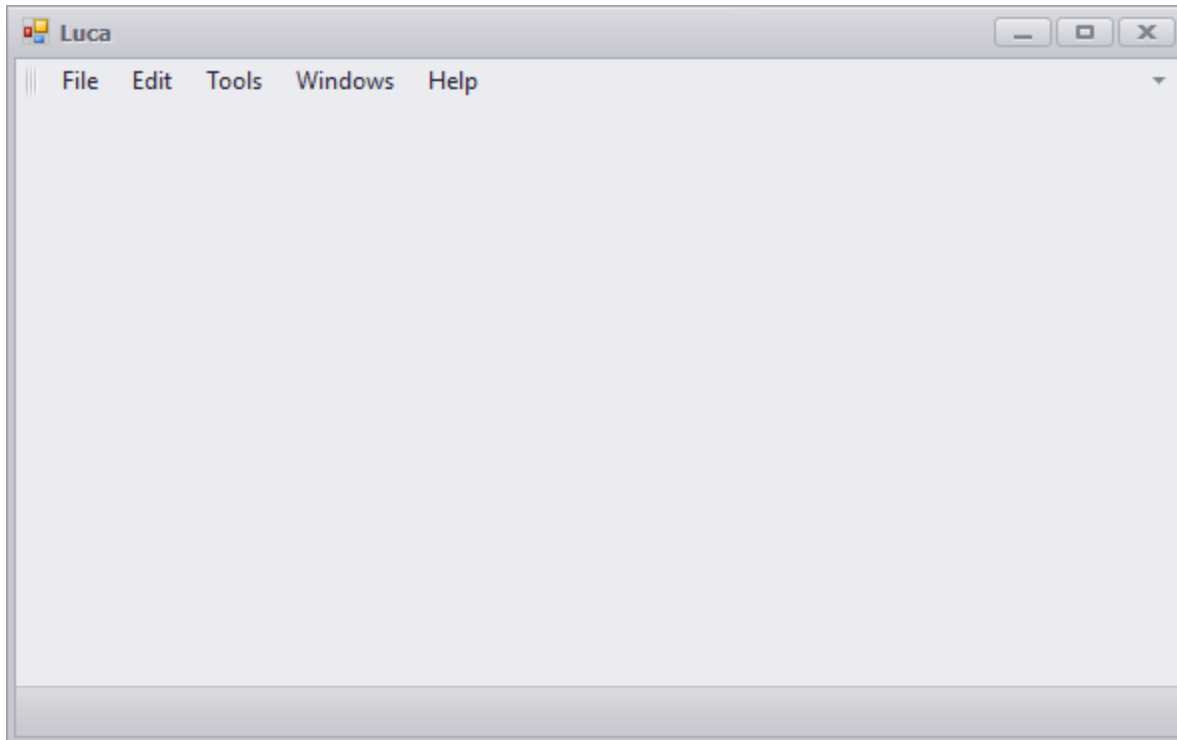# Accounting Equation Tutorial[1]

Before starting this tutorial, be sure to clear out any other information in the application by selecting "File", then "New", and then "Model" from the menu ribbon. Confirm that you want to delete the model information which will also delete all report information in the Luca application.

We are trying to keep this tutorial as simple as possible. We encourage you to follow each step exactly in order to get the most out of this tutorial. We will build on this foundation in further tutorials that increase incomplexity.
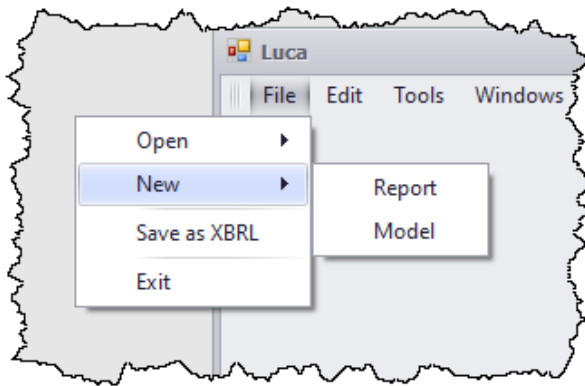
Step 1: Starting the applcation.

Open Luca. You should see the following.

From the menu ribbon select "File", then "New", and then "Model".

---

[1] Accounting Equation Representation, http://xbrlsite.azurewebsites.net/2020/master/ae/index.html

A dialog box will appear and ask you to confirm that you want to delete any existing model which would also delete any reports that you have created. Select "Yes" to clear out what is stored in the application.
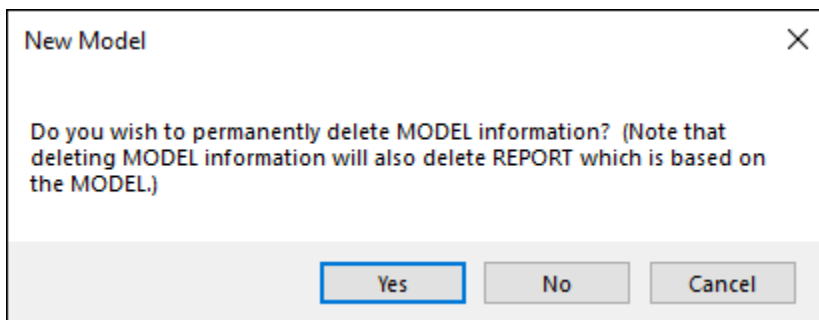
Step 1: Enter base information.

Select "Edit" and then "Base Information". The Base Information form will appear. Enter the base information that will be used by the XBRL taxonomy:

Base Information	
NamespaceIdentifier	http://www.xbrlsite.com/ae
NamespacePrefix	ae
TaxonomyDescription	Accounting Equation
TaxonomyFileNameBase	ae
UseXBRLDimensions	YES

Your information should look exactly as what appears above.

Step 2: Enter term information.

Select "Edit" and then "Terms". The Terms form will appear. Enter term information. When you begin, your form will look like this:

Category	Standard Label	Prefix	Name	Data Type	Balance Type	Period Type

After you have finished entering your terms for the accounting equation XBRL taxonomy, your term information for the accounting equation XBRL taxonomy should look like this:

Category	Standard Label	Prefix	Name	Data Type	Balance Type	Period Type
Concept	Assets	ae	Assets	Monetary	Debit	Instant
Concept	Liabilities	ae	Liabilities	Monetary	Credit	Instant
Concept	Equity	ae	Equity	Monetary	Credit	Instant
Abstract	Balance Sheet [Set]	ae	BalanceSheetSet			

Close the terms form by pressing the "x" in the upper right hand corner.

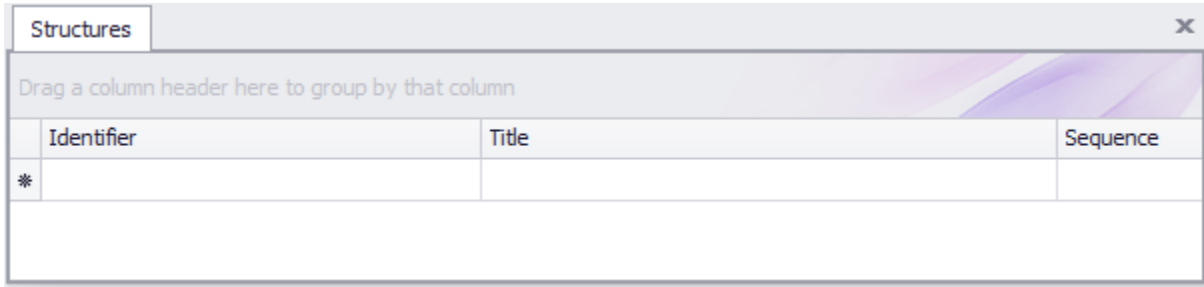**Step 2: Enter label information.**

Select "Edit" and then "Labels" from the menu ribbon. The Labels form will appear. We already entered the labels we need when we entered the terms above, note the "Standard Label" which is always required. So, we will skip entering any additional labels and move on.

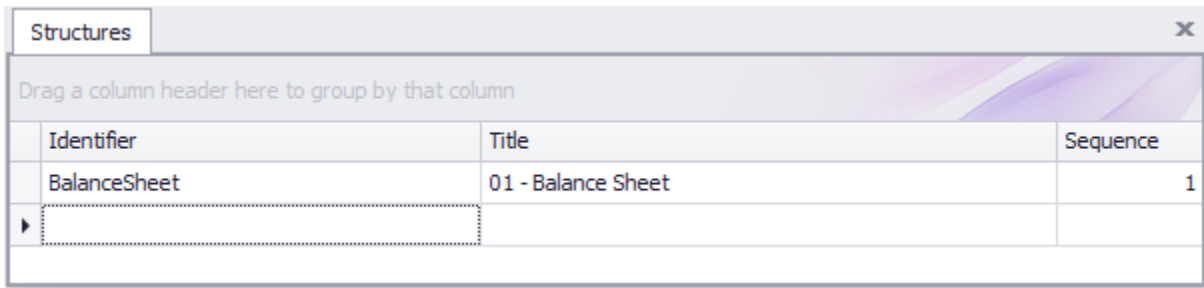| Term	Language	Label Role	Label

Close the labels form.

Step 3: Enter structure information.

Select "Edit" and then "Structures" from the menu ribbon. The Structures form will appear. When you begin, your form will look like this:

Structures		✕
Drag a column header here to group by that column		
Identifier	**Title**	**Sequence**
✱		

After you have finished entering your structures for the accounting equation XBRL taxonomy, your structure information for your accounting equation XBRL taxonomy should look like this:

Structures		✕
Drag a column header here to group by that column		
Identifier	**Title**	**Sequence**
BalanceSheet	01 - Balance Sheet	1
▶		

Close the structures form.

Step 4: Enter associations information.

Select "Edit" and then "Associations" from the menu ribbon. The Associations form will appear. When you begin, your form will look like this:

Associations							✕
Drag a column header here to group by that column							
Structure Type	Network Identifier	Association From Name	Association Role	Association To Name	Calculation Polarity	Preferred Label Role	Sequence
✱							

After you have finished entering your associations for the accounting equation XBRL taxonomy, your associations information for your accounting equation XBRL taxonomy should look like this:

Structure Type	Network Identifier	Association From N...	Association Role	Association To Name	Calculation Polarity	Preferred Label Role	Sequence
Presentation	BalanceSheet	ae:BalanceSheetSet	Parent-Child	ae:Assets			1
Presentation	BalanceSheet	ae:BalanceSheetSet	Parent-Child	ae:Liabilities			2
Presentation	BalanceSheet	ae:BalanceSheetSet	Parent-Child	ae:Equity			3

Close the associations form.

Step 4: Enter rules information.

Select "Edit" and then "Rules" and then "Consistency" from the menu ribbon. The Rules form will appear. When you begin, your form will look like this:

Rule Type	Rule Code	Rule	Network	Concept	Sequence	Commentary

After you have finished entering your rules for the accounting equation XBRL taxonomy, your rules information for your accounting equation XBRL taxonomy should look like this:


Rule Type	Rule Code	Rule	Network	Concept	Sequence	Commentary
Consistency	BS1	$Assets = $Liabilities + $Equity	BalanceSheet	ae:Assets	1	
Variable Name						
ae:Assets						
ae:Liabilities						
ae:Equity						

IMPORTANT NOTE!!! If you copy/paste the rule into the Luca application from the Excel spreadsheet, you will need to enter the three variables.

Close the rules form.

Step 4: Generate your XBRL taxonomy schema and label linkbase.

Select "File" and then "Save as XBRL" then a standard Windows form will appear that will allow you to save your XBRL taxonomy files. Enter "ae.xsd" into the File name field:
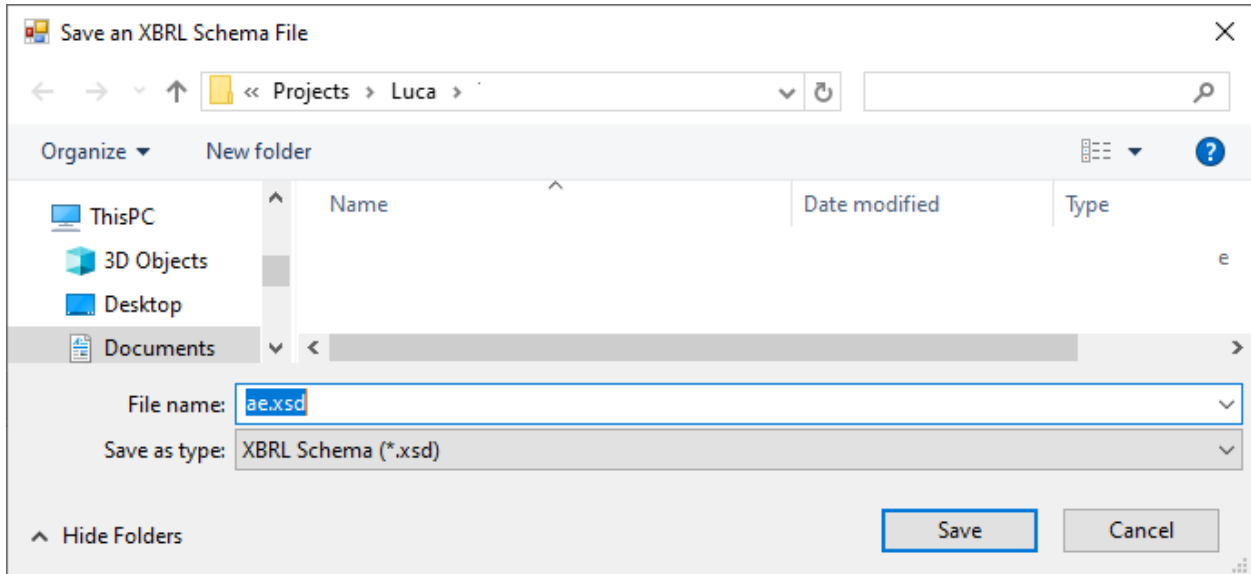
Several XBRL files will be generated that contain the information that you entered into the Luca application.

Step 4: Entering facts

Select "Edit" and then "Facts" from the menu ribbon. The Facts form will appear. When you begin, your form will look like this:

Facts							✕
			Save				
Reporting Entity Aspect	Calendar Period Aspect	ConceptAspect	Fact Value	Units	Rounding	Sequence	
✳							

After you have finished entering your facts for the accounting equation report, your facts information in your accounting equation REPORT should look like this:

Facts						✕
			Save			
Reporting Entity Aspect	Calendar Period Aspect	ConceptAspect	Fact Value	Units	Rounding	Sequence
⊞ GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2020-12-31	ae:Assets	1000	iso4217:USD	-3	
⊞ GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2020-12-31	ae:Liabilities	500	iso4217:USD	-3	
⊞ GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2020-12-31	ae:Equity	500	iso4217:USD	-3	
⊞ GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2021-12-31	ae:Assets	10000	iso4217:USD	-3	
⊞ GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2021-12-31	ae:Liabilities	5000	iso4217:USD	-3	
⊞ GH259400TOMPUOLS65II | http://standards.iso.org/iso/17442	2021-12-31	ae:Equity	5000	iso4217:USD	-3	
▶						

IMPORTANT NOTE!!! Notice the "Save" button above the facts that where entered. Be sure to press that "Save" button or the facts will not be saved by the application.

Step 5: Verify your XBRL files.

Finally, we will want to verify that the XBRL taxonomy that we created was consistent with the XBRL technical specification. Luca does not perform XBRL validation. You can use any off-the-shelf XBRL processor to verify that your XBRL is correct. Below you see the validation results provided by XBRL Cloud:

Report generated using software from Coyote Reporting, LLC at 2020-10-16T03:49:20.858-0700

XBRL Validation Report

Severity	Count
Error	0
Warning	0
Inconsistency	0
Best Practice	0
Information	0
Total	**0**

No Errors!

Arelle is a free, open source, but rather technical XBRL processor. Below you can see what your XBRL taxonomy looks like in a technical oriented tool.

Another tool for working with XBRL-based reports is Pesseract[2]. Below you see the technical perspective of the XBRL taxonomy that you created for the accounting equation:
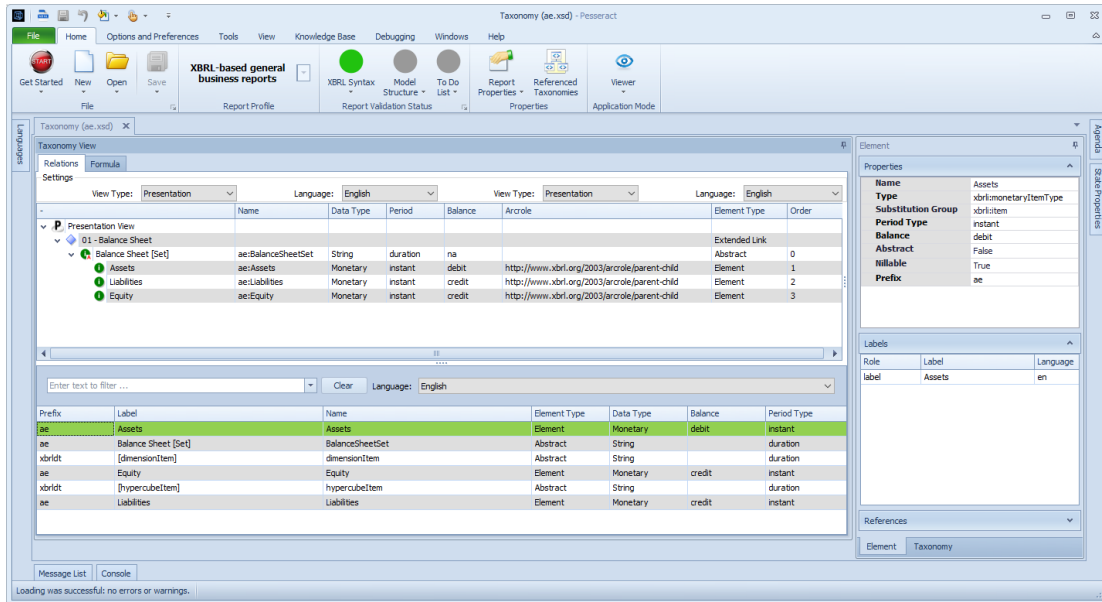
This is what your XBRL instance looks like:

[2] Pesseract, http://pesseract.azurewebsites.net/