Gizmoball: Class Diagram Changes & Explanations

CS308 Group MW1

Relationships between MVC packages in Class Diagram:

Model - View:

All data sent from the Model to the View is handled by the several interfaces in the Model: **IFlipper**, **IBumper**, **IBall**, **IAbsorber**, **IModel**.
Data from these interfaces is sent to the **PlayBoard** and **BuildBoard** (that share the superclass Board) classes which handle the drawing of the gizmos for both the modes.

Model - Controller:

As with the M-V relationship, all the data accessed from the listener classes in the Controller is accessed through the several Model interfaces, with the **IModel** interface handling most connections.
This includes actions, key connections and gizmo connections.

View - Controller:

In order to improve decoupling all actions and events are shared from the View to the Controller through the interface IGUI and are connected to the several listener classes. This includes all the buttons and the menu items from the GUI.

Changes since first Class Diagram:

Model:

- **Load** class has been deleted as the file loading happens through the same class responsible for parsing text files, recognizing gizmos and adding them to the Model: **LoadModel**.
- **RotateGizmo** class has been added to handle rotations of gizmos when the rotate command is parsed from a text file and when the Rotate gizmo button is pressed in Build Mode. Implements **IModel** interface

View:

- The View side has very remained similar to the initial class diagram.

Controller:

- All listener classes handling menu and button (for Play Mode) actionListener events have been grouped up into one class per mode as having one class per command was unnecessary: **PlayListeners** for Play Mode menu listeners, **BuildListeners** for Build Mode listeners. The listener classes that have been deleted because of this are: **PlayL, BuildL**, **SaveL**, **LoadL**, **ReloadL**, **SwitchToPML**, **SwitchToBML**, **StartL**, **PauseL**, **TickL**.
- **GizmoballL** class has also been deleted as no use was found for it.