

XBRL Custom components

(Add-ins to XWand API – EU specific extensions)

FQS Poland - Center of Excellence of Interstage XWand for EMEA region

XBRL Custom Components – Overview



Converter

CMD
ExcelMapper



Validator

CMD
ValidatorTL

EFR
ValidationEngine



Renderer

CMD
RendererTL

Key functionality:

- **converts** Excel document with already prepared data into a XBRL instance
- **validates** XBRL instance against XBRL syntax and business rules
- **validates** XBRL instance against filing rules defined by a regulator
- **renders** XBRL instance into user-friendly format e.g. Excel or HTML

Additional license requirements:

XWand API (in development environment)
XWand Runtime (in production environment)

same as above

same as above

same as above



Generator

Instance
Generator



Pruner

Instance
Pruner

- **generates** sample instance documents compliant with XBRL syntax in predefined sizes
- **prunes** selected subset of facts from original instance documents
- **loads** XBRL data into relational database

same as above

same as above

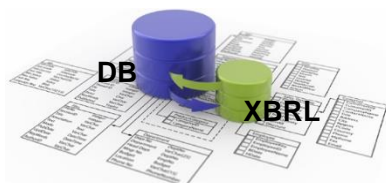


Table2XBRL
XBRL2TL

DWH2XBRL

WebService
XBRL2DB

StagingDB

XBRL-DWH-Jap

- **converts** XBRL-to-CSV and CSV-to-XBRL
- **shreds** instances to DB (via CSV or XBRL)
- **generates** instances from DB

same as above

Please notice that these components may need additional custom development services.

For detail information about components please refer to presentation about DB-related components and services.

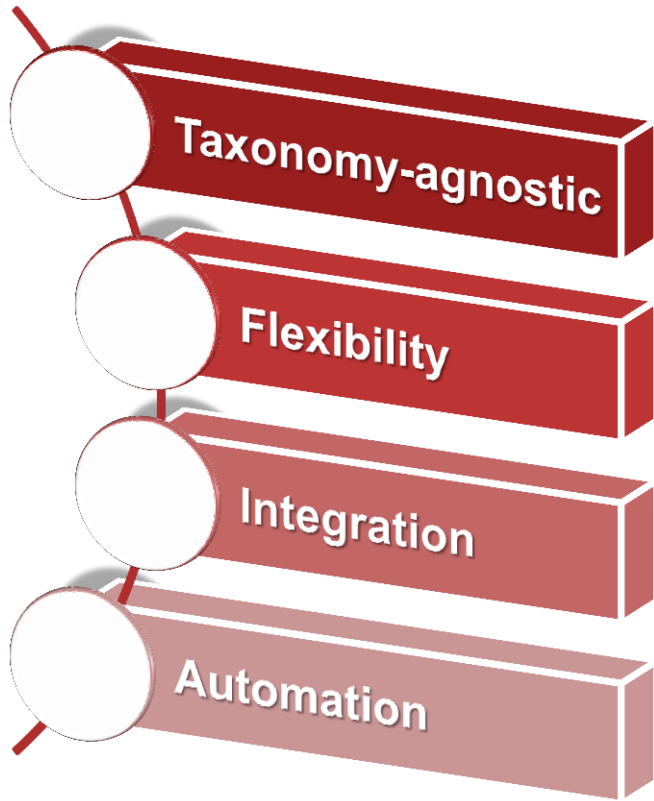
XBRL Custom Components



Name of the component	Technology	Main Features description	Demo Version Availability
CMDEXcelMapper	CLI (Java)	Converts an Excel document with reported data into an XBRL instance. Fully compatible with Excel templates and mapping format generated by XWand Toolkit. Also compatible with the CMDValidatorTL and CMDRendererTL components.	Available for Tests
CMDValidatorTL	CLI (Java) API (Java)	Validates an instance against Formula Linkbase of a taxonomy and outputs the results in .html, .xlsx, xml or .txt format. Rendering of tables is based on Table Linkbase definitions. The tool has an option to be run as renderer only without validation (see below).	Available for Tests
CMDRendererTL	CLI (Java) API (Java)	Renders instance document content to MS Excel or HTML file. Uses tables format defined in taxonomy (Table Linkbase).	Available for Tests
CMDRendererTL	API (.NET)	Renders instance document content to MS Excel file. Uses tables format defined in taxonomy (Table Linkbase)	N/A
EFRValidationEngine	CLI (Java) API (Java) API (.NET)	Validates an instance against the European Filing Rules defined by the EBA and EIOPA. The EFR is a set of rules (additional to the assertions from the Formula Linkbase) which must or should be satisfied by each submitted instance document (e.g. each fact in the instance must belong to a template declared as reported by a filing indicator).	Available for Tests
InstanceGenerator	GUI (Java)	Creates sample instance documents for a selected entry point. Such sample instances are indispensable for functional and performance testing purposes during development, system's tests etc. Analyses and prints statistics of a Table Linkbase layer.	Available for Tests
InstancePruner	CLI (Java) API (Java)	Prunes instance documents according to user-defined rules. Uses filing indicators to extract the subset of facts from the original instance document.	Available for Tests
IFRS Printer	API (.NET)	Generates documentation of IFRS-based taxonomy in the format compatible with IFRS Taxonomy Illustrated document published by IFRS Organization.	N/A

Notice: All the above components are offered for an extra fee as Add-ins to XWand API, XWand Runtime is required as an execution environment

General Features



- **taxonomy-agnostic** – independence from taxonomy architecture (e.g. 100% compliant with EBA, EIOPA taxonomies)
- **flexibility** – fully controllable process flow through extensive set of configuration parameters
- **integration** – quick bolt-on to current disclosure systems
- **automation** – easy run-schedule implementation on a workstation from command line or on a server

Converter component

CMD
ExcelMapper



CMDExcelMapper – Description

Main feature description

CMDExcelMapper allows business experts to continue using **Excel spreadsheet** as a **primary entry interface** used in disclosure process and forget about intricate details of XBRL technology.

Filers get instantaneous support of XBRL filing process without upfront high implementation costs. ICT investment can be spread out over multiple periods.

CMDExcelMapper can be integrated with other custom components to automate all steps of disclosure process e.g. validation.

Application scope:

- **Converts** an Excel document with reported data into an XBRL instance for further processing
- **Logs** conversion process information to a **log file**

Requirements:

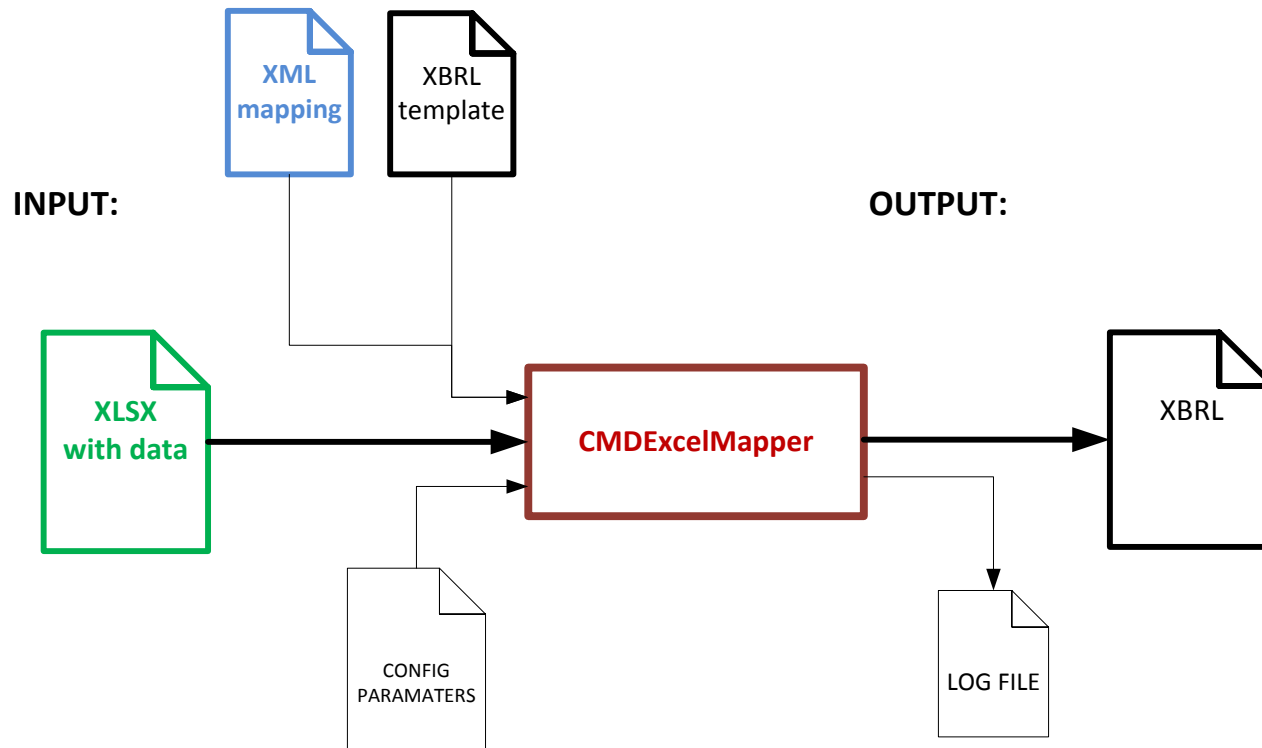
- CMDExcelMapper works with taxonomies having **Table Linkbase layer** compliant with Eurofiling Architecture principles e.g. to EBA's and EIOPA's taxonomies (COREP, FINREP, SOLVENCY II)

Other considerations:

- It can **use** output Excel documents produced by the CMDValidatorTL and CMDRendererTL components to build summary sheets
- Fully **compatible** with the Excel templates and mapping format generated by the **XWand Toolkit**
- **CMDValidatorTL**, **CMDRendererTL** and **CMDExcelMapper** components use identical Excel files as input/output, hence they be used together for converting and validating files between Excel and XBRL in the disclosure process

CMDExcelMapper

Processing workflow



- set of the **templates** and **mapping** files is delivered free of charge together with the component
- **no need** to have an XWand Toolkit license
- **cost-effective** and **off-the-shelf** solution for XBRL filing with Excel as an entry interface
- **no need** for integration and development

CMDExcelMapper – Input/Output

Screenshots

F 02.00 Statement of profit or loss

		Current period
		010
Interest income	010	
Financial assets held for trading	020	31038.224
Financial assets designated at fair value through profit or loss	030	
Available-for-sale financial assets	040	
Loans and receivables	050	
Held-to-maturity investments	060	
Derivatives - Hedge accounting, interest rate risk	070	
Other assets	080	
(Interest expense)	090	1002
(Financial liabilities held for trading)	100	2002
(Financial liabilities designated at fair value through profit or loss)	110	
(Financial liabilities measured at amortised cost)	120	2102
(Derivatives - Hedge accounting, interest rate risk)	130	4002
(Other liabilities)	140	4102

Input

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Generated by Fujitsu Interstage XWand B0209 -->
<xbrli:xbrl xmlns:eba_mod_FINREP_Con_IFRS="http://www.eba.europa.eu/xbrl/crr/fws/finrep/1
europa.eu/xbrl/crr/fws/finrep/its-2013-02/2013-12-01/tab/F_13.01" xmlns:eba_tab_F_31.02="
rr/dict/dom/TP" xmlns:gen="http://xbrl.org/2008/generic" xmlns:eba_tab_F_04.10="http://ww
/www.eba.europa.eu/xbrl/crr/fws/finrep/its-2013-02/2013-12-01/tab/F_16.03" xmlns:eba_tab
<link:schemaRef xlink:type="simple" xlink:href="http://www.eba.europa.eu/fr/xbrl/crr
<xbrli:context id="Context1">
  <xbrli:entity>
    <xbrli:identifier scheme="www.eba.org">F50EOCNSQFAUVO9Q8Z97</xbrli:identifier>
  </xbrli:entity>
  <xbrli:period>
    <xbrli:instant>2014-03-31</xbrli:instant>
  </xbrli:period>
  <xbrli:scenario>
    <xbrldi:explicitMember dimension="eba_dim:BAS">eba_BA:x17</xbrldi:explicitMember>
    <xbrldi:explicitMember dimension="eba_dim:MCI">eba_MC:x133</xbrldi:explicitMember>
    <xbrldi:explicitMember dimension="eba_dim:MCY">eba_MC:x130</xbrldi:explicitMember>
    <xbrldi:typedMember dimension="eba_dim:LEC">
      <eba_typedMember type="LE" eba_type="LE">
    </xbrldi:typedMember>
  </xbrli:scenario>
</xbrli:context>
<xbrli:context id="Context2">
  ...
  <xbrli:unit id="EUR"><xbrli:measure>iso4217:EUR</xbrli:measure></xbrli:unit>
  <xbrli:unit id="pure"><xbrli:measure>xbrli:pure</xbrli:measure></xbrli:unit>
  <find:indicators>
    <find:filingIndicator contextRef="Context10">F_02.00</find:filingIndicator>
  </find:indicators>
  <eba_met:md103 decimals="3" contextRef="Context11" unitRef="EUR">31038.224</eba_met:md1
  <eba_met:md103 decimals="0" contextRef="Context12" unitRef="EUR">1002</eba_met:md103>
  <eba_met:md103 decimals="0" contextRef="Context13" unitRef="EUR">2002</eba_met:md103>
  <eba_met:md103 decimals="0" contextRef="Context14" unitRef="EUR">2102</eba_met:md103>
```

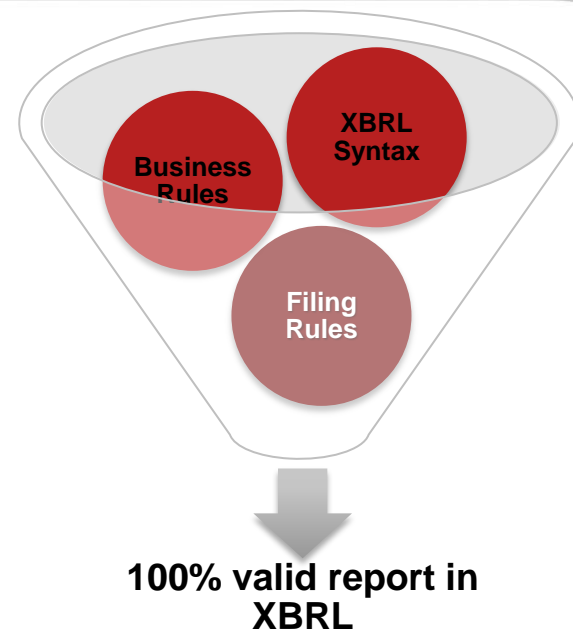
Output

- no XBRL knowledge required
- easy to use for business users
- no training required
- instantenous conversion process
- no additional configuration settings required

Validation components

**CMD
ValidatorTL**

**EFR
ValidationEngine**



CMDValidatorTL – Description

Main feature description

CMDValidatorTL is a comprehensive validation package built on top XBRL processor of Xwand. It can be integrated at the any stage of disclosure process to ensure regulatory compliance of XBRL instance document.

Application scope:

- **Validates** an instance document against **XBRL 2.1** and **Dimensions 1.0** specifications
- **Validates** an instance document against the list of **assertions** defined in the taxonomy on **Formula linkbase**
- **Presents** (or renders) the **formula validation results** in human readable format: **Excel** or **HTML** document
- **Outputs validation results** in **text** or **XML** format that can be used further processing
- **Logs** validation process information to a **log file**.

Requirements:

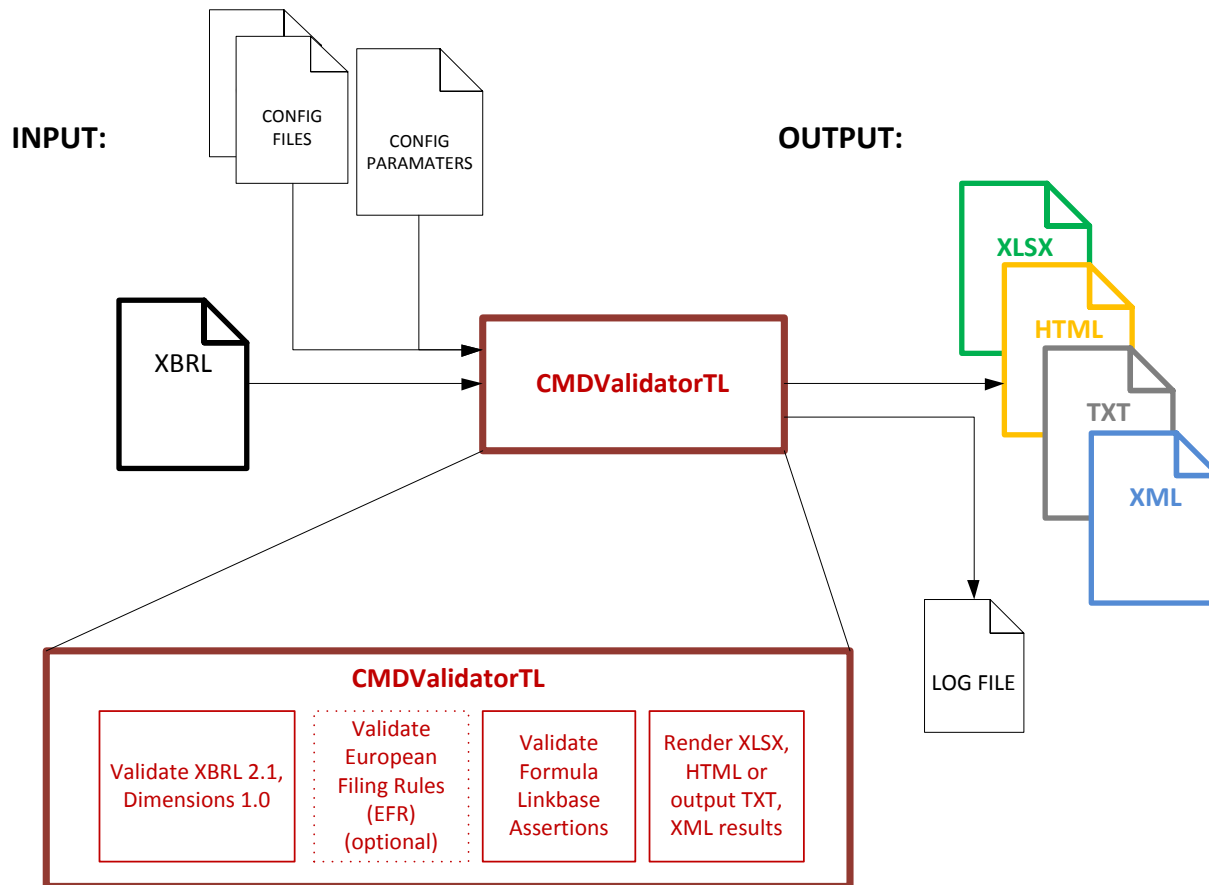
- **CMDValidatorTL** works with taxonomies having the **Table Linkbase layer** compliant with Eurofiling Architecture principles e.g. to EBA's and EIOPA's taxonomies (COREP, FINREP, SOLVENCY II)

Other considerations:

- **Extensive set of parameters** provides full control over the validation process e.g.:
 - the validation stops after a threshold of validation errors has been reached;
 - errors on earlier validation phases (XBRL, Dimensions, EFR) may or may not stop further validation;
 - a list of excluded Assertions can be used to instruct the validator to omit specific rules
- **Plugin mechanism** enables to add extra validation steps to ensure high quality of XBRL instance document
- Provides an **option to validate** an instance document against **European Filing Rules***

* requires a separate EFRValidatorEngine component

Processing workflow



- **ensures** 100% compliance to regulator requirements:
 - **XBRL syntax rules** – checks if instance document is correct from XBRL tech. point of view
 - **Business rules** – checks if data are valid from business point of view
 - **[optionally] Filing rules** – validates if instance meets all other filing rules defined by regulator
- **automates** reconciliations part of disclosure process for business users
- **integrates** with current technologies and infrastructure
- **enhances** reporting supply chain with user-friendly log output

CMDValidatorTL – Excel and HTML

Screenshots – Excel and HTML validation output

The screenshots illustrate the validation output of CMDValidatorTL. The top left shows an Excel spreadsheet with validation errors highlighted in red. The top right shows a validation details window with an index of errors. The bottom left shows a detailed Excel spreadsheet with a 'Statement of profit or loss' and various financial data points. The bottom right shows a web interface with a dropdown menu for 'Residence of counterparty/JAPAN' and a table of financial data.

Index	Value Assertion failed. (Manual) (id='eba_v0987_m v1')
(F) eba_v0787_m v1	Scope
(F) eba_v0788_m v2	Error Message
(F) eba_v0795_m v3	Expression
(F) eba_v1699_m v4	a[1]
(F) eba_v0983_m v5	b[1] m53
(F) eba_v0987_m v6	Value Assertion failed. (Manual) (id='eba_v0992_m')
(F) eba_v0987_m v7	Scope
(F) eba_v0988_m v8	Error Message
(F) eba_v0992_m v9	Expression
(F) eba_v0992_m v10	a[1]
(F) eba_v0992_m v11	b[1] m53
(F) eba_v0992_m v12	Value Assertion failed. (Manual) (id='eba_v0992_m')
(F) eba_v0992_m v13	Scope
(F) eba_v0992_m v14	Error Message

Statement of profit or loss	Current period	010
Interest income	010	31038.224
Financial assets held for trading	020	030
Financial assets designated at fair value through profit or loss	030	040
Available-for-sale financial assets	040	050
Loans and receivables	050	060
Held-to-maturity investments	060	070
Derivatives - Hedge accounting, interest rate risk	070	080
Other assets	080	090
(Interest expense)	090	1002
(Financial liabilities held for trading)	100	2002
(Financial liabilities designated at fair value through profit or loss)	110	2102
(Financial liabilities measured at amortised cost)	120	4002
(Derivatives - Hedge accounting, interest rate risk)	130	4102
(Other liabilities)	140	

Residence of counterparty/JAPAN	Provisions for commitments and guarantees given
F 20.05.b	030
Loan commitments given	010 800020.05
Financial guarantees given	020 900020.05
Other commitments given	030 4020.05

Residence of counterparty/ESTONIA	Carrying amount
F 20.06	010

- incorrect cells are **highlighted** in Excel
- additional tabs with **validation summary** are generated in Excel reporting templates
- summary tabs contain **clickable links** to facilitate tracking of errors by business users
- output in HTML can be further used in implementation of more integrated **web service** environment

CMDValidatorTL – TXT and XML



Screenshots: Text and XML validation output

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<fj:validation_results render="2.2.0" xmlns:fj="http://www.fujitsu.com/interstage/xbrl/2013-02/2013-12-01/mod/finrep_con_ifrs.xsd/taxonomy?>
  <instance>
    <file>\finrep_con_ifrs_2_2004_2005_4001.xbrl</file>
    <taxonomy>http://www.eba.europa.eu/eu/fr/xbrl/crr/fws/finrep/its-2013-02/2013-12-01/mod/finrep_con_ifrs.xsd/taxonomy?</taxonomy>
  </instance>
  <assertion_results>
    <error seq="1">
      <assertion id="eba_v0787_m">
        <type>Value Assertion</type>
        <expression>iaf:numeric-equal($a, iaf:sum($b))</expression>
        <error_message>{r010} = sum(r020-080)</error_message>
        <tables>F 02.00</tables>
        <validation_type>Manual</validation_type>
        <message>v0787_m: {r010} = sum(r020-080)</message>
        <facts>
          <variable code="a[1]">
            <value isFallback="true">0</value>
          </variable>
          <variable code="b[1]">
            <value>31038.224</value>
            <item id="eba_md103" name="md103">
              <context id="Context11"</context_id>
              <scenario>
                <explicitMember dimension="eba_dim:MCE" value="eba_MC:x31" />
                <explicitMember dimension="eba_dim:MCY" value="eba_MC:x212" />
                <explicitMember dimension="eba_dim:MCE" value="eba_MC:x93" />
                <explicitMember dimension="eba_dim:MCY" value="eba_MC:x99" />
              </scenario>
            </item>
          </variable>
        </facts>
      </assertion>
    </error>
    <error seq="2">
      <assertion id="eba_v0788_m">
        <type>Value Assertion</type>
        <expression>iaf:numeric-equal($a, iaf:sum($b))</expression>
        <error_message>{r090} = sum(r100-140)</error_message>
        <tables>F 02.00</tables>
        <validation_type>Manual</validation_type>
        <message>v0788_m: {r090} = sum(r100-140)</message>
        <facts>
          <variable code="a[1]">
            <value isFallback="true">0</value>
          </variable>
          <variable code="b[1]">
            <value>31038.224</value>
            <item id="eba_md103" name="md103">
              <context id="Context11"</context_id>
              <scenario>
                <explicitMember dimension="eba_dim:MCE" value="eba_MC:x31" />
                <explicitMember dimension="eba_dim:MCY" value="eba_MC:x212" />
                <explicitMember dimension="eba_dim:MCE" value="eba_MC:x93" />
                <explicitMember dimension="eba_dim:MCY" value="eba_MC:x99" />
              </scenario>
            </item>
          </variable>
        </facts>
      </assertion>
    </error>
  </assertion_results>
</fj:validation_results>
```

- customer's system can use it as an input for database process to **store parsed validation results** for further usage
- highly **configurable** to satisfy validation information needs of various stakeholders
- IT specialists can **enable automation** of complex validation steps in disclosure processes

CMDValidatorTL – Logs



Screenshots – Processing log

```
1 14:43:03,322 [main] INFO(MessagePrinter.java:42)-Validator 2.2.0 (Powered by FUJITSU
- Interstage XWand)
2 14:43:03,351 [main] DEBUG(CMDValidatorPluginHandler.java:49)-Trying to load plugins...
3 14:43:03,352 [main] DEBUG(CMDValidatorPluginHandler.java:61)-Plugin folder: .\plugin
4 14:43:03,367 [main] DEBUG(CMDValidatorPluginHandler.java:100)-Plugins class loader initialized
- successfully
5 14:43:03,368 [main] INFO(MessagePrinter.java:42)-Initialization of XBRL processor...
6 14:43:03,901 [main] INFO(MessagePrinter.java:42)-Instance loading...
7 14:43:03,919 [main] DEBUG(XBRLErrorHandlerForValidator.java:80)-Loading instance document.
8 (.\\finrep_con_ifrs_2_2004_2005_4001.xbml)
9 14:43:40,145 [main] DEBUG(XBRLErrorHandlerForValidator.java:80)-Processing linkbase document.
- (.\\finrep_con_ifrs_2_2004_2005_4001.xbml)
10 14:43:41,708 [main] INFO(MessagePrinter.java:42)-Dimensions Validation Result: OK
11 14:43:41,718 [main] INFO(MessagePrinter.java:42)-Plugin "DPM Handler" (v1.0.0) loaded
12 14:43:42,090 [main] INFO(??)-dataFileCache open start
13 14:43:42,553 [main] INFO(MessagePrinter.java:42)-Plugin "EFR Validator" (v1.0.0) loaded
14 14:43:42,592 [main] WARN(EFRValidatorMessageHandler.java:109)-EFR Version 1.0.0
15 14:43:42,592 [main] WARN(EFRValidatorMessageHandler.java:109)-EFR Processing...
16
17 14:43:46,098 [main] INFO(MessagePrinter.java:42)-EFR Validation Result: 2 ERRORS FOUND
18 14:43:46,098 [main] INFO(MessagePrinter.java:56)-EFR Rule Failed: [EFR-SHOULD: 2.22] An unused
- unit node found
19 14:43:46,098 [main] INFO(MessagePrinter.java:56)-EFR Rule Failed: [EFR-SHOULD: 3.4] Unused
- namespace prefix has been declared in the instance (Prefix=bf)
20 14:43:46,098 [main] INFO(MessagePrinter.java:42)-Formula Validation...
21 14:43:48,071 [main] DEBUG(FormulaLinkResultHandlerForValidator.java:316)-Processing assertion:
- eba_v0050_h
22 14:43:48,071 [main] INFO(MessagePrinter.java:56)-eba_v0050_h;
23 14:43:48,077 [main] DEBUG(FormulaLinkErrorHandlerForValidator.java:63)-Assertion(value
- assertion(id='eba_v0050_h')) is not evaluated.
24 14:43:48,077 [main] DEBUG(FormulaLinkResultHandlerForValidator.java:316)-Processing assertion:
- eba_v0067_h
25 14:43:48,077 [main] DEBUG(FormulaLinkErrorHandlerForValidator.java:63)-Assertion(value
- assertion(id='eba_v0067_h')) is not evaluated.
26 14:43:48,077 [main] DEBUG(FormulaLinkResultHandlerForValidator.java:316)-Processing assertion:
- eba_v0069_h
27 14:43:48,078 [main] DEBUG(FormulaLinkErrorHandlerForValidator.java:63)-Assertion(value
- assertion(id='eba_v0069_h')) is not evaluated.
```

EFRValidationEngine – Description



Main feature description

EFRValidationEngine enables the integration of additional validation layer for XBRL instances. It checks compliance to filing rules defined by supervisory agency to enhance processing capabilities of their systems.

Application scope:

- **Validates** an instance against the **European Filing Rules (EFR)** defined by the EBA and EIOPA.*
- **EFR validation** is independent of the Formula validation and is intended to **enhance uniformity** of XBRL instance documents (e.g. each fact in the instance must belong to a template declared as reported by a filing indicator, no duplicates of facts etc.)
- **Logs** validation process information to a **log file**.

Requirements:

- EFR validation works with EBA and EIOPA taxonomies, but it is **flexible enough to handle** also NCA-specific validation requirements

Other considerations:

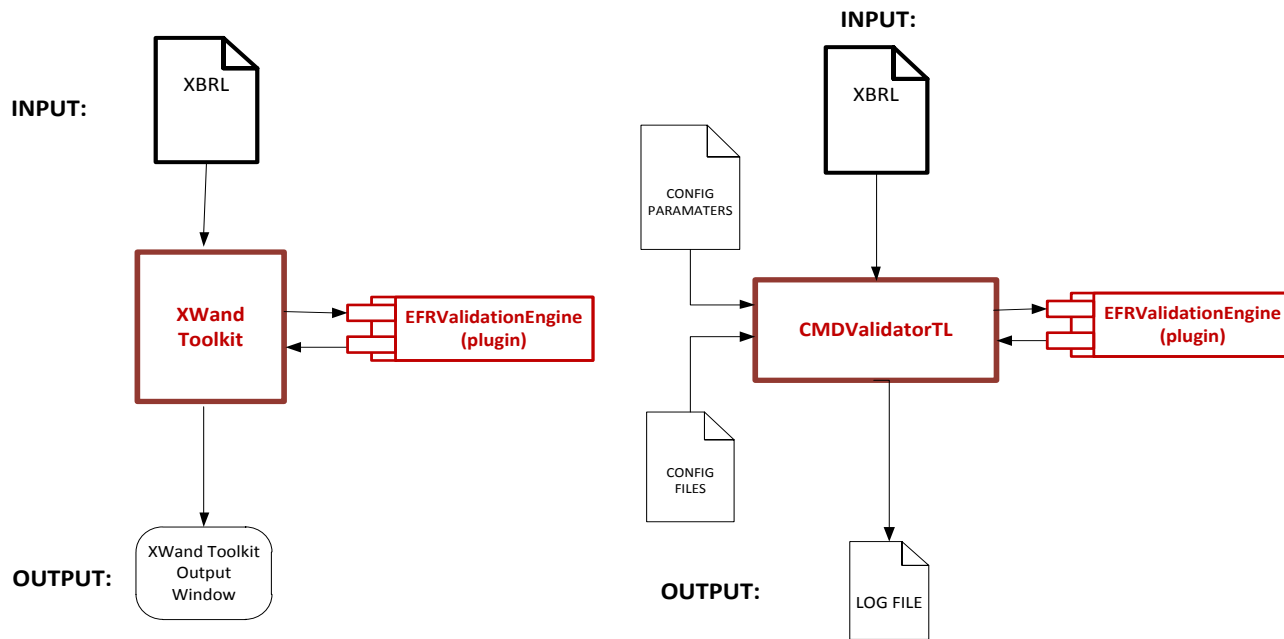
- It can be used as a **plugin of CMDValidatorTL** enabling running all required validations at one shot
- It can be used as a **plugin of XWand Toolkit** integrated with GUI.
- **EFRValidatorEngine API** is available and can be integrated in any disclosure system
- The component used either as a plugin of the CMDValidatorTL or as API can be configured to **validate only selected rules** listed in an external file

***European Filing Rules** - set of rules which must or should be satisfied by each instance document to be submitted successfully to a supervisor
<http://www.eba.europa.eu/documents/10180/998485/EBA+XBRL+Filing+Rules+revision+3.pdf/0c3beb6d-80d2-48a5-ada9-8d04d1c552aa> for EBA
<https://dev.eiopa.europa.eu/Taxonomy/Preparatory/Common/EIOPA%20SII%20Preparatory%20Filing%20Rules.pdf> for EIOPA

EFRValidationEngine

Processing workflow

EFRValidationEngine as a plugin to XWand Toolkit
or CMDValidatorTL



- **ensures** 100% filing rules compliance to NCA and European regulator requirements
- **integrates** with current technologies, infrastructure and other Xwand engine – based components e.g. CMDValidatorTL, Toolkit
- **no intermediate formats**, pure XBRL processing = high quality

EFRProcessingEngine – Logs

Screenshots – Validation output (Toolkit and CMDValidatorTL)

XWand Toolkit

The screenshot displays the XWand Toolkit interface. On the left, a 'Task List' pane shows various tasks like GFM, EDGAR Manual, Change Request, and Formula. The main area shows a list of error messages, including:

- [EFR-MUST: 1.5] Defined period precedes taxonomy publication
- [EFR-MUST: 1.6] No filing indicator found or all filing indicators have @filed='false'
- [EFR-MUST: 1.7.1] A fact not referenced by a filing indicator exists (Context: Context1; Value: 25; Aspect: eba_dim: BAS=eba_BA: x17|eba_dim: LEC|eba_dim: MCY=eba_MC: x130|eba_met: pi221)
- [EFR-MUST: 2.10] xbrli:period date elements is not valid against the xs:date datatype or is reported with a timezone
- [EFR-MUST: 2.13] There are two or more reference dates in the instance document
- [EFR-MUST: 2.16] Duplicated facts found (eba_dim: BAS=eba_BA: x5|eba_dim: MCY=eba_MC: x25|eba_dim: MCY=eba_MC: x212|eba_met: md103)
- [EFR-MUST: 2.18] @decimals attribute not specified for a numeric fact or the precision declared is too low (eba_pi221: Context1:)
- [EFR-MUST: 2.8] The entity code does not satisfy ISO/DIS 17442 requirements for a LEI code
- [EFR-MUST: 2.9] More than one reporter. (xbrli:identifier content or identifier attribute values are not unique in the document)
- [EFR-SHOULD: 2.21] Duplicate unit declaration exists

At the bottom, a 'Validation Results' pane shows a summary of errors and warnings, indicating 10 errors and 0 warnings.

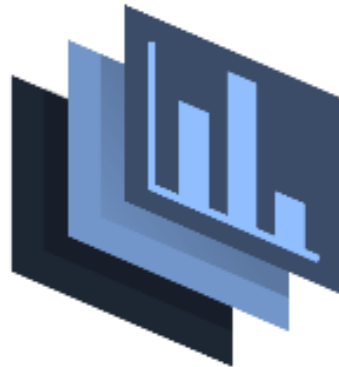
Excel with
CMD
Validator

CMD
Validator

- seamless integration and straightforward use for **Toolkit users**
- seamless integration and straightforward use for **CMDValidatorTL users**
- summary tabs in Excel **extended with EFR validation output**

Rendering component

CMD
RendererTL



CMDRendererTL – Description

Main feature description

CMDRendererTL is a component that renders XBRL instance back to business user-friendly format.

It can be used by **software vendors**, **reporting entities** and **supervisory agency** to resolve specific case when XBRL instance is already generated from the disclosure system but **end user** wants to **check** and **review** it manually in e.g. Excel.

Application scope:

- **Validates** an instance document against **XBRL 2.1** and **Dimensions 1.0** specifications
- **Presents** (or renders) **an instance document** in human readable format: as **Excel** or **HTML** document
- **Logs** validation process information to a **log file**

Requirements:

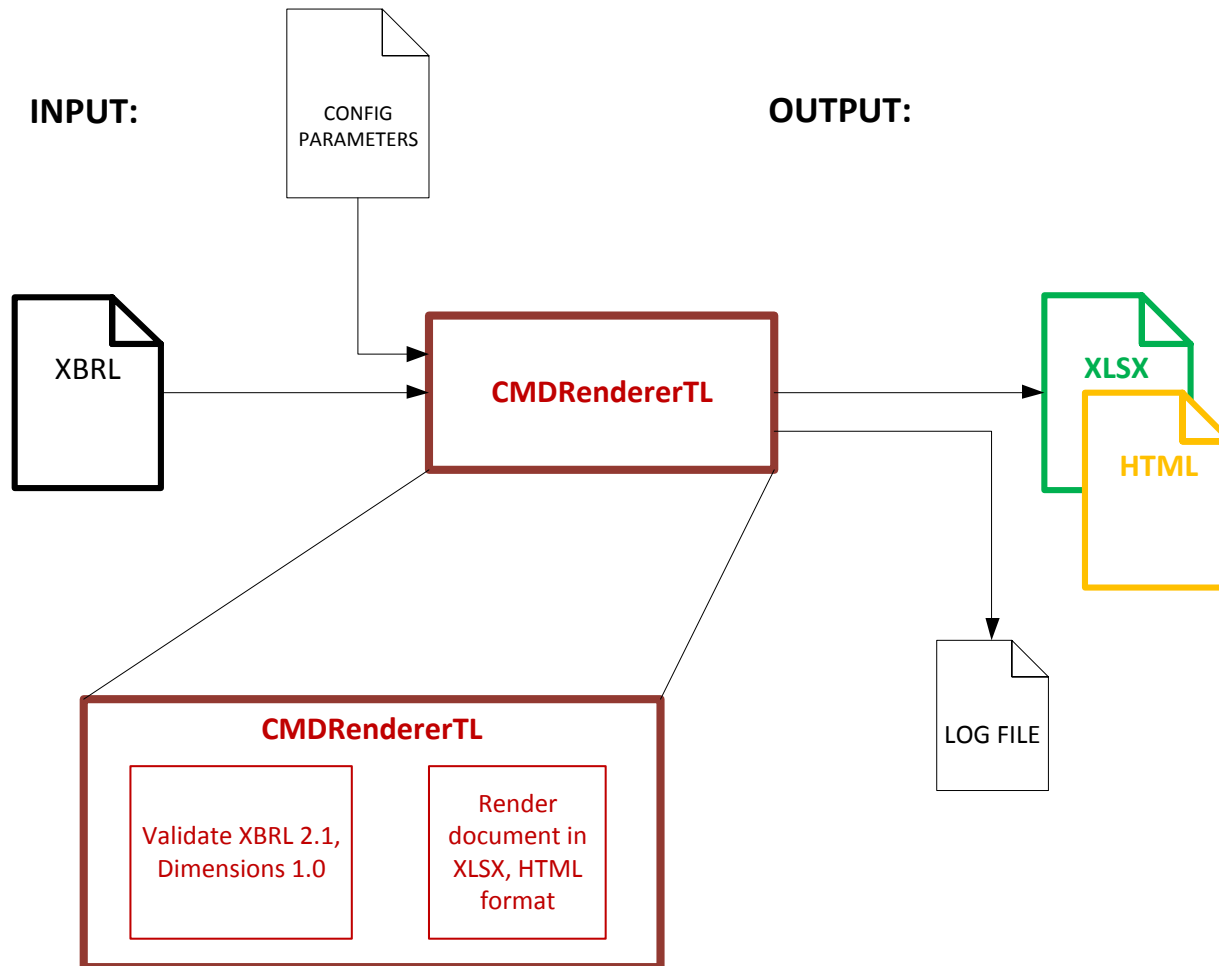
- **CMDRendererTL** works with taxonomies having the **Table Linkbase layer** compliant with **Eurofiling Architecture** principles e.g. to EBA's and EIOPA's taxonomies (COREP, FINREP, SOLVENCY II)

Other considerations:

- **Extensive set of parameters** provides full control over the rendering process e.g. an external CSS file can be provided for customizing the HTML output
- It handles **the opposite process** to **CMDExcelMapper**

CMDRendererTL

Processing workflow



- basic XBRL syntax **validation is performed** during rendering process
- **supports** business users in review/audit stages of disclosure process
- set of the **templates** and **mapping** files is delivered free of charge together with the component
- **no need** to have an XWand Toolkit license
- **no need** for integration and development

CMDRendererTL – Excel and HTML



Screenshots – Excel and HTML output

	A	B	C	D	E	F
1	F 02.00	Statement of profit or loss				
2						Current period
3						010
4						-
5		Interest income			010	
6			Financial assets held for trading	020	31038.224	
7			Financial assets designated at fair value through profit or loss	030		
8			Available-for-sale financial assets	040		
9			Loans and receivables	050		
10			Held-to-maturity investments	060		
11			Derivatives - Hedge accounting, interest rate risk	070		
12			Other assets	080		
13		(Interest expense)			090	1002
14			(Financial liabilities held for trading)	100	2002	
15			(Financial liabilities designated at fair value through profit or loss)	110		
16			(Financial liabilities measured at amortised cost)	120	2102	
17			(Derivatives - Hedge accounting, interest rate risk)	130	4002	
18			(Other liabilities)	140	4102	
19						

		Carrying amount			Accumulated impairment, or accumulated changes in fair value due to credit risk
		010	020	030	
Derivatives	Of which: credit institutions	010	-	-	-
	Of which: other financial corporations	020	-	-	-
	Of which: other financial corporations	030	-	-	-
	Of which: non-financial corporations	040	-	-	-
Equity instruments	Of which: credit institutions	050	-	-	-
	Of which: other financial corporations	060	-	-	-
	Of which: other financial corporations	070	-	-	-
	Of which: non-financial corporations	080	-	-	-
Debt securities	Central banks	090	11020.4	12020.4	
	General governments	100			
	Credit institutions	110			
	Other financial corporations	120			
Loans and advances	Non-financial corporations	130			
	Of which: Small and medium sized enterprises	140	10020.4		
	Of which: Commercial real estate	150	20020.4		
	Of which: Commercial real estate	160	30020.4		
	Central banks	170	40020.4		
	General governments	180	50020.4		
	Credit institutions	190	60020.4		
	Other financial corporations	200			
	Non-financial corporations	210			
	Of which: Small and medium sized enterprises	220			
	Of which: Commercial real estate				

- **view** of tables in Excel spreadsheets is **always the same** as it is generated directly from Table Linkbase
- **no XBRL** knowledge required
- **no training** required
- **no additional configuration** settings required

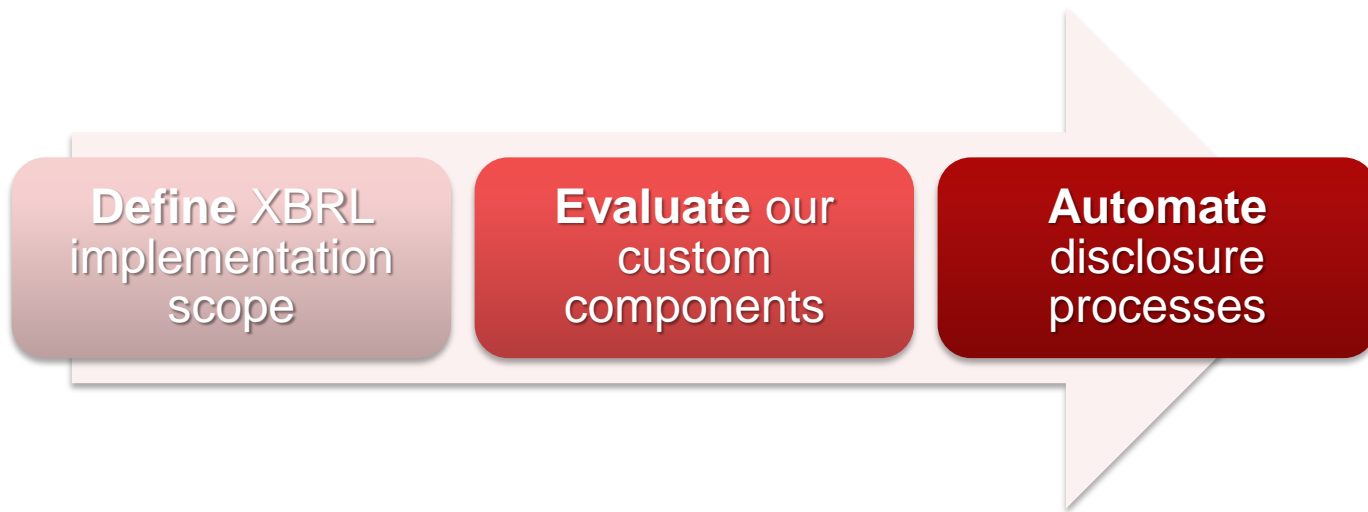
CMDRendererTL - Logs



Screenshots – Processing log

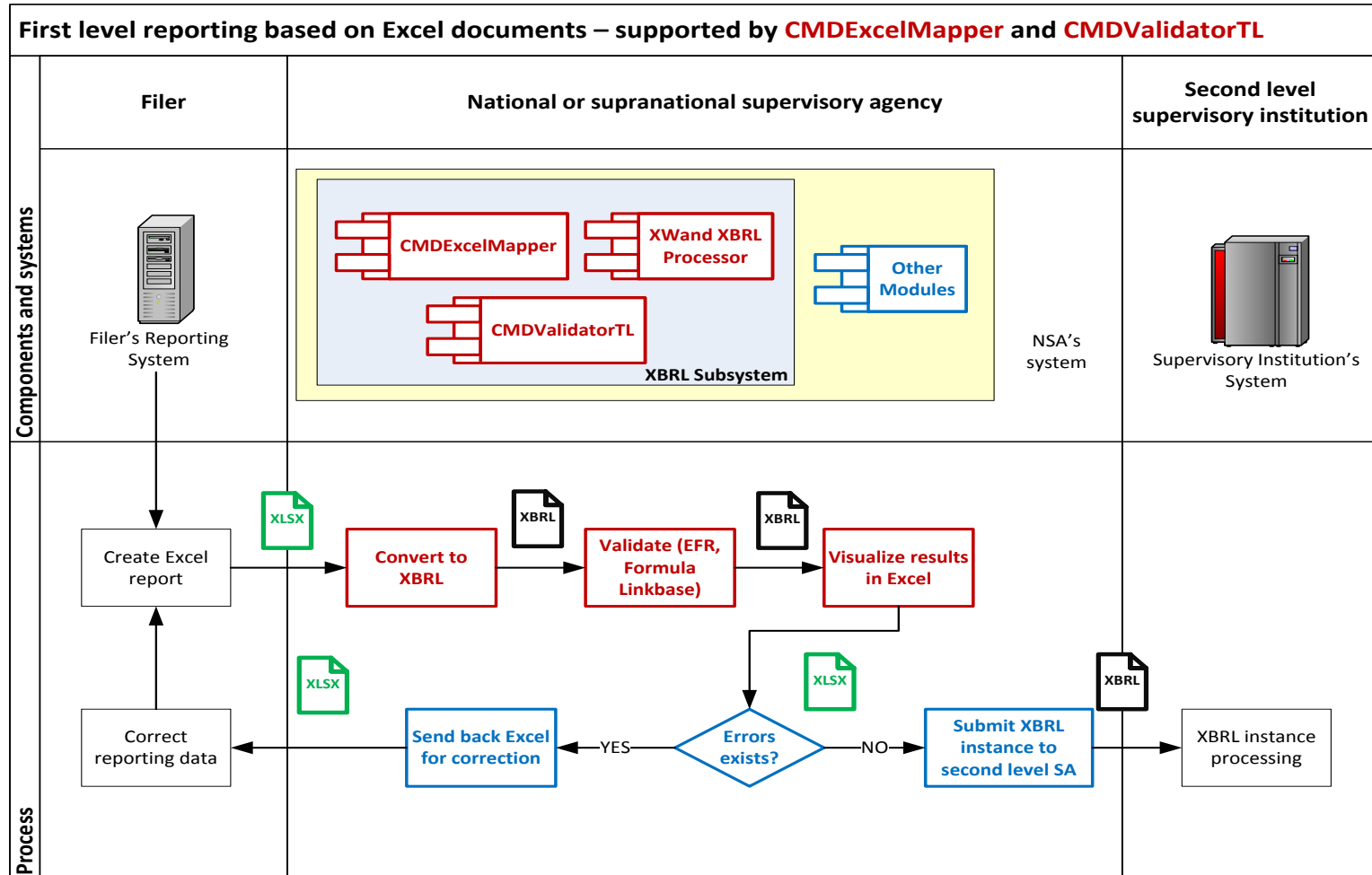
```
1 11:47:32,994 [main] INFO(MessagePrinter.java:42)-Renderer 2.2.0 (Powered by FUJITSU  
Interstage XWand) -  
2 11:47:33,014 [main] INFO(MessagePrinter.java:42)-RendererType...html -  
3 11:47:33,035 [main] INFO(MessagePrinter.java:42)-Initialization of XBRL processor... -  
4 11:47:33,568 [main] INFO(MessagePrinter.java:42)-Instance loading... -  
5 11:47:33,588 [main] DEBUG(XBRLExceptionHandlerForLog4j.java:31)-Loading instance document.  
(.\finrep_con_ifrs_2_2004_2005_4001.xbri) -  
6 11:47:33,709 [main] DEBUG(XBRLEntityResolverImplUseURIMap.java:63)-#####  
resolveInputEntity(start) ##### namespace=null -  
sysId=http://www.eba.europa.eu/eu/fr/xbri/crr/fws/finrep/its-2013-02/2013-12-  
01/mod/finrep_con_ifrs.xsd (hit) -  
c:\www.eba.europa.eu\eu\fr\xbri\crr\fws\finrep\its-2013-02\2013-12-  
01\mod\finrep_con_ifrs.xsd -##### resolveInputEntity(end) -##### -  
7 11:47:33,709 [main] DEBUG(XBRLExceptionHandlerForLog4j.java:31)-Assembling a taxonomy set. -  
8 11:47:33,709 [main] DEBUG(XBRLExceptionHandlerForLog4j.java:31)-Loading schema document.  
(http://www.eba.europa.eu/eu/fr/xbri/crr/fws/finrep/its-2013-02/2013-12-  
01/mod/finrep_con_ifrs.xsd) -  
9 11:47:34,565 [main] DEBUG(XBRLEntityResolverImplUseURIMap.java:63)-#####  
resolveInputEntity(start) ##### namespace=http://www.eurofiling.info/xbri/ext/model  
-sysId=http://www.eurofiling.info/eu/fr/xbri/ext/model.xsd (hit) -  
c:\www.eurofiling.info\eu\fr\xbri\ext\model.xsd -##### resolveInputEntity(end) -##### -  
10 11:47:34,585 [main] DEBUG(XBRLEntityResolverImplUseURIMap.java:63)-#####  
resolveInputEntity(start) ##### namespace=http://xbri.org/2005/xbri -  
sysId=http://www.xbri.org/2005/xbri-2005.xsd (hit) c:\www.xbri.org\2005\xbri-  
2005.xsd -##### resolveInputEntity(end) -##### -  
11 (...)  
12 11:48:12,824 [main] DEBUG(XBRLDimensionErrorHandlerForLog4j.java:22)-Processing domain  
members. -  
13 11:48:12,965 [main] DEBUG(XBRLDimensionErrorHandlerForLog4j.java:22)-Processing  
dimensions. -  
14 11:48:13,076 [main] DEBUG(XBRLDimensionErrorHandlerForLog4j.java:22)-Processing  
hypercubes. -  
15 11:48:13,136 [main] DEBUG(XBRLDimensionErrorHandlerForLog4j.java:22)-Processing primary  
items. -
```

Implementation scenarios



CMDExcelMapper and CMDValidatorTL

Components can be combined together to support a complex process



Other components

**Instance
Pruner**



**Instance
Generator**



InstancePruner – Description

Main feature description

InstancePruner is a utility for pruning the content of XBRL instance according to user-defined criteria. It **selects** and **extracts** the **subset of facts** through filling indicators mechanism available in the taxonomy.

The component allows to **create truncated version** of the original XBRL instance which contains only facts of particular interest for the end user.

Example: if a report **contains 50 tables** but end user is **interested in 10** of them **only**, then **InstancePruner** can be used to create shorter version of this instance document.

Application scope:

- **Truncates** original instance document to the selected subset of facts associated with particular tables/templates
- **Facilitates** Level 2 regulatory reporting process in EU i.e. NCA-to-ESA, e.g. Central Bank-to-EBA or NCA-to-EIOPA

Requirements:

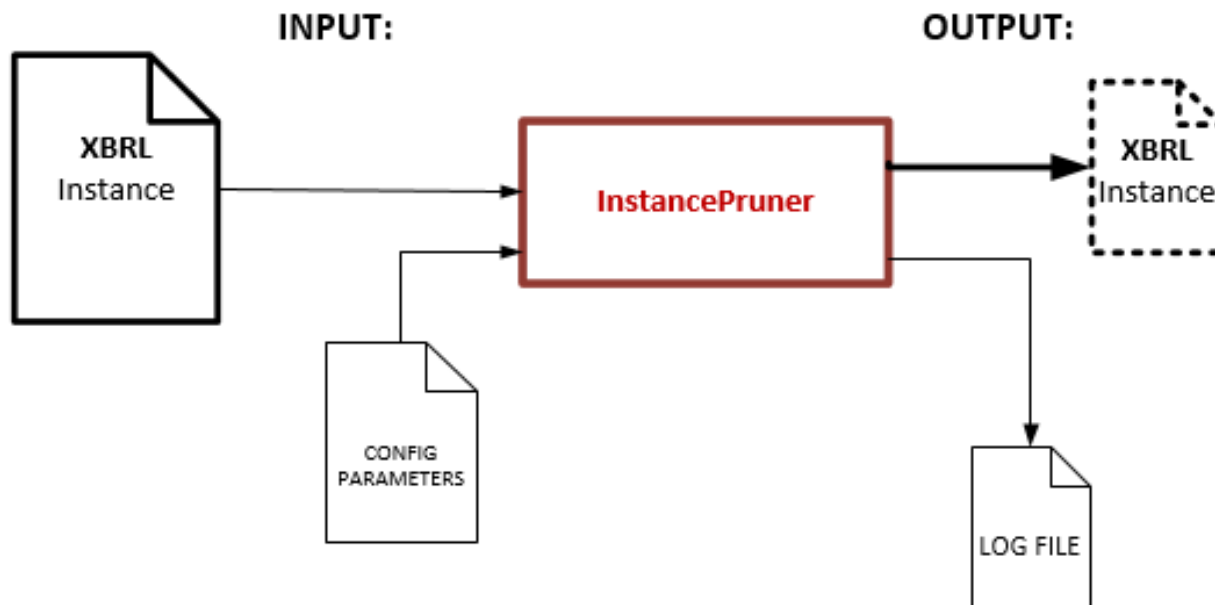
- **InstancePruner** works with taxonomies using **Filling Indicators** and the **Table Linkbase layer** compliant with **Eurofiling Architecture principles** e.g. to EBA's and EIOPA's taxonomies (COREP, FINREP, SOLVENCY II)

Other considerations:

- **Extensive set of parameters** provides full control over the process
- **InstancePruner API** is available and can be integrated in any customer's custom system

InstancePruner

Processing workflow



- **reuse** filer's original instance in preparation of its new truncated version with subset of reported data and **share** it with other supervisory agencies*
- **build** and **automate** administration-to-administration (A2A) processes
- **integrate** to current disclosure systems
- **no intermediate formats** used

*e.g. instances for Level 2 regulatory reporting in EU can be created directly from instances submitted according to Level 1 reporting requirements.

InstancePruner – Input/Output

Screenshots

Original version of instance document

```
(...)  
<xbrli:context id="cfilling_indicators">  
  <xbrli:entity><xbrli:identifier scheme="http://standards.iso.org/iso/17442:2012"  
    <xbrli:period><xbrli:instant>2014-02-17</xbrli:instant></xbrli:period>  
  </xbrli:entity>  
</xbrli:context>  
<xbrli:unit id="EUR"><xbrli:measure>iso4217:EUR</xbrli:measure></xbrli:unit>  
<eba_met:ei4 contextRef="c0">eba_AS:x1</eba_met:ei4>  
<eba_met:ei207 contextRef="c0">eba_SC:x7</eba_met:ei207>  
<eba_met:md103 contextRef="c1" decimals="3" unitRef="EUR">31038.224</eba_met:md103>  
<eba_met:md103 contextRef="c2" decimals="0" unitRef="EUR">1002.0</eba_met:md103>  
<eba_met:md103 contextRef="c3" decimals="0" unitRef="EUR">2002.0</eba_met:md103>  
<eba_met:md103 contextRef="c4" decimals="0" unitRef="EUR">2102.0</eba_met:md103>  
<eba_met:md103 contextRef="c5" decimals="0" unitRef="EUR">4002.0</eba_met:md103>  
<eba_met:md103 contextRef="c6" decimals="0" unitRef="EUR">4102.0</eba_met:md103>  
<eba_met:md103 contextRef="c2" decimals="0" unitRef="EUR">1002.0</eba_met:md103>  
<eba_met:mi53 contextRef="c7" decimals="1" unitRef="EUR">10020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c8" decimals="1" unitRef="EUR">20020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c9" decimals="1" unitRef="EUR">30020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c10" decimals="1" unitRef="EUR">40020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c11" decimals="1" unitRef="EUR">50020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c12" decimals="1" unitRef="EUR">60020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c13" decimals="2" unitRef="EUR">590020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c14" decimals="2" unitRef="EUR">690020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c15" decimals="4" unitRef="EUR">6010.7278</eba_met:mi53>  
<eba_met:mi53 contextRef="c16" decimals="2" unitRef="EUR">800020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c17" decimals="2" unitRef="EUR">900020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c18" decimals="2" unitRef="EUR">4020.05</eba_met:mi53>  
<eba_met:mi170 contextRef="c19" decimals="2" unitRef="EUR">1040.01</eba_met:mi170>  
<eba_met:mi53 contextRef="c20" decimals="2" unitRef="EUR">140.01</eba_met:mi53>
```

Input

InstancePruner

Output

New version of instance document

```
(...)  
<xbrli:context id="cfilling_indicators">  
  <xbrli:entity><xbrli:identifier scheme="http://standards.iso.org/iso/17442:2012"  
    <xbrli:period><xbrli:instant>2014-02-17</xbrli:instant></xbrli:period>  
  </xbrli:entity>  
</xbrli:context>  
<xbrli:unit id="EUR"><xbrli:measure>iso4217:EUR</xbrli:measure></xbrli:unit>  
<eba_met:ei4 contextRef="c0">eba_AS:x1</eba_met:ei4>  
<eba_met:ei207 contextRef="c0">eba_SC:x7</eba_met:ei207>  
<eba_met:md103 contextRef="c1" decimals="3" unitRef="EUR">31038.224</eba_met:md103>  
<eba_met:md103 contextRef="c2" decimals="0" unitRef="EUR">1002.0</eba_met:md103>  
<eba_met:md103 contextRef="c3" decimals="0" unitRef="EUR">2002.0</eba_met:md103>  
<eba_met:md103 contextRef="c4" decimals="0" unitRef="EUR">2102.0</eba_met:md103>  
<eba_met:md103 contextRef="c5" decimals="0" unitRef="EUR">4002.0</eba_met:md103>  
<eba_met:md103 contextRef="c6" decimals="0" unitRef="EUR">4102.0</eba_met:md103>  
<eba_met:md103 contextRef="c5" decimals="0" unitRef="EUR">4002.0</eba_met:md103>  
<eba_met:md103 contextRef="c6" decimals="0" unitRef="EUR">4102.0</eba_met:md103>  
<eba_met:md103 contextRef="c6" decimals="0" unitRef="EUR">4102.0</eba_met:md103>
```



```
<eba_met:md103 contextRef="c2" decimals="0" unitRef="EUR">1002.0</eba_met:md103>  
<eba_met:mi53 contextRef="c7" decimals="1" unitRef="EUR">10020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c8" decimals="1" unitRef="EUR">20020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c9" decimals="1" unitRef="EUR">30020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c10" decimals="1" unitRef="EUR">40020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c11" decimals="1" unitRef="EUR">50020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c12" decimals="1" unitRef="EUR">60020.4</eba_met:mi53>  
<eba_met:mi53 contextRef="c13" decimals="2" unitRef="EUR">590020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c14" decimals="2" unitRef="EUR">690020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c15" decimals="4" unitRef="EUR">6010.7278</eba_met:mi53>  
<eba_met:mi53 contextRef="c16" decimals="2" unitRef="EUR">800020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c17" decimals="2" unitRef="EUR">900020.05</eba_met:mi53>  
<eba_met:mi53 contextRef="c18" decimals="2" unitRef="EUR">4020.05</eba_met:mi53>  
<eba_met:mi170 contextRef="c19" decimals="2" unitRef="EUR">1040.01</eba_met:mi170>  
<eba_met:mi53 contextRef="c20" decimals="2" unitRef="EUR">140.01</eba_met:mi53>
```

Truncated part of
instance document

- **truncates** original instance document
- **discovers** and **extracts** filing indicators directly from taxonomy entry points or user settings
- **clears** unused units and namespaces after pruning

- **eliminates** complex data transformation processes
- **enables** easy and straightforward implementation

InstanceGenerator – Description

Main feature description

InstanceGenerator is a utility for generating sample skeleton instances that can be used at various stages of the development of XBRL-enabled system (e.g. design, performance testing)

The utility enables generating an instance with facts for a **single table**, for **multiple** or **all tables** of **various sizes**, from simple instances (to test functional requirements' implementation) to large instances (to test complex implementations and estimate the performance of a solution).

Application scope:

- **Creates** a 100% XBRL syntax-valid instance document with random data based on an entry point and selected tables
- **Analyses internal structure** of tables defined in an entry point and prints out statistics

Requirements:

- **InstanceGenerator** works with taxonomies having the **Table Linkbase layer** compliant with Eurofiling Architecture principles e.g. to EBA's and EIOPA's taxonomies (COREP, FINREP, SOLVENCY II)

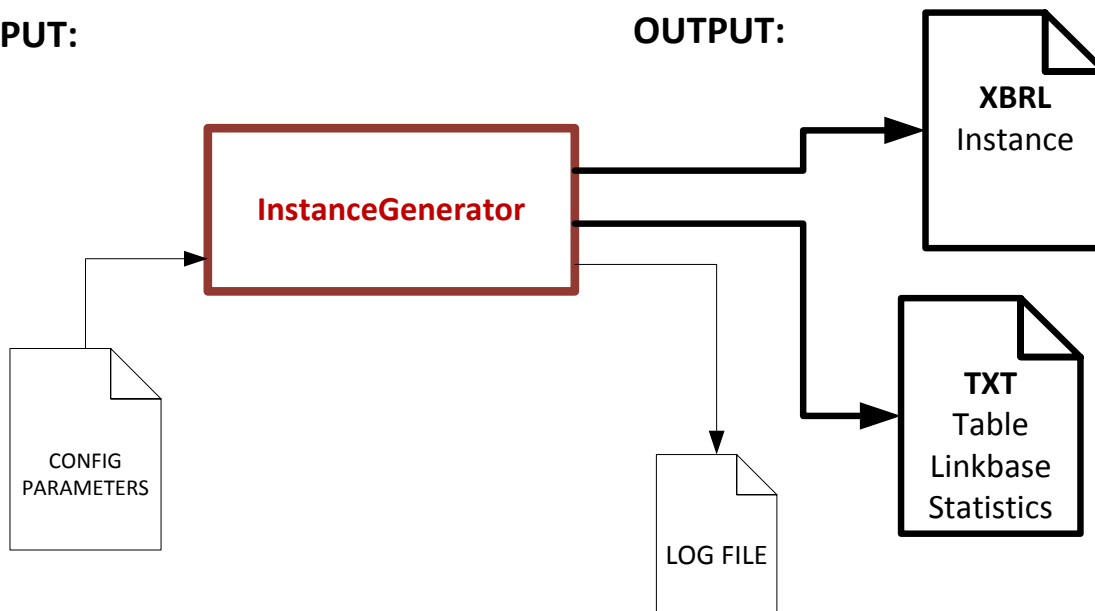
Other considerations:

- **GUI** provides for a friendly and intuitive interface
- **Extensive set of parameters** provides full control over the generation process
- Generation **session configuration** can be saved to a file and then loaded in the future

InstanceGenerator

Processing workflow

INPUT:



OUTPUT:

- **generate** perfectly valid large XBRL instances
- **load** to your current DB
- **test** system performance
- **test** ETL processes
- **analyze** internal structure of tables

InstanceGenerator – Configuration



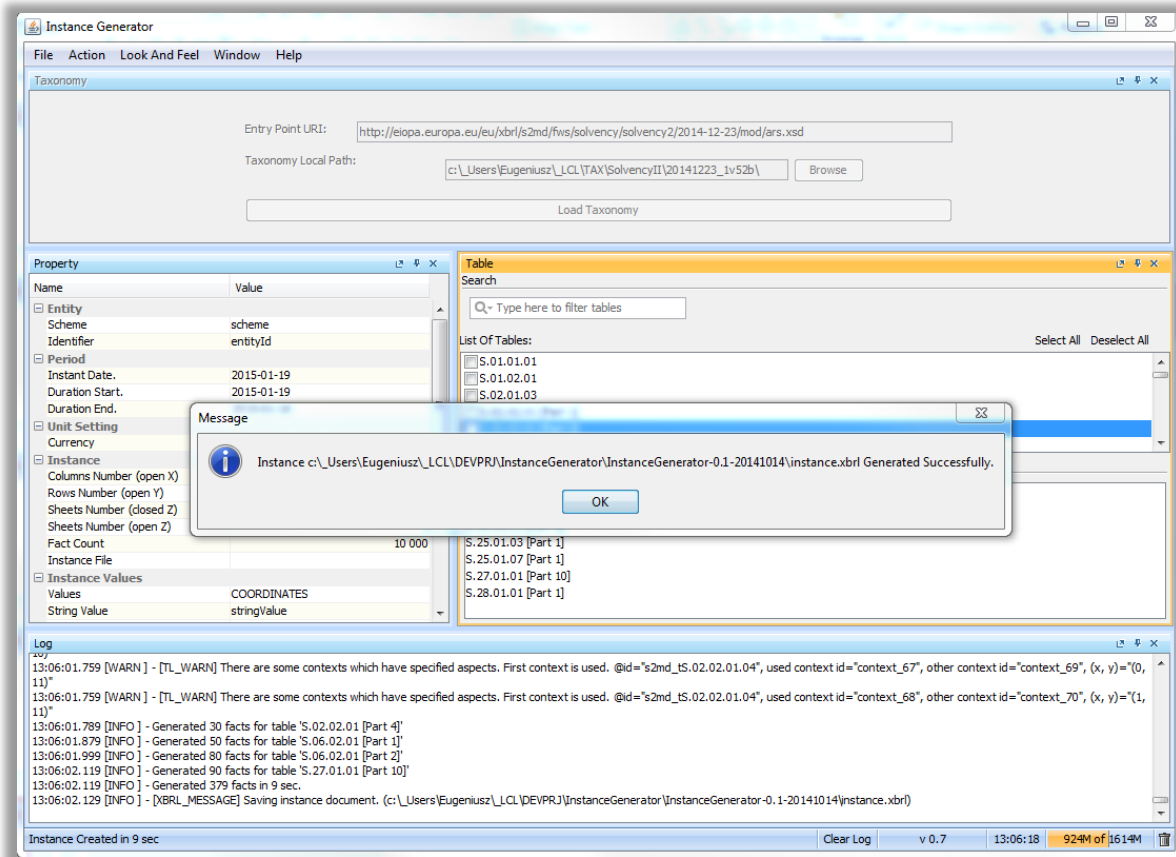
Available configuration options

INSTANCE GENERATOR
Powered by FUJITSU Interstage XWand

Option	definition
Scheme, Identifier, Instant Date, Duration Start, Duration End	Values to be filled in as Entity and Period information in each context
Currency	Value of Unit
Columns Number (open X)	Number of columns to be generated for each table with open X-axis
Rows Number (open Y)	Number of rows to be generated for each table with open Y-axis (typed or explicit-open)
Sheets Number (closed Z)	Number of sheets to be generated for each table with a closed Z-axis (where Z-axis members are named or from an explicit domain)
Sheets Number (open Z)	Number of sheets to be generated for each table with an open Z-axis (typed or explicit-open)
Fact count	Maximum fact count after which generation stops.
Value	Value to be provided for each fact of a specific data type (String, Numeric, Date, Boolean) either fixed or generated based on column, row coordinates
Decimals	Value of decimals attribute of each fact by data type (Monetary, Shares, Percentage etc.)
Filing Indicators	Selected (tables), All, None

InstanceGenerator – UI

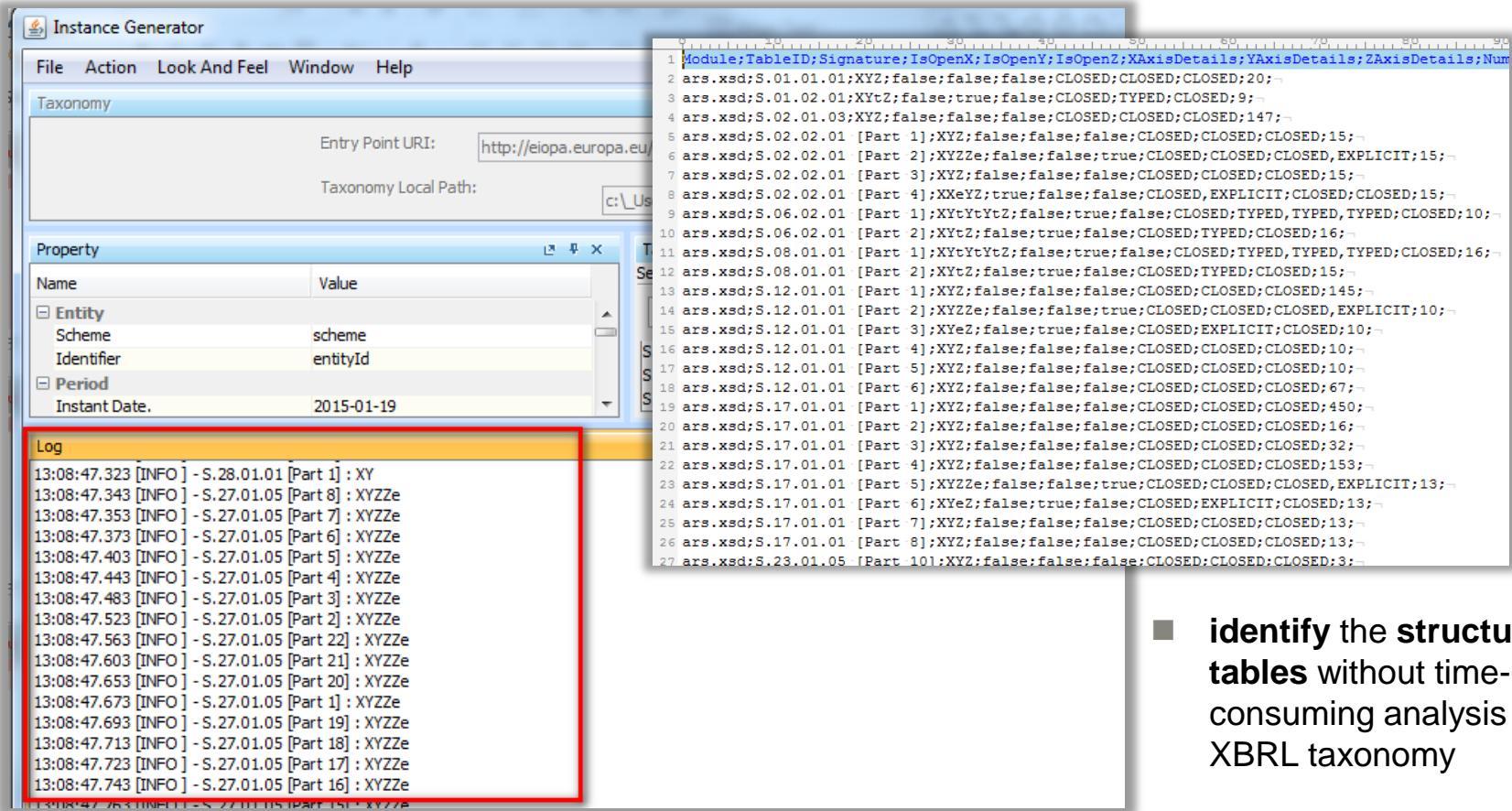
Screenshots – main screen



- **select tables** for which facts will be created
- **indicate number of sheets to be filled** in for tables with Z-axis and number of rows to be generated for tables with open Y-axis
- **define generated values output in a flexible way** for various data types

InstanceGenerator – Statistics

Screenshots – table linkbase statistics of a module



The screenshot displays the Instance Generator application interface. The main window shows a 'Property' table with columns 'Name' and 'Value'. The 'Entity' section lists 'Scheme' as 'scheme' and 'Identifier' as 'entityId'. The 'Period' section lists 'Instant Date' as '2015-01-19'. A 'Log' window at the bottom shows a list of log entries with timestamps and details. A separate window on the right displays a list of table linkbase statistics for various modules, including 'ars.xsd' and 'S.01.01.01'.

Module	TableID	Signature	IsOpenX	IsOpenY	IsOpenZ	XAxisDetails	YAxisDetails	ZAxisDetails	Num			
ars.xsd	S.01.01.01	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	20			
ars.xsd	S.01.02.01	XYtZ	false	true	false	CLOSED	TYPED	CLOSED	9			
ars.xsd	S.02.01.03	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	147			
ars.xsd	S.02.02.01	[Part 1]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	15		
ars.xsd	S.02.02.01	[Part 2]	XYZ	false	false	true	CLOSED	CLOSED	CLOSED	EXPLICIT	15	
ars.xsd	S.02.02.01	[Part 3]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	15		
ars.xsd	S.02.02.01	[Part 4]	XXeYZ	true	false	false	CLOSED	EXPLICIT	CLOSED	CLOSED	15	
ars.xsd	S.06.02.01	[Part 1]	XYtYtZ	false	true	false	CLOSED	TYPED	TYPED	TYPED	CLOSED	10
ars.xsd	S.06.02.01	[Part 2]	XYtZ	false	true	false	CLOSED	TYPED	CLOSED	16		
ars.xsd	S.08.01.01	[Part 1]	XYtYtZ	false	true	false	CLOSED	TYPED	TYPED	TYPED	CLOSED	16
ars.xsd	S.08.01.01	[Part 2]	XYtZ	false	true	false	CLOSED	TYPED	CLOSED	15		
ars.xsd	S.12.01.01	[Part 1]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	145		
ars.xsd	S.12.01.01	[Part 2]	XYZ	false	false	true	CLOSED	CLOSED	CLOSED	EXPLICIT	10	
ars.xsd	S.12.01.01	[Part 3]	XVeZ	true	false	false	CLOSED	EXPLICIT	CLOSED	10		
ars.xsd	S.12.01.01	[Part 4]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	10		
ars.xsd	S.12.01.01	[Part 5]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	10		
ars.xsd	S.12.01.01	[Part 6]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	67		
ars.xsd	S.17.01.01	[Part 1]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	450		
ars.xsd	S.17.01.01	[Part 2]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	16		
ars.xsd	S.17.01.01	[Part 3]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	32		
ars.xsd	S.17.01.01	[Part 4]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	153		
ars.xsd	S.17.01.01	[Part 5]	XYZ	false	false	true	CLOSED	CLOSED	CLOSED	EXPLICIT	13	
ars.xsd	S.17.01.01	[Part 6]	XVeZ	true	false	false	CLOSED	EXPLICIT	CLOSED	13		
ars.xsd	S.17.01.01	[Part 7]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	13		
ars.xsd	S.17.01.01	[Part 8]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	13		
ars.xsd	S.23.01.05	[Part 10]	XYZ	false	false	false	CLOSED	CLOSED	CLOSED	3		

- identify the structure of tables without time-consuming analysis of the XBRL taxonomy

InstanceGenerator – Logs

Screenshots – Processing log



```
[INFO] [XBRL_MESSAGE] Processing dimensions.
[INFO] [XBRL_MESSAGE] Processing hypercubes.
[INFO] [XBRL_MESSAGE] Processing primary items.
[INFO] [XBRL_MESSAGE] Processing instance document.
[ERROR] [TL_ERROR] There is no XPath expression result. @id="var_refPeriodEndDate", expression="max(/xbrli:period/(xbrli:instant | xbrli:endDate))"
[ERROR] [TL_ERROR] There is no XPath expression result. @id="var_refPeriodStartDate", expression="if (exists(/xbrli:period/xbrli:startDate)) then
max(/xbrli:period/xbrli:startDate) else max(/xbrli:period/xbrli:instant)"
[INFO] Filling instance...
[INFO] Calculating instance size...
[INFO] [XBRL_MESSAGE] Saving instance document. (c:\_Users\Eugeniusz\LCL\DEVPRJ\InstanceGenerator\InstanceGenerator-0.1-20141014\c1.xbrl)
[WARN] [XBRL_WARNING] The prefix 'iso4217' has been added for the namespace name 'http://www.xbrl.org/2003/iso4217'.
(c:\_Users\Eugeniusz\LCL\DEVPRJ\InstanceGenerator\InstanceGenerator-0.1-20141014\c1.xbrl)
[INFO] [XBRL_MESSAGE] Processing domain members.
[INFO] [XBRL_MESSAGE] Processing dimensions.
[INFO] [XBRL_MESSAGE] Processing hypercubes.
[INFO] [XBRL_MESSAGE] Processing primary items.
[INFO] [XBRL_MESSAGE] Processing instance document.
[ERROR] [TL_ERROR] There is no XPath expression result. @id="var_refPeriodEndDate", expression="max(/xbrli:period/(xbrli:instant | xbrli:endDate))"
[ERROR] [TL_ERROR] There is no XPath expression result. @id="var_refPeriodStartDate", expression="if (exists(/xbrli:period/xbrli:startDate)) then
max(/xbrli:period/xbrli:startDate) else max(/xbrli:period/xbrli:instant)"
[INFO] Filling instance...
[INFO] Calculating instance size...
[INFO] [XBRL_MESSAGE] Saving instance document. (c:\_Users\Eugeniusz\LCL\DEVPRJ\InstanceGenerator\InstanceGenerator-0.1-20141014\c1.xbrl)
[WARN] [XBRL_WARNING] The prefix 'iso4217' has been added for the namespace name 'http://www.xbrl.org/2003/iso4217'.
(c:\_Users\Eugeniusz\LCL\DEVPRJ\InstanceGenerator\InstanceGenerator-0.1-20141014\c1.xbrl)
[INFO] [XBRL_MESSAGE] Processing domain members.
[INFO] [XBRL_MESSAGE] Processing dimensions.
[INFO] [XBRL_MESSAGE] Processing hypercubes.
[INFO] [XBRL_MESSAGE] Processing primary items.
[INFO] [XBRL_MESSAGE] Processing instance document.
[ERROR] [TL_ERROR] There is no XPath expression result. @id="var_refPeriodEndDate", expression="max(/xbrli:period/(xbrli:instant | xbrli:endDate))"
[ERROR] [TL_ERROR] There is no XPath expression result. @id="var_refPeriodStartDate", expression="if (exists(/xbrli:period/xbrli:startDate)) then
max(/xbrli:period/xbrli:startDate) else max(/xbrli:period/xbrli:instant)"
[INFO] Filling instance...
[INFO] Calculating instance size...
[INFO] Sheet Count Exceeded 8
[INFO] [XBRL_MESSAGE] Saving instance document. (c:\_Users\Eugeniusz\LCL\DEVPRJ\InstanceGenerator\InstanceGenerator-0.1-20141014\c1.xbrl)
[WARN] [XBRL_WARNING] The prefix 'iso4217' has been added for the namespace name 'http://www.xbrl.org/2003/iso4217'.
(c:\_Users\Eugeniusz\LCL\DEVPRJ\InstanceGenerator\InstanceGenerator-0.1-20141014\c1.xbrl)
```

Detail syntax for CMD-based components

(examples for Java only)



TABLE2XBRL – CMD syntax



Command line syntax with available parameters

TABLE2XBRL

Powered by FUJITSU Interstage XWand

TABLE2XBRL [-d <path> -c <path> -t <path> -o <path> -f -fr -fd -h]

-d (-data_file) path	Path to a data file.
-c (-config_file) path	Path to a configuration file.
-t (-taxonomy_local_path) path	Local folder of a taxonomy
-o (-output_file) path	Full name of a result output file (with path).
-f (-force_save)	Forces the application to save an XBRL instance with errors.
-fr (-fi_reported)	Filing indicators will be created only for those templates, whose data is reported in a csv file.
-fd (-fi_desired)	Only data for the templates listed in the configuration file will converted to XBRL.
-h (-help)	Prints this screen

XBRL2TL – CMD syntax

Command line syntax with available parameters

XBRL2TL [-d <path> -c <path> -t <path> -o <path> -h]

-d (-data_file) path	Path to an XBRL instance.
-c (-config_file) path	Path to a configuration file (same as used by TABLE2XBRL)
-t (-taxonomy_local_path)	Local folder of a taxonomy
-o (-output_file) path	Full name of result output file (path).
-h (-help)	Prints this screen.

CMDExcelMapper – CMD syntax



Command line syntax with available parameters

COMMAND LINE EXCEL-to-XBRL MAPPER

Powered by FUJITSU Interstage XWand

```
java -jar CMDExcelMapper.jar  
      -m <mapping file> -e <excel file> -t <template instance>  
      -u <urimapping> [-v] [-o <output file name>]
```

Parameters:

- m,--mapping <mapping file> [R]** Indicates mapping file to load. Required.
- e,--excel <excel file> [R]** Indicates Excel file to convert. Required.
- t,--template <template instance> [R]** Indicates template instance file to load. Required.
- u,--urimapping <urimapping> [R]** Indicates an URI mapping file. Required.
- v,--verbose** Includes additional progress information on console.
- o,--output <output file name>** Indicates file name of output instance.

CMDValidatorTL – CMD syntax

Command line syntax with available parameters

```
java -jar xwandvalidator.jar
```

```
-u <urimapping> -i <instance> [-d <appdir>] [-rm] [-c]  
[-o <output directory>] [-m <maximum no. errors>] [-fd]  
[-ea <assertion file>] [-fe] [-of <output file name>] [-v]  
[-ee <efr rules file>] [-t <no. threads>] [-s <external CSS>]  
[-r <renderer type [html|xlsx|xml|txt]>] [-es <assertion set file>] [-x]
```

-u,--urimapping <urimapping>

Indicates an URI mapping file. Required.

-i,--instance <instance>

Indicates an instance document to be processed. Required.

-d,--appdir <appdir>

Indicates installation folder of the tool.

-rm,--replaceMembersWithLabels

Render human-readable labels instead dimension members

-c,--coordinates

Use technical coordinates of cells instead of variables.

-o,--outputDir <output directory>

Indicates output directory for results.

-m,--maxErrors <maximum no. errors>

Validation errors threshold - validation will be interrupted if exceeded.

-fd,--forceDimensionErrors

Continue processing in case of Dimension failures.

-ea,--excludeAssertion <assertion file>

Indicates list of Assertion IDs to be excluded.

-fe,--forceEFRErrors

Continue processing in case of EFR failures.

-of,--outputFile <output file name>

Indicates output file name for rendering/validation results.

-v,--verbose

Includes additional progress information on console.

-ee,--excludeEFRRule <efr rules file>

Indicates list of EFR rules IDs to be excluded (comma-separated).

-t,--threads <no. threads>

Number of threads to be used for validation.

-s,--externalCss <external CSS>

Path to external CSS file (HTML renderer only).

-r,--renderer <renderer type [html|xlsx|xml|txt]>

Indicates type of renderer to be used.

-es,--excludeAssertionSet <assertion set file>

Indicates list of Assertion Set IDs to be excluded.

-x,--completeOpenAxes

Enable generation of all members of open axes (even if some have no data).

CMDRendererTL – CMD syntax



Command line syntax with available parameters

COMMAND LINE RENDERER

Powered by FUJITSU Interstage XWand

```
java -jar xwandrenderer.jar
```

```
-i <instance> -r <renderer type [html|xlsx]> -u <urimapping>  
[-f] [-of <output file name>] [-v] [-d <appdir>] [-e <external CSS>]  
[-rm] [-c] [-o <output directory>] [-ti] [-x]
```

-i,--instance <instance>

Indicates an instance document to be processed. Required.

-r,--renderer <renderer type [html|xlsx]>

Indicates which type of renderer will be used (HTML by default). Required.

-u,--urimapping <urimapping>

Indicates an URI mapping file. Required.

-f,--fIndicators

Lists all filing indicators present in an instance file.

-of,--outputFile <output file name>

Indicates output file name for rendering/validation results.

-v,--verbose

Includes additional progress information on console.

-d,--appdir <appdir>

Indicates installation folder of the tool.

-e,--externalCss <external CSS>

Path to external CSS file (HTML renderer only).

-rm,--replaceMembersWithLabels

Render human-readable labels instead dimension members

-c,--coordinates

Use technical coordinates of cells instead of variables.

-o,--outputDir <output directory>

Indicates output directory for results.

-ti,--tableInfo

Lists all tables rendered (referenced by an entry point).

-x,--completeOpenAxes

Enable generation of all members of open axes (even if some have no data).

InstancePruner – CMD syntax



Command line syntax with available parameters

InstancePruner

Powered by FUJITSU Interstage XWand

*InstancePruner

```
java -jar instancepruner.jar
      -i <inputFile> -o <outputFile> -fi <filingIndicators> -u <uriMappingFile>
      [-p <mappingFilesPath>] [-m <entryPointName>]
```

Parameters:

- i,--inputFile <inputFile> [R]** Input XBRL instance file name (entire path). Required.
- o,--outputFile <outputFile> [R]** Output XBRL instance file name (entire path). Required.
- fi,--filingIndicators <filingIndicators> [R]** Filing indicators (semicolon-separated list). Required.
- u,--uriMappingFilePath <uriMappingFile> [R]** URI mapping file name (entire path). Required.
- p,--mappingFilesFolderPath <mappingFilesPath>** Mapping files local path.
- m,--entryPointName <entryPointName>** Entry point name.

*FilingIndicatorsExtractor

```
java -jar filingindicatorsextractor.jar
      -m <entryPointName> [-p <mappingFilesPath>]
```

Parameters:

- m,--entryPointName <entryPointName> [R]** Entry point name. Required.
- p,--mappingFilesFolderPath <mappingFilesPath>** Mapping files local path

For more information please contact



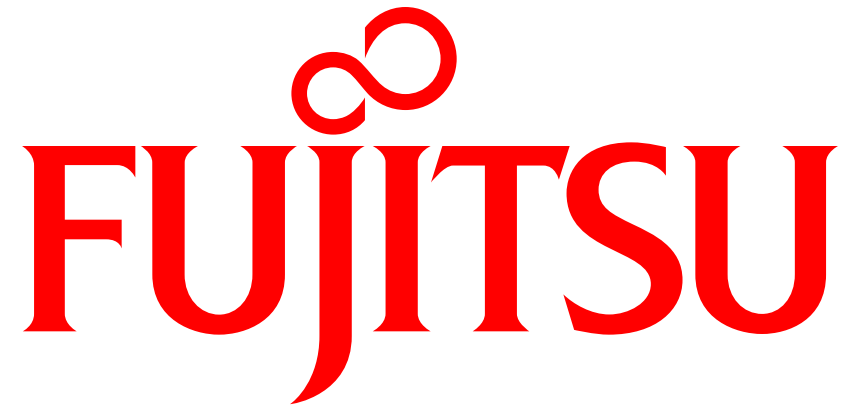
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