Demonstration: IPSAS Core Prototype (International Public Sector Accounting Standards)

May 1, 2019

The IPSAS Core prototype is an XBRL-based profile that was created to comprehensively test XBRL-based financial reports. The objective was to induce the maximum complexity into the smallest working financial report in order to exercise the XBRL-based taxonomy that underlies the report and what it takes to make sure that the actual XBRL-based financial reports works as expected and can be verified to be correct.

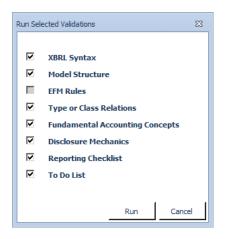
Initial view

This is the initial view when the IPSAS core prototype is loaded into Pesseract, a software application for creating XBRL-based financial reports. Pesseract is an expert system that is driven by the underlying IPSAS XBRL Taxonomy.

Components (14)	<u>स</u>	Rendering	Model Structure Fact Tab	le	Business Rules Structure	Business Rules Validation Results	Elements	
		Component: (Netw		-				
Network View 📀 🕻	Component View C Block View	Network	1110 - Statement - Statement o	f Financial I	Position, Classified			
ilter Type 👻 Filt	er Level 🔻 Filter Status 👻	Table	Statement of Financial Position, (Classified [Tal	ble]			
Посттурс		Reporting Entity [Ax	Reporting Entity [Avis] 1234567890 http://regulator.gov/id					
Enter text to filter	•	Reporting Scenario	Reporting Scenario [Axis] Actual [Member]					
1110 - Statement - Statemer	nt of Financial Position, Classified ♦ Statement of	Report Date [Axis]	Report Date [Axis] Reported as of March 18, 2020 [Member]					
Financial Posicion, Classified	[rapie]	Legal Entity [Axis]		Consol	lidated Entity [Member]		ĩ	
1160 - Statement - Classes o by Class [Table]	of Share Capital (Parenthetical) \blacklozenge Share Capital,	Unit [Axis]		USD			Ŷ	
1211 - Statement - Statemen Statement of Financial Perfo	nt of Financial Performance, by Function 🔶 rmance, by Function [Table]			Period	[Axis] 🔻			
	Deficit) Breakdown by Controlling and enthetical) ♦ Surplus (Deficit) Breakdown [Table]	<u></u>	ial Position, Classified [Line Items]		2020-12-31	2019-12-31	2018-12-31	
1290 - Statement - Statemer	nt of Financial Performance, Comparison of	Assets [Roll Up]						
Budgeted and Actual Amoun Comparison of Bugeted and	ts Statement of Financial Performance,	Current Assets [Re	oll Up]					
1 2	in Equity, Prior Period Adjustments	Cash and Cash Equiv	valents		1,000 1	1,000		
of Changes in Equity, Prior P		Receivables, Net, Cu	rrent		1,000 1	1,000		
1400 - Statement - Changes	in Equity 🔶 Statement of Changes in Equity	Inventory			1,000	1,000		
	w Statement, Direct Method 🔶 Cash Flow	Prepaid Expenses			500	500		
Statement, Direct Method [T	ablej , Plant and Equipment, Net Subclassifications ◆	Investments, at Cost			500	500		
Property, Plant and Equipme	nt, Net, Subclassifications [Table]	Other Current Assets			1,000	1,000		
	Plant, and Equipment, Net Subclassifications	Current Assets, Total		Fotal	5,000	5,000		
	ant and Equipment Components [Table]	Noncurrent Assets	s [Roll Up]					
2230 - Disclosure - Property, Property, Plant and Equipme	, Plant, and Equipment Reconciliations 🔶 nt Reconciliations [Table]	Property, Plant, and	Equipment, Net, Total		4,000	4,000	4,00	
	of Revenue 🔶 Sales Analysis, by Customer	Investment in Affiliat	tes		0	0		
9990 - Document - Documen	t Information 🔶 Document Information [Table]	Receivables, Net, No	ncurrent		0	0		
9995 - Document - Entity Inf	formation 🔶 Entity Information [Table]	Other Noncurrent As	sets		3,000	1,000		
			Noncurrent Assets,	Fotal	7,000	5,000		
			Assets, 1	Total	12,000	10,000		
		Liabilities and Net	Assets/Equity [Roll Up]	_	12,000	10,000		
		Liabilities [Roll Up						
6		Current Liabilities	-					
Component Properties Network	^ 1110 - Statement - Statement of Fin	Payables from Excha			3,000	3,000		
Table	Statement of Financial Position, Clas	Long-Term Debt, Cu	-		1,000	1,000		
Disclosure	disclosures:StatementOfFinancialPos	Other Current Liabilit			1,000	1,000		
Confidence	MEDIUM		Current Liabilities, "	Total				
Status	InProgress	Noncurrent Liabilities [Roll Up]			5,000	5,000		
Collections	· ·	Long-Term Debt, No						
Advanced	~				500	500		
		Other Noncurrent Lia			500	500		
			Noncurrent Liabilities,	Total	1.000	1,000		

Validate report

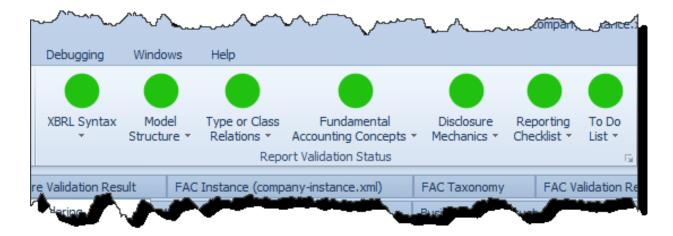
To validate the report against the XBRL-based taxonomy, a single button is pressed.



Note that EFM Rules relate to XBRL-based reports that are submitted to the SEC and are not applicable to IPSAS reports.

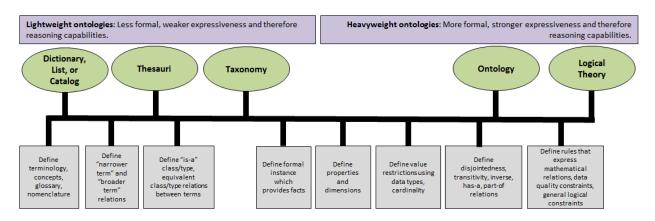
Report validation status

After the "Run" button is pressed, a few minutes pass and the following results are shown and several new documents are opened in the software application:



What happened? When the report was loaded into the software application, along with the report the XBRL-based "taxonomy" which underlies the report and is really an ontology is also loaded into the software application. The taxonomy provides machine-readable information that both describes the XBRL-based report and can be used to verify that the XBRL-based report is created correctly. To the extent that these rules exist; it is to that extent that automated validation processes can be leveraged to make sure that the report has been constructed correctly and is without logical error, mathematical error, consistency error, mechanical error, etc. Any detail of the report that cannot be checked using such automated processes must be checked using human-based processes. Please note the ontology

spectrum diagram below which helps one understand all that must be verified to make sure the report is correctly created in every detail¹:



Agenda

If the agenda tab is pressed (on the right) the agenda form is opened. The agenda is completely empty. Why? The reason the agenda is empty is because all the agenda items that would be listed that must be competed have been completed and so the agenda is empty and therefore the report is deemed complete.

Home Options and Pr	eferences Tools View Knowledge Bar	se Debugging Windows Help	a state de la compe	any-instancexml) - Pesseract				
rted New Open Print	XBRL-based financial	XBRL Syntax Model Type or Class Fundar Structure Relations Accounting I Report Validation	Concepts * Mechanics * Checklist	 List * Properties * Tax 			Agenda	
				ra Propertie				
stance (company-instance.xm) × Taxonomy (company.xsd) Model St	ructure Validation Result FAC Instance (company-instance)	xml) FAC Taxonomy FAC	C Validation Result Disclosur	e Mechanics Taxonomy Disclosure I	Mechanics V Agenda		
imponents (14)	a.		Business Rules Structure	Business Rules Validation Result	s Elements	Enter text to filter		
Network View C	omponent View 🜔 Block View	Component: (Network and Table) Network 1110 - Statement -Statement of Fi						
ter Type 💌 Filte	Level - Piter Status -	Table Statement of Financial Position, Class	sified [Table]			Disdosure	Explanation	Add
in type		Reporting Entity [Axis]	1234567890 http://regulator.gov/id	d	¥.			
Enter text to filter	•	Reporting Scenario [Axis]	Actual [Member]		¥.			
1110 - Statement - Statemen	t of Financial Position, Classified	Report Date [Axis]	Reported as of March 18, 2020 [Me	ember]	Ŷ			
Financial Position, Classified [Table]	Legal Entity (Axis)	Consolidated Entity [Member]		Y			
1160 - Statement - Classes of by Class [Table]	f Share Capital (Parenthetical) 🔶 Share Capital,	Unit [Axis]	USD		Y			
	t of Financial Performance, by Function 🔶 mance, by Function [Table]		Period [Axis] -					
1240 - Statement - Surplus (D	ieficit) Breakdown by Controlling and hthetical) ◆ Surplus (Deficit) Breakdown [Table]	Statement of Financial Position, Classified [Line Items]	2020-12-31	2019-12-31	2018-12-31			
1290 - Statement - Statemen	t of Financial Performance, Comparison of	Assets [Roll Up] Current Assets [Roll Up]				î.		
		Cash and Cash Equivalents	1,000 1	1,000				
of Changes in Equity, Prior Pe	riod Adjustments [Table]	Receivables, Net, Current	1,000 1	1,000				
1400 - Statement - Changes i	n Equity Statement of Changes in Equity	Inventory	1,000	1,000				
1600 - Statement - Cash Flow Statement, Direct Method [Ta	Statement, Direct Method Cash Flow	Prepaid Expenses	500	500				
2220 - Disclosure - Property,	Plant and Equipment, Net Subclassifications 🔶	Investments, at Cost Other Current Assets	500	500				
Property, Plant and Equipmer	it, Net, Subclassifications [Table] Plant, and Equipment, Net Subclassifications	Current Assets	1,000	1,000				
		Noncurrent Assets [Roll Up]	5,000	5,000				
2230 - Disclosure - Property, Property, Plant and Equipmen	Plant, and Equipment Reconciliations	Property, Plant, and Equipment, Net, Total	4.000	4.000	4.000			
	f Revenue Sales Analysis, by Customer	Investment in Affiliates	0	0	.,			
	Information + Document Information [Table]	Receivables, Net, Noncurrent	0	0				
9995 - Document - Entity Info	rmation Entity Information [Table]	Other Noncurrent Assets	3,000	1,000				
		Noncurrent Assets, Tota	7,000	5,000				
		Assets, Tota	12,000	10,000				
		Liabilities and Net Assets/Equity [Roll Up]						
		Liabilities [Roll Up]						
Component Properties	^	Current Liabilities [Roll Up]						
Network	1110 - Statement - Statement of Fin	Payables from Exchange Transactions	3,000	3,000				
Table	Statement of Financial Position, Clas	Long-Term Debt, Current	1,000	1,000				
Disclosure Confidence	disclosures:StatementOfFinanciaiPos	Other Current Liabilities	1,000	1,000				
Status	MEDIUM InProgress	Current Liabilities, Tota	5,000	5,000				
Colections	##rogress	Noncurrent Liabilities [Roll Up]						
Advanced	· · · · · · · · · · · · · · · · · · ·	Long-Term Debt, Noncurrent	500	500				
		Other Noncurrent Liabilities	500	500				
		Noncurrent Liabilities, Tota	1,000	1,000		×		

The agenda will make more sense if we delete a couple of parts of the report and then observe what happens within the agenda.

¹ Ontology Spectrum, <u>http://xbrl.squarespace.com/journal/2019/4/27/ontology-spectrum.html</u>

Delete three fragments

Go to the bottom of the list of fragments of the report (left side of the screen) and delete these three networks: (select a component which will turn green; then right click and select "Delete" from the menu provided)



Select and delete a component:



Notice that after you have deleted the three components we specified that those three components now are shown in the agenda which indicates that those three pieces still need to be added to the report:

omponents (10)	nl) × Taxonomy (company.xsd) Model Str	Rendering Model Structure Fact Table		C Validation Result Disclosur Business Rules Validation Result		Disclosure Mechanics 🍸 🌾 🕨			
omponents (10)	<u>a</u>	Kendering Model Structure Fact Table Component: (Network and Table)	Business Rules Structure	Business Rules Validation Result	ts Elements		Enter text to filter		
Network View 🧰 🕻	Component View C Block View	Network 1110 - Statement - Statement of Fin	ancial Position, Classified						
ter Type 💌 Filte	er Level * Filter Status *	Table Statement of Financial Position, Classi	ied [Table]				Disdosure	Explanation	Add
ter Type 💌 Filte	er Level * Pilter Status *	Reporting Entity [Axis]	1234567890 http://regulator.gov/i	id	Ŷ		E Document Information	Disclosure always required	7 9
Enter text to filter		Reporting Scenario [Axis]	Actual (Member)		Y		Entity Information	Disclosure always	2.0
			Reported as of March 18, 2020 [M	tomborl			m Cash Flow Statement, Direct Method	required Disclosure always	1 1
1110 - Statement - Statement of Financial Position, Classified Statement of Financial Position, Classified [Table]					,		E Cash Now Statement, Direct Nethod	required	1 2
1160 - Statement - Classes o	of Share Capital (Parenthetical)		Consolidated Entity [Member]		<u>`</u>				
y Class [Table]		Unit [Axis]	USD		Y				
211 - Statement - Statemer Itatement of Financial Perfo	nt of Financial Performance, by Function + rmance, by Function [Table]		Period (Axis) 📼						
240 - Statement - Surplus ((Deficit) Breakdown by Controlling and	Statement of Financial Position, Classified [Line Items]	2020-12-31	2019-12-31	2018-12-31				
	enthetical) Surplus (Deficit) Breakdown [Table] Int of Financial Performance, Comparison of	Assets [Roll Up]							
udgeted and Actual Amount	its Statement of Financial Performance,	Current Assets [Roll Up]				0			
Comparison of Bugeted and		Cash and Cash Equivalents	1.000 1	1,000					
1300 - Statement - Changes of Changes in Equity, Prior P	in Equity, Prior Period Adjustments Statement	Receivables, Net, Current	1,000	1,000					
	in Equity + Statement of Changes in Equity	Inventory	1,000	1,000					
220 - Disclosure - Property,	, Plant and Equipment, Net Subclassifications ◆ ent. Net, Subclassifications [Table]	Prepaid Expenses	500	500					
	nt, Net, Subclassifications [Table] , Plant, and Equipment, Net Subclassifications	Investments, at Cost	500	500 500					
(Alternative) Property, Pl	ant and Equipment Components [Table]	Other Current Assets	1,000	1,000					
2230 - Disclosure - Property,	, Plant, and Equipment Reconciliations 🔶	Current Assets, Total	5,000	5,000				t the three	1
Property, Plant and Equipme	ent Reconcilations [Table]	Noncurrent Assets [Roll Up]					fragme	nts of the	
		Property, Plant, and Equipment, Net, Total	4,000	4,000	4,000		report v	/hich were	
		Investment in Affiliates	0	0				vere added	
		Receivables, Net, Noncurrent	0	0					
		Other Noncurrent Assets	3,000	1,000			to the	Agenda.	
		Noncurrent Assets, Total	7,000	5,000				-	
		Assets, Total	12,000	10,000					
		Liabilities and Net Assets/Equity [Roll Up]							
		Liabilities [Roll Up]							
Component Properties	^	Current Liabilities [Roll Up]				U			
Network	1600 - Statement - Cash Flow State	Payables from Exchange Transactions	3,000	3,000					
Table	Cash Flow Statement, Direct Method	Long-Term Debt, Current	1,000	1,000					
Disclosure	disclosures:CashFlowStatementDirec	Other Current Liabilities	1,000	1,000					
Status	MEDIUM	Current Liabilities, Total	5,000	5,000					
Colectors	InProgress	Noncurrent Liabilities [Roll Up]							
Lollections Advanced		Long-Term Debt, Noncurrent	500	500					
1010100		Other Noncurrent Liabilities	500	500					
		Noncurrent Liabilities, Total	1.000	1.000					

What is going on?

So, what is going on? How does the software application know that those three pieces now need to be added to the report? Is it simply because if you delete an item to software adds the item to the agenda? Of course simply deleting components and then adding the to the agenda is not what is going on, that would not be useful.

Try deleting the "Analysis of Revenue" component. Notice that nothing happens in the Agenda. This is because the software application understands that the Analysis of Revenue is not a required disclosure.



Automated reporting checklist

As was said, the Pesseract software application is an expert system for creating financial reports. The software understands financial reports. How, you ask? In many ways. First, let's look at the machine-readable reporting checklist.

Many accountants creating a financial report and most auditors use what is called a "disclosure checklist" to review a report to make sure the report is created correctly. This disclosure checklist is a human readable "memory jogger" that assists in the process of making sure a report is created correctly and nothing was left out. What if you could convey information from that human-readable memory jogger in a machine-readable form and let the software application help you make sure the report is created correctly per statutory and regulator reporting rules? Well, that is exactly what we have done with Pesseract.

Of course, it is impossible for a computer application to tell you if everything is 100% correct; but the software can certainly help the accountant creating a financial report. Here is how it works.

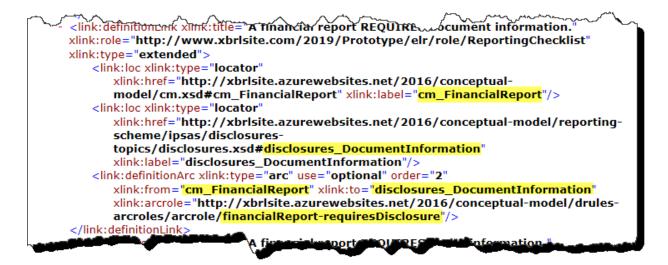
First, the statutory and regulatory rules are represented in machine-readable form using the XBRL technical syntax². For these specific rules, XBRL definition relations are used to represent the information in machine readable form.

Don't worry, you will never need to work with this information at the level we are going to show you here; but we wanted to get into the details so that those who are curious can understand how all this functionality actually works.

Basically, the notion of a "FinancialReport" is created and the notion of the "DocumentInformation" (one of the disclosures you deleted) is created and finally the notion that "financialReport-

² Reporting checklist rules for IPSAS in machine readable XBRL, <u>http://xbrlsite.azurewebsites.net/2016/conceptual-</u> model/reporting-scheme/ipsas/disclosure-mechanics/ReportingChecklist-ipsas-rules-def.xml

requiresDisclsoure" is created. Without getting into all the details, here is that information represented in an XBRL definition linkbase:



Again, don't worry; you never need to work at the level of the XBRL technical syntax. Here is that same information one level higher; an XBRL taxonomy tool reads the XBRL file and provides the information to the user of the application

	Arcrole	Ore
Definition View		
 Reporting Checklist 		
🗸 🕞 [Thing]		0
🗸 🕀 [FinancialReport]	http://xbrlsite.azurewebsites.net/2016/conceptual-model/arcrole/class-equivalentClass	1
Document Information	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-requiresDisclosure	2
Entity Information	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-requiresDisclosure	3
Statement of Financial Position, Classified	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-requiresDisclosure	4
🕞 Statement of Financial Performance, by Function	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-requiresDisclosure	5
Cash Flow Statement, Direct Method	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-requiresDisclosure	6
Statement of Changes in Net Assets/Equity	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-requiresDisclosure	7
 Usual Surplus (Deficit) Attributable to Noncontrolling Interest 	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-reportsConcept	8
🕞 Surplus (Deficit) Breakdown	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/reportingLineItem-requiresDisclosure	16
Cash and Cash Equivalents	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-reportsConcept	9
🗸 🕕 Share Capital	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-reportsConcept	10
Capital by Class	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/reportingLineItem-requiresDisclosure	1
🗸 🕕 Property, Plant and Equipment, Net	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-reportsConcept	1
> 🚯 Property, Plant, and Equipment, Net Subclassifications	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/reportingLineItem-requiresDisclosure	14
Property, Plant, and Equipment, Net Reconcilisations	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/reportingLineItem-requiresDisclosure	1
🕞 Prior Period Adjustment	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-possibleDisclosure	1
🕞 Revenue Detail by Customer	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-possibleDisclosure	18
Statement of Financial Performance, Comparison of Bud	http://xbrlsite.azurewebsites.net/2016/conceptual-model/drules-arcroles/arcrole/financialReport-possibleDisclosure	19

This is the level that a professional accountant would work with all this machine-readable information. The machine readable information is also readable by humans. Software converts the machine-readable information into human-readable form.

The following two screen shots show what the reporting checklist looks like for the IPSAS core prototype. A typical reporting checklist would be much, much longer. But what we did is created an abridged reporting checklist in order to make it easier for the user to get the full picture.

Reporting checklist before the three disclosures were deleted:

#		Disclosure	Checklist Category	Reason Disclosure Must Exist	Discovered	Expectation Met	Link to Disclosure Mechanics
~ 0		Reporting Checklist					
1		Document Information	Required disclosure	Disclosure always required	True	CONSISTENT	Document Information
2		Entity Information	Required disclosure	Disclosure always required	True	CONSISTENT	Entity Information
v 3		Statement of Financial Position, Classified	Required disclosure	Disclosure always required, satisfied by Assets Roll Up and Liabilities and Net A	True	CONSISTENT	Statement of Financial Position, Classified
	4	Assets Roll Up	Part of disclosure	Satisfies Statement of Financial Position, Classified disclosure	True	N/A	Assets Roll Up
	5	Liabilities and Net Assets/Equity Roll Up	Part of disclosure	Satisfies Statement of Financial Position, Classified disclosure	True	N/A	Liabilities and Net Assets/Equity Roll Up
6		Statement of Financial Performance, by Function	Required disclosure	Disclosure always required	True	CONSISTENT	Statement of Financial Performance, by Function
7		Cash Flow Statement, Direct Method	Required disclosure	Disclosure always required	True	CONSISTENT	Cash Flow Statement, Direct Method
8		Statement of Changes in Net Assets/Equity	Required disclosure	Disclosure always required	True	CONSISTENT	Statement of Changes in Net Assets/Equity
9		Surplus (Deficit) Breakdown	Line item exists, then disclosure requi	Required because line item ipsas:SurplusDeficitAttributableToNoncontrollingInt	True	CONSISTENT	Surplus (Deficit) Breakdown
10	0	Share Capital by Class	Line item exists, then disclosure requi	Required because line item ipsas:ShareCapital was reported	True	CONSISTENT	Share Capital by Class
× 1	1	Property, Plant, and Equipment, Net Subclassifications	Line item exists, then disclosure requi	Disclosure is required, satisfied by Property, Plant, and Equipment, Net Subclas	False	N/A	Property, Plant, and Equipment, Net Subclassifications
	12	Property, Plant, and Equipment, Net Subclassifications (Al	Alternative representation	Altenative to required disclosure Property, Plant, and Equipment, Net Subclassi	True	CONSISTENT	Property, Plant, and Equipment, Net Subclassifications (Al
13	3	Property, Plant, and Equipment, Net Reconcilisations	Line item exists, then disclosure requi	Required because line item ipsas:PropertyPlantAndEquipmentNet was reported	True	CONSISTENT	Property, Plant, and Equipment, Net Reconcilisations
14	4	Prior Period Adjustment	Possible disclosure	Disdosure is present	True	CONSISTENT	Prior Period Adjustment
15	5	Revenue Detail by Customer	Possible disclosure	Disclosure is present	True	CONSISTENT	Revenue Detail by Customer
16	6	Statement of Financial Performance, Comparison of Budge	Possible disclosure	Disclosure is present	True	CONSISTENT	Statement of Financial Performance, Comparison of Budge

Because the three disclosures existed, the validation process found the disclosures and reported that the three disclosures and all the other information described by the machine-readable rules where consistent with the rules expectation. This information is reported in this easy to read automated reporting checklist above.

#	Disclosure	Checklist Category	Reason Disclosure Must Exist	Discovered	Expectation Met	Link to Disclosure Mechanics
v 0	Reporting Checklist					
1	Document Information	Required disclosure	Disclosure always required	False	INCONSISTENT	Document Information
2	Entity Information	Required disclosure	Disclosure always required	False	INCONSISTENT	Entity Information
v 3	Statement of Financial Position, Classified	Required disclosure	Disclosure always required, satisfied by Assets Roll Up and Liabilities and Net A	True	CONSISTENT	Statement of Financial Position, Classified
4	Assets Roll Up	Part of disclosure	Satisfies Statement of Financial Position, Classified disclosure	True	N/A	Assets Roll Up
5	Liabilities and Net Assets/Equity Roll Up	Part of disclosure	Satisfies Statement of Financial Position, Classified disclosure	True	N/A	Liabilities and Net Assets/Equity Roll Up
6	Statement of Financial Performance, by Function	Required disclosure	Disclosure always required	True	CONSISTENT	Statement of Financial Performance, by Function
7	Cash Flow Statement, Direct Method	Required disclosure	Disclosure always required	False	INCONSISTENT	Cash Flow Statement, Direct Method
8	Statement of Changes in Net Assets/Equity	Required disclosure	Disclosure always required	True	CONSISTENT	Statement of Changes in Net Assets/Equity
9	Surplus (Deficit) Breakdown	Line item exists, then disclosure requi	Required because line item ipsas:SurplusDeficitAttributableToNoncontrollingInt	True	CONSISTENT	Surplus (Deficit) Breakdown
10	Share Capital by Class	Line item exists, then disclosure requi	Required because line item ipsas:ShareCapital was reported	True	CONSISTENT	Share Capital by Class
v 11	Property, Plant, and Equipment, Net Subclassifications	Line item exists, then disclosure requi	Disclosure is required, satisfied by Property, Plant, and Equipment, Net Subclas	False	N/A	Property, Plant, and Equipment, Net Subclassifications
12	Property, Plant, and Equipment, Net Subclassifications (Al	Alternative representation	Altenative to required disclosure Property, Plant, and Equipment, Net Subclassi	True	CONSISTENT	Property, Plant, and Equipment, Net Subclassifications (Al
13	Property, Plant, and Equipment, Net Reconcilisations	Line item exists, then disclosure requi	Required because line item ipsas:PropertyPlantAndEquipmentNet was reported	True	CONSISTENT	Property, Plant, and Equipment, Net Reconclisations
14	Prior Period Adjustment	Possible disclosure	Disclosure is present	True	CONSISTENT	Prior Period Adjustment
15	Revenue Detail by Customer	Possible disclosure	Disdosure is NOT present	False	N/A	Revenue Detail by Customer
16	Statement of Financial Performance, Comparison of Budge	Possible disclosure	Disclosure is present	True	CONSISTENT	Statement of Financial Performance, Comparison of Budge

Reporting checklist after the three disclosures where deleted:

If the validation were run after the three disclosures were deleted; clearly the three disclosures would not be discovered, and therefore they report is inconsistent with the expectation provided by the machine-readable rules and this inconsistency is reported in the reporting checklist.

So, how do you make the reporting checklist rules and the report consistent? You simply add those three disclosures and once again the rules that describe your expectation and the actual results from checking that expectation in the report are consistent.

Fragments

A report is not one big thing; a report is made up of report fragments or fragments. A fragment with which those working with XBRL reports are familiar with is the Network. This is a list of networks in the IPSAS Core prototype:

Ŧ	1110 - Statement - Statement of Financial Position, Classified
Ŧ	1160 - Statement - Classes of Share Capital (Parenthetical)
÷	1211 - Statement - Statement of Financial Performance, by Function
÷	1240 - Statement - Surplus (Deficit) Breakdown by Controlling and Noncontrolling Interest (Parenthetical)
±	1290 - Statement - Statement of Financial Performance, Comparison of Budgeted and Actual Amounts
÷	1300 - Statement - Changes in Equity, Prior Period Adjustments
÷	1400 - Statement - Changes in Equity
÷	1600 - Statement - Cash Flow Statement, Direct Method
÷	2220 - Disclosure - Property, Plant and Equipment, Net Subclassifications
Ŧ	2221 - Disclosure - Property, Plant, and Equipment, Net Subclassifications (Alternative)
÷	2230 - Disdosure - Property, Plant, and Equipment Reconciliations
Ŧ	8900 - Disdosure - Analysis of Revenue
÷	9990 - Document - Document Information
Ŧ	9995 - Document - Entity Information

But how fragments can be represented is somewhat arbitrary and therefore inconsistent. Someone creating a report could put, for example, two [Table]s in one Network. So, because of the possibility of inconsistency you cannot really use Networks effectively.

Most, but not all, put only one [Table] per network. We have done the same thing in the IPSAS Core prototype, there is one explicit [Table] per network. We call this network+[Table] combination a Component.

± 1110	0 - Statement - Statement of Financial Position, Classified 🔶 Statement of Financial Position, Classified [Table]
∃ 1160	0 - Statement - Classes of Share Capital (Parenthetical) ♦ Share Capital, by Class [Table]
∃ 121	1 - Statement - Statement of Financial Performance, by Function 🔶 Statement of Financial Performance, by Function [Table]
∃ 1240	0 - Statement - Surplus (Deficit) Breakdown by Controlling and Noncontrolling Interest (Parenthetical) 🔶 Surplus (Deficit) Breakdown [Table]
∃ 1290	0 - Statement - Statement of Financial Performance, Comparison of Budgeted and Actual Amounts 🕈 Statement of Financial Performance, Comparison of Bugeted and Actual Amounts [Table]
∃ 1300	0 - Statement - Changes in Equity, Prior Period Adjustments 🗢 Statement of Changes in Equity, Prior Period Adjustments [Table]
⊞ 1400	0 - Statement - Changes in Equity 🔶 Statement of Changes in Equity [Table]
∃ 1600	0 - Statement - Cash Flow Statement, Direct Method 🔶 Cash Flow Statement, Direct Method [Table]
∃ 2220	0 - Disclosure - Property, Plant and Equipment, Net Subclassifications 🗢 Property, Plant and Equipment, Net, Subclassifications [Table]
∃ 222:	1 - Disdosure - Property, Plant, and Equipment, Net Subclassifications (Alternative) 🔶 Property, Plant and Equipment Components [Table]
∃ 2230	0 - Disclosure - Property, Plant, and Equipment Reconciliations 🔶 Property, Plant and Equipment Reconciliations [Table]
	0 - Disclosure - Analysis of Revenue 🗢 Sales Analysis, by Customer [Table]
⊞ 9990	0 - Document - Document Information ◆ Document Information [Table]
∃ 9993	5 - Document - Entity Information 🔶 Entity Information [Table]

But, because what you can put into a [Table] is still arbitrary and subject to personal preference, working with report information at the level of these arbitrary [Table]s is also not effective.

So, what we did is go one level deeper into a report to what we call the "Block" or what the Logical Theory that Describes a Business Report³ calls a "Fact Set". A "fact set" or "block", again they are synonyms for the same idea, are consistent across reports. Yes, you have to factor in variability in what

³ Charles Hoffman and Rene van Egmond, *Logical Theory Describing a Business Report*, <u>http://xbrlsite.azurewebsites.net/2019/Library/LogicalTheoryDescribingBusinessReport.pdf</u>

might be reported because of allowed alternatives; but when you work at the fact set level and you factor in all allowed alternatives, report information is consistent.

This is the set of 24 fact sets that make up the XBRL-based IPSAS Core prototype financial report:

Assets [Roll Up]
Liabilities and Net Assets/Equity [Roll Up]
Share Capital, by Class [Set] [Hierarchy]
Surplus (Deficit) [Roll Up]
Surplus (Deficit) Breakdown [Roll Up]
Surplus (Deficit) from Continuing Operations [Roll Up]
Accumulated Surpluses (Deficits), Prior Period Adjustments [Adjustment]
Share Capital Reconciliation [Roll Forward]
Reserves Reconciliation [Roll Forward]
Accumulated Surpluses (Deficits) Reconciliation [Roll Forward]
Noncontrolling Interest Reconciliation [Roll Forward]
Net Assets/Equity Reconciliation [Roll Forward]
Net Cash Flow [Roll Up]
Cash and Cash Equivalents Reconciliation [Roll Forward]
Property, Plant and Equipment, Net [Roll Up]
Property, Plant, and Equipment, Net, Components [Roll Up]
Land [Reconciliation] [Roll Forward]
Buildings, Net [Reconciliation] [Roll Forward]
Machinery, Net [Reconciliation] [Roll Forward]
Furniture and Fixtures, Net [Reconciliation] [Roll Forward]
Property, Plant and Equipment, Net [Reconciliation] [Roll Forward]
Sales Analysis, by Customer [Set] [Hierarchy]
Document Information [Set] [Hierarchy]
Entity Information [Set] [Hierarchy]

And so, the "fact set" or "block" is the level that you can work with consistently. Yes, you do have to adjust for allowed variability, but that is trivial, you just create different rules for each allowed alternative.

Once you are working at the fact set or block level, you start to see leveragable patterns.

Disclosure mechanics

Each block (or fact set, I am going to consistently use block for the rest of this document as that is what is used in the application) has patterns. Those patterns can be distilled down into machine-readable rules that I call disclosure mechanics rules.

All the disclosure mechanics rules are organized into an XBRL taxonomy scheme that holds all rules⁴. The taxonomy schema points to individual rules⁵. We will not show you the XBRL definition relation that are used to represent the rules. This human-redable information was created from those XBRL-based definition relations:

Rules	Line of Reasoning				
This disc	losure: disclosures:PropertyPlantAndEquipmentNetReconciliations				
- MUST b	pe represented using the Hypercube/[Table] named: ipsas:PropertyPlantAndEquipmentReconciliationsTable				
- MUST be represented as a Level 4 Disclosure Detail with the concept arrangement pattern: cm:RollForward					
- cm:R	RollForward REQUIRES beginning/ending balance: ipsas:PropertyPlantAndEquipmentNet				

These rules are pretty basic and you can see that the actual disclosure follows the rules above that describe the mechanics of the property, plant, and equipment reconciliation or roll forward:

mponent: (Network and Table)						
Network 2230 - Disclosure - Property, Plant,	and Equipment Reconciliation	s				
Table Property, Plant and Equipment Recon	ciliations [Table]					
Reporting Entity [Axis]	1234567890 http://regulator.go	v/id				
Reporting Scenario [Axis]	Actual [Member]					
Report Date [Axis]	Reported as of March 18, 2020	[Member]				
Legal Entity [Axis]	Consolidated Entity [Member]					
Unit [Axis]	USD					
	Period [Axis]					
Property, Plant and Equipment, Net [Reconciliation]	2020-01-01/2020-12-31	2019-01-01/2019-12-31				
Property, Plant and Equipment, Net [Reconciliation]						
Property, Plant and Equipment, Net Opening Balance	4,000	4,000				
Property, Plant and Equipment, Net, Additions	4,000	4,000				
Property, Plant and Equipment, Net, Disposals	(4,000)	(4,000)				
Property, Plant and Equipment, Net, Revaluations	0	0				
Property, Plant and Equipment, Net, Other Increase (Decrease)	0	0				
Property, Plant and Equipment, Ner, Closing Balance	4 000	4,000				

⁴ XBRL taxonomy schema for IPSAS disclosure mechanics rules, <u>http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/ipsas/disclosure-mechanics/disclosure-mechanics-ipsas.xsd</u>

⁵ Individual rule for the PPE reconciliation, <u>http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/ipsas/disclosure-mechanics/1369-rules-def.xml</u>

First the disclosure is represented by the [Table] named

"ipsas:PropertyPlantAndEquipmentReconciliationsTable". It is a roll forward which is another term used to describe "reconciliation". And, the instant concept "ipsas:PropertyPlantAndEquipmentNet" is the expected beginning/ending balance concept expected by the rule.

There are exactly three rules and only those three rules are sufficient to describe the property, plant, and equipment enough to be able to identify the disclosure and verify that the disclosure has been structured correctly.

If you contrast that to, say, a US GAAP XBRL Taxonomy rule for representing a disclosure there is a lot of information which can be learned. So, how are you supposed to create an "Inventory Roll Pp" per the US GAAP XBRL Taxonomy?

- 1. Inventory roll up is, in fact, always a ROLL UP.
- 2. A ROLL UP has a TOTAL. That TOTAL is REQUIRED.
- 3. The concept used to represent total inventory is "us-gaap:InventoryNet".
- 4. Alternatively, you could use other concepts.
- 5. Per SEC rules, if you provide a Level 4 Detailed Disclosure; you MUST also provide a Level 3 Disclosure Text Block.

- 6. If you report inventory, you MUST provide an inventory POLICY.
- 7. There are alternative ways you might represent the INVENTORY POLICY.

So, these are the US GAAP XBRL Taxonomy rules for representing a real-life disclosure:

\sim	Roles	Line of Reasoning		~~~~	$\sim\sim\sim$	~~~~~	\sim		
	This disclos	sure: disclosures:InventoryNetRollUp							
	- MUST be	represented by a network with the SE	C Category: cm	:DisclosureType					
	- MUST be	represented as a Level 4 Disclosur	e Detail with th	e concept arrang	ement pattern: <mark>cm:RollU</mark>	0			
	- cm:Rol	- cm:RollUp REQUIRES total: us-gaap:InventoryNet							
	- Or b	y the allowed alternative concept: us-	gaap:Inventory	/NetOfAllowances	CustomerAdvancesAndPi	rogressBillings			
	- Or b	y the allowed alternative concept: us-	gaap:PublicUtili	tiesInventory					
- Or by the allowed alternative concept: us-gaap:AirlineRelatedInventory									
	- Or b	- Or by the allowed alternative concept: us-gaap:RetailRelatedInventory							
	- Or b	y the allowed alternative concept: us-	gaap:EnergyRe	latedInventory					
	- Or b	y the allowed alternative concept: us-	gaap:Agricultur	alRelatedInventor	у				
	- MUST be	represented as using the Level 3 Dis	sclosure Text	Block: us-gaap:S	cheduleOfInventoryCurr	rentTableTextBlock			
	- Or by	the allowed alternative concept: us-ga	ap:ScheduleOft	JtilityInventoryTe	xtBlock				
	- Requires	the policy to be reported using the Le	vel 2 Policy T	ext Block: us-ga	ap:InventoryPolicyTextB	Block			
	- Or by	the allowed alternative concept: us-ga	ap:InventoryMa	ajorClassesPolicy					
	- Or by	the allowed alternative concept: us-ga	ap:InventorySu	uppliesPolicy					
	- Or by	the allowed alternative concept: us-ga	ap:InventoryW	orkInProcessPolicy	/				
	- Or by the allowed alternative concept: us-gaap:InventoryFinishedGoodsPolicy								
+	39	Liabilities and Equity [Roll Up]	Statement	Level4Detail		RollUp	Т		
Ð	40	Long-Lived Assets in Individual Fo	Disclosure	el3TextBlock/	Level4D <u>eta</u> il	Hierarchy	_		
			~~ ~	-					

Each of the 24 blocks in the IPSAS Core prototype work in exactly this same way. In fact, each of the 192 blocks that are used to represent disclosures of Microsoft in their 2017 10-K also work in exactly this same way.

Fundamental accounting concept relations:

Each different entity that reports using the IPSAS using some reporting style. Those reporting styles fall into identifiable patterns. For example, some entity report a "classified balance sheet" but others report using an "unclassified" or "order of liquidity balance sheet".

In the IPSAS Core prototype, seven reporting styles were defined⁶. The specific reporting style used in the IPSAS Core example provides 11 consistency checks to make sure reported facts are consistent with and do not contradict other reported facts. They serve as consistency cross checks.

Entity	Period	ID	Test	Result	Amount Of Inconsistency Evaluation
1234567890	2020-FY	FAC_CONSISTENCY_1	fac:Equity = (fac:EquityAttributableToParent + fac:EquityAttributableToNoncontrollingInterest)	True	0 fac:Equity[psas:Equity[6,000]] = (fac:EquityAttributableToParent[psas:ControlingInterest[4,000]] + fac:EquityAttributableToHoncontrolingInterest[psas:HoncontrolingInterest[2,000]])
1234567890	2020-FY	FAC_CONSISTENCY_16	fac:IncomeLossFromContinuingOperationsAfterTax = (fac:IncomeLossFromContinuingOperationsBeforeTax - fac:IncomeTaxExpenseBeneft)	True	facthronest.ossFromContrumpOperationsAfterTrafgeassExpladEedforForacContrumpOperations[500]] = (0 facthronest.ossFromContrumpOperationsBeforTax[closssExpladDetOfFormContrumpOperationsBeforeEquityNethodAssociatesJointVentures[1,000]] - facthronest.asSpensetBereffigeassExamsExplanDetOfEquityNethodAssociatesJointVentures[500])
1234567890	2020-FY	FAC_CONSISTENCY_17	fac:NetIncomeLoss = (fac:IncomeLossFromContinuingOperationsAfterTax + fac:IncomeLossFromDiscontinuedOperationsNetOfTax)	True	fsciNetIncomet.oss[baas:SurplauBefot] 500]] = { fsciNetIncomet.ossFormContinueOperations(HerTax[baas:SurplauBefotFromContinueOperations[500]] + fsciNetIncomet.ossFormBiccomet.ossFormBiccomet.ossFormContinueOperations(P) = 100 / fsciNetIncomet.ossFormBiccomet.ossFormBiccomet.ossFormContinueOperations(P) = 100 / fsciNetIncomet.ossFormBiccomet.ossFormBiccomet.ossFormContinueOperations(P) = 100 / fsciNetIncomet.ossFormBic
1234567890	2020-FY	FAC_CONSISTENCY_18	fac:NetIncomeLoss = (fac:NetIncomeLossAttributableToParent + fac:NetIncomeLossAttributableToNoncontrollingInterest)	True	fac:Netlincomei.oss[psas:SurplusDeficit[500]] = (fac:Netlincomei.ossAttributableToParent[psas:SurplusDeficitAttributableToOvnersControllinglinity[400]] + fac:Netlincomei.ossAttributableToNoncontrollingInterest[psas:SurplusDeficitAttributableToNoncontrollingInterest[100]])
1234567890	2020-FY	FAC_CONSISTENCY_2	fac:Assets = fac:LiabilitiesAndEquity	True	0 fac:Assets[psas:Assets[12,000]] = fac:LiabilitiesAndEquity[psas:LiabilitiesAndPetAssetsEquity[12,000]]
1234567890	2020-FY	FAC_CONSISTENCY_25	fac:NetCashFlow = (fac:NetCashFlowFromOperatingActivities + fac:NetCashFlowFromInvestingActivities + fac:NetCashFlowFromFinancingActivities)	True	facNetCadrFlow[passhetCadrFlow] (1.000)]] = (facHetCadrFlowFromOperatingActivites[passhetCadrFlowFromOperatingActivites] (1.000)]] + 0 facNetCadrFlowFromEnerotyActivites[passHetCadrFlowFromUsedFlowFromOperatingActivites] (2.000)]] + facNetCadrFlowFromEnerotyActivites[passHetCadFlowFromUsedFlowFromOperatingActivites] (2.000)]])
1234567890	2020-FY	FAC_CONSISTENCY_3	fac:Assets = (fac:CurrentAssets + fac:NoncurrentAssets)	True	0 fac:Assets[[psas:Assets[12,000]] = (fac:CurrentAssets[psas:CurrentAssets[5,000]] + fac:NoncurrentAssets[psas:NoncurrentAssets[7,000]])
1234567890	2020-FY	FAC_CONSISTENCY_38	fac:IncomeLossFromContinuingOperationsBeforeTax = (fac:OperatingAndNonoperatingRevenues - fac:OperatingAndNonoperatingCostsAndExpenses)	True	fac:Income.comPromContinuingOperationablefore*[au[pass:SurpluxDeflot*romContinuingOperationableForeEquityMethodAssociatesJointientures[1,000]] = (0 fac:OperatingNetDirenovestingNetwenues[pass:Revenue(7,000]] - fac:OperatingNetDirenovestingNetDirenove
1234567890	2020-FY	FAC_CONSISTENCY_4	fac:Liabilities = (fac:CurrentLiabilities + fac:NoncurrentLiabilities)	True	0 facLiabilities[[pas:Liabilities[6,000]] = (fac:CurrentLiabilities[[psas:CurrentLiabilities[5,000]] + facLiabilities[[psas:NoncurrentLiabilities[1,000]])
1234567890	2020-FY	FAC_CONSISTENCY_5	fac:LiabilitiesAndEquity = (fac:Liabilities + fac:Equity)	True	0 faciLiabilitiesAndEquity[psas:LiabilitiesAndNetAssetuEquity[12,000]] = (fac:Liabilities[psas:Liabilities[6,000]] + fac:Equity[psas:Equity[6,000]])
1234567890	2020-FY	FAC_CONSISTENCY_8	fachletCashFlowFiscontinued = (fachletCashFlowFiscontinued + fachletCashFlowFiscontinued + fachletCashFlowFiscontinued + fachletCashFlowFiscontinued)	True	fachet.cahFlaufikon/m.ed() = (fachet.cahFlauFinor/DpeatropletriseDiscontrued(0) + fachet.cahFlauFinor/InvestropletriseDiscontrued(0) + 6 fachet.cahFlauFinor/InvestropletriseDiscontrued(0))

To compare this to XBRL-based reports used by the US GAAP XBRL Taxonomy, it has about 100 different reporting styles with an average of about 23 consistency rule per reporting style. Users work with the rules in this form:

Reporting Entity [Axis]	1234567890 http://regulator.go	v/id
Unit [Axis]	USD	_
	Period [Axis] 🗢	
Balance Sheet [Line Items]	2020-12-31	
Assets [Roll Up]		
Current Assets	5,000	
Noncurrent Assets	7,000	
Assets	12,000	
Liabilities and Equity [Roll Up]		
Liabilities [Roll Up]		
Current Liabilities	5,000	
Noncurrent Liabilities	1,000	
Liabilities	6,000	
Equity [Roll Up]		
Equity Attributable to Parent	4,000	
Equity Attributable to Noncontrolling Interest	2,000	
Equity	6,000	
Liabilities and Equity	12,000	

⁶ IPSAS reporting styles, <u>http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/ipsas/fac/Documentation/rss.xml</u>

Model structure rules

Model structure rules or rules that are related to physically representing the information model definition are represented by rules⁷. The rules communicate the allowed and disallowed relations between a parent report element category and a child report element category and can be shown graphically as such:

Child		Parent									
	Network	Table	Axis	Member	LineItems	Abstract	Concept				
[Network]	0	0	0	0	0	0	0				
[Table]	14	0	0	0	0	0	0				
[Axis]	0	43	0	0	0	0	0				
[Member]	0	0	43	12	0	0	0				
[LineItems]	0	14	0	0	0	0	0				
[Abstract]	0	0	0	0	24	14	0				
[Concept]	0	0	0	0	0	155	0				

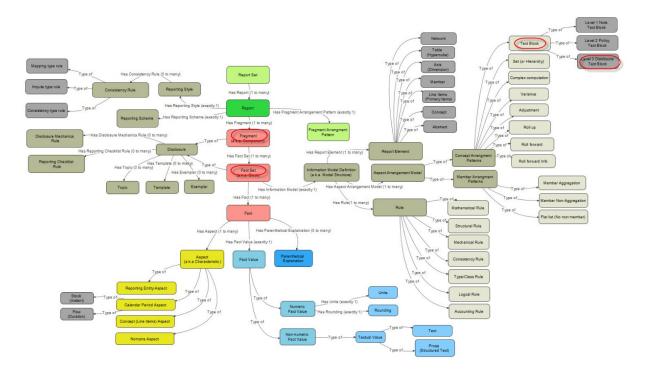
This information model description must follow the rules described above.

2			Report Element Class	Period	Balance	Preferred Label Role	Name
		f Financial Position, Classified [Table]	[Table]			Standard Label	ipsas: Statement Of Financial Position Classified Table
~ Le	gal Ent	tity [Axis]	[Axis]			Standard Label	frm:LegalEntityAxis
	Cons	olidated Entity [Member]	[Member]			Standard Label	frm:ConsolidatedEntityMember
✓ Re	eport D	ate [Axis]	[Axis]			Standard Label	frm:ReportDateAxis
	Reported as of March 18, 2020 [Member]		[Member]			Standard Label	company:ReportedAsOfMarch182020Member
✓ Re	eportin	g Scenario [Axis]	[Axis]			Standard Label	frm:ReportingScenarioAxis
	Actua	al [Member]	[Member]			Standard Label	frm:ActualMember
∽ St	atemer	nt of Financial Position, Classified [Line Items]	[LineItems]			Standard Label	ipsas:StatementOfFinancialPositionClassifiedLineIten
~	Asse	ts [Roll Up]	[Abstract]			Standard Label	ipsas:AssetsRollUp
	~ C	Current Assets [Roll Up]	[Abstract]			Standard Label	ipsas:CurrentAssetsRollUp
		Cash and Cash Equivalents	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:CashAndCashEquivalents
		Receivables, Net, Current	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:ReceivablesNetCurrent
		Inventory	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:Inventory
		Prepaid Expenses	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:PrepaidExpenses
		Investments, at Cost	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:InvestmentsAtCost
		Other Current Assets	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:OtherCurrentAssets
		Current Assets, Total	[Concept] Monetary	As Of	Debit	Total Label	ipsas:CurrentAssets
	~ N	Ioncurrent Assets [Roll Up]	[Abstract]			Standard Label	ipsas:NoncurrentAssetsRollUp
		Property, Plant, and Equipment, Net, Total	[Concept] Monetary	As Of	Debit	Total Label	ipsas:PropertyPlantAndEquipmentNet
		Investment in Affiliates	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:InvestmentInAffiliates
		Receivables, Net, Noncurrent	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:ReceivablesNetNoncurrent
		Other Noncurrent Assets	[Concept] Monetary	As Of	Debit	Standard Label	ipsas:OtherNoncurrentAssets
		Noncurrent Assets, Total	[Concept] Monetary	As Of	Debit	Total Label	ipsas:NoncurrentAssets
	A	issets, Total	[Concept] Monetary	As Of	Debit	Total Label	ipsas:Assets
~	Liabili	ities and Net Assets/Equity [Roll Up]	[Abstract]			Standard Label	ipsas:LiabilitiesAndNetAssetsEquityRollUp
	v Li	iabilities [Roll Up]	[Abstract]			Standard Label	ipsas:LiabilitiesRollUp
	~	Current Liabilities [Roll Up]	[Abstract]			Standard Label	ipsas:CurrentLiabilitiesRollUp
		Payables from Exchange Transactions	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:PayablesFromExchangeTransactions
		Long-Term Debt, Current	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:LongTermDebtCurrent
		Other Current Liabilities	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:OtherCurrentLiabilities
		Current Liabilities, Total	[Concept] Monetary	As Of	Credit	Total Label	ipsas:CurrentLiabilities
	~	Noncurrent Liabilities [Roll Up]	[Abstract]			Standard Label	ipsas:NoncurrentLiabilitiesRollUp
		Long-Term Debt, Noncurrent	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:LongTermDebtNoncurrent
		Other Noncurrent Liabilities	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:OtherNoncurrentLiabilities
		Noncurrent Liabilities, Total	[Concept] Monetary	As Of	Credit	Total Label	ipsas:NoncurrentLiabilities
		Liabilities, Total	[Concept] Monetary	As Of	Credit	Total Label	ipsas:Liabilities
	~ N	let Assets/Equity [Roll Up]	[Abstract]			Standard Label	ipsas:NetAssetsEquityRollUp
		Controlling Interest [Roll Up]	[Abstract]			Standard Label	ipsas:ControllingInterestRollUp
	•	Share Capital	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:ShareCapital
		Reserves	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:Braccapital
		Accumulated Surpluses (Deficits)	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:AccumulatedSurplusesDeficits
		Controlling Interest	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:Accumulated surpluses benchs ipsas:ControllingInterest
		Noncontrolling Interest	[Concept] Monetary	As Of	Credit	Standard Label	ipsas:NoncontrollingInterest
		Net Assets	[Concept] Monetary	As Of	Credit	Terse Label	ipsas:Foricond olingencerest
		iabilities and Net Assets/Equity, Total	[Concept] Monetary	As Of	Credit	Total Label	ipsas:Equity ipsas:LiabilitiesAndNetAssetsEquity

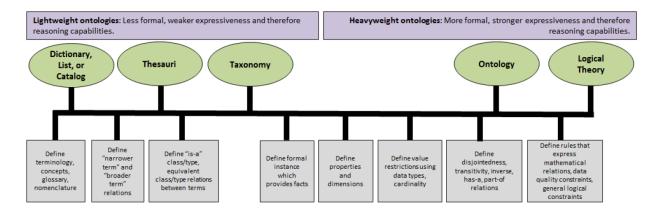
⁷ IPSAS Model Structure Rules, <u>http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/ipsas/model-structure/ModelStructure-rules-ipsas-def.xml</u>

Turn this around: logical model of a financial report

Look at all that was discussed previously and you start to see the logical model of an XBRL-based financial report. If you describe all this in terms a computer can understand, that is how you get software that can verify the report against the rules that describe that report. This can be organized into a logical model⁸ and a frame work for implementing⁹ such reports in software:



Best practices are used which provide the ability to automate the verification of the high-fidelity, high-resolution information that is provided by an XBRL-based general purpose financial report.

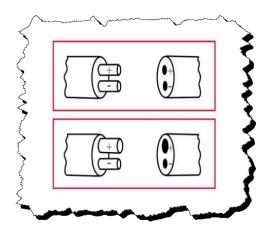


⁸ Logical model of a financial report, <u>http://xbrlsite.azurewebsites.net/2016/conceptual-model/LogicalModel-</u> 2019-03-10.jpg

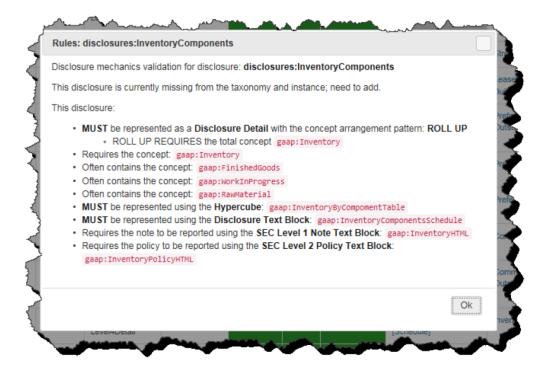
⁹Open framework for implementing XBRL-based financial reporting, <u>http://xbrlsite.azurewebsites.net/2019/Framework/FrameworkEntitiesSummary.html</u>

Poka-yoke (mistake proof the system) and other lean six sigma techniques

Lean six sigma techniques¹⁰ can be leveraged to control the quality of the process used to create and verify XBRL-based financial reports that have been created. Human tasks will always be necessary, but significant automation can be effectively achieved as is demonstrated by the Pesseract software application.



Rules are both machine-readable and human-readable: (this human readable information was generated from XBRL definition relations)



¹⁰ Comprehensive Introduction to Lean Six Sigma,

http://xbrlsite.azurewebsites.net/2017/IntelligentDigitalFinancialReporting/Part01_Chapter02.72_LeanSixSigma.p df

Use global standard XBRL technical syntax for 100% of the rules

The international global standard XBRL technical syntax is used to represent 100% of these machinereadable rules. This means that different software applications created by different software vendors can use the exact same rules. Here is a reporting checklist interface from two different software applcaitons:

Software application one: (XBRL Cloud)

*	Diaclosure	Category	Level	Pattern	Applicable	Found	Disclosure Consistent	Representation Concept [TEXT BLOCK]	Representation Concept [DETAIL]	Checklist Category	Reason
1	Entity information		Level4Detail	HERARCHY	True	Ine	CONSISTENT	NOT-EXPECTED	Economic Entity Name	Required disclosure	Disclosure always required
2	Document Information		Level4Detail	HERARCHY	True	True	CONSISTENT	NOT-EXPECTED	Document Title	Required disclosure	Disclosure always required
з	Einansist Highlighte		Level3TextBlock / Level4Detail	HIERARCHY	True	True	CONSISTENT	Financial Highlights [HTML]	Revenues, Net	Required disclosure	Disclosure always required
4	Belance Sheet		Level4Detail	COMPONENT	True	True	CONSISTENT	NOT-EXPECTED	NOT-EXPECTED	Required disclosure	Disclosure always required, satisfied by Assets (Roll Up) and Liabilities and Equity (Roll Up)
5	Assets (Roll Up)		Level4Detail	ROLL UP	True	True	CONSISTENT	NOT-EXPECTED	Assets	Part of disclosure	Disclosure slwsys required
0	Lisbilities and Equity [Roll Up]		Level4Detail	ROLL UP	True	True	CONSISTENT	NOT-EXPECTED	Liabilities and Equity	Part of disclosure	Disclosure slwsys required
7	Income Statement		Level4Detail	ROLL UP	True	True	CONSISTENT	NOT-EXPECTED	Net Income (Loss)	Required disclosure	Disclosure always required
8	Cash Flow Statement, Direct Method		Level4Detail	NOLL UP	True	Ine	CONSISTENT	NOT-EXPECTED	Cash Flow, Net	Required disclosure	Disclosure always required
9	Statement of Changes in Equity		Level4Detail	ROLL FORWARD	True	True	CONSISTENT	NOT-EXPECTED	Equity	Required disclosure	Disclosure always required
10	Statificant Accounting Policies		Level1TextBlock	LEVEL 1 TEXT BLOCK	Тпие	Ine	CONSISTENT	Significant Accounting Policies [Note]	NOT-EXPECTED	Required disclosure	Disclosure always required
11	Basis of Reporting		Level1TextBlock	LEVEL 1 TEXT BLOCK	True	Ine	CONSISTENT	Overall Financial Report Presentation and Display [HTML]	NOT-EXPECTED	Required disclosure	Disclosure always required
12	Nature of Oceretions		Level1TextBlock	LEVEL 1 TEXT BLOCK	Тпию	Ine	CONSISTENT	Nature of Business [HTML]	NOT-EXPECTED	Required disclosure	Disclosure elweys required
13	Cash and Cash Equivalents Components	~~	Level3TextBlock / Level4Detail	ROLL UP	True	Ine	CONSISTENT	Cash and Cash Equivalents	Cash and Cash Econvolents	Line item exists, then disclosure required.	Required because line item gaap:ContAndContEquivalents.con

Software application two: (Pesseract)

#		Disclosure	Checklist Category	Reason Disclosure Must Exist	Discovered	Expectation Met	Link to Disclosure Mechanics
~ O		Reporting Checklist					T
~	1	Document Information [Hierarchy]	Required disclosure	Disclosure always required	True	CONSISTENT	Document Information [Hierarchy]
	2	Document and Entity Information [Hierarchy]	Alternative representation	Not necessary, satisfied by Document Information [Hierarchy] disclosure	True	N/A	Document and Entity Information [Hierarchy]
~	3	Entity Information, by Legal Entity [Hierarchy]	Required disclosure	Disclosure always required	True	CONSISTENT	Entity Information, by Legal Entity [Hierarchy]
	4	Document and Entity Information [Hierarchy]	Alternative representation	Not necessary, satisfied by Entity Information, by Legal Entity [Hierarchy] disd	True	N/A	Document and Entity Information [Hierarchy]
~	5	Balance Sheet	Required disclosure	Disclosure always required, satisfied by Assets [Roll Up] and Liabilities and Equi	True	CONSISTENT	Balance Sheet
	6	Assets [Roll Up]	Part of disclosure	Satisfies Balance Sheet disclosure	True	CONSISTENT	Assets [Roll Up]
	7	Liabilities and Equity [Roll Up]	Part of disclosure	Satisfies Balance Sheet disclosure	True	CONSISTENT	Liabilities and Equity [Roll Up]
~	8	Income Statement, by Legal Entity [Roll Up]	Required disclosure	Disclosure always required	True	CONSISTENT	Income Statement, by Legal Entity [Roll Up]
	9	Statement of Income and Comprehensive Income [Roll Up]	Alternative representation	Not necessary, satisfied by Income Statement, by Legal Entity [Roll Up] disclos	True	N/A	Statement of Income and Comprehensive Income [Roll Up]
~	10	Statement of Comprehensive Income [Roll Up]	Required disclosure	Disclosure always required	True	CONSISTENT	Statement of Comprehensive Income [Roll Up]
	11	Statement of Income and Comprehensive Income [Roll Up]	Alternative representation	Not necessary, satisfied by Statement of Comprehensive Income [Roll Up] disd	True	N/A	Statement of Income and Comprehensive Income [Roll U
	12	Cash Flow Statement [Roll Forward]	Required disclosure	Disclosure always required	True	CONSISTENT	Cash Flow Statement [Roll Forward]
	13	Statement of Changes in Equity [Roll Forward]	Required disclosure	Disclosure always required	True	CONSISTENT	Statement of Changes in Equity [Roll Forward]
	15	Basis of Reporting Note [Note Level]	Required disclosure	Disclosure always required	True	CONSISTENT	Basis of Reporting Note [Note Level]
	16	Significant Accounting Policies Note [Note Level]	Required disclosure	Disclosure always required	True	CONSISTENT	Significant Accounting Policies Note [Note Level]
	17	Revenue Recognition Policy [Policy Text Block]	Required disclosure	Disclosure always required	True	CONSISTENT	Revenue Recognition Policy [Policy Text Block]
	18	Inventory, Net (Current) [Roll Up]	Line item exists, then disclosure requi	Required because line item us-gaap:InventoryNet was reported	True	CONSISTENT	Inventory, Net (Current) [Roll Up]
~	19	Property, Plant and Equipment, Net, by Type [Roll Up]	Line item exists, then disclosure requi	Required because line item us-gaap:PropertyPlantAndEquipmentNet was repor	True	CONSISTENT	Property, Plant and Equipment, Net, by Type [Roll Up]
	20	Property, Plant and Equipment, Net, by Type [Roll Up] (A	Alternative representation	Not necessary, satisfied by Property, Plant and Equipment, Net, by Type [Roll	True	N/A	Property, Plant and Equipment, Net, by Type [Roll Up] (A
	21	Property, Plant and Equipment Useful Lives, by Type [Hier	Line item exists, then disclosure requi	Required because line item us-gaap:PropertyPlantAndEquipmentNet was reported	True	CONSISTENT	Property, Plant and Equipment Useful Lives, by Type [H
-	*		and the second sec	itenuises	-		

Framework for entire report

Apply these same ideas not just to the example blocks or fact sets that were shown; but rather to each and every block/fact set that makes up a report:

- Fact sets down the side in the rows.
- Rules in the columns.
- Cells are where you see inconsistencies if they existed; click on the summary number to drill down into the details.

Network	Subassembly (i.e. Block)	Model Structure Rules	Mathematical Relations Rules	Consistency Crosscheck Rules	Disclosure Mechanics Rules	Type/Class Rules	Other Constraints	Reporting Checklist Rules
1110 - Statement - Statement of Financial Position, Classified	Assets [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1110-statement-statement of Financial Position, Classified	Liabilities and Equity [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1160 - Statement - Classes of Share Capital (Parenthetical)	Share Capital, by Class [Set]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1211 - Statement - Statement of Financial Performance, by Function	Surplus (Deficit) [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1290 - Statement - Statement of Financial Performance, Comparison of Budgeted and Actual Amounts	Surplus (Deficit) from Continuing Operations [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1240 - Statement - Surplus (Deficit) Breakdown by Controlling and Noncontrolling Interest (Parenthetical)	Surplus (Deficit) Breakdown [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1300 - Statement - Changes in Equity, Prior Period Adjustments	Accumulated Surpluses (Deficits), Prior Period Adjustments (Adjustment)	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Share Capital Reconciliation [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Reserves Reconciliation [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1400 - Statement - Changes in Equity	Accumulated Surpluses (Deficits) Reconciliation [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Noncontrolling Interest Reconciliation [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Net Assets/Equity Reconciliation [Roll Forward]		ОК	ОК	ОК	ОК	ОК	ОК
	Net Cash Flow [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1600 - Statement - Cash Flow Statement, Direct Method	Cash and Cash Equivalents Reconciliation [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
2220 - Disclosure - Property, Plant and Equipment, Net Subclassifications	Property, Plant and Equipment, Net [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
2221 - Disclosure - Property, Plant, and Equipment, Net Subclassifications (Alternative)	Property, Plant, and Equipment, Net, Components [Roll Up]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Land [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Buildings, Net [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
2230 - Disclosure - Property, Plant, and Equipment Reconciliations	Machinery, Net [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
	Furniture and Fixtures, Net [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
1	Property, Plant and Equipment, Net [Roll Forward]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
8900 - Disclosure - Analysis of Revenue	Sales Analysis, by Customer [Set]	ОК	ОК	OK	ОК	ОК	ОК	ОК
9990 - Document - Document Information	Document Information [Set]	ОК	ОК	ОК	ОК	ОК	ОК	ОК
9995 - Document - Entity Information	Entity Information [Set]	ОК	ОК	ОК	ОК	ОК	ОК	OK

This yields a rock-solid process for creating and evaluating each and every piece (i.e. block/fact set) of a report against very complete descriptions (rules) that a financial report must follow.

- Better
- Faster
- Cheaper

Multiple reporting schemes

While this example showed the IPSAS Core prototype in order to have a smaller set of disclosures to work with; the set of disclosures is comprehensive and exercises the most complicated aspects that you will find in any financial report from any reporting scheme including:

- US GAAP
- IFRS
- IPASA
- CAFR (GASB)
- Private companies
- ERISA
- Federal Grant Single Audit
- Not for Profit
- General business report (SBRM)

Different reporting schemes are managed using different application profiles that are used to adjust to different implementation details that are used for different financial reporting schemes. This is all managed by software applications. The software either can detect the profile you are working with automatically, or you can override the software and set to whichever profile you decide.

F	esseract Options		<u>? X</u>
	General	Set the Reporting Scheme Preferences.	
	Language	Choose reporting scheme	
	Cache	• XBRL-based public company financial reports in US GAAP to the SEC	
	Reporting Profiles	XBRL-based public company financial reports in IFRS to the SEC	
	Workflow	XBRL-based private company financial reports in US GAAP XBRL-based financial reports in IFRS	
	Advanced	XBRL-based financial reports in IFRS, SMEs Configure profile	
	Add-Ins	XBRL-based general business reports	
		XBRL-based reporting using XBRL US Work-in-Progress/Surety taxonomy	
		XBRL-based reporting to XASB demonstration sandbox	
		XBRL-based financial reports using IPSAS	
		Reload the list of profiles	
		http://xbrisite.azurewebsites.net/2016/conceptual-model/reporting-scheme/Profiles.xsd	
		Preload/ReLoad	
		Ok Cancel	

These are the rule sets for the profile used by companies creating XBRL-based reports that are submitted to the SEC using US GAAP:

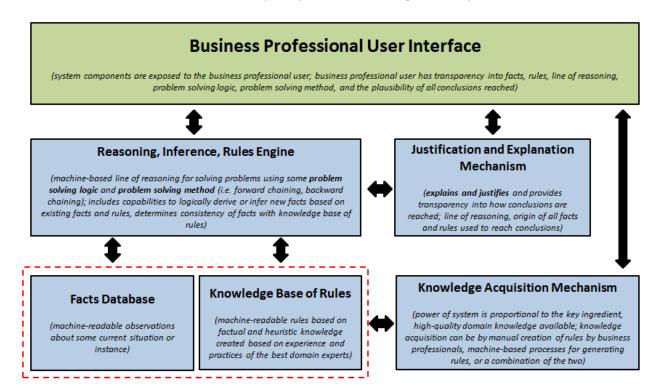
Repor	ting Profile Configuration (XBRL-based public company financial reports in US GAAP to the SEC)	×									
Rules	Configuration FAC Reporting Styles Disclosure Exemplars Examples, Samples, and Testing Files Disclosure Templates										
•	Model structure validation rules:										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/model-structure/ModelStructure-rules-us-gaap-def.xml										
₽	Fundamental accounting concept rules:										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/fac/Documentation/rss.xml										
	Level 1, 2, and 3 text blocks:										
	http://xbrl.fasb.org/us-gaap/2016/dis/us-gaap-dis-ctbl-pre-2016-01-31.xml										
V	Reporting checklist rules:										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/reporting-checklist/ReportingChecklist-us-gaap-strict-rules-def.xm	i									
	Disclosure mechanics rules:										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/disclosure-mechanics/Disclosures_BASE2.xsd										
•	Type or class relations										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/type-class/TypeOrClassRelations-us-gaap.xsd										
	Base Taxonomy (Elements, labels, documentation, references)										
	http://xbrl.fasb.org/us-gaap/2016/entire/us-gaap-entryPoint-all-2016-01-31.xsd										
•	Topics										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/Disclosures/topics.xsd										
V	Disclosures										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/Disclosures/disclosures.xsd										
V	Topic/disclosure relations										
	http://xbrlsite.azurewebsites.net/2016/conceptual-model/reporting-scheme/us-gaap/disclosures/disclosures-with-topics-def.xml										
	Preload/Reload (1) Preload/Reload (2)										
		_									

Further, it is possible to dynamically configure a profile on-the-fly simply by defining the rules you want using the global standard XBRL technical syntax and the standard framework¹¹.

¹¹ Dynamic validation testing document, <u>http://xbrlsite.azurewebsites.net/2019/Library/DynamicValidation.pdf</u>

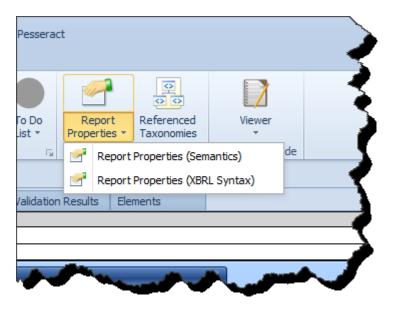
Expert system for constructing a financial report, GUI or API

Essentially, the Pesseract software is an expert system for creating XBRL-based financial reports and other XBRL-based business reports. There are API level and GUI level interfaces that are provided. The fundamental architecture is that of an expert system or knowledge based system:



Report properties

Both a semantic model and an XBRL syntactic model are provided in the application so you can view the pieces of a report per a logical model that explains the meaning of reported information or per the XBRL technical syntax artifacts.



Comparisons

Comparisons of reported information can be created at any level. Comparisons are created by creating mappings and a structure for the comparison by simply creating the information model definition for the comparison you desire:

http://www.sec.gov/Archives/edgar/data/1337068/000117494716002678/mgyr-20160331.xml http://www.sec.gov/Archives/edgar/data/1576336/000110465916120688/ajsb-20160331.xml http://www.sec.gov/Archives/edgar/data/1390312/000110465916121296/bkj-20160331.xml http://www.sec.gov/Archives/edgar/data/1515069/000143774916031367/crol-20160331.xml http://www.sec.gov/Archives/edgar/data/354869/000035486916000073/fmer-20160331.xml

New comp	parision 23
	Browse Paste Insert
	Filename
	http://www.sec.gov/Archives/edgar/data/1337068/000117494716002678/mgyr-20160331.xml
	http://www.sec.gov/Archives/edgar/data/1576336/000110465916120688/ajsb-20160331.xml
	http://www.sec.gov/Archives/edgar/data/1390312/000110465916121296/bkj-20160331.xml
	http://www.sec.gov/Archives/edgar/data/1515069/000143774916031367/crol-20160331.xml
	http://www.sec.gov/Archives/edgar/data/354869/000035486916000073/fmer-20160331.xml
	OK Cancel Clear

Component: (Network and Table)					
Network 401 - Unknown - Cash Flow Statem	ent				
Table Cash Flow Statement [Table]					
Unit [Axis]	USD		Ŷ		
	Period [Axis] 👻 Reporting E	ntity [Axis]			
		2016-01-01/	2016-03-31		2015-10-01/2016-03-31
Cash Flow Statement [Line Items]	0000354869 http:// www.sec.gov/CIK	0001390312 http:// www.sec.gov/CIK	0001515069 http:// www.sec.gov/CIK	0001576336 http:// www.sec.gov/CIK	0001337068 http:// www.sec.gov/CIK
Net Cash Flow [Roll Up]					
Net Cash Flow from Operating Activities [Roll Up]					
Net Cash Flow from Operating Activities, Continuing	35,748,000	1,776,000	132,254	113,000	4,224,000
Net Cash Flow from Operating Activities, Discontinued	0	0	0	0	0
Net Cash Flow from Operating Activities	35,748,000	1,776,000	132,254	113,000	4,224,000
Net Cash Flow from Investing Activities [Roll Up]					
Net Cash Flow from Investing Activities, Continuing	(183,668,000)	(4,002,000)	32,229	7,231,000	(12,554,000)
Net Cash Flow from Investing Activities, Discontinued	0	0	0	0	0
Net Cash Flow from Investing Activities	(183,668,000)	(4,002,000)	32,229	7,231,000	(12,554,000)
Net Cash Flow from Financing Activities [Roll Up]					
Net Cash Flow from Financing Activities, Continuing	444,000,000	(10,431,000)	3,767,908	(2,217,000)	11,150,000
Net Cash Flow from Financing Activities, Discontinued	0	0	0	0	0
Net Cash Flow from Financing Activities	444,000,000	(10,431,000)	3,767,908	(2,217,000)	11,150,000
Exchange Gains (Losses)	0	0	0	0	0
Net Cash Flow	296,080,000	(12,657,000)	3,932,391	5,127,000	2,820,000

Create/edit mode

The rules that are created to validate the report are watching over the user of the software to inform the user of any errors that occur as the report is created.

Plant, and								
0000 - Unknown - Property, Plant, and Equipment, by Component								
Property, Plant and Equipment, by Component [Table]								
Reporting Entity [Axis] SAM								
Co	nsolidated Entity [Member]							
Unit [Axis] USD								
	Period [Axis] 🛛 🔻							
ems]	2010-12-31	2009-12-31						
	5,347,000	1,147,000						
	244,508,000	366,375,000						
	34,457,000	34,457,000						
	4,169,000	5,313,000						
	6,702,000	6,149,000						
Total	295,183,000	413,441,000						
	SA Co US	SAMP http://www.SampleCompan Consolidated Entity [Member] USD Period [Axis] 2010-12-31 5,347,000 244,508,000 34,457,000 4,169,000 6,702,000						

If you change a value, you are immediately informed of mathematical inconsistencies that are introduced into the report. The notification goes away once the inconsistency is rectified:

Component: (N	etwork and Table)								
Network	30000 - Unknown - Pro	30000 - Unknown - Property, Plant, and Equipment, by Component							
Table	Property, Plant and Equ	Property, Plant and Equipment, by Component [Table]							
Reporting Entity [Axis] S		SAM	SAMP http://www.SampleCompany.com						
Legal Entity [Axis] C		Con	Consolidated Entity [Member]						
Unit [Axis]		USD							
		Pe	riod [Axis] 🗢						
Property, Plant and Equipment, by Component [Line Items]		[Line Items]	2010-12-31	2009-12-31					
Property, Plant	t and Equipment, Net [Roll (Up]							
Land			100	1147000					
Buildings, Net			244,508,000	366,375,000					
Furniture and Fixtures, Net			34,457,000	34,457,000					
Computer Equipment, Net			4,169,000	5,313,000					
Other Property, Plant and Equipment, Net			6,702,000	6,149,000					
Property, Plant and Equipment, Net, Total			295,183,000	413,441,000					

Editing the information model definition in one place and what you edited is updated throughout the report.

Rendering:

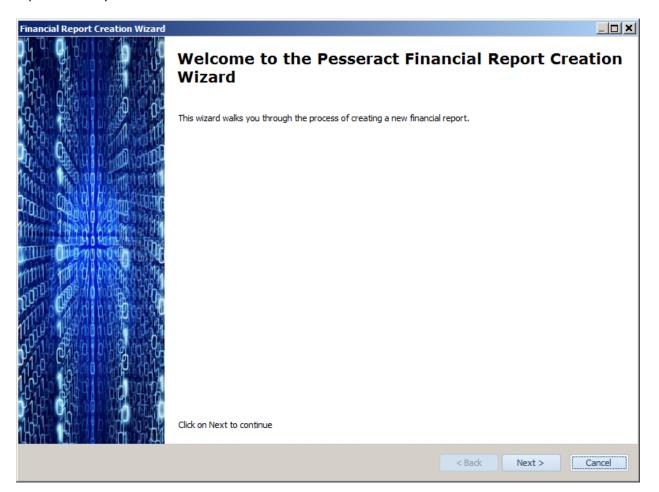
Component: (N	Network and Table)								
Network	30000 - Unknown - Property, Plant	30000 - Unknown - Property, Plant, and Equipment, by Component							
Table	Property, Plant and Equipment, by C	Property, Plant and Equipment, by Component [Table]							
Reporting Entity [Axis] S		SAMP http://www.SampleCompany.com							
Legal Entity [Axis]		Consolidated Entity [Member]	Consolidated Entity [Member]						
Unit [Axis]		USD							
		Period [Axis]							
Property, Plant and Equipment, by Component [Line Items]		2010-12-31	2009-12-31						
Property, Plan	nt and Equipment, Net [Roll Up]								
Foo		100	1,147,000						
Buildings, Net		244,508,000	366,375,000						
Furniture and Fixtures, Net		34,457,000	34,457,000						
Computer Equipment, Net		4,169,000	5,313,000						
Other Property, Plant and Equipment, Net		6,702,000	6,149,000						
	Property, Plant and Equipment, Net, Tota	295,183,000	413,441,000						

Model structure:

#	Reporting Entity	Period	Concept	Legal Entity [Axis]	Fact Value	Unit	Rounding
1	SAMP http://www.SampleCompany.com	2010-12-31	Foo	Consolidated Entity [Member]	100	USD	0
2	SAMP http://www.SampleCompany.com	2009-12-31	Foo	Consolidated Entity [Member]	1147000	USD	0
3	SAMP http://www.SampleCompany.com	2010-12-31	Buildings, Net	Consolidated Entity [Member]	244508000	USD	0
4	SAMP http://www.SampleCompany.com	2009-12-31	Buildings, Net	Consolidated Entity [Member]	366375000	USD	0
5	SAMP http://www.SampleCompany.com	2010-12-31	Furniture and Fixtures, Net	Consolidated Entity [Member]	34457000	USD	0
6	SAMP http://www.SampleCompany.com	2009-12-31	Furniture and Fixtures, Net	Consolidated Entity [Member]	34457000	USD	0
7	SAMP http://www.SampleCompany.com	2010-12-31	Computer Equipment, Net	Consolidated Entity [Member]	4169000	USD	0
8	SAMP http://www.SampleCompany.com	2009-12-31	Computer Equipment, Net	Consolidated Entity [Member]	5313000	USD	0
9	SAMP http://www.SampleCompany.com	2010-12-31	Other Property, Plant and Equipment, Net	Consolidated Entity [Member]	6702000	USD	0
10	SAMP http://www.SampleCompany.com	2009-12-31	Other Property, Plant and Equipment, Net	Consolidated Entity [Member]	6149000	USD	0
11	SAMP http://www.SampleCompany.com	2010-12-31	Property, Plant and Equipment, Net, Total	Consolidated Entity [Member]	295183000	USD	0
12	SAMP http://www.SampleCompany.com	2009-12-31	Property, Plant and Equipment, Net, Total	Consolidated Entity [Member]	413441000	USD	0

Financial report creation wizard

The financial report creation wizard leads you through the sometimes complex task of setting up a report correctly:



Disclosure creation wizard

Similar to the financial report creation wizard, complex tasks involved in creating a disclosure are made easier through the use of wizards.