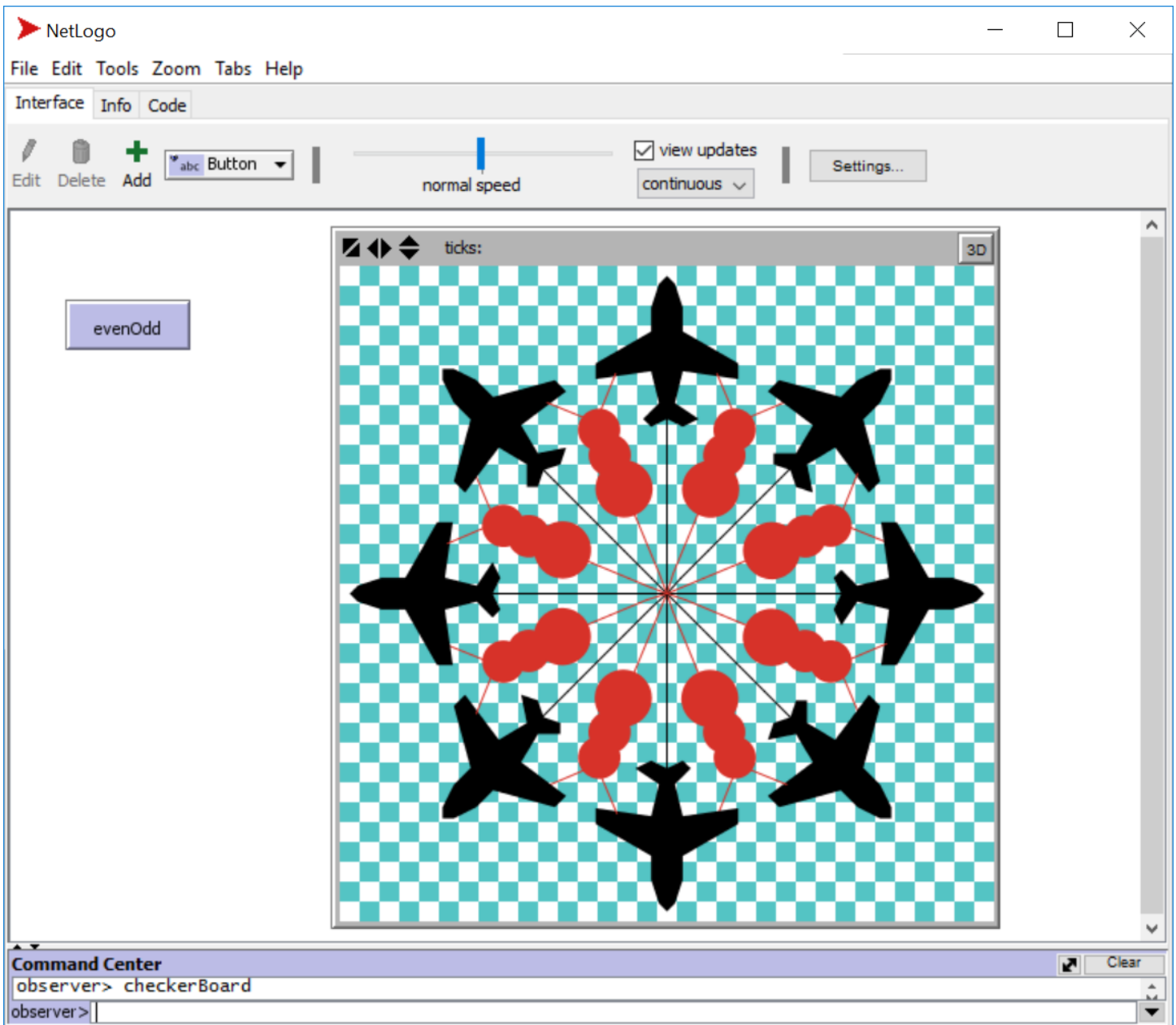


Friday, August 26th CS 1025 class #3 Fall 2016
NetLogo turtle graphics



The example we started on Friday, August 26th, 2016 in CS 1025 class. To be continued during week #2. We did something like this in the 8 am and the 12 pm classes.

Questions will be answered and we will play with the code for this again on Monday, August 29th during class #4.

See the last page of this PDF for the code that you can copy and paste if you wish. We will start with this code by copying and pasting it into NetLogo session on Monday.

```
NetLogo
File Edit Tools Zoom Tabs Help
Interface Info Code
Find... Check Procedures Indent automatically

;; The turtles have who numbers: 0, 1, 2, 3, 4, 5, ... 15

TO evenOdd
  ca
  cro 16
  checkerBoard

  ask turtles
  [
    pd
    set size 8

    ifelse remainder who 2 = 0
    [
      set color black
      fd 12
      set shape "airplane"
    ]
    [
      set color red
      set shape "bug"
      fd 8
    ]
  ]
END
```

```
;; (pxcor + pycor) is either EVEN or ODD
```

```
TO checkerBoard
  ask patches
  [
    ifelse remainder (pxcor + pycor) 2 = 0
    [
      set pcolor white
    ]
    [
      set pcolor cyan
    ]
  ]
END

;; What is the REMAINDER when you divide
;; by 2? It is either 0 or 1.
```

```

;; (pxcor + pycor) is either EVEN or ODD
TO checkerBoard
  ask patches
  [
    ifelse remainder (pxcor + pycor) 2 = 0
    [
      set pcolor white
    ]
    [
      set pcolor cyan
    ]
  ]
END

```

NetLogo User Manual

version 5.3.1
February 29, 2016

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ifelse

ifelse *reporter* [*commands1*] [*commands2*]

Reporter must report a boolean (true or false) value.

If *reporter* reports true, runs *commands1*.

If *reporter* reports false, runs *commands2*.

The reporter may report a different value for different agents, so some agents may run *commands1* while others run *commands2*.

```

ask patches
  [ ifelse pxcor > 0
    [ set pcolor blue ]
    [ set pcolor red ] ]
;; the left half of the world turns red and
;; the right half turns blue

```

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remainder

remainder *number1 number2*

Reports the remainder when *number1* is divided by *number2*. This is equivalent to the following NetLogo code:

```

number1 - (int (number1 / number2)) * number2

```

```

show remainder 62 5
=> 2

```

```

TO checkerBoard
  ask patches
  [
    ifelse remainder (pxcor + pycor) 2 = 0
    [
      set pcolor white
    ]
    [
      set pcolor cyan
    ]
  ]
END

```

;; The turtles have who numbers: 0, 1, 2, 3, 4, 5, ... 15

```

TO evenOdd
  ca
  cro 16
  checkerBoard

  ask turtles
  [
    pd
    set size 8

    ifelse remainder who 2 = 0
    [
      set color black
      fd 12
      set shape "airplane"
    ]
    [
      set color red
      set shape "bug"
      fd 8
    ]
  ]
END

```