

Storage Design Plan for Saving and Preferences Features in HugLife

Overview

- `savedStates/quickSave.ser`: contains the most recent state of the previous HugLife run.
- `savedStates/XXX.ser`: contains a HugLife Grid saved using the `s` command
- `savedStates/XXX.png`: contains a screenshot of the world grid contained in `XXX.ser`
- `./preferences.cfg`: contains the execution speed preferences for HugLife.

Sequential Example

\$ java Huglife strugggz is executed and allowed to run for 5 seconds before the letter q is pressed.

- The directory `savedStates` is created.
- After the first frame is drawn to the screen, the file `savedstates/quickSave.ser` is created, and the contents of the HugLife Grid including the energy levels of all creatures are written to the file.
- After every subsequent frame is drawn to the screen, the file `savedstates/quickSave.ser` is overwritten with the new corresponding HugLife Grid.
- The file `./preferences.cfg` is created containing the number 50.

\$ java Huglife strugggz is executed and run for 5 more seconds before q is pressed.

- After every frame is drawn to the screen, the file `savedstates/quickSave.ser` is overwritten with the new corresponding HugLife Grid.

\$ java Huglife is executed and run for 5 more seconds before q is pressed.

- After every frame is drawn to the screen, the file `savedstates/quickSave.ser` is overwritten with the new corresponding HugLife Grid.

\$ java Huglife is executed and run for 3 seconds before s is pressed, and 2 more seconds elapse before q is pressed.

- After every frame is drawn to the screen, the file `savedstates/quickSave.ser` is overwritten with the new corresponding HugLife Grid.
- At the 2 second mark, a random filename is generated. Let's suppose this filename is `wetFish`. The state of the HugLife Grid at that time is written to

savedStates/wetFish.ser and a picture is created and stored in savedStates/wetFish.png.

\$ java Huglife wetFish is executed and the following events occur at the indicated times:

- **At t=3: s is pressed**
 - **At t=4: + is pressed 3 times**
 - **At t=6: - is pressed 2 times**
 - **At t=7: q is pressed**
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- After every frame is drawn to the screen, the file savedstates/quickSave.ser is overwritten with the new corresponding HugLife Grid.
 - At t=3: A random filename is generated. Let's say hugeLeg. The state of the grid is written to savedstates/hugeLeg.ser, and a picture is created and stored in savedStates/hugeLeg.ser.
 - At t=4: The ./preferences.cfg file is overwritten with the values 45, 40, then 35.
 - At t=6, the ./preferences.cfg file is overwritten with the values 40, 45.