards/kmehr/en/transactions/medication-scheme>

This version of the tool:

- is available in English, Dutch, French and German;
- does not allow to integrate external 'reference tables' (for instance, the CNK codifications). Therefore :
 - the tool is not able to perform any validation that is related to the content of such tables;
 - Visualisation of messages containing only codified information without textual descriptions may become not 'human readable'.

The two main functionalities (validation and HTML visualisation) of the tool are available by:

- a very simple Java GUI interface;
- a Java library.

2 Glossary

Refer to the KMEHR site: <https://www.ehealth.fgov.be/standards/kmehr/>.

3 How to install the tool

3.1 Technical requirements

- The tool is known to work on all major operating systems (Windows, Mac OS X, and Linux) with a correct java installation.
- The current version requires you to have **a working Java 6 installation**. Please refer to <http://java.oracle.com> for more details on how to obtain java for your operating system.
- Each version of the tool is related to a specific version of the KMEHR schema, of the SUMEHR transaction, the SMF format and the PMF format. Please consult the [KMEHR site](#)¹ to check the tool adequacy.
- The visualisation functionality requires that your browser authorises the use of **JavaScript**.

3.2 Packaging

The eHealth validation tool is distributed as a self-contained zip named '*EhValidation_<version>.zip*'. The EhValidationTool zip file can be extracted to any folder of your choice. Make sure to keep the folder structure intact when you extract the files.

Note: If you don't have a program to extract .zip files (like WinZip, WinRAR, 7-Zip ...) installed on your computer, you can find a free alternative here: <http://www.7-zip.org/>.

If your computer meets the requirements, click on file '*ehvalidator-gui-<version>.jar*' to launch the GUI tool. You do not need an internet connection to use it.

Folder structure:

- `cfg`: contains configuration files
- `demo`: contains examples
- `lib`: contains program libraries
- `licenses`: contains the licenses for external libraries
- `log`: contains log file
- `manual`: contains the application's manual
- `site`: contains javadoc

¹<https://www.ehealth.fgov.be/standards/kmehr/en/home/home/index.xml>

4 How to use the tool

4.1 Multilingualism

By default the tool is in the local language of the computer.

If you want to change the gui language, simply click on the language menu and choose your favorite language.

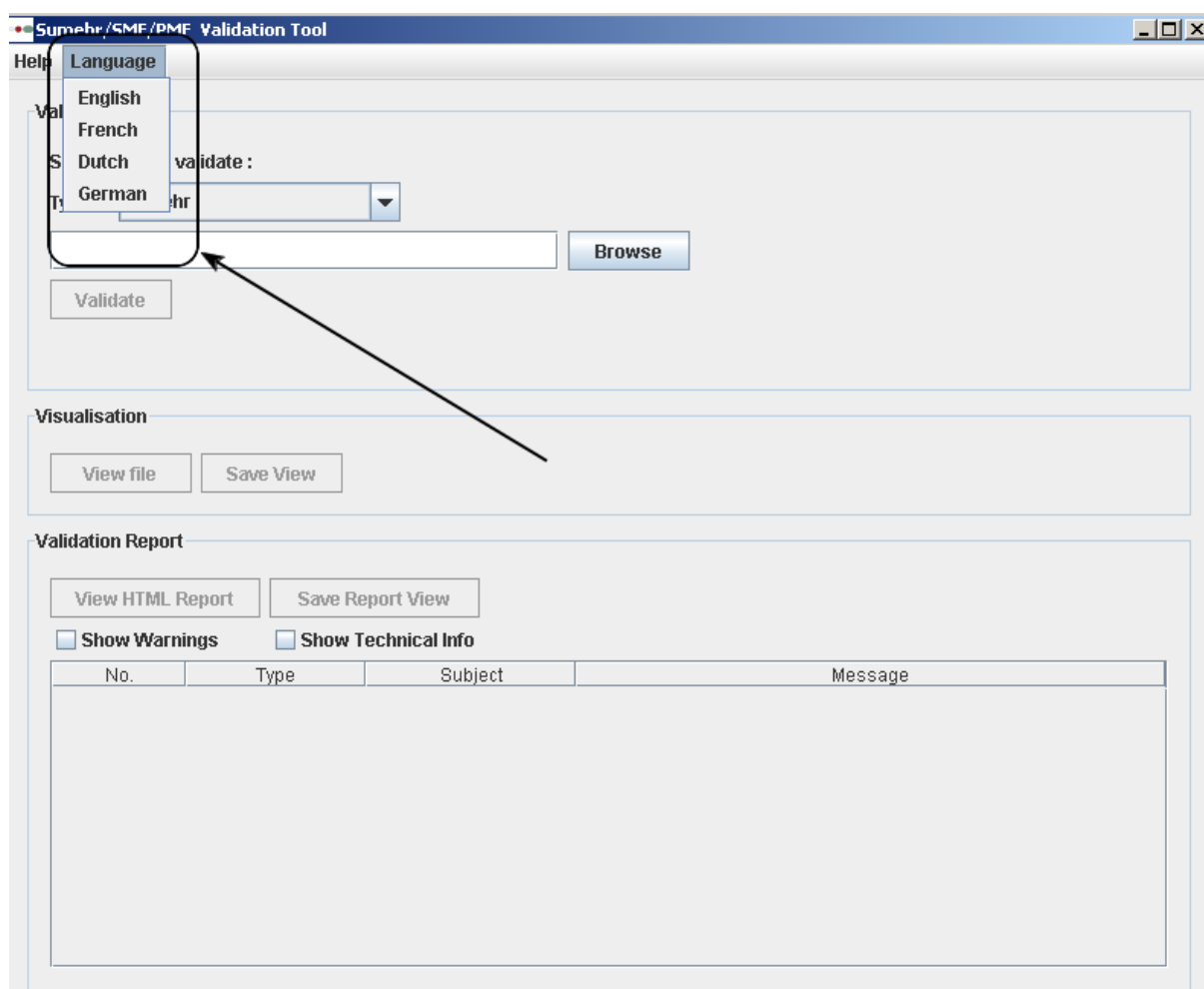


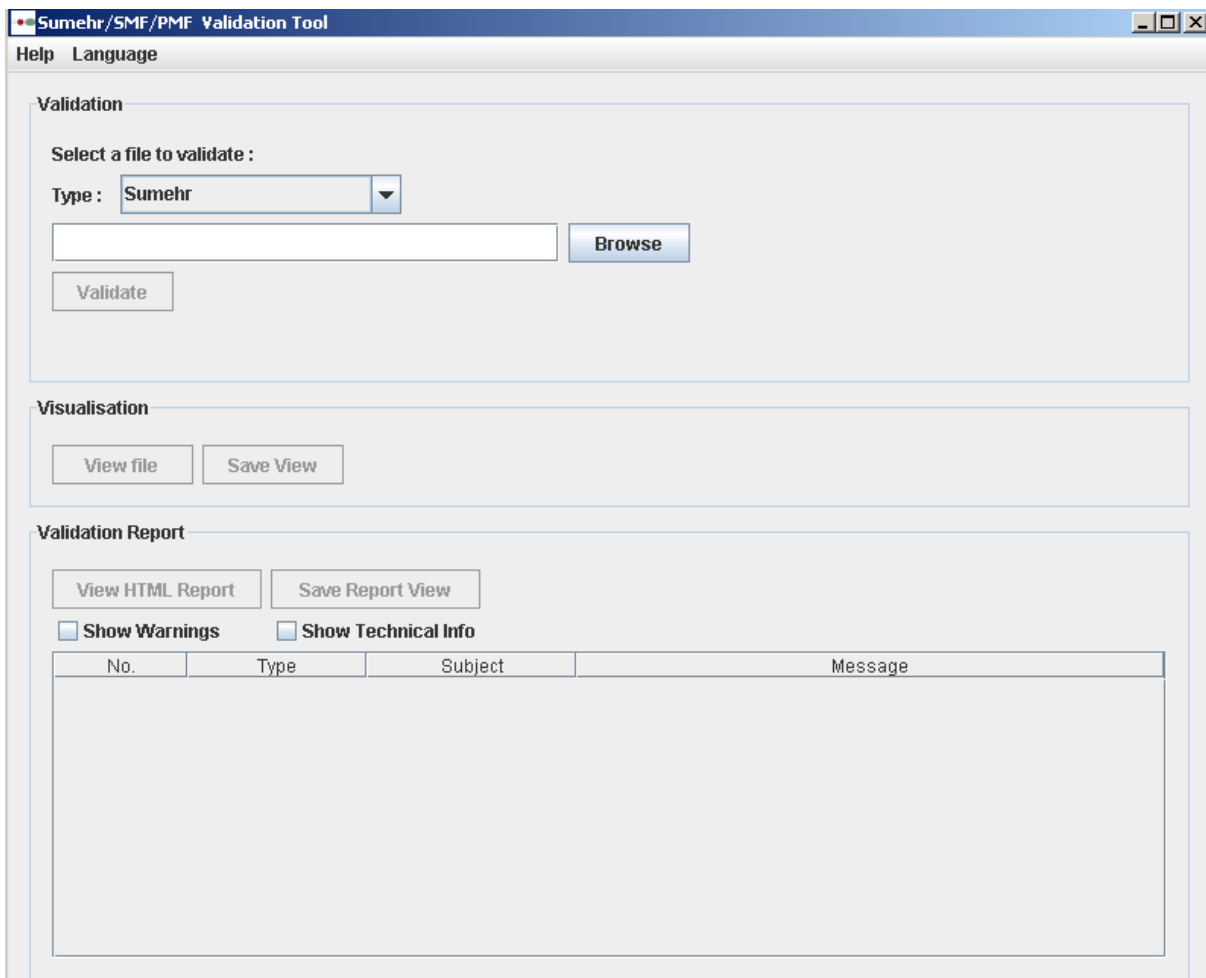
Figure 1: Language selection

4.2 Overview

The tool allows you to perform three main operations in steps:

- Step 1 allows you to check that a file fulfils the specified rules. This is the '**validation**' step.
- Step 2 allows you to perform a visual check on your file. This the '**visualisation**' step.
- Step 3 allows you to export and/or visualise the results of the validation step (errors/warnings). Those errors and warnings are gathered in the '**validation report**'.

Those three operations are gathered in a single simple window.



The screenshot shows the main window of the 'Sumehr/SMF/PMF Validation Tool'. The window has a title bar with the text 'Sumehr/SMF/PMF Validation Tool' and standard window controls. Below the title bar is a menu bar with 'Help' and 'Language'. The main content area is divided into three sections:

- Validation:** This section contains a label 'Select a file to validate :', a 'Type' dropdown menu set to 'Sumehr', a text input field, a 'Browse' button, and a 'Validate' button.
- Visualisation:** This section contains two buttons: 'View file' and 'Save View'.
- Validation Report:** This section contains two buttons: 'View HTML Report' and 'Save Report View'. Below these are two checkboxes: 'Show Warnings' (checked) and 'Show Technical Info' (unchecked). At the bottom of this section is a table with the following columns: 'No.', 'Type', 'Subject', and 'Message'.

Figure 2: eHealth Validation Tool main window

4.3 Step 1: Validation

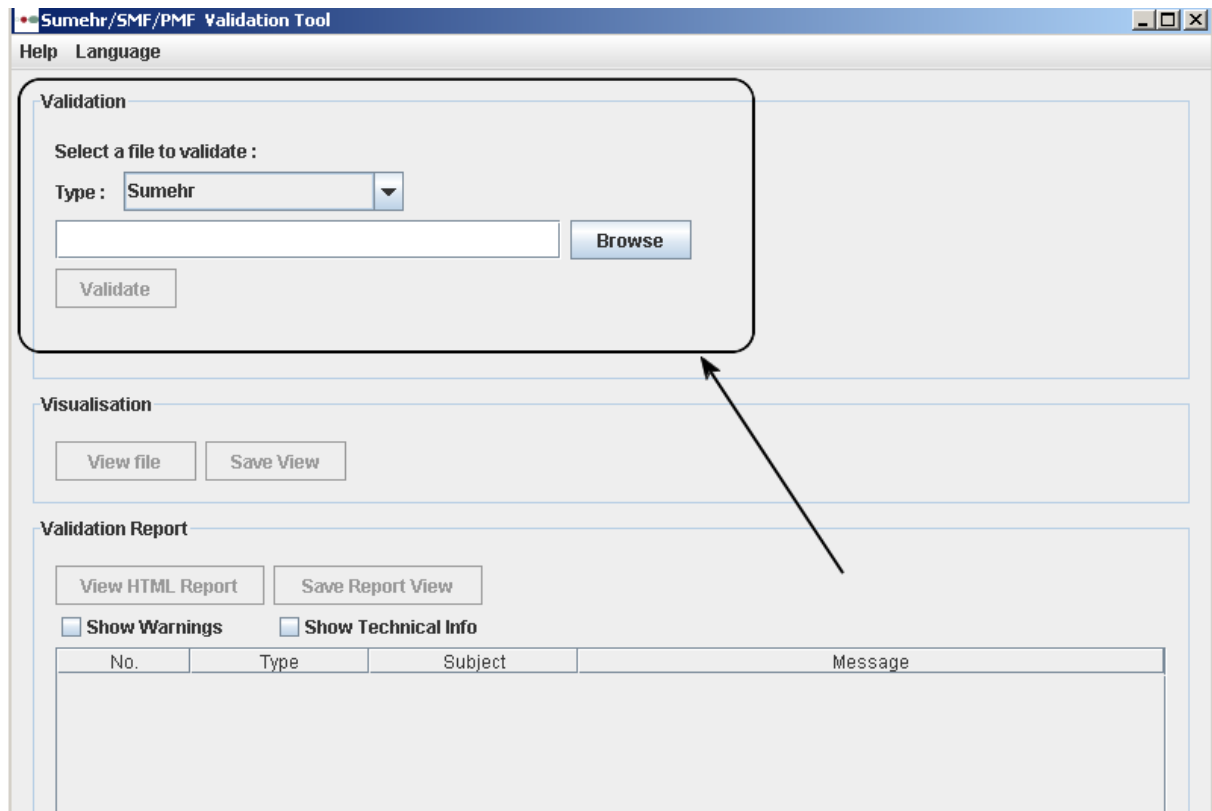


Figure 3: “STEP 1: Validation” frame

Select in the checkbox the type of file you want to validate. The tool supports Sumehr ,SMF and PMF files.

Click on the [Browse] button and select the file to validate. It should be a XML file which fulfills the KMEHR schema. You can also enter the filename by hand and hit the [Enter] key to confirm the file name.

Then click on [Validate]. This button is activated after you selected a file.

After clicking on [Validate], a message appears, showing the number of errors and warnings. There is a color code:

- Green: File is correct, no errors and no warnings.
- Orange: File is correct, with warnings.
- Red: File is not correct; it has at least one error.

If the selected file is not a correct KMEHR file, you will get a pop up with an error message.

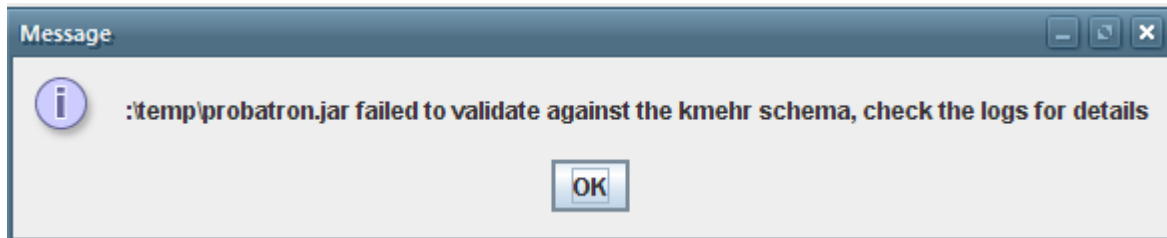
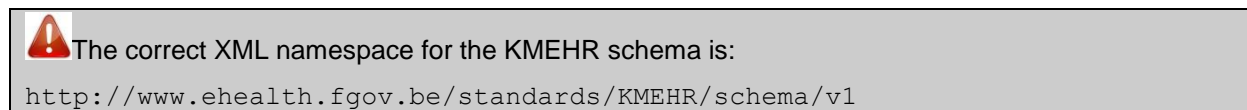
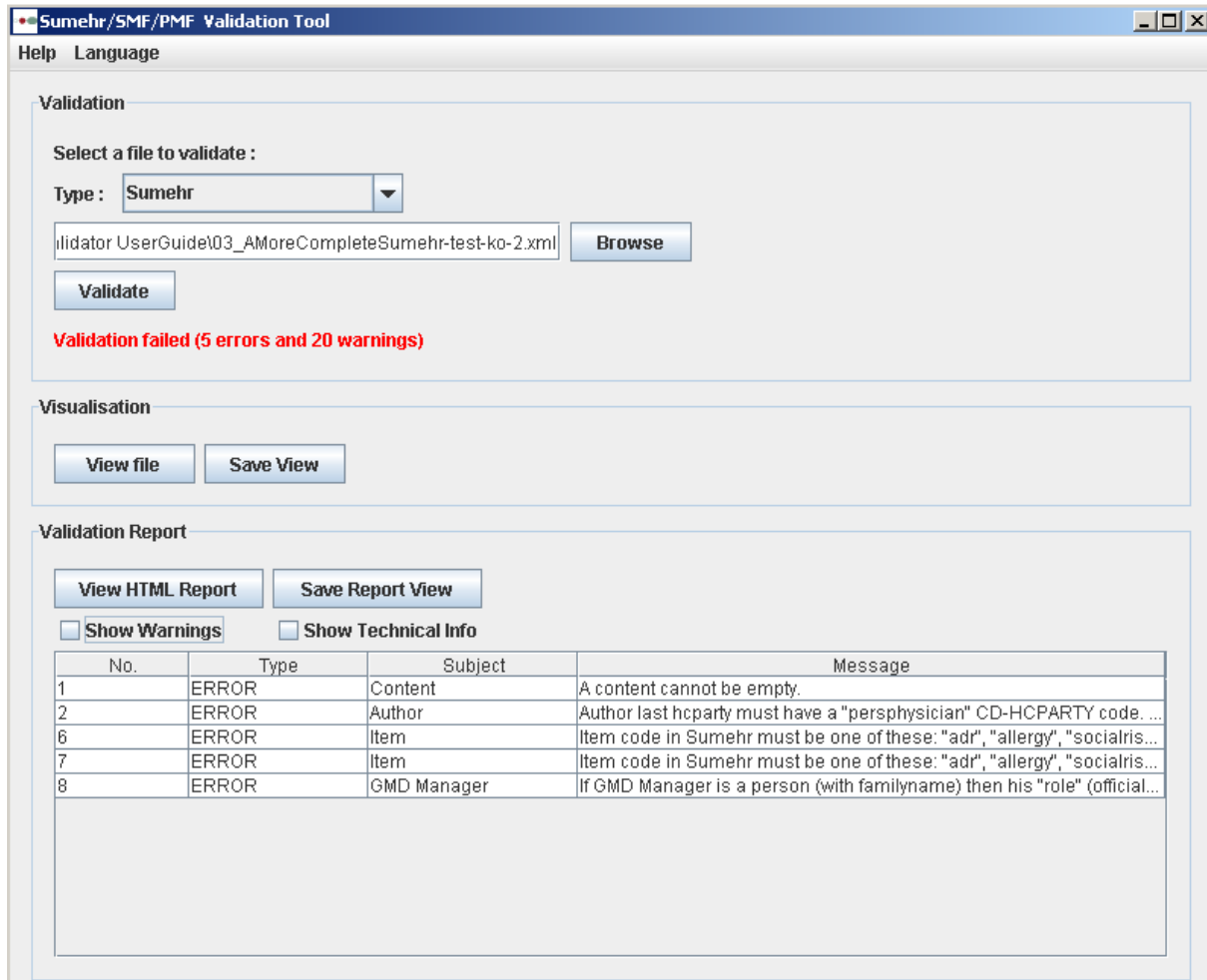


Figure 4: Incorrect KMEHR file validation



After the validation step, the visualisation and report frames are activated. If the file is not correct (i.e. the file validates against the schema but does not fulfil the specified rules), the report frame displays the detected errors.



The screenshot shows the 'Sumehr/SMF/PMF Validation Tool' window. It has a menu bar with 'Help' and 'Language'. The main area is divided into three sections: 'Validation', 'Visualisation', and 'Validation Report'.

Validation Section:

- 'Select a file to validate :'
- 'Type : Sumehr' (dropdown menu)
- File path: 'Validator UserGuide\03_AMoreCompleteSumehr-test-ko-2.xml'
- 'Browse' button
- 'Validate' button
- Red text: 'Validation failed (5 errors and 20 warnings)'

Visualisation Section:

- 'View file' button
- 'Save View' button

Validation Report Section:

- 'View HTML Report' button
- 'Save Report View' button
- Checkboxes: 'Show Warnings' (checked) and 'Show Technical Info' (unchecked)
- Table of errors:

No.	Type	Subject	Message
1	ERROR	Content	A content cannot be empty.
2	ERROR	Author	Author last hcparty must have a "persphysician" CD-HCPARTY code.
6	ERROR	Item	Item code in Sumehr must be one of these: "adr", "allergy", "socialris...
7	ERROR	Item	Item code in Sumehr must be one of these: "adr", "allergy", "socialris...
8	ERROR	GMD Manager	If GMD Manager is a person (with familyname) then his "role" (official...

Figure 5 : Incorrect file validation

4.4 Step 2: visualisation

When the file is valid with respect to the schema, the validation step leads to the activation of the 'Visualisation' frame.

4.4.1 Activation of the visualisation

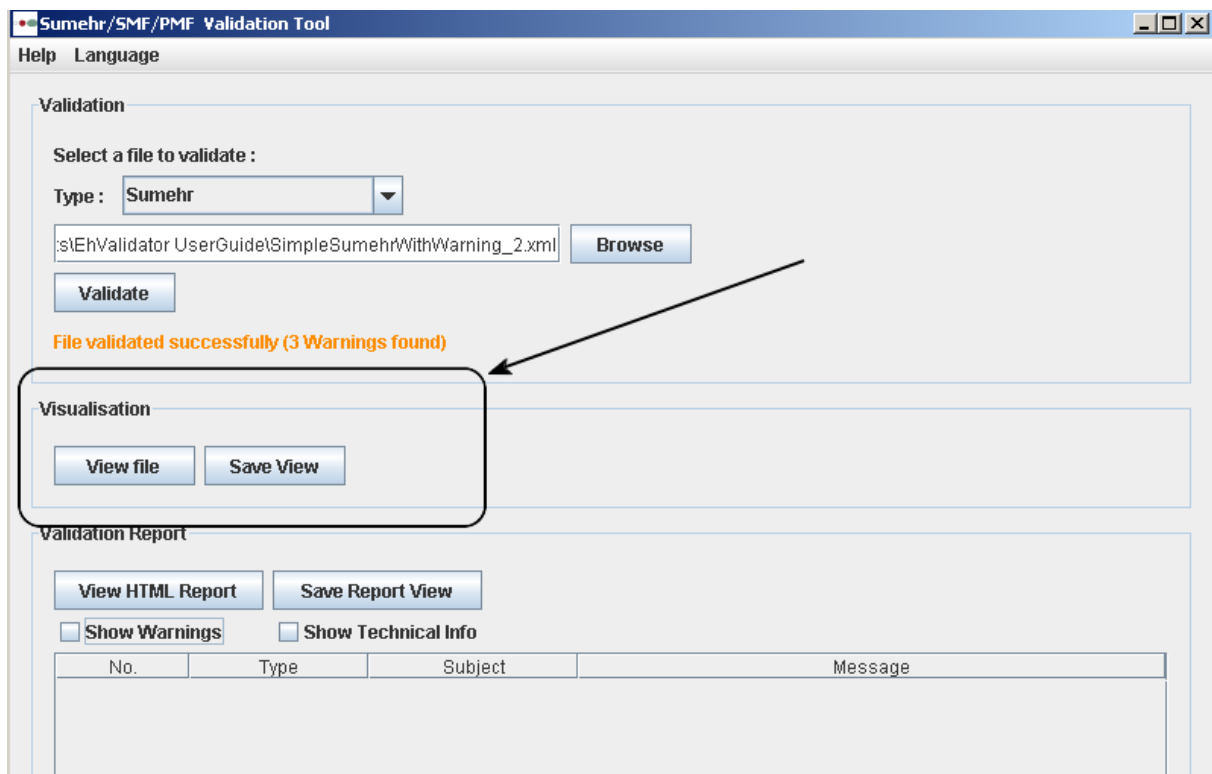


Figure 6: 'Step 2 Visualisation' frame

There are 2 buttons in this frame: the first to show the view directly, the second to save this view on your computer.

- [View file]: It opens a file visualisation in a new page with your default web browser.
- [Save view]: It allows you to save the visualisation. Click on this button, select file location and name, then click on [save]. The file should be saved with an html extension, so you will be able to open it with any web browser.

Opening the view in the tool, or opening a saved view offers the same view. (Currently, tested with **Internet Explorer 9**, **Mozilla Firefox 10** and **Google Chrome 12**)

Note: The visualisation uses JavaScript. According to your browser's configuration, it is possible that displaying the view will be blocked by default. In this case, your browser will show a message to inform you. Please, click on this message and allow the blocked content.


 To help protect your security, Internet Explorer has restricted this webpage from running scripts or ActiveX controls that could access your computer. [Click here for options...](#)



Figure 7: Allow blocked content with Internet Explorer example

4.4.2 Visualisation: description

By default, the view is displayed in the current Gui language. If you want to change the language, click on the link of your favourite language.

By default, the view is displayed in a 'short view' where some information is hidden in order to allow quick overview about the patient. By clicking on the [Expanded View] button, you get the full detailed view. By clicking on the [Short View] button, you get minimal view.

Expanded View Short View [english](#) [nederlands](#) [français](#) [deutsch](#) Show Warnings ☐

Sumehr

Creation date : 2010-05-05 09:30:00

[+] Author

GP ForTestingPurpose

[+] Patient

Patient ForTestingPurpose	
Sex	male
Birthdate	1991-12-25
Usual language	fr
"home" Address	Rue de La Gare 12 ; 5000 Namur / be

[+] Risks

Allergies :

hay fever

Adverse drug reactions :

Social risks :

Sociocultural problem

Other risks :

[+] Current problems

stomach ache
acute infectious rhinitis

[+] Relevant passive care element

epilepsy

[+] Active medication

Omeprazol Sandoz 20mg	
Name	Omeprazol Sandoz caps. EC 56x 20mg
Period	start: 2010-05-01 end: 2010-05-30

Figure 8: Extract of Sumehr short view

Expanded View Short View [english](#) [nederlands](#) [français](#) [deutsch](#) Show Warnings ☐

Sumehr

Creation date : 2010-05-05 09:30:00

[+] Author

GP ForTestingPurpose	
NIHII No	11530231003
INSS No	49112002395
Role	persphysician
First names	GP
Family Name	ForTestingPurpose
"work" Address	Avenue de l'Ange 237 PB : B ; 5000 Namur / be
phone	081917125 (work)

[+] Patient

Patient ForTestingPurpose	
INSS No	7031966696
(local id) MyUsualSystem 2010-01-03	32190
First names	Patient
Family Name	ForTestingPurpose
Sex	male
Birthdate	1991-12-25
Usual language	fr
Phone	
"home" Address	Rue de La Gare 12 ; 5000 Namur / be

Figure 9: Extract of Sumehr expanded view

To switch view for a specific paragraph, simply click on the [+] or [-] icon at the left of this paragraph.

Sumehr

Creation date : 2010-05-05 09:30:00

[+] Author

GP ForTestingPurpose

[+] Patient

Patient ForTestingPurpose	
INSS No	7031966696
(local id) MyUsualSystem 2010-01-03	32190
First names	Patient
Family name	ForTestingPurpose
Sex	male
Birthdate	1991-12-25
Usual language	fr
phone	
home address	Rue de La Gare 12 ; 5000 Namur / be

Figure 10: Expanding/hiding paragraphs

Warnings are not displayed in the default visualisation. Warning display can be activated by the use of the checkbox [Show warnings].

Expanded View
Short View
[english](#) [nederlands](#) [français](#) [deutsch](#)
Show Warnings ☒

Sumehr WITH WARNINGS (Warnings: 2)

Creation date : 2010-05-05 09:30:00

[+] Author

GP ForTestingPurpose

[+] Patient

Patient ForTestingPurpose	
Sex	male
Birthdate	1991-12-25
Usual language	fr
"home" Address	Rue de La Gare 12 ; 5000 Namur / be

[+] Risks

Allergies :

hay fever

WARNING
No. 2: "allergy" should have a content with codified informations (cd). (Label: "hay fever")

Adverse drug reactions :

Social risks :

Sociocultural problem

Figure 11: Warning display activation

The visualisation is available for both incorrect and correct files (valid with respect to the schema however). In the case of an incorrect file, a message appears in red and errors are displayed in the visualisation.

Expanded View
Short View
[english](#) [nederlands](#) [français](#) [deutsch](#)
Show Warnings ☐

THIS SUMEHR IS NOT CORRECT (Errors: 2 - Warnings: 3)

Creation date : 2010-05-05 09:30:00

ERROR
No. 1: All transactions in Sumehr must have official "sumehr" codification. (CD-TRANSACTION here: "result")

[+] Author

GP ForTestingPurpose

[+] Patient

Patient ForTestingPurpose	
Sex	male
Birthdate	1991-12-25
Usual language	fr
"home" Address	Rue de La Gare 12 ; 5000 Namur / be

Risks

Allergies :

Adverse drug reactions :

Social risks :

Other risks :

[+] Current problems

stomach ache
acute infectious rhinitis

[+] Relevant passive care element

epilepsy

[+] Active medication

Textual content not specified

ERROR
No. 2: Medication must contain one (and only one) textual content corresponding to the medication label (Number: 0)

Name	Omeprazol Sandoz caps. EC 56x 20mg
Period	start: end:

Administrated vaccines

Figure 12: Incorrect Sumehr visualisation

4.4.3 SMF particularity

In the case of a SMF file, only the clinical summary is fully displayed. The other transactions are summarized at the end of the visualisation.

By clicking on these transactions, a pop-up window will show the XML file.

The errors and warnings are shown in a table below their respective transaction.

Period	start: 2010-08-06 end:
[+] Vaccines	
	hepatitisa , hepatitisb
Name	HAVRIX 1440 SER INJ IM 1ML
Administration date	2010-09-15
[+] Contact persons	
	Jean Dupont
Family Tie	tutor
[+] Patient wills	
	ntbr
	intubationrefusal
	euthanasiarequest
[+] InsuranceStatus	
Medical Insurance Status	302
Membership	123456
Siscard	1758499809889908F9D980098
[+] GMD manager	
	GP ForTestingPurpose
[+] Healthcare professional contacts	
	Physician ForTestingPurpose
Role	persphysician
Role	deptoncology
End of the Clinical Summary	
[+] Contact Report (GP ForTestingPurpose, 2010-09-15 10:03:00)	
Errors	No. 1: Encounter datetime must contain one (and only one) date and time content. (Number: 0) (Line: 391)
[+] Contact Report (GP ForTestingPurpose, 2010-05-01 10:00:00)	
Warnings	No. 3: "parameter" should have a beginmoment (Line: 499)
[+] Contact Report (2010-03-01 10:05:05)	
Errors	No. 2: "vaccine" must have a "GPSMF-ID". (Line: 569)
[+] Lab Result (My Usual Laboratory, 2010-05-09 14:00:00)	
[+] Note (2010-05-09 14:03:00)	

Figure 13: Visualisation of the other transactions

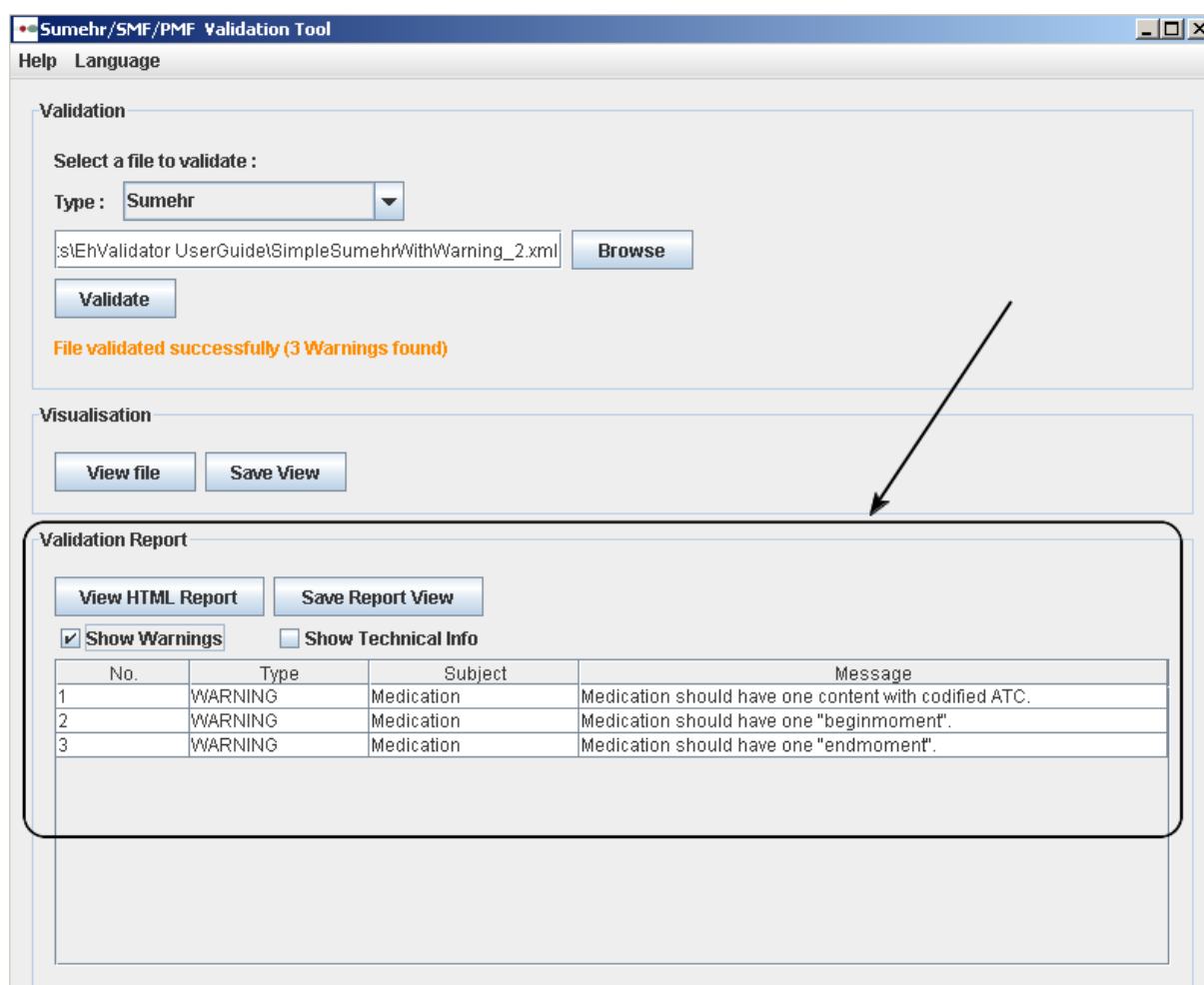
4.5 Step 3: Validation Report

When a file is validated in the « Step 1: Validation » frame, the validation report is automatically displayed in the validation table, at the bottom of the tool.

In addition, it is possible to view the report in a web browser with the [View HTML Report] button, and to save the report's visualisation with the [Save Report View] button. These two buttons are activated following a successful "step 1".

The report includes error and warning messages received during the validation process. An "error" is an important defect in the validation, which implies that the file is not valid. A "warning" shows a lack in the validation, even if it doesn't mean the file is not correct.

By default, the warnings are not displayed. To view them, select the corresponding checkbox.



The screenshot shows the Sumehr/SMF/PMF Validation Tool interface. The top section is titled "Validation" and contains a "Select a file to validate:" label, a "Type:" dropdown menu set to "Sumehr", a text input field containing the file path "c:\EhValidator UserGuide\SimpleSumehrWithWarning_2.xml", and a "Browse" button. Below this is a "Validate" button. A status message "File validated successfully (3 Warnings found)" is displayed in orange. The middle section is titled "Visualisation" and contains "View file" and "Save View" buttons. The bottom section is titled "Validation Report" and contains two buttons: "View HTML Report" and "Save Report View". Below these buttons are two checkboxes: "Show Warnings" (checked) and "Show Technical Info" (unchecked). A table displays the validation results:

No.	Type	Subject	Message
1	WARNING	Medication	Medication should have one content with codified ATC.
2	WARNING	Medication	Medication should have one "beginmoment".
3	WARNING	Medication	Medication should have one "endmoment".

Figure 14: Validation report frame

4.5.1 Activation of HTML report

- [View HTML Report] button: It opens the validation report in a new page of your default web browser.
- [Save Report View] button: It allows to save the visualisation. Click on this button, select file's location and name, then click on [save]. The recorded file will be an .html file, so you will be able to open it with any web browser.

4.5.2 Report description

By default, the report is displayed in the current Gui language. If you want to change the language, click on the link of your favourite language.

This report view contains number of errors/warnings and a list about these errors/warnings. By default, only errors are displayed.

[English](#) [Dutch](#) [French](#) [German](#)


Validation report

Number of errors : 1

Number of warnings : 1 ([Click here to show/hide warnings](#))

No.	Type	Subject	Message	Line	Col	Location	Test
2	ERROR	Transaction	All transactions in Sumehr must have official "sumehr" codification. (CD-TRANSACTION here: "result")	66	36	/kmehr:kmehrmessage[1]/kmehr:folder[1]/kmehr:transaction[1] /kmehr:cd[1]	current() = 'sumehr'

Figure 15: Sumehr validation report example

Expanded View Short View [English](#) [Dutch](#) [French](#) [German](#) Show Warnings 

THIS SMF IS NOT CORRECT (Errors: 47 - Warnings: 30)

Creation date : 2010-08-15 00:35:47

Errors No. 5: Transaction must be one of these: "clinicalsummary", "labresult", "result", "note", "contactreport", "pharmaceuticalprescription". (Actual: preventionplan)

[+] Patient

Patient ForTestingPurpose	
Errors	No. 11: The software specific identifier must be specified by a local id. (Line: 36)
Errors	No. 12: Patient must have a recorddatetime. (Line: 36)
Sex	male
Birthdate	1991-12-25
Usual language	fr
"home" Address	Rue de La Gare 12 ; 5000 Namur / be

Clinical Summary (, 2010-08-11 10:09:00)

[+] Author

MyUsualSoftware	
Errors	No. 13: The "role" (official CD-HCPARTY) of the author of the clinicalsummary must be "persphysician". (Code: "application") (Line: 94)

[+] Risks

Allergies :

allergie ou réaction allergique NCA	
Errors	No. 18: Medical item "allergy" must have a "MF-ID". (Line: 225)

[+] Current problems

ards	
Errors	No. 20: Medical item "healthcareelement" must have a "MF-ID". (Line: 266)
Strep throat	
Errors	No. 24: Medical item "healthcareelement" must have a "MF-ID". (Line: 338)

[+] Relevant passive care element

sinusite	
Errors	No. 19: Medical item "healthcareelement" must have a "MF-ID". (Line: 240)
Errors	No. 69: Healthcare Element must have a "isrelevant" element. (Line: 240)

Figure 16: SMF validation report example

Show / hide warnings:

You can show and hide warnings in the table by clicking on “Click here to show / hide warnings”.

Sort by column:

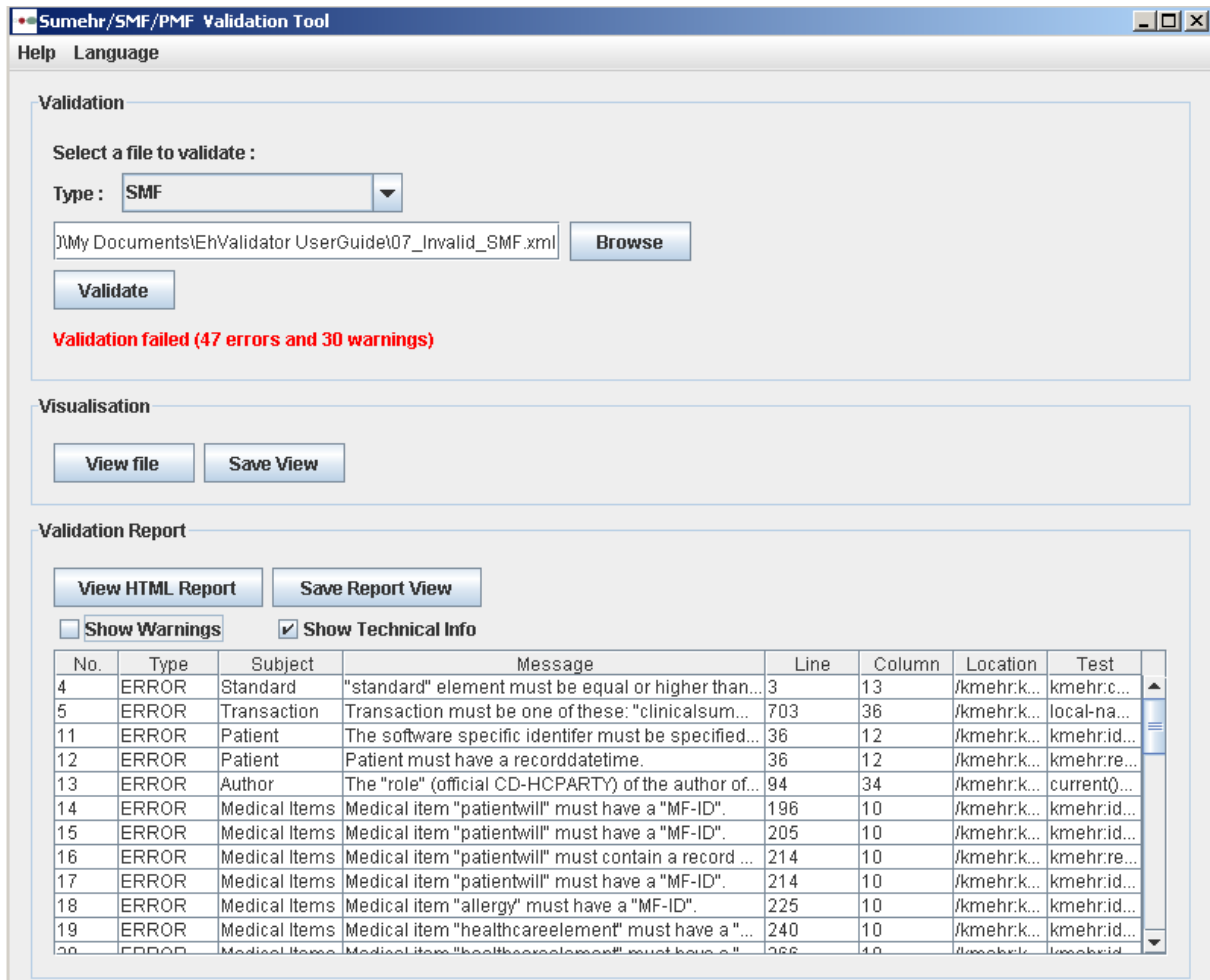
You can sort by column by clicking on column's title.

Columns description:

- **No:** incremental number for each message
- **Type:** shows if the problem is a « warning » or an « error »
- **Subject:** shows which section is involved. Examples: author, patient, medication ...
- **Message:** description about error/warning
- **Line:** line in input file where mistake was encountered
- **Col:** column in the input file where mistake was encountered
- **Location:** XPath expression where the mistake was encountered
- **Test:** XPath test that fails

4.5.3 Report table

Messages appear automatically in this table during validation. By default, warnings and technical columns are not shown.



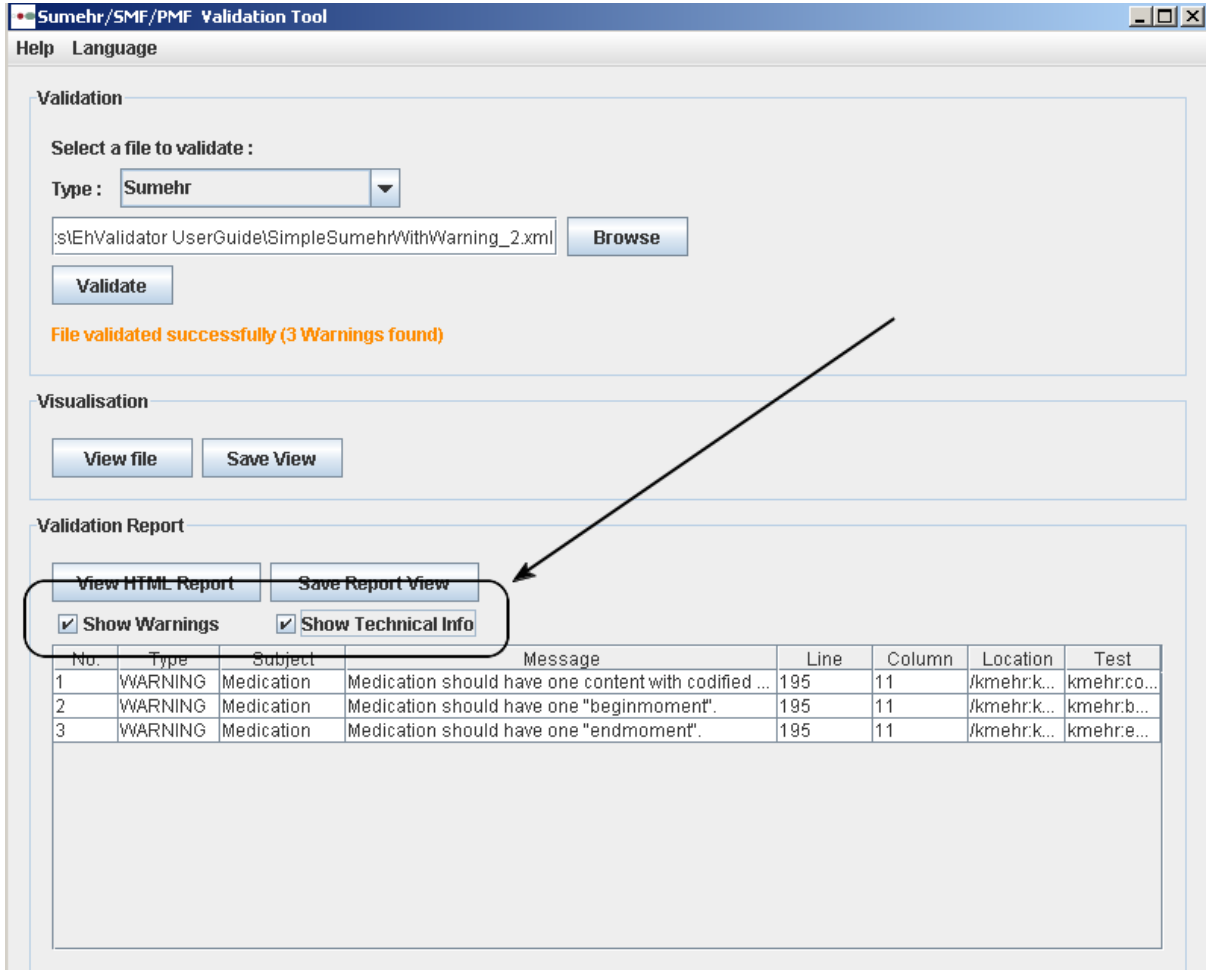
The screenshot shows the 'Sumehr/SMF/PMF Validation Tool' window. The 'Validation' section has a 'Select a file to validate' dropdown set to 'SMF' and a file path 'D:\My Documents\EhValidator UserGuide\07_Invalid_SMF.xml'. A 'Validate' button is present. Below this, a red message states 'Validation failed (47 errors and 30 warnings)'. The 'Visualisation' section has 'View file' and 'Save View' buttons. The 'Validation Report' section has 'View HTML Report' and 'Save Report View' buttons, and checkboxes for 'Show Warnings' (unchecked) and 'Show Technical Info' (checked). Below these is a table with 8 columns: No., Type, Subject, Message, Line, Column, Location, and Test.

No.	Type	Subject	Message	Line	Column	Location	Test
4	ERROR	Standard	"standard" element must be equal or higher than...	3	13	/kmehr:k...	kmehr:c...
5	ERROR	Transaction	Transaction must be one of these: "clinicalsum...	703	36	/kmehr:k...	local-na...
11	ERROR	Patient	The software specific identifier must be specified...	36	12	/kmehr:k...	kmehr:id...
12	ERROR	Patient	Patient must have a recorddatetime.	36	12	/kmehr:k...	kmehr:re...
13	ERROR	Author	The "role" (official CD-HCPARTY) of the author of...	94	34	/kmehr:k...	current()
14	ERROR	Medical Items	Medical item "patientwill" must have a "MF-ID".	196	10	/kmehr:k...	kmehr:id...
15	ERROR	Medical Items	Medical item "patientwill" must have a "MF-ID".	205	10	/kmehr:k...	kmehr:id...
16	ERROR	Medical Items	Medical item "patientwill" must contain a record ...	214	10	/kmehr:k...	kmehr:re...
17	ERROR	Medical Items	Medical item "patientwill" must have a "MF-ID".	214	10	/kmehr:k...	kmehr:id...
18	ERROR	Medical Items	Medical item "allergy" must have a "MF-ID".	225	10	/kmehr:k...	kmehr:id...
19	ERROR	Medical Items	Medical item "healthcareelement" must have a "	240	10	/kmehr:k...	kmehr:id...
20	ERROR	Medical Items	Medical item "healthcareelement" must have a "	266	10	/kmehr:k...	kmehr:id...

Figure 17: Report Table

It is possible to resize this table height, resize column width, move columns and sort columns by clicking on a column title.

Checkboxes:



The screenshot shows the 'Sumehr/SMF/PMF Validation Tool' window. The 'Validation' section has a 'Select a file to validate' dropdown set to 'Sumehr', a text box with the file path 's:\EhValidator UserGuide\SimpleSumehrWithWarning_2.xml', and a 'Browse' button. Below this is a 'Validate' button and a message: 'File validated successfully (3 Warnings found)'. The 'Visualisation' section has 'View file' and 'Save View' buttons. The 'Validation Report' section has 'View HTML Report' and 'Save Report View' buttons. Below these are two checkboxes: 'Show Warnings' (checked) and 'Show Technical Info' (checked). An arrow points from the 'Show Technical Info' checkbox to the table below.

No.	Type	Subject	Message	Line	Column	Location	Test
1	WARNING	Medication	Medication should have one content with codified ...	195	11	/kmehr:k...	kmehr:co...
2	WARNING	Medication	Medication should have one "beginmoment".	195	11	/kmehr:k...	kmehr:b...
3	WARNING	Medication	Medication should have one "endmoment".	195	11	/kmehr:k...	kmehr:e...

Figure 18: Report Table Checkboxes

- [Show Warnings] checkbox: When checked, warning lines are displayed in the report table.
- [Show Technical Info] checkbox: When checked, technical columns are displayed in the report table. By default, you can see columns: "No", "Type", "Subject" and "Message". Technical columns are: "Line", "Col", "Location" and "Test".

4.6 Error messages

4.6.1 Technical errors

These messages appear in pop-up when a particular technical error is encountered.

Message	Meaning	What can I do?
Failed to validate against the schema	<p>This message occurs when trying to:</p> <ul style="list-style-type: none">• validate a file that's not an XML file• validate an XML file, but it's not a correct KMEHR file according to the KMEHR schema• validate a KMEHR-like file, but there is no namespace declared <p>or when trying to</p> <ul style="list-style-type: none">• view a file or save a view, but selected file was modified after the validation step• view an HTML Report or save a report view, but selected file was modified after the validation step	<ul style="list-style-type: none">• check that you selected the correct file• verify that the namespace is well declared in the selected file• verify your selected file is a correct KMEHR file <p>start again the validation at step 1</p>
Bad command or file name	<p>This message occurs when you try to validate an input file that doesn't exist :</p> <ul style="list-style-type: none">• The file was deleted before you clicked on the [Validate] button• You manually entered the file path and the file does not exist	Select an existing file.
Failed Schematron validation	This message occurs when a bug is encountered during validation step.	Please contact the eHealth platform Contact Center

4.6.2 Log file

This file logs technical information when technical problem occurs. You can find it in the "log" directory of the Validation Tool installation directory.

You can change log severity by modifying the options in the configuration file `EhValidator.properties` located in the `cfg` directory.

4.6.3 Error descriptions

These messages appear in the validation Report (report table and report HTML view) when a file rule is violated.

Those messages depends on the rules defined for each transaction.

5 How to use the library

This section is intended for advanced users / developers.

The ehValidator library is a Java library that is designed in order to be easily integrated into a Java application. It also features a command-line mode for debugging purposes.

For more details about the library, please refer to the bundled Javadoc located in the `site` folder of the application.

This application depends mainly on the following libraries:

- probatron4j: a Schematron implementation for Java you can find on <http://code.google.com/p/probatron4j/>
- log4j: a logging framework developed by the Apache Foundation you can find on <http://logging.apache.org/log4j/1.2/index.html>

To run the command-line application, open the command prompt or terminal for your operating system, go to the folder where you extracted the application and run the following command²:

```
<PROMPT> cd lib  
<PROMPT> java -jar ehvalidator-core-XX.jar <FILENAME>
```

By default, this will tell you whether the file is valid or not.

To display command line usage:

```
<PROMPT> java -jar ehvalidator-core-XX.jar -h
```

If you prefer an XML report and do not want to output everything on the command-prompt window, you can redirect the output to a file using the following syntax:

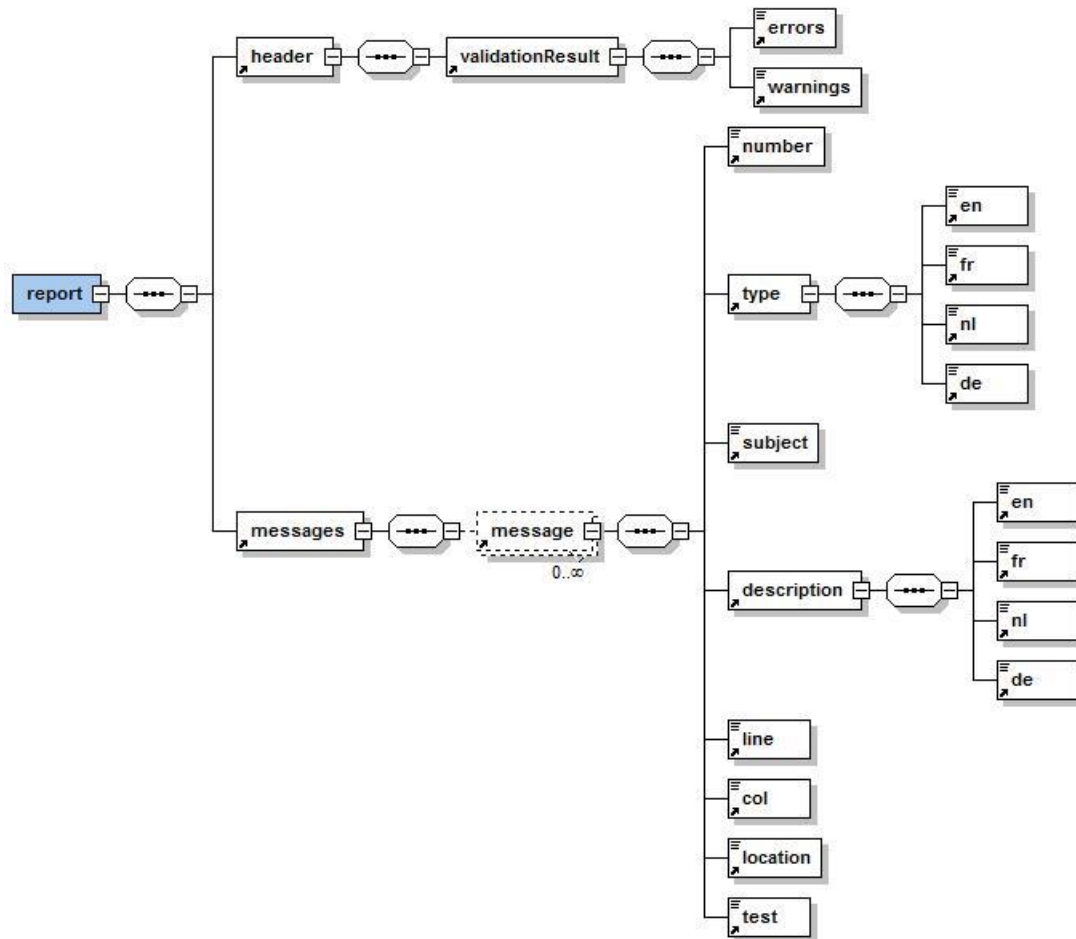
```
<PROMPT> java -jar lib\ehvalidator-core-XX.jar -request xmlreport  
<FILENAME> > report.xml
```

The error messages (if any) will still be displayed on screen. If the report could not be produced, the XML file will be empty.

² Please note that the commands shown here are for the windows platform. On Linux and MacOS you'll need to replace the backslash with a forward slash :

```
<PROMPT> java -jar lib/ehvalidator-core-XX.jar <FILENAME>
```


The structure of the xml report follows this schema:



If you prefer an HTML output, you may use the `htmlreport` command-line option:

```
<PROMPT> java -jar lib\ehvalidator-core-XX.jar -request htmlreport
<FILENAME> > report.html
```

By default, the library performs the Sumehr validation process. You can add argument to specify the set of rules to use.

The accepted rules are:

- kmehr
- sumehr
- smf
- pmf
- medicationscheme
- incapacitynotification

```
<PROMPT> cd lib
```

```
<PROMPT> java -jar ehvalidator-core-XX.jar smf <FILENAME>
```

It is also available for the report:

```
<PROMPT> java -jar lib\ehvalidator-core-XX.jar -request smf htmlreport  
<FILENAME> > report.html
```

You can also specify the default language of the view and the report:

```
<PROMPT> java -jar lib\ehvalidator-core-XX.jar -request htmlreportnl  
<FILENAME> > report.html
```

```
<PROMPT> java -jar lib\ehvalidator-core-XX.jar -request pmf htmlviewfr  
<FILENAME> > view.html
```

The different possibilities are:

- htmlviewen
- htmlviewfr
- htmlviewnl
- htmlviewde

Note: There is no Html view for the following messages: Kmehr, Medication Scheme, Incapacity Notification

- htmlreporten
- htmlreportfr
- htmlreportnl
- htmlreportde

A description of the available command-line switches is available when you launch the command without any arguments. You can use any of the provided demo files for validation purposes.

6 What to do in case of trouble

In case of trouble, please contact the eHealth platform contact center:

- by phone (Monday – Friday, 07:00 – 20:00) : **02/788.51.55.**
- or by the contact form of the eHealth platform website:

French version:

<https://www.ehealth.fgov.be/ehealthplatform/fr/contact>

Dutch version:

<https://www.ehealth.fgov.be/ehealthplatform/nl/contact>