

CH7_103

ANSWER

AIWHEELEDVEHICLE: RANDOM PATH

1 Reinforcing Skills and Random Node Selection

Finished Code:

```

datablock WheeledVehicleData( wheeledRandomPathFollower : DefaultCar )
{
    category = "gpgt";
    maxSteeringAngle = 0.785; // Better than original car
    maxAISpeed = 0.8;
    moveTol      = 5.0;
};

package exercisePackage_103
{

    // 1 - Create a path for our AIWheeledVehicle to follow.
    // 2 - Spawn an AI wheeled vehicle using our datablock.
    // 3 - Assign the path to our wheeled bot.
    // 4 - Initialize the AI wheeled vehicle to start at path node zero.
    // 5 - Start the AI wheeled vehicle moving towards the initial node.
    function startexercise103()
    {
        // 1
        exerciseCenter.createSimplePath( "testPath" , 25 );

        // 2
        %theBot = AIWheeledVehicle::spawn( exerciseCenter.getTransform() ,
wheeledRandomPathFollower );

        // 3
        %theBot.assignPath( testPath );

        // 4
        %theBot.currentPathNodeNum = 0;
    }
}

```

AIWHEELEDVEHICLE: RANDOM PATH

```
// 5
%pathNode = %theBot.myPath.getObject( %theBot.currentPathNodeNum );
%theBot.setMoveDestination( %pathNode.getTransform() , false );

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

2 Random Navigation

Finished Code:

```
// 1 - Randomly select a new target node.
// 2 - Start the AI wheeled vehicle moving towards the next node.
function wheeledRandomPathFollower::onReachDestination( %DB , %theBot )
{
    %pathNode = %theBot.myPath.getObject( %theBot.currentPathNodeNum );
    %pathNode.visibleMarker.setSkinName("red");

    // 1
    %theBot.currentPathNodeNum = getRandom( 0 , 7 );

    // 2
    %pathNode = %theBot.myPath.getObject( %theBot.currentPathNodeNum );
    %theBot.setMoveDestination( %pathNode.getTransform() , false );

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

AIWHEELEDVEHICLE: RANDOM PATH

Answers:

1. WheeledVehicle, Vehicle, GameBase, Also, we could have used the classname datablock field to set a special namespace and then used that. (See code below.)

```
datablock WheeledVehicleData( wheeledRandomPathFollower : DefaultCar )
{
    category = "gpgt";
    maxSteeringAngle = 0.785; // Better than original car
    maxAISpeed = 0.8;
    moveTol      = 5.0;

    className   = speedRacer;
};

// 1 - Randomly select a new target node.
// 2 - Start the AI wheeled vehicle moving towards the next node.
function speedRacer::onReachDestination( %DB , %theBot )
{
    %pathNode = %theBot.myPath.getObject( %theBot.currentPathNodeNum );
    %pathNode.visibleMarker.setSkinName("red");

    // 1
    %theBot.currentPathNodeNum = getRandom( 0 , 7 );

    // 2
    %pathNode = %theBot.myPath.getObject( %theBot.currentPathNodeNum );
    %theBot.setMoveDestination( %pathNode.getTransform() , false );

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