



Programming in Alice

8/29/2007





Opening Discussion

- Let's look at some answers to the interclass problem.
- Answers to questions on earlier minute essays.
 - ◆ Is the learning hands on? As much as I can make it.
 - ◆ Is there required lab time? No. Open labs are optional.
 - ◆ Does Alice ever get more complex than drag and drop? No. That's why we will move to Java.
 - ◆ How will you use Java in life outside class? Unless you switch to a CS major you probably won't. What you will use is the ability to decompose problems and structure solutions. You might even find that writing a bit of code can occasionally be helpful.
 - ◆ Are there labs with Alice that are open 24 hours? These labs are, unfortunately, not open 24 hours. Other labs won't have Alice.



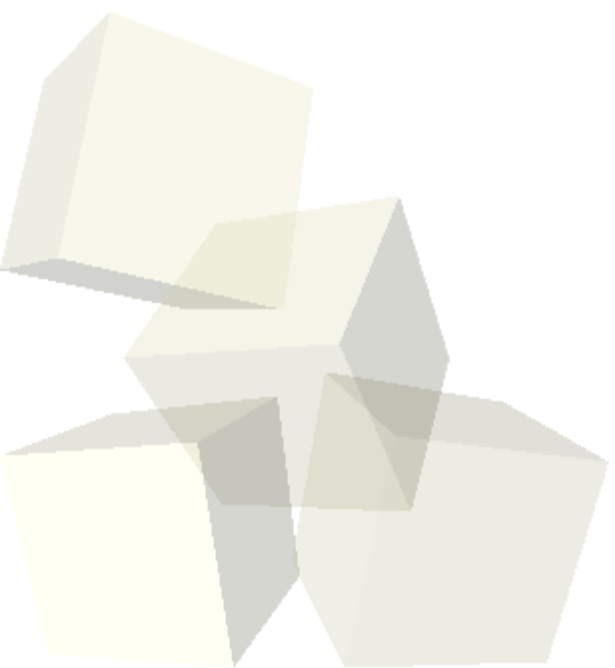
More Minute Essays

- Can you create characters in Alice? Yes, but I don't expect you to. From what I've heard it is a fairly tricky process, but alice.org can help you if you are serious about doing it.
- What is programming? Writing a set of instructions for a computer to make it do something.
- Will I be playing noonball this semester? Yes.
- Will quizzes be announced? Yes. They are now on the schedule page.
- Will tests be cumulative? Not explicitly.
- Can I recommend other links or references to help on the projects? For Alice, alice.org is a good starting place. The links page has some Java stuff, but more might be added.



Even More Minute Essays

- Do you need the book for every class? No. You probably won't really NEED the book for any classes.
- When do we move to Java? October 15th.
- Do you need a lot of computer experience to be successful in this class? I sure hope not.
- Does living off campus make things harder? For this class it shouldn't as long as you mail yourself interclass problems or bring them on a thumb drive.





Extending Our Code

- Let's go and add some more to the code that we started working on last time.



Software Engineering (Alice Style)

- Your book has a section on software engineering that they present with a strong Alice twist.
 - ◆ Write your story.
 - ◆ Draw storyboards.
 - ◆ Build scenes. Make an object for each noun in the story.
 - ◆ Put together the code and put in method calls for all the verbs in the story.
- This view of software engineering is a bit too simplistic. Here are the standard steps.
 - ◆ Analysis – what is the problem?
 - ◆ Design – how will you solve it?
 - ◆ Implement – write the solution.
 - ◆ Debug – fix what you messed up.
 - ◆ Deploy and maintain



Do Together

- So far we have had all of our statements in Alice happen sequentially. This is the normal mode of working in programs.
- Alice provides a simple way to make things happen at the same time. The “do together” block lets you specify a bunch of commands that should all happen at the same time.
- Let's make use of this and see what happens.





- When you are working on the project you will probably be picky about exactly how different figures are set up.
- The quad view gives you a lot more information about the relative position of objects in your scene.





- What makes do together potentially difficult to use? As it happens, most all things that can happen in parallel on computers can have interesting complications. This is a major area of growth in CS at the current time.
- Interclass Problem – Do either problem 1.6, 1.7, or 1.8 from the text.

