

The Graphical User Interface (GUI) window allows for the creation and manipulation of UML graphical notation objects. The interface window is implemented within the "View.java" file. The "menu bar" and "left panel" attributes of the interface contain elements (buttons) that represent a desired action from the user. In addition, action events are generated when the user selects a previously created UML object in the "right panel" attribute. The interface detects action events and directs them into the controller for completion.

The controller is implemented in the "Controller.java" file. As events are passed in from the user interface, they are directed to their appropriate handler. As a result, desired actions from the GUI are sent to their appropriate sub classes for completion when required.

If the GUI sends actions from either the "File" or "Edit" drop down menus, the controller will pass them to their appropriate sub class. If actions for "Open," "Save," or "Save As" are detected, they are passed to a Javascript Object Notation (JSON) package where the current objects in the right panel can be saved and opened later for retrieval. If the "Print" action is detected, it is passed over to its own relevant subclass. If the "Edit" actions are detected for "Undo" and "Redo" they are passed to the "action" package to carry out the desired revision to objects in the right view panel. If actions for "Cut, Copy, Paste, and Delete are detected, respective handlers within the controller will carry them out.

The controller passes object creation actions to the following sub classes: "Association," "Generalization," "Dependency," "Aggregation," "Composition," "Class," and "Comment." If an event is detected to edit the text of a UML object in the right panel (currently only class boxes), the controller will either 1) allow direct editing to take place inside the selected class box field or 2) update the lower section of the left panel to gather user input when the shaded bar at the bottom of the class box is selected. The controller will also direct relationship related actions (association, generalization, dependency, aggregation and composition) to the "Relationship" subclass for coordinate processing and creation.

All relationship actions (association, generalization, dependency, aggregation, and composition) are passed from the controller into the "Relationship.java" file. The appropriate relationship object is created between two-desired classes. The controller will then update the right panel of the interface with the desired relationship between the selected class boxes.

All objects in the user interface window are accessible by mouse interaction. Mouse actions are passed from the interface window to the mouse listener, which is contained in the "MouseListener.java" file. This feature allows the user to relocate the UML objects to multiple positions in the right panel. The mouse listener updates the right panel accordingly as the user moves the desired object their mouse. Furthermore, the user is able to select UML objects in the right panel for editing and deletion purposes.