AIProject v2.0 Development

11/18/2014

Tests

- \bullet Random Walk
 \Box
- \bullet Mountain Car \square
- \bullet Poker \square
- Pole Balancing □

Todo

- 11/19/2014 Ammending the Environment Module.
 - Modify the Sensor modules. There are some problems such as unused methods in base class for right reasons.
 - Make SensorBase more agnostic, e.g. shed isState function, since this is of no use when the domain of the state is undetermined.
 - ActuatorBase should also be ammended to capture the problem.
 - As to the tests. Fuck them all. Rewrite the tests so it can be used as an example to the API users.
 - Change template for both actuator and Sensor to $\langle S, A \rangle$.
 - Actuators don't need to be overrided for most cased due to Environment, so delete all of them if needed.
 - ActuatorRandomWalk

• 11/22/2014

- I'm on the 2^{nd} chapter of Linear Programming book. I have an inefficient idea on how to find all extreme points (basically, its a disgusting $\binom{n}{m}$, n is the number of columns and m is the number of rows). I'm sure the second chapter will have a better approach to this.
- I'm also currently working on my own graphics library for a lot of reason. (opengl game, windowing system, testbed). This will also serve as a testbed for the tests here.

Pre-Requesite

- \bullet boost-1-55
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Log

- 11/18/2014
 - Prefected (for now) Graph modules.
 - Removed DP from design. It seems that DP is not very general as opposed to LP.
 - Create Environment class.
 - \bullet After doing so, introduce formal game test.
- 11/22/2014
 - Optimization is implemented. SarsaETGD_test from 2.5-3s to 1.7s.
 - A faster way is possible by taking advantage of buildActionValues and produce max value as well.