3-D Graphics
Movies & Games
Jump In!

- Go to www.alice.org and download Alice 2.0 for your machine
Feeling sleepy and stupid...

- Extract the Alice from the zip archive and copy it to C:\Programs.
A Link on Your Desktop

• This step is optional, but doing it will make your life easier later on.
• Click on an empty area of your desktop and choose “New|Shortcut”.
• In the dialog that pops up, browse to C:\Program Files\Alice, find Alice.exe, select it, choose “Next”, and then “Finish” on the next dialog.
Down the Rabbit-hole

• Now click on the link (or otherwise start Alice)
• Choose “Start the Tutorial”
The Pool of Tears

- Now do the 2nd Tutorial
- When you are done you have a good feeling of what Alice is all about
Creating Your Own Movie

- Click on File
  - Then New World

- Click on a template
  - Background
  - and ground type
Add Objects To the World

- Click the Add Objects button
- Select an Object Category from the Local Gallery
- Select Local Gallery to get back from a category
  - To the list of categories
Add Objects to the World

• Select an object to add
  – Click on object to select

• Click Add Instance to world Button
  – Or drag the object and drop it into position somewhere in the world
Position an Object in the World

- Once the object is in the world
  - You can move it by
    - Dragging it with the mouse
  - Or using the mouse controls
- Click the Undo button to undo the last action
Mouse Controls

• Use mouse control buttons (from left to right)
  – To move object left, right, forward, back
  – Up and down
  – Turn left or right
  – Turn forward or backwards
  – Tumble the object (free rotation)
  – Resize object
  – Copy the object
Deleting an Object

• Click on the object you want to delete
  – The object will be displayed with a bounding box around it

• Click the right mouse button
  – Select delete from the pop-up menu
Posing an Object

- You can move just a part of an object
  - Click affect subparts box under mouse controls
- Select a part to move with the mouse
  - Mouse controls will affect just that part
- Or use the object tree
  - To pick the part to move
Objects do Things in Methods

• In object-oriented programming we ask objects to do things
  - They are born 'knowing' some things
  - We can teach them new things
• In Alice we will do this in a method
  - A named set of requests to objects
  - The play button executes
• world.my first method
Viewing Methods

- Click the Done button to stop adding objects to your scene
- Click the object that you want to do something
  - In the object tree
- Click on the Methods tab
  - To see the methods this object already knows
Use Methods

• Drag method names from the details window Methods area – to world.my first method
• Can Group Methods – Do in order
  – One after the other
  – Or Do together
• At the same time
Moving and Deleting a Method

• You can pick up a method and move it
  – Click on left (dotted) edge and drag it
  – Legal places to drop it will have a green line

• To delete move to the trash can
  – Or right click and pick delete from the popup menu
Posing an Object using the Menu

• You can also use a popup menu to pose an object
  – Right click on an object in the object tree to bring up the methods
• Select a method to execute it
• Click on the Undo button to undo this action
Quad View

- Use the Quad View to get multiple views of your objects
  - Normal camera view
  - From the top
  - From the right
  - From the front
- Can zoom
- And move the view
Camera Controls

- Use camera controls to change the starting camera view
  - Move up, down, left, right
  - Drive forwards, backwards, rotate left, rotate right
  - Tilt (rotate) camera forwards or backwards
Saving a World

- Click on File and Save World
- Tell it where you want to save it
  - Give it a name
- To open a saved world
  - Click on File, Open World
    - Pick the saved world
Creating a Method

• To teach an object to do a new thing
  – Create a new method
  – Name the method
  – Drag other methods into the new method
  – When you are done use the new method in world.my first method
Creating a Class

• A class can ‘inherit’ from an existing class
  – Right click on object in object tree and rename it
    • Right click and select save object (really save class)
  – Create copies of the object using mouse controls
    • Know the same methods
  – To make the methods work on any object of the class
    • Add a parameter for the object that it is invoked on
    • To move sub-parts need part named function
      – Be careful typing the name of the part
        » Case sensitive
Creating People

• You can use the she builder and he builder to build custom people
  – In the people category
  – Control the skin color, hair, eyes, body, and clothes
Saving a Position

- Click the more controls button
- Drop a dummy
  - At the camera
  - Or at an object
- Can move the camera to a dummy
- Can set an object to the dummy’s position
Threads that Bind Us

• I encourage you to learn more about Alice’s inspirational architect-- Prof. Randy Pausch