AIPLAYER: STATIC SPEED

Exercise Files

Starter – "Kit/gpgt/server/scripts/gpgt/chapter7/exercise008.cs"
Answers – "Kit/gpgt/server/scripts/gpgt/chapter7/answers/exercise008_f.cs"

Exercise Mission

Chapter 7: "008 AIPlayer: Static speed settings"

Synopsis

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

Prerequisites

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

Exercises

AIPlayer: Static Speed

1 Set Static Speed Values

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

Starter Code: You are provided with a partially defined datablock definition (staticSpeedBot). As can be seen, this datablock sets a max speed for this bot to 50% of its maximum. However, we would like to supplement this by modifying some persistent fields (in the datablock) that will set the bot's base (static) speeds.

```
datablock PlayerData( staticSpeedBot : BlueGuy )
{
   category = "gpgt";

   // 1
   maxAISpeed = 0.5;

   // 2
   // ?????
};
```

Steps:

1. Set the bot's variable speed to 100%.
2. Identify and modify the right persistent fields to set the following limits on this bot's movement. (More than one field must be set.)

   Maximum running force – Set this to 5 times the mass for this bot.

   Maximum forward rate – Limit this to half the original value.

Output Goal:

The bot will walk around the path in a circle, walking at half the speed that BlueGuy can move at.

Hints:

1. Remember, staticSpeedBot derives from BlueGuy, which in turn may derive from another datablock. You'll have to search up the derivation chain to find the bot's mass.
2. Don't forget, appendix B lists useful PlayerData fields. (See B.4.3)

Questions:

1. Is there more than one way to write this code and if so, what are the alternatives?
2. If we wanted to limit sideways speed, what fields would we adjust?
3. Backwards?

