

## How to Create Project Reference in Visual Paradigm?

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You are allowed to re-use model elements from dependent project in developing your current project. Moreover, this also helps you to optimize projects through breaking down a project into smaller pieces. Once the project reference being established, you can develop your model using model elements in referenced project. This tutorial takes Fruit Store project and a library project as an example to explain how does project referencing works.

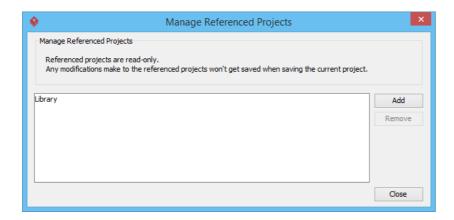
## Reusing a class from another project

- 1. Download the <u>Library.vpp</u> and then put it under your workspace folder. You can check your workspace folder path selecting **Help > Switch Workspace** from the application toolbar.
- 2. Create a new project with <u>Visual Paradigm</u>. Select **Project > New** from the application toolbar.
- 3. In the **New Project** window, enter *Fruit Store* as project name. Click the **Create Blank Project** button.

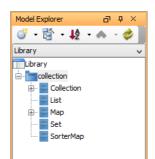
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Name:	Fruit Store
Author:	Peter
Data type set:	UML 🗸
Description:	
Advanced O	ptions
	Create Blank Project Cancel

4. Select **Project > Referenced Project** from the application toolbar.

5. In the **Manage Reference Project** window, click **Add** button and then select *Library.vpp*. Click **Close** button.



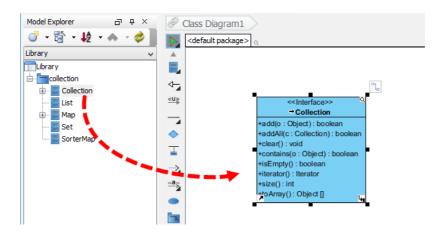
6. You can see the model elements in *Library.vpp* listed in the **Model Explorer**. On top of the element list there is a drop down menu for you to access the elements in different referenced projects. You will need it when your project is referencing multiple projects.



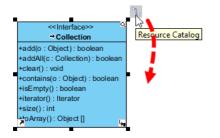
 Let's construct a simple class diagram for collection classes. Create a new class diagram first. You can create a class diagram by selecting **Diagram > New** from the application toolbar. Select **Class Diagram** and click **Next**. Then, click **OK** to confirm.

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	Q. Search		
		Class Diagram Design object model, persistence model for Hibernate ORM and REST API with classes, their attributes, operations and inter-relationship.	^
		<b>Communication Diagram</b> Model the relationships between objects. Communication Diagram focuses on telling whether a relationship exists between objects. It does not tell their order and how objects interact with each other.	
		<b>Component Diagram</b> Model how components are connected with each other in forming a software systems and the interfaces of those components. Examples of components include third party libraries, files, executable, etc.	
	•	<b>Composite Structure Diagram</b> Model the internal structure and composition of classes.	~
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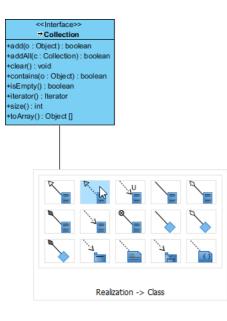
8. Let's create a *FruitCollection* class which stores the fruit selections in the store. Let's start by reusing the *Collection* class in *Library.vpp*. Drag out the *Collection* class from **Model Explorer** and drop it on the diagram.



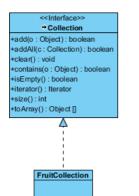
9. To create a new class that implements the *Collection* interface, move the mouse pointer over the *Collection* class, press and drag on the **Resource Catalog** button.



10. Release the mouse button and select **Realization -> Class** from Resource Catalog.



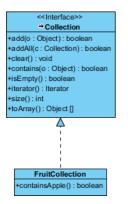
11. Name the class as *FruitCollection* and press Enter.



12. Add an operation to the *FruitCollection* class. Right-click on it and select **Add** > **Operation** from the pop-up menu.

FruitCollectio	on					
		Add	•	Attribute		Alt+Shift+A
		Open Specification	Enter	Attribute with Getter and	Setter	
		Stereotypes	•	Operation		Alt+Shift+O
		Model Element Properties	•	Constructor	13	
		Sub Diagrams	+	Template Parameter		
		Create Parent	•			

13. Name the operation +containsApple():boolean, press Enter and Esc to confirm editing.



The first half of this tutorial is finished. The steps above demonstrate how does reference project(s) work. Even if in future there are other projects that require the modeling of collection classes, you can reuse the same library project as referenced project. Moreover, when you have updated the reference project, for example, adding an operation to the *Collection* class in this case, the referencing project will be benefited as well. This time-saving feature would avoid you repeating the same change on different projects.

## Accessing diagrams in referenced project

1. Select **View > Project Browser** from the application toolbar.

2. Under the **Diagram** tab, click on the drop down menu at the top left corner and then select the *Library* project.

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3. Double click on the diagram *Collection Framework* to open it.



With this, you can read the diagram drawn in the referenced project.

	collection				
< <interface>&gt; Collection</interface>	< <interface>&gt; Map</interface>				
kadd(c : Object) : boolean kaddAll(c : Collection) : boolean kcontains(o : Object) : boolean HisEmpty() : boolean Hiterator() : Iterator Hiterator() : Iterator Hiterator() : Object []	+clear() : boid +containsLey(key : Object) : boolean +entrySet() : Set +isEmpty() : boolean +keySet() : Set +put(key : Object, val : Object) : Object				
< <interface>&gt; &lt;<interface>&gt; List Set</interface></interface>	< <interface>&gt; SorterMap</interface>				

Resources

1. Library.vpp



## Visual Paradigm tutorials

(https://www.visual-paradigm.com/tutorials/) https://www.visual-paradigm.com/tutorials/projectdependency.jsp