**Grand Prix Training Notes**

**Run 1:**

Able to learn. But Step change in CPs was too much. Increased the number of Training levels, smaller increments in CP Lap Targets

**Run 2:**

Got caught climbing up steep hill between CP 17 and 18. The Ray Sensor was seeing Hill, not open Road.

**Run 3:**

* Raise the 3D Sensor Height
* Added the Barriers into Own Barriers Collision Layer, and referenced this in 3D Sensor

Still struggles on (Training Level 10): Getting through bend CP 16 and CP17. I guess after the hill, it needs to learn to slow down, to get around that corner.

**Bug: Training Controller Limited to 10 still ! so could not get beyond Level 10 anyway**. Fixed and Resumed

Gets up to Level 20. But Level 20 is a big leap in CPs from 35 to 42. Fixed (reduced Level 20 to CP 40) and Resumed

**Run 4:**

* Slower CP Growth: Max CP = Training Level, so Up to 70 Training Levels
* GAIL network use of 512 Hidden Units
* New Alignment Observation: NewAlignment = 1.0 – 2.5\*(1.0-Alignment))
* Add Last CP to the HUD Display, to see CP progress within Game.
* Re Record CPDemo3 up to CP 25 (Training level 25)
* Increase TimeHorizon from 128 to 256

Slow progress, as the episodes and length of Track get longer. Gets to Training Level/ CP 52 at 8.5 Million Training Steps. At Level 66 after 15 Million steps. Achieves Level 70 at 19 Million steps. TL level 75 at 24.9 Million Steps.

Still a few spin off crashes etc. Leve running to end to see if reinforce more robust and consistent performance. (some of the crashes are recovered to continue to success)

**Suggestions:**

Need to Log Performance to a File. Write a new Entry Upon Episode End

* Successful End: Last CP
* Failed Episode : 0

So can display the Training Growth, in python Mat Plot Lib etc.