

```
/* CRITTERS README
* EE422C Project 5 submission by
* <Ahsan Khan>
* <ajk2723>
* <16445>
* <Cedric Debelle>
* <cfd363>
* <16445>
* Slip days used: <0>
* Fall 2016
*/
```

When started, this program displays a window with three parts: A control panel, a world grid, and a stats display. The world and stats display are automatically updated based on user input from the control panel.

Control Panel

The control panel consists of several components which dictate the running of the program:

-Make Critter

- When the button is pressed, the program creates the specified number of critters based on the critter type chosen in the combo box, and then draws the world.
- If no number of critters is specified, the program creates 1 by default.
- If anything other than a positive number of critters is specified, the program displays an error message.
- The entries in the combo box are all of the types of critters in the same directory as the solution.

-Step

- When the button is pressed, the program steps the specified number of steps and displays the world.
- If no number of steps is specified, the program creates 1 by default.
- If anything other than a positive number of steps is specified, the program displays an error message.

-Enter Seed

- Sets the seed to the specified number when the button is pressed.
- If no number is specified or the specified value is not a number, the program displays an error message.

-Quit Button

- When pressed, the program exits.

-Step Slider

- Specifies the number of steps taken per frame of animation when the program is in animation mode.

-Start Animation Button

- When pressed, puts the program in animation mode and disables all controls but Stop button. When the program is in animation mode, it automatically steps the amount specified by the Step Slider, and draws the world once per frame.

-Stop Button

- Enabled when the program is in animation mode. When pressed, it re-enables all other controls and disables itself, before switching the program out of animation mode.

-Run Stats Checkboxes

- Contains a checkbox for each critter class in the source directory. When a critter's checkbox is pressed, the corresponding runStats output is displayed in the stats display. When unchecked, the corresponding runStats output is removed from the stats display.

World Grid

The world grid is a Pane in the window consisting of a rectangular grid with `world_height * world_width` cells. When a critter is alive and present in the world, it is drawn in the world grid according to its shape and colors. The world grid is updated based on inputs from the control panel, specified in the previous section.

Stats Display

The stats display is the rightmost part of the window, and consists of the runStats output corresponding to each class with a checked Run Stats checkbox in the control panel. This component is empty by default, when there are no stats being displayed.