Introduction to programming using Alice

TA: Shreya Rawal

Email: srawal@ucalgary.ca

Project Groups

- Team 1: Tamiz & Tyler
- Team 2: Kavin & Daniel
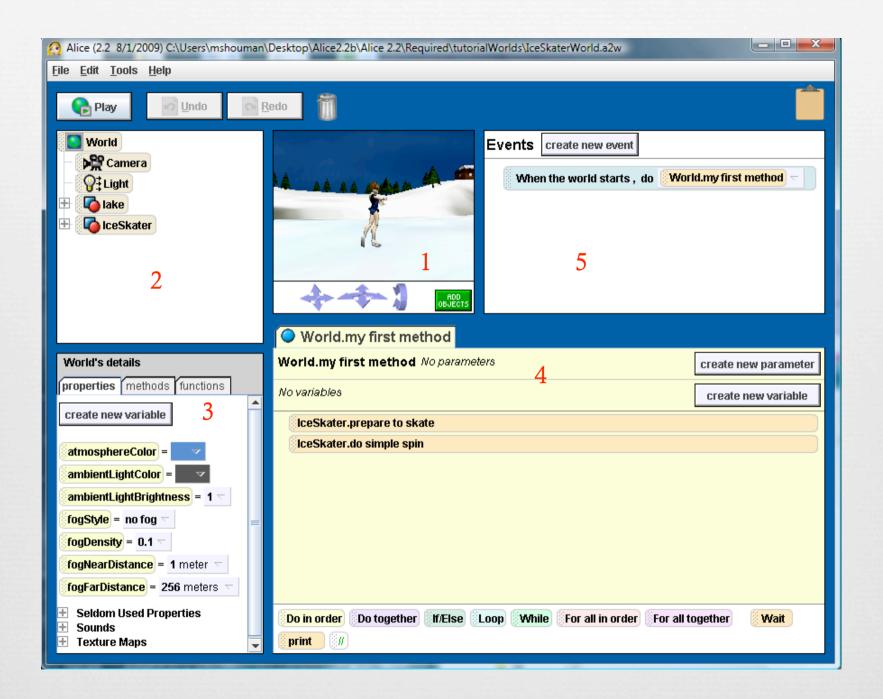- Team 3: Michael & Chris
- Team 4: Patrick, Waleed & Gloria

Alice

ᙅᔆ Alice is a program for building virtual worlds populated by 3D objects.

ᙅᔆ Objects in Alice can move, spin, change color, react to the mouse and more.

ᙅᔆ Open Alice and go through Tutorial 1

Alice (2.2 8/1/2009) C:\Users\mshouman\Desktop\Alice2.2b\Alice 2.2\Required\tutorialWorlds\IceSkaterWorld.a2w

File   Edit   Tools   Help

Play   Undo   Redo

World
    Camera
    Light
    lake
    IceSkater

2

1

Events   create new event

When the world starts , do   World.my first method

5

World's details

properties | methods | functions

create new variable   3

atmosphereColor =
ambientLightColor =
ambientLightBrightness = 1
fogStyle = no fog
fogDensity = 0.1
fogNearDistance = 1 meter
fogFarDistance = 256 meters

⊞ Seldom Used Properties
⊞ Sounds
⊞ Texture Maps

World.my first method

World.my first method *No parameters*   create new parameter
                                                          4
No variables   create new variable

IceSkater.prepare to skate

IceSkater.do simple spin

Do in order   Do together   If/Else   Loop   While   For all in order   For all together   Wait

print   //

Parts of Alice

Object: Each entity on the screen is a object

Method: Action that an object can do

Properties: Characteristics of an object (color, texture, etc.)

Functions: To change "some" properties od the object we need functions

Exercise 1

1. Open the file lab1.a2w.

2. Press the "Play" button to see what the world does.

3. Modify the 2nd instruction so that the shark rolls right by 2 revolutions

4. Modify the 3rd instruction so that the shark says "I am hungry".

5. Modify the 4th instruction so that the shark moves forward by its distance to the blueminnow3's tail – 0.5

6. Using properties, make the blueminnow turn black then disappear at the end of the instruction list.

Exercise 2

1. Create a new world using the green grass template.

2. Change the color of the grass to blue, so that it now looks like an ocean.

3. Add an island object (from Environments) and a goldfish (from Ocean). Make sure they are both visible.

4. Get the fish to roll left by 2 revolutions.

5. Resize the island by a scale of 1.5.

6. Using methods let the fish say "Yikes!"

7. Change the color of the grass to dark gray.