

SIT352 Advanced Game Programming

Shroom Documentation

Build Instructions

You have been provided with a Visual Studio solution containing two projects: Shroom and ShroomBot. If you use the provided Visual Studio files you will need only to build the ShroomBot project and then the Shroom project.

You can separate the ShroomBot project into a separate solution by right-clicking on it in the Solution Explorer and selecting remove. Then locate the ShroomBot project file and open it. Select "Save all" and choose a location and name for the ShroomBot project.

Execution Instructions

To run Shroom from within Visual Studio: you will need to ensure that the Working Directory and appropriate command line arguments are set. Both of these are set by accessing the project properties dialog (select Project->Shroom Properties). Expand the Configuration Properties item and select Debugging. In the Command Arguments field, enter your desired arguments (see below for more details). In the Working Directory, insert \$(SolutionDir)bin. You should also ensure that the Output Directory (accessed from the General tab) is set to \$(SolutionDir)bin.

To run Shroom from a console window: Change directory to Shroom/bin and execute Shroom, remembering to add the appropriate command line arguments.

Playing Shroom

There are two modes of operation for Shroom, *keyboard* and *bot*. To have your bot play Shroom you must compile the ShroomBot project, ensuring that it outputs ShroomBot.dll to the /lib folder. When launching Shroom, use the -b (-bot) command line option, followed by your bot file name (ShroomBot, unless you have changed it).

If you do not supply a bot file, Shroom will launch automatically into keyboard mode. You can control the Hunter using the following keys:

LEFT ARROW	: <i>turn left</i>
RIGHT ARROW	: <i>turn right</i>
UP ARROW	: <i>step forward</i>
SPACE BAR	: <i>eat</i> (you can only eat shrooms that are directly in front of you).

The goal of the game is to locate and eat the "Magic Shroom" before the hunter runs out of energy. In his travels, the Hunter can eat regular shrooms. Some of these offer benefits to the Hunter (more

energy) while others offer a penalty (decrease energy). Unfortunately the Hunter cannot tell whether a shroom is good or bad just by looking at it. To make life harder for the player, the ShroomWorld map is shrouded in fog, which can only be cleared by moving through it. The Hunter can see a short distance around himself, observing the neighbouring map cells, which clears the fog. The symbols used in the game display are as follows:

♠ : Shroom

♣ : Magic Shroom

☺ : Hunter

< ^ > v : Symbol denoting the Hunter's facing

Programming a ShroomBot

Your bot must inherit from the interface class `IController` so that it can communicate with the Shroom application. An example class has been provided: `MyBot`. No functionality has been provided in `MyBot`; this must be added by you, using whatever algorithms and programming techniques you deem appropriate (although, for assessment purposes, you may not attempt to modify or otherwise interfere with the execution of the Shroom application at runtime.) We will investigate creation of a basic `ShroomBot` in prac during week 4.

More information will be provided in the assignment documentation.