

CH7_007

EXERCISE

AIPLAYER: VARIABLE SPEED #2

Exercise Files

Starter – "Kit/gpgt/server/scripts/gpgt/chapter7/exercise007.cs"

Answers – "Kit/gpgt/server/scripts/gpgt/chapter7/answers/exercise007_f.cs"

Exercise Mission

Chapter 7: "007 AIPlayer: Variable speed #2"

Synopsis

In this exercise, we will learn to modify the bot's speed over time.

Prerequisites

1. *ch1_001.pdf "Using The Kit"*
2. *ch1_006.pdf "Variable Speed #1"*

Exercises

1. *Changing Speed Over Time (pg 2)*
2. *Bonus (pg 3)*

AIPLAYER: VARIABLE SPEED #2

1 Changing Speed Over Time

Goal: Make sure you understand the concept of setting a bot's speed and the fact that we do this whenever we wish and as often as we wish.

Starter Code: You are provided with a partially defined method(`onReachDestination`). This callback already has most of the code needed to cause the bot to walk in a circle. We merely need to add the speed selection code.

```
function variableSpeedBotB::onReachDestination( %DB , %theBot )
{
    %pathNode = %theBot.myPath.getObject( %theBot.currentPathNodeNum );
    %pathNode.visibleMarker.setSkinName("red");
    %theBot.currentPathNodeNum++;
    if( %theBot.currentPathNodeNum > 7 ) %theBot.currentPathNodeNum = 0;
    %pathNode = %theBot.myPath.getObject( %theBot.currentPathNodeNum );
    %theBot.setMoveDestination( %pathNode.getTransform() , false );

    // 1
    // ???
    // ???

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

Steps:

1. Randomly select a speed in the range 10% to 90% of the bot's maximum, and tell the bot to move at that speed.

Output Goal:

If you run the mission after editing this code, the AIPlayer will walk around the path in a circle, slowing down and speeding up (randomly) as it crosses every node in the path.

Questions:

1. What would happen (using this code) if we chose a rate of 0%?



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2 Bonus

See if you can create a stop and resume behavior like we did in exercise 005, except this time, don't use the `stop()` method.

There is no answer for this bonus problem in the exercise key, but if you get this right, your bot will walk around the circle, stopping, starting, ..., et cetera, just like exercise 005 (forgetting the fact that the bot navigated randomly in exercise 005.)