

Tutorial: Using jLOAF in a Tetris Simulator

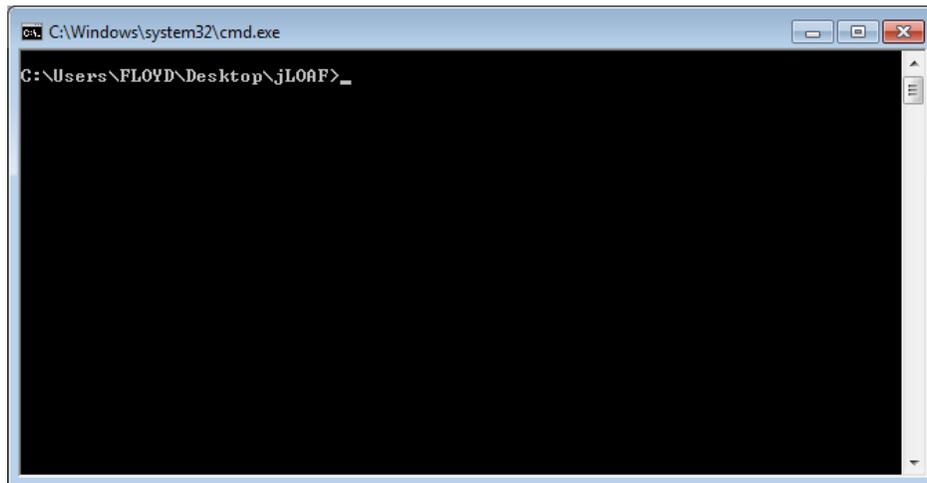
Step 1:

You will need to download the following files and put them in the same directory:

1. jLOAF library (i.e. jLOAF-1.0.jar)
2. The Tetris-specific jLOAF code (i.e. JLOAF_Tetris-1.0.jar)
3. The Tetris Simulator (jTetris.jar)
4. A log of an agent playing Tetris (log.txt)

Step 2:

Open a terminal or command prompt to type commands (in Windows this could be cmd.exe or xterm in Linux). Navigate to the directory where all the downloaded files are.

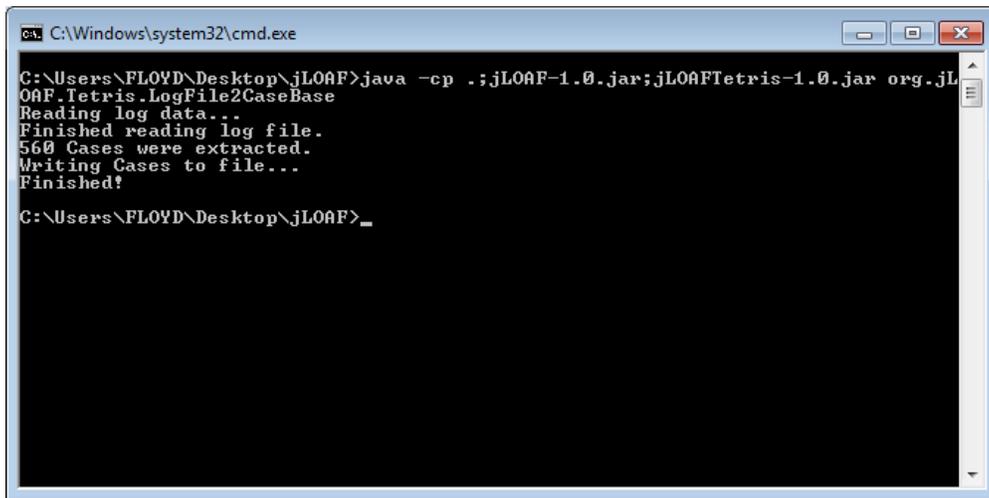


Step 3:

First we will convert the observations (stored in the log.txt file) into a case base. Type the following command:

```
java -cp .;jLOAF-1.0.jar;jLOAF_Tetris-1.0.jar org.jLOAF.Tetris.LogFile2CaseBase
```

You should see the following output after the program is complete:



```
C:\Windows\system32\cmd.exe
C:\Users\FLOYD\Desktop\jLOAF>java -cp .;jLOAF-1.0.jar;jLOAFtetris-1.0.jar org.jL
OAF.Tetris.LogFile2CaseBase
Reading log data...
Finished reading log file.
560 Cases were extracted.
Writing Cases to file...
Finished!
C:\Users\FLOYD\Desktop\jLOAF>_
```

Step 4:

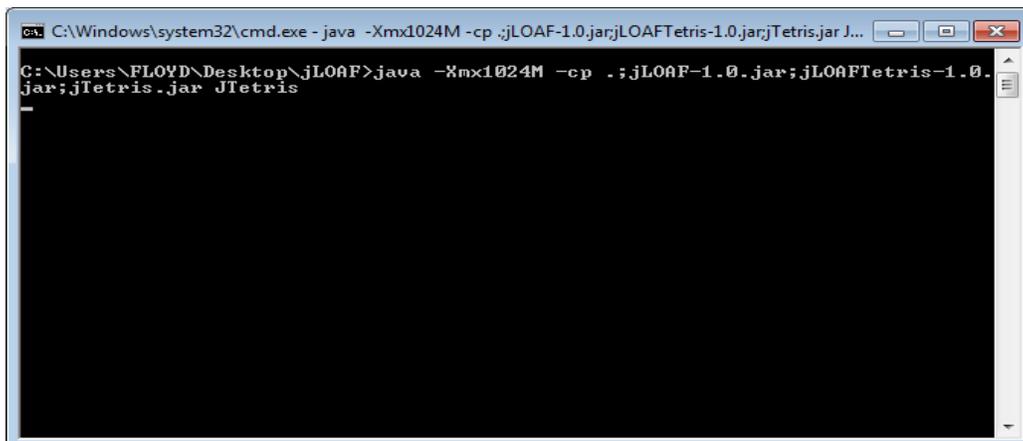
The previous step created a case base file called “**tetris.cb**”. Make sure the file is there. If it is, rename it to “**passive.cb**”.

Step 5:

We now have the case base and can run the agent and see how it does. To do this we run the Tetris Simulator. The simulator is set to use a jLOAF agent and use the cases stored in “passive.cb”.

Type the following command to run the agent. Note that it may take a few minutes to load the case base into memory:

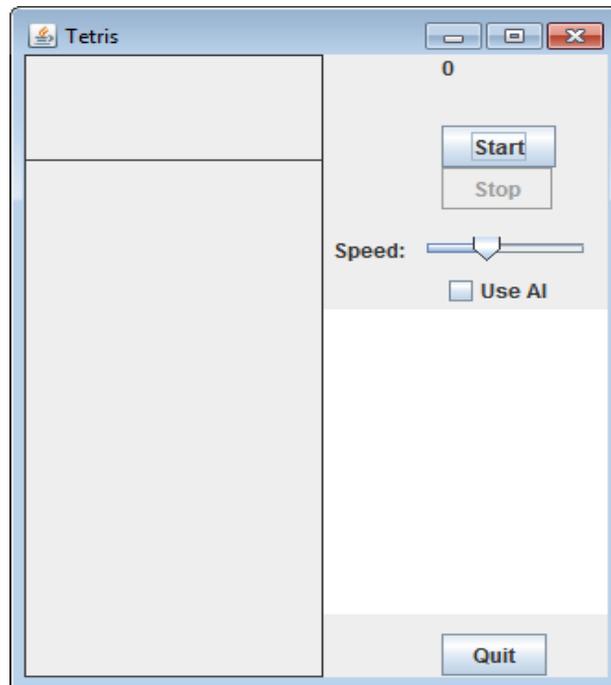
```
java -Xmx1024M -cp .;jLOAF-1.0.jar;jLOAFtetris-1.0.jar;jTetris.jar JTetris
```



```
C:\Windows\system32\cmd.exe - java -Xmx1024M -cp .;jLOAF-1.0.jar;jLOAFtetris-1.0.jar;jTetris.jar J...
C:\Users\FLOYD\Desktop\jLOAF>java -Xmx1024M -cp .;jLOAF-1.0.jar;jLOAFtetris-1.0.
jar;jTetris.jar JTetris
_
```

Step 6:

The Tetris Simulator GUI should now be open:



Check the “Use AI” box and press the **Start** button. The agent should now play Tetris! The agent clearly isn't an expert yet, but notice how it actually does pretty well without knowing any of the rules or strategies of Tetris.

