

## Modifications made to the Sequence Diagram:

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A number of changes were implemented to follow the Milestone 3 version of our Plants Vs. Zombies game. The following are listed below:

Some general changes:

1. Simplification of some for loops and if statements, reducing the number of loop frames and opt frames.
2. Simplification for some dispatch calls, instead of showing all the method calls within one dispatch, the number of dispatches are reduced in order to keep a cleaner and more coherent sequence diagram.

### 1. Inside the main() method frame:

#### a. Creating the View:

##### i. The creation of new J swift objects and adding them to the view:

1. topPanel : JPanel
2. bottomPanel : Jpanel
3. sunPicture : JLabel
4. redoButton: JButton
5. undoButton: JButton
6. menuBar: JMenuBar
7. menu: JMenu

##### ii. The creation of new JMenuItem for the JPopupMenu

1. Repeater
2. Threepeater
3. TwinSunflower
4. GiantSunflower
5. Wallnut

#### b. Creating the Controller:

##### i. Adding two new items

1. redoBoard: Stack<>()
2. undoBoard: Stack<>()

#### c. Calling ActionListener():

##### i. Adding new action listeners to the 5 new JMenuItem listed above.

### 2. Inside the "Adding new Peashooter" frame:

- a. Method updateView() is added.
- b. Method runtime() now dispatches ".push(redoBoard)"

- c. Method `movingZombie()` is simplified
    - i. Uses a new method called `move()`
  - d. Method `addingZombie()` now adds more Zombie types
    - i. Random chance of adding Zombie (57%)
    - ii. Random chance of adding `ConeheadZombie` (28%)
    - iii. Random chance of adding `BucketZombie` (14%)
  - e. Method `removeUpdate()` is simplified
    - i. New dispatches to view
  - f. Method `hitUpdate()` is simplified
    - i. Removed dispatches associated with booleans
    - ii. Reduced the number of `opt` and `loop` frames
  - g. Method `gameOver()` is simplified
  - h. Method `gameWon()` is simplified
    - i. Runtime sets the text for the money in View
3. Added new events that the player can initiate by creating the new Pieces.

The major changes to our Plants vs. Zombies game come from the new classes in Model, and the Redo, Undo functionality, along with considerable refactoring.