

# Lab 4 As Is Process Static Analysis

**IS210 – Business Process Analysis and Solutioning**

# Today Agenda

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- Review of Lab 3 – Creating of Process Diagram
- Lab 4 – As Is Process Static Analysis
- Download the following from eLearn Week 4
  - **Lab4 - As Is Process Static Analysis.pdf**
  - **Rental Application Process – As Is.bpmn**
- No Submission required

# Recap of Lab 3

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- Understanding the Business Process Scenario
- Creating a Business Process Diagram
  - Login to Signavio
  - Create a Folder to store Lab Process Diagram
  - Create new Process Diagram via
    - Editor
    - QuickModel

# Lab 4 - Overview

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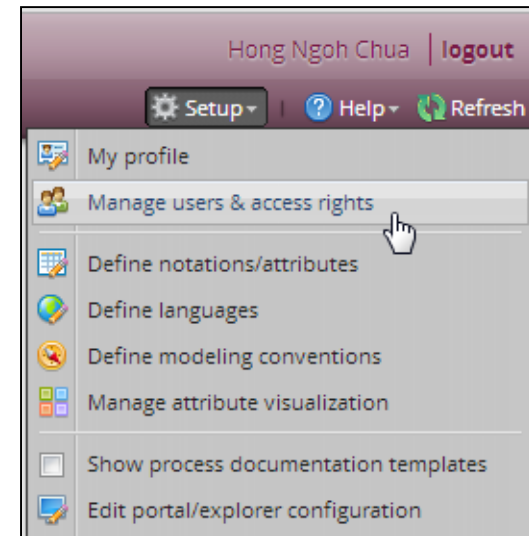
1. **Invite friends** and Share Workspace
2. **Importing and Exporting** of Process Diagram
3. **Settings** using attributes panel
4. Creating **Quantitative Analysis Report**
5. Generation of **Business Process Diagram**
6. **Managing attribute visualization layers**

# Part 1 – Invite friends and Share Workspace

- **Invite Friends to your workspace**

- Explorer View

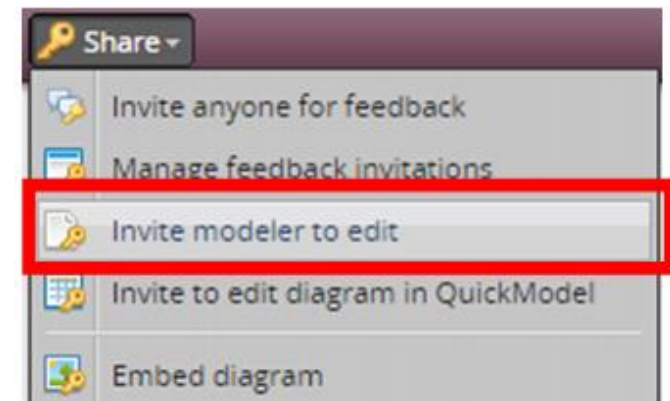
- Setup -> Manage users and access rights



- **Invite Friends to Refine Process Diagram**

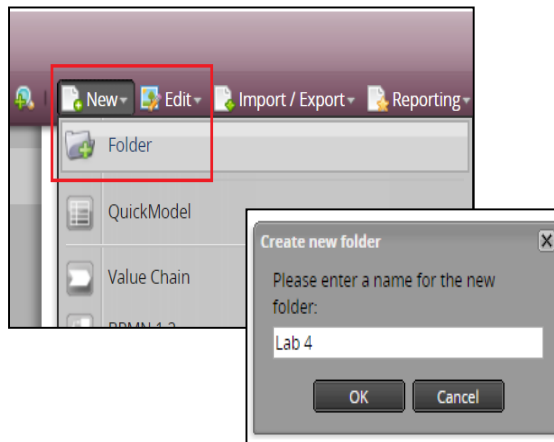
- Explorer View

- Select a process diagram
- Share -> Invite modeler to edit

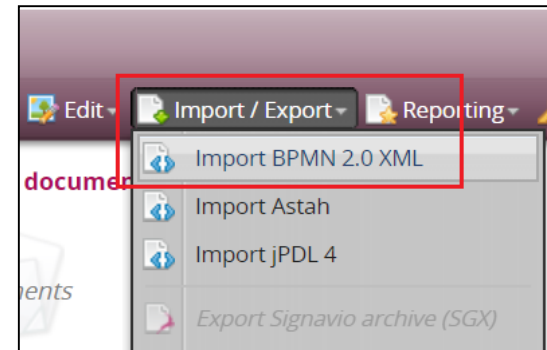


## Part 2 – Importing & Exporting of Process Diagram

- **Import Process Diagram**
  - Create a new folder “Lab 4”
  - Click “Import/Export” and
  - Select “Import BPMN 2.0 XML”



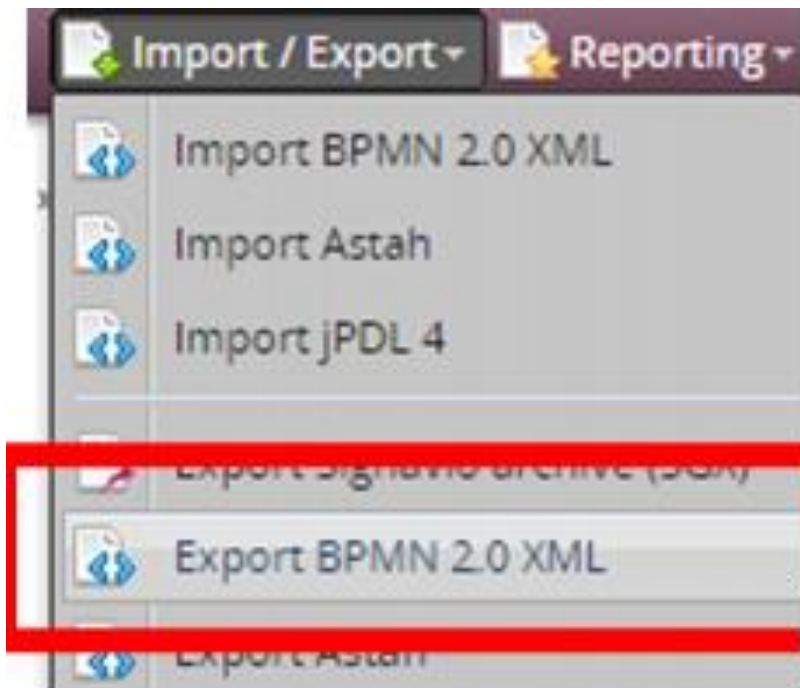
Create New Folder



Import Process Diagram

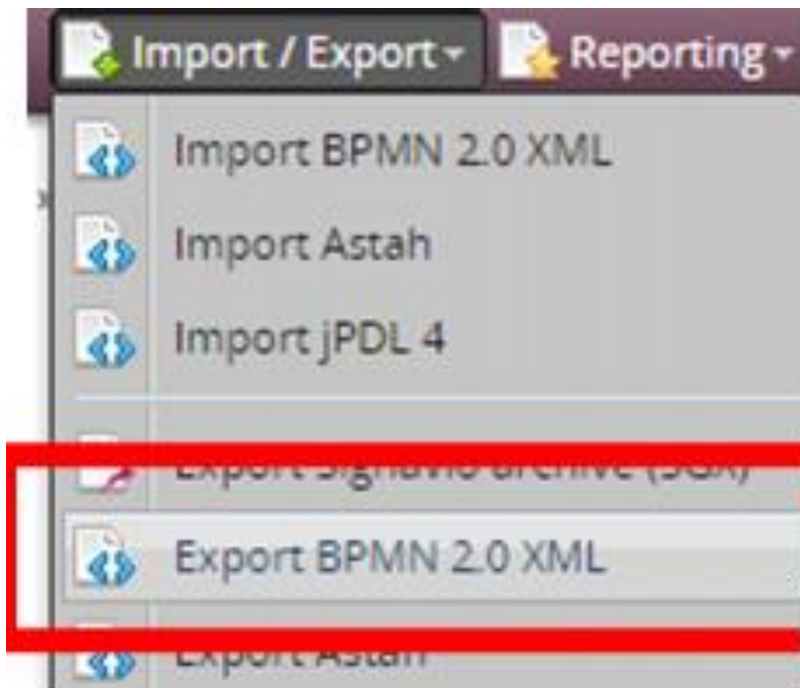
# Part 2 – Importing & Exporting of Process Diagram

- **Export Process Diagram**
  - Select the Process Diagram
  - Click “[Import/Export](#)” and
  - Select “[Export BPMN 2.0 XML](#)”



# Part 2 – Importing & Exporting of Process Diagram

- **Export Process Diagram**
  - Select the Process Diagram
  - Click “[Import/Export](#)” and
  - Select “[Export BPMN 2.0 XML](#)”





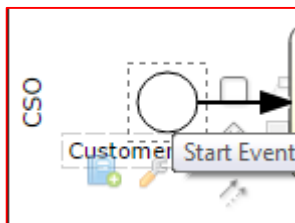
# Part 3 – Settings using Attributes Panel

- **Model Process Diagram**

- Frequency for Start Event
- Execution Time for each task
- Distribution for each gateway

- **Start Event**

- **Frequency (per year)** – How often a process is started via entry point



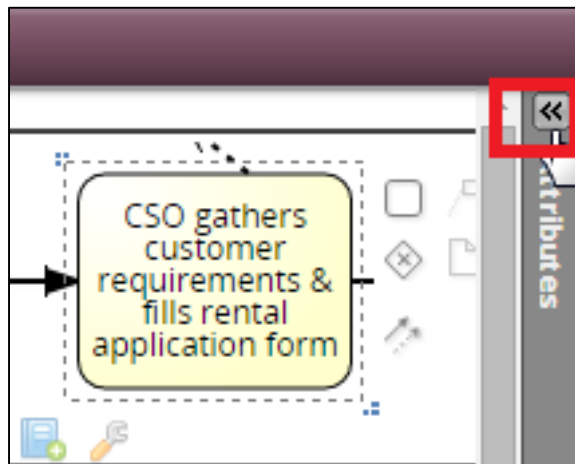
Attributes (Start Event)	
Name	value
Custom Attributes	
Preceding processes	
Main Attributes	
Cost & Resource Analysis	
Frequency (per Year)	6500
Apply in calculation	<input checked="" type="checkbox"/>
More Attributes	

25 Instances / day  
5 Working days/week  
52 weeks/year  
 $25 * 5 * 52 = 6500$

## Part 3 – Settings using Attributes Panel

- **Roles**

- Represents **Positions** or **Responsibilities** of people within an organisation
- **Availability (Timetable)** and **Cost & Resource** are specific to Roles



Attributes (Task)	
Name	value
Custom Attributes	
Main Attributes	
Cost & Resource Analysis	
Execution time (min)	30
Execution costs (\$)	
Cost Center	
Apply in calculation	✓

# Part 3 – Simulation Attributes settings using Attributes Panel

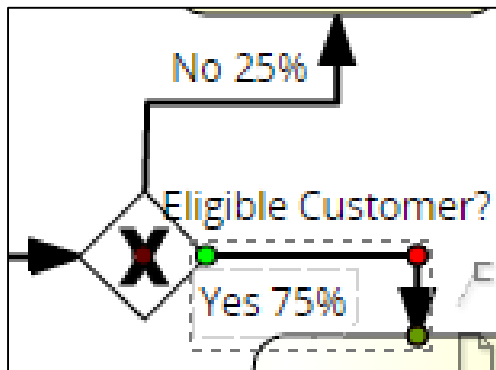
## ■ Cost and Resource Analysis - Execution Time

Cur Step	Prev Step	Task Description	Execution Time (min)
1	-	CSO gathers customer requirements & fills Rental Application Form	30
2	1	OD dispatches Rental Application Form from CSO to MO	5
3	2	MO checks availability of choice industrial space using IMS using information from the rental application form	25
4	3	MO proceeds to CSC to meet customer	5
5	4	MO obtains customer UEN & verifies eligibility from government website	5
6a	5	MO markets choice industrial spaces to customer if UEN eligible (75%)	45
6b	5	MO informs customer of UEN ineligibility and updates Rental Application Form of rejection status (25%). Process ends.	3
7a	6a	If customer rejects choice industrial space, MO updates Rental Application Form of customer rejection (10%). Process ends.	3
7b	6a	If customer accepts choice industrial space, MO reserves customer selection in IMS, updates Rental Application Form & passes form to customer (90%)	5
8	7b	MO sends email to LM for Rental Application approval	3
9	8	CSO collects rental application form and booking fee from customer. CSO notes down the payment and issue receipt to customer. Process ends.	12

## Part 3 – Simulation Attributes settings using Attributes Panel

### • Probability of Gateway

- Set probability at the sequence flow connector



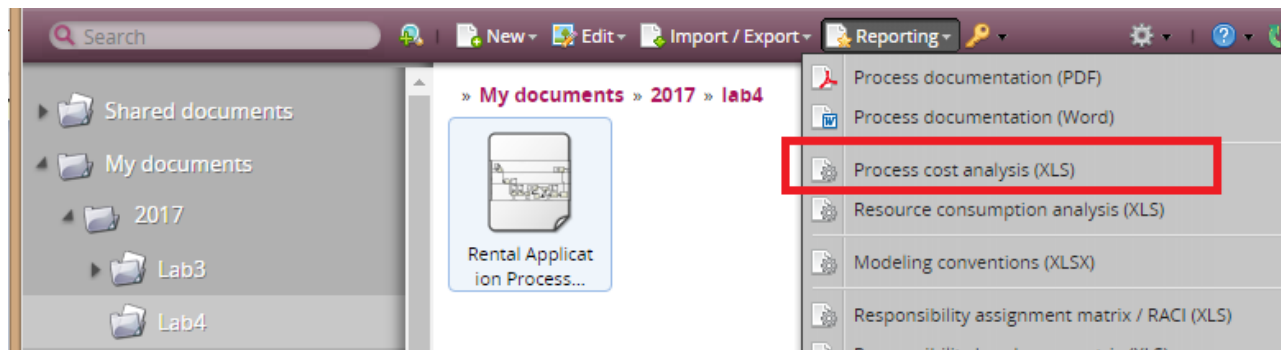
Attributes (Sequence Flow)	
Name	value
+ Main Attributes	
- Cost & Resource Analysis	
Probability	0.75
+ More Attributes	

- Set probability for all sequence flow connector

Decision Points	Yes (%)	No (%)
Customer eligible for rental of industrial space?	75	25
Customers decision on the choices of industrial spaces recommended by the MO?	90	10

# Part 4 – Creating Quantitative Analysis Report

- **Process Cost Analysis**
  - Shows weighted average process cost



<b>Report:</b>	Cost Calculation (Process)			
<b>Date:</b>	08.09.2016			
<b>Time:</b>	10:56:16			
<b>Name:</b>	Rental Application Process As Is			
<b>Frequency (per year):</b>	6500			
			<b>Without Cost Center</b>	<b>Total</b>
Task	Input factor	Costs per execution	Costs	Costs
CSO gathers customer requirements & fills rental application form	1.00	\$ 10.00	\$ 65,000.00	\$ 65,000.00
OD Dispatches rental application form from CSO to MO	1.00	\$ 0.50	\$ 3,250.00	\$ 3,250.00
MO checks availability of choice industrial space	1.00	\$ 12.50	\$ 81,250.00	\$ 81,250.00

# Part 4 – Creating Quantitative Analysis Report

CSO = \$20 / hr  
 Execution Time = 30mins  
 Cost =  $0.50 * \$20 = \$10$

Task	Input factor	Costs per execution	Without Cost Center Costs	Total Costs
CSO gathers customer requirements & fills rental application form	1.00	\$ 10.00	\$ 65,000.00	\$ 65,000.00
OD Dispatches rental application form from CSO to MO	1.00	\$ 0.50	\$ 3,250.00	\$ 3,250.00
MO checks availability of choice industrial space	1.00	\$ 12.50	\$ 81,250.00	\$ 81,250.00
MO proceeds to CSC to meet customer	1.00	\$ 2.50	\$ 16,250.00	\$ 16,250.00
MO obtains customer UEN and verifies eligibility from government website	1.00	\$ 2.50	\$ 16,250.00	\$ 16,250.00
MO markets choice industrial spaces to customer	0.75	\$ 22.50	\$ 109,687.50	\$ 109,687.50
MO reserves customer selection in IMS and updates rental application form & pass form to customer	0.68	\$ 2.50	\$ 10,968.75	\$ 10,968.75
MO emails LM for Rental Application approval	0.68	\$ 1.50	\$ 6,581.25	\$ 6,581.25
CSO collects rental application form and booking fee from customer & informs 2 working day wait time	0.68	\$ 4.00	\$ 17,550.00	\$ 17,550.00
MO updates rental application form of customer rejection	0.08	\$ 1.50	\$ 731.25	\$ 731.25
MO informs customer of UEN ineligibility and updates rental application form of rejection status	0.25	\$ 1.50	\$ 2,437.50	\$ 2,437.50
<b>Sums</b>		<b>\$ 50.76</b>	\$ 329,956.25	\$ 329,956.25

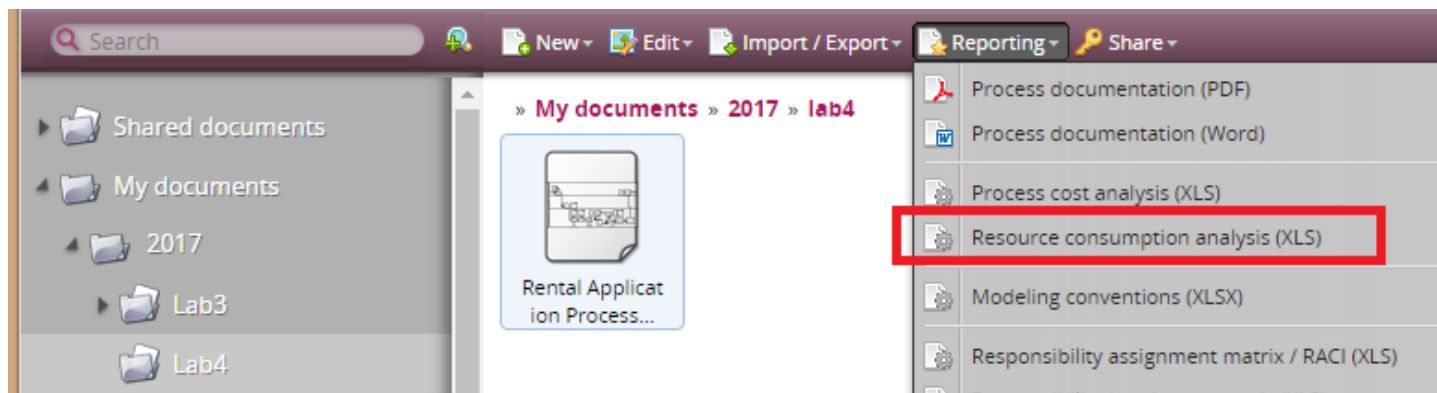
75% x 90%

75% x 10%

Weighted average process cost

# Part 4 – Creating Quantitative Analysis Report

- **Resource Consumption Analysis Report**
  - Compute the time consumption for each task



Report:	Resource Planning (Process)				
Date:	08.09.2016				
Time:	11:04:40				
Name:	Rental Application Process As Is				
Frequency (per year):	6500				
			StarMall - Customer Service Officer		
Task	Input factor	Average processing time [min]	Workload [h]	Workload [h, incl. contingency allowance]	Nr. of full resources
CSO gathers customer requirements & fills rental application form	1.00	30.00	3,250.00	3,770.00	2.14
OD Dispatches rental application form from CSO to MO	1.00	5.00			
MO checks availability of choice industrial space	1.00	25.00			

# Part 4 – Creating Quantitative Analysis Report

- **Resource Consumption Analysis Report**
  - Shows **estimated required number of resources**

StarMall - Customer Service Officer			
Task	Workload [h]	Workload [h, incl. contingency allowance]	Nr. of full resources
CSO gathers customer rental application form		3,770.00	2.14
OD Dispatches rental application to MO			
MO checks availability of rental application			
MO proceeds to CSC to process rental application			
MO obtains customer UEN from government website			
MO markets choice of rental application			
MO reserves customer rental application			
MO updates rental application of customer			
MO emails LM for Rental Application approval	0.68	3.00	
CSO collects rental application form and booking fee from customer & informs 2 working day wait time	0.68	12.00	877.50
MO updates rental application form of customer rejection	0.08	3.00	
MO informs customer of UEN ineligibility and updates rental application form of rejection status	0.25	3.00	
<b>Sums</b>		<b>118.23</b>	<b>4,127.50</b>
			<b>4,787.90</b>
			<b>2.72</b>

**Quantitative analysis**

Please provide more details on resource calculation:

Personal allowance (% of total work time)

Technical allowance (% of total work time)

☐ Save for future calculation

Nominal value of work days / year

**Nominal value of work hours / day**

☐ Save for future calculation

<< Back Start Calculation

Work days 220  
 Work hours 8  
 $3770 / (220 \times 8)$   
 $= 3770 / 1760$



- **Export Process Diagram to a PDF document**

### PDF Export

Export one or more diagrams to PDF. You can change the general export settings as well as add additional attributes which are printed along with the diagram.

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**General**

Print in black and white: ☐

Show additional information: ☐

Paper size: A4

Stretch small diagrams to whole page: ☐

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**Orientation**

Landscape: ☒

Portrait: ☐

Diagram rotation: Automatic

Diagram orientation: Clockwise

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**Distribution**

Single page: ☒

Multiple pages: ☐

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**Attribute visualization**

Rule sets:

- ☒ Execution Time

Show risks and controls: ☐

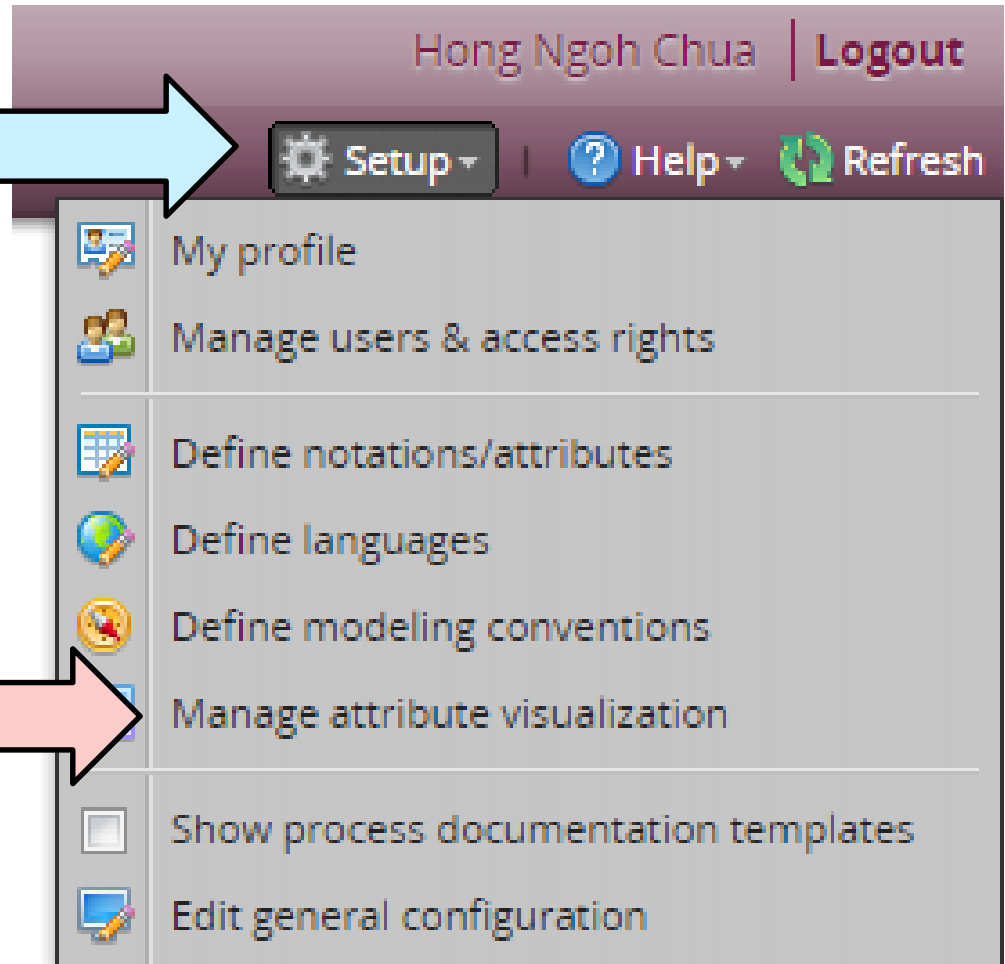
Show attachment icon: ☐

[Cancel](#) [Create PDF](#)

# Part 6 – Managing attribute visualization layers

**Step B.1 –  
Click Here**

**Step B.2 –  
Select**

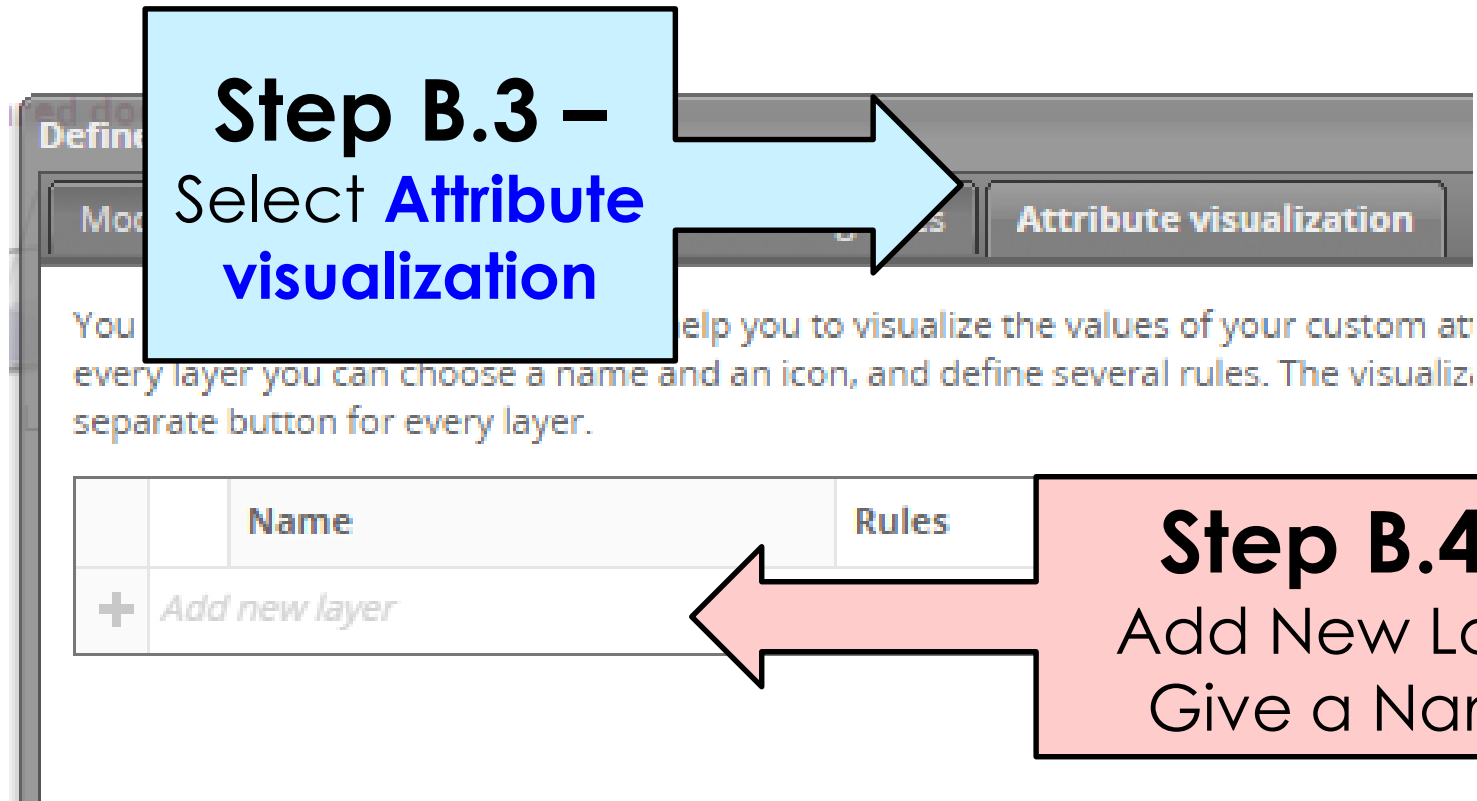


The screenshot shows the top navigation bar of the Hong Ngho Chua system. The user is logged in as 'Hong Ngho Chua' and can click 'Logout'. Below the user name are three buttons: 'Setup' (gear icon), 'Help' (question mark icon), and 'Refresh' (circular arrow icon). A dropdown menu is open under the 'Setup' button, listing the following options with their respective icons:

- My profile (person icon)
- Manage users & access rights (two people icon)
- Define notations/attributes (calendar icon)
- Define languages (globe icon)
- Define modeling conventions (cylinder icon)
- Manage attribute visualization (document with pencil icon)
- Show process documentation templates (document icon)
- Edit general configuration (laptop icon)

A blue arrow from Step B.1 points to the 'Setup' button, and a pink arrow from Step B.2 points to the 'Manage attribute visualization' option in the dropdown menu.

# Part 6 – Managing attribute visualization layers



**Step B.3 –**  
Select **Attribute visualization**

You help you to visualize the values of your custom at every layer you can choose a name and an icon, and define several rules. The visualiz separate button for every layer.

	Name	Rules
+	Add new layer	

**Step B.4 –**  
Add New Layer  
Give a Name

# Part 6 –

## Managing attribute visualization layers

**Step B.5 –**  
Click on “...”

fine notations/attributes

Modeling language Dictionary Modeling rules **Attribute visualization**

You can define different layers that help you to visualize the values of your custom... For every layer con, and define several rules. The visualization can be triggered within the Editor with a separate butt... ry layer.

	Name	Rules	Visualization												
	<input checked="" type="checkbox"/> New Layer	Define rules	- \$ Finance Icon												
	<table border="1"> <thead> <tr> <th>Color</th> <th>Property</th> <th>Relation</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td> \$</td> <td>... Execution time (min)</td> <td>&gt;=</td> <td>0</td> </tr> <tr> <td colspan="4">+ Add new rules</td> </tr> </tbody> </table>	Color	Property	Relation	Value	\$	... Execution time (min)	>=	0	+ Add new rules					
Color	Property	Relation	Value												
\$	... Execution time (min)	>=	0												
+ Add new rules															
+ Add new layer															

**Step B.6 –**

Color -> **Any colour you like**

Property -> **Execution Time(min)**

Relation -> **>=**

Value -> **0**

# Part 6 – Managing attribute visualization layers

Modeling language | Dictionary | Modeling rules | **Attribute visualization**

You can define different layers that help you to visualize the values of your custom attributes while working with the graphical editor. For every layer you can choose a name and an icon, and define several rules. The visualization can be triggered within the Editor with a separate button for every layer.

	Name	Rules	Visualization	Show Details
 <input checked="" type="checkbox"/>	New Layer	 Execution time (min) ...	 Property value	<input type="checkbox"/>
	Add new layer			

## Step B.7 –

## Visualization -> **Property Value**

# Class Reflection



**Individual**



**5 Minutes**



## **Module 5: Business Process Analysis – Static Lab 4 – As Is Process Static Analysis**



Reflect about the class

Answer the questions at the Google Form  
<https://smu.sg/IS210Reflect>