CH7_011

AIPLAYER: LOS CALLBACKS

Exercise Files

Starter – "Kit/gpgt/server/scripts/gpgt/chapter7/exercise011.cs"
Answers – "Kit/gpgt/server/scripts/gpgt/chapter7/answers/exercise011_f.cs"

Exercise Mission

Chapter 7: "011 AIPlayer: LOS callbacks"

Synopsis

In this exercise, we will refresh our memories regarding AIPlayers' datablocks and then we will learn how to make an AIPlayer move back and forth between two points.

Prerequisites

1. ch1_001.pdf "Using The Kit"
2. ch1_003.pdf "AIPlayer: Looping Path"
3. ch1_010.pdf "AIPlayer: Looking at an Object"

Exercises

1. Create Path and Bots / Start Moving and Aiming (pg 2)
2. The Line-Of-Sight Callbacks (pg 4)

1 Create Path and Bots / Start Moving and Aiming

Goal: Use two different bots, where one bot stands in the center of the exercise area and aims at a second bot while the second bot runs around the path in a loop.

Starter Code: You are provided with a two fully-defined datablock definitions (aimBot and targetBot) and a starter function (startexercise011 .)

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

datablock PlayerData( targetBot : BlueGuy )
{
   category = "gpgt";
   maxAISpeed = 0.6;
};

package exercisePackage_011
{

function startexercise011()
{
   // 1
   // ?????

   // 2
   // ?????

   // 3
   // ?????

   // 4
   // ?????

   // 5
   // ?????

   // 6
   // ?????

   // 7
   // ?????
   // ?????

   %pathNode.visibleMarker.setSkinName("green");
}
```

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Steps:

1. Create a path for our AIPlayer to follow.

2. Spawn an AI player aimBot datablock.

3. Spawn an AI player targetBot datablock.

4. Make the aim bot aim at the target bot.

5. Assign the path to our target bot.

6. Initialize the target bot to start at path node zero.

7. Start the target bot moving towards the initial node.

Output Goal:

If you run the mission after editing this code, the aim bot will stand in the center of the mission area and rotate to keep the other bot in sight as the second bot runs around the path in a loop.

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2 The Line-Of-Sight Callbacks

Goal: Implement the correct callbacks (for the aim bot) to respond these two events:

1. Target bot comes into line-of-sight.

2. Target bot leaves line-of-sight.

Starter Code: You are provided with a two partially defined methods. Your job is to properly name them.

```
// 1
//      aiming bot's line-of-sight
//function ?????
//{
///    %theBot.setSkinName("green");
//}

// 2
//      aiming bot's line-of-sight
//function ?????
//{
//    %theBot.setSkinName("red");
//}
```

Steps:

1. Properly name this callback to catch "came into line-of-sight" events for the aim bot.

2. Properly name this callback to catch "left line-of-sight" events for the aim bot.

Output Goal:

If you run the mission after editing this code, the aim bot will stand in the center of the mission area and rotate to keep the other bot in sight as the second bot runs around the path in a loop. Additionally, the aim bot will change color as follows.

- Green – Has target bot in sight.

- Red – Can't see target bot.