Disclosure Management

EU XBRL setup

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Introduction

Brief overview of setting up XBRL for EU scenarios in Disclosure Management.

Sample_data.zip

General information

Two scenarios are supported (see KBA https://i7p.wdf.sap.corp/sap/support/notes/2138659 for all supported scenarios)

EIOPA Taxonomies for insurance companies (Solvency II):
https://eiopa.europa.eu/Pages/Supervision/Insurance/Data-Point-Model-and-XBRL.aspx
https://eiopa.europa.eu/Pages/Supervision/Insurance/Reporting-formats.aspx

National Specific Templates for Solvency II reporting:
Ireland: https://www.centralbank.ie/regulation/industry-market-sectors/insurance-reinsurance/solvency-ii/national-specific-templates
France: https://esurfi-assurance.banque-france.fr/current/taxonomies/taxonomie-ran
The Netherlands: https://www.dnb.nl/statistiek/digitaal-loket-rapportages/toezicht-rapportages/verzekeraars/index.jsp
Belgium:https://www.nbb.be/doc/dq/onegate/documentation_domains/xbrl/xbrl_documentation_ins_en.html

Known issues:
https://dev.eiopa.europa.eu/Taxonomy/Full/2.0.1/EIOPA_SolvencyII_List_of_Known_Issues_2.0.1.xlsx
Validation rules:
https://dev.eiopa.europa.eu/Taxonomy/Full/2.0.1/EIOPA_SolvencyII_Validations_2.0.1.xlsx

EBA Taxonomies for banks (CoRep, FinRep, Asset Encumbrance (AE), Funding Plans (FP) and Supervisory Benchmarking Reporting (SBP)):
https://www.eba.europa.eu/risk-analysis-and-data/reporting-frameworks

EBA Homepage:
https://www.eba.europa.eu/regulation-and-policy/supervisory-reporting/implementing-technical-standard-on-supervisory-reporting-data-point-model- (CoRep / FinRep)

Validation rules:
https://www.eba.europa.eu/documents/10180/997029/EBA+Validation+Rules+-+2016+03+10.xlsx

You also find there the Filing Rules:
https://www.eba.europa.eu/documents/10180/1738017/EBA+Filing+Rules+v4.2.pdf

E.g. it says, that the “scheme identifier” always has to be http://standards.iso.org/iso/17442 (in our report configuration this is called “Entity Scheme”).

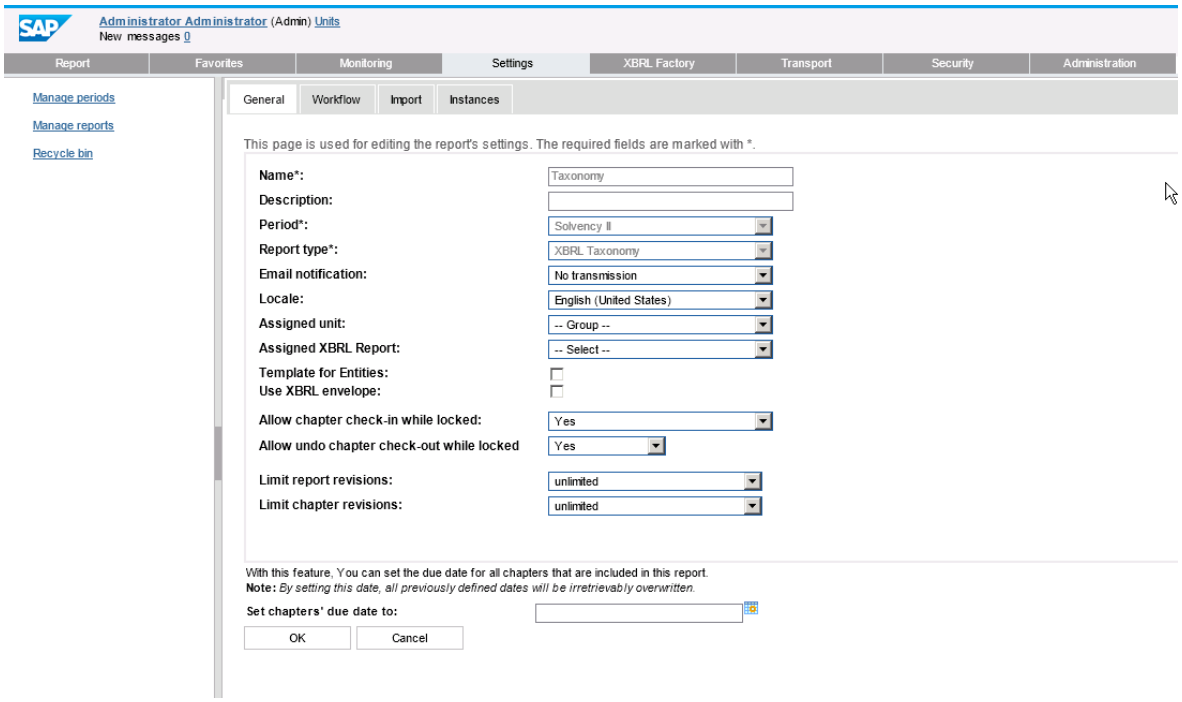
German taxonomy enhancement:
https://www.bundesbank.de/Navigation/EN/Service/Reporting_systems/Banking_Supervision/Corep_Finrep/corep_finrep.html?nsc=true&https=1

Príncipes in DM

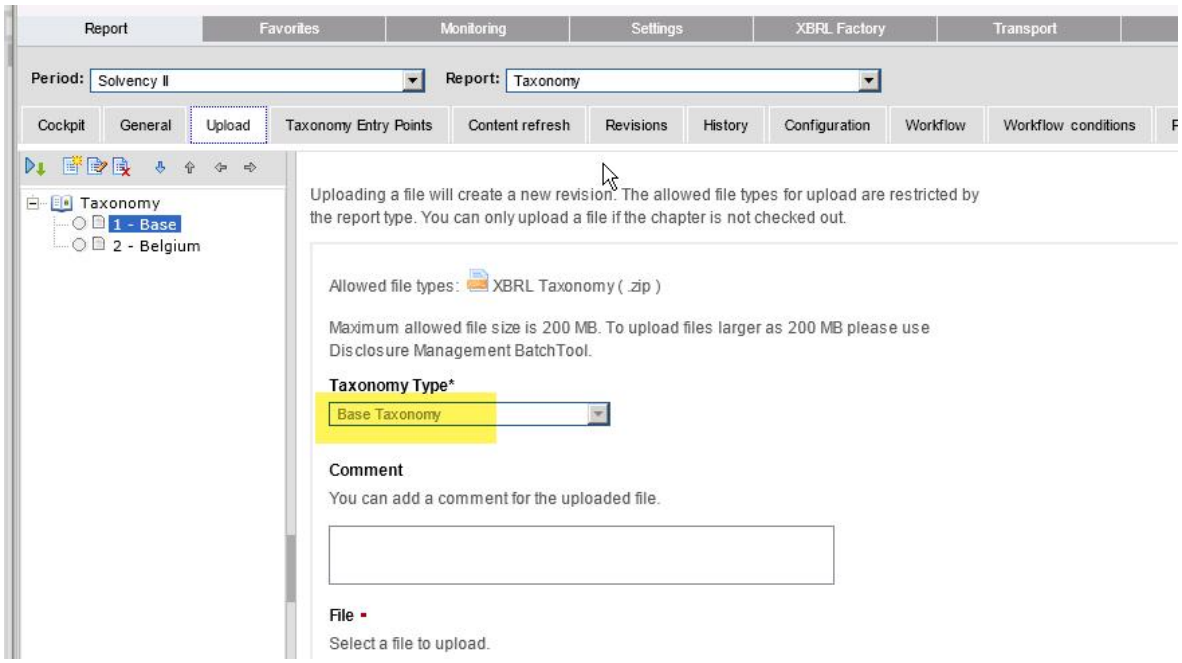
- Base taxonomy only (published by regulators, no changing/extending taxonomies).
- Zip needs to contain http/https folder structure. No need for Arelle
- Template based (published as Business Content on SMP or generated with template generator)

Setup

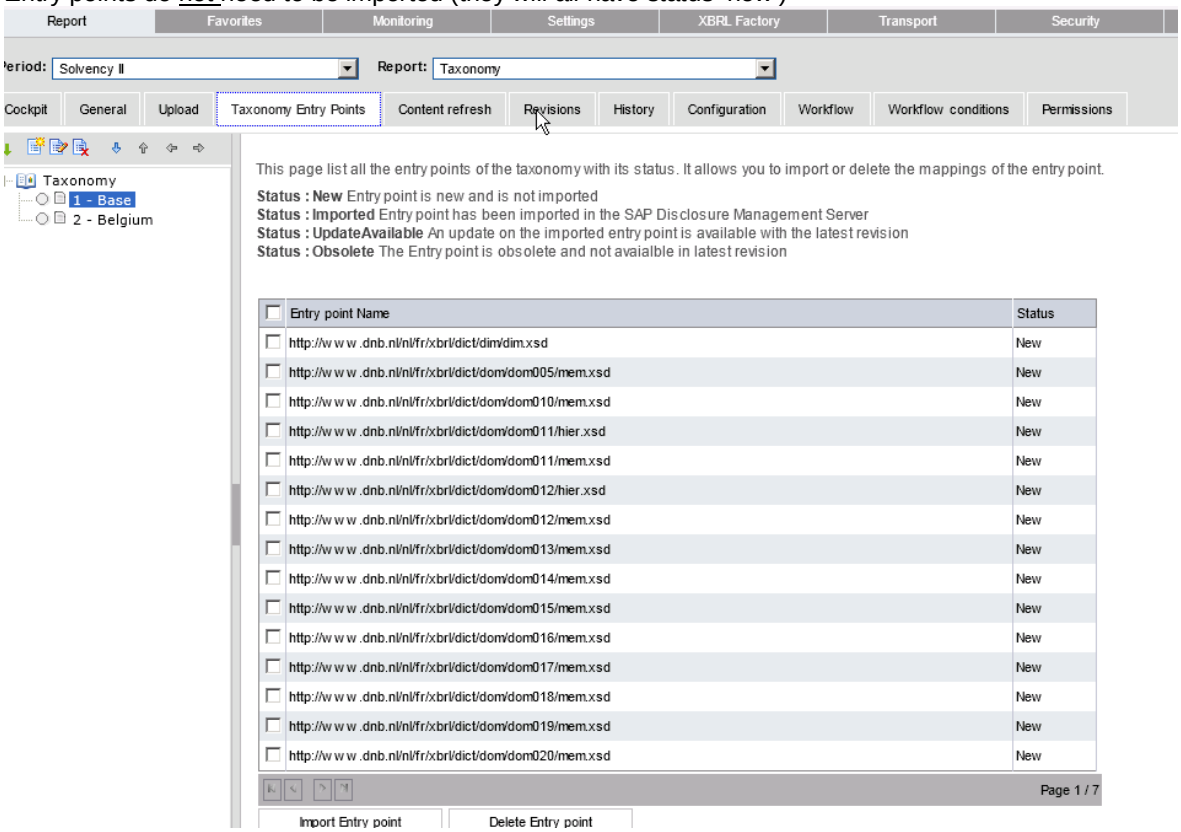
1. Report for taxonomy



Upload tax (base only)

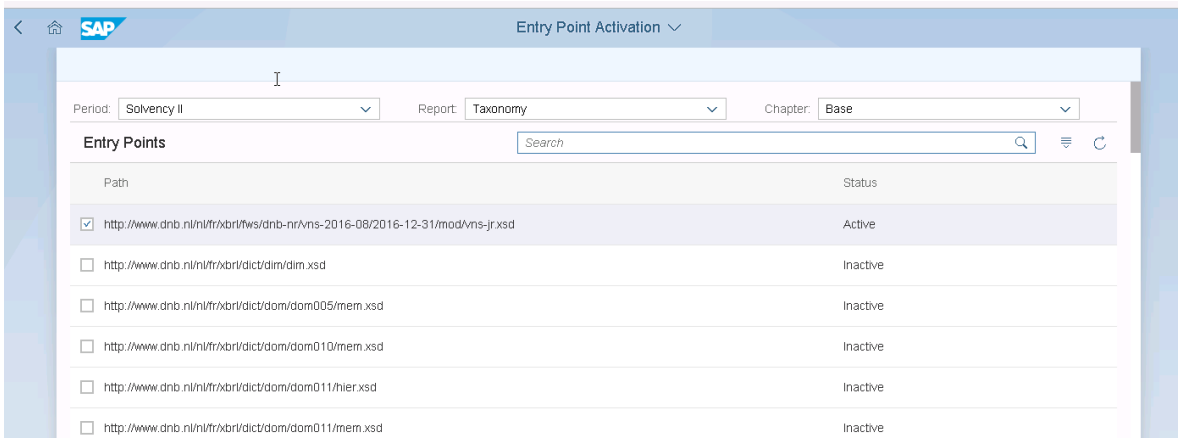


Entry points do not need to be imported (they will all have status ‘new’)



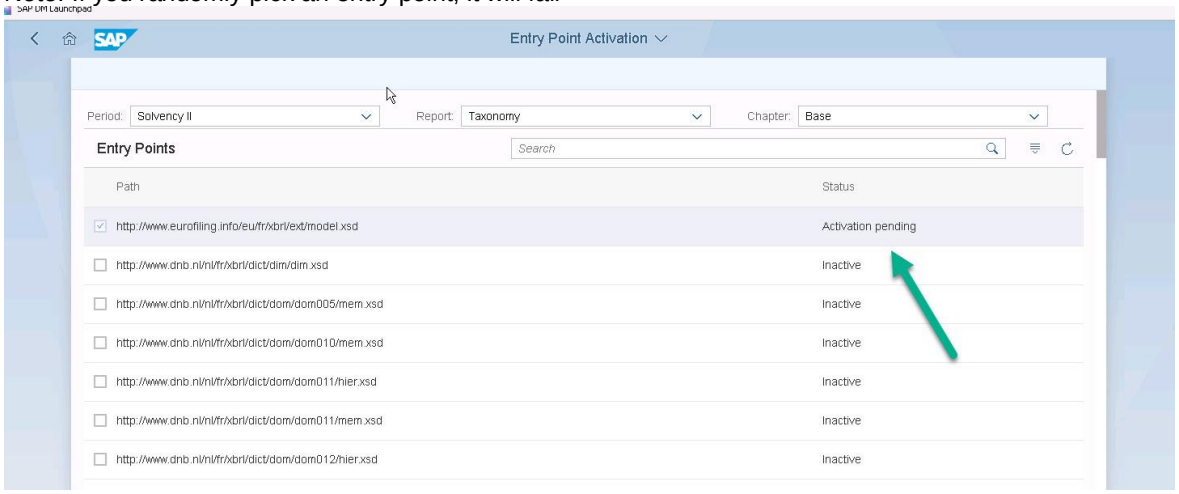
2. Entry Point activation (Fiori application)

This is a prerequisite step for the Template creator. The application launches a process, which is executed by the Task Engine (“the TE creates an XML that JAVA processes and loads into DB”)

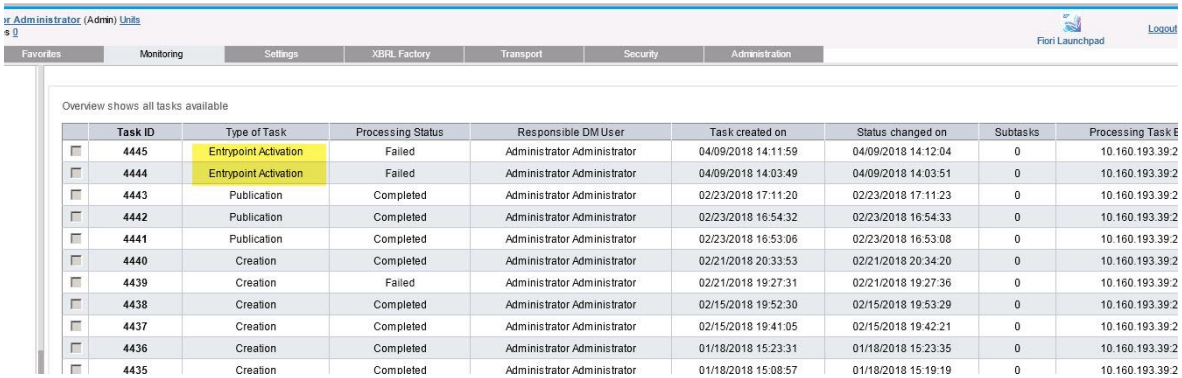


Tip: for entry point, do a search on “/mod/” folder

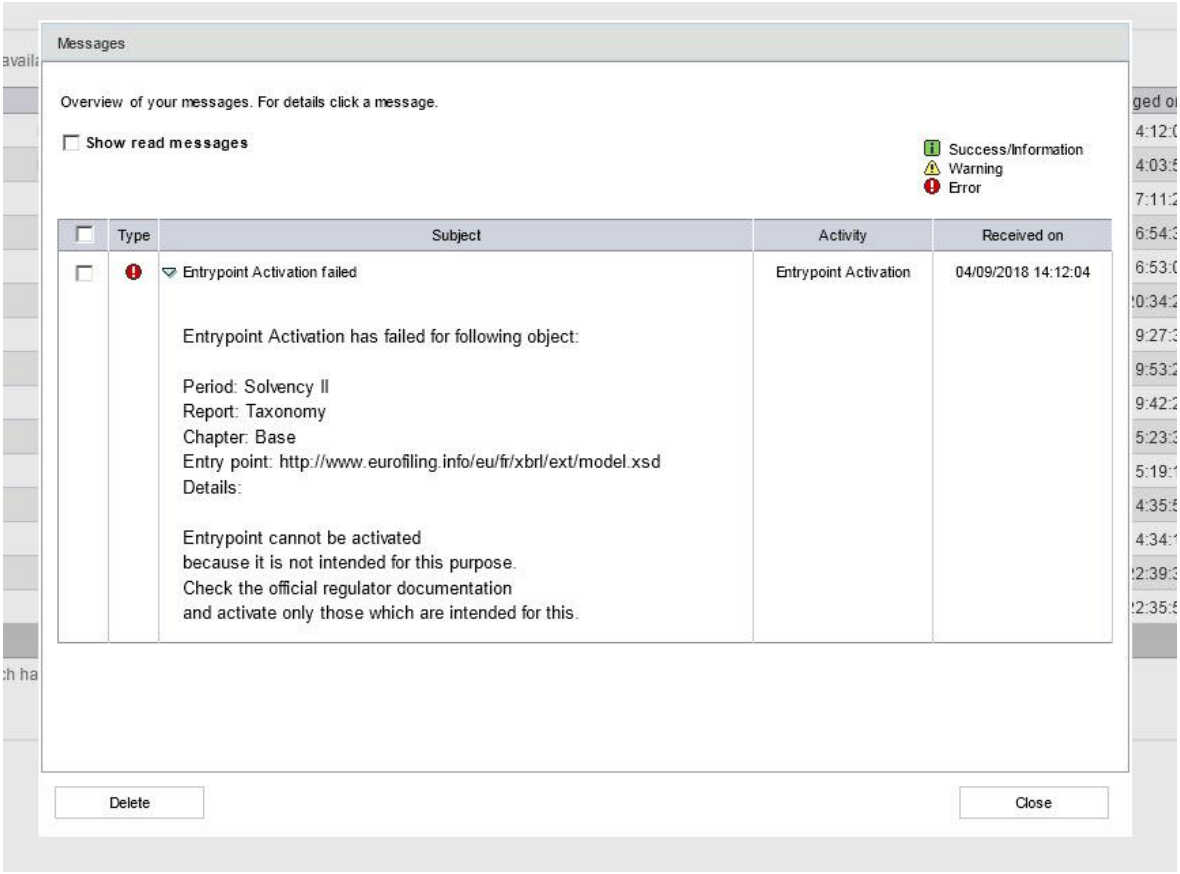
Note: If you randomly pick an entry point, it will fail



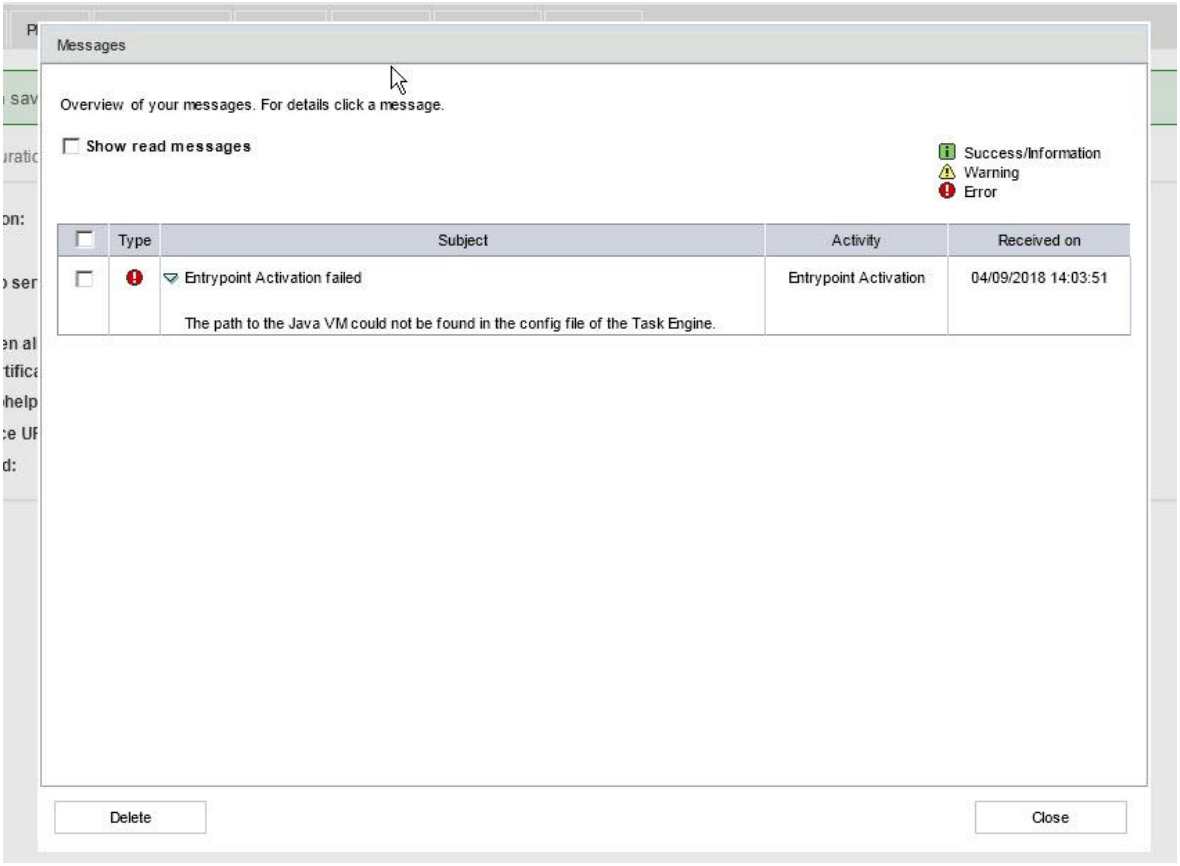
Check the Task Monitor



Example of an error (when selecting invalid entry point)



Note: JAVA config needs to be correct (in TE and XBRL services). If not, you will also get errors.


Messages
Overview of your messages. For details click a message.
Show read messages
Success/Information
Warning
Error
Type
Subject
Activity
Received on
Entrypoint Activation failed
Entrypoint Activation
04/09/2018 14:03:51
The path to the Java VM could not be found in the config file of the Task Engine.
Delete
Close

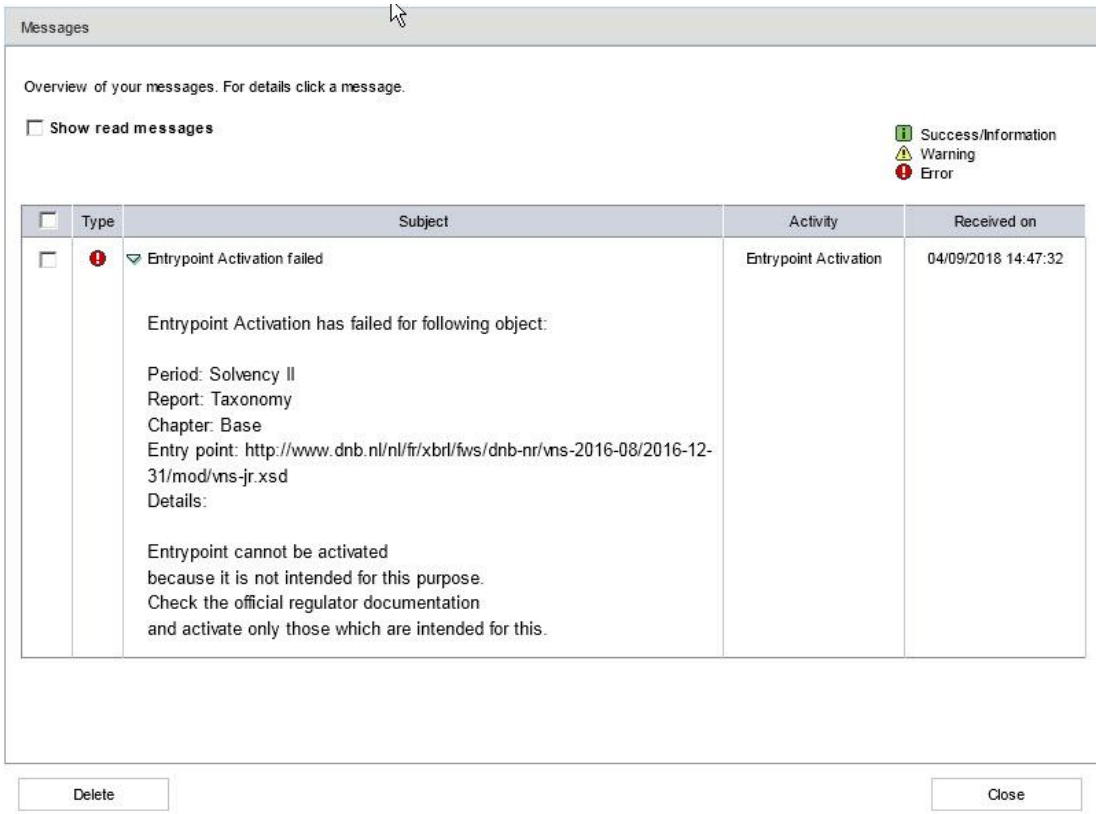
SAP.DM.TaskEngine.WinService.exe.config*
<?xml version="1.0"?>
<configuration>
<startup>
<supportedRuntime version="v4.0.30319"></supportedRuntime>
</startup>
<connectionStrings configProtectionProvider="DataProtectionConfigurationProvider">
<EncryptedData>
<CipherData>
<CipherValue>AQAAANCMnd8BFdERjHoAwE/Cl+sBAAAA0nJwjvgfJ06Alfqz4P1zfQQAAAACAAAAAAAQZgAAAAEAACAAAAAsDrgygpfjNJ+qBHLrBkSw6b8Y7d/fdxDR2W5XyL4rhAAAAAAOgAA
</CipherData>
</EncryptedData>
</connectionStrings>
<!-- Please use this template connectionString Section to replace the encrypted one above, if a connectionString value has to be changed -->
<!--
<connectionStrings>
<add name="taskEngine" connectionString="Data Source=SQLServerName;Initial Catalog=DMDatabaseName;Integrated Security=False; User Id=DMDatabaseUser;
</connectionStrings>
-->
<appSettings>
<add key="ServiceName" value="SAP Disclosure Management TaskEngine"></add>
<add key="DisplayName" value="SAP Disclosure Management TaskEngine"></add>
<add key="PathToJavaVM" value="C:\Program Files\Java\jre1.8.0_161\bin\java.exe"></add>
<add key="JavaCmdArgs" value="-XX:-UseGCOverheadLimit -XX:+DisableExplicitGC -XX:+UseParallelGC -Xms2G -Xmx20G -jar"></add>
</appSettings>
<system.serviceModel>
<services>
<service behaviorConfiguration="SAP.DM.TaskEngine.WCF.TaskEngineServiceBehavior" name="SAP.DM.TaskEngine.WCF.TaskEngineService">
<endpoint address="" binding="basicHttpBinding" bindingConfiguration="SAP.DM.TaskEngine.WCF.TaskEngineBasicHttpBinding" name="SAP.DM.TaskEngine.
<identity>
<dns value="localhost"></dns>
</identity>
</endpoint>
<endpoint address="mex" binding="mexHttpBinding" contract="IMetadataExchange"></endpoint>
<host>
<baseAddresses>
<add baseAddress="http://localhost:2605/TaskEngineService/"></add>
</baseAddresses>

Note: wrong memory parameters

```
<EncryptedData>
 <CipherData>
  <CipherValue>AQAAANCMnd8BFdERjHoAwE/Cl+sBAAAA0nJwjvgfJ06Alfqz4P1zfQQAAAACAAAAAAAQZgAAAAEAACAAAAAsDrgygpfjNJ+qBHLrBkSw6b8Y7d/fdxDR2W5XyL4rhAAAAAAOgAAAAAIAACAAAAAb
 </CipherData>
</EncryptedData>
</connectionStrings>
<!--  Please use this template connectionString Section to replace the encrypted one above, if a connectionString value has to be changed  -->
<!--
<connectionStrings>
  <add name="taskEngine" connectionString="Data Source=SQLServerName;Initial Catalog=DMDatabaseName;Integrated Security=False; User Id=DMDatabaseUser; Password=DMD
</connectionStrings>
-->
<appSettings>
  <add key="ServiceName" value="SAP Disclosure Management TaskEngine"></add>
  <add key="DisplayName" value="SAP Disclosure Management TaskEngine"></add>
  <add key="PathToJavaVM" value="C:\Program Files\Java\jre1.8.0_161\bin\java.exe"></add>
  <add key="JavaCmdArgs" value="-XX:-UseGCOverheadLimit -XX:+DisableExplicitGC -XX:+UseParallelGC -Xms512M -Xmx1G -jar"></add>
</appSettings>
<system.serviceModel>
  <services>
    <service behaviorConfiguration="SAP.DM.TaskEngine.WCF.TaskEngineServiceBehavior" name="SAP.DM.TaskEngine.WCF.TaskEngineService">
      <endpoint address="" binding="basicHttpBinding" bindingConfiguration="SAP.DM.TaskEngine.WCF.TaskEngineBasicHttpBinding" name="SAP.DM.TaskEngine.WCF.TaskEngin
        <identity>
          <dns value="localhost"></dns>
        </identity>
      </endpoint>
```

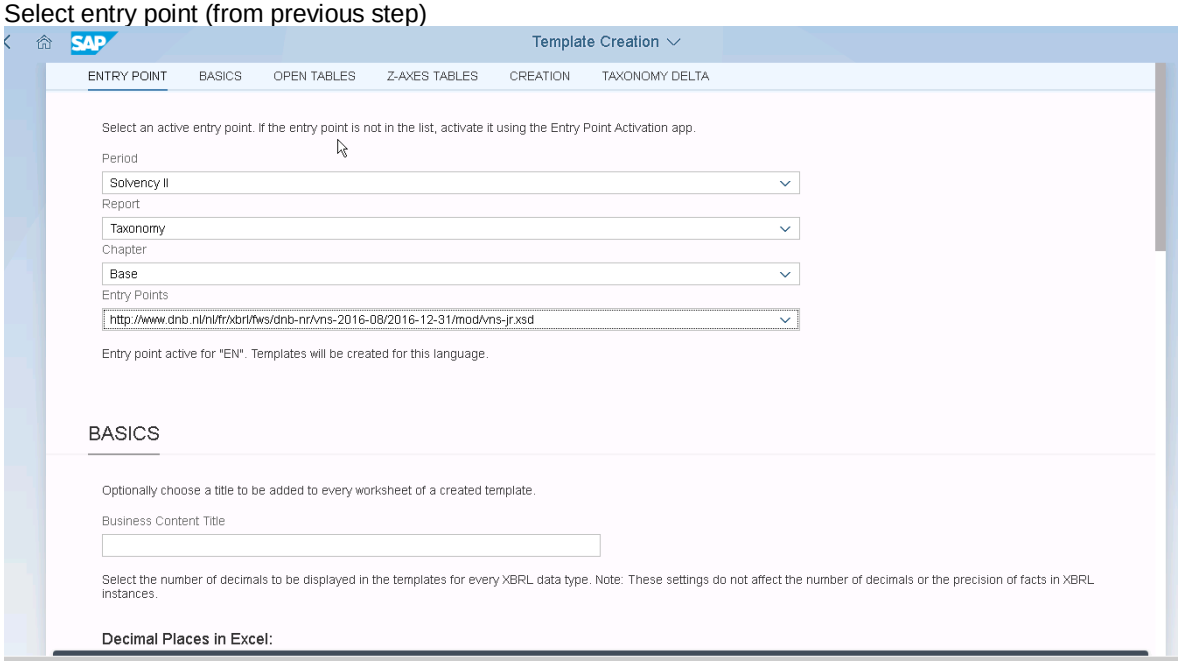
This can lead to (misleading) message that entry point is not correct (even though it is)

```
2018-04-09 07:52:53.8939 [5] [ERROR] ==>
-------- Begin --------
ErrorID: e7d65581-d799-49e7-982d-6dd574e5c88a
Activating the entry point "http://www.dnb.nl/nl/fr/xbrl/fws/dnb-nr/vns-2016-08/2016-12-
31/mod/vns-jr.xsd" failed. No output file was produced while reading the taxonomy.
-------- End --------
```

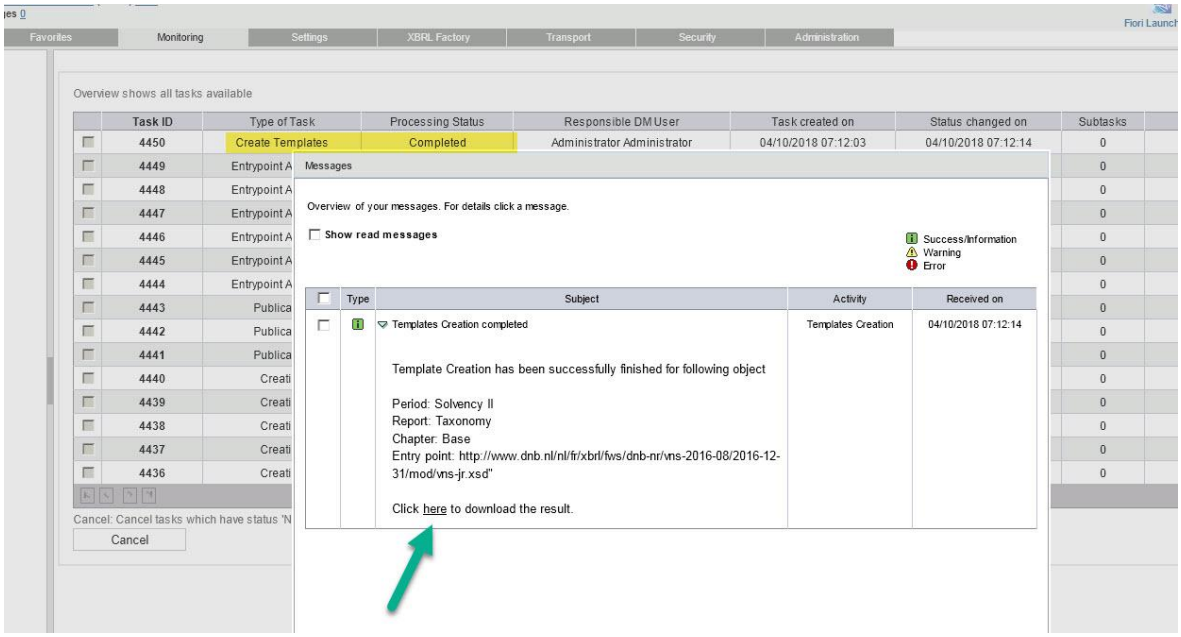


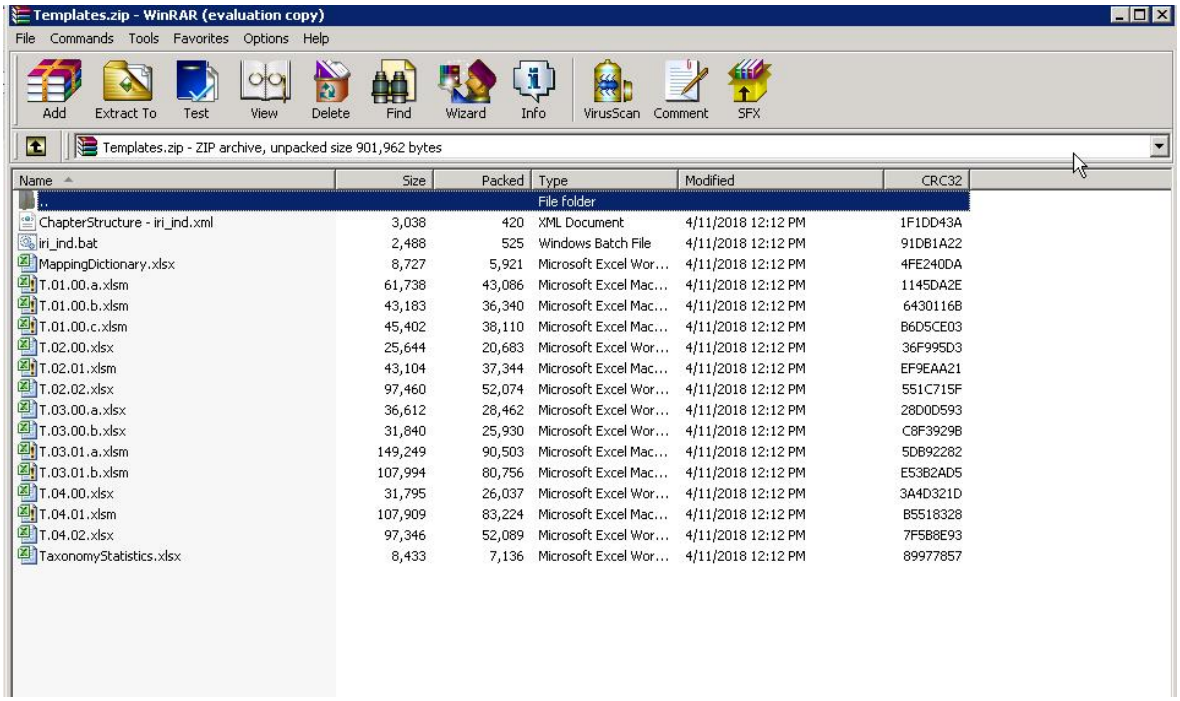
3. Template creator (Fiori application)

Select entry point (from previous step)



Process (TE) creates all excel templates



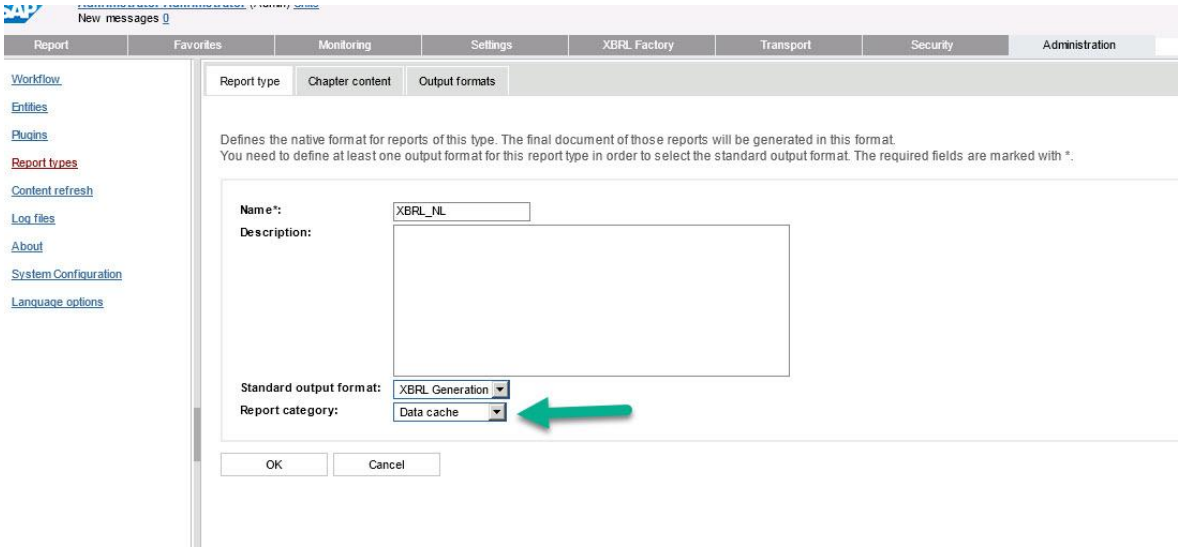


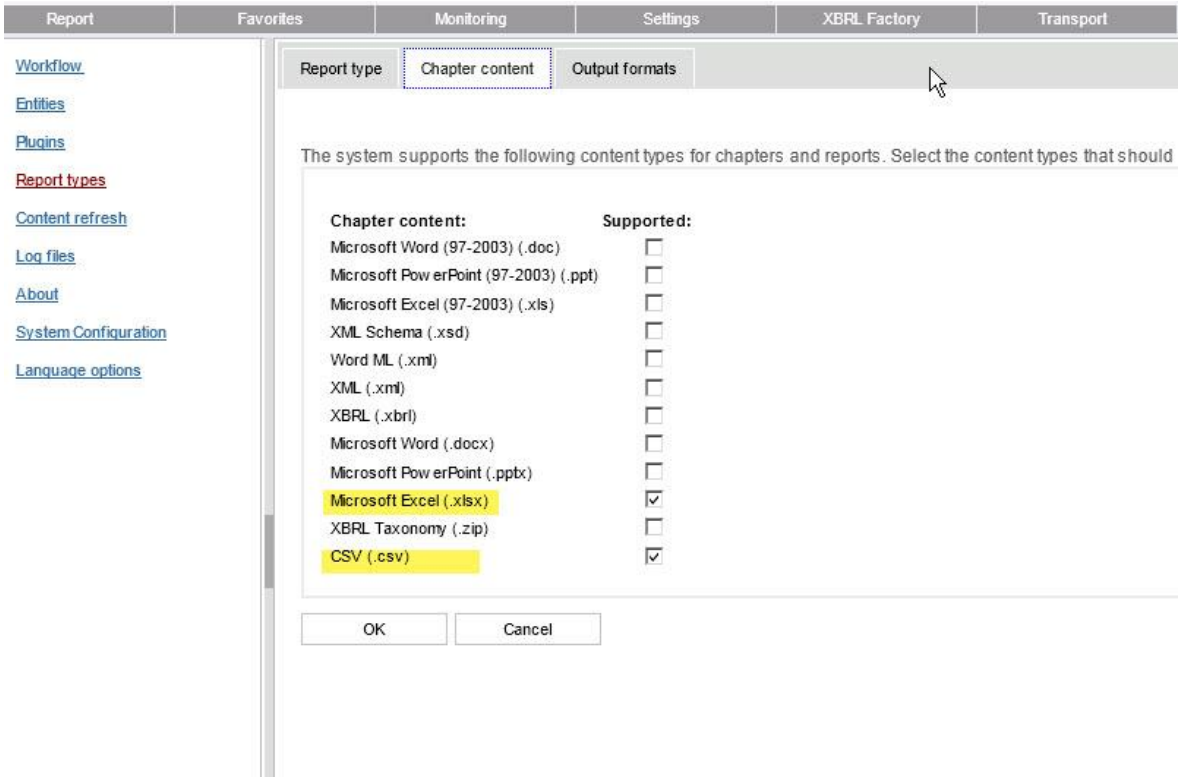
For more details on the Template Creator, see:
https://jam4.sapjam.com/groups/lxPmNdHdMuP6tFSKn2Megr/documents/cmu8UGjSwJuFCSD9TvMiw1

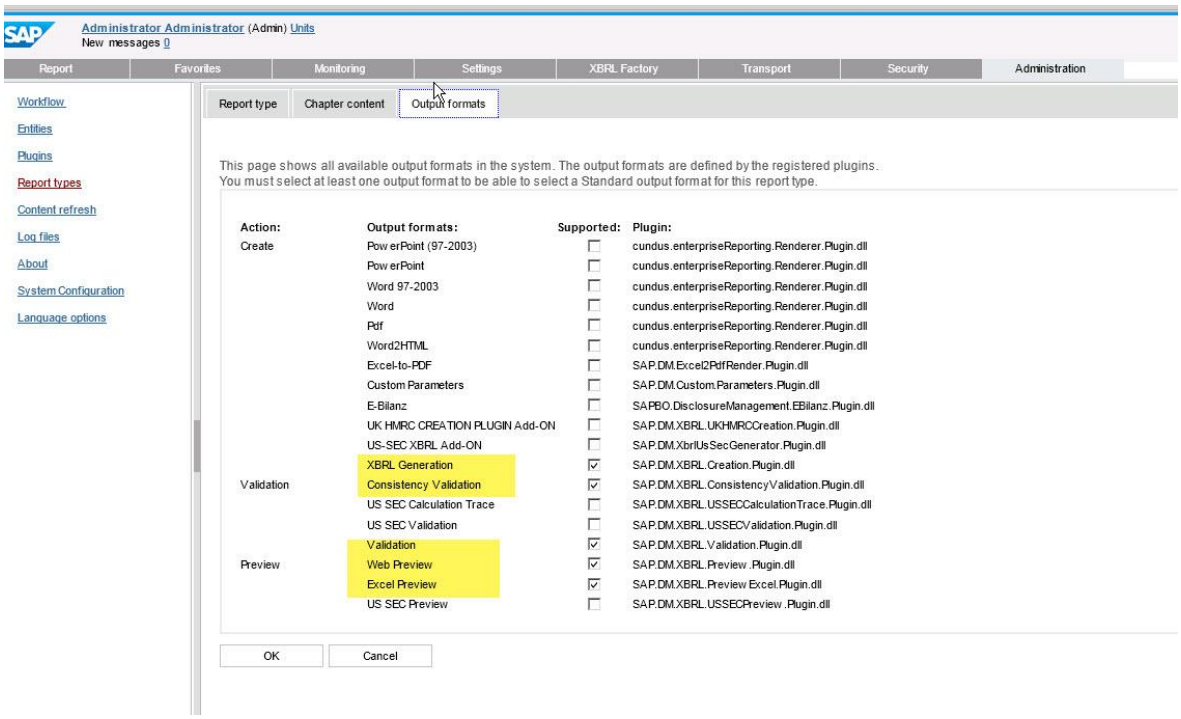
3. XBRL instance

NOTE: the XBRL instance is also the document used for the mapping (not like US, where XBRL instance is separate from Data Cache)

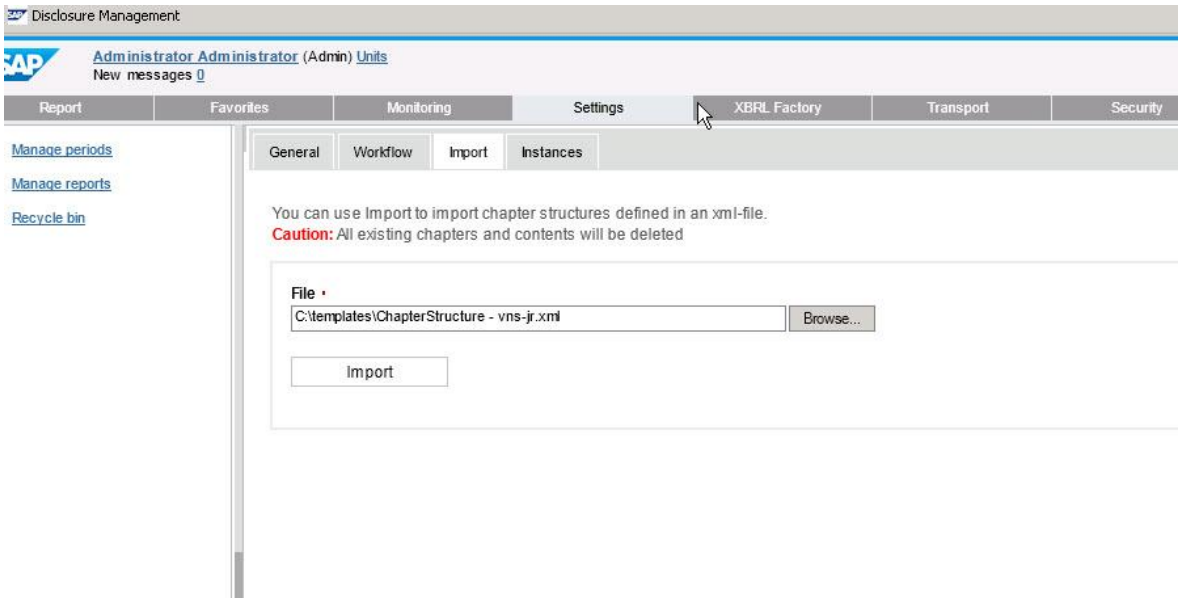
3.1 Report type



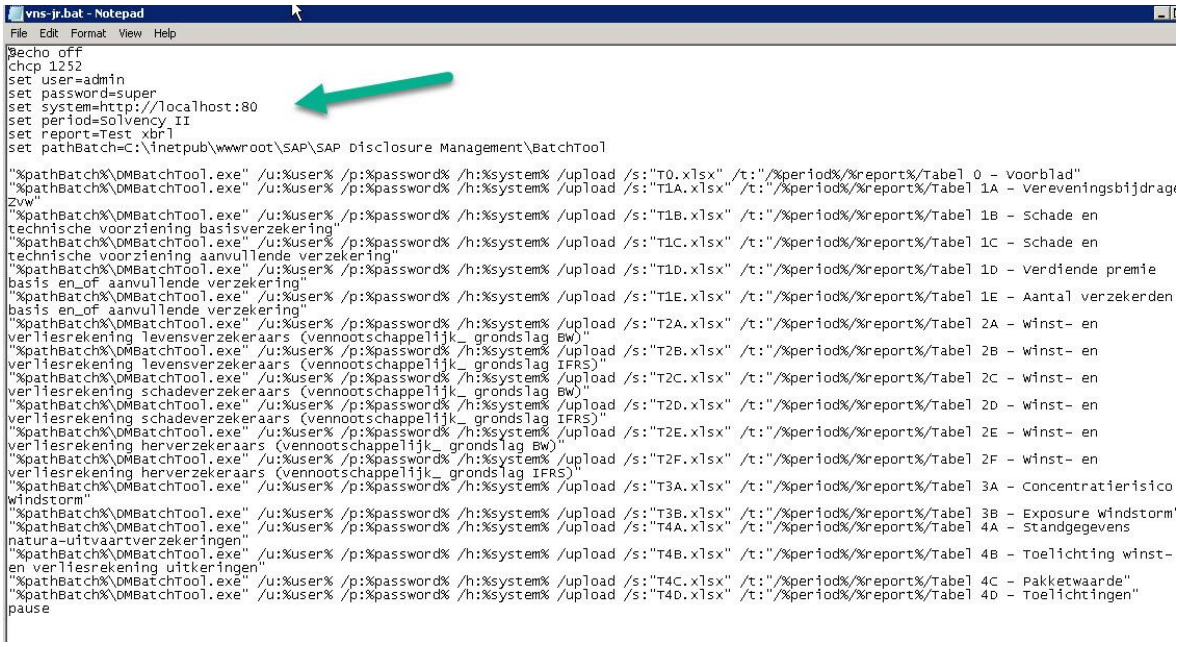




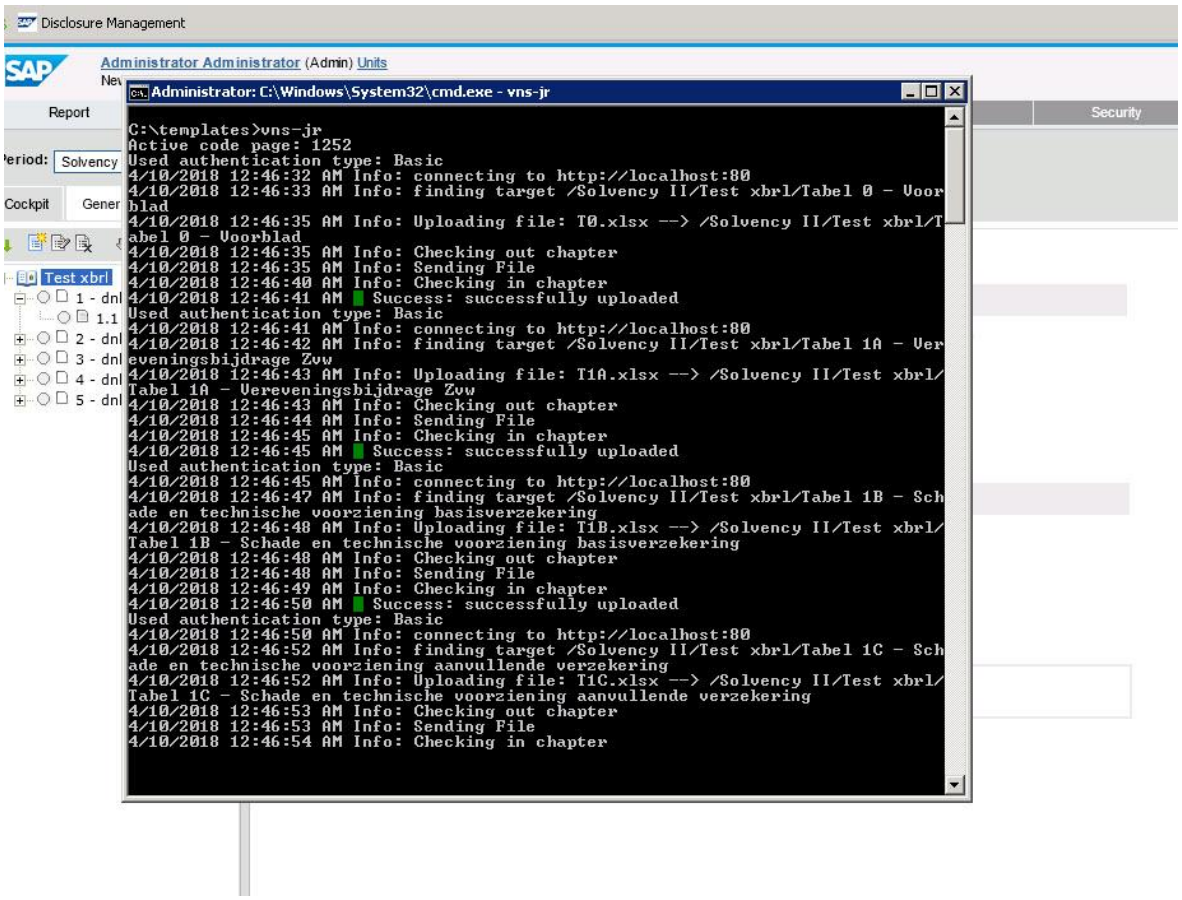
Upload the structure (xml file created by template creator)



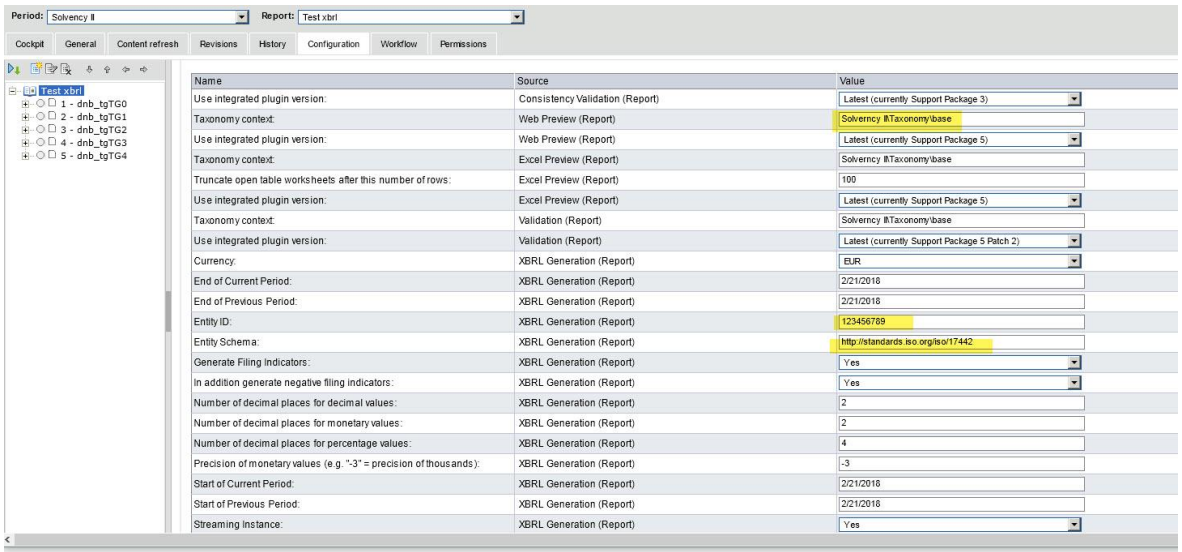
Upload content via Batch tool
Adjust the .bat file (created by template creator)



Run batch file (this calls the DM BatchTool.exe)
Note: make sure workflow has started



Configuration tab
Note: All relevant information on elements/units, link to taxonomy, scheme name etc. is on this tab
This document has, therefore, all meta-data and data for the XBRL generation



Overview of Parameters

"Use integrated plugin version:"

- Always select "latest". Do not get confused that it says something about SP03 or SP05. We are already on SP12, but these values do not get updated …

Start of Current Period / End of Previous Period / Start of Previous Period:

- You have to fill some dates there. Not import which one, but has to be before "End of Current Period".

End of Current Period:

- This is your reference day for reporting. E.g. 31st December 201x. This will go into the XBRL instance.

Entity Schema:

- Customer should know. Normally, it will be http://standards.iso.org/iso/17442

Entity ID

- Customer will know. Some ID number, each customer will get from the regulator.

Taxonomy Context

- Period\report\chapter of where you have uploaded the taxonomy

Truncate open table worksheets after this number of rows:

- In open tables, the Excel preview is configured to stop after this number of rows. Reason is that there might be many, many rows inside. However, if the number of rows exceeds the configured value, all rows (including the one from the Excel document) are written to a CSV file.

Number of decimal places for decimal values / monetary values / percentage values

- Write, whatever you want – these numbers are **ignored**.

Precision of monetary values (e.g. "-3" = precision of thousands):

- Important for EBA scenarios.
- Ignored for Solvency II scenarios – in those the "decimals" value has to be chosen automatically depending on the size of the reported value.

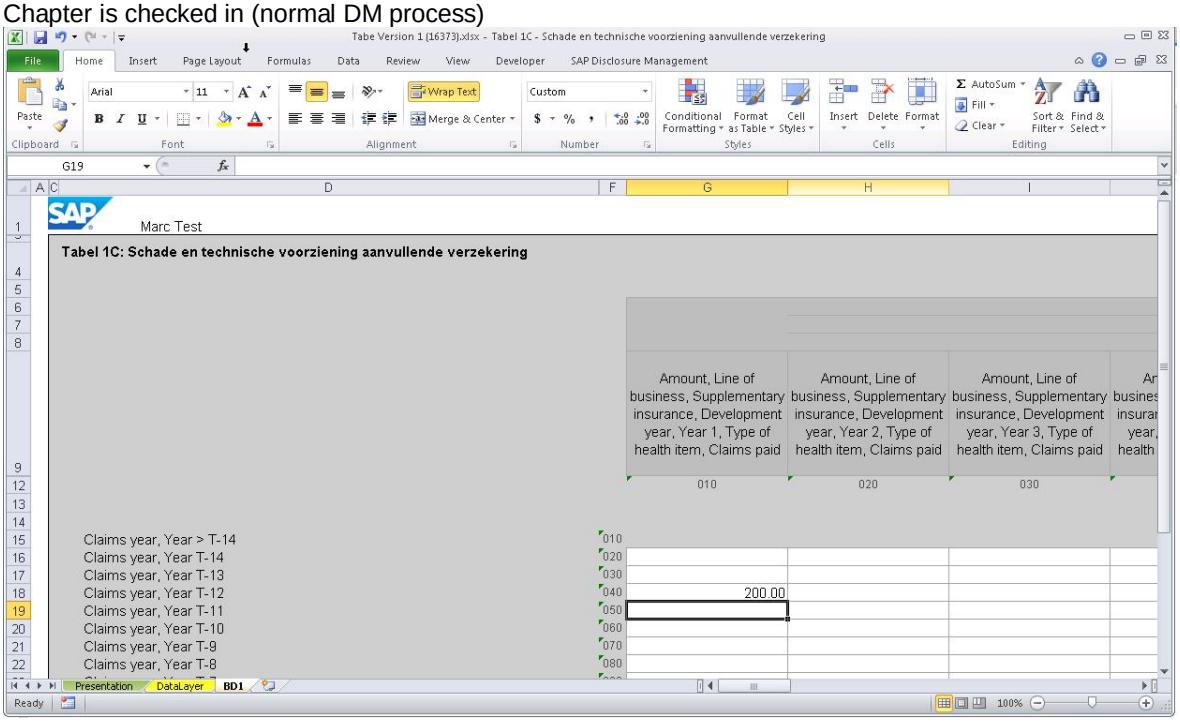
All other parameters: Default values.

Execution

Data is entered in chapters (excel files). These are the file uploaded in the setup (created by Template Creator or downloaded from SMP

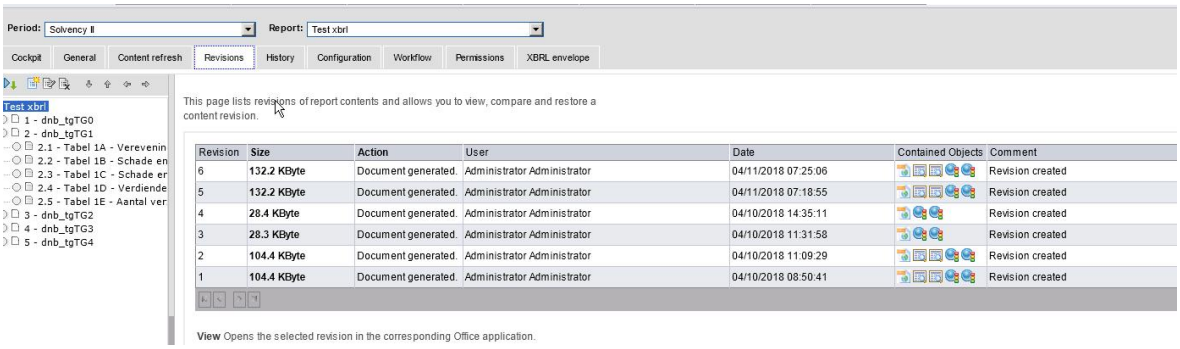
Each file normally has 3 sheets (Presentation /DataLayer / BD1)
Data is “entered” in BD1 (note: in reality, not manually entered – it is some datalink to another DM chapter (or BW data-source) that holds the data.

Chapter is checked in (normal DM process)

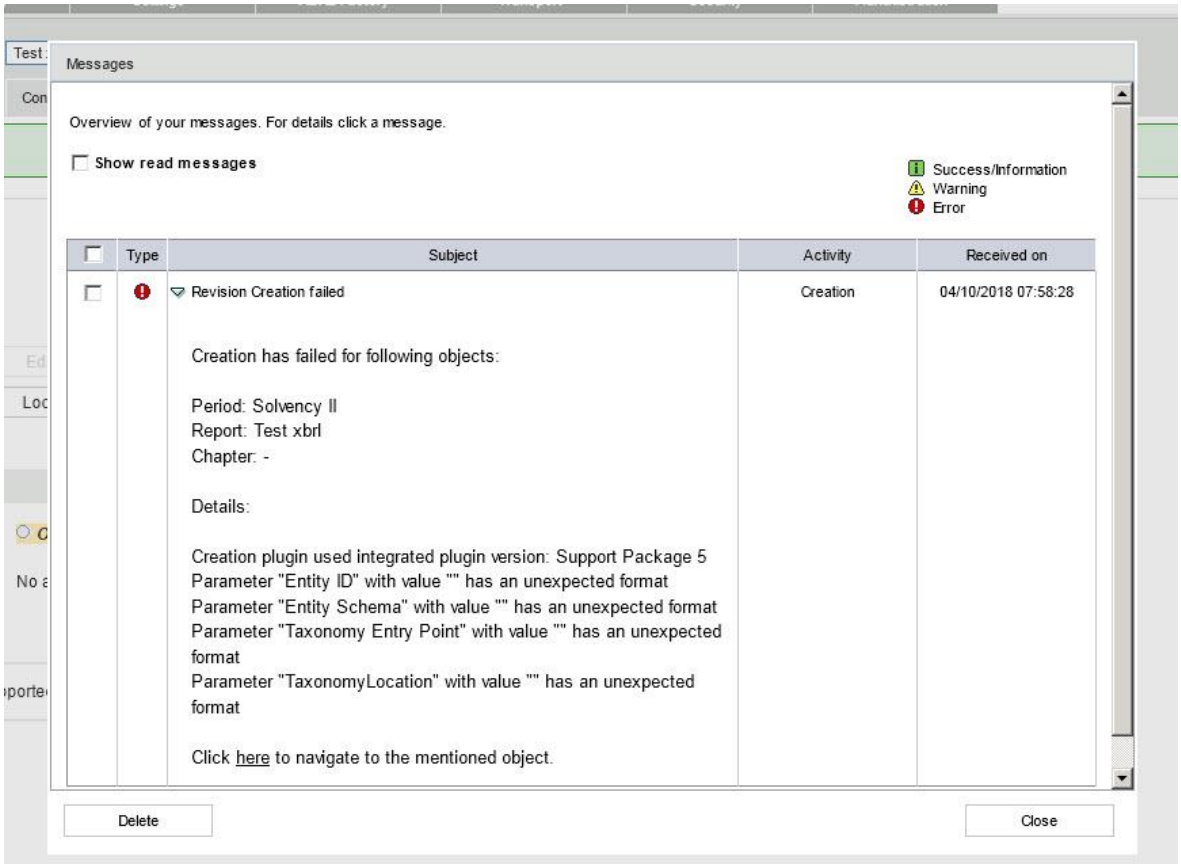


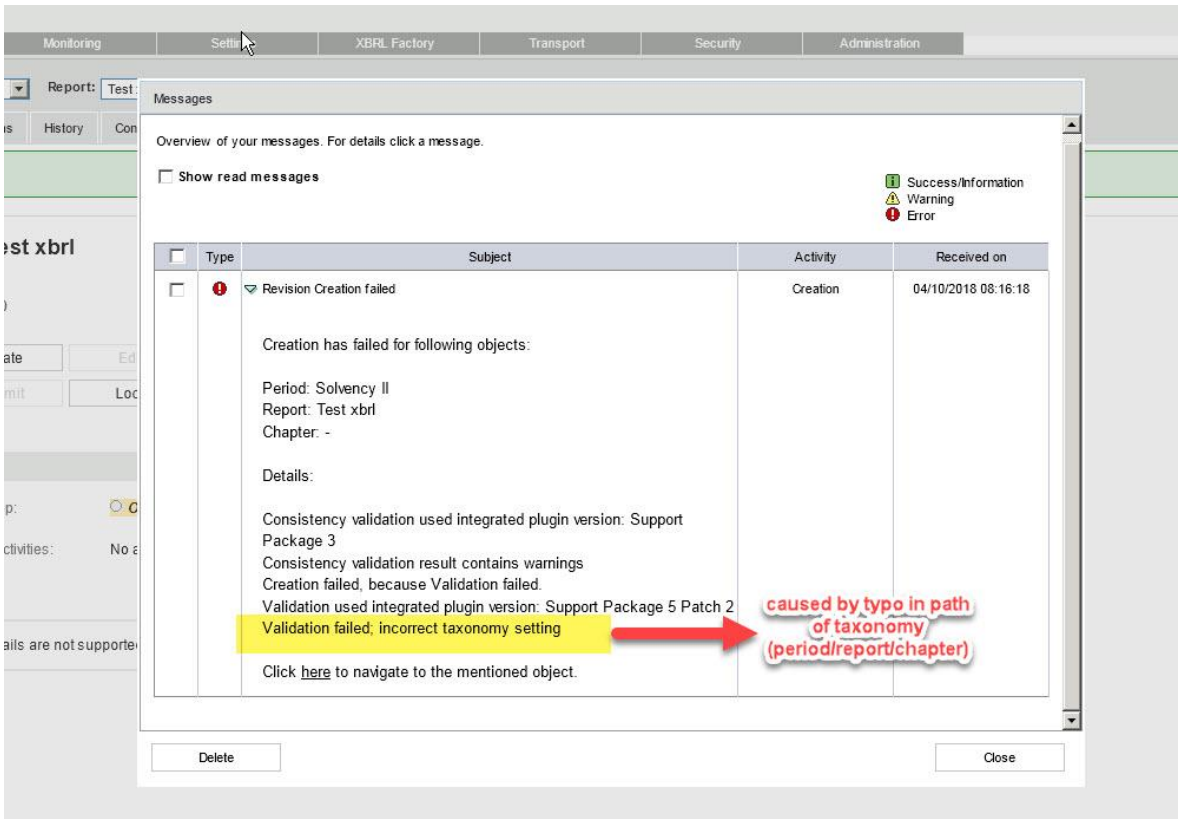
Once all mapping is complete, the XBRL can be generated. At Report level, use “Create” (like US). This creates task and the Task Engine will execute (check TE Monitor)

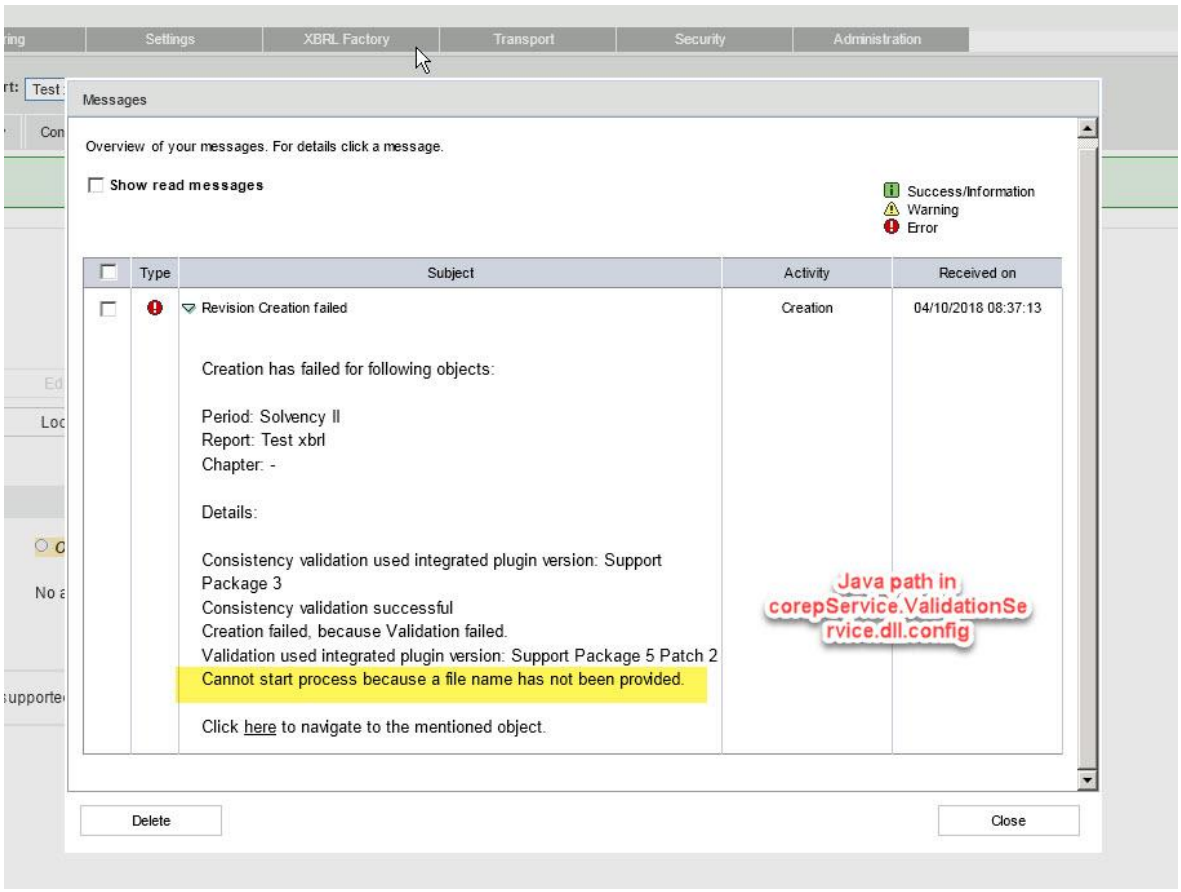
Revision has zip files with instance + validation reports + preview files



If generation fails, check
1) Configuration tab
2) TE logs
3) XBRL Service logs



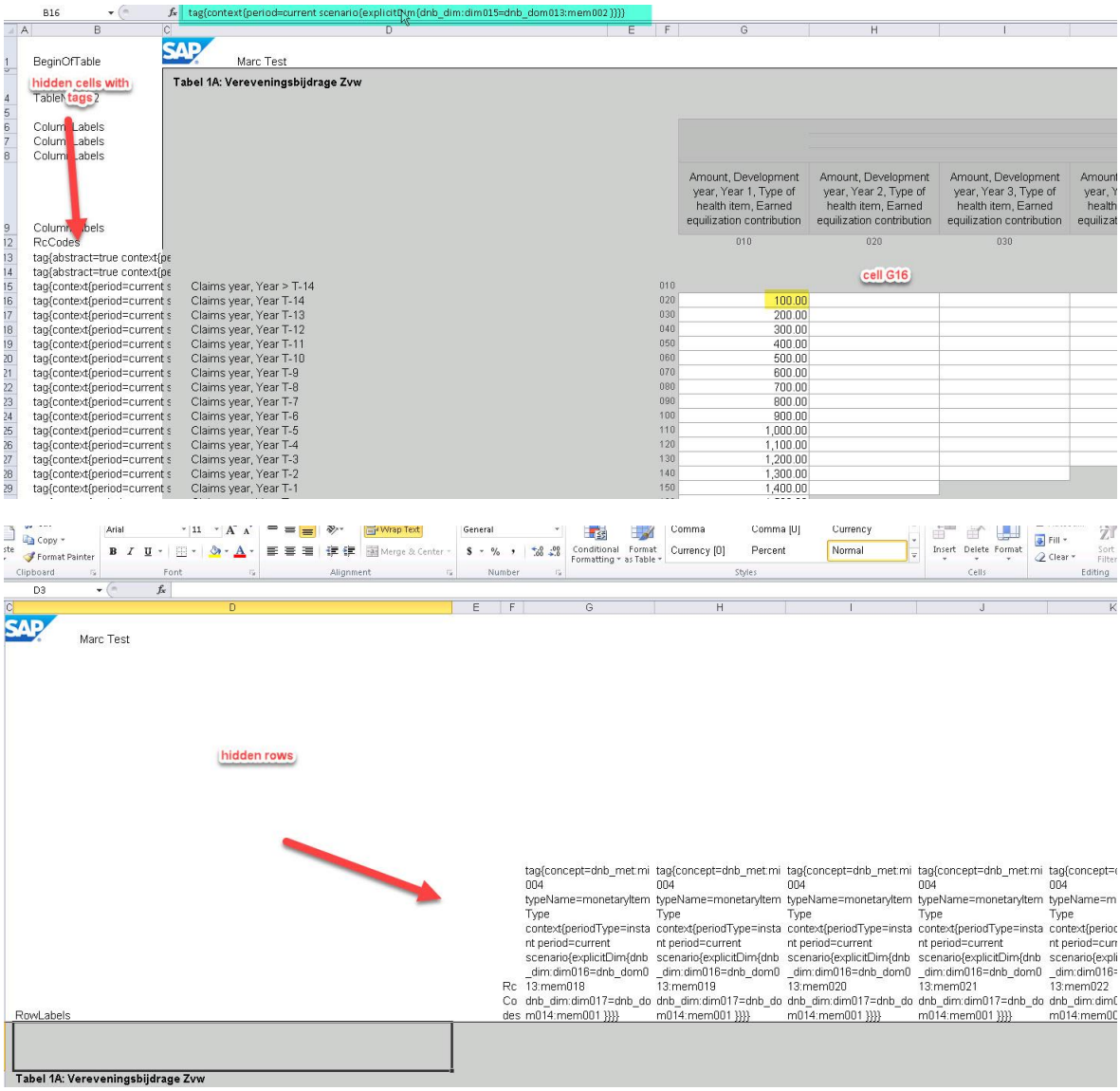

Monitoring
Setting
XBRL Factory
Transport
Security
Administration
Report:
Test
History
Messages
Overview of your messages. For details click a message.
Show read messages
Success/Information
Warning
Error
Type
Subject
Activity
Received on
Revision Creation failed
Creation
04/10/2018 08:16:18
Creation has failed for following objects:
Period: Solvency II
Report: Test xbrl
Chapter: -
Details:
Consistency validation used integrated plugin version: Support Package 3
Consistency validation result contains warnings
Creation failed, because Validation failed.
Validation used integrated plugin version: Support Package 5 Patch 2
Validation failed; incorrect taxonomy setting
Click here to navigate to the mentioned object.
caused by typo in path of taxonomy (period/report/chapter)
Delete
Close

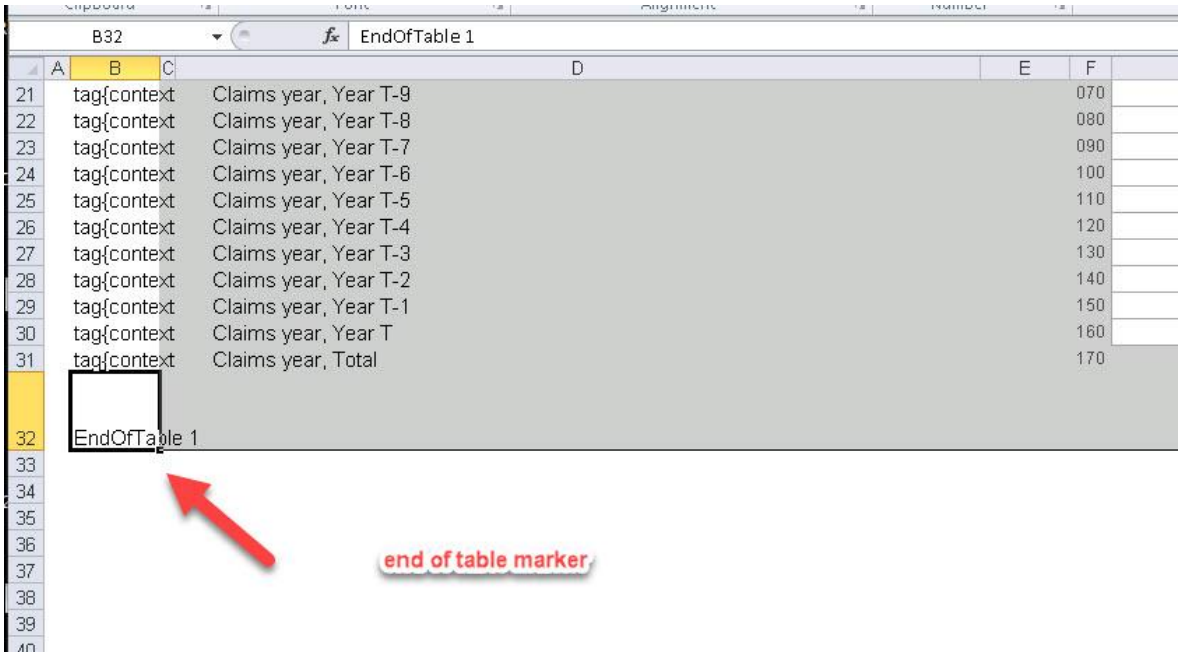

Settings
XBRL Factory
Transport
Security
Administration
Messages
Overview of your messages. For details click a message.
Show read messages
Success/Information
Warning
Error
Type
Subject
Activity
Received on
Revision Creation failed
Creation
04/10/2018 08:37:13
Creation has failed for following objects:
Period: Solvency II
Report: Test xbrl
Chapter: -
Details:
Consistency validation used integrated plugin version: Support Package 3
Consistency validation successful
Creation failed, because Validation failed.
Validation used integrated plugin version: Support Package 5 Patch 2
Cannot start process because a file name has not been provided.
Click here to navigate to the mentioned object.
Java path in corepService.ValidationService.dll.config
Delete
Close

Analysis of XBRL instance

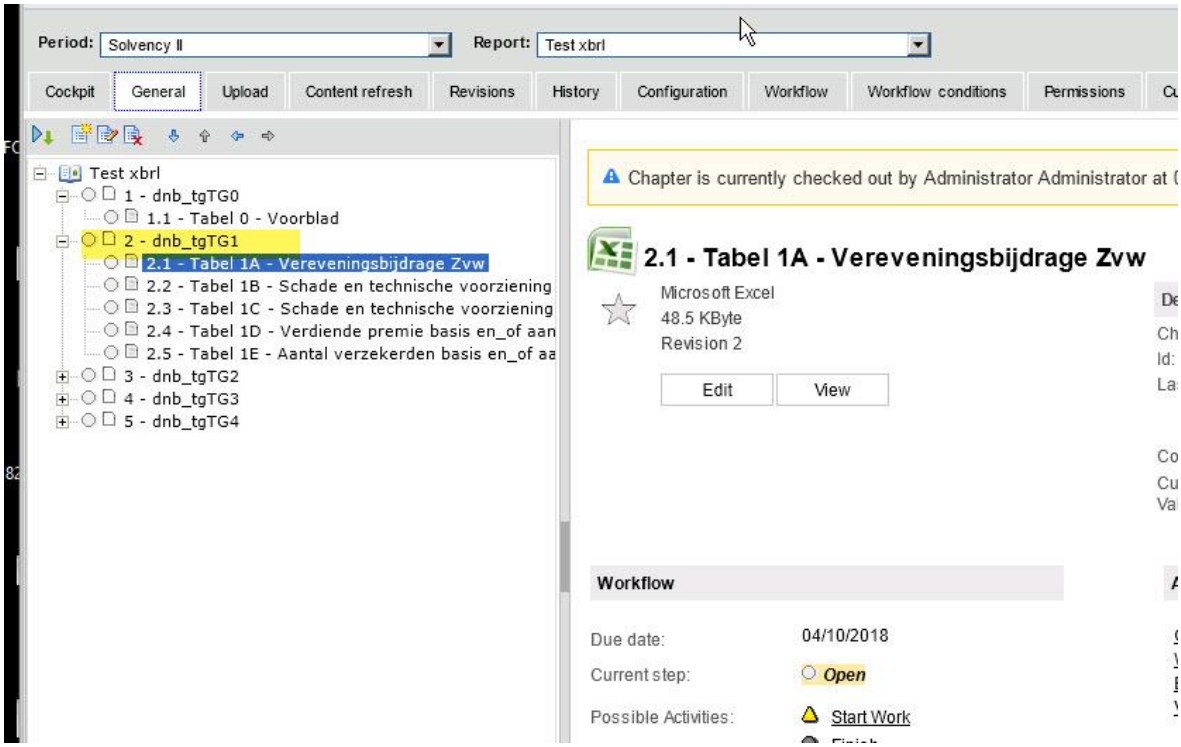
Within the Excel files, there are (hidden) tags in columns and rows. There is also an EOF marker (nothing beyond the marker gets included in instance)

For example:



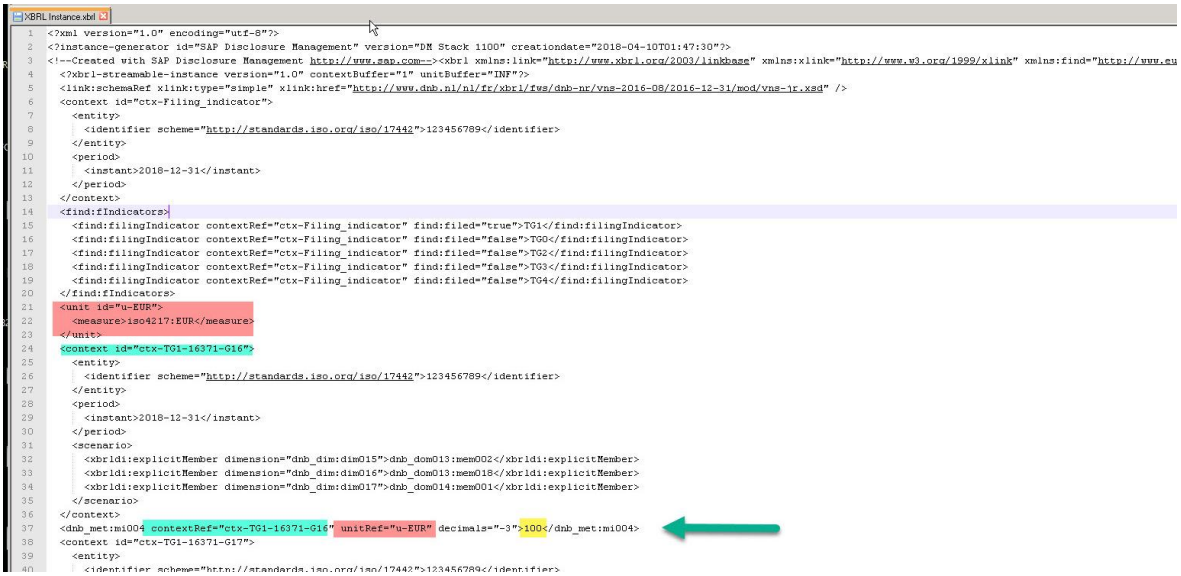


The chapter names (generated by Template Creator) also have “meaning”, these are used in the XBRL instance



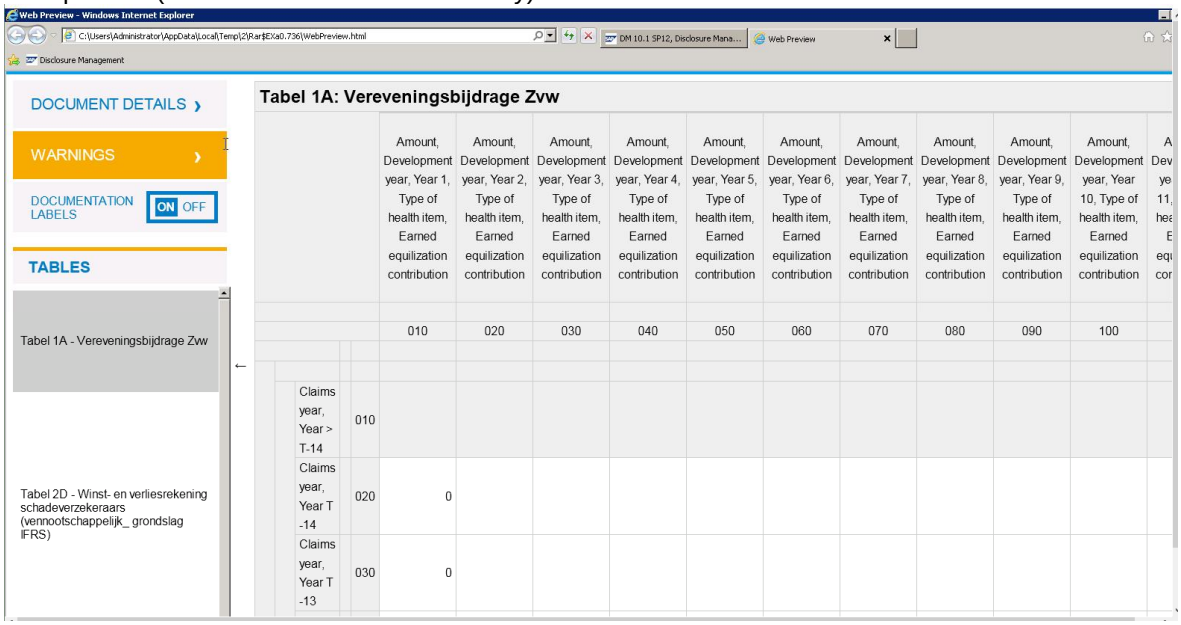
An example of the XBRL instance

- Unit information (from Configuration tab)
- Context: a combination of Excel tags, Chapter information (note: cell reference G16 visible in XBRL)
- Entered value



Preview

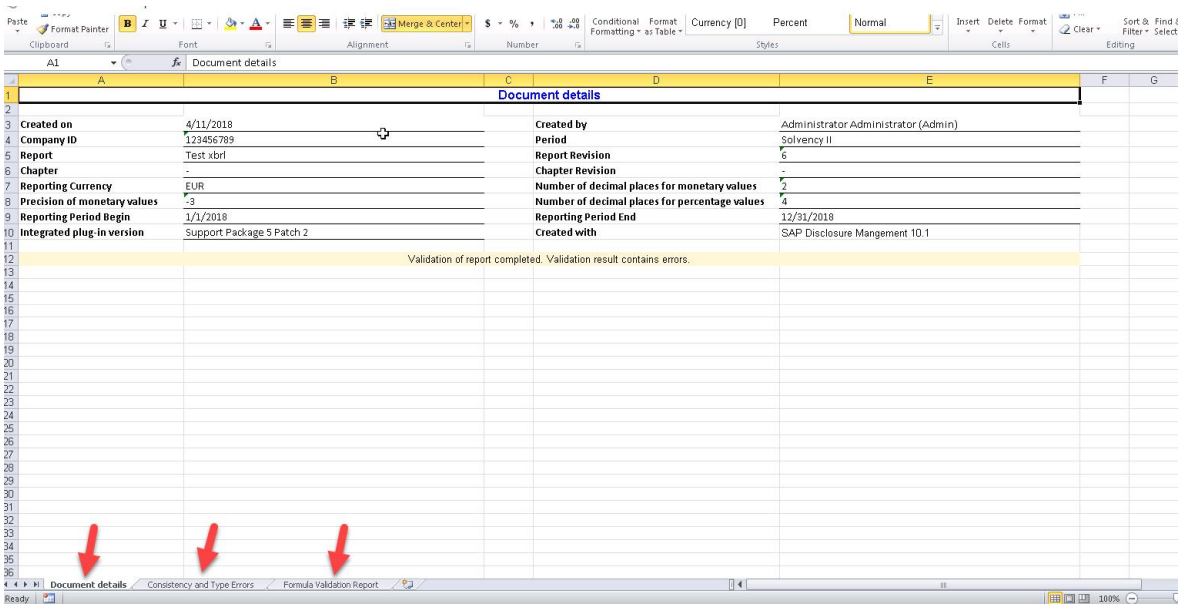
Web preview (Note: can be viewed with IE only)



Excel preview is same – just the Excel file, rather than HMTL files

Validation

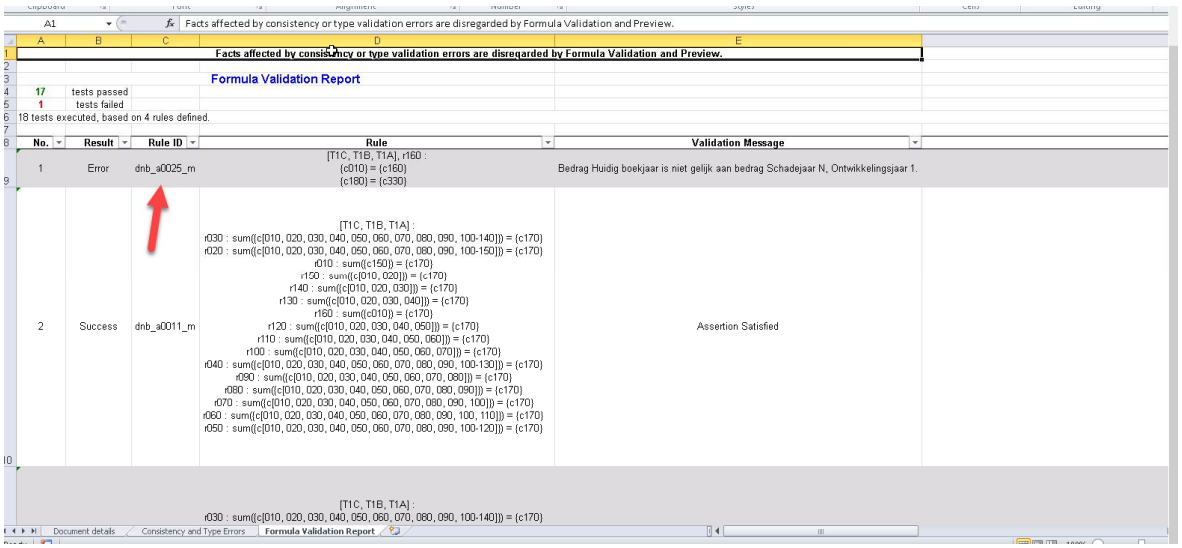
DM will generate an Excel file, with three tabs (Details, Consistency, Validation
Details=some meta-data (when and who generated etc.)
Consistency= data type + ambiguous data checks
Validation= Formulas / Assertions



Created on	4/11/2018	**Created by**	Administrator Administrator (Admin)
Company ID	123456789	**Period**	Solvency II
Report	Test xbrl	**Report Revision**	6
Chapter	-	**Chapter Revision**	-
Reporting Currency	EUR	**Number of decimal places for monetary values**	2
Precision of monetary values	-3	**Number of decimal places for percentage values**	4
Reporting Period Begin	1/1/2018	**Reporting Period End**	12/31/2018
Integrated plug-in version	Support Package 5 Patch 2	**Created with**	SAP Disclosure Mangement 10.1

Validation of report completed. Validation result contains errors.

Example of Validation check



Facts affected by consistency or type validation errors are disregarded by Formula Validation and Preview.

Formula Validation Report

17 tests passed
1 tests failed
18 tests executed, based on 4 rules defined.

No.	Result	Rule ID	Rule	Validation Message
1	Error	dnb_a0025_m	[T1C, T1B, T1A], r160 : {c010} = {c160} {c180} = {c330}	Bedrag Huidig boekjaar is niet gelijk aan bedrag Schadejaar N, Ontwikkelingsjaar 1.
2	Success	dnb_a0011_m	[T1C, T1B, T1A] : r030 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090, 100-140]}) = {c170} r020 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090, 100-150]}) = {c170} r010 : sum({c150}) = {c170} r150 : sum({c[010, 020]}) = {c170} r140 : sum({c[010, 020, 030]}) = {c170} r130 : sum({c[010, 020, 030, 040]}) = {c170} r160 : sum({c010}) = {c170} r120 : sum({c[010, 020, 030, 040, 050]}) = {c170} r110 : sum({c[010, 020, 030, 040, 050, 060]}) = {c170} r100 : sum({c[010, 020, 030, 040, 050, 060, 070]}) = {c170} r040 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090, 100-130]}) = {c170} r090 : sum({c[010, 020, 030, 040, 050, 060, 070, 080]}) = {c170} r080 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090]}) = {c170} r070 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090, 100]}) = {c170} r060 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090, 100, 110]}) = {c170} r050 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090, 100-120]}) = {c170}	Assertion Satisfied

[T1C, T1B, T1A] : r030 : sum({c[010, 020, 030, 040, 050, 060, 070, 080, 090, 100-140]}) = {c170}

The report will shows the “rule_id” , the details of these are normally explained on website of regulator

Note: some assertion checks can be avoided, see SAP Note 2296488. (only possible since SP06)

Specific topics

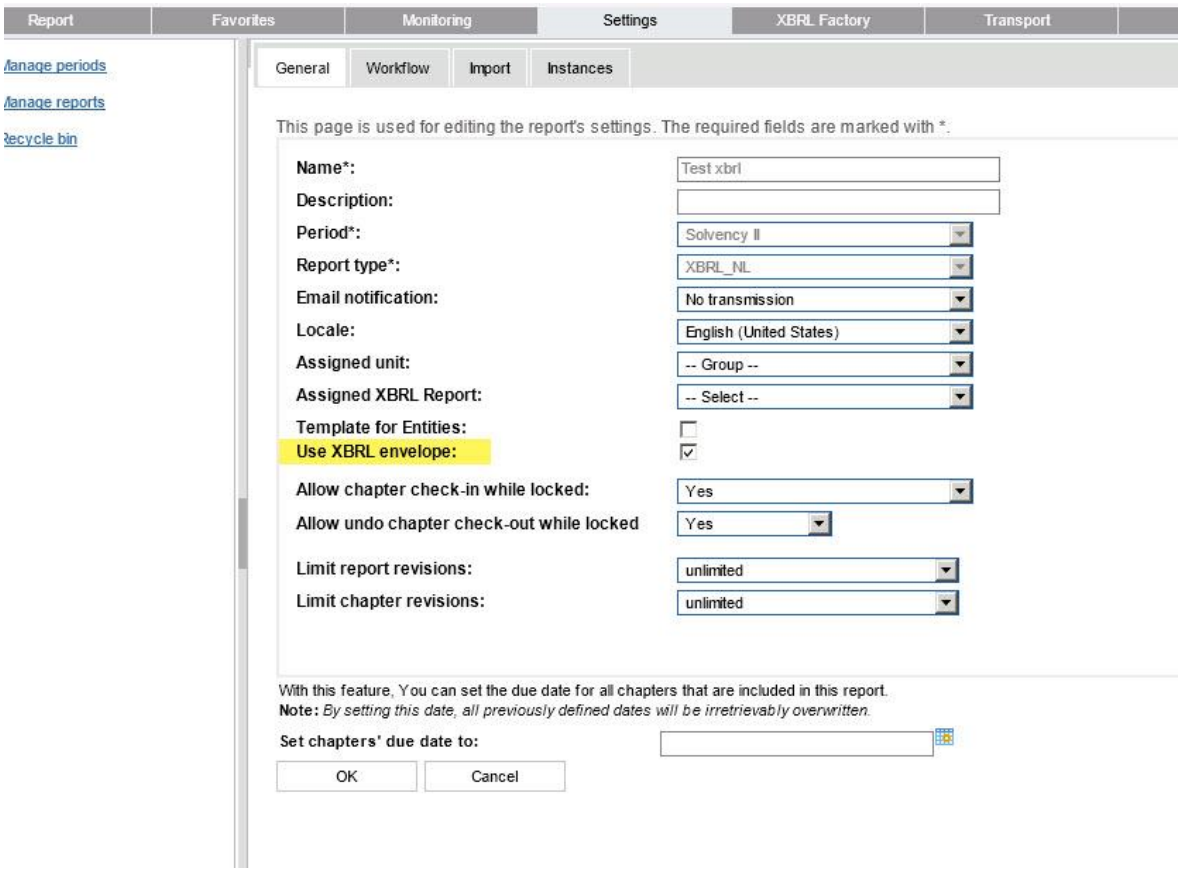
1. Envelopes

XBRL Envelope: SAP Note 2237320;
Workaround for open issue (invalid XML): SAP Note 2307043

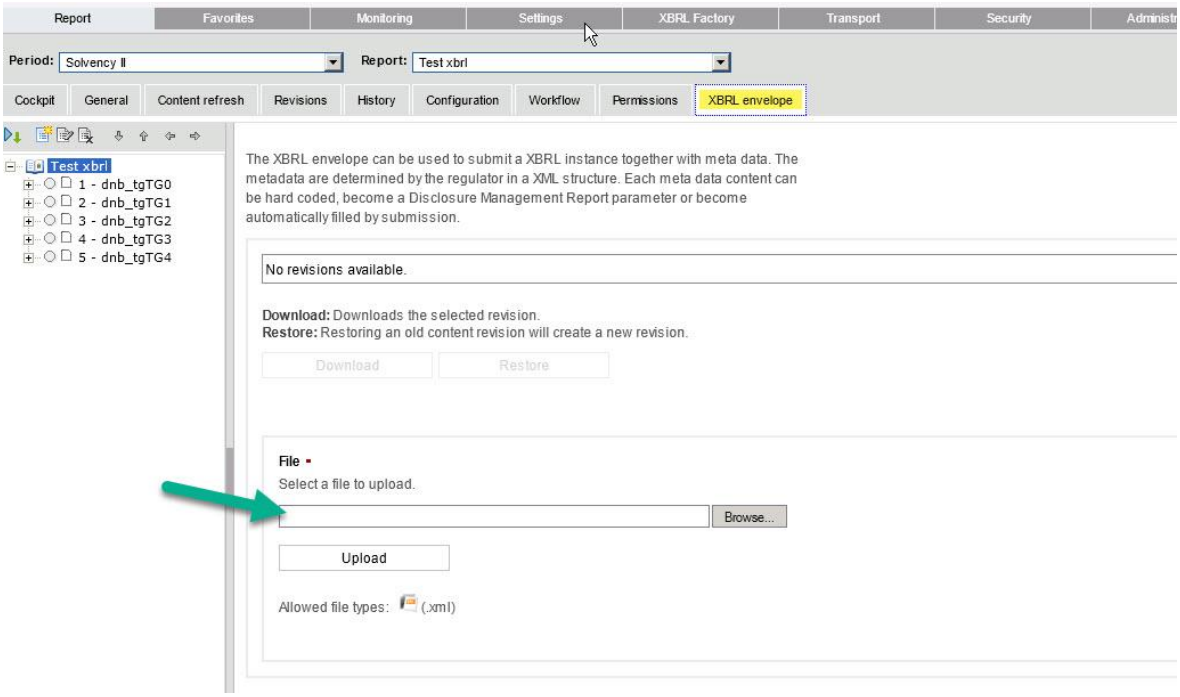
Currently needed in Belgium:
https://www.nbb.be/doc/dq/onegate_help/onegate_xbrl_protocol_ins_v1_3.pdf

and France:
https://esurfi-assurance.banque-france.fr/uploads/tx_bdftechnicalinfos/CDCI_SOLVA2-v1_7.docx

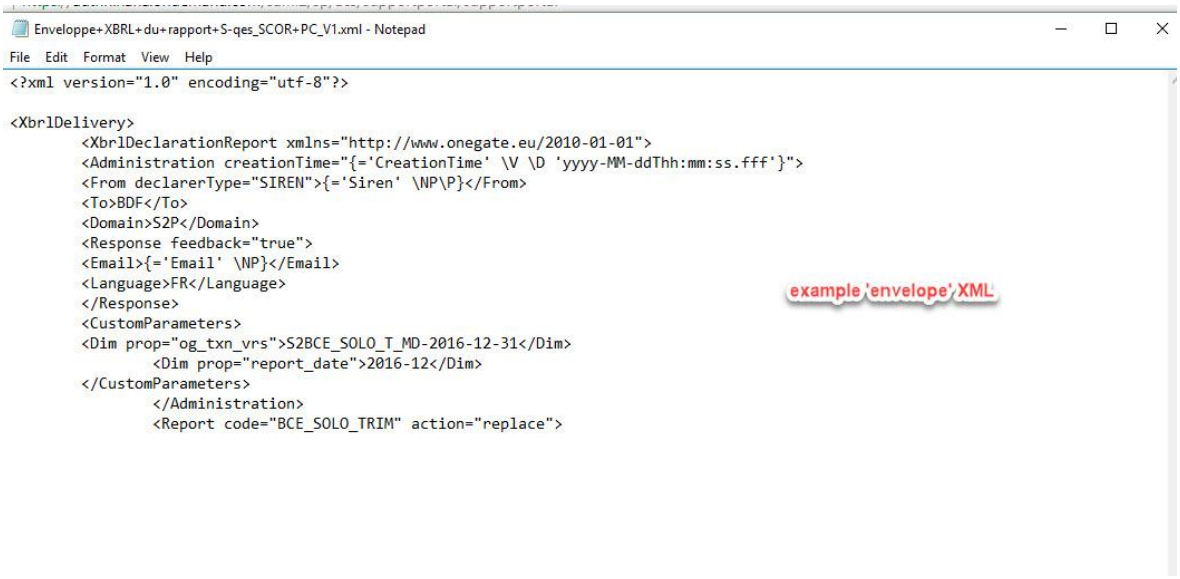
Define in Report settings



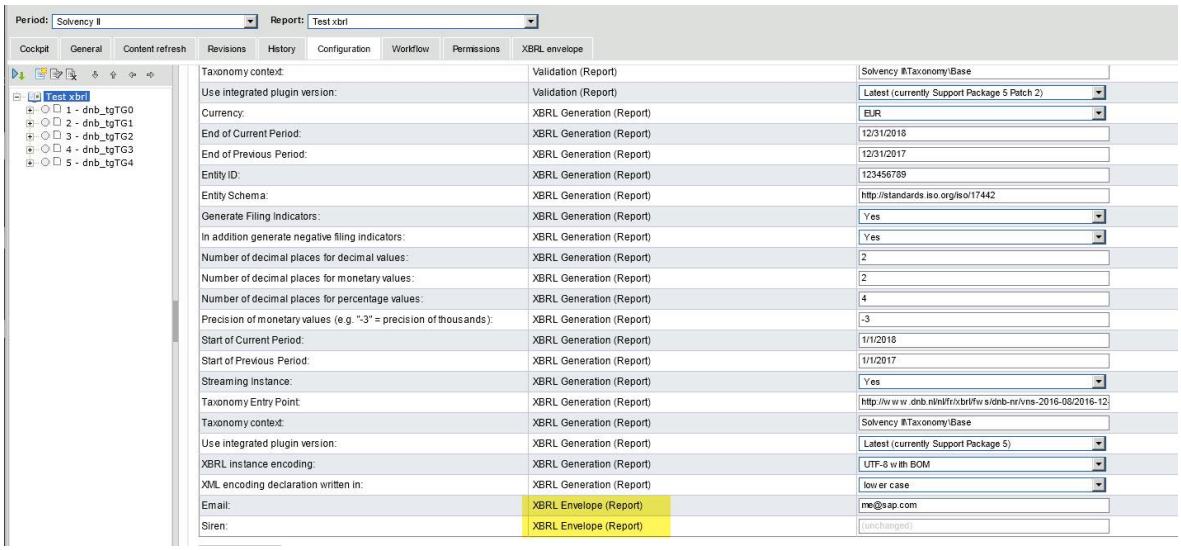
On Report, there will be an additional ‘tab’



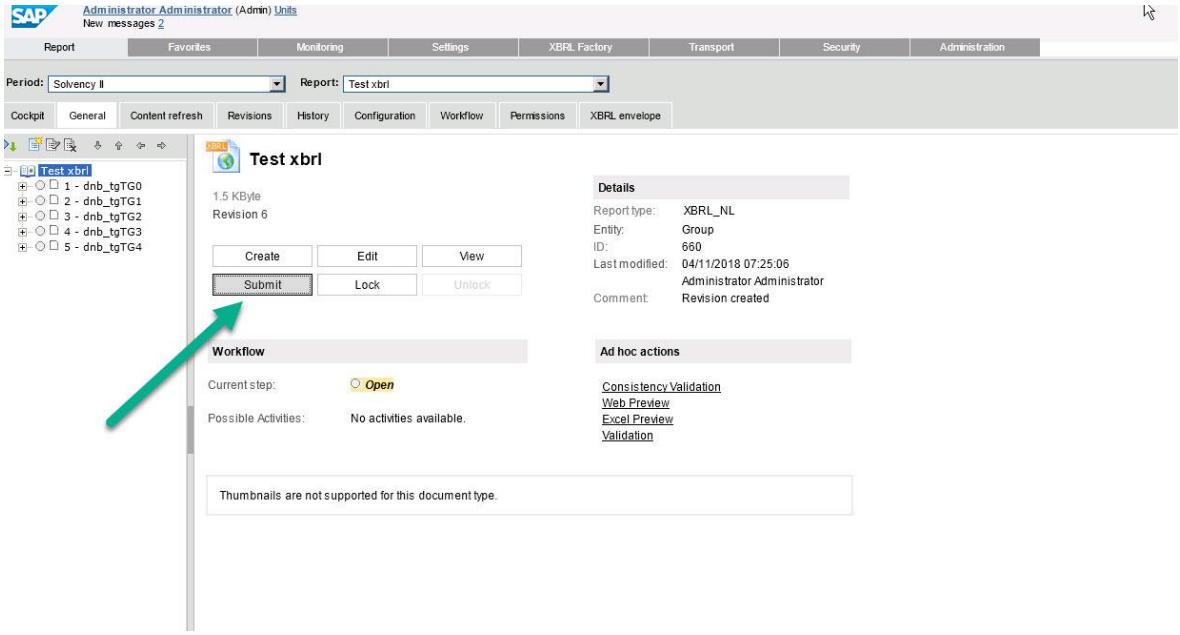
Upload the template



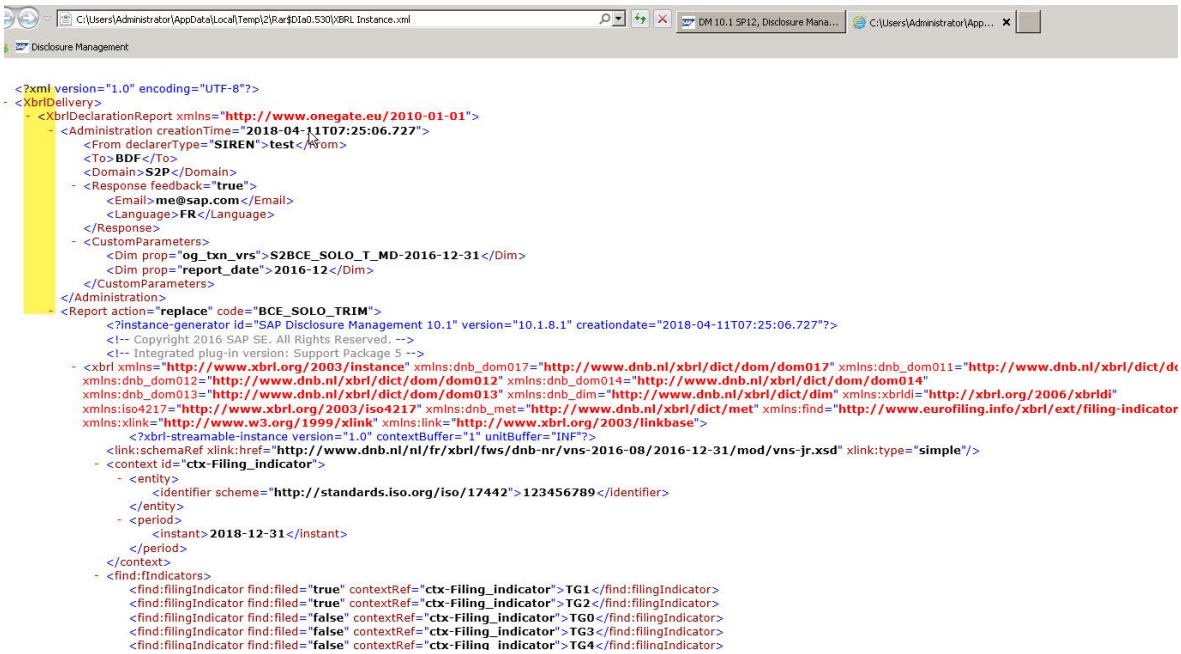
There may (will) be some additional parameters



One additional step (after XBRL creation), you need to click “Submit” to generate the XML file that contains the envelope.



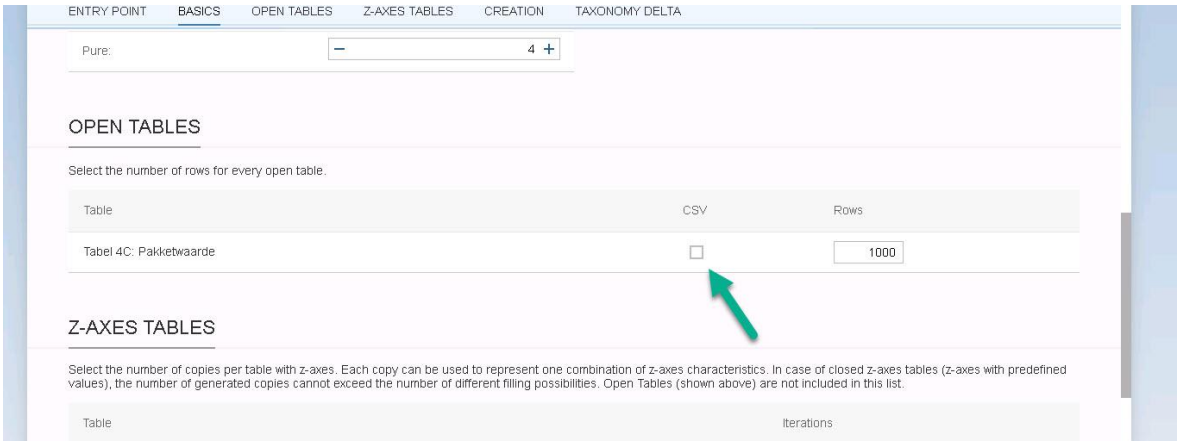
Result (XML file, that contains envelope + XBRL)


C:\Users\Administrator\AppData\Local\Temp\2\Rar$DIa0.530\XBRL Instance.xml
DM 10.1 SP12, Disclosure Mana...
C:\Users\Administrator\App...
Disclosure Management
<?xml version="1.0" encoding="UTF-8"?>
<XbrlDelivery>
<XbrlDeclarationReport xmlns="http://www.onegate.eu/2010-01-01">
<Administration creationTime="2018-04-11T07:25:06.727">
<From declarerType="SIREN">test</From>
<To>BDF</To>
<Domain>S2P</Domain>
<Response feedback="true">
<Email>me@sap.com</Email>
<Language>FR</Language>
</Response>
<CustomParameters>
<Dim prop="og_txn_vrs">S2BCE_SOLO_T_MD-2016-12-31</Dim>
<Dim prop="report_date">2016-12</Dim>
</CustomParameters>
</Administration>
<Report action="replace" code="BCE_SOLO_TRIM">
<?instance-generator id="SAP Disclosure Management 10.1" version="10.1.8.1" creationdate="2018-04-11T07:25:06.727"?>
<!-- Copyright 2016 SAP SE. All Rights Reserved. -->
<!-- Integrated plug-in version: Support Package 5 -->
<xbrl xmlns="http://www.xbrl.org/2003/instance" xmlns:dnb_dom017="http://www.dnb.nl/xbrl/dict/dom/dom017" xmlns:dnb_dom011="http://www.dnb.nl/xbrl/dict/d
xmlns:dnb_dom012="http://www.dnb.nl/xbrl/dict/dom/dom012" xmlns:dnb_dom014="http://www.dnb.nl/xbrl/dict/dom/dom014"
xmlns:dnb_dom013="http://www.dnb.nl/xbrl/dict/dom/dom013" xmlns:dnb_dim="http://www.dnb.nl/xbrl/dict/dim" xmlns:xbrldi="http://xbrl.org/2006/xbrldi"
xmlns:iso4217="http://www.xbrl.org/2003/iso4217" xmlns:dnb_met="http://www.dnb.nl/xbrl/dict/met" xmlns:find="http://www.eurofiling.info/xbrl/ext/filing-indicator
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:link="http://www.xbrl.org/2003/linkbase">
<?xbrl-streamable-instance version="1.0" contextBuffer="1" unitBuffer="INF"?>
<link:schemaRef xlink:href="http://www.dnb.nl/nl/fr/xbrl/fws/dnb-nr/vns-2016-08/2016-12-31/mod/vns-jr.xsd" xlink:type="simple"/>
<context id="ctx-Filing_indicator">
<entity>
<identifier scheme="http://standards.iso.org/iso/17442">123456789</identifier>
</entity>
<period>
<instant>2018-12-31</instant>
</period>
</context>
<find:fIndicators>
<find:filingIndicator find:filed="true" contextRef="ctx-Filing_indicator">TG1</find:filingIndicator>
<find:filingIndicator find:filed="true" contextRef="ctx-Filing_indicator">TG2</find:filingIndicator>
<find:filingIndicator find:filed="false" contextRef="ctx-Filing_indicator">TG0</find:filingIndicator>
<find:filingIndicator find:filed="false" contextRef="ctx-Filing_indicator">TG3</find:filingIndicator>
<find:filingIndicator find:filed="false" contextRef="ctx-Filing_indicator">TG4</find:filingIndicator>

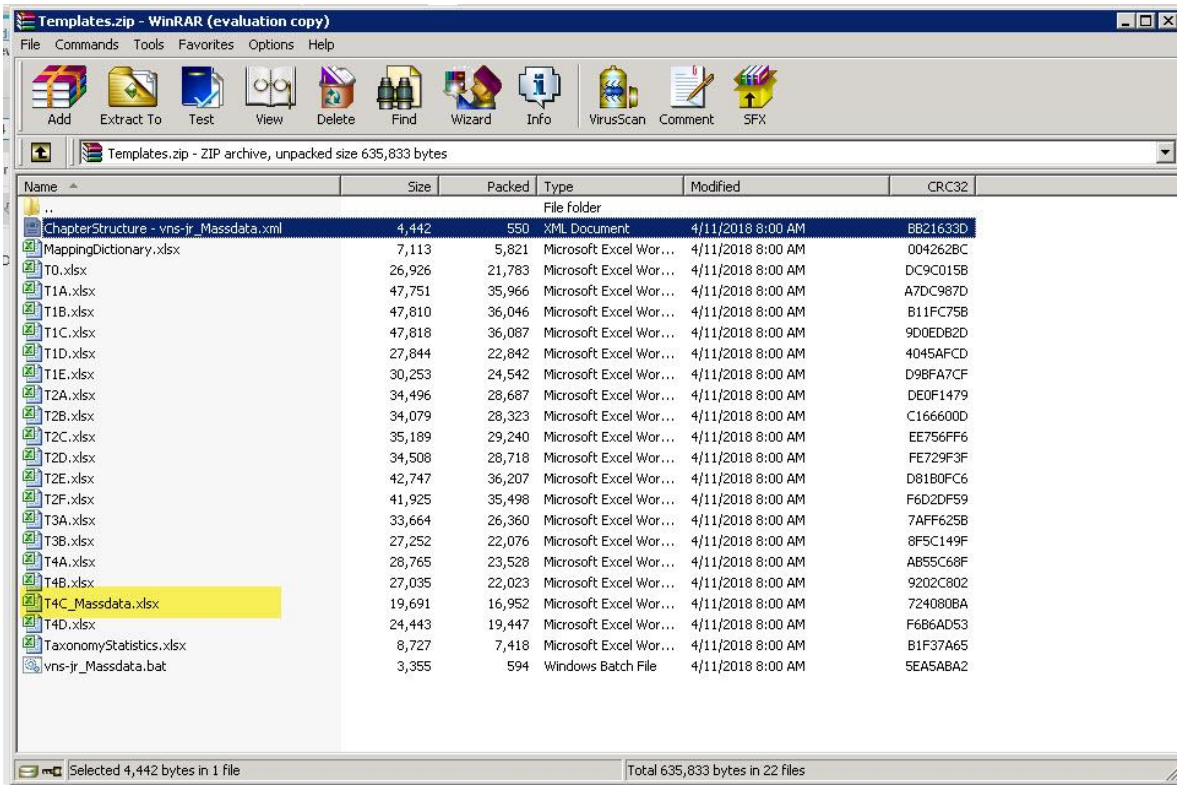
2. Massdata

Purpose: performance (for large data entry)
NOTE: Not related to Mass Data link in DM !!!

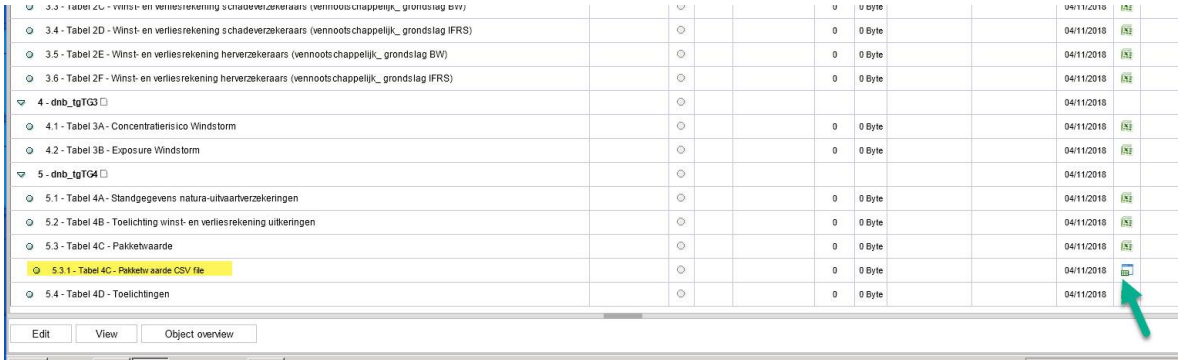
In Template generator – set CSV (tick)



Creates csv files



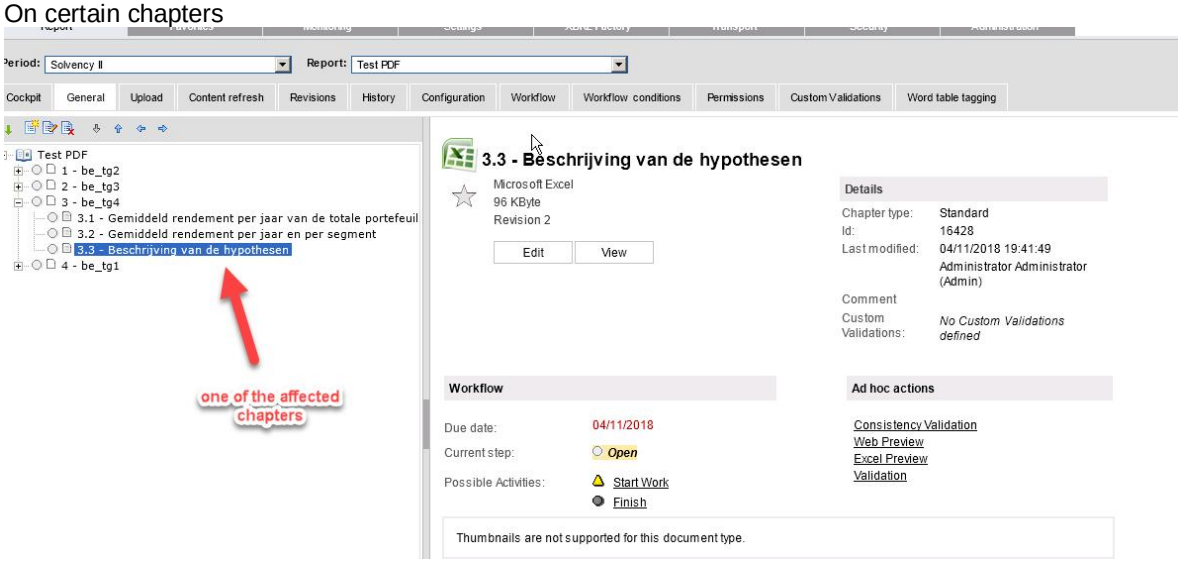
In Report – Excel links to csv (has just one row)
Data in loaded into CSV (multi-rows), there is no entry in BD sheet!
During XBRL generation, DM processes the one line – but does this for each line in CSV (and thus all data will be included in XBRL instance)



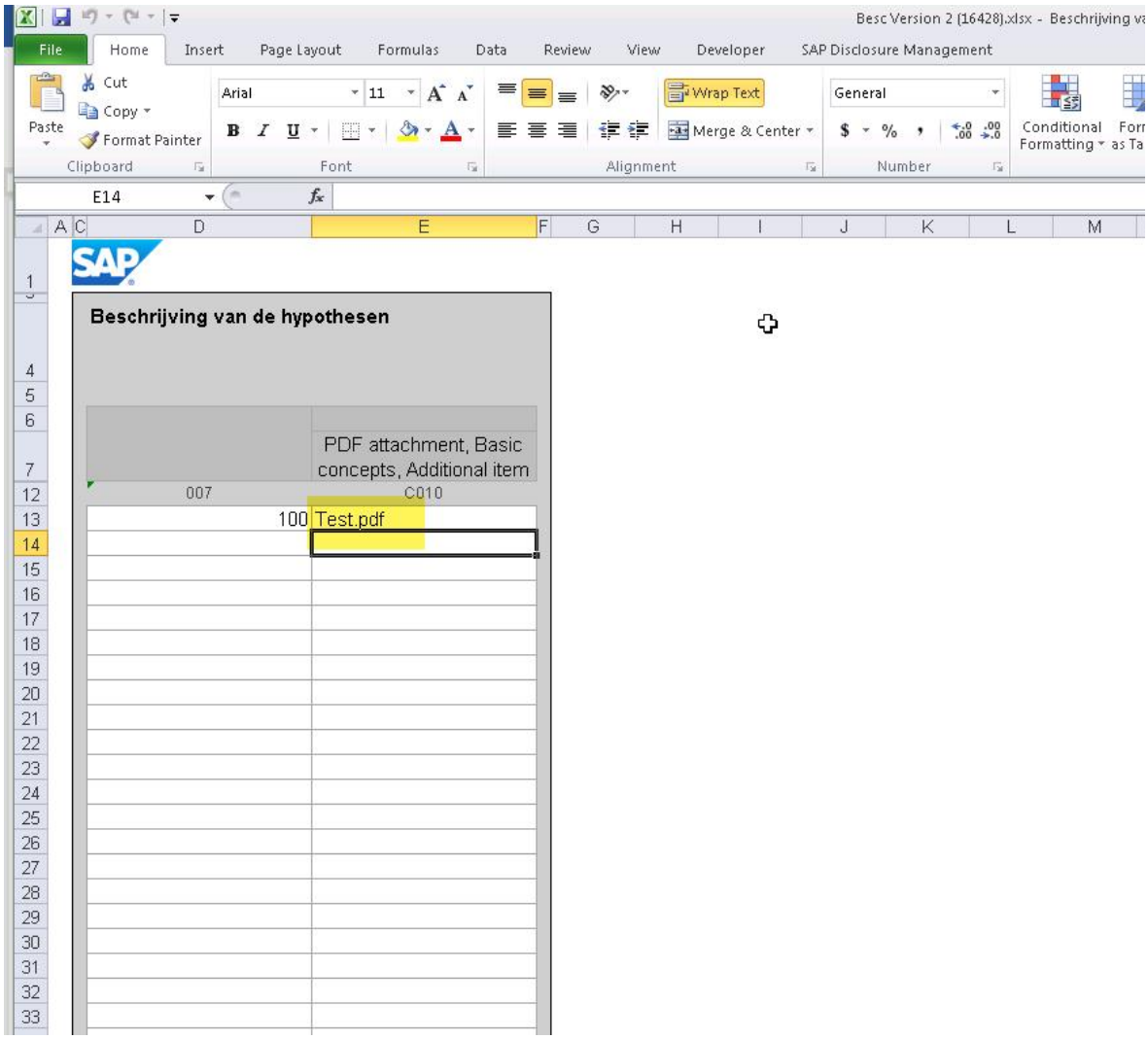
3. PDF option
Introduced in Stack 1200, see https://blogs.sap.com/2018/03/12/dm-stack-1200-available/
Only used for Belgium specific requirements, it encrypts PDF files into the XBRL

On DM client (in utilities folder, C:\Program Files (x86)\SAP\SAP Disclosure Management\Utilities\XBRL PDF Attachments)
See readme.txt in this folder

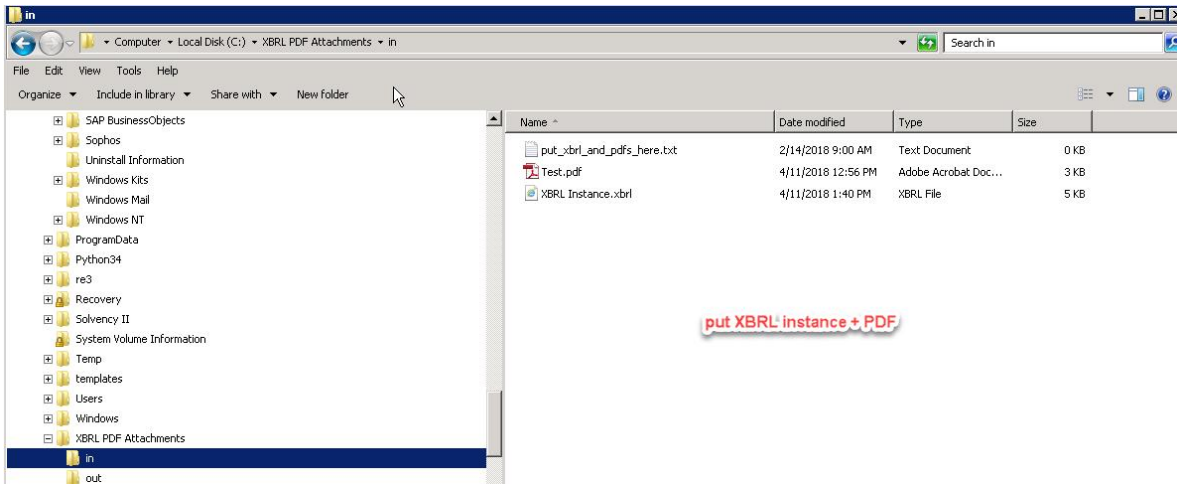
On certain chapters



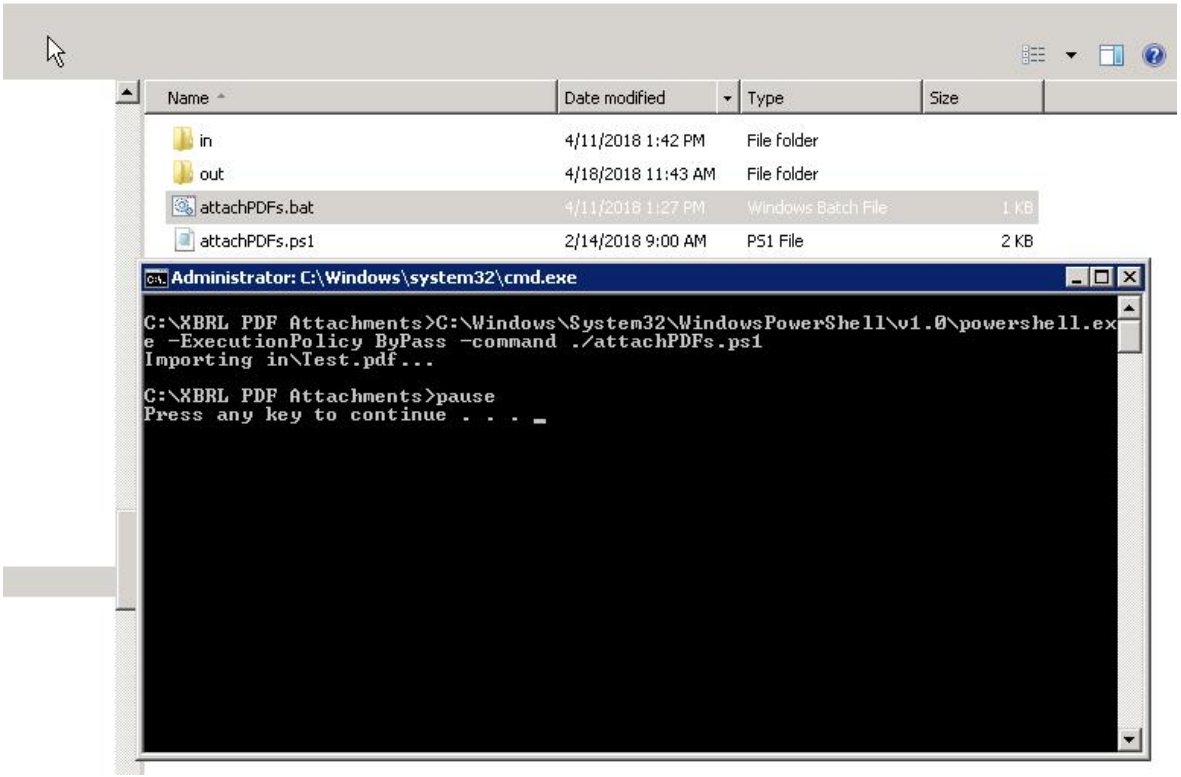
You need to provide the PDF name



In the specified folder, you copy this PDF file, together with the XBRL instance



Run “attachPDF.bat”



Output in the \out folder

converted PDF

Useful Notes/KBAs

2063215 - How to modify a CoRep or FinRep or Solvency II Taxonomy

2069765 - Automated Uploading for COREP/FINREP and the Solvency II Business Content to DM Server

2461750 - What is the memory (RAM) requirement to run validation for Solvency II reporting scenario in SAP Disclosure Management

2414343 - Decimals value inconsistency after upgrade to STACK 802

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