



Looping Through Lists

2/13/2008





Opening Discussion

- Let's look at some solutions to the interclass problem.





A Little More Lists

- Last class we created two lists and went through them in different ways.
 - ◆ The list of objects to tag we went through with the `doAllTogether` operation.
 - ◆ The list of strings we went through using the index of a `for` loop.
- We didn't use the functionality that Alice provides for adding to lists or removing from them. Let's write some code now that will do that. We will cheat and throw in a mouse event as well.
- There are some challenges with lists of objects in Alice. I view these as a limitation on the Alice type system.



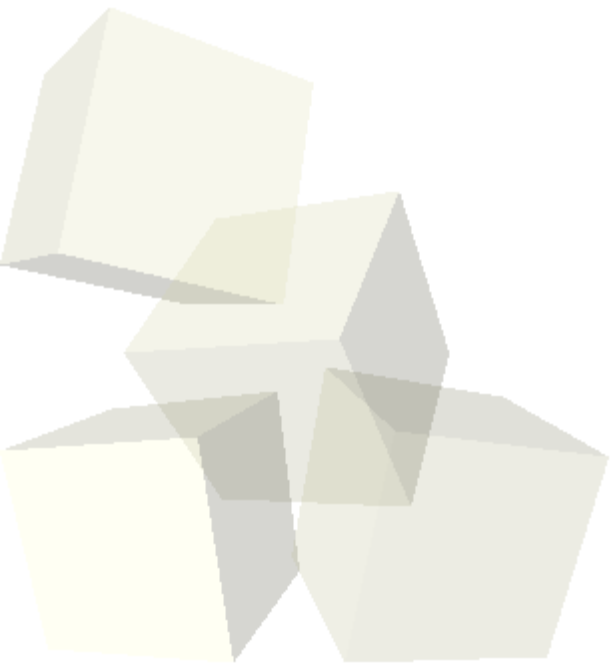
Animating Lists/Arrays

- If you tried to animate your list by giving the objects on your list a walk method you probably found there was a problem. Alice won't let you say `item_from_list.walk`. This is because `item_from_list` could be any object in the Alice world and not all objects in Alice have a walk method.
- How then do we animate objects using a list/array in Alice? The `partNamed` method lets us pull off sub-parts of an object to move for the animation.
- This is more tedious than I would like, but it follows the strong static typing of Java and the lack of subtyping in Alice.



Random Numbers

- For your project you might want some things to happen a bit differently every time it runs. For this you need random numbers.
- The world has two methods to return pseudo-random boolean and double values. (For our purposes a double is just a number.)





- Is there any part of your project where you might use random numbers? If so, when?
- You can also let me know if you have any questions about lists or arrays.
- Quiz #3 will be at the beginning of next class.
- Interclass Problem – Do problem 5.5 of 5.7.

