

# Expanding Alice





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Major: Mathematics and Computer Science

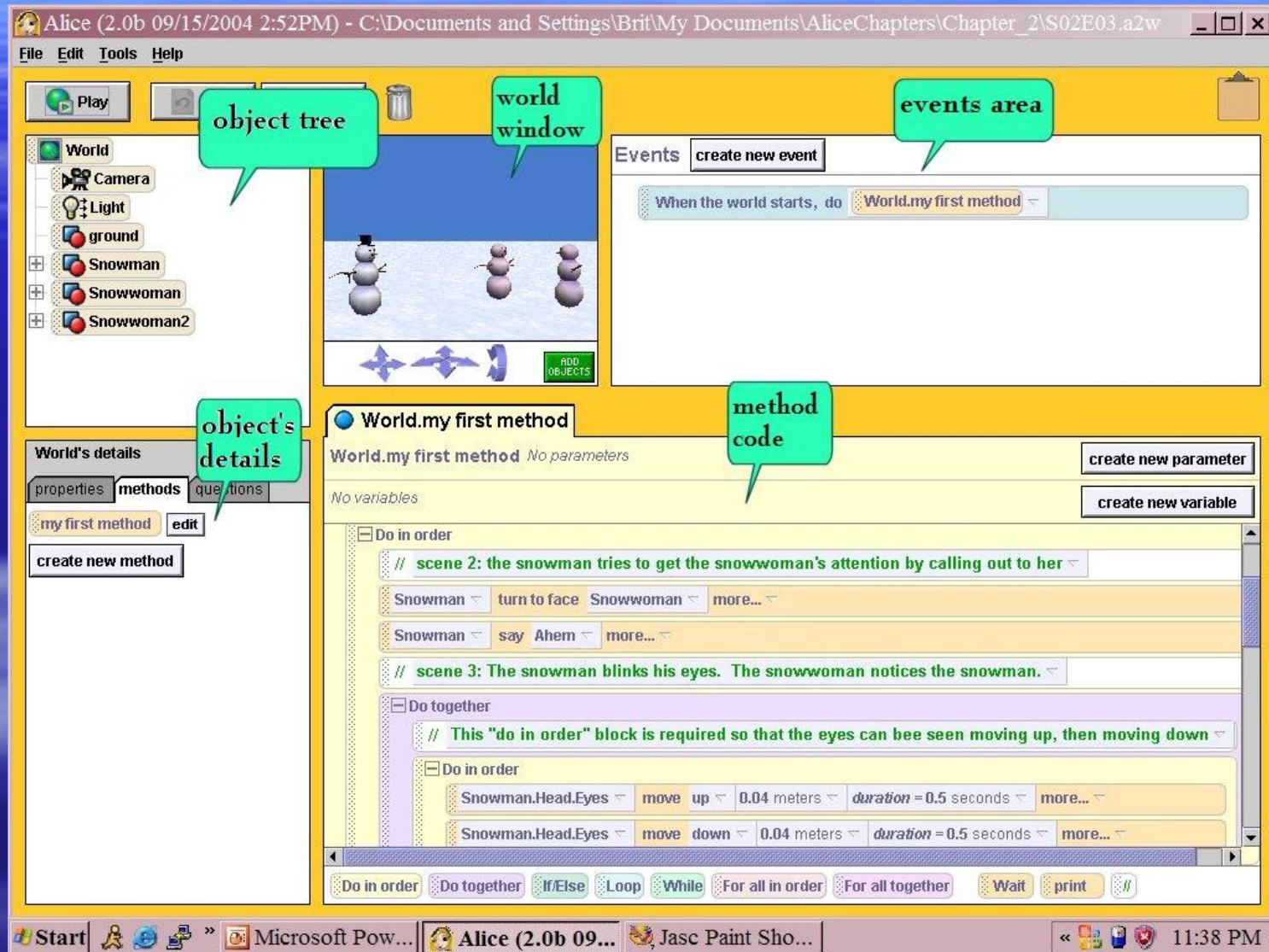
Faculty Mentor: Dr. Cooper

# Summary

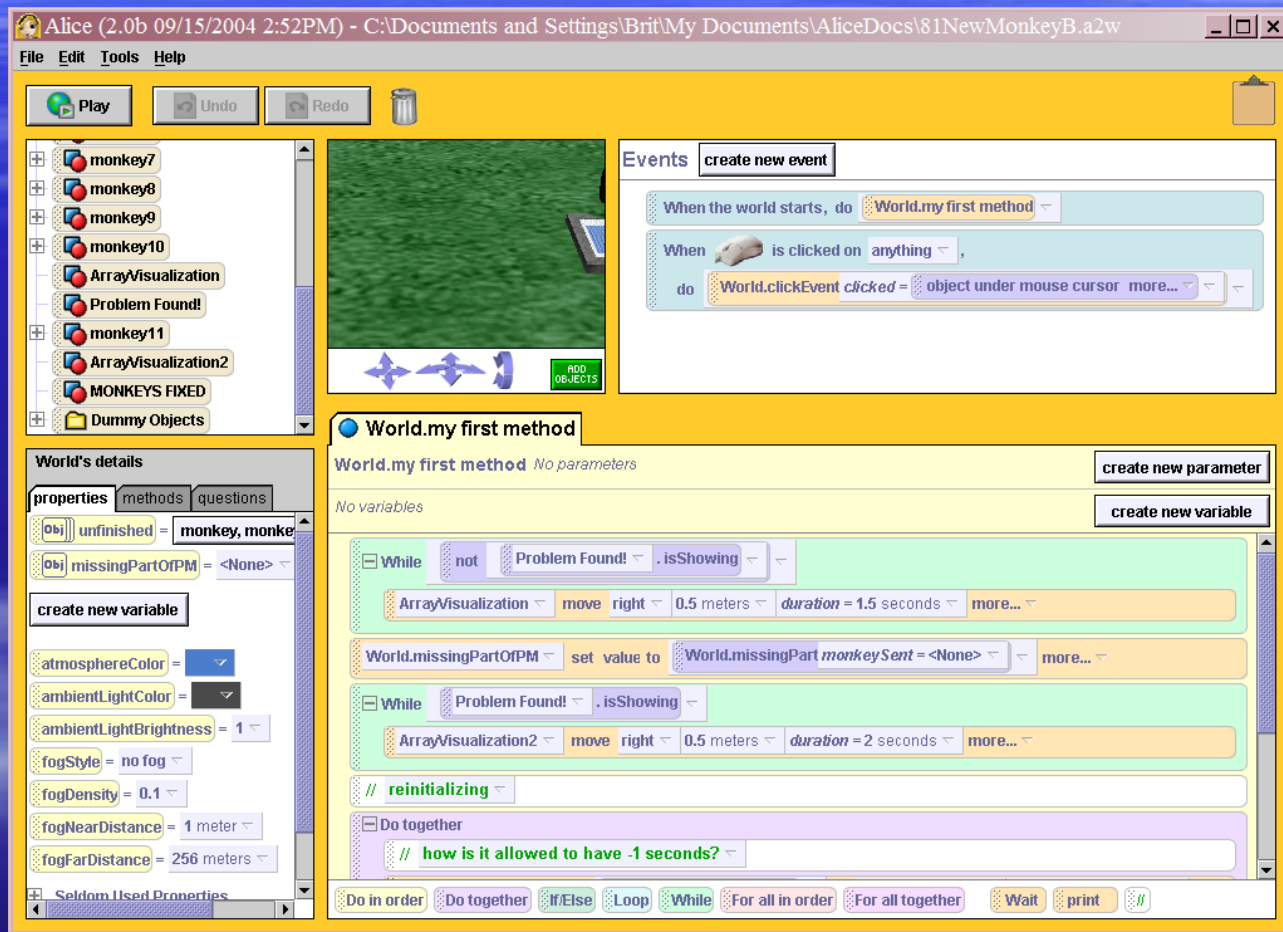
I created virtual worlds that explore possible Alice usage in a CS2 course, using Lists, Stacks, and Queues.



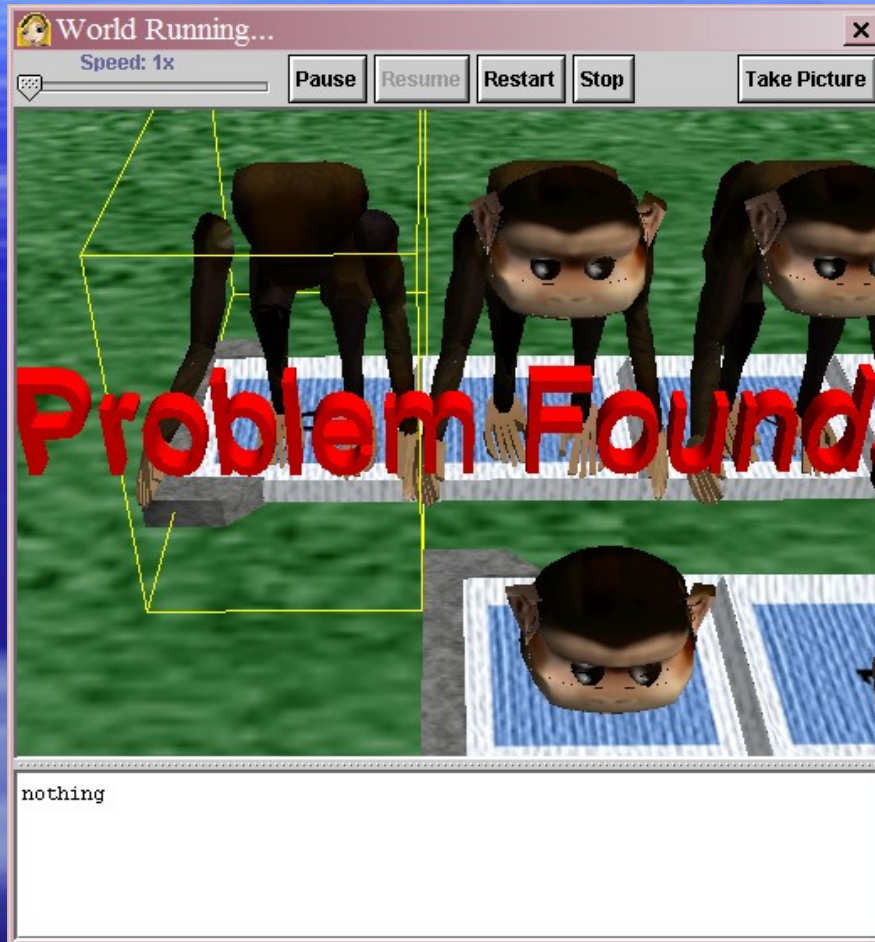
# The Alice Template



# Arrays and Lists in Alice



# The world running:



Implementations Used:

- 2 ArrayVisualizations
- 1 List Variable



# Queues in Alice

Alice (2.0b 09/15/2004 2:52PM) - C:\Documents and Settings\Brit\My Documents\AliceDocs\8.9\_doyoLine.a2w

File Edit Tools Help

Play Undo Redo

World

- Camera
- Light
- ground
- Dojo
- ArrayVisualization
- FanDancer
- AliceLiddell
- ToySoldier
- Cowboy

Events

create new event

When [mouse] is clicked on anything, do ArrayVisualization.insertAtTheEnd person = object under mouse cursor move

When [mouse] is clicked on Dojo, do World.enterHouse

World.enterHouse ArrayVisualization.insertAtTheEnd

ArrayVisualization.insertAtTheEnd [obj] person

create new parameter

No variables

create new variable

ArrayVisualization's details

properties methods questions

insertAtTheEnd person edit

create new method

let ArrayVisualization [ index ] =

ArrayVisualization move

ArrayVisualization turn

ArrayVisualization roll

ArrayVisualization resize

ArrayVisualization turn to face

ArrayVisualization point at

ArrayVisualization stand up

Else

If [ArrayVisualization.nextArrayElement < ArrayVisualization's size]

Do together

let ArrayVisualization [ ArrayVisualization.nextArrayElement ] = person more...

person turn to face Dojo more...

ArrayVisualization.nextElement set value to ArrayVisualization.nextElement + 1 more...

Else

Do Nothing

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

# Stacks in Alice

2 initial worlds were created, with separate animal arrays.

The same empty stack is a part of both these worlds.

The user can navigate between the worlds.





