AIWheeledVehicle: Static Speed

Exercise Files

Starter – "Kit/gpgt/server/scripts/gpgt/chapter7/exercise106.cs"
Answers – "Kit/gpgt/server/scripts/gpgt/chapter7/answers/exercise106_f.cs"

Exercise Mission

Chapter 7: "106 AIWheeledVehicle: Static speed settings"

Synopsis

In this exercise, we will refresh our memories regarding the fact that AIWheeledVehicle derives from Player and uses the WheeledVehicleData as its datablock.

Prerequisites

1. *ch1_001.pdf "Using The Kit"*

Exercises

1. *Set Static Speed Values (pg 2)*

AIWheeledVehicle: Static Speed

1 Set Static Speed Values

Goal: Learn to modify a WheeledVehicleData datablock to restrict/set the maximum rate(s) at which a wheeled bot can move.

Starter Code: You are provided with a partially defined datablock definition (staticSpeedPathFollower).

```
datablock WheeledVehicleData( staticSpeedPathFollower : DefaultCar )
{
   category = "gpgt";
   maxSteeringAngle = 0.785;  // Better than original car
   moveTol    = 10.0;

   // 1
   // Rigid Body Mass
   // ?????
   // Engine Torque
   // ?????
};
```

Steps:

1. Identify and modify the right persistent fields to set the following limits on this wheeled bot's movement. (More than one field must be set.)

   Rigid Body Mass – Set this to a small value like 200.

   Engine Torque – Increase this to a large value like 50000.

Output Goal:

The wheeled bot will drive around the path in a random order, driving very fast and steering quickly.

Hints:

1. Remember, staticSpeedPathFollower derives from DefaultCar, which in turn may derive from another datablock. You'll have to search up the derivation chain to find the wheeled bot's mass and torque fields.
2. Don't forget, appendix B lists useful WheeledVehicleData (and other datablocks) fields. (See B.4.6 .. B. 4.9)

Further Experiments:

1. Play with the mass and torque values some more to see their impact.
2. Play with some other VehicleData and WheeledVehicleData fields.

