Pacioli Experiment (Logical Import Format)

Information from Excel files can be imported into Pacioli which will turn the Excel based logical information into XBRL, the report is uploaded to a repository, and then enable the user to verify the report located in the repository using Pacioli per the full constraints of the Seattle Method¹. To do this:

Go to the **Pacioli Report Importer** page:

https://pacioli.auditchain.finance/reportImporter2

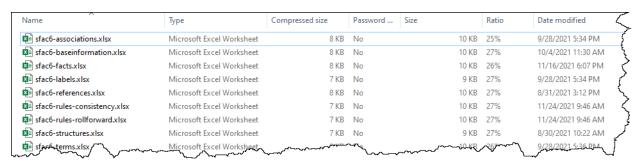
Upload a Report (no_session)

Please provide files with names ending in BaseInformation.csv (mandatory), Terms.csv, Labels.csv, Structures.csv, Associations.csv, Rules.csv, Contexts.csv, Units.csv and Facts.csv... or a zip file.



Either create the Excel files you desire to import or you can use this set of examples files which can be downloaded here:

http://xbrlsite.azurewebsites.net/2021/luca/sfac6-import.zip



Unzip the file. Drag and drop each file individually, all the files at once, or you can even simply upload the single ZIP file, that will work also.

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¹ Seattle Method, http://xbrlsite.com/seattlemethod/

After the files have been uploaded, check the "I am a human" checkbox and then press the Import button:



Once the processing is completed, a Pacioli validation results page will be generated (see the example below).

https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/index.html

On the main page of the validation results, a link to an XBRL instance will be shown. That XBRL instance is the report and is linked to the report model for the report which has been placed on the Pacioli web site. You can click on the link or copy the link:



Four files are created per the import: instance.xml, reports.xsd, linbases.xml, formulas.xml

https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/instance.xml

https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/report.xsd

https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/linkbases.xml

https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/formulas.xml

Use the link for the XBRL instance which was generated above in the Pacioli Power User Tool and you can now verify that XBRL-based report in consistent with the rules specified for the report including:

SFAC6

- 1. XBRL technical syntax rules.
- 2. Model structure rules (XBRL presentation relations logic which is not verified by XBRL syntax rules).
- 3. Fundamental accounting concept relations (accounting relations not verified by XBRL syntax rules).
- 4. Disclosure mechanics rules (logical relations not verified by XBRL syntax rules).
- 5. Reporting checklist rules (logical reportability rules not verified by XBRL syntax rules).
- 6. Type-subtype rules (logically permitted type-subtype or also known as wider-narrower rules or general-special relations rules).
- 7. Manual verification of logic not enforced by machine-readable rules or for which machine-readable rules have not been made available.

These rules can be verified individually or together as a set. All rules are made available in the XBRL technical syntax. All XBRL-based rules can be found here:

http://xbrlsite.azurewebsites.net/2020/intermediate/sfac6/sfac6 ModelStructure.html

sfac6
Entry Point (Associations) | Terms | Structures | Rules | Type-subtype | Disclosures | Dislosure Rules (Reporting Checklist) Download all

#	Report Element Label	Report Element Category	Period Type	Balance Type	Report Element Name
1	01-Balance Sheet	Network			http://www.xbrlsite.com/sfac6/role/BalanceSheet
2	Balance Sheet [Hypercube]	Hypercube			sfac6:BalanceSheetHypercube
3	Balance Sheet [Line Items]	LineItems			sfac6:BalanceSheetLineItems
4	Balance Sheet [Arithmetic]	Abstract			sfac6:BalanceSheetArithmetic
5	Assets	Concept (Monetary)	As Of	Debit	sfac6:Assets
6	Liabilities	Concept (Monetary)	As Of	Credit	sfac6:Liabilities
7	Equity	Concept (Monetary)	As Of		sfac6:Equity
8	02-Comprehensive Income	Network			http://www.xbrlsite.com/sfac6/role/ComprehensiveIncome
9	Comprehensive Income Statement [Hypercube]	Hypercube			sfac6:ComprehensiveIncomeStatementHypercube
10	Comprehensive Income Statement [Line Items]	LineItems			sfac6:ComprehensiveIncomeStatementLineItems
11	Comprehensive Income [Roll Up]	Abstract			sfac6:ComprehensiveIncomeRollUp
12	Revenues	Concept (Monetary)			sfac6:Revenues
13	(Expenses)	Concept (Monetary)	For Period	Debit	sfac6:Expenses
14	Gains	Concept (Monetary)		Credit	sfac6:Gains
15	(Losses)	Concept (Monetary)		Debit	sfac6:Losses
16	Comprehensive Income	Concept (Monetary)	For Period		sfac6:ComprehensiveIncome
17	03-Changes in Equity	Network			http://www.xbrlsite.com/sfac6/role/ChangesInEquity
18	Changes in Equity [Hypercube]	Hypercube			sfac6:ChangesInEquityHypercube
19	Changes in Equity [Line Items]	LineItems			sfac6:ChangesInEquityLineItems
20	Changes in Equity [Roll Forward]	Abstract			sfac6:ChangesInEquityRollForward
21	Equity, Beginning Balance	Concept (Monetary)	As Of	Credit	sfac6:Equity
22	Comprehensive Income	Concept (Monetary)	For Period		sfac6:ComprehensiveIncome
23	Investments by Owners	Concept (Monetary)	For Period		sfac6:InvestmentsByOwners
24	(Distributions to Owners)	Concept (Monetary)			sfac6:DistributionsToOwners
25	Equity, Ending Balance	Concept (Monetary)	As Of	Credit	sfac6:Equity

Get to the Pacioli Power User Tool here:

https://pacioli.auditchain.finance/tools/PowerUserTool.swinb

Copy and then past the script below into the Pacioli Power User Tool:

% SFAC6 Everything, Load Dynamically OK % checkReport3("https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685 d244a0.report/instance.xml", ['http://xbrlsite.azurewebsites.net/2020/intermediate/sfac6/dm.xsd', 'http://xbrlsite.azurewebsites.net/2020/intermediate/sfac6/dr-rules-def.xml','http://xbrlsite.azurewebsites.net/2020/intermediate/sfac6/typeSubtype-rules-def.xml',

'http://xbrlsite.azurewebsites.net/2016/conceptual-model/model-structure-rules-strict-def.xml'],

You should see something that looks like the following:

[newRulesFormat, cacheValidity(0)], Result).

```
### SFAC6 Everything, Load DynamicalLy OK %

| checkReport3 ("https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/instance.xml",
| http://www.xbrlsite.com/seattlemethod/sfac6/type-subtype.xsd',
| http://www.xbrlsite.com/seattlemethod/sfac6/disclosure-mechanics/disclosure-mechanics.xsd',
| http://www.xbrlsite.com/seattlemethod/sfac6/reporting-checklist/reporting-checklist-rules-def.xml',
| http://www.xbrlsite.com/seattlemethod/sfac6/model-structure/ModelStructure-rules-strict-def.xml'], [newRulesFormat, cacheValidity(0)], Result).
```

Press the blue run button next to where you pasted in the script to validate the XBRL-based report and a verification results page will be generated:

 $\frac{https://pacioli.auditchain.finance/reportAnalysis/1fa11991d8f30495119a5a8afcb0dc49ff7d8e7d.report/index.html$

Note that the errors reported are, in fact, actual inconsistencies between the imported report and the expected report. Both issues related to the balance sheet.

Generated by Pacioli version 07164ba (updated 75 minutes ago). Analysis at 2021-12-16T2247:52+0000 for perfectmile@gmail.com. This page will remain online at https://pacioli.aud



Report

Submitted: https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/instance.xml 0x4ade1df741fe1b82bc5b5b43f115d8706f16c
This result took about 18.0 seconds and is temporarily online at https://pacioli.auditchain.finance/reportAnalysis/77c37ac362dd650f189d38994ec323155275a7f3.report.zip; after expanding the zip archive, o
Abridged JSON trace here, more JSON data maybe here.

For more information: http://accounting.auditchain.finance/index.html

DISCLAIMER: this analysis is provided by software still under development, and likely incomplete or even erroneous; do NOT use it other than for experimental, inconsequential purposes

User Alterations

Options: (newRulesFormat,cacheValidity(0))

Additional linkbases and schemas:

[http://xbrlsite.azurewebsites.net/2020/intermediate/sfac6/dm.xsd,http://xbrlsite.azurewebsites.net/2020/intermediate/sfac6/dr.
rules-def.xml.http://xbrlsite.azurewebsites.net/2020/intermediate/sfac6/typeSubtype-rulesdef.xml.http://xbrlsite.azurewebsites.net/2016/conceptual-model/model-structure-rules-strict-def.xml]

Table of Contents

Г		TERMS					
Г		Mappings					
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Г		Type-subtype graph					
Г		Type-subtype table					
Г		Model Structure Validation					
1	01-Balance Sheet	Structures	Facts	Pivots			
2	03-Comprehensive Income	Structures	Facts	Pivats			
3	07-Changes in Equity	Structures	Facts	Pivots			
4	Disclosures	Structures	Facts	Pivots			
Γ		Graph of reasoning					
Г		Blocks					
Г		Blocks Graph					
Г		Calculations					
	All Rules	Value Assertions Disclosure Mechanics rules					
L			Report Checklist Rules				
		Messages					

Messages

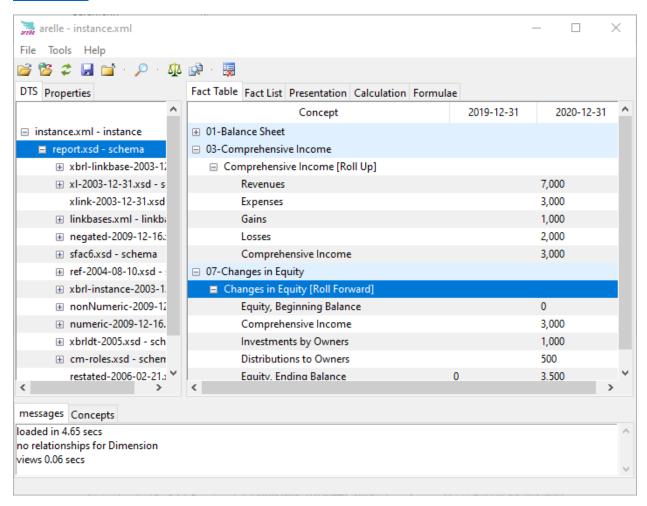
NONE.

For more information: http://accounting.auditchain.finance/index.html

DISCLAIMER: this analysis is provided by software still under development, and likely incomplete or even erroneous; do NOT use it other than for experimental, inconsequential purposes

You can open the XBRL instance using Arelle: (Arelle is free open source and can be downloaded from, https://arelle.org/arelle/)

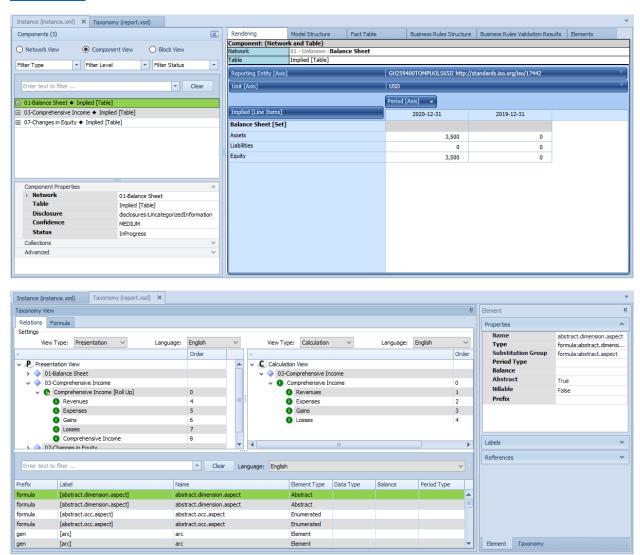
https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/instance.xml



Note that Arelle does not support processing of Seattle Method rules but can read all of those XBRL-based rules.

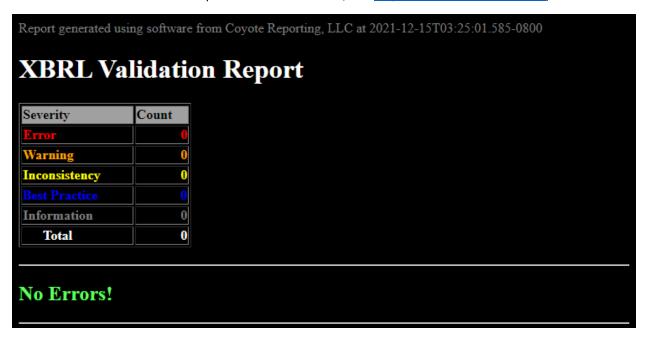
The XBRL instance can be opened using Pesseract: (Pesseract can be downloaded and used for noncommercial use for free, http://pesseract.azurewebsites.net/)

 $\frac{https://pacioli.auditchain.finance/reportAnalysis/39583fe3732f4cabb39d59ffff75ee7685d244a0.report/instance.xml$



Note that Pesseract can also process Seattle Method logical rules and read them.

Report can be validated using XBRL Cloud XRun: (XRun is no longer a product of XBRL Cloud, alternative cloud-based solutions can be acquired from XBRL Cloud, see https://www.xbrlcloud.com/)



XBRL Cloud performs XBRL technical syntax validation and the Seattle Method for US GAAP. However, XBRL Cloud currently does not have the flexibility to report any reporting scheme that is created that uses the Seattle Method, ONLY US GAAP is supported.

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Report can be validated using UBmatrix XPE 4.0: (A free open-source version of XPE 2.5 version can be downloaded, https://sourceforge.net/projects/ubmatrix-xbrl/files/UBmatrix%20Processing%20Engine%202.5/2.500/)

Business rules:

Business Rules Results

Thu Dec 16 14:57:09 PST 2021

XBRL Processor Version:4.0.0.2125

Report name: Detailed Output

Summary

Formulas Compiled	Formula Fired	Assertions Compiled	Assertions Fired	Assertions Satisfied	Assertions Not Satisfied
0	0	3	4	4	0

Assertion Report

Value Assertions

id	satisfied	message
BS1 (evaluation 1)	satisfied	\$Assets=0 = \$Liabilities=0 + \$Equity=0
BS1 (evaluation 2)	satisfied	\$Assets=3500 = \$Liabilities=0 + \$Equity=3500
IS1 (evaluation 1)	satisfied	\$ComprehensiveIncome=3000 = \$Revenues=7000 - \$Expenses=3000 + \$Gains=1000 - \$Losses=2000
SHE1 (evaluation 1)	satisfied	\$Equity_BalanceStart=0 + \$ComprehensiveIncome=3000 + \$InvestmentsByOwners=1000 - \$DistributionsToOwners=500 = \$Equity_BalanceEnd=3500

XBRL Calculations:

UBmatrix Calculation Trace Report

Line	Concept	Weight	Balance	Decimals	Precision	Reported	Calculated	Source	Message
1 E	Extended Link [http://www.xbrlsite.com/report/role/ComprehensiveIncome]								
2 (Context context2 [2020-01-01 - 2020-12-31]								
c-equal									
3 U	Unit iso4217_USD								
u-equal									
C	Comprehensive Income		credit	INF	INF	3000	3,000	Instance	ок
R	Revenues	1.0	credit	INF		7000	7,000	Instance	
E	Expenses	-1.0	debit	INF		3000	3,000	Instance	
G	Gains	1.0	credit	INF		1000	1,000	Instance	
L	Losses	-1.0	debit	INF		2000	2,000	Instance	

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Alternatively, could us Luca to <u>manually input information to create</u> <u>report</u>:

http://luca.yaxbrl.com/

Alternatively, could us Luca API to <u>feed information into Luca to</u> <u>create report</u>:

http://luca.yaxbrl.com/

Alternatively, could us Luca to <u>import information from Excel to</u> <u>create report</u>:

http://luca.yaxbrl.com/

http://xbrlsite.azurewebsites.net/2021/luca/sfac6-import.zip