OID 325: Thinking with Models

Spring 2016, TBA

In-Class Exercises

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Preface

Chapter 1

Introduction

Today's exercise is simply a warm up for what is to come. With neighbors, form groups of 3–4 for today's exercise. Discuss among yourselves your modeling experiences and write down a short discussion and description of 2–4 models you are acquainted with. These could be models you have worked with or been instructed on, or they could be models you are interested in, etc. As a group, record your comments briefly in an electronic document (Word, LaTeX, plain text, whatever) and upload it to Canvas, submitting as today's assignment. Be sure to put everyone's name on the document. If you can, upload a separate copy for each person in your group.

Chapter 2

Working with Patches

Create a NetLogo model file called *Class2.nlogo*, put your work in it, and submit it for today's in-class exercises assignment.

2.1 Basic

1. Write a command procedure called `basic1` that when executed calls `clear-all` and then sets the color of all patches whose x-coordinate equals 6 or more to yellow.

   Here's a stub for you to work with:

   ```
   to basic1
     clear-all
     [** Your code here. **]
   end
   ```

   Answer:

   ```
   to basic1
     clear-all
     ask patches with [pxcor > 5] [set pcolor yellow]
   end
   ```

   ---

2. Write a command procedure called `basic2` that when executed calls `clear-all` and then colors each patch yellow with probability 12/100, and then for each patch if it has 3 or more yellow neighbors, sets the patch color to red and sets it label to `***`

Here's a stub for you to work with:

```
to basic2
  clear-all
  [** Your code here. **]
end
```

Answer:

```
to basic2
  clear-all
  ask patches [if random 100 < 12
    [set pcolor yellow]]
  ask patches [if count neighbors with [pcolor = yellow] >= 3
    [set plabel "***"
      set pcolor red]
  ]
end
```

2.2 Beyond the Basics

Chapter 3

Working with Turtles