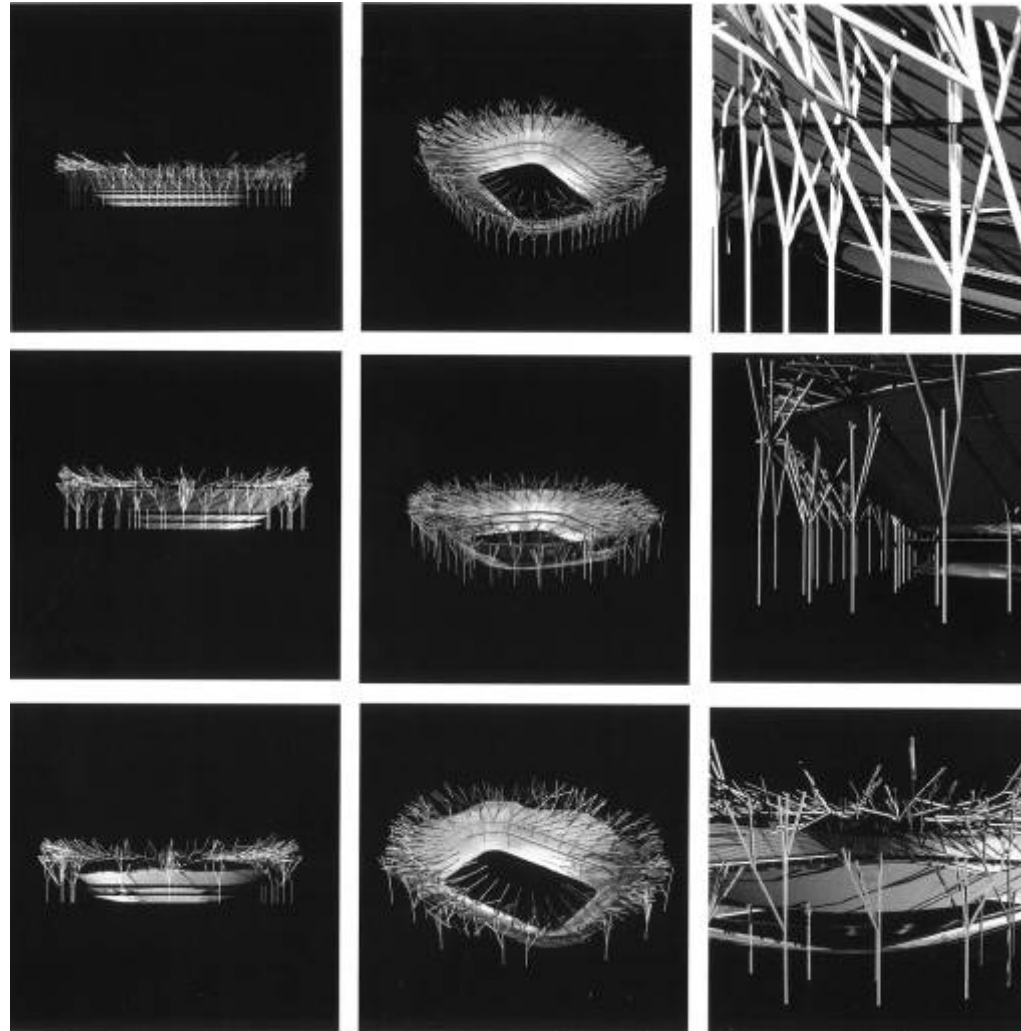


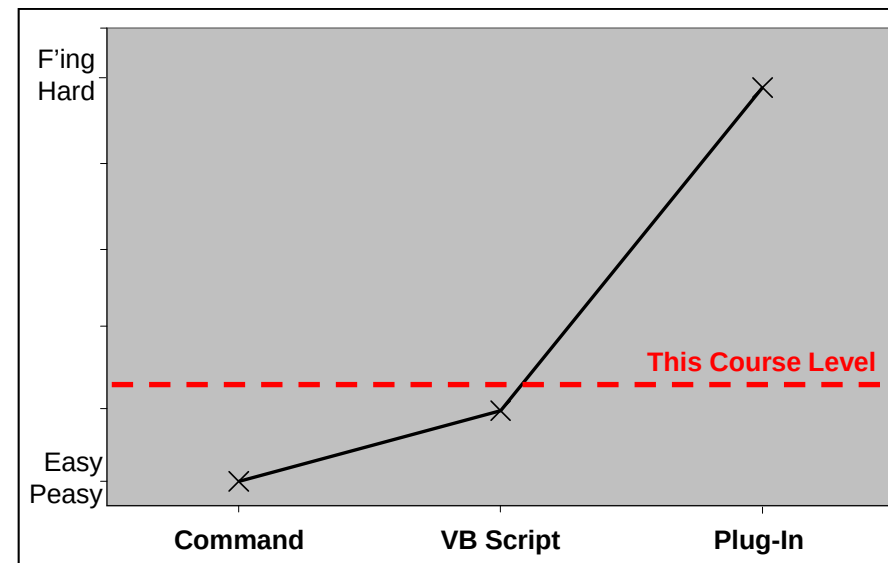
# Scripting with Rhino



Command Script

Rhino (Visual Basic) Script

Plug-In



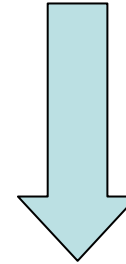
# Command Script

Every Action In Rhino has a text equivalent

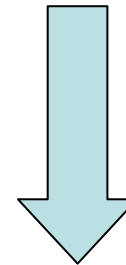
This text “script” can be saved-out and read-in

Editing the “script” can create  
“Variations on a Theme”

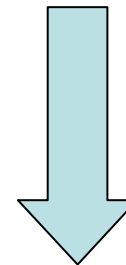
Read In Script



Perform 1<sup>st</sup> Task



Perform 2<sup>nd</sup> Task



etc.

\_Line 0,10 3,10



\_Lines 0,8 3,8 3,9 \_Enter



\_Lines 0,6 3,6 3,7 Close



\_Rectangle 0,4 3,5



\_Plane 0,2 3,3



\_3DFace 0,0 3,0 3,1 \_Enter



`_Circle Pause 1`

Pause for user input

`_Lines 0,8 3,8 3,9 _Enter`

Enter command

`_SetRedrawOff`

`_SetRedrawOn`

Stop / Start Redrawing  
(Remember to turn it back on!)

`_NoEcho`

`_Echo`

Stop / Start showing command  
descriptions

`!`

Cancel any previous command

`;`

Comment (ignore rest of line)

`—`

Suppress Dialog box input requests

\_Lines 0,0 0,10 5,15 10,10 10,0 c

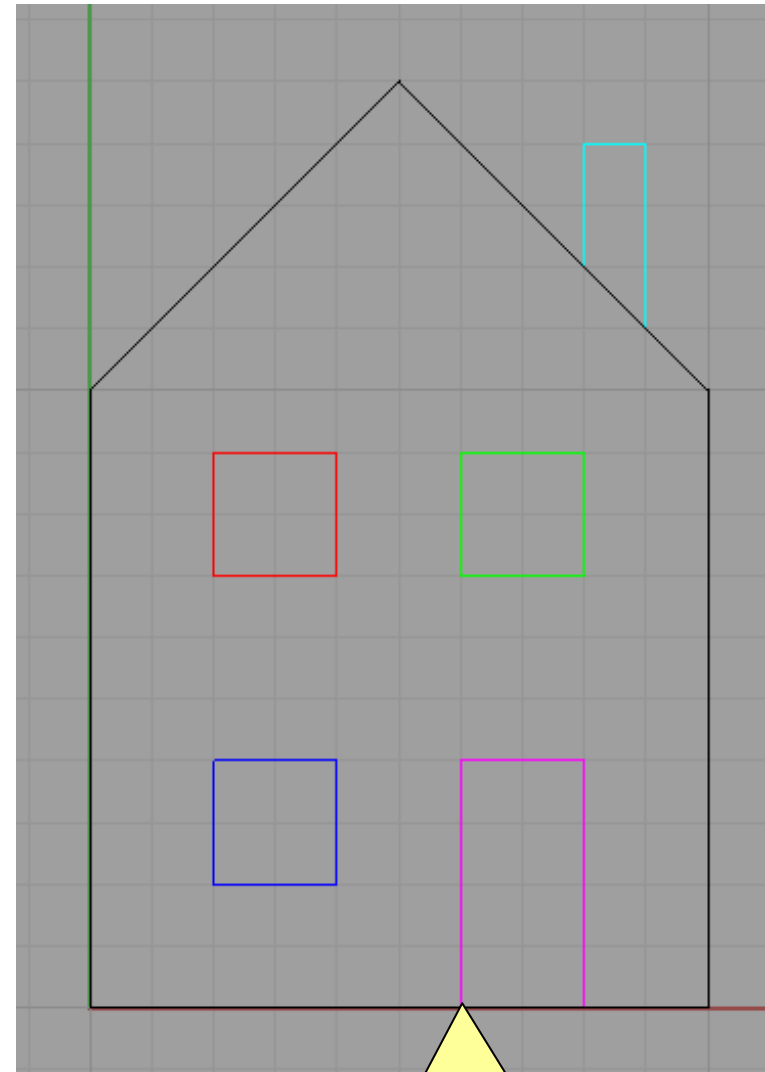
\_Rectangle 2,9 4,7

\_Rectangle 6,9 8,7

\_Rectangle 2,4 4,2

\_Rectangle 6,4 8,0

\_3DFace 8,12 8,14 9,14 9,11



Colours just for show...

Command Script

```
_Lines 0,0 0,10 5,15 10,10 10,0 c
```

```
_SelAll
```

```
_Rectangle 2,9 4,7
```

```
_Invert
```

```
-_Properties Object Color Object Red !
```

```
_SelNone
```

```
_SelAll
```

```
_Rectangle 6,9 8,7
```

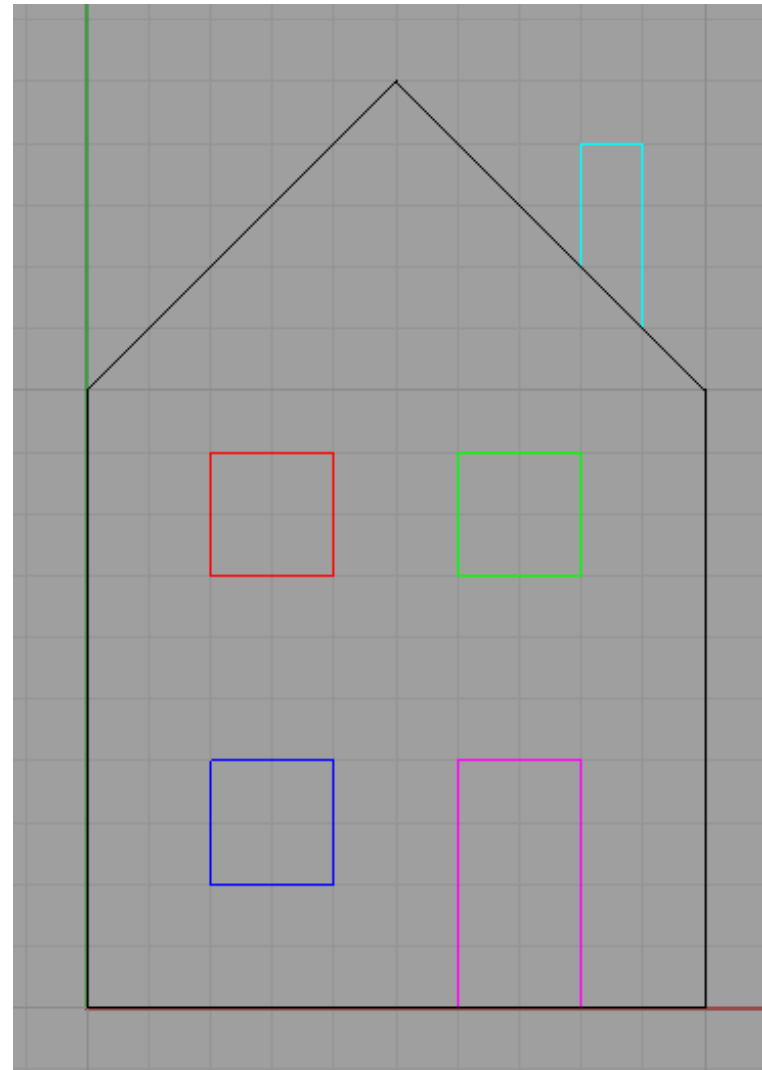
```
_Invert
```

```
-_Properties Object Color Object Green !
```

```
_SelNone
```

etc...

Note Spelling



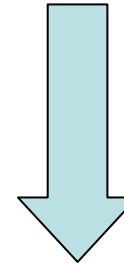
Command Script

# Command Script with Excel

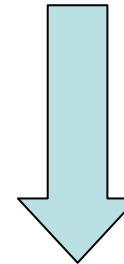
Excel can be used to generate text files

The content of the text can be based on equations and relationships between cells

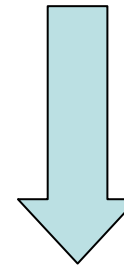
Feed Parameters  
Into Excel



Generate Script In Excel  
And Save As Text

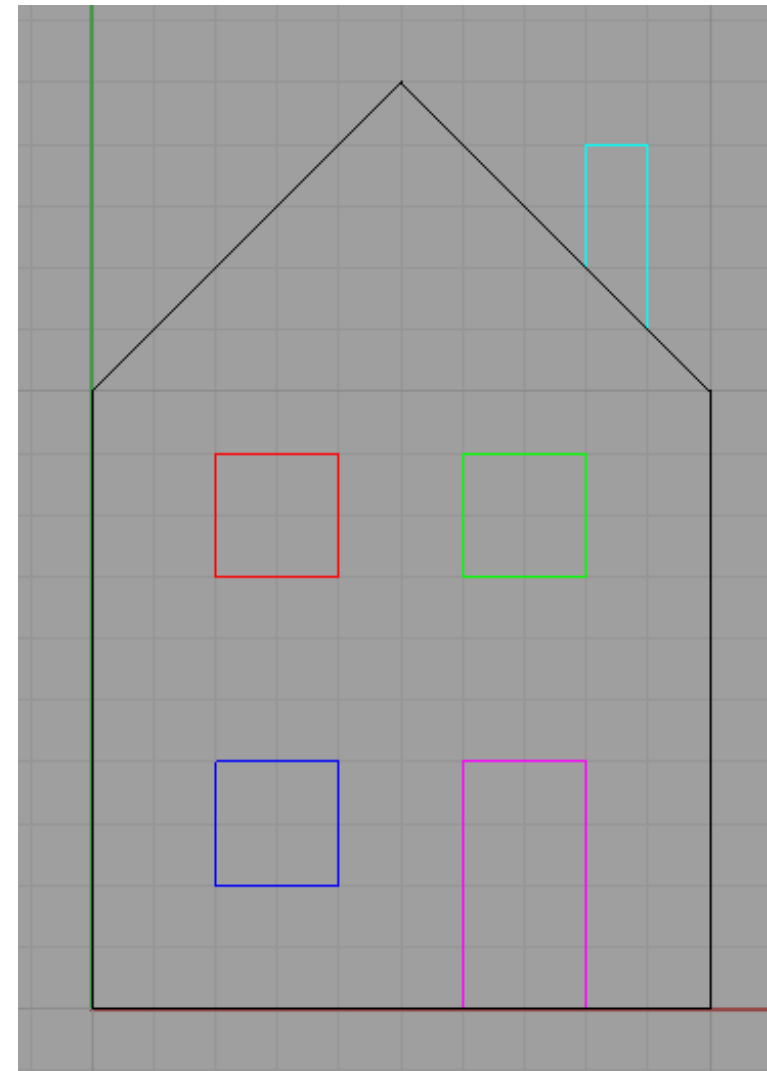
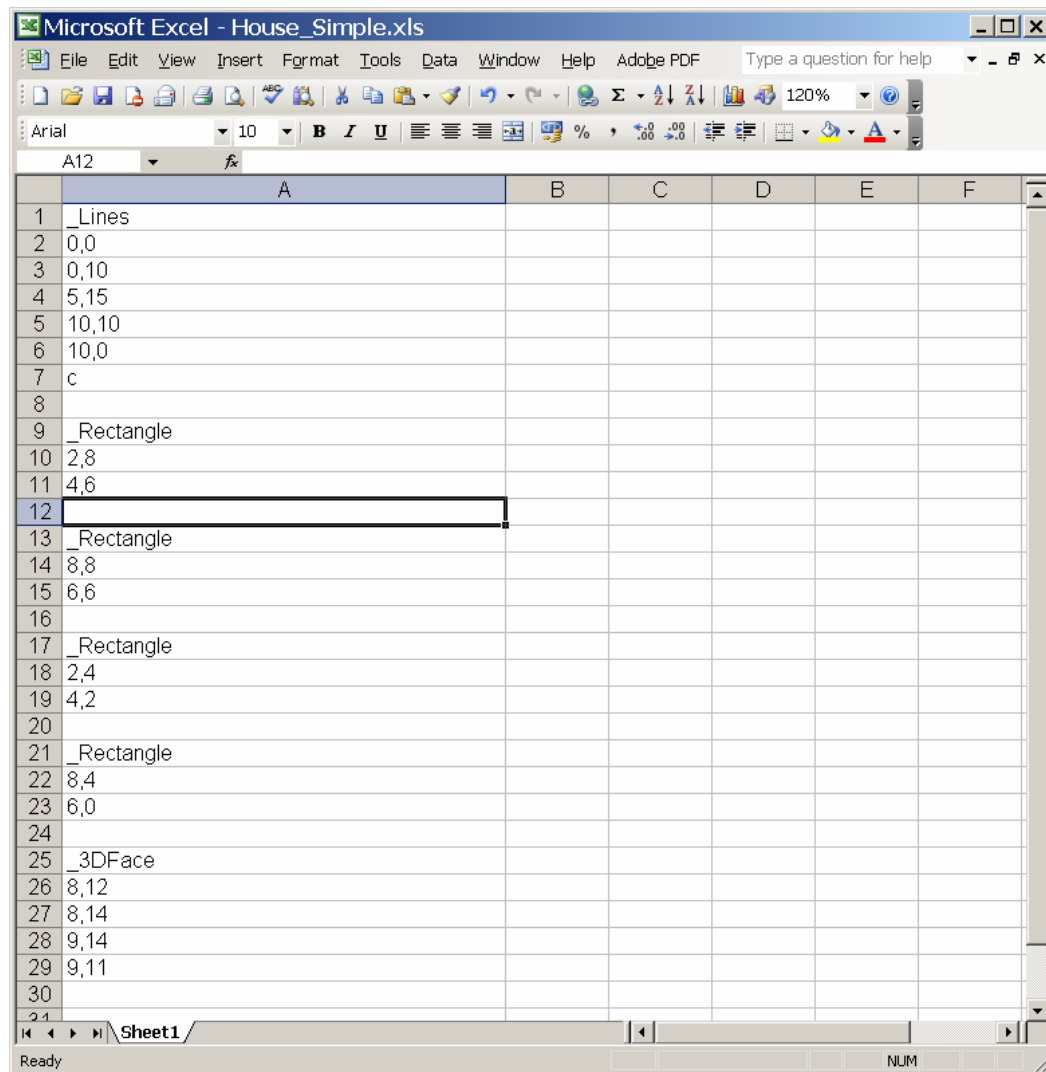


Read Script Into Rhino



Command Script





Microsoft Excel - House\_Parametric.xls

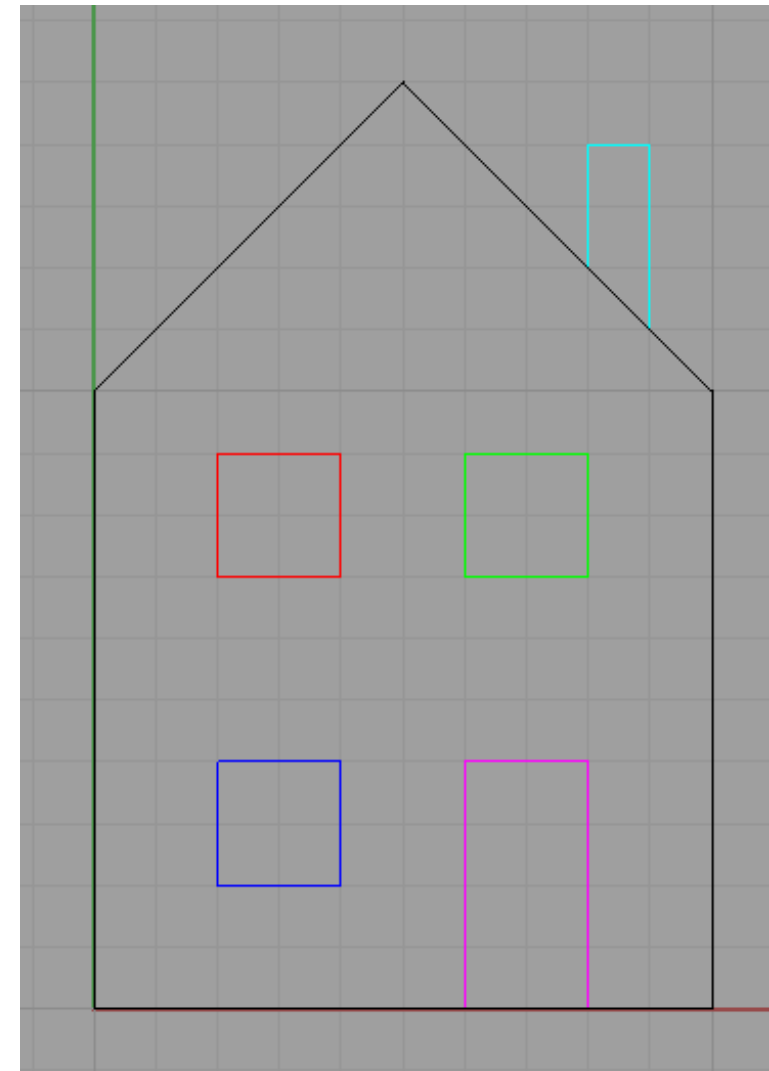
File Edit View Insert Format Tools Data Window Help Type a question for help

Arial 10 B I U % , .00 .00

|    | A          | B                  | C  | D | E |
|----|------------|--------------------|----|---|---|
| 1  | _Lines     | ; Outline          |    |   |   |
| 2  | 0,0        |                    |    |   |   |
| 3  | 0,10       | ; Width            | 10 |   |   |
| 4  | 5,15       | ; Height           | 10 |   |   |
| 5  | 10,10      | ; Roof             | 5  |   |   |
| 6  | 10,0       |                    |    |   |   |
| 7  | c          |                    |    |   |   |
| 8  |            |                    |    |   |   |
| 9  | _Rectangle | ; WindowTopLeft    |    |   |   |
| 10 | 2,8        | ; WindowOffset     | 2  |   |   |
| 11 | 4,6        | ; WindowSize       | 2  |   |   |
| 12 |            |                    |    |   |   |
| 13 | _Rectangle | ; WindowTopRight   |    |   |   |
| 14 | 8,8        |                    |    |   |   |
| 15 | 6,6        |                    |    |   |   |
| 16 |            |                    |    |   |   |
| 17 | _Rectangle | ; WindowBottomLeft |    |   |   |
| 18 | 2,4        |                    |    |   |   |
| 19 | 4,2        |                    |    |   |   |
| 20 |            |                    |    |   |   |
| 21 | _Rectangle | ; Door             |    |   |   |
| 22 | 8,4        |                    |    |   |   |
| 23 | 6,0        |                    |    |   |   |
| 24 |            |                    |    |   |   |
| 25 | _3DFace    | ; Chimney          |    |   |   |
| 26 | 8,12       | ; ChimneyPos       | 2  |   |   |
| 27 | 8,14       | ; ChimneyHeight    | 2  |   |   |
| 28 | 9,14       | ; ChimneyWidth     | 1  |   |   |
| 29 | 9,11       |                    |    |   |   |
| 30 |            |                    |    |   |   |
| 31 |            |                    |    |   |   |

Sheet1

Ready NUM



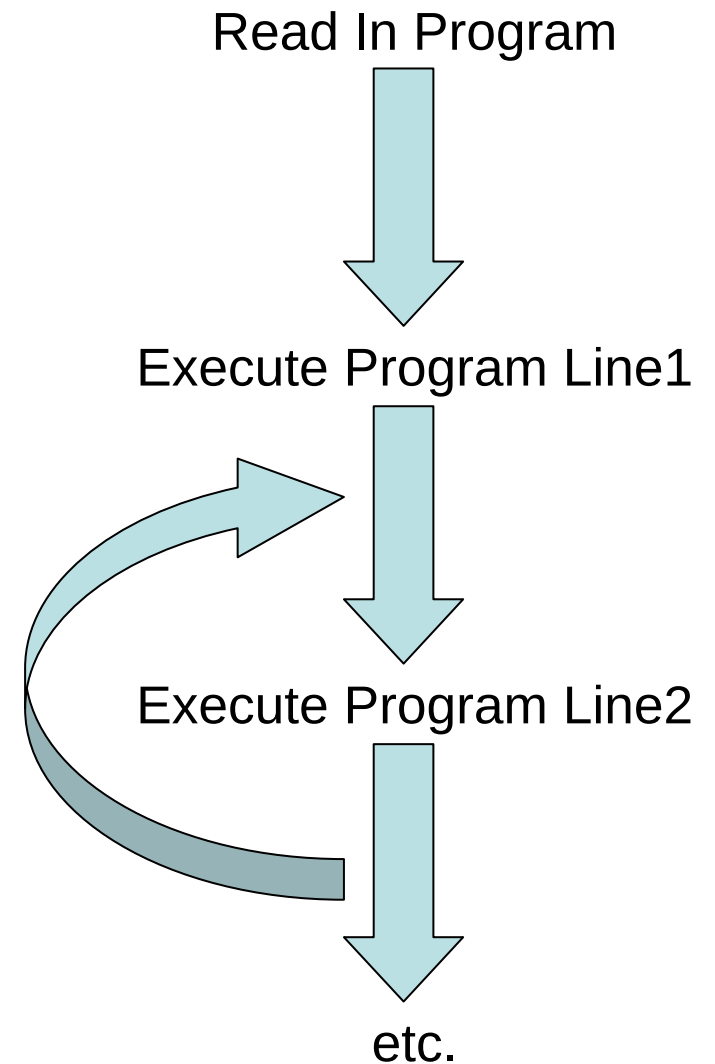
# Rhino Script

Run a Visual Basic style program

Access to all Rhino Functions

Programming Loops and Subroutines allowed

Much faster to run than command-script



Option Explicit

'Script written by Paul Shepherd

'Script version 10 February 2008

Call Main()

Sub Main()

Dim count, y

Dim ptOrigin, ptThePoint, ptPrevPoint, aVector

ptOrigin = Array(0,0,0)

y = 0.0

ptThePoint = ptOrigin

For count=1 To 100

ptPrevPoint = ptThePoint

y = 1/(count)

aVector = Rhino.VectorCreate(Array(0,y,0), Array(0,0,0))

ptThePoint = Rhino.PointAdd(ptPrevPoint, aVector)

Rhino.AddLine ptPrevPoint, ptThePoint

Next

End Sub

Now see live demos...