



Programming with Alice and Garfield



Welcome to a tutorial on programming with Alice and Garfield using the Alice 2 application software. Creating an Alice animation involves two activities: (1) setting up the scene (characters and props) for your story, and (2) writing program code for creating an animation with the characters in the scene. Part I of this tutorial will walk you through setting up the scene. Part II will illustrate how to write the program code.

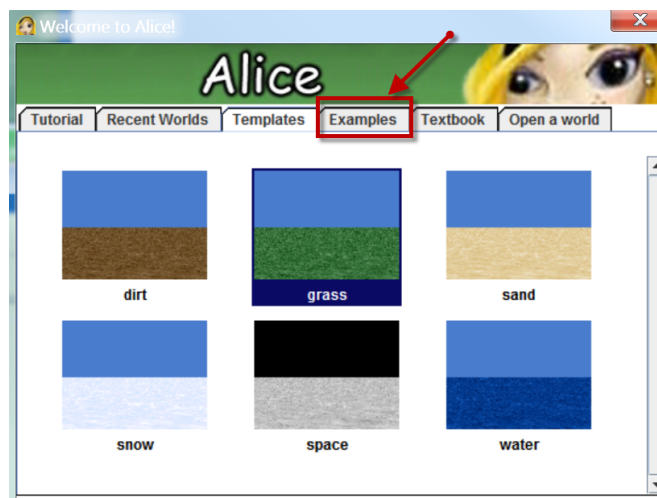
Part I: Scene Setup

In this section of the tutorial, you will open an Alice world that has already been started for you and add two characters to the scene, Garfield the cat, and Odie the dog. After the characters are added to the scene, you will position them for the start of the animation.

1. Find the Alice application on your computer, and start Alice. You should see the following splash screen as Alice starts. The splash screen is displayed while the software is loading – it may take a minute or so, please wait.



2. After Alice has started, you will see the following dialog box. Click on the **Examples** tab.

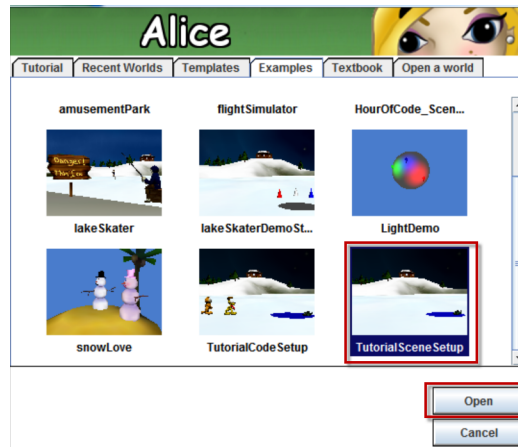




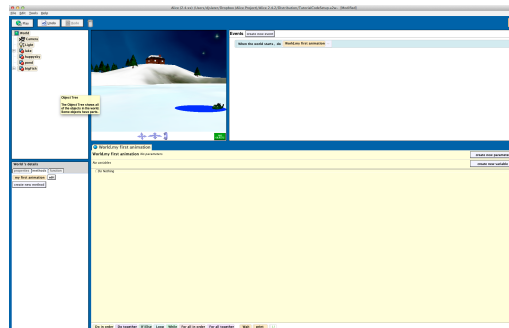
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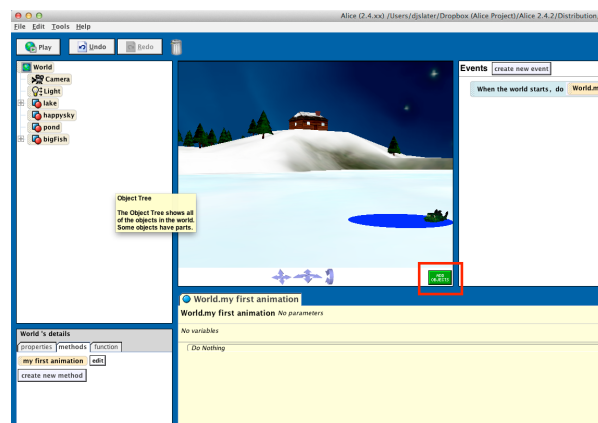
3. Select ***TutorialSceneSetup*** and then click the **Open** button.



After the world has loaded, you should see a frozen lake scene in Alice, as shown here:



4. We are going to create a scene in which Garfield and Odie are skidding around on the ice-covered lake. We will add Garfield and Odie characters (also known as **objects**) to the frozen lake scene. First, click on the **Add Objects** button, as shown here:

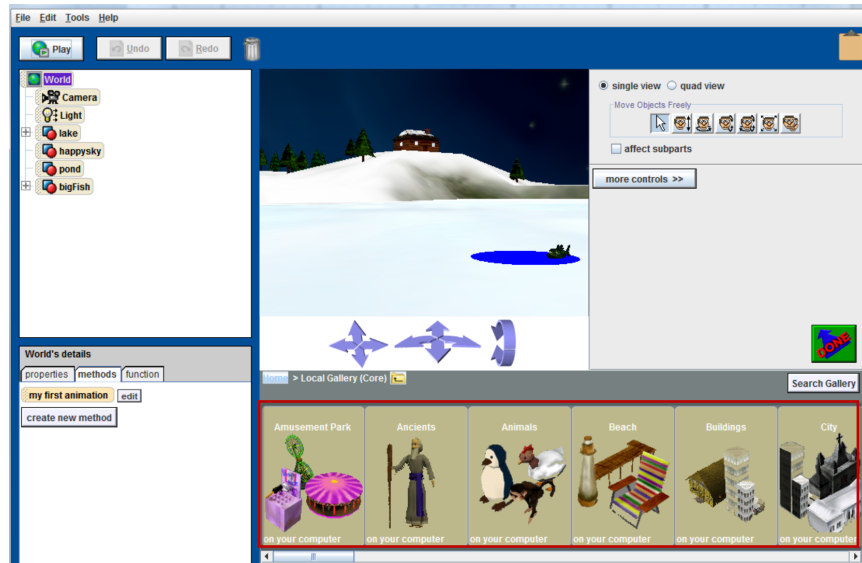




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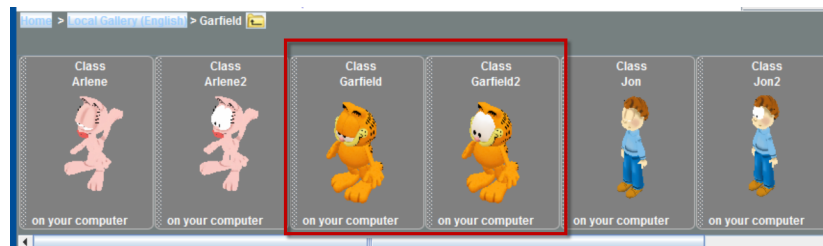
The Alice application now displays the Scene Editor where characters and props can be added and positioned in a scene, to set up for the beginning of an animation. Garfield and Odie will be found in the Gallery. The Gallery is at the lower right of the window, as shown here:



5. Use the scroll bar at the bottom to locate the **Garfield** section of the Gallery. Click on the **Garfield** icon to view the different **Garfield** character models.



Notice that many of the Garfield characters have two models. One model has a happy face (open eyes) and one a serious face (partly closed eyes). For example, there are two Garfield models, as shown here:





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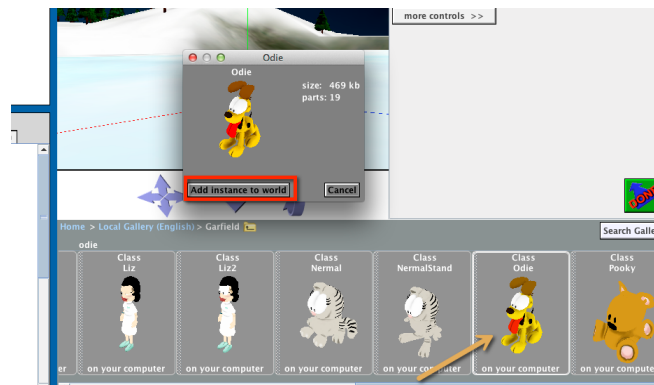
- Click on one of the Garfield models to add the character to the scene. In the popup box, click on the ***add instance to world*** button.



You should now see Garfield in your scene, standing beside a hole in the ice. The name for this hole in the ice is “pond.”



- Find the Odie model in the Garfield section of the Gallery, and add Odie to the scene.





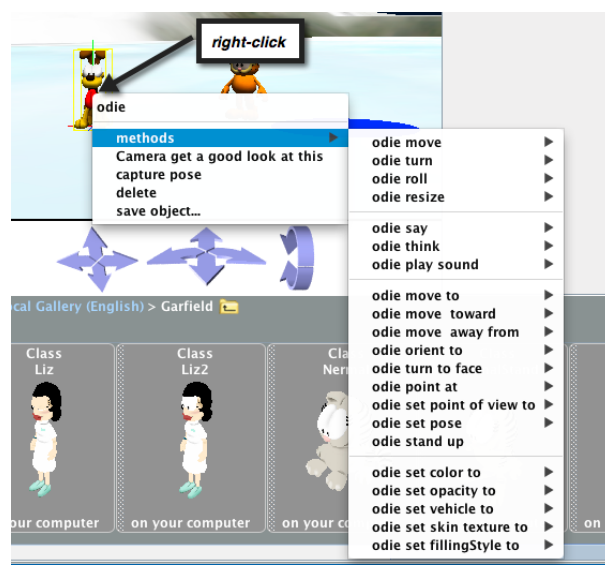
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8. You are now ready to position Garfield and Odie in the scene. Use the mouse to click and drag Odie so he is positioned some distance to the left (as you look at the scene) of Garfield, as shown here:



9. Right-click on Odie. A context menu will popup, as shown. Select **methods** in the context menu. A sub-menu will be displayed. The sub-menu contains a list of methods (actions) that odie knows how to perform. For example, odie can move, turn, roll ... or perform any other action listed on the menu.

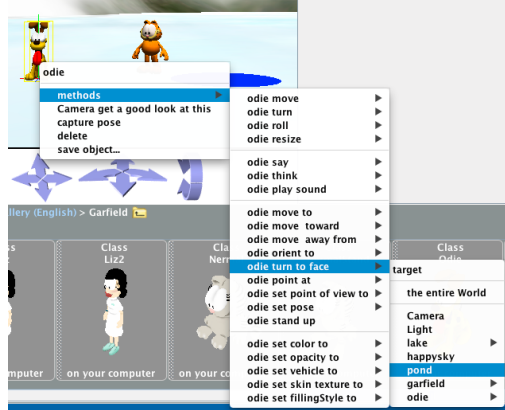




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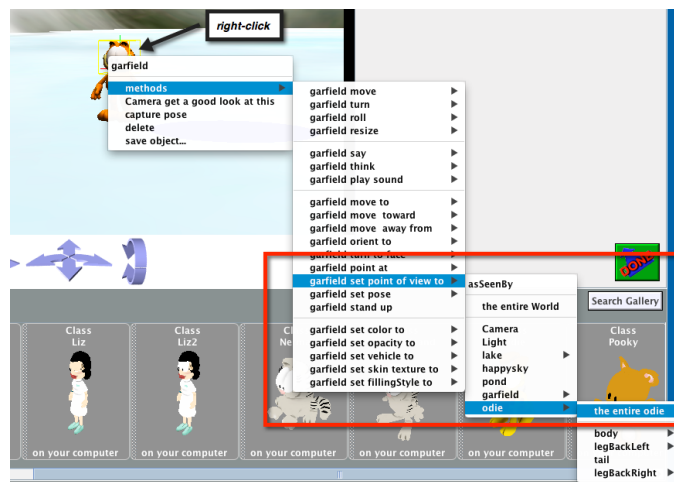
Select **turnToFace** from the sub-menu of methods. Then select **pond** as the target object Odie will **turnToFace**.



Odie should now be facing the pond, as shown here:



10. Now we want to position Garfield some distance behind Odie. To position Garfield, right-click on Garfield and from the popup context menu, select **method -> set point of view to -> Odie -> the entire Odie**, as shown here:

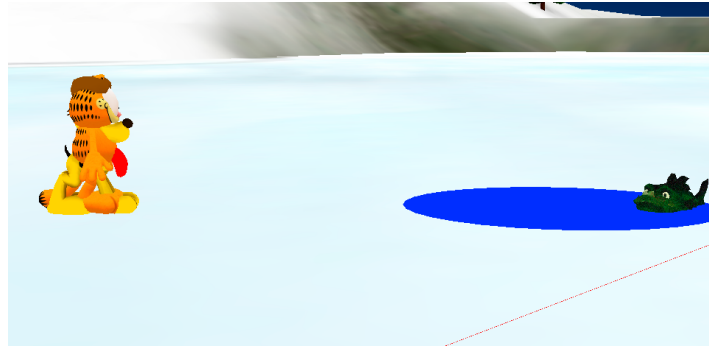




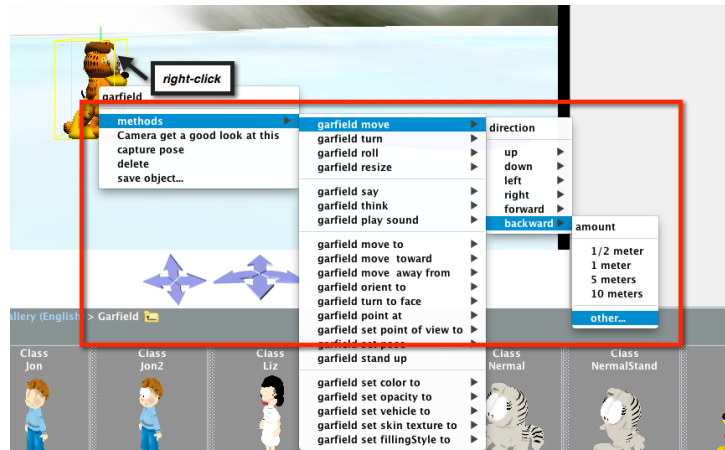
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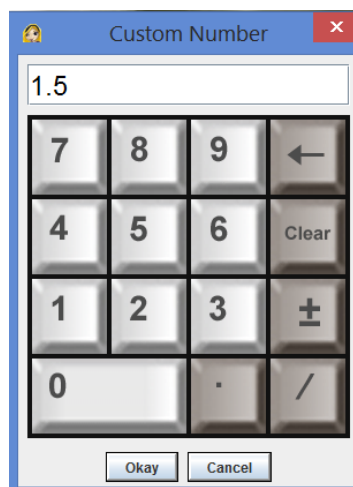
We now see that Garfield and Odie are exactly in the same location and facing in the exact same direction, as shown here:



11. We want to move Garfield backwards so he will be standing behind Odie. Right-click on Garfield, and from the context menu that pops up, select **method** -> **move** -> **backward** -> **other...**



A keypad is displayed, where you can enter the distance. Type 1.5 on the keypad and click **Okay**.





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Garfield is now positioned 1.5 meters (about 5 feet) behind Odie and both are facing the pond.



12. The scene is now setup. Return to the Code editor by clicking on the Done button, as shown here:

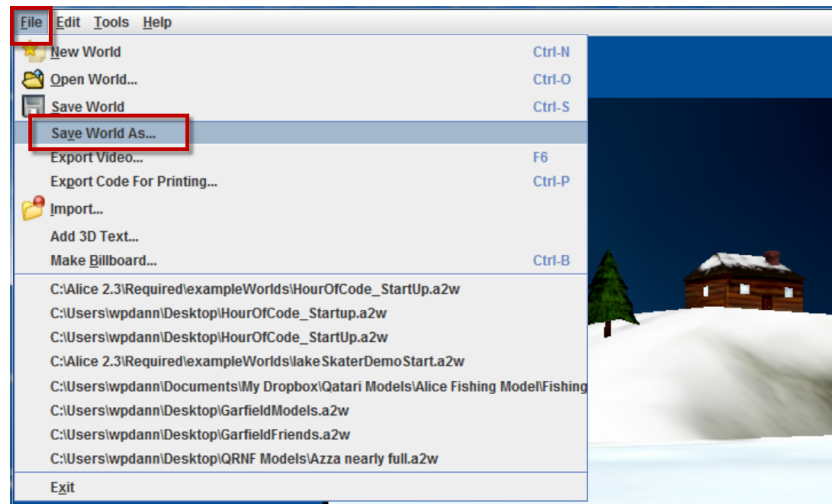




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13. In the Code editor, save your scene using the **File → Save World As** menu option. You may save to the desktop of your computer or to a thumb drive or other storage device.



14. Go on to the Part II of this tutorial, ***Creating an Animation***. In Part II, you will write program code to animate the Garfield and Odie characters.