

CH7_107

EXERCISE



AIWHEELEDVEHICLE: MOVE TOLERANCES

Exercise Files

Starter – "Kit/gpgt/server/scripts/gpgt/chapter7/exercise107.cs"

Answers – "Kit/gpgt/server/scripts/gpgt/chapter7/answers/exercise107_f.cs"

Exercise Mission

Chapter 7: "107 AIWheeledVehicle: Move tolerances"

Synopsis

In this exercise we examine move tolerance and the effect it has on the onReachDestination callback and AIWheeledVehicle navigation in general.

Prerequisites

1. *ch1_001.pdf "Using The Kit"*
2. *ch7_101.pdf "AIPlayer: Basic Creation"*

Exercises

1. *Move Tolerance Experiments (pg 2)*

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1 Move Tolerance Experiments

Goal: Examine the effect of various move tolerance values.

Starter Code: You are provided with a fully defined datablock definition (toleranceTestingCar) that defines a move tolerance as the dynamic value, moveTol. Additionally, an onAdd callback is supplied that calls setMoveTolerance and passes in moveTol from the datablock.

In this exercise we will see the effect of changing moveTol.

```
datablock WheeledVehicleData( toleranceTestingCar : DefaultCar )
{
    category = "gpgt";

    maxSteeringAngle = 0.785;

    // 2
    moveTol      = 0.5;
    //moveTol    = 2;
    //moveTol    = 100;
    //moveTol    = 11.8/2;

};

function toleranceTestingCar::onAdd( %DB, %theBot )
{
    %callerDBName = %DB.getName();
    Parent::onAdd( %DB , %theBot );
    %theBot.setMoveSpeed( %DB.maxAISpeed );
    %theBot.setMoveTolerance( %DB.moveTol );
}
```

Steps:

1. Answer the questions below first.
2. Change the moveTol values as show in the datablock definition, trying each value in turn (0.5, 2.0, 100.0, and 11.8/2.0 .)
3. Compare the results of your changes to your answers.

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Questions:

What do you expect the car to do with the following move tolerances (moveTol)?

1. 0.5 – _____
2. 2.0 – _____
3. 100.0 – _____
4. 11.8/2.0 – _____