# Visual ◆ Paradigm

Move Class to Library Project through Refactoring

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Refactoring is the technique of moving project data (i.e. model elements/diagrams) from current project to referenced project to aid in project data sharing among projects. This eases not just the sharing of common project data, but also the improvement of readability as well as the reduction of complexity of project.

In this tutorial, we will demonstrate the use of the refactoring feature in moving some generic classes to a library project.

1. Download online_bookstore.vpp and library.vpp and place them in the same folder. You can also download the two files at the bottom of this tutorial, under the Resources section.

2. Open *online_bookstore.vpp* in Visual Paradigm by selecting **Project** > **Open** from the application toolbar. *online_bookstore.vpp* references *library.vpp*. If you have put both projects in the same folder, you should be able to open *online_bookstore.vpp* without any problems. If you are asked to resolve project referencing, please select *library.vpp* manually.

3. There are two class diagrams in the project. Let's open the *domain* diagram first and take a look. There are several domain classes. *OrderList* and *BookList* are subclasses of the *List* class.
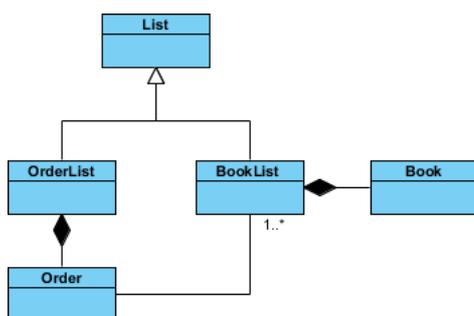
4. Open another class diagram named *lib*. This diagram contains we what called the library classes. The *List* class, super class of *OrderList* and *BookList*, exist also in this diagram. Library classes are classes that are readily be used by other projects due to their generic nature. In this tutorial, we are going to move the library classes to the *lib* project through refactoring.
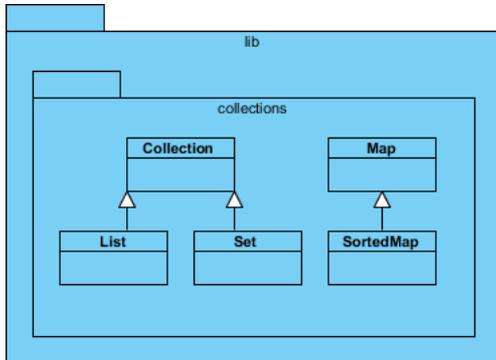
5. Open the **Model Explorer** by selecting **View > Panes > Model Explorer** from the application toolbar.

6. The *lib* package contains the classes we want to refactor. Right-click on the *lib* package and select **Refactor to Referenced Project...** from the popup menu.
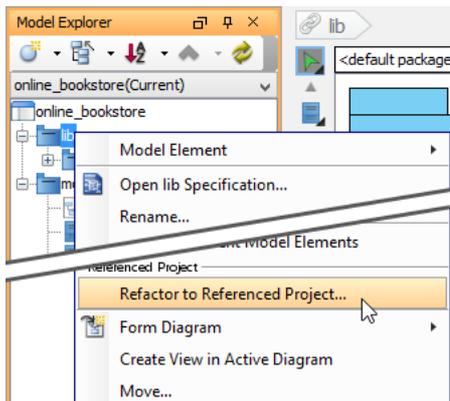

7. Projects stored in your workspace will be analyzed for their inter-relationship, to ensure that they will remain intact upon the refactoring of the selected element. Click **OK** to continue.

8. Click **Yes** when you are prompted to to preview the changes to be made in refactoring.
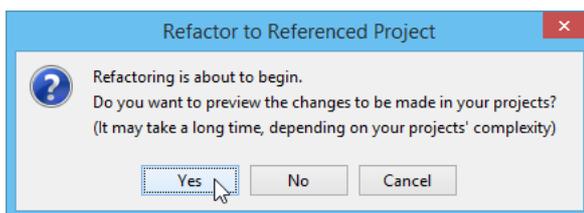
9.   Review the list of elements that will be moved to the referenced project. Click **Continue**.
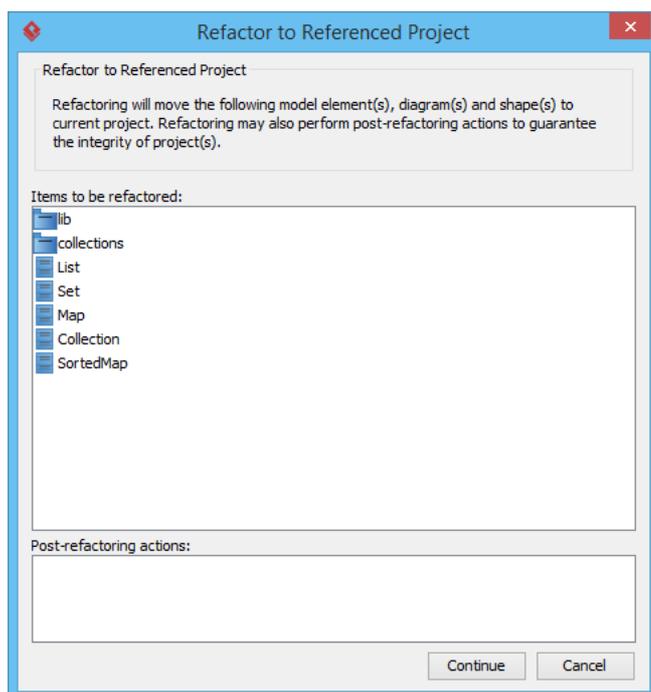
10.   Confirm the success message. Then, you can see that the *lib* package and the *lib* diagram are no longer under the opening online bookstore project. Instead, they have been moved to the library project. Let's check by opening the *domain* diagram to take a look. The *List* class is one of the library classes. The *List* class on the diagram is actually referencing the *List* class being moved to the library project. To prove this, double click on the class shape. You should find the shape non-editable, due to its 'reference nature'.
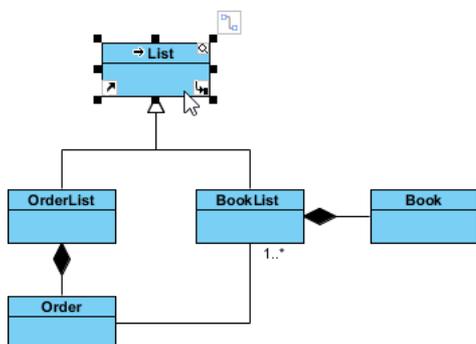
Resources
1.   library.vpp

2.   online_bookstore.vpp

Related Links

- [Full set of UML tools and UML diagrams](#)

Visual Paradigm home page
(https://www.visual-paradigm.com/)

Visual Paradigm tutorials
(https://www.visual-paradigm.com/tutorials/)