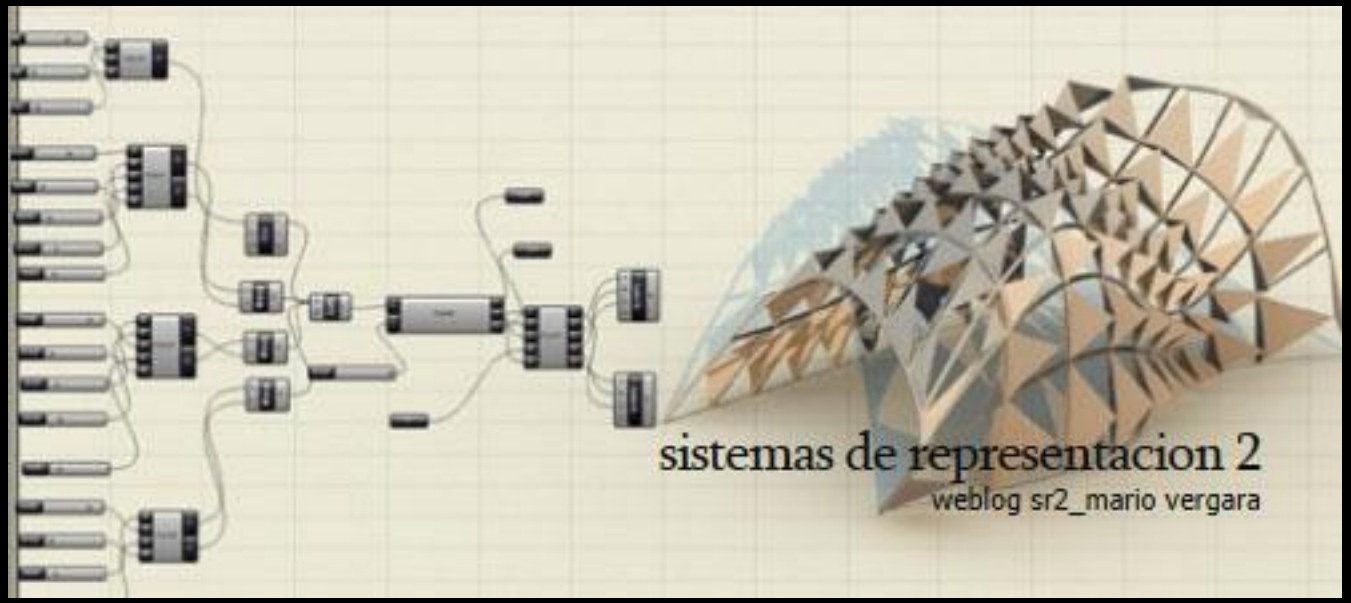

sistemas de representacion 2
weblog sr2_mario vergara

CARACTERISTICAS GENERALES

Grasshopper – Explicit History- Creado por David Rutten 2008

-PLUGIN:
Se ejecuta solo con Rhinoceros 4.0 y 5.0, funcionando dentro de este. Grasshopper es un software que toma instancias de clases de objetos de Rhinoceros, y los utiliza en su entorno de visualización

-PROGRAMACION VISUAL:
No es necesario tener conocimientos previos de programación, pero si como este maneja flujo de data y acciones.
Grasshopper es un editor visual de programación, por lo que es mucho mas rápido de aprender que Rhino Visual Basic, Phython, C++ o .Net
La ultima versión de Grasshopper es la 0.8.0050, donde es posible programar en C++, .Net o Phytthon, lo que aumenta exponencialmente sus capacidades.

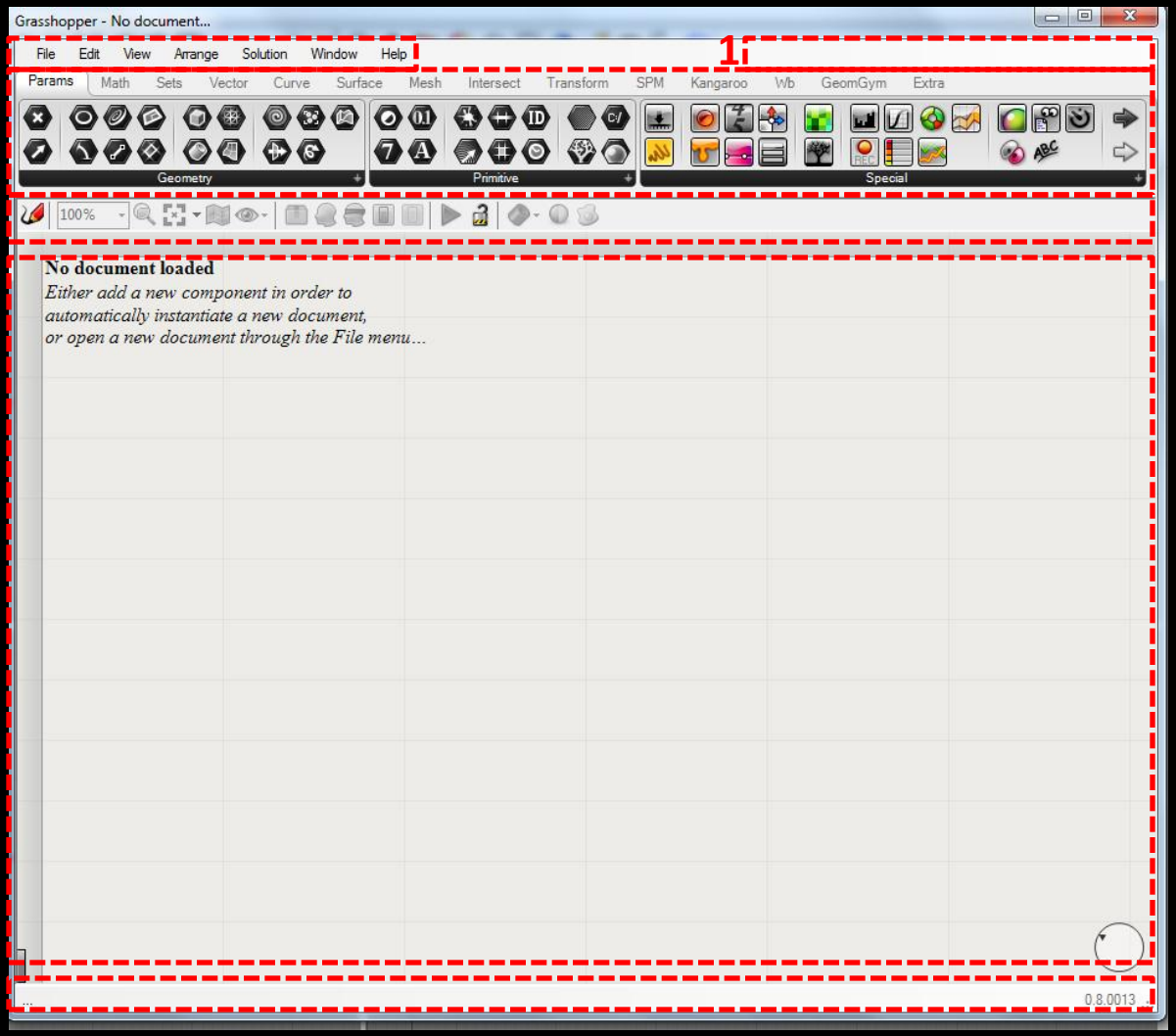
-FASE EXPERIMENTAL:
Grasshopper es relativamente un software nuevo, aun se encuentra en versión Beta, por lo tanto no es completamente estable, su código no esta totalmente depurado y puede caerse con facilidad.

DESCARGA GRATUITA:
Grasshopper se descarga de manera gratuita desde www.grasshopper3d.com
Es necesario tener la ultima actualización de Rhinoceros 4.0 SR9 para ejecutar la mas reciente versión

REQUERIMIENTOS MINIMOS

Grasshopper

-Rhinoceros 4.0 Service release 9.
-Pentium, Celeron o procesador mas potente.
-200 mb de espacio de disco duro.
-512 mb de ram, 1 gb o mas es recomendado.
-Tarjeta grafica Open Gl.
-Rhinoceros corre solo en Windows 2000, XP, Vista, 7 y en Mac OS (aun GH no corre en Mac).
-Rhinoceros no correra en Windows NT, 95, 98, o ME.
-Rhinoceros funciona en sistemas operativos de 32 y 64 bits.
-Rhinoceros no corre en Linux.



INTERFAZ GRASSHOPPER

Grasshopper

0-Menu Principal.
1-Navegador de Archivos.
2-Categorias de Componentes.
3-Barra de Herramientas.
4-Lienzo de Trabajo.
5-Barra de estado.

UNIVERSIDAD MAYOR

-CATEGORIAS DE COMPONENTES

-PARAMS

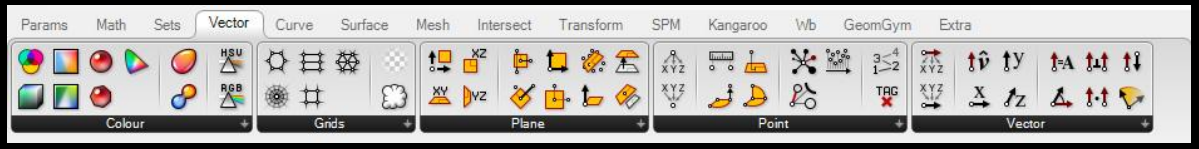
-MATH

-SETS

-CURVE

UNIVERSIDAD MAYOR

-CATEGORIAS DE COMPONENTES



-VECTOR

-SURFACE

-MESH

-INTERSECT

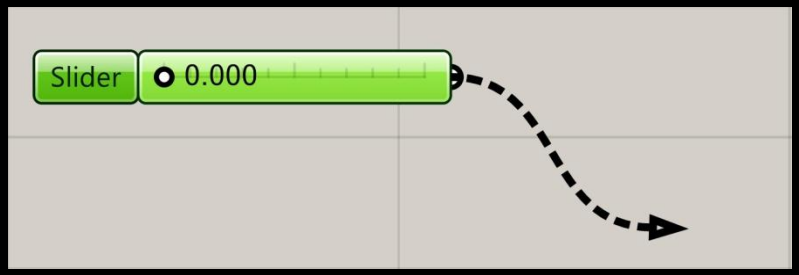
-TRANSFORM

0 1 2 3 4 5 6 7 8 9 10 11

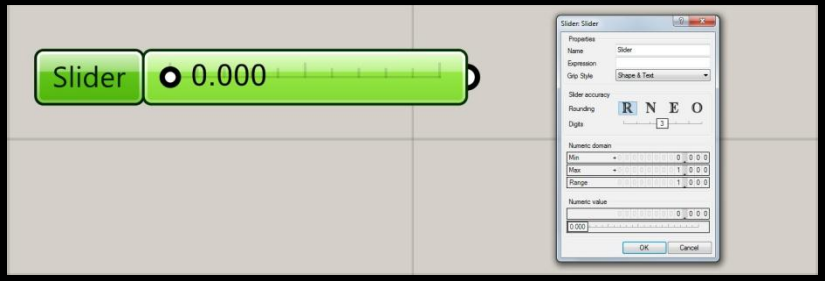
-BARRA DE HERRAMIENTAS

0-OBJETOS SKETCH
1-ZOOM
2-NAVEGADOR DE RED
3-ALMACENAJE VISTAS
4-CLUSTERS
5-VISUALIZACIONES
6-DESABILITACIONES
7-RECALCULAR
8-LOCK
9-ESTILOS DE SOMBREADOS
10-PERSONALIZACION DE COPLORES
11-COCINAR

-NUMBER SIDER
Valores numéricos
que alimentan parámetros
de diferentes elementos



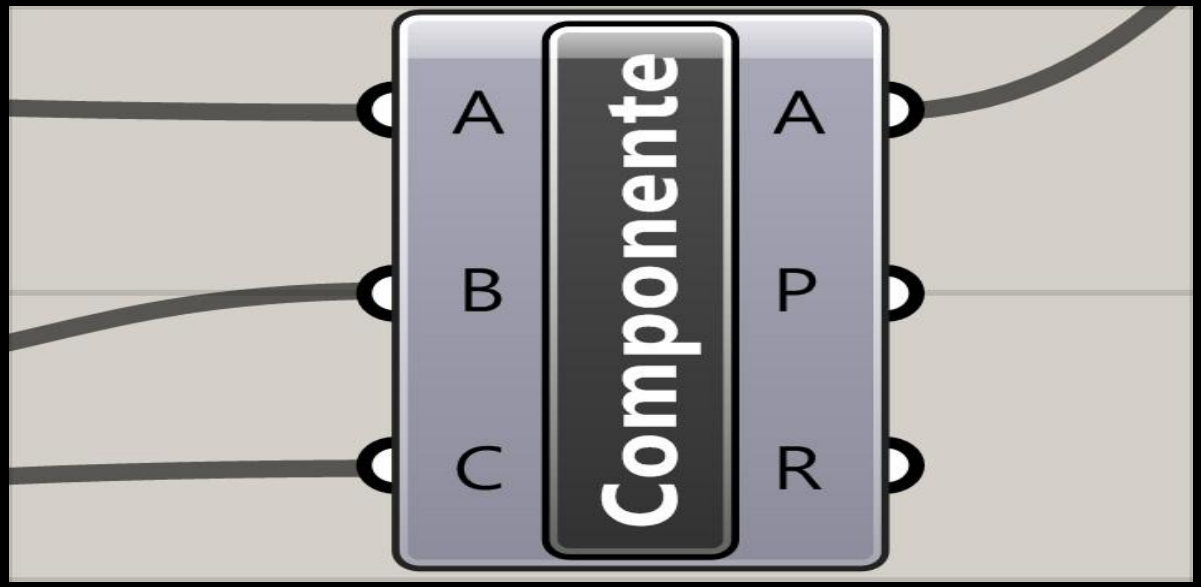
Parámetros de limite
mínimo y máximo
, y su precisión



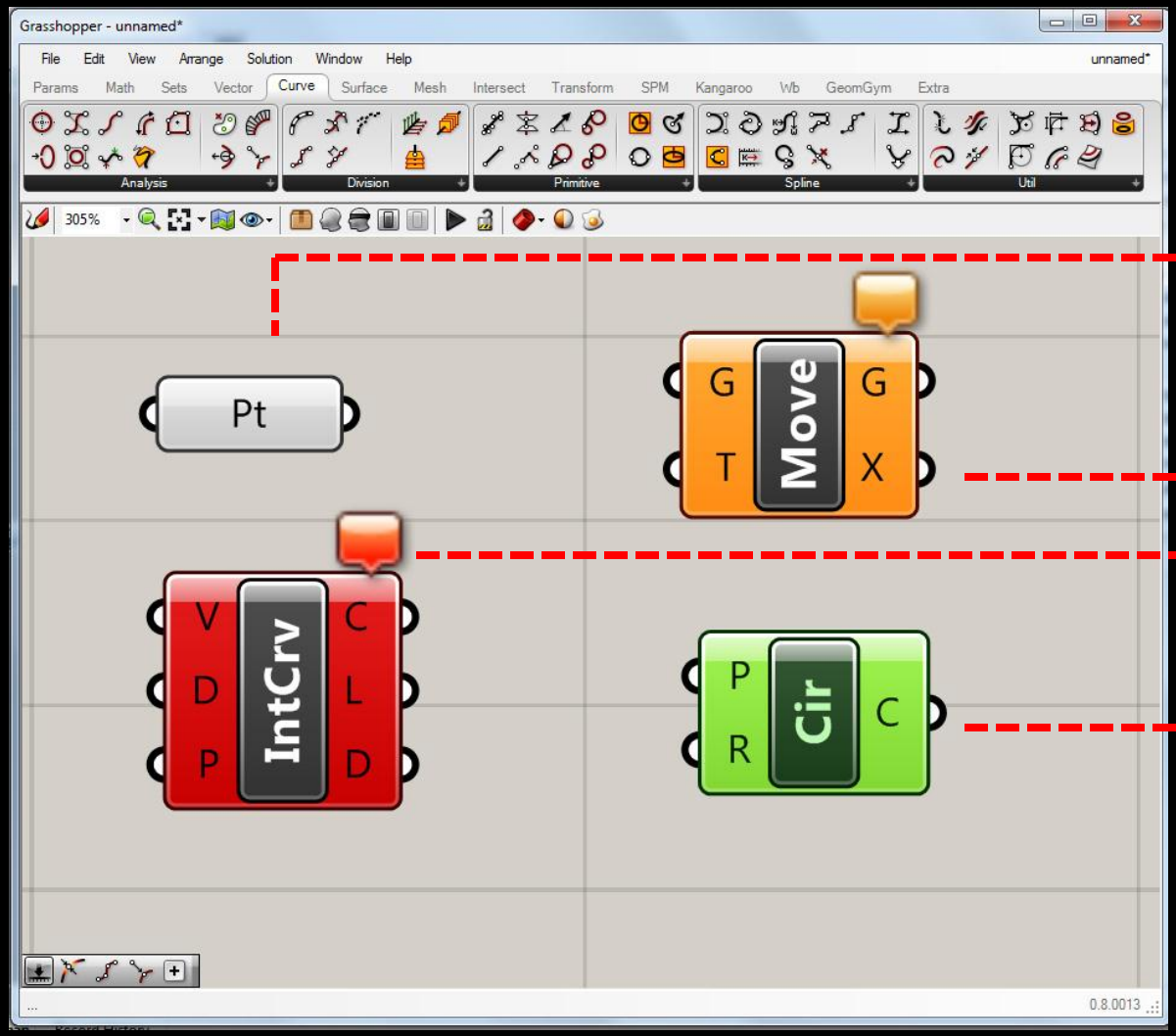
ALMACERA O REFERENCIA DATA
PROVENIENTE DE RHINO O GH

NPUT_INGRESO DE DATA

OUTPUT_SALIDA DE DATA



GENERA O PROCESA DATA

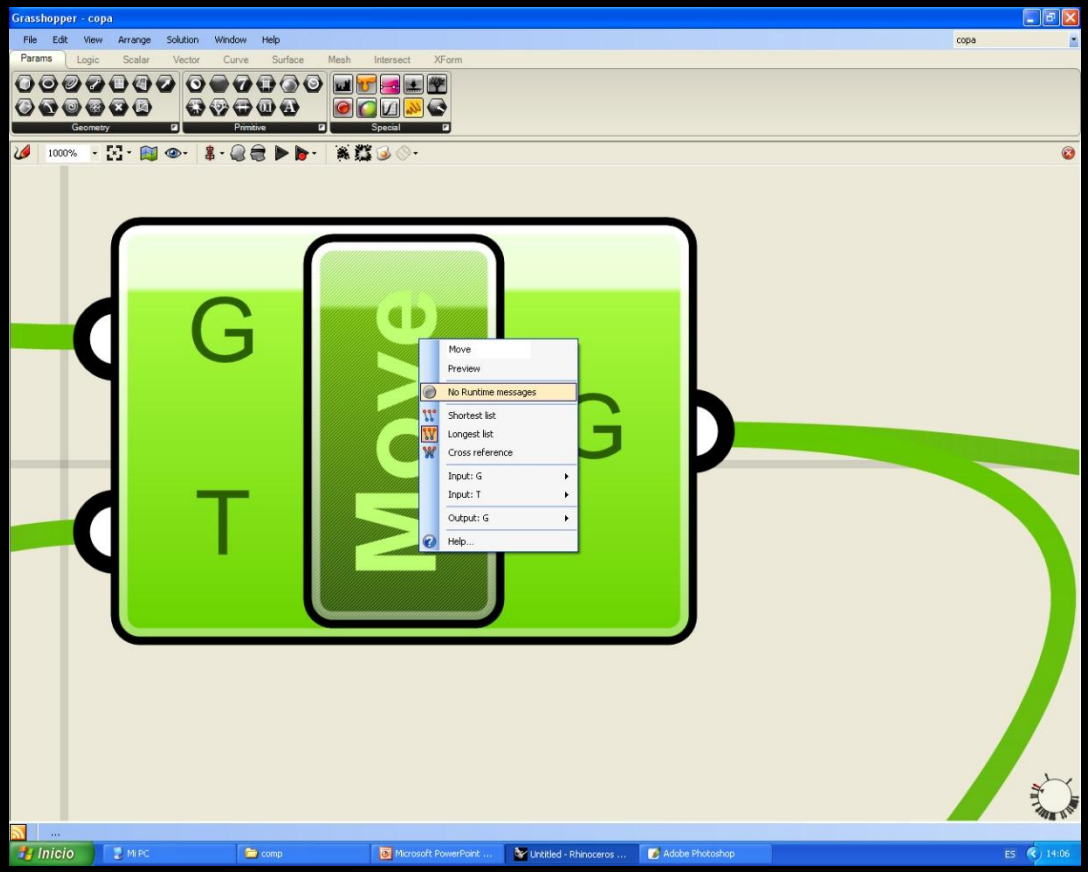


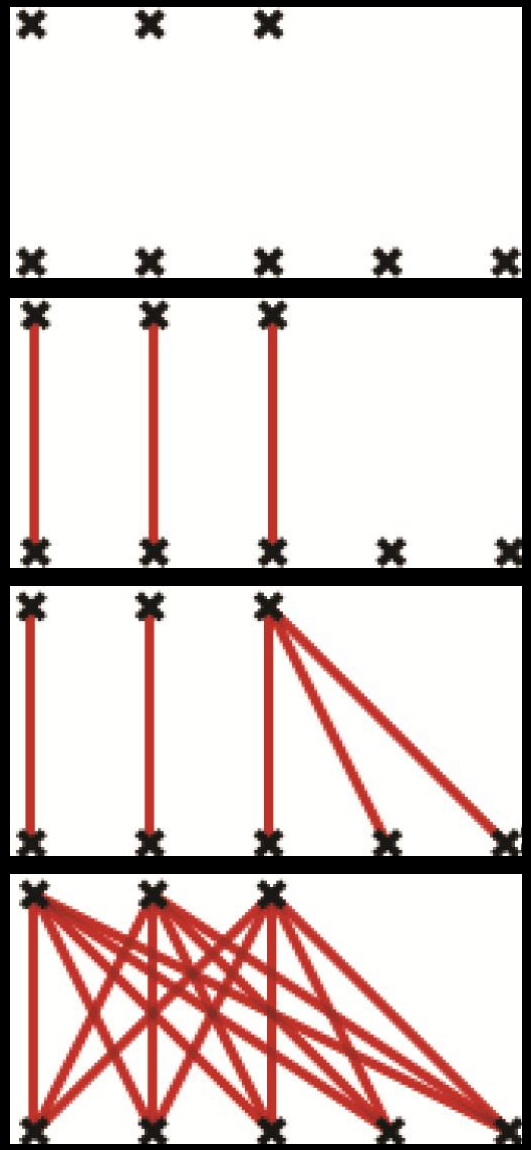
0-NODO FUNCIONANDO

1-NODO CON DATA INCOMPLETA

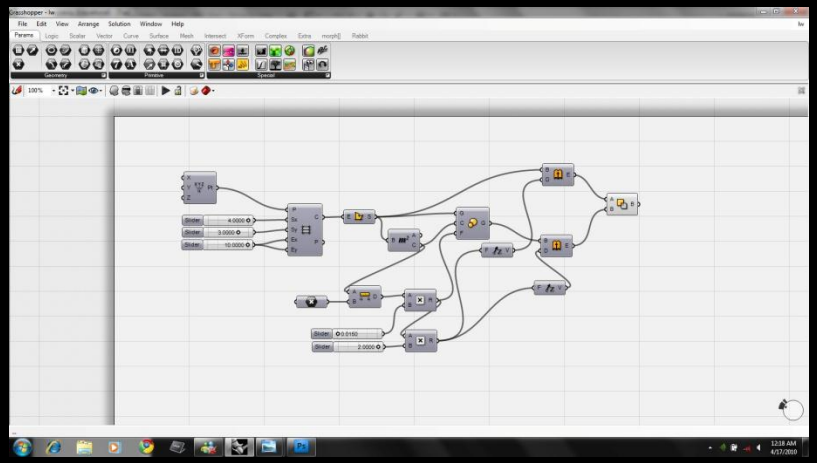
2-ERROR

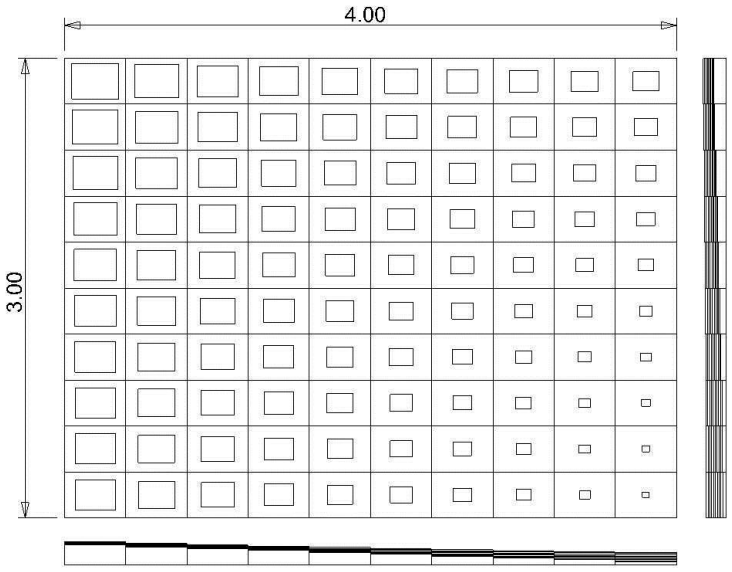
3-NODO SELECCIONADO

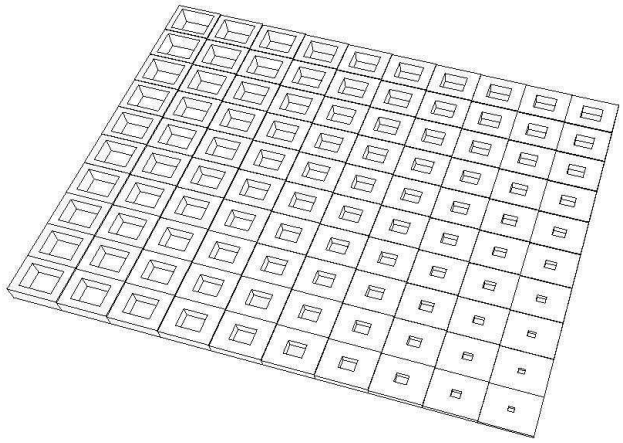


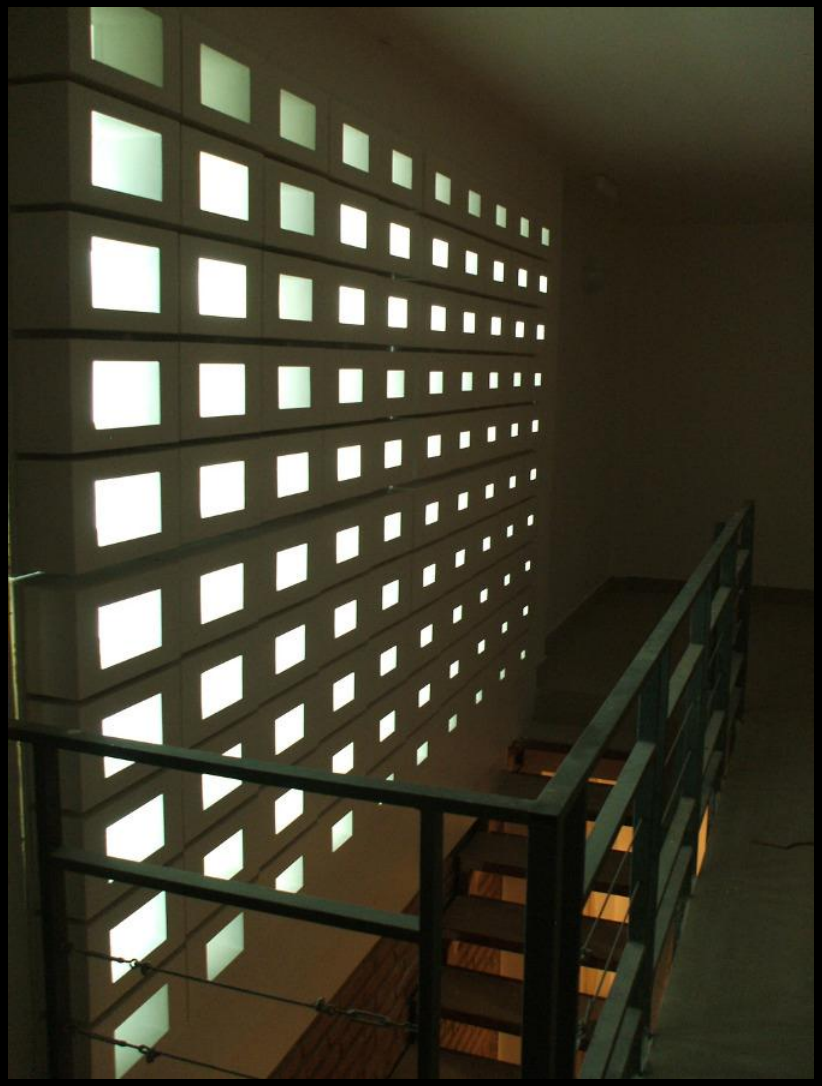


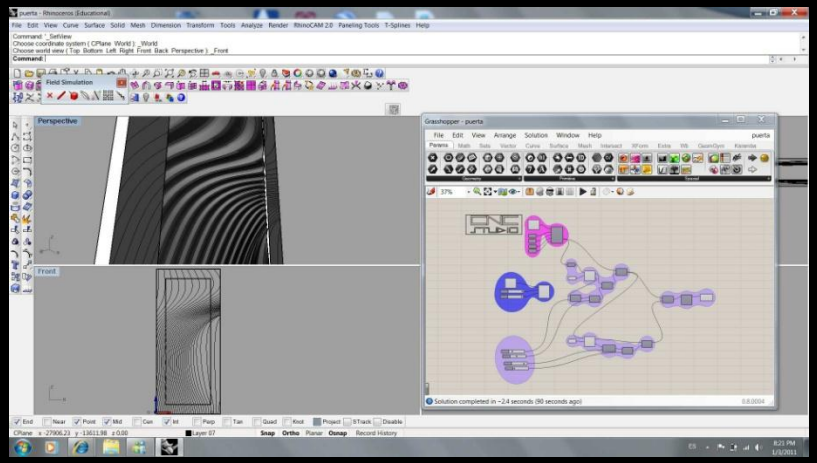
FLUJO DEINFORMACION DATA STREAM MATCHING
A-Shortest List
B-Longest List
C-Cross Reference




4.00
3.00

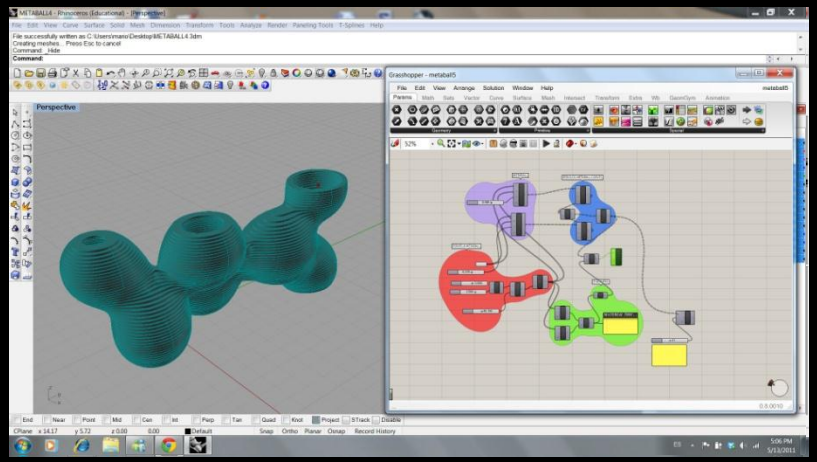


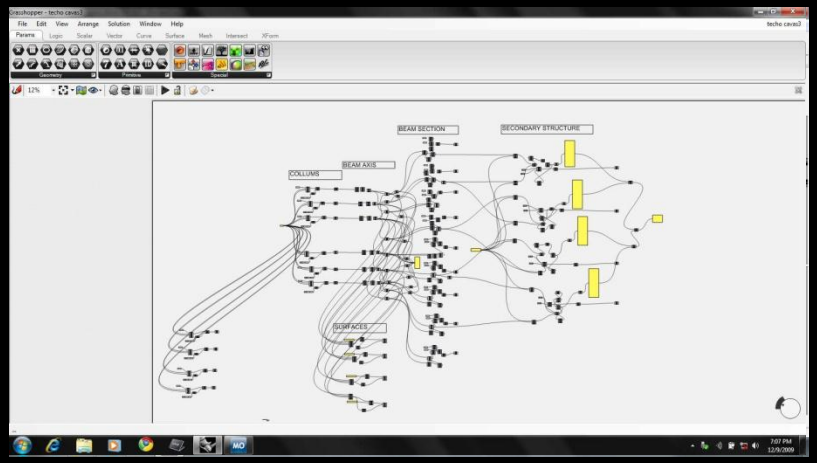




grasshopper
GENERATIVE MODELING FOR RHINO

UNIVERSIDAD MAYOR

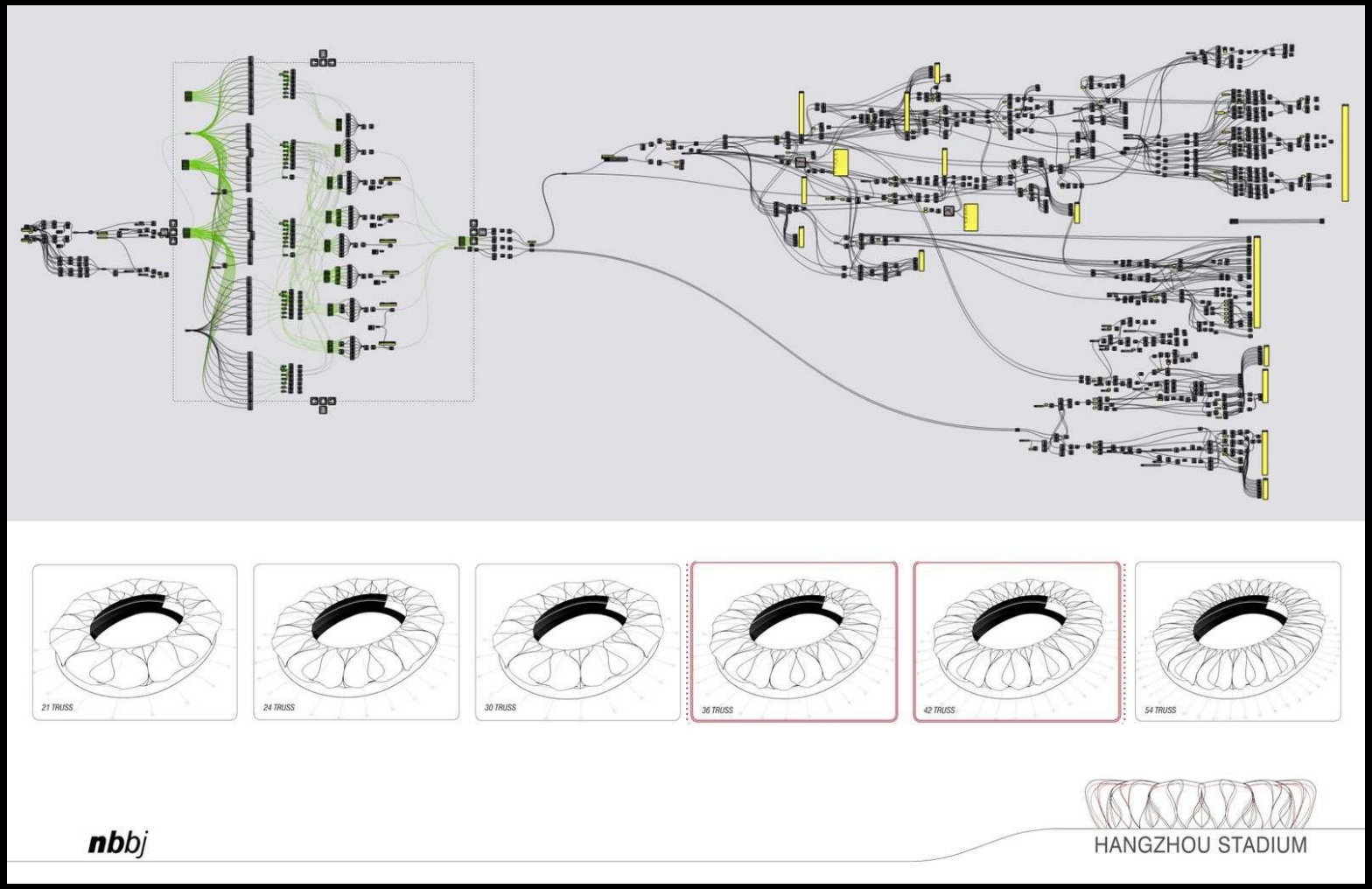



BEAM SECTION
SECONDARY STRUCTURE
BEAM AXIS
COLLUMS
SURFACES

-LIFT ARCHITECTS_FLUX PROJECT

-LIFT ARCHITECTS_SLOW FOOD NATION

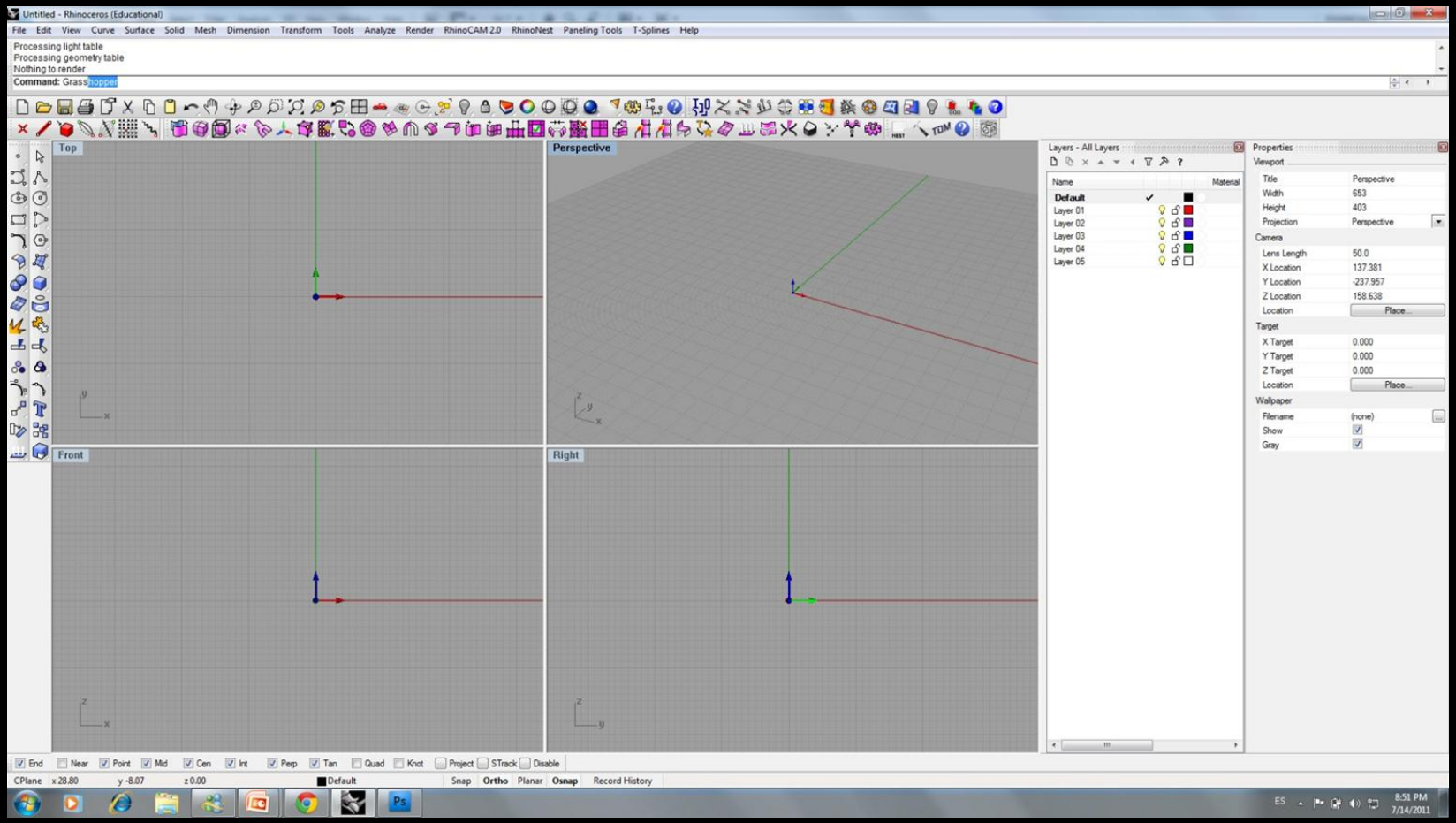
-CCDI ARCHITECTS_HANGZHOU STADIUM

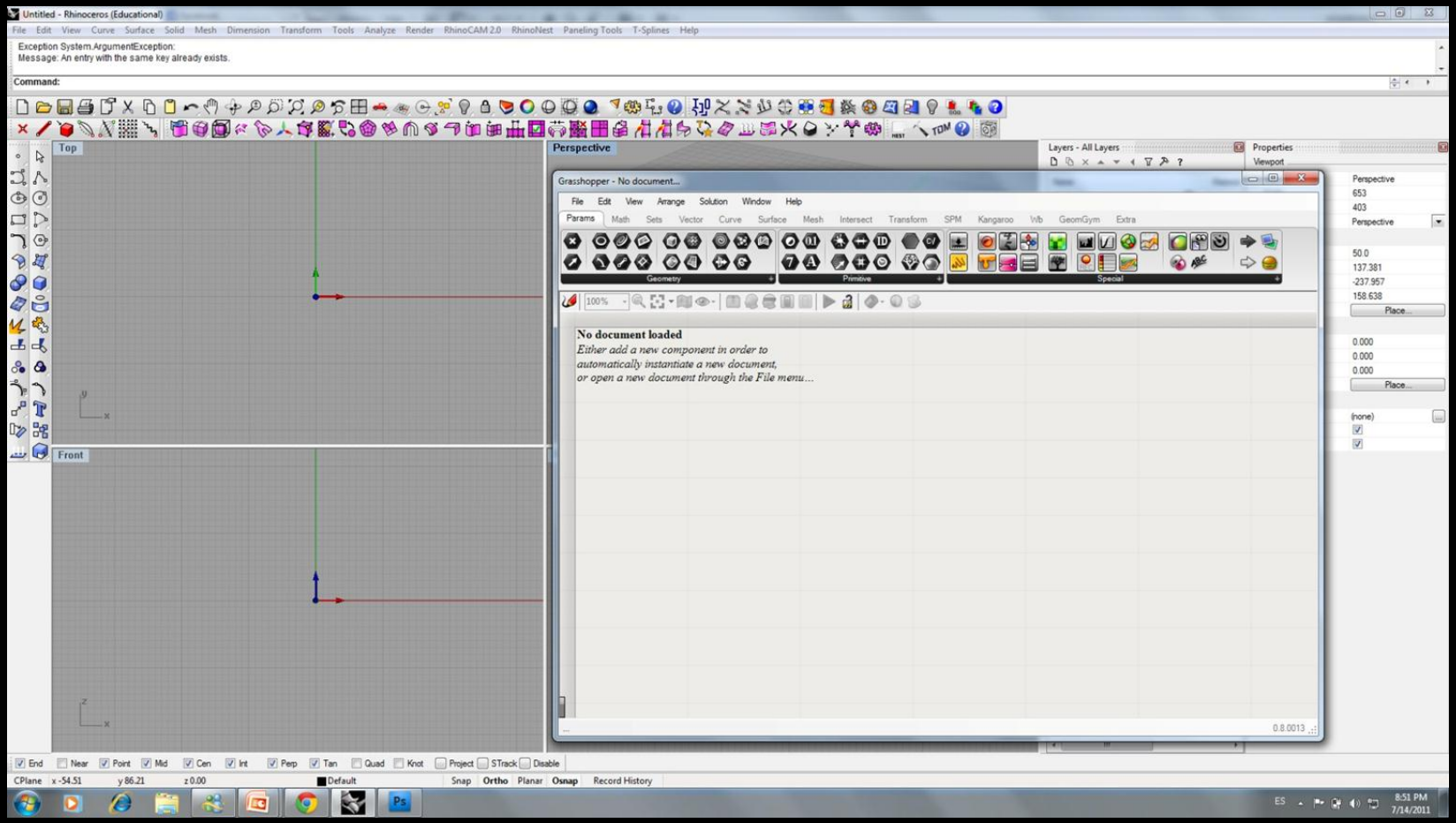


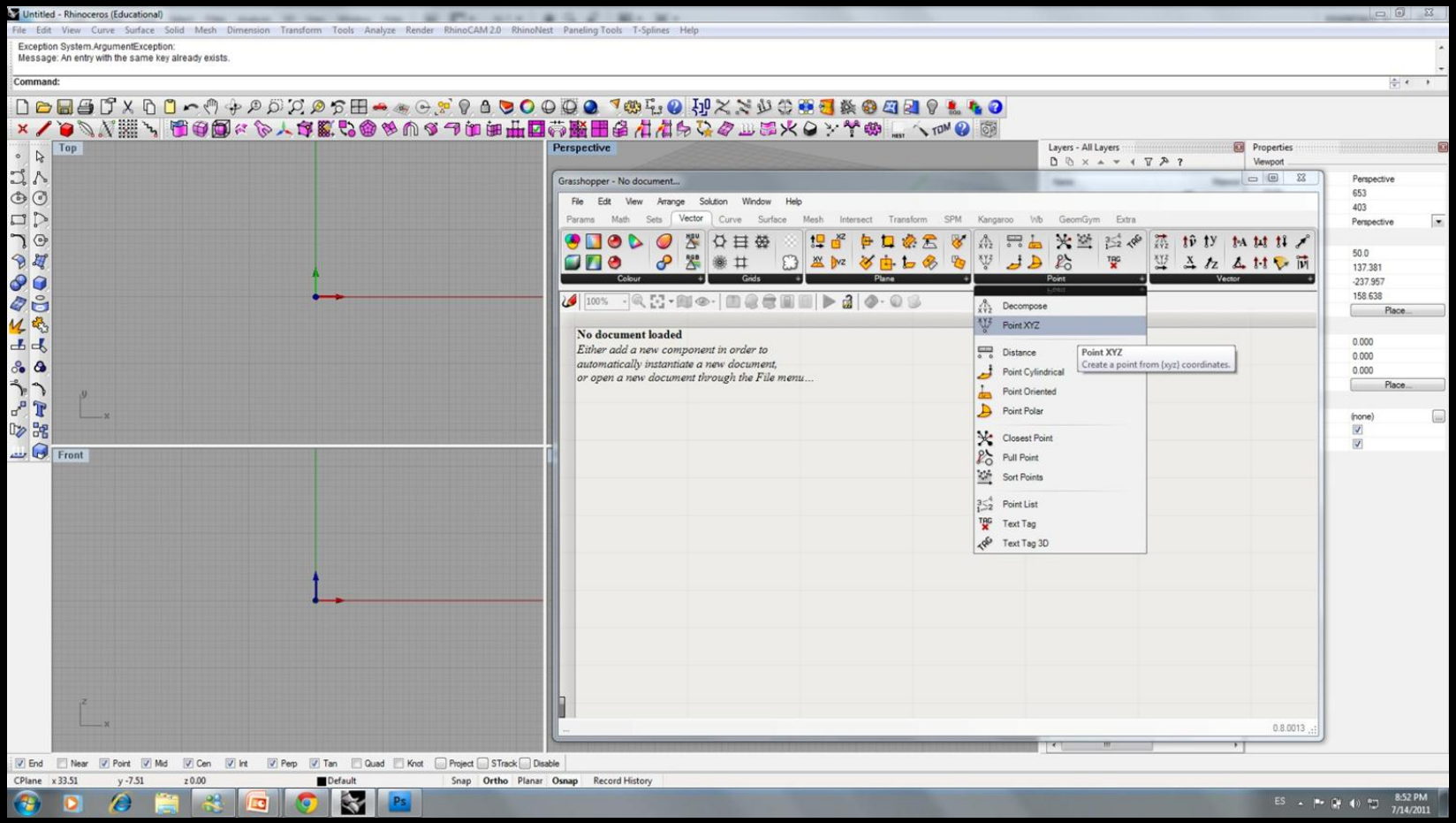
-CCDI ARCHITECTS_HANGZHOU STADIUM

UNIVERSIDAD MAYOR

1


Untitled - Rhinoceros (Educational)
File Edit View Curve Surface Solid Mesh Dimension Transform Tools Analyze Render RhinoCAM 2.0 RhinoNest Paneling Tools T-Splines Help
Processing light table
Processing geometry table
Nothing to render
Command: Grasshopper
Top
Perspective
Front
Right
Layers - All Layers
Name
Material
Default
Layer 01
Layer 02
Layer 03
Layer 04
Layer 05
Properties
Viewport
Title Perspective
Width 653
Height 403
Projection Perspective
Camera
Lens Length 50.0
X Location 137.381
Y Location -237.957
Z Location 158.638
Location Place...
Target
X Target 0.000
Y Target 0.000
Z Target 0.000
Location Place...
Wallpaper
Filename (none)
Show
Gray
End Near Point Mid Cen Int Perp Tan Quad Knot Project STrack Disable
CPlane x 28.80 y -8.07 z 0.00
Default
Snap Ortho Planar Osnap Record History
ES
8:51 PM
7/14/2011


Untitled - Rhinoceros (Educational)
File Edit View Curve Surface Solid Mesh Dimension Transform Tools Analyze Render RhinoCAM 2.0 RhinoNest Paneling Tools T-Splines Help
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Top
Perspective
Front
Layers - All Layers
Properties
Viewport
Grasshopper - No document...
File Edit View Arrange Solution Window Help
Params Math Sets Vector Curve Surface Mesh Intersect Transform SPM Kangaroo Wb GeomGym Extra
Geometry
Primitive
Special
No document loaded
Either add a new component in order to
automatically instantiate a new document,
or open a new document through the File menu...
End Near Point Mid Cen Int Perp Tan Quad Knot Project STrack Disable
CPlane x -54.51 y 86.21 z 0.00
Default
Snap Ortho Planar Osnap Record History
ES
8:51 PM
7/14/2011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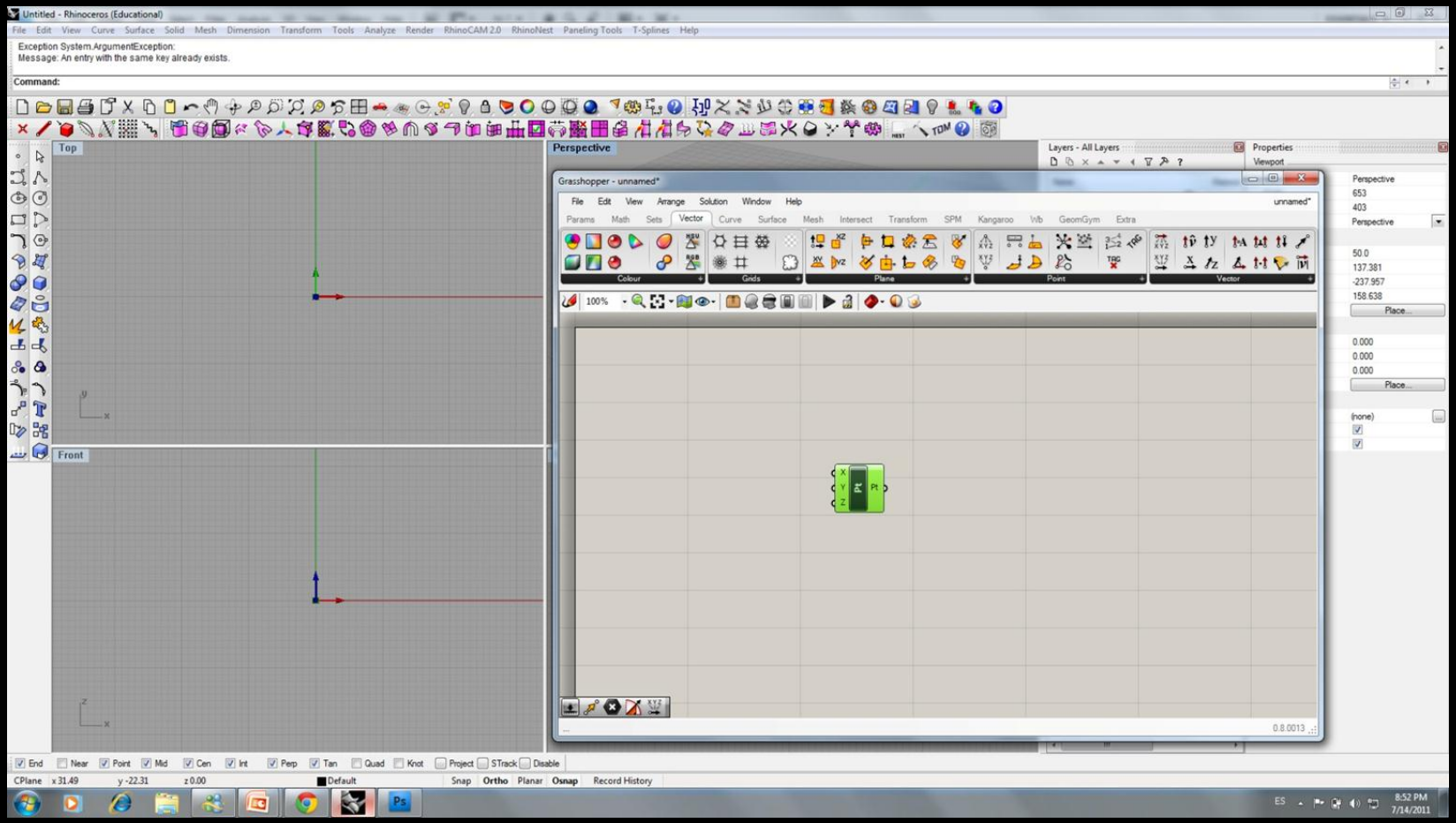
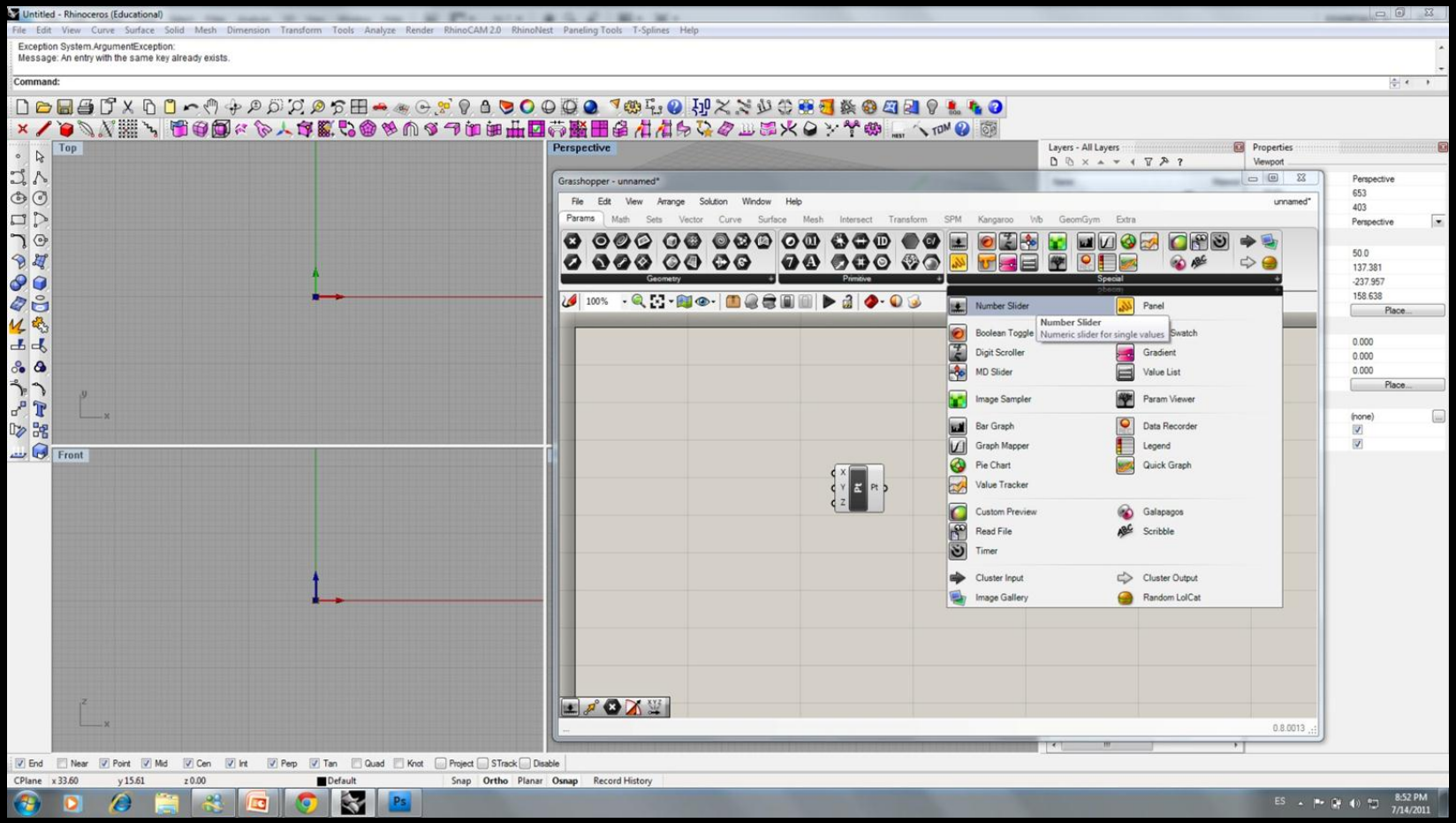
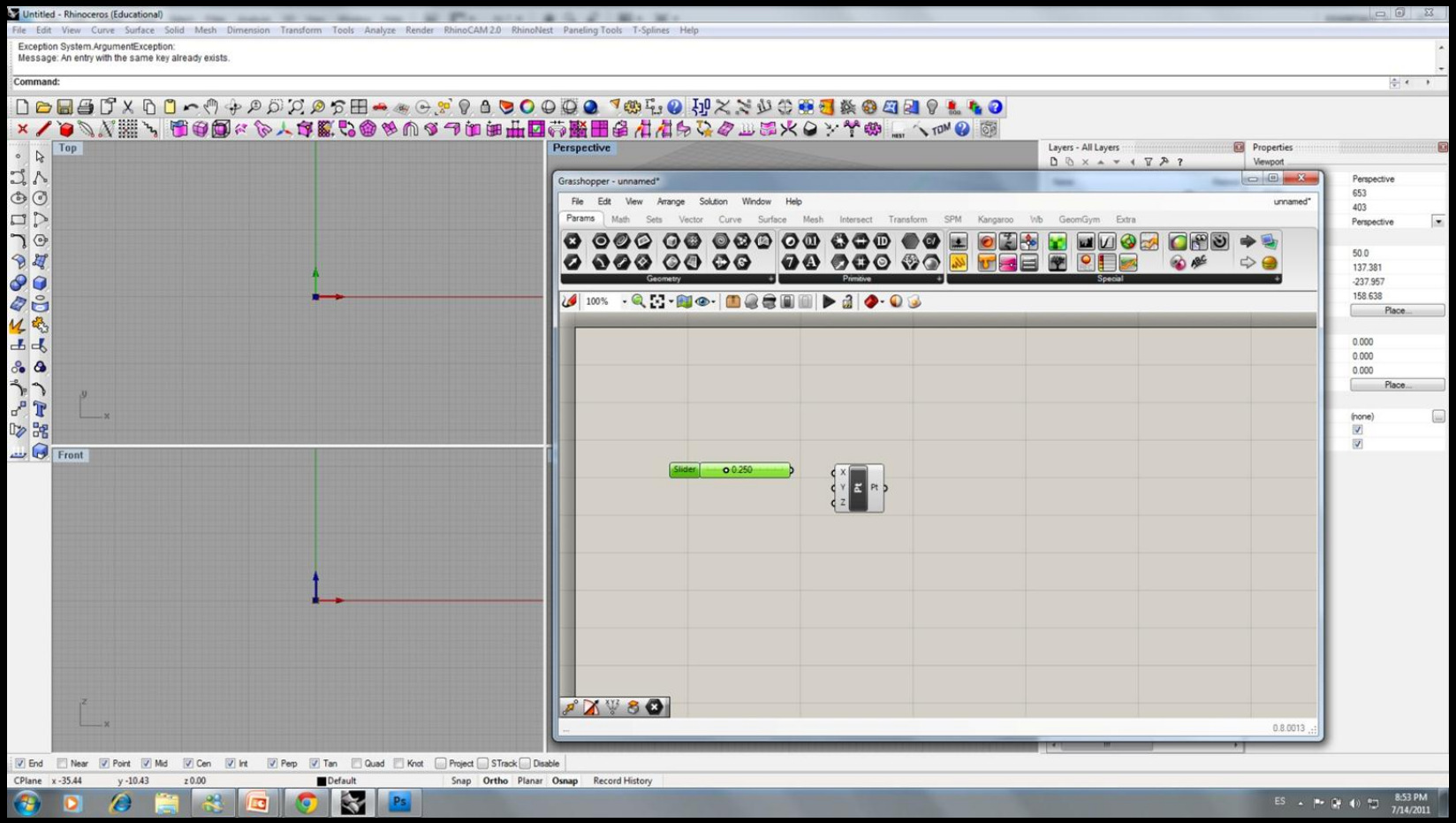
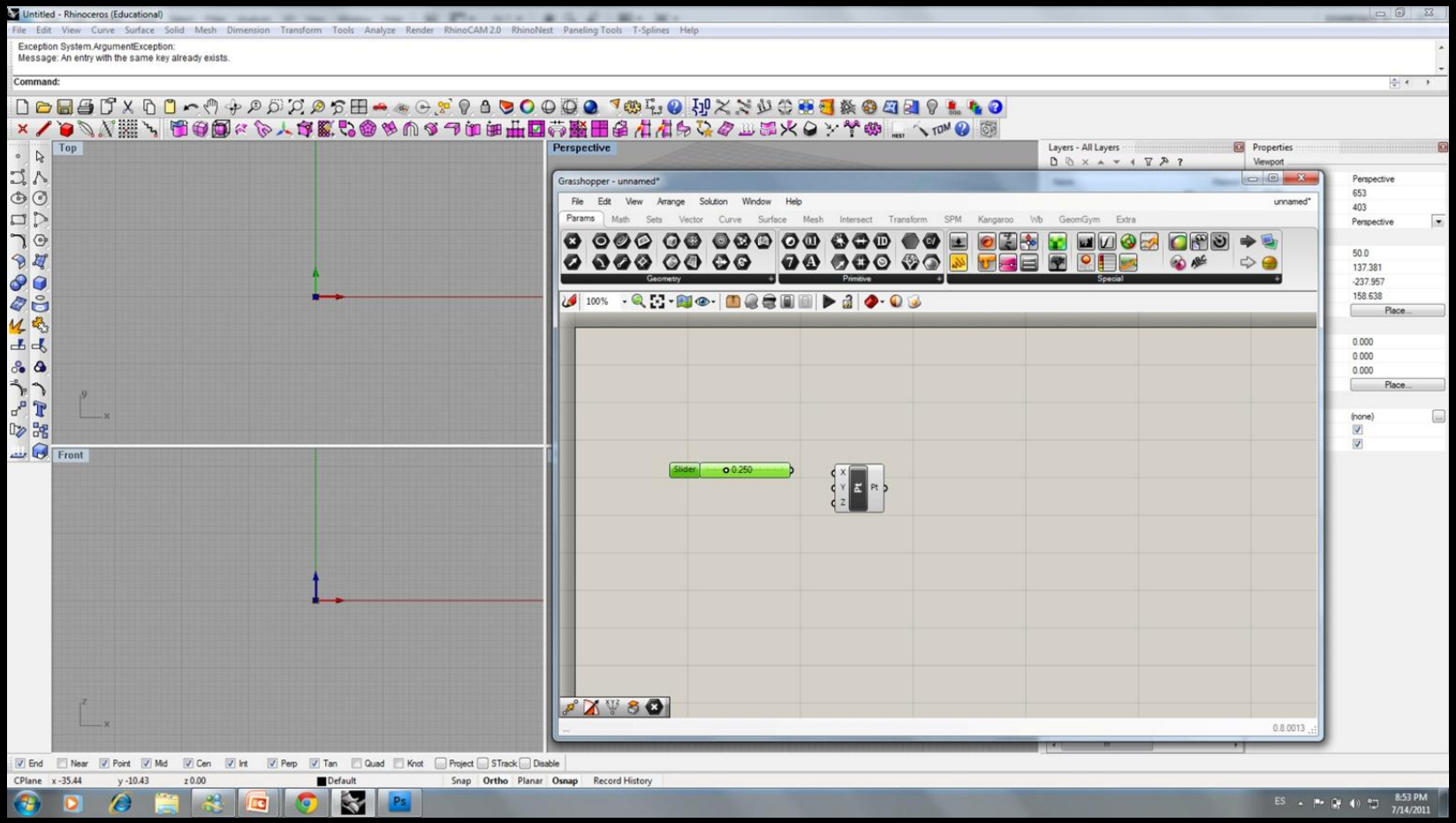
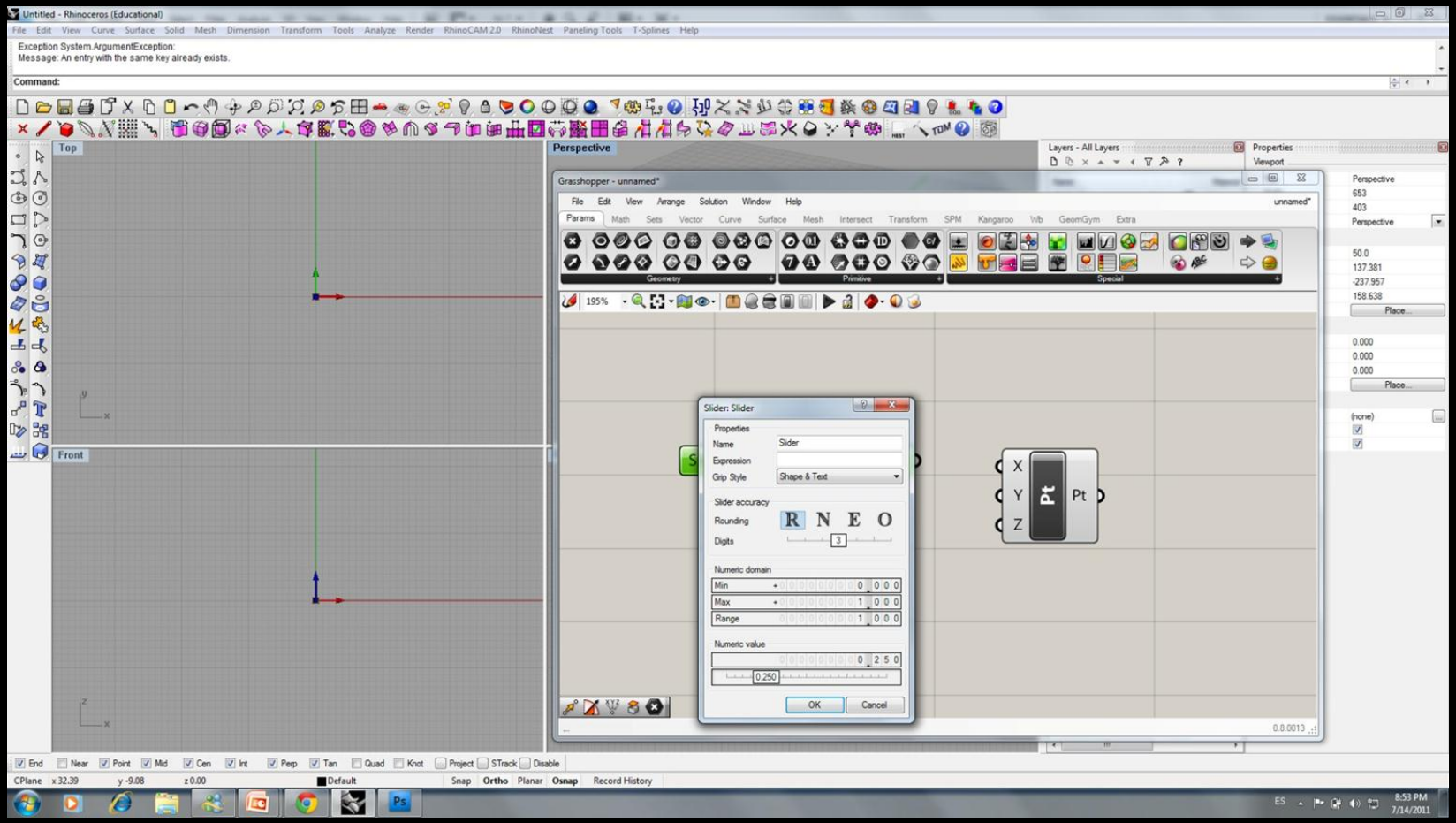
File Edit View Curve Surface Solid Mesh Dimension Transform Tools Analyze Render RhinoCAM 2.0 RhinoNest Paneling Tools T-Splines Help
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Top
Perspective
Front
Layers - All Layers
Properties
Viewport
Grasshopper - No document...
File Edit View Arrange Solution Window Help
Params Math Sets Vector Curve Surface Mesh Intersect Transform SPM Kangaroo Wb GeomGym Extra
Colour Grids Plane Point Vector
No document loaded
Either add a new component in order to
automatically instantiate a new document,
or open a new document through the File menu...
Decompose
Point XYZ
Distance
Point Cylindrical
Point Oriented
Point Polar
Closest Point
Pull Point
Sort Points
Point List
Text Tag
Text Tag 3D
Point XYZ
Create a point from (xyz) coordinates.
End Near Point Mid Cen Int Perp Tan Quad Knot Project STrack Disable
CPlane x 33.51 y -7.51 z 0.00 Default
Snap Ortho Planar Osnap Record History
ES 8:52 PM 7/14/2011

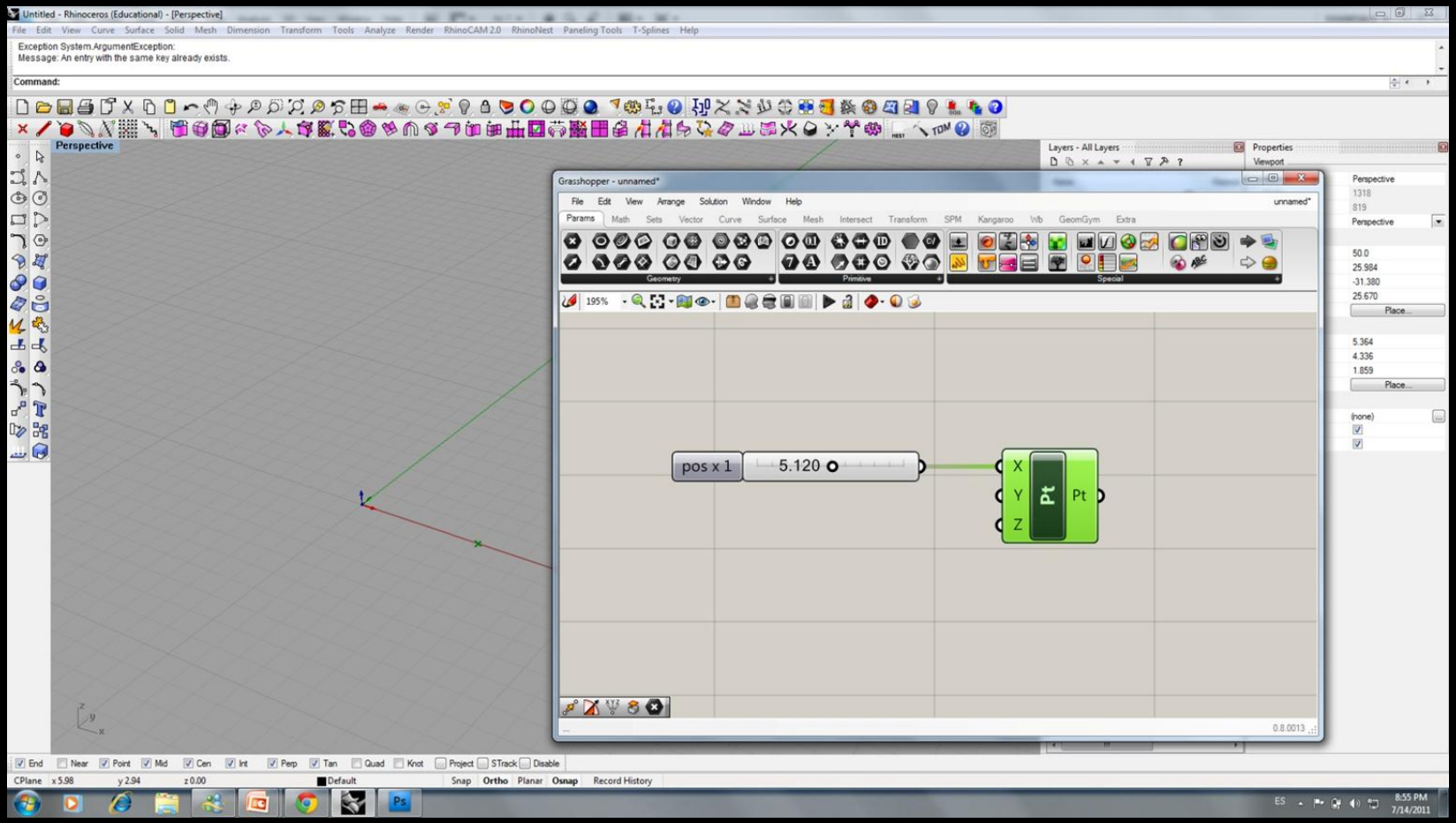

Untitled - Rhinoceros (Educational)
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Top
Perspective
Front
Grasshopper - unnamed*
Layers - All Layers
Properties

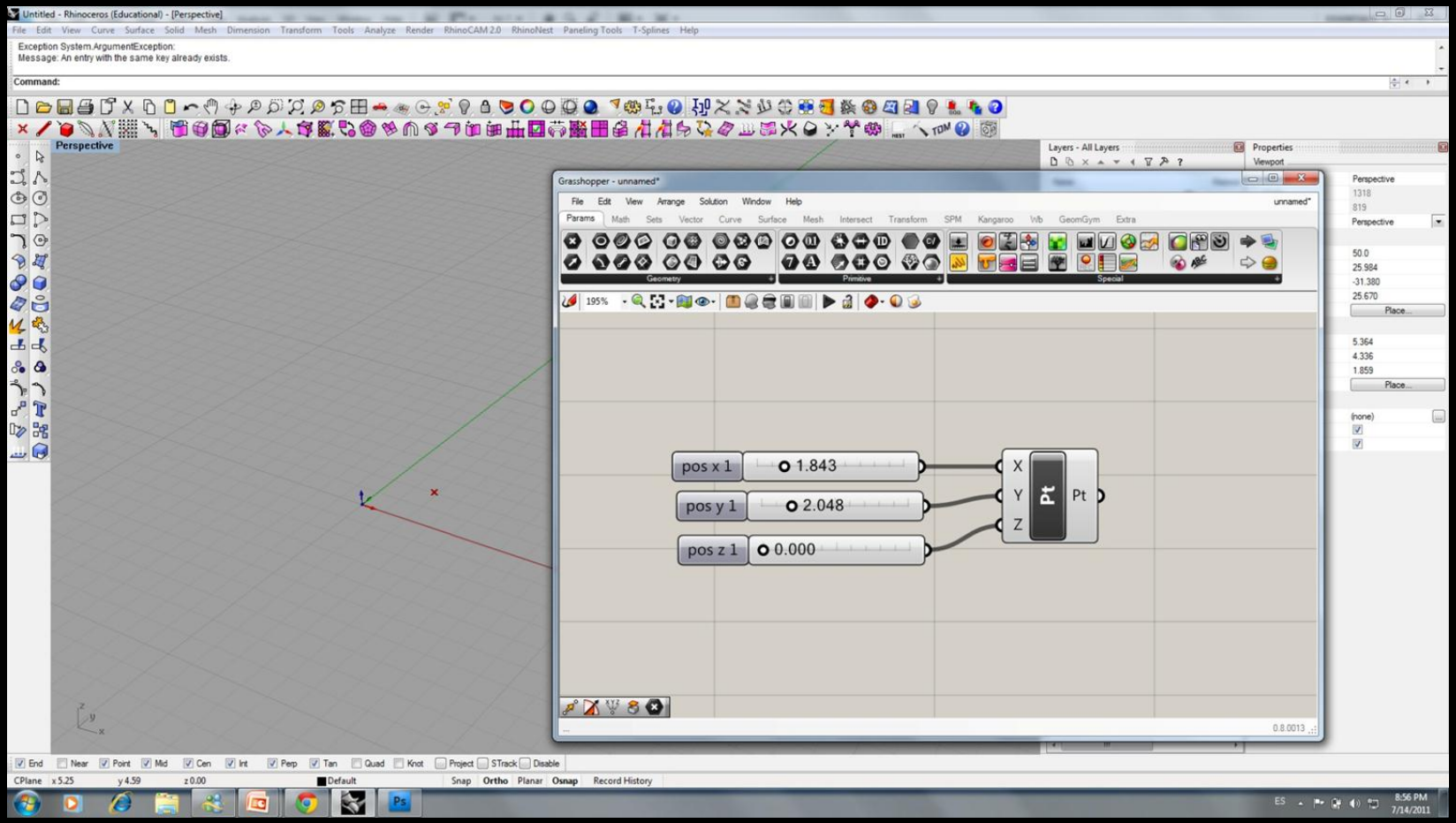

Untitled - Rhinoceros (Educational)
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Top
Perspective
Front
Grasshopper - unnamed*
Number Slider
Numeric slider for single values
Panel
Boolean Toggle
Digit Scroller
Gradient
MD Slider
Value List
Image Sampler
Param Viewer
Bar Graph
Data Recorder
Graph Mapper
Legend
Pie Chart
Quick Graph
Value Tracker
Custom Preview
Galapagos
Read File
Scribble
Timer
Cluster Input
Cluster Output
Image Gallery
Random LolCat

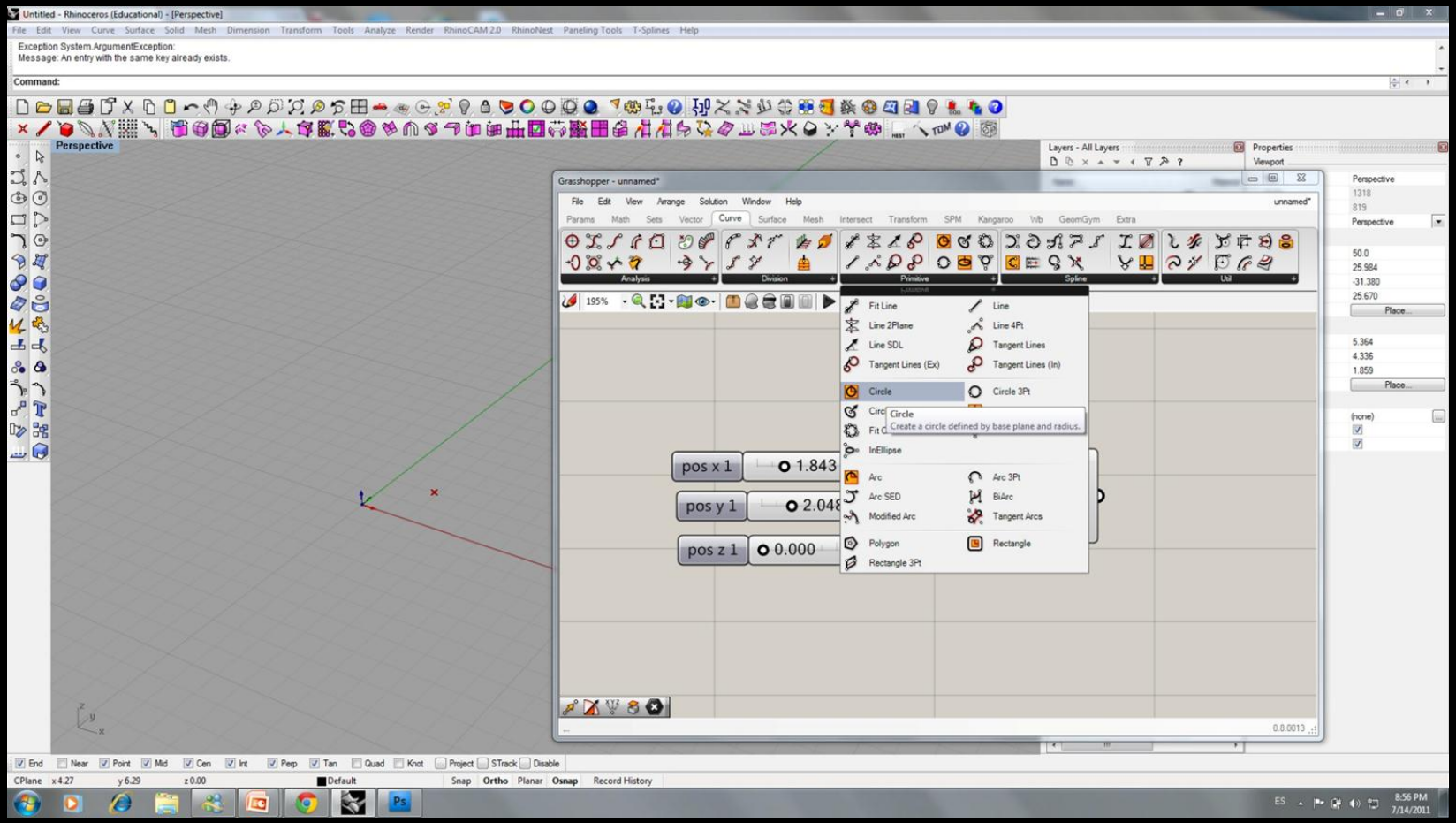

Untitled - Rhinoceros (Educational)
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Top
Perspective
Front
Grasshopper - unnamed*
Slider
0.250
Layers - All Layers
Properties

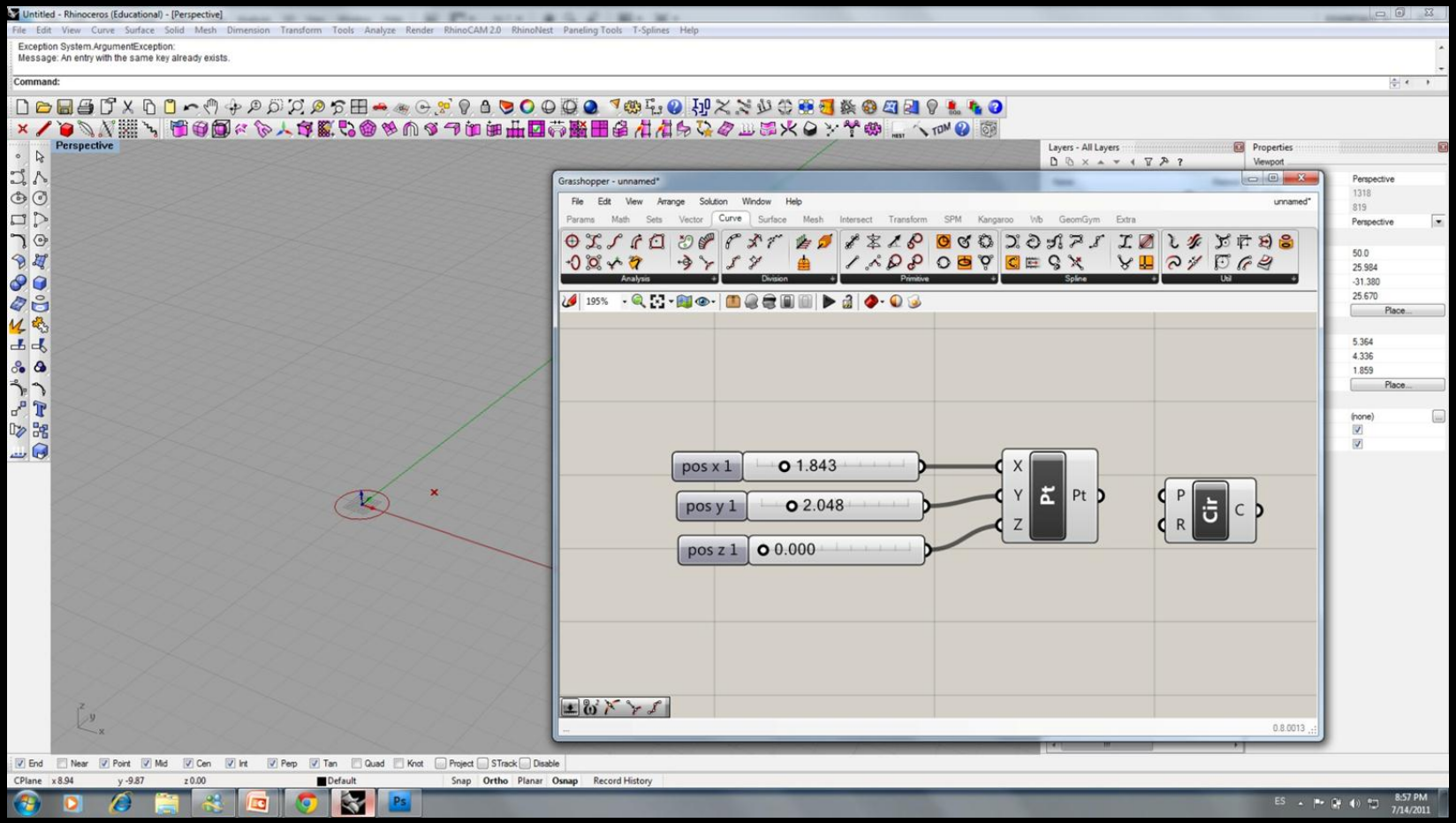

Untitled - Rhinoceros (Educational)
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Top
Perspective
Front
Grasshopper - unnamed*
Slider
0.250
Layers - All Layers
Properties

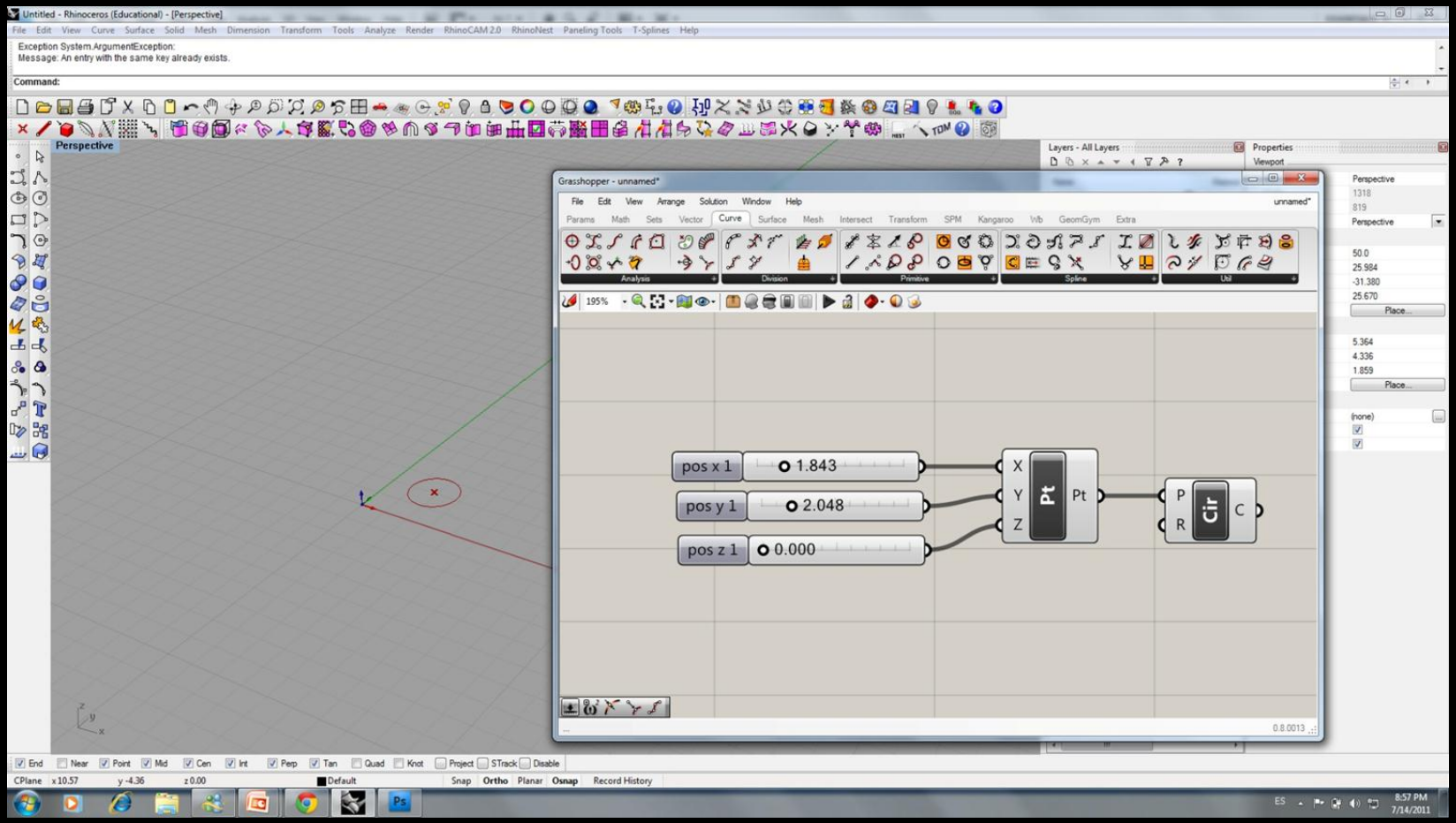

Untitled - Rhinoceros (Educational)
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Top
Perspective
Front
Grasshopper - unnamed*
Slider: Slider
Properties
Name
Slider
Expression
Grip Style
Shape & Text
Slider accuracy
Rounding
Digits
Numeric domain
Min
Max
Range
Numeric value
OK
Cancel
X
Y
Z
Pt
Layers - All Layers
Properties
Viewport

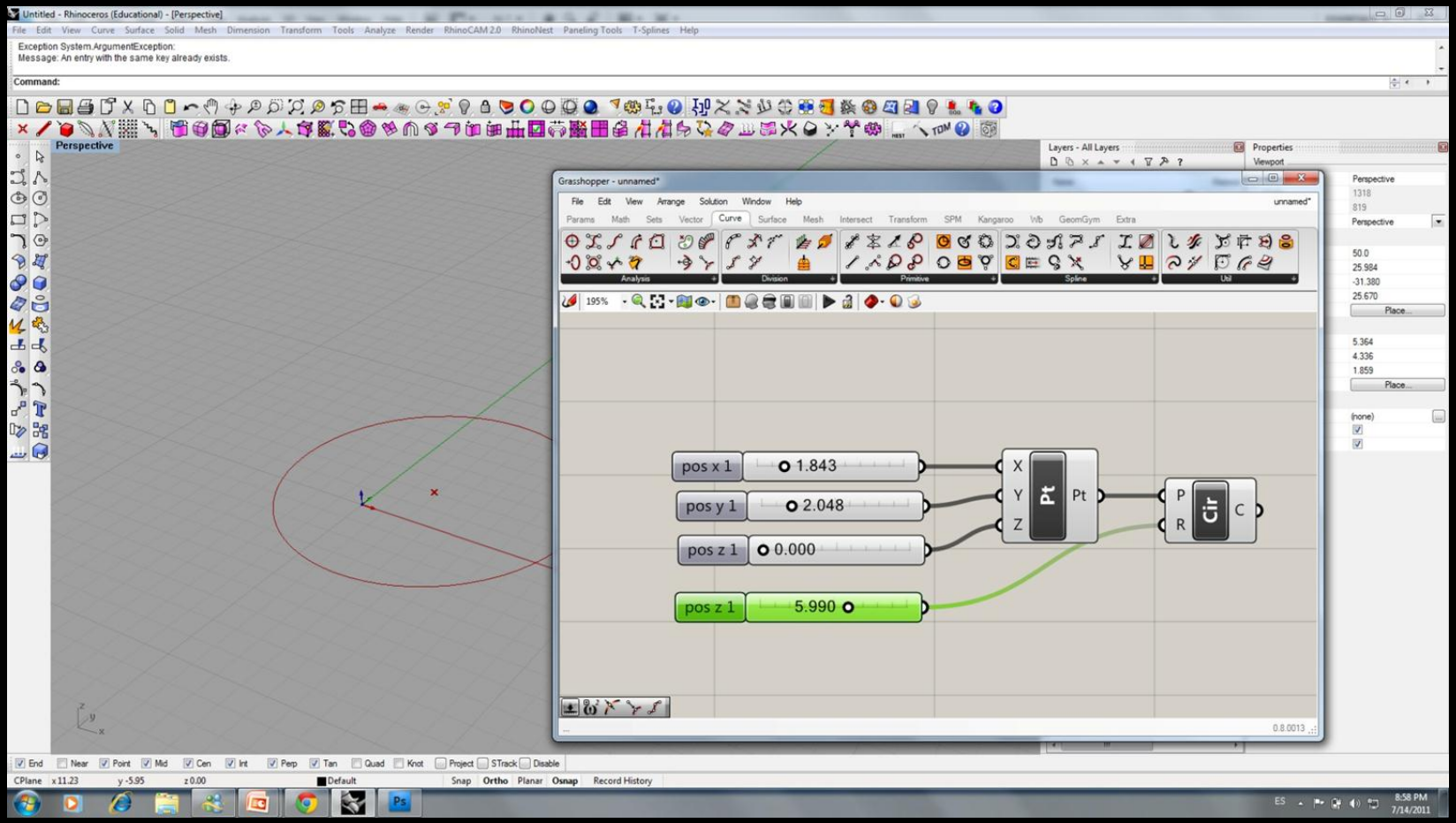

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
5.120
X
Y
Z
Pt
Pt

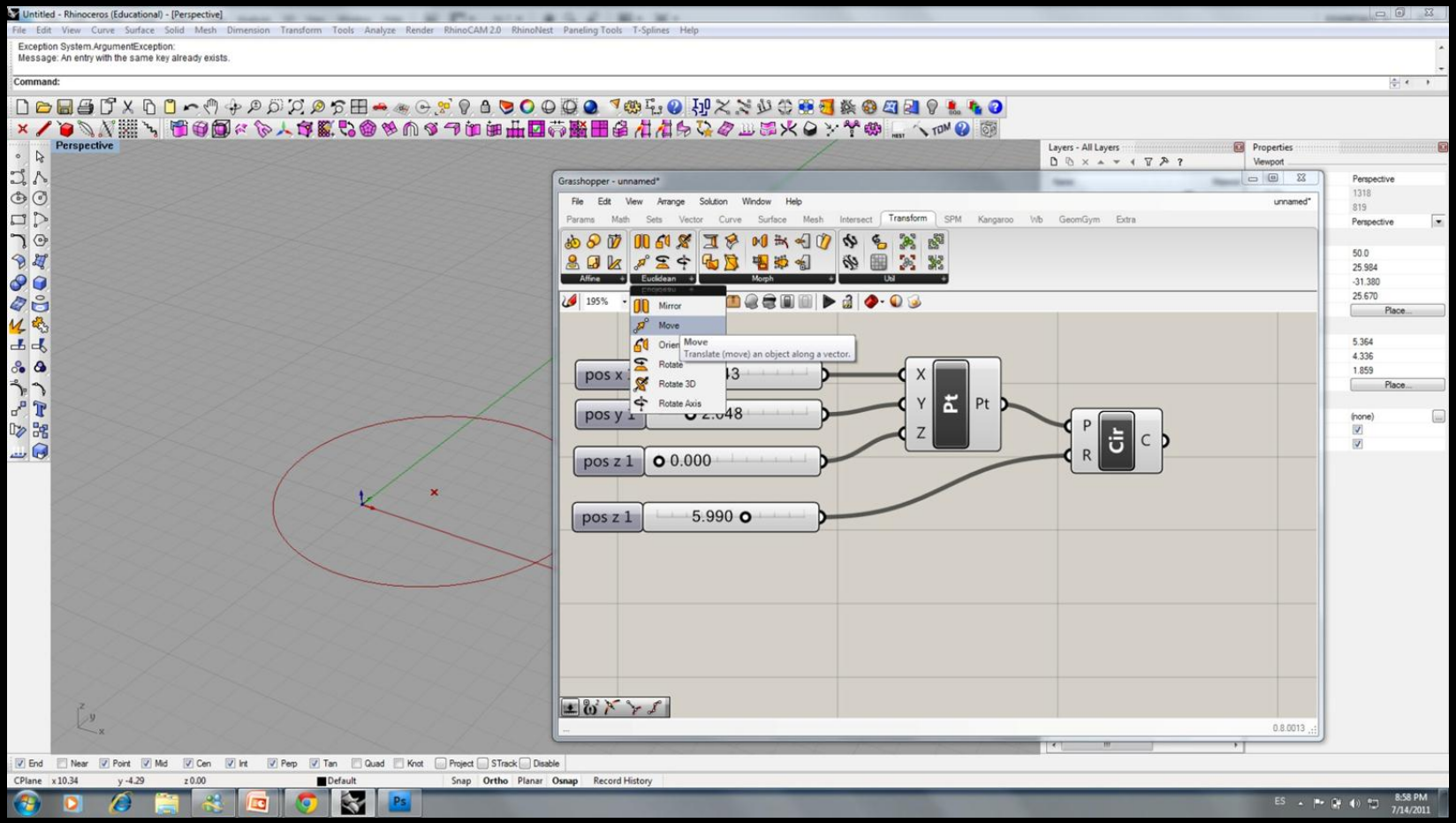

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
X
Y
Z
Pt
Pt

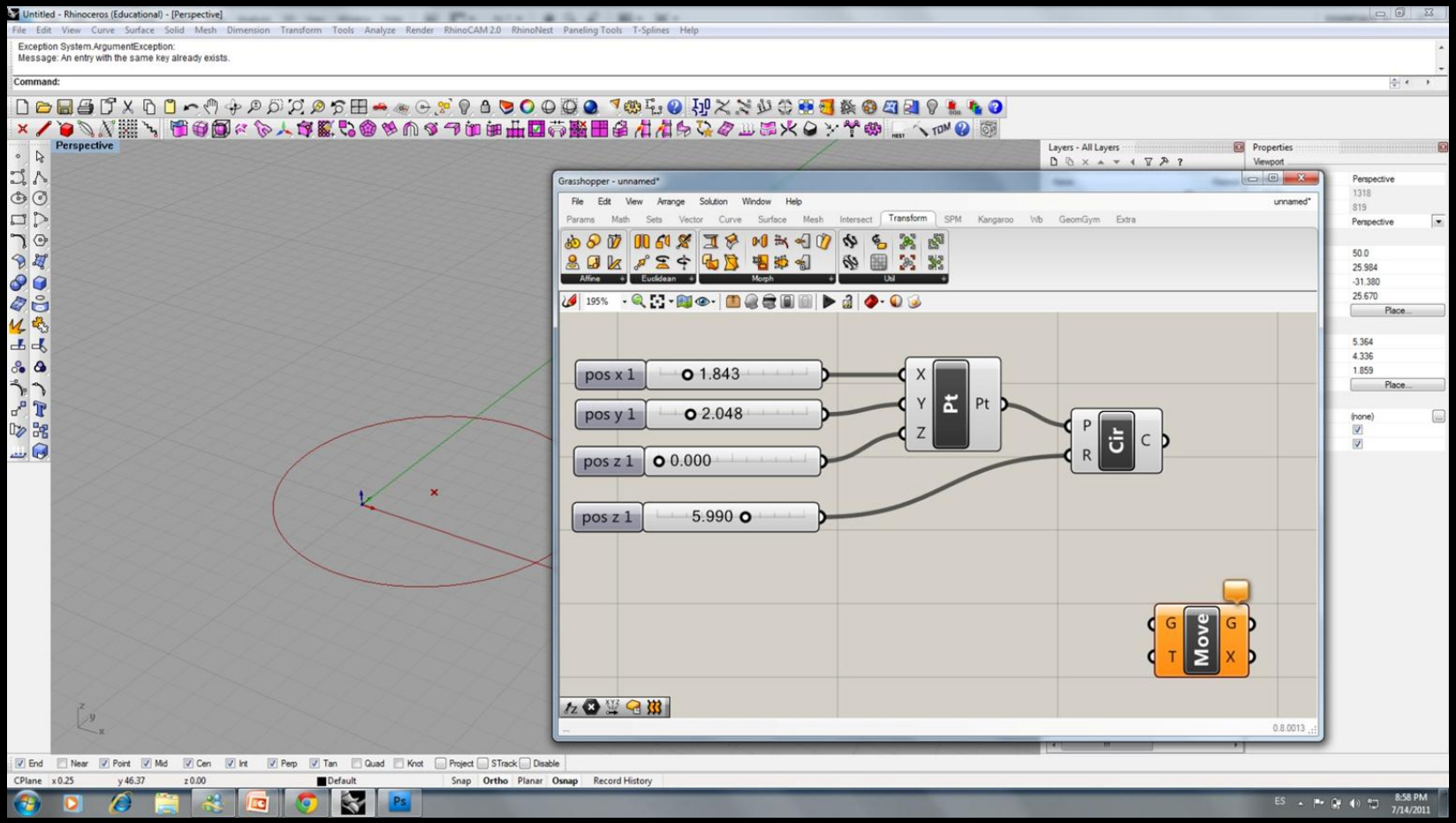

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
Fit Line
Line
Line 2Plane
Line 4Pt
Line SDL
Tangent Lines
Tangent Lines (Ex)
Tangent Lines (In)
Circle
Circle 3Pt
Create a circle defined by base plane and radius.
InEllipse
Arc
Arc 3Pt
Arc SED
BiArc
Modified Arc
Tangent Arcs
Polygon
Rectangle
Rectangle 3Pt
pos x 1
1.843
pos y 1
pos z 1
0.000

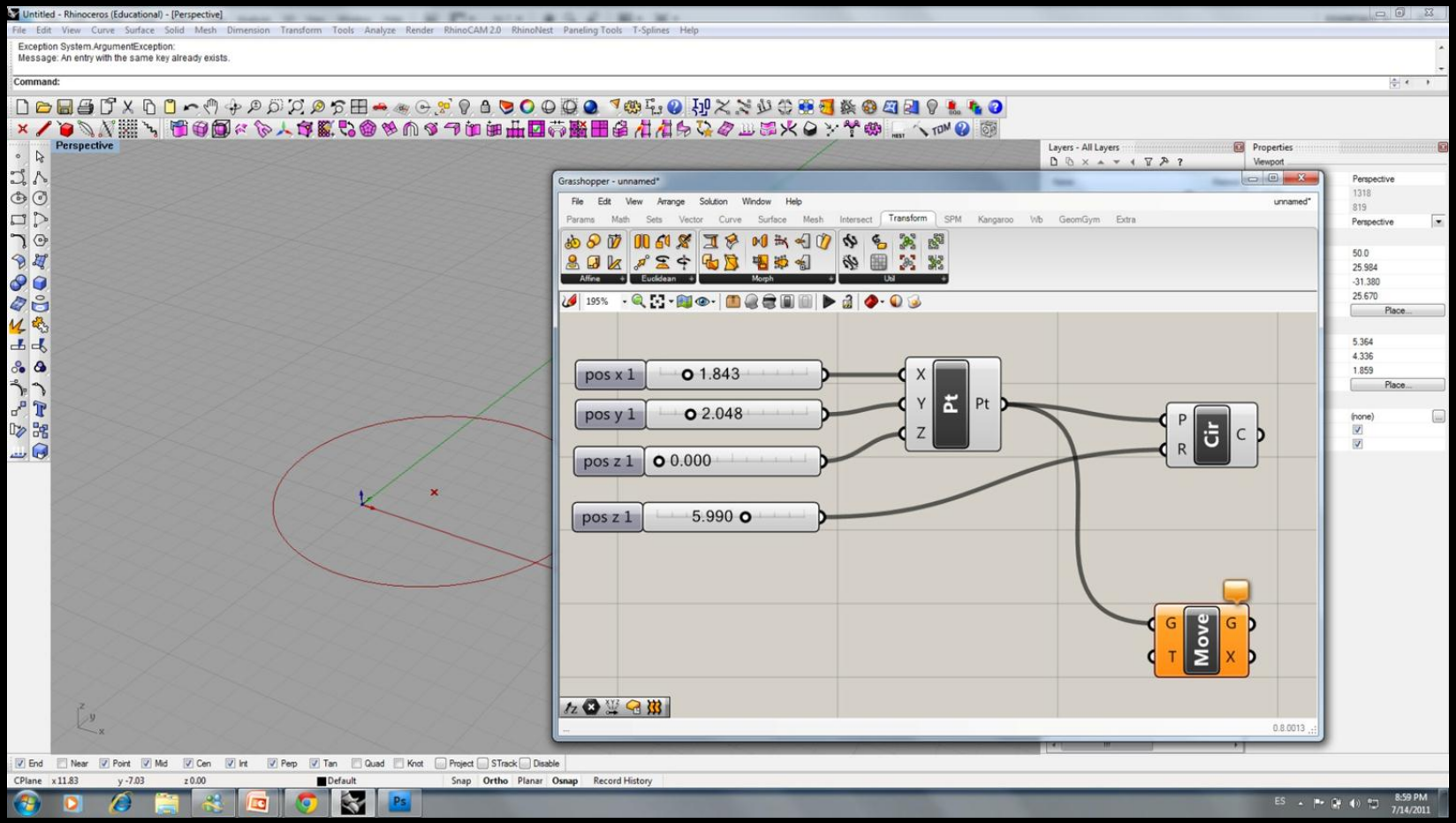

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
X
Y
Z
Pt
Pt
P
R
Cir
C

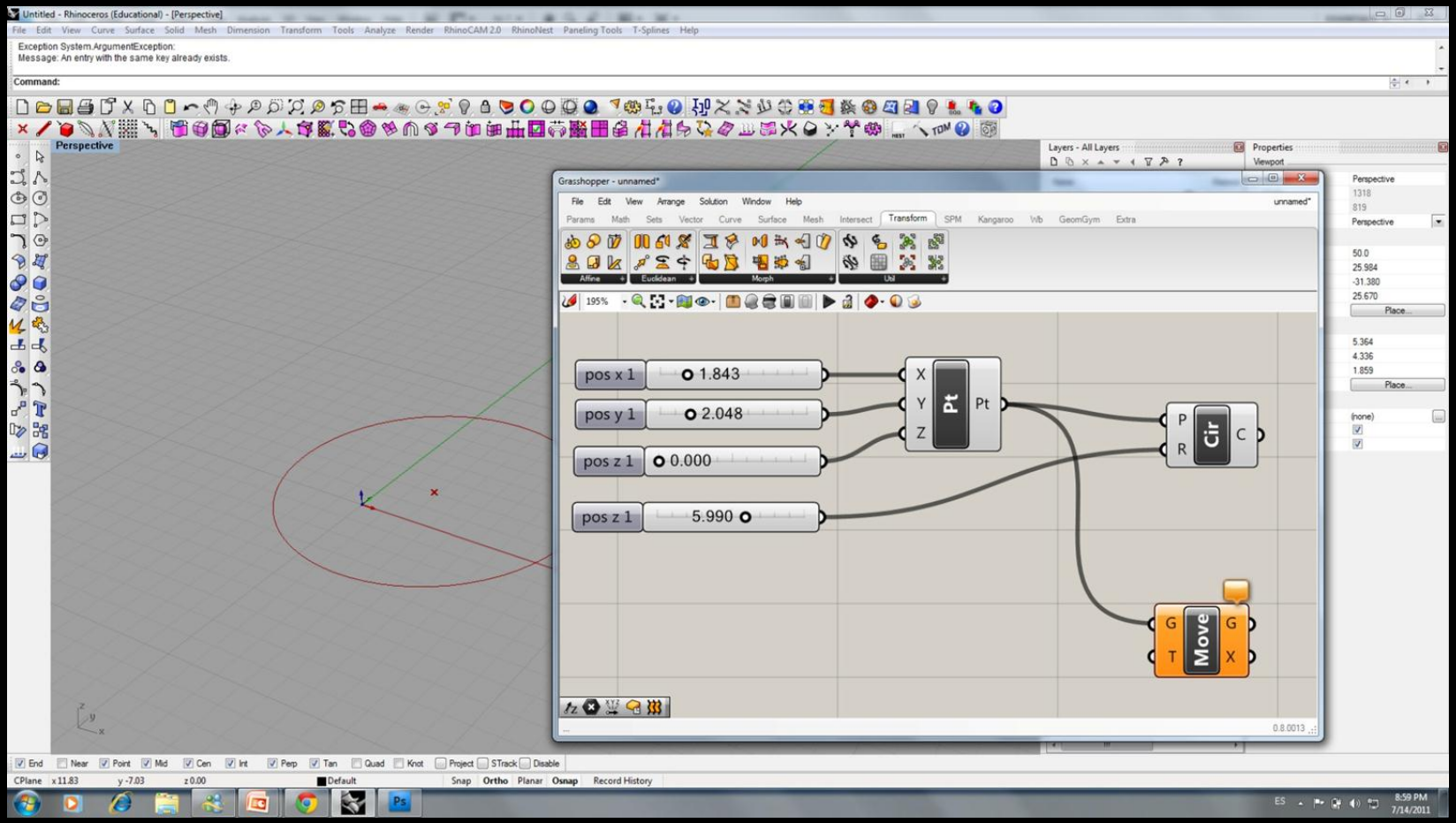

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
Pt
Cir

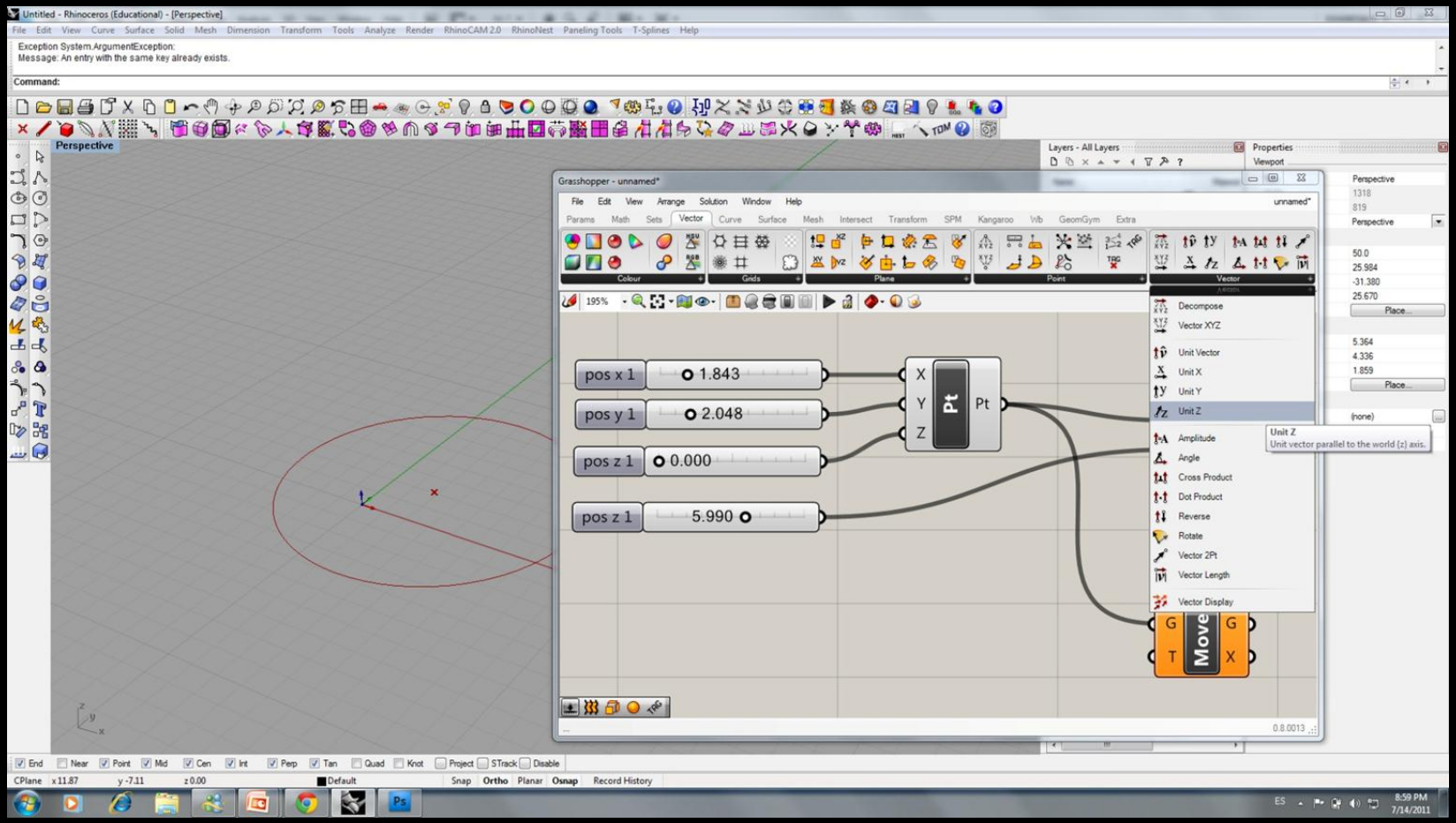

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
pos z 1
5.990
X
Y
Z
Pt
Pt
P
R
Cir
C

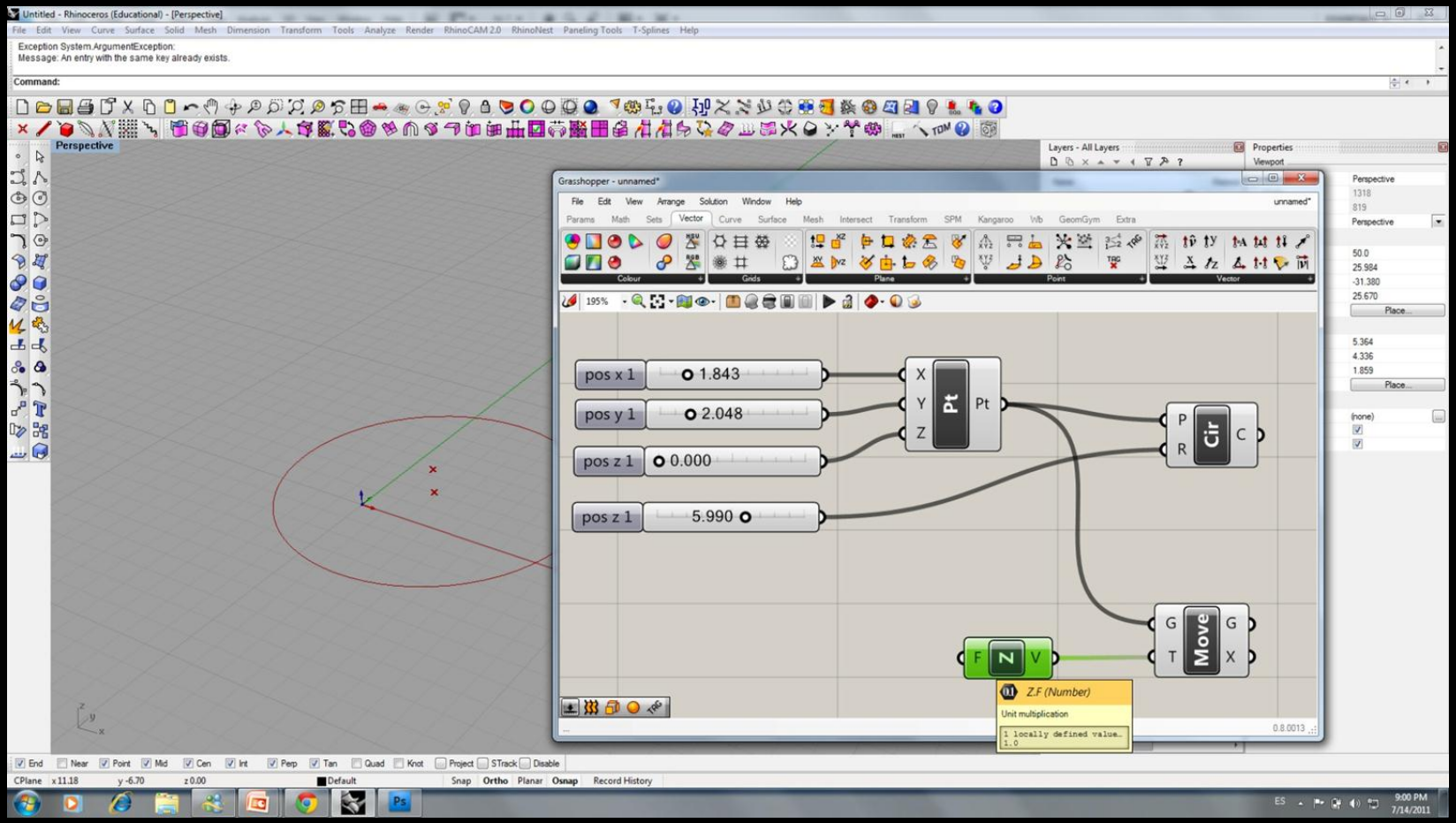

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
Mirror
Move
Move
Translate (move) an object along a vector.
Rotate
Rotate 3D
Rotate Axis
pos x 1
pos y 1
pos z 1
0.000
pos z 1
5.990
X
Y
Z
Pt
Pt
P
R
Cir
C

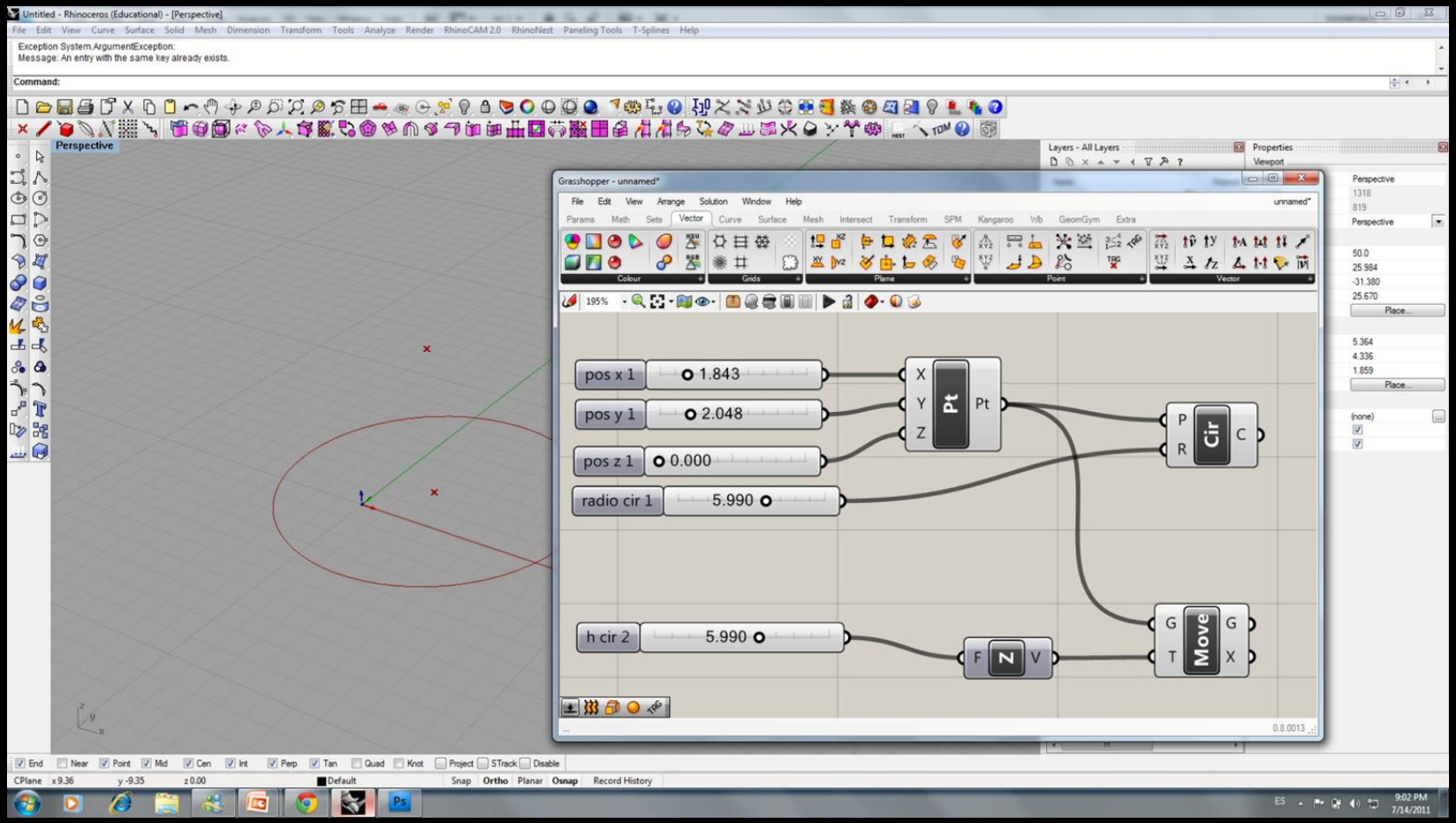

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
pos z 1
5.990
Pt
Cir
Move

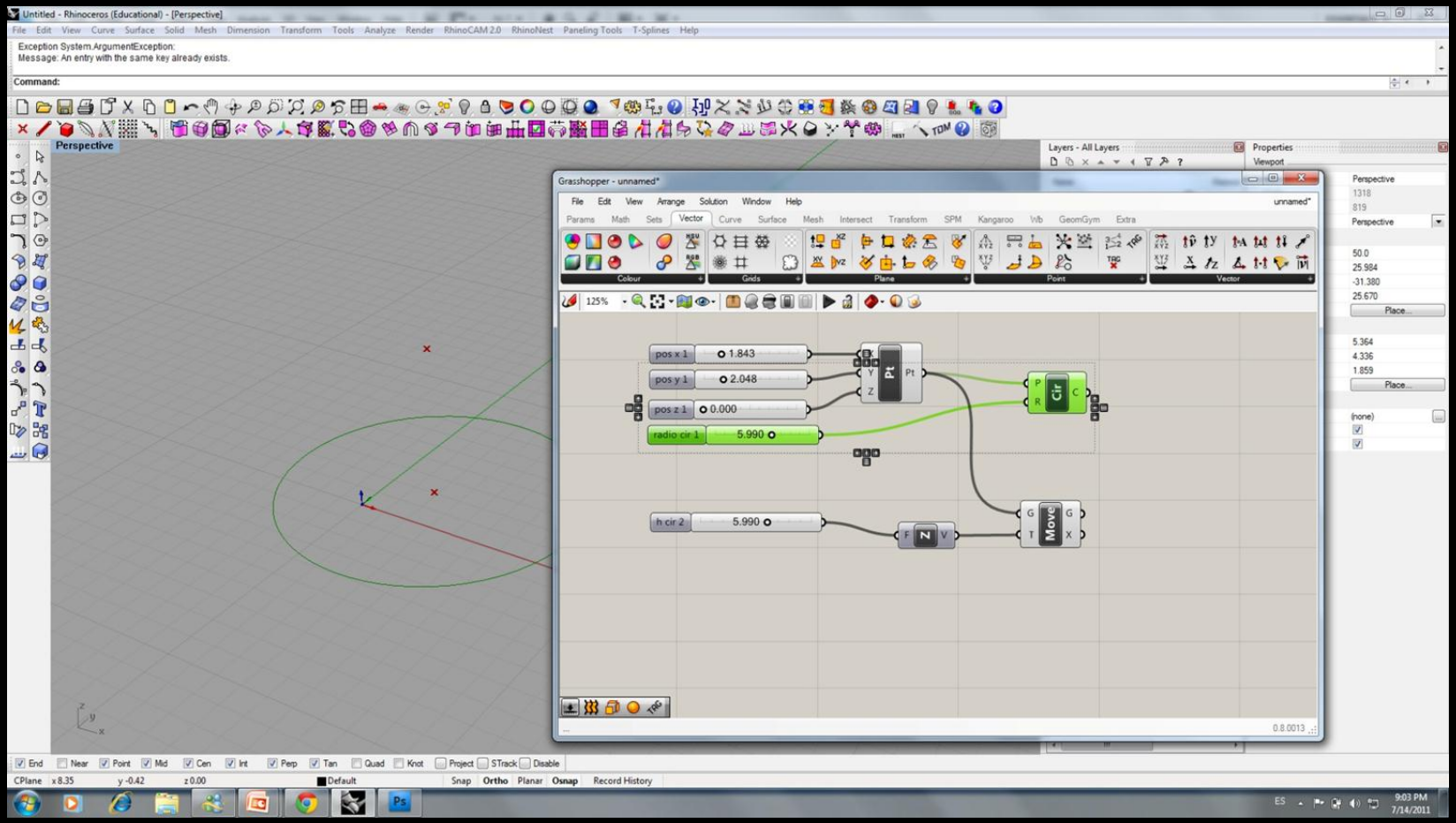

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
pos z 1
5.990
Pt
Cir
Move

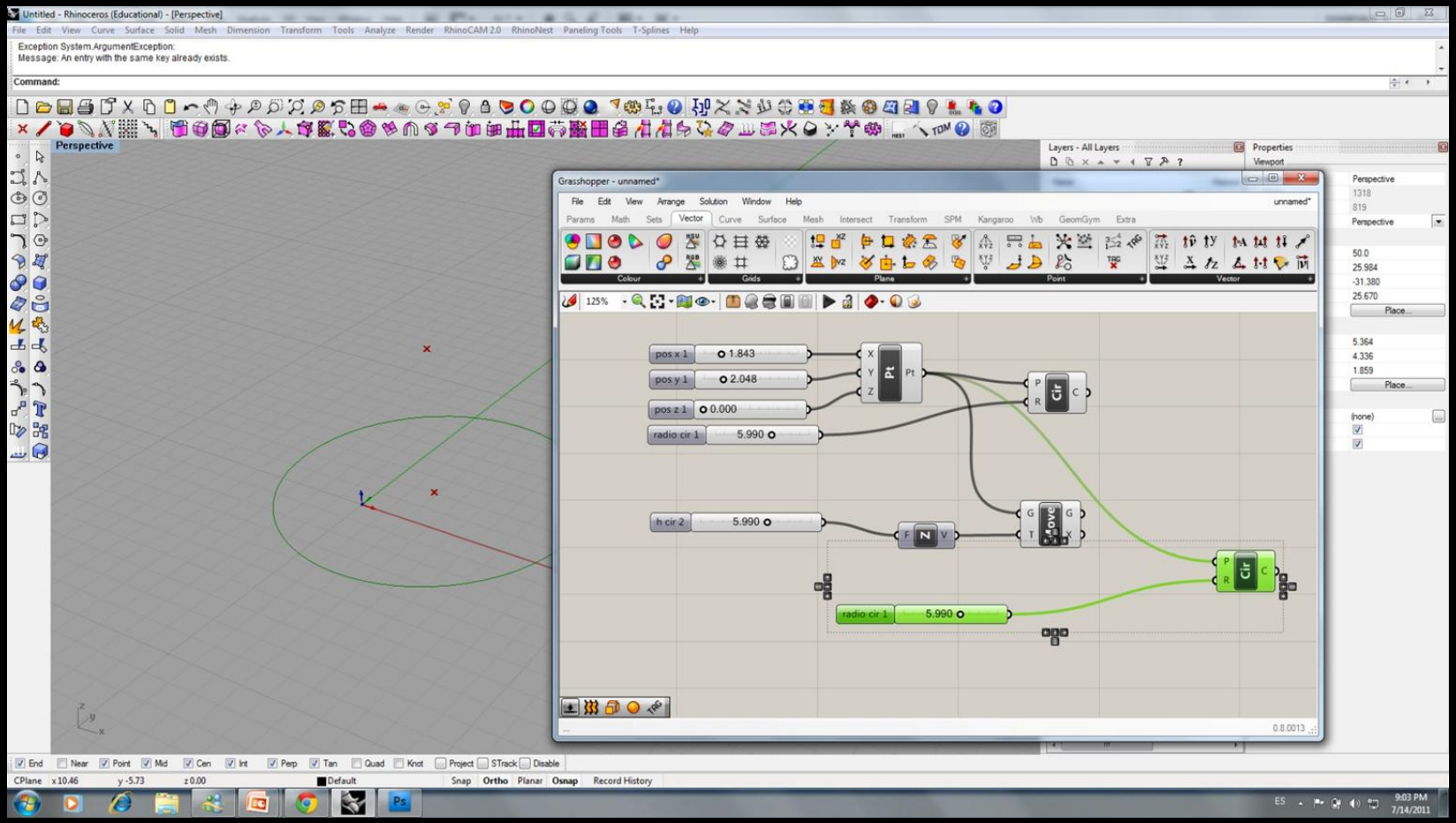

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
pos z 1
5.990
Pt
Cir
Move

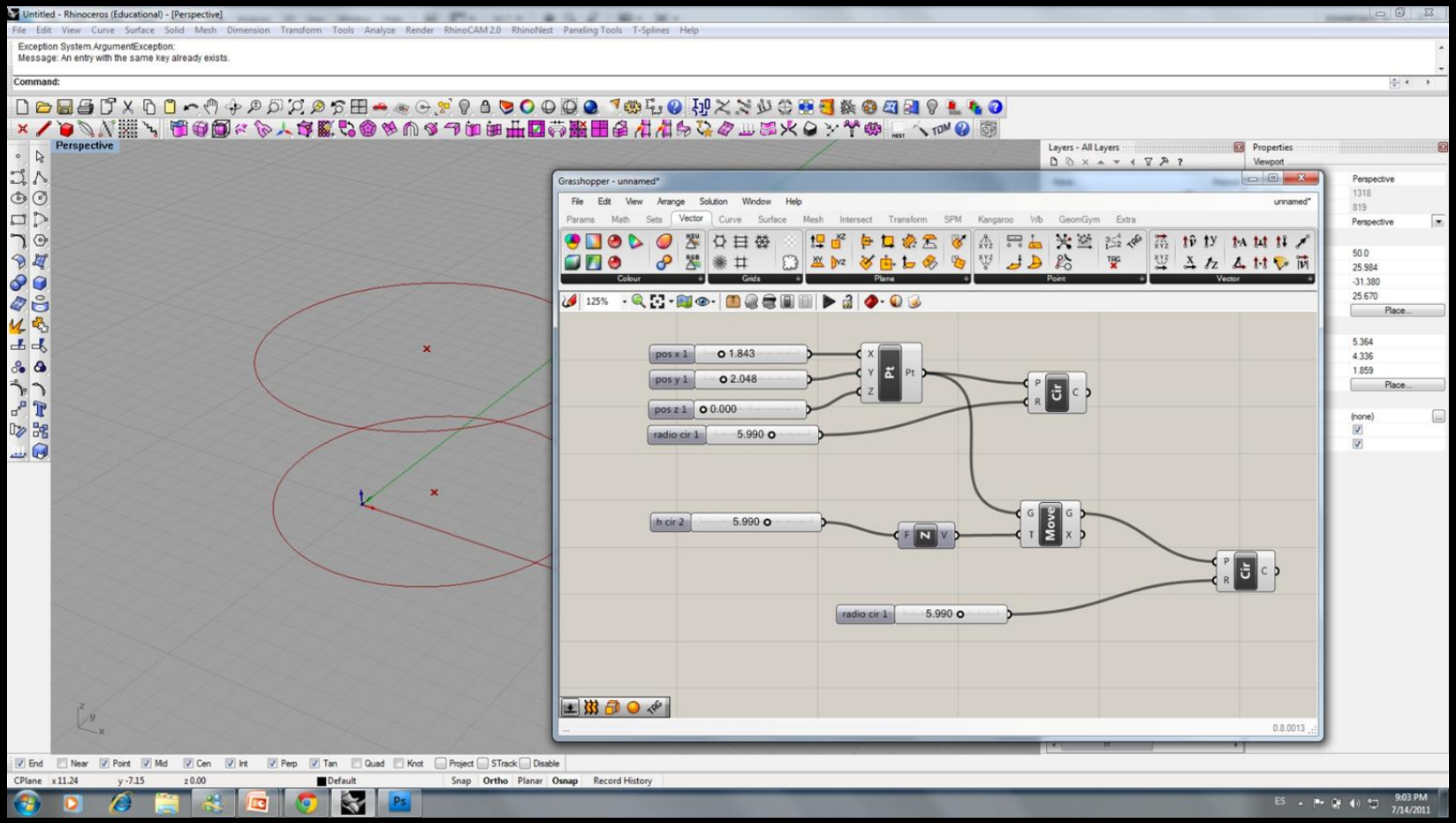

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
pos z 1
5.990
Pt
Move
Decompose
Vector XYZ
Unit Vector
Unit X
Unit Y
Unit Z
Amplitude
Angle
Cross Product
Dot Product
Reverse
Rotate
Vector 2Pt
Vector Length
Vector Display
Unit Z
Unit vector parallel to the world (z) axis.

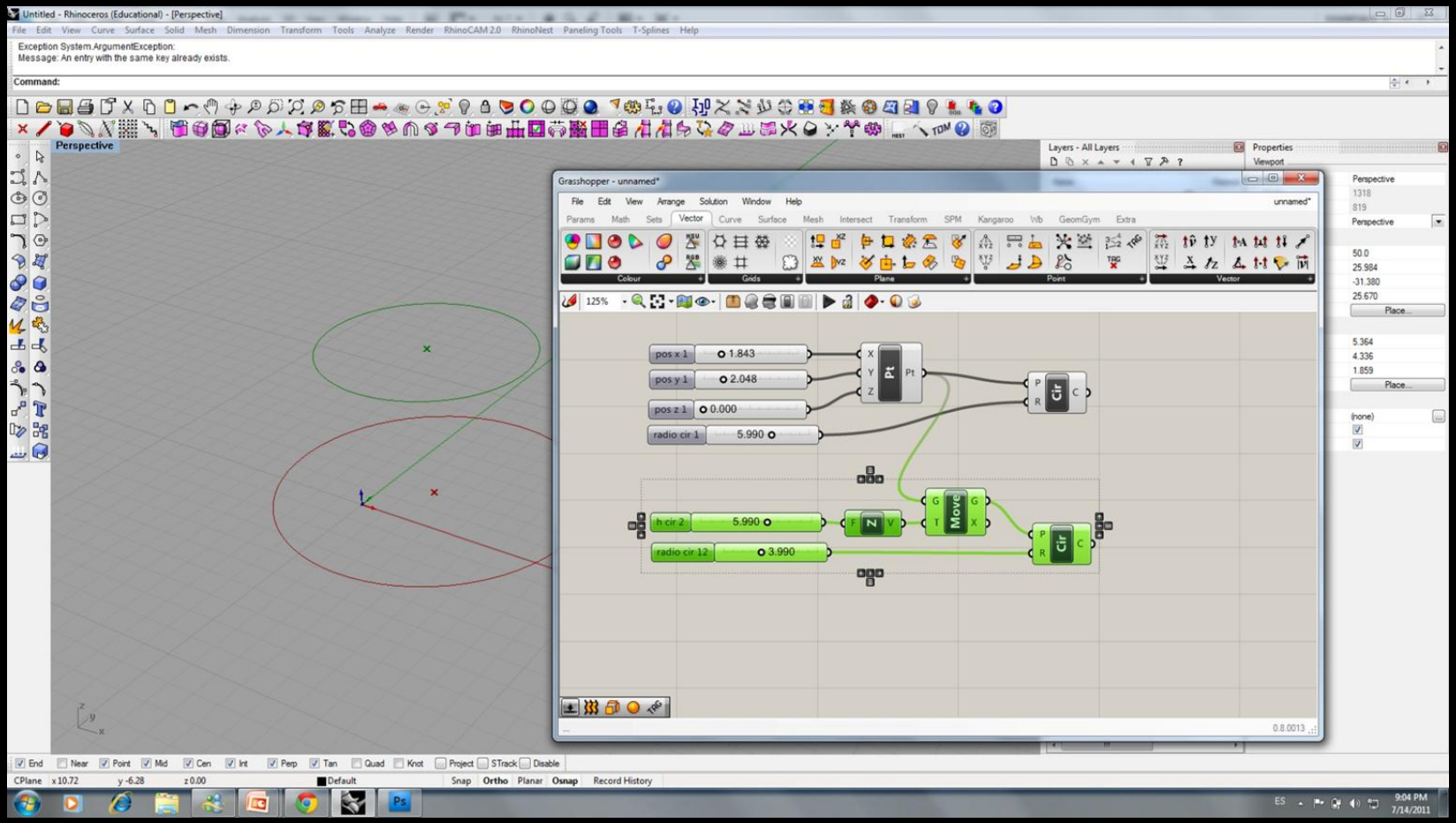

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
pos z 1
5.990
Pt
Cir
Move
Z.F (Number)
Unit multiplication

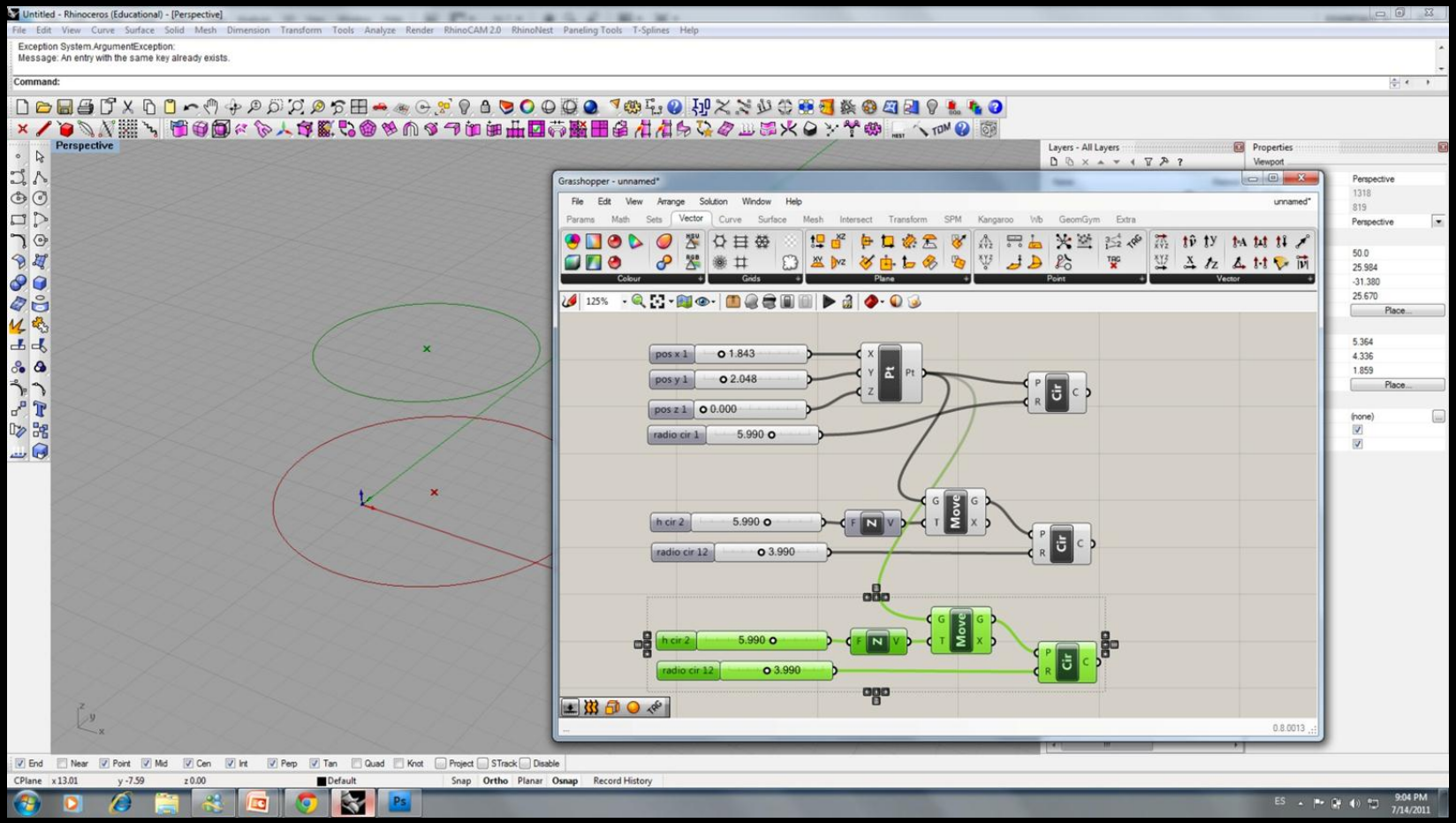

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
Pt
Cir
Move
Layers - All Layers
Properties

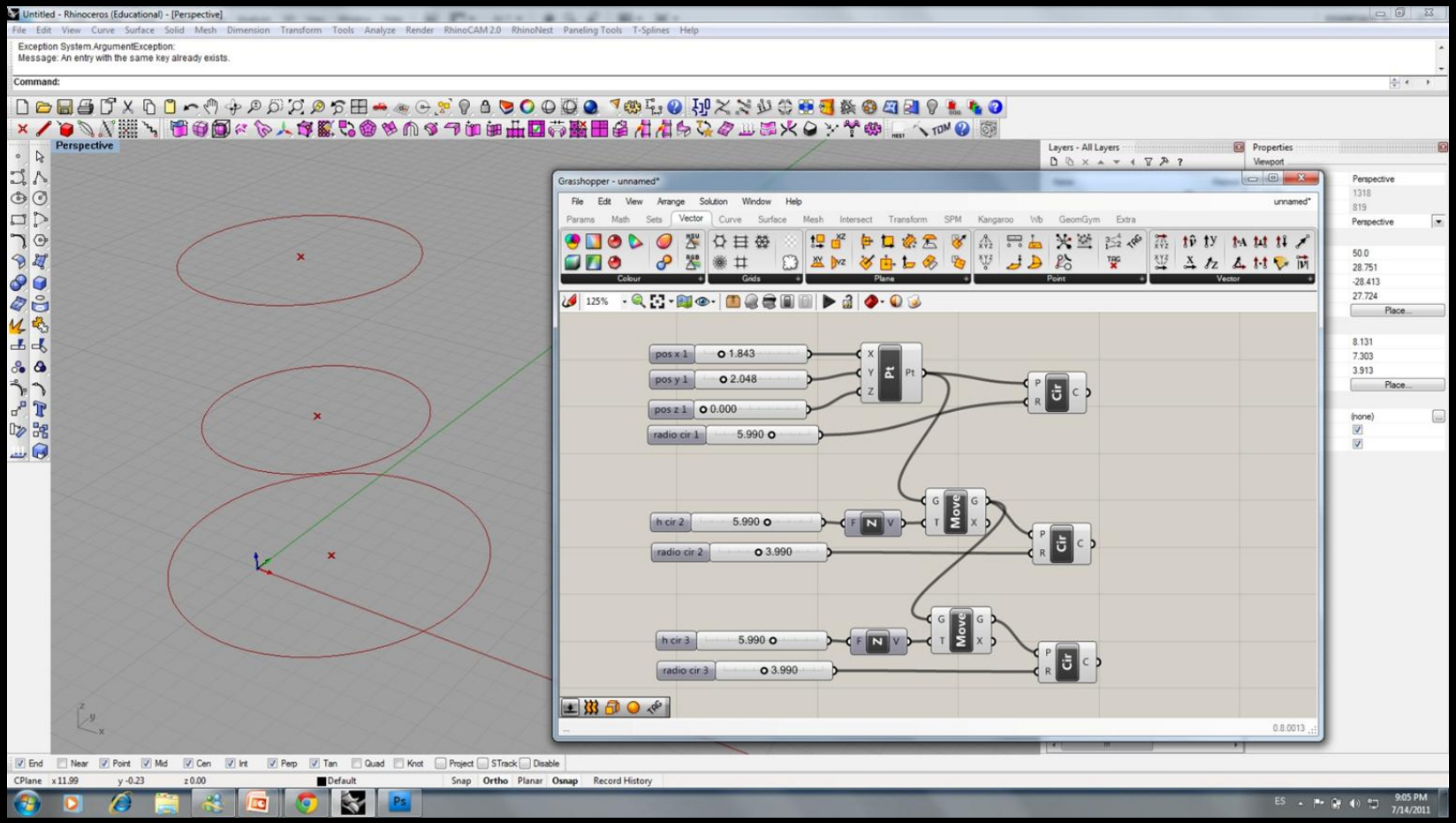

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
Pt
Cir
Move
Layers - All Layers
Properties

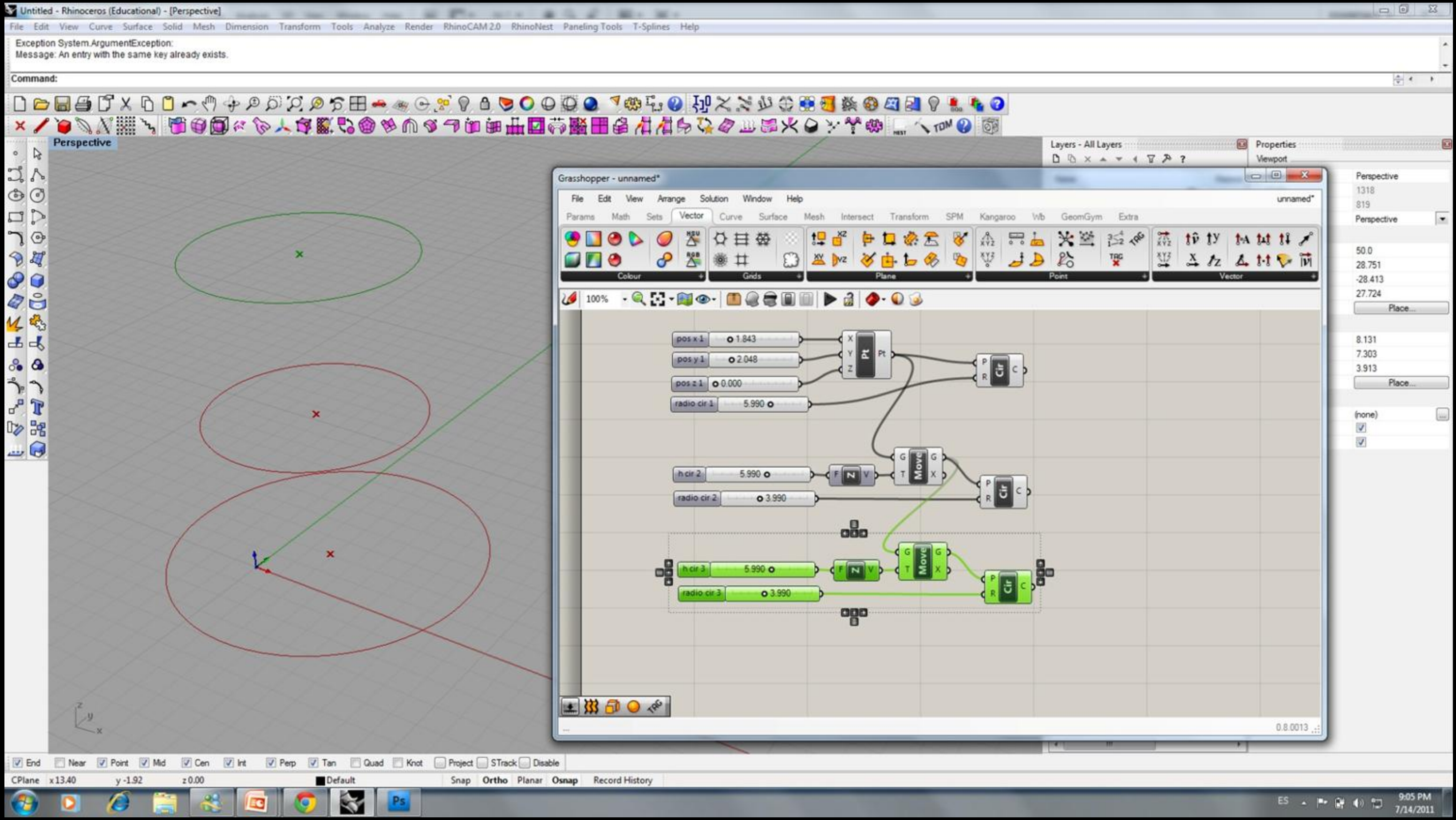

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 1
5.990

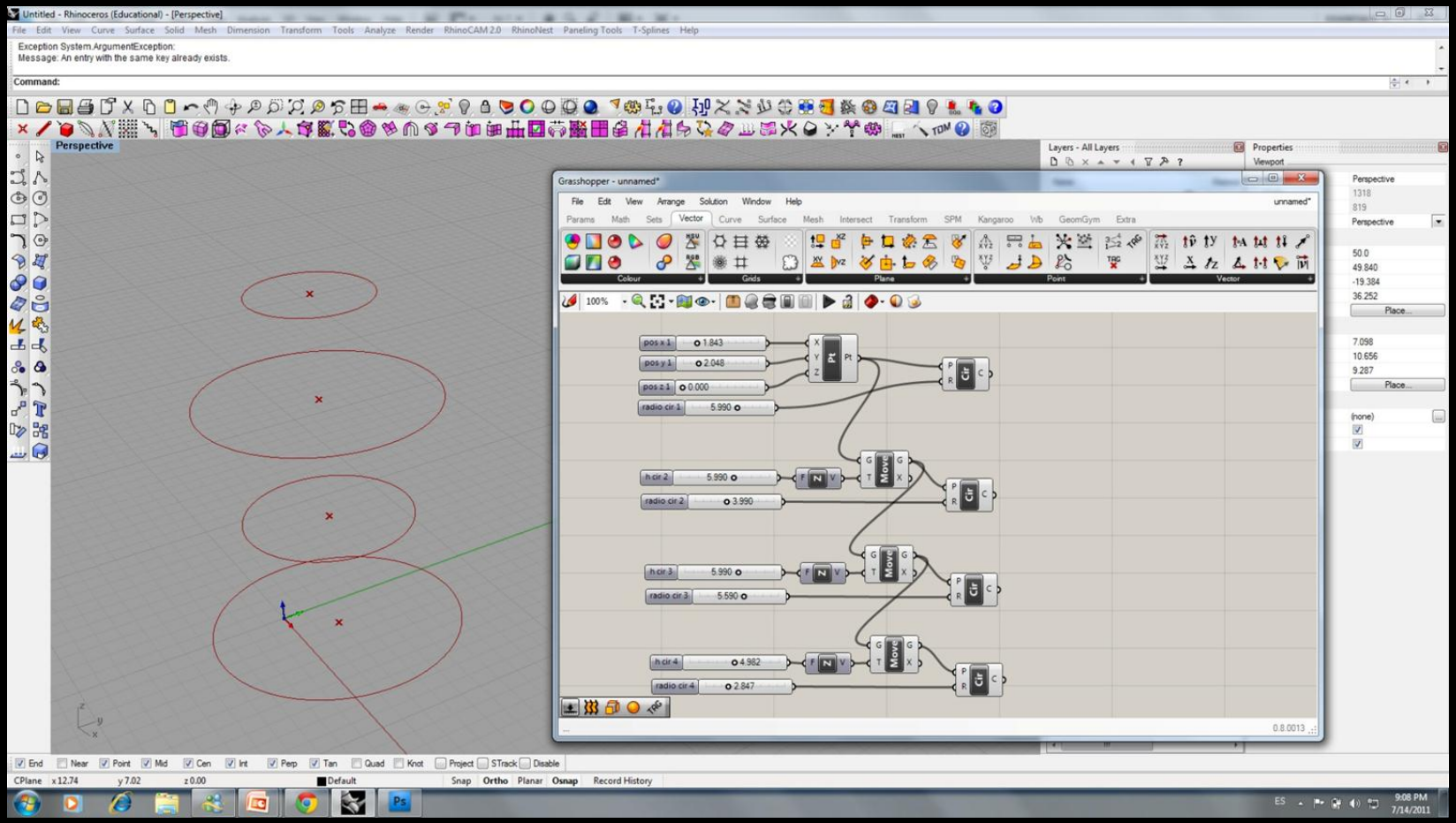

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 1
5.990
Pt
Cir
Move
Layers - All Layers
Properties

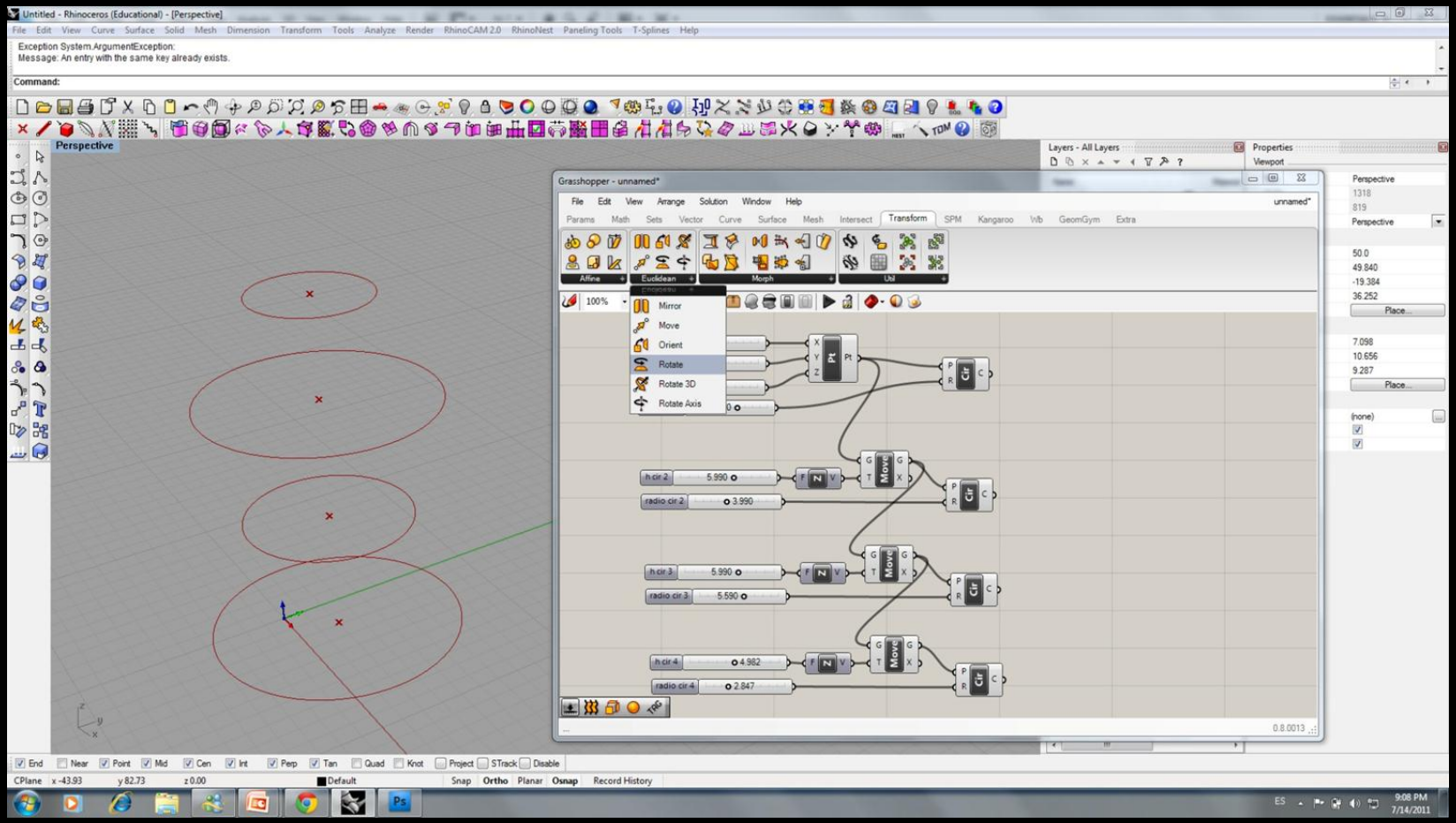

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 12
3.990
Pt
Cir
Move

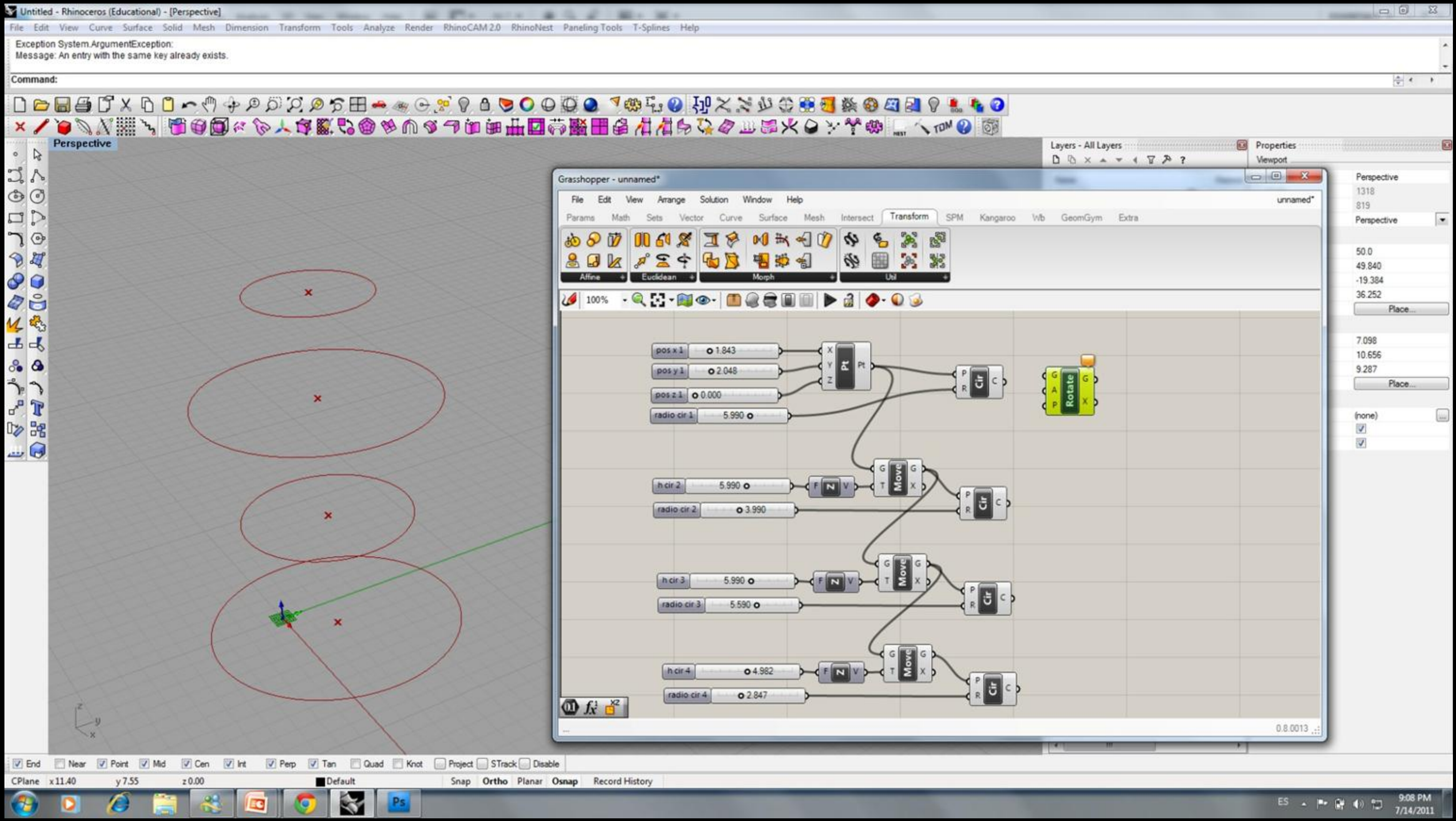

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 12
3.990
Pt
Cir
Move

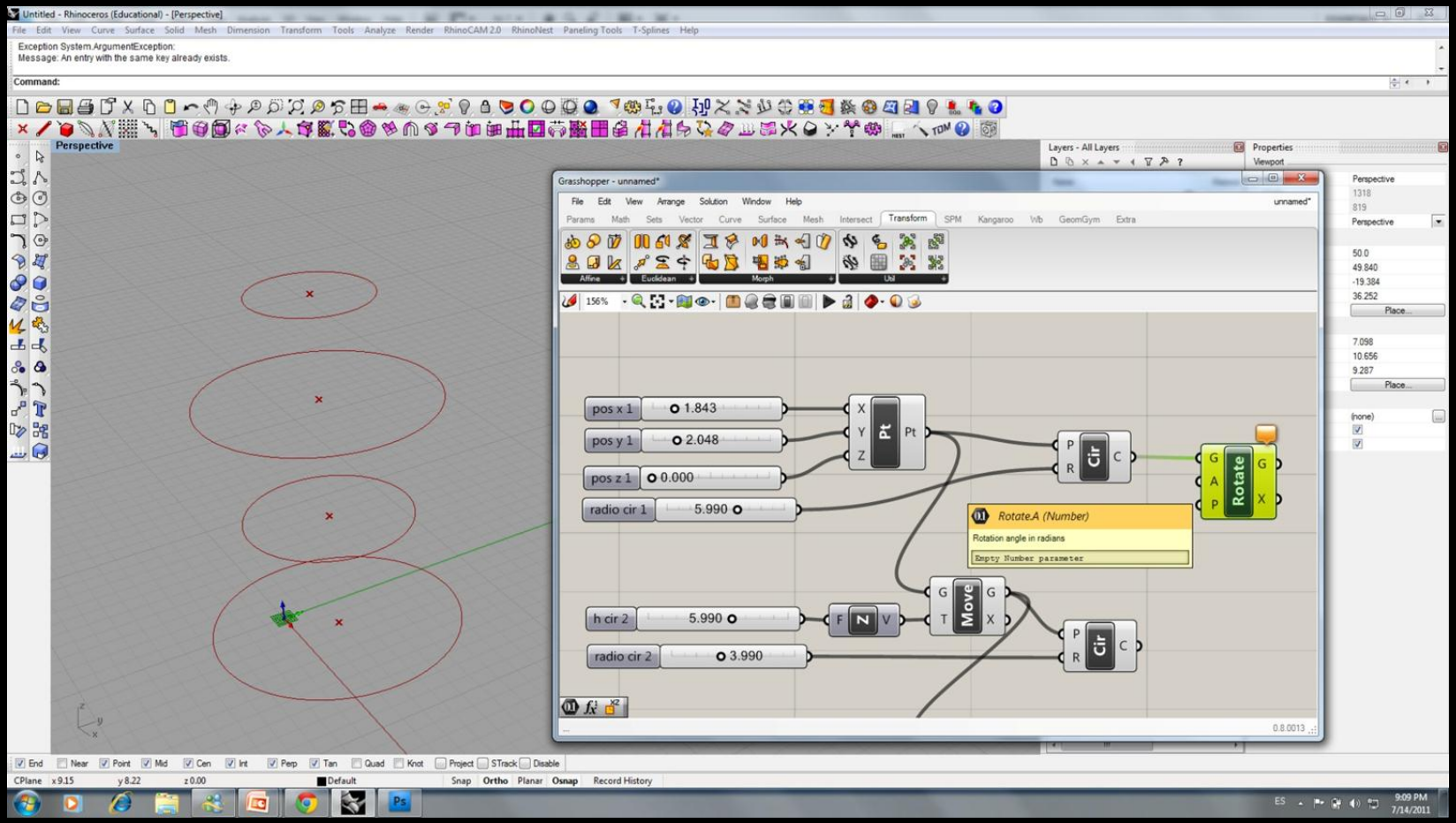

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 2
3.990
h cir 3
5.990
radio cir 3
3.990

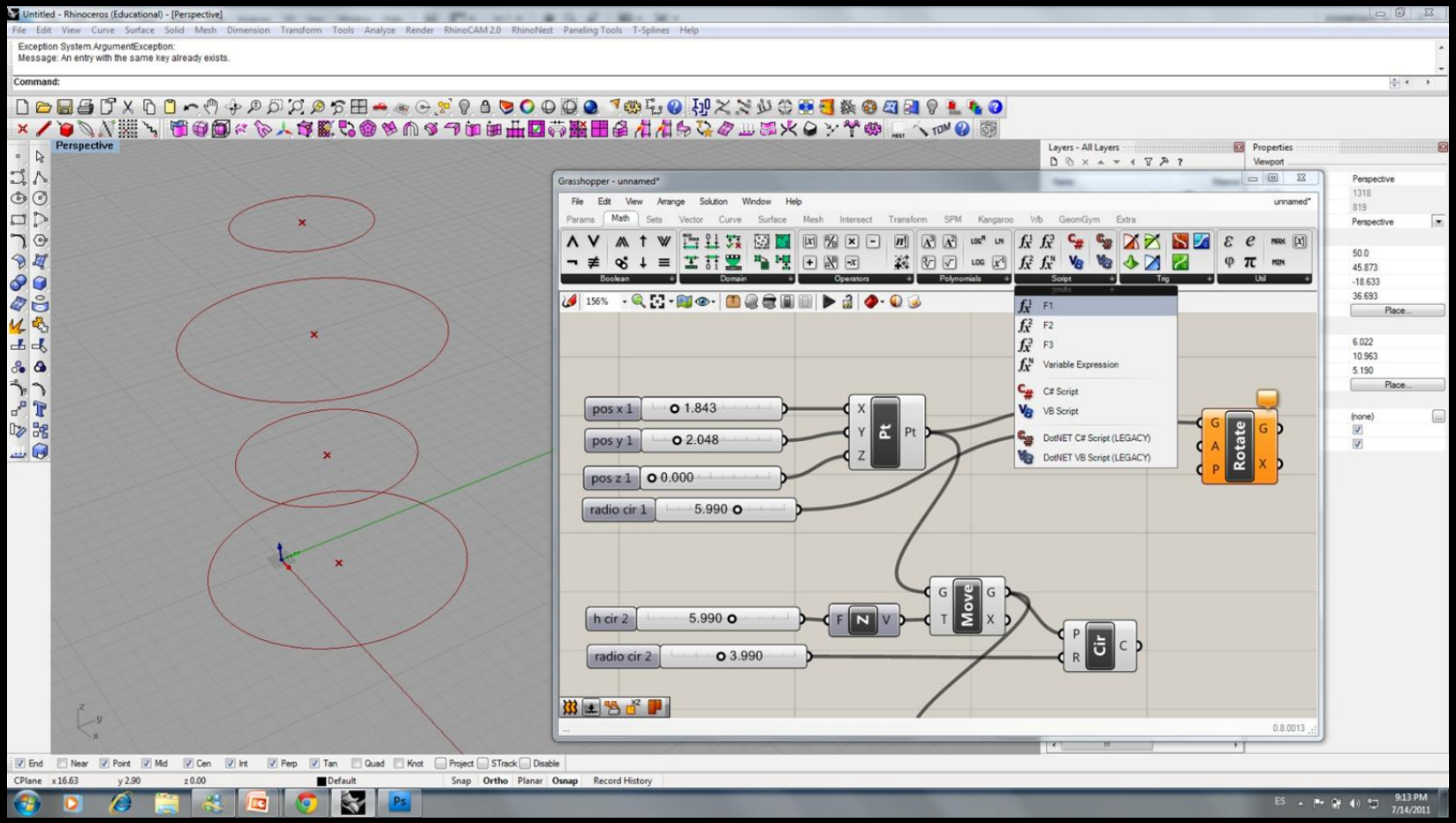

Untitled - Rhinoceros (Educational) - [Perspective]
File Edit View Curve Surface Solid Mesh Dimension Transform Tools Analyze Render RhinoCAM 2.0 RhinoNest Paneling Tools T-Splines Help
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
File Edit View Arrange Solution Window Help
Params Math Sets Vector Curve Surface Mesh Intersect Transform SPM Kangaroo Wb GeomGym Extra
Colour Grids Plane Point Vector
pos x 1 1.843
pos y 1 2.048
pos z 1 0.000
radio cir 1 5.990
h cir 2 5.990
radio cir 2 3.990
h cir 3 5.990
radio cir 3 3.990
Pt
Cir
Move
0.8.0013
End Near Point Mid Cen Int Perp Tan Quad Knot Project STrack Disable
CPlane x 13.40 y -1.92 z 0.00 Default Snap Ortho Planar Osnap Record History
Layers - All Layers
Properties
Viewport
Perspective
1318
819
Perspective
50.0
28.751
-28.413
27.724
Place...
8.131
7.303
3.913
Place...
(none)
9:05 PM
7/14/2011

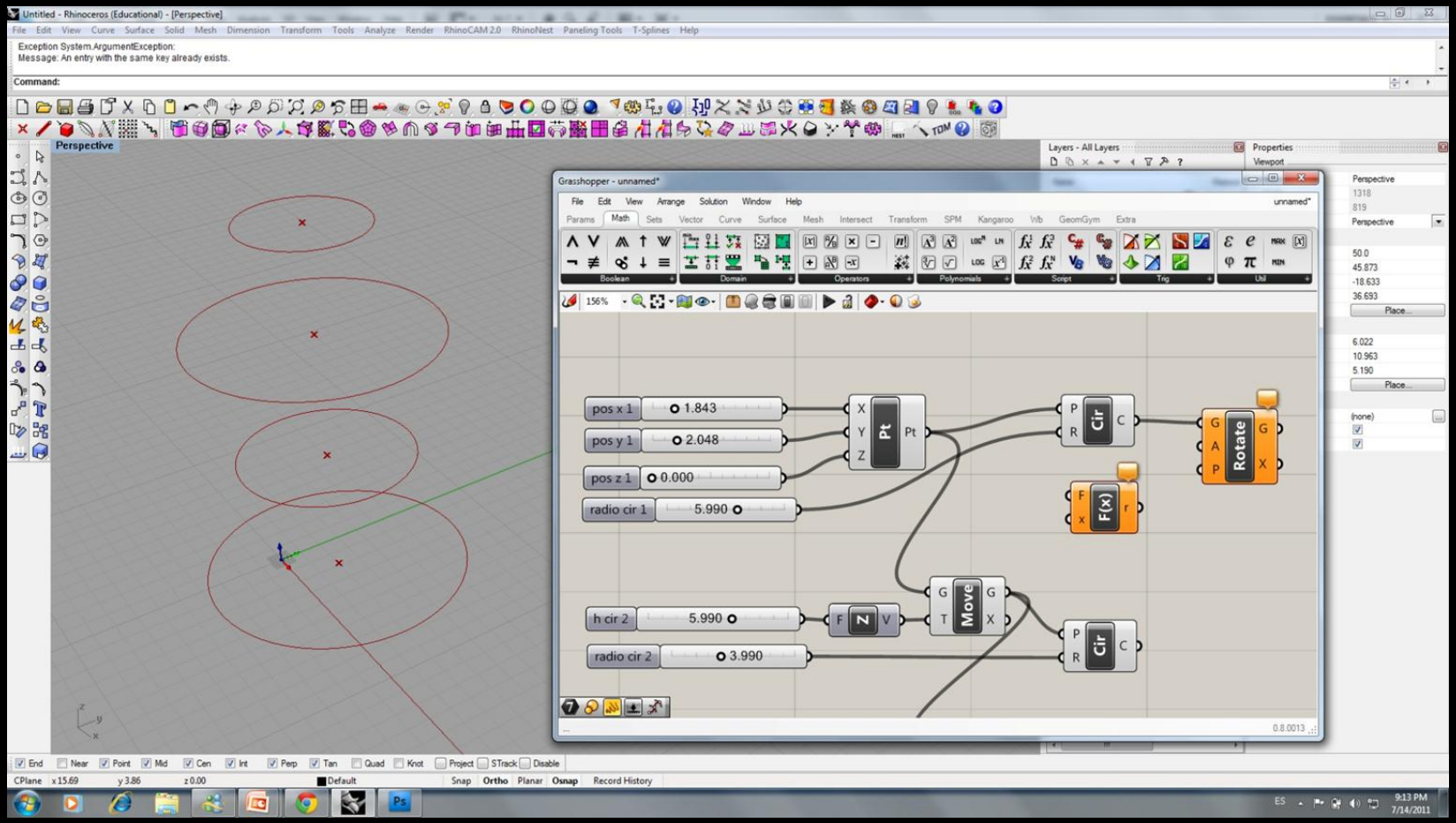

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 2
3.990
h cir 3
5.990
radio cir 3
5.590
h cir 4
4.982
radio cir 4
2.847

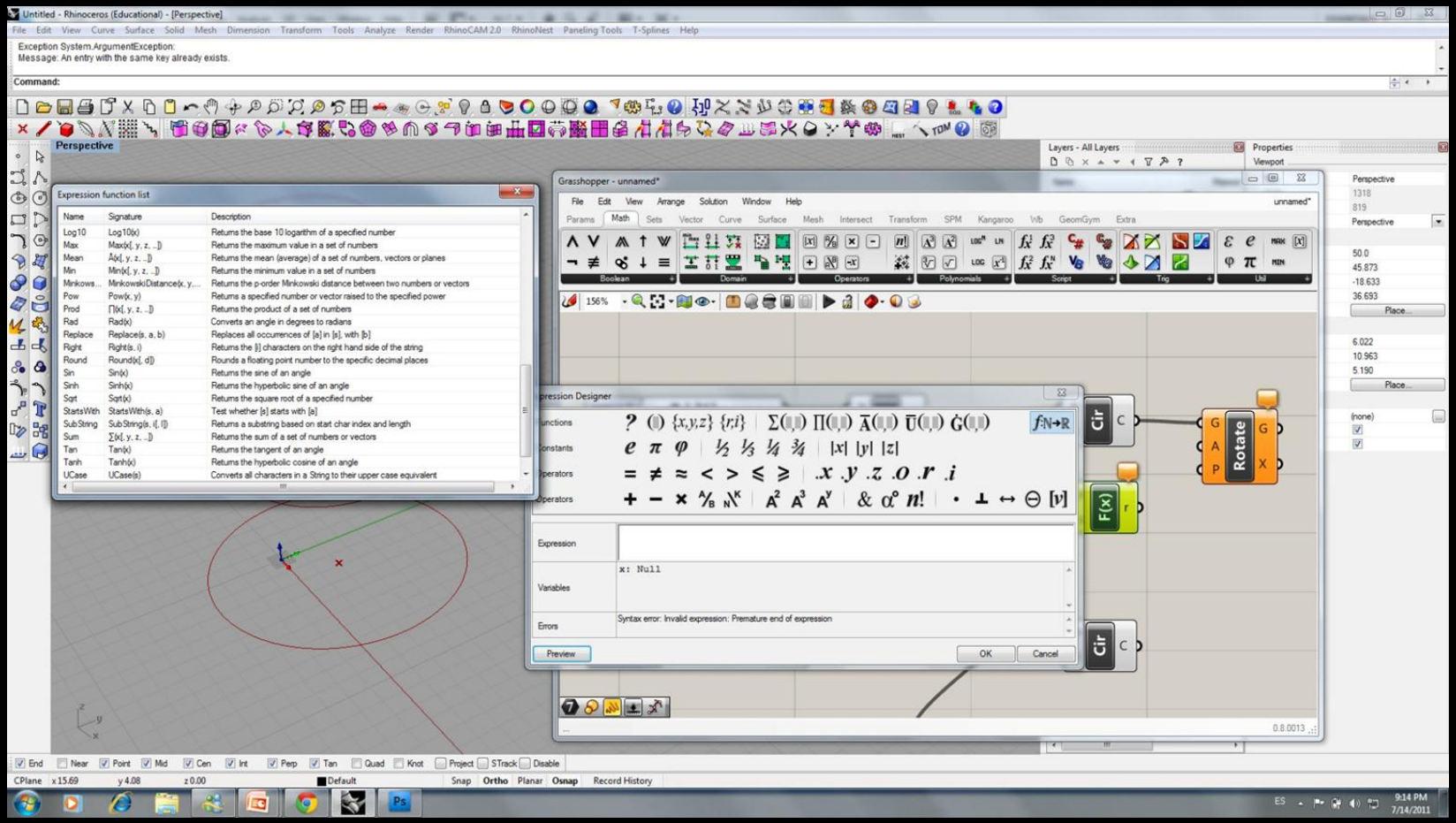

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
Mirror
Move
Orient
Rotate
Rotate 3D
Rotate Axis
h cir 2
5.990
radio cir 2
3.990
h cir 3
5.990
radio cir 3
5.590
h cir 4
4.982
radio cir 4
2.847

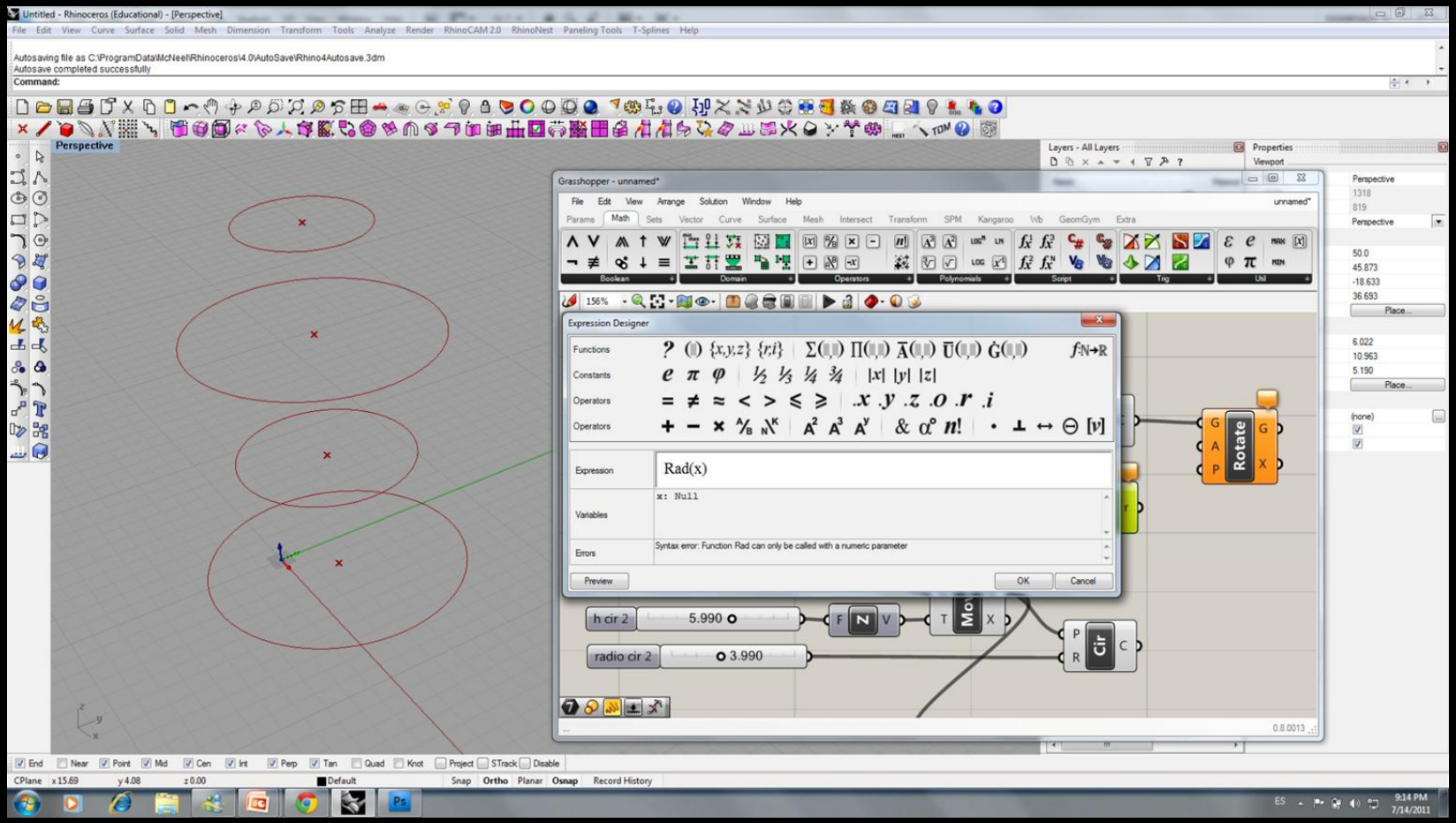

Untitled - Rhinoceros (Educational) - [Perspective]
File Edit View Curve Surface Solid Mesh Dimension Transform Tools Analyze Render RhinoCAM 2.0 RhinoNest Paneling Tools T-Splines Help
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
File Edit View Arrange Solution Window Help
Params Math Sets Vector Curve Surface Mesh Intersect Transform SPM Kangaroo Wb GeomGym Extra
Affine Euclidean Morph Util
pos x 1 1.843
pos y 1 2.048
pos z 1 0.000
radio cir 1 5.990
h cir 2 5.990
radio cir 2 3.990
h cir 3 5.990
radio cir 3 5.590
h cir 4 4.982
radio cir 4 2.847
Pt
Move
Cir
Rotate
0.8.0013
Layers - All Layers
Properties
Viewport
Perspective
Place...
End Near Point Mid Cen Int Perp Tan Quad Knot Project STrack Disable
CPlane x 11.40 y 7.55 z 0.00 Default Snap Ortho Planar Osnap Record History
9:08 PM
7/14/2011

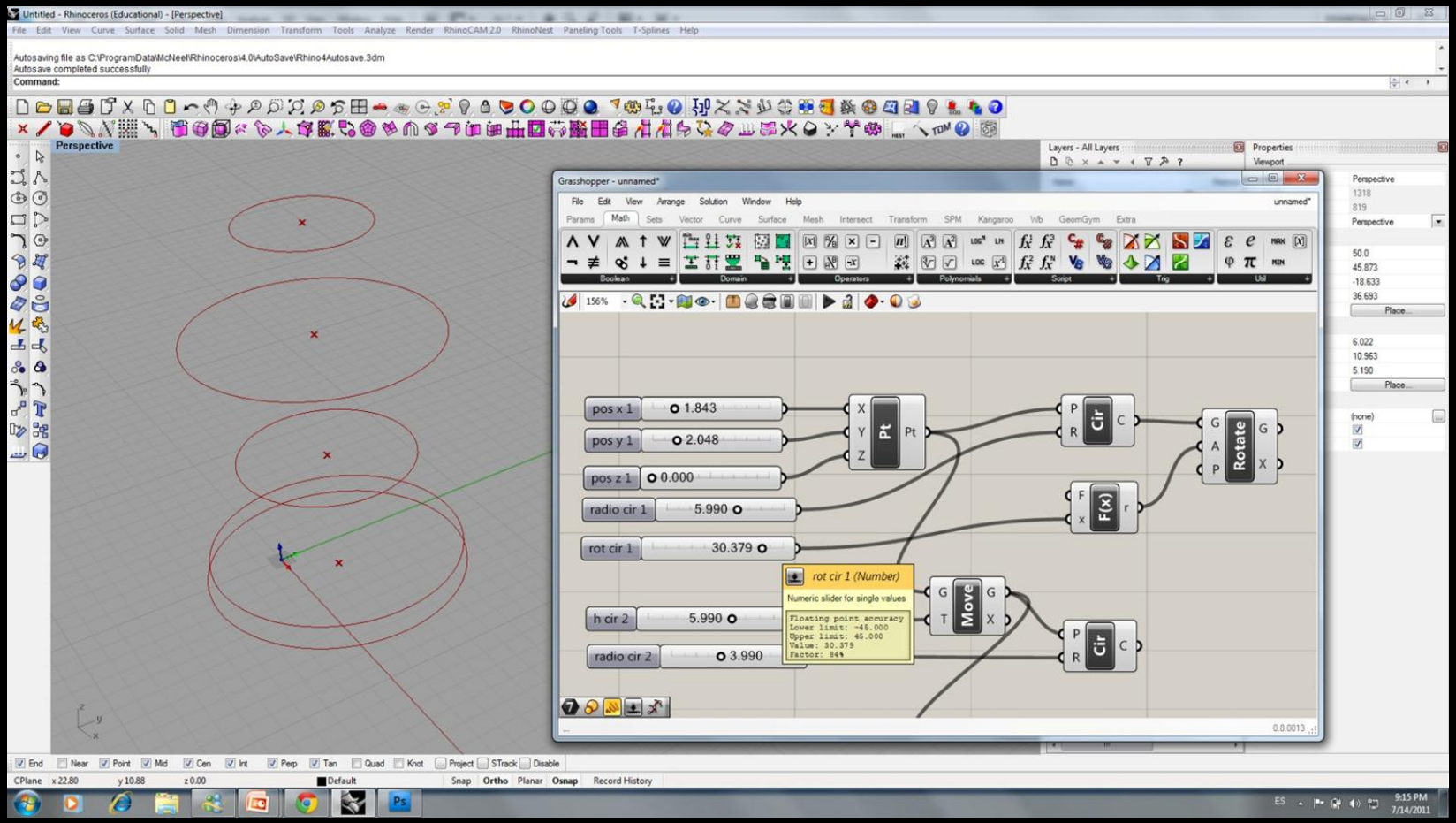

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
Pt
Cir
Rotate
Rotate.A (Number)
Rotation angle in radians
Empty Number parameter
h cir 2
5.990
radio cir 2
3.990
Move

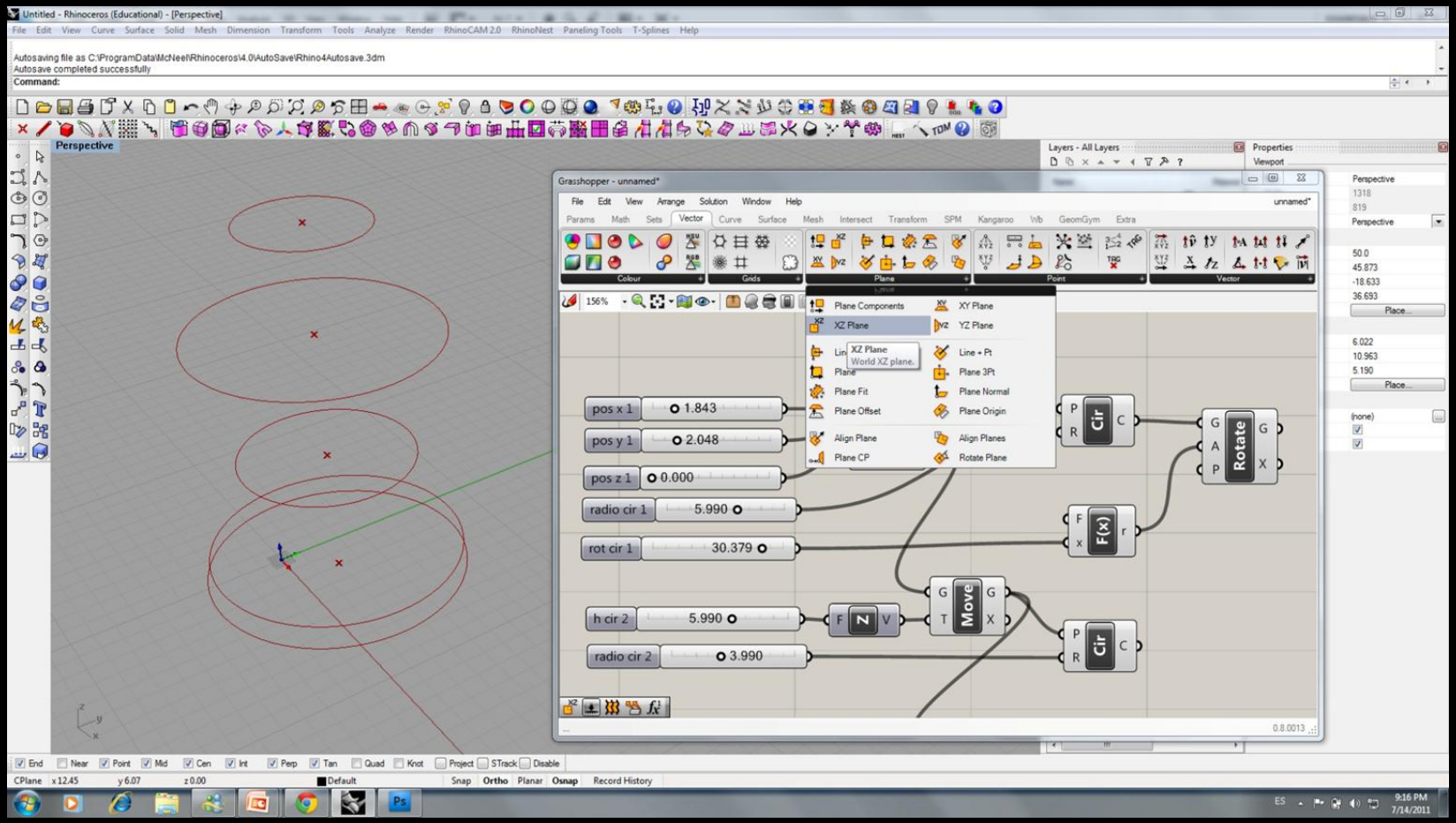

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 2
3.990
Pt
Rotate
Move
Cir
F1
F2
F3
Variable Expression
C# Script
VB Script
DotNET C# Script (LEGACY)
DotNET VB Script (LEGACY)

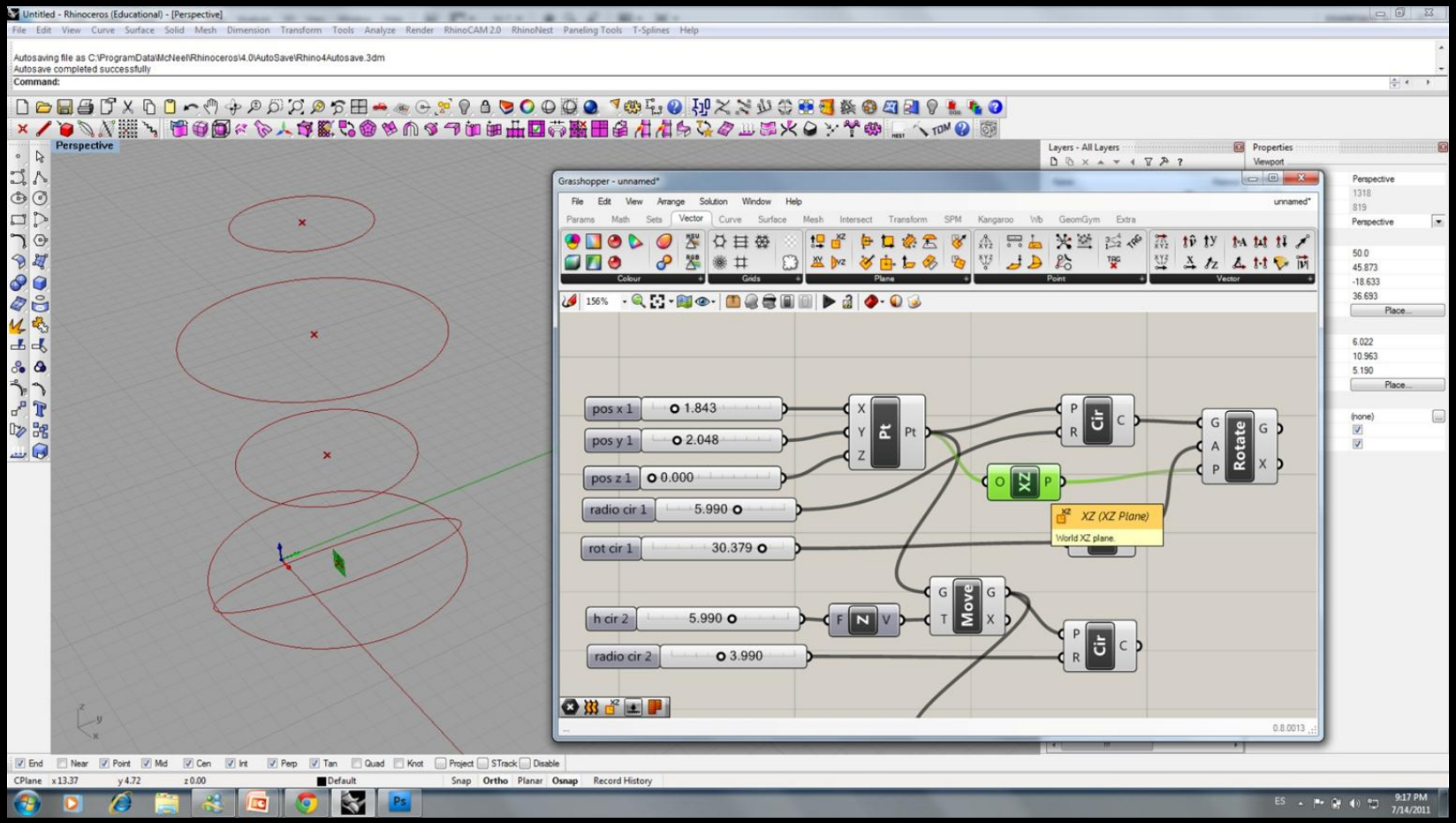

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
h cir 2
5.990
radio cir 2
3.990
Pt
Cir
F(x)
Rotate
Move

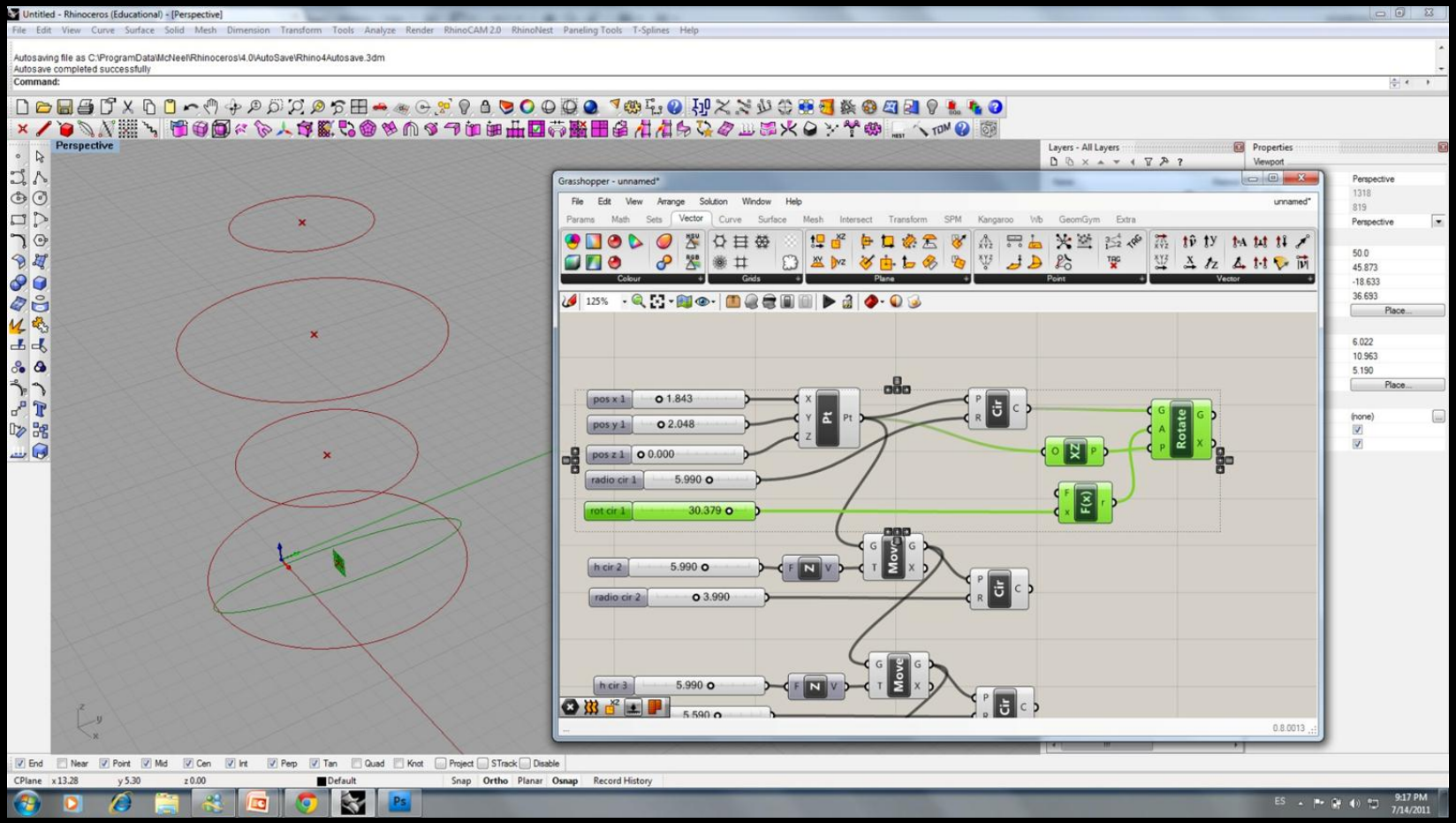

Untitled - Rhinoceros (Educational) - [Perspective]
Exception System.ArgumentException:
Message: An entry with the same key already exists.
Command:
Perspective
Expression function list
Grasshopper - unnamed*
Expression Designer
Expression
Variables
x: Null
Errors
Syntax error: Invalid expression: Premature end of expression
Preview
OK
Cancel
Rotate
Cir
F(x)

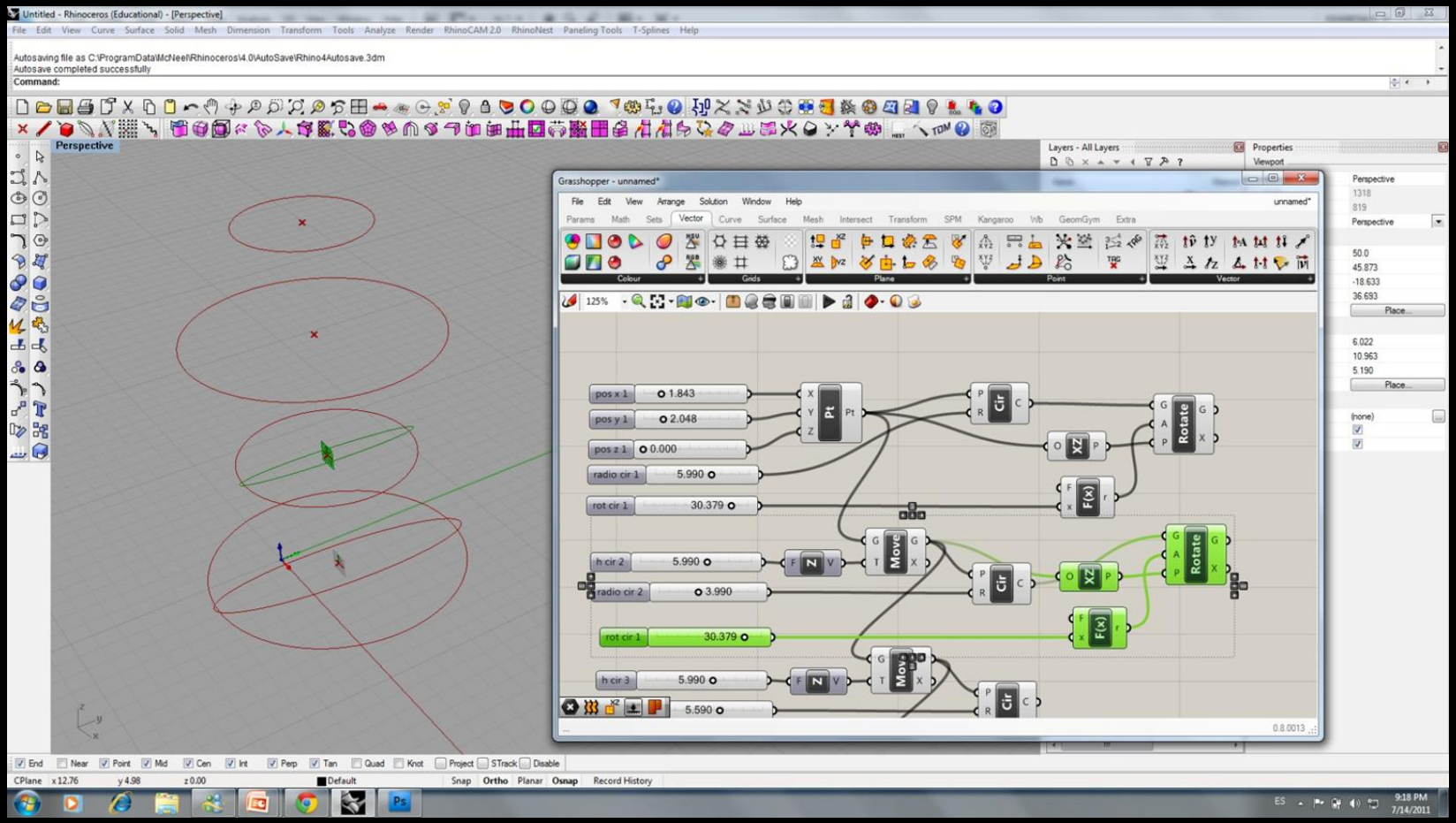

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
Expression Designer
Functions
Constants
Operators
Expression
Rad(x)
Variables
x: Null
Errors
Syntax error: Function Rad can only be called with a numeric parameter
Preview
OK
Cancel
h cir 2
5.990
radio cir 2
3.990
Rotate
Cir
Layers - All Layers
Properties

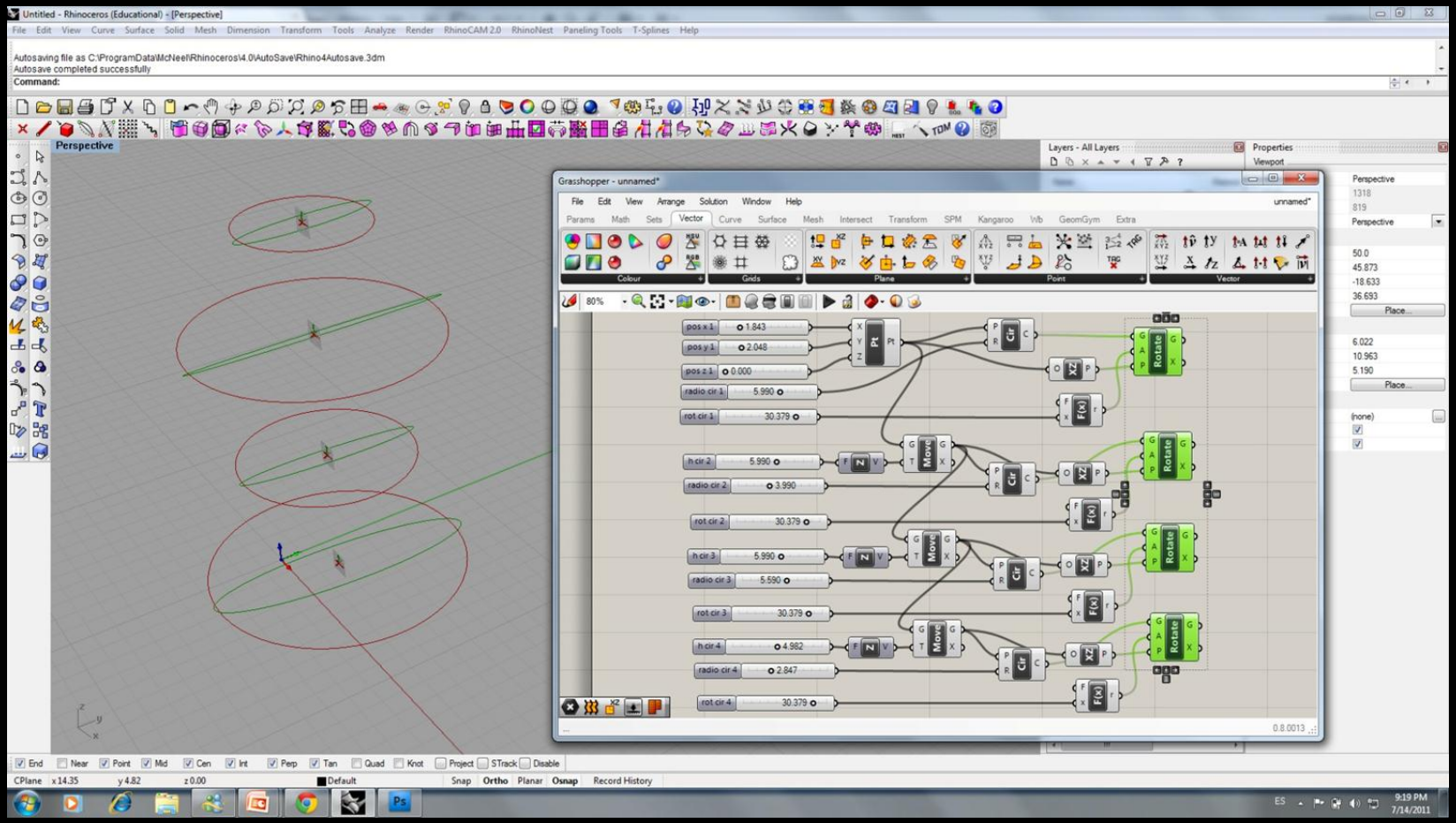

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
rot cir 1
30.379
rot cir 1 (Number)
Numeric slider for single values
h cir 2
5.990
radio cir 2
3.990
Pt
Cir
F(x)
Rotate
Move

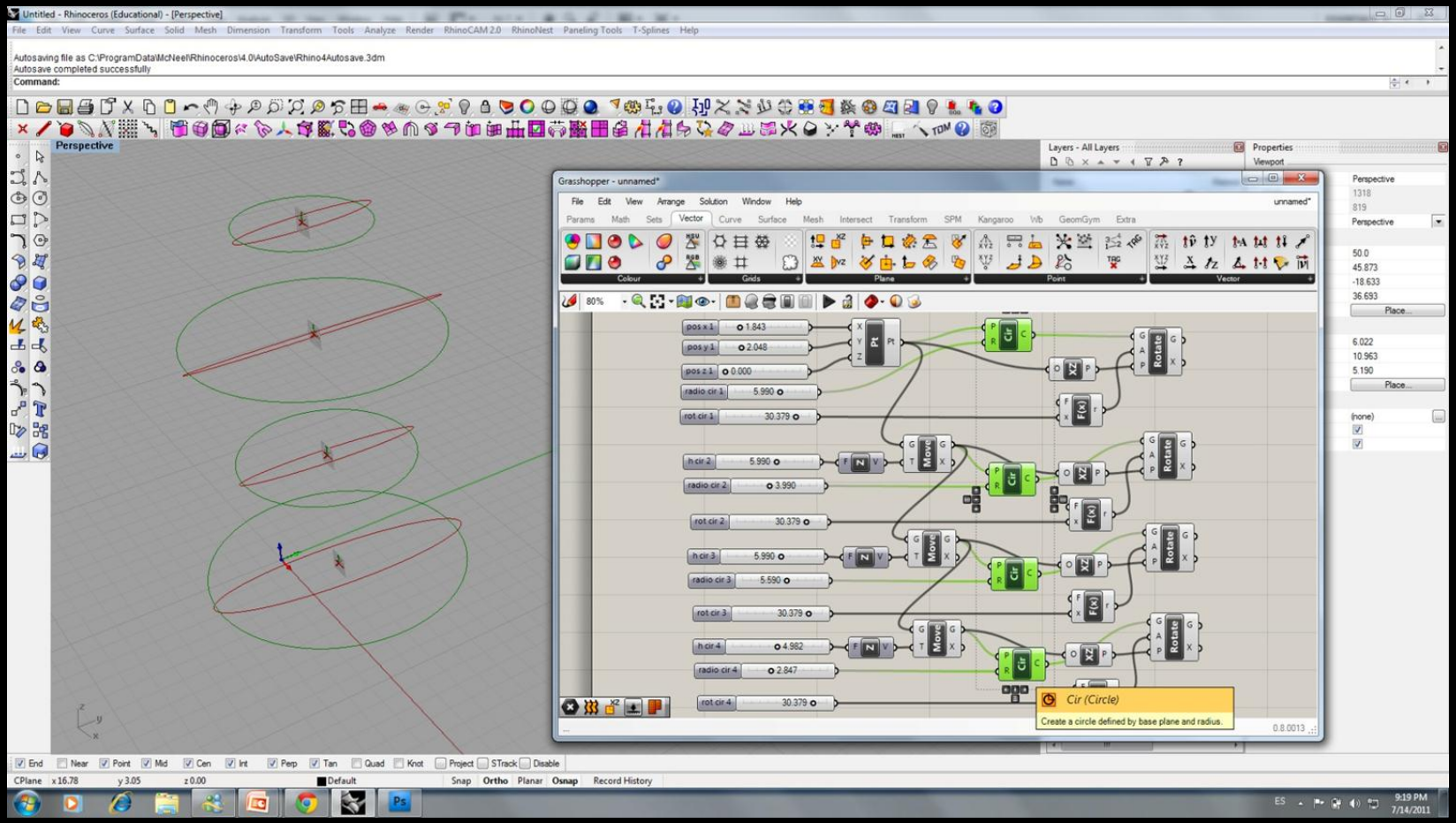

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
Plane Components
XY Plane
XZ Plane
YZ Plane
Line + Pt
Plane 3Pt
Plane Fit
Plane Normal
Plane Offset
Plane Origin
Align Plane
Align Planes
Plane CP
Rotate Plane
XZ Plane
World XZ plane.
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
rot cir 1
30.379
h cir 2
5.990
radio cir 2
3.990
Cir
Rotate
F(x)
Move

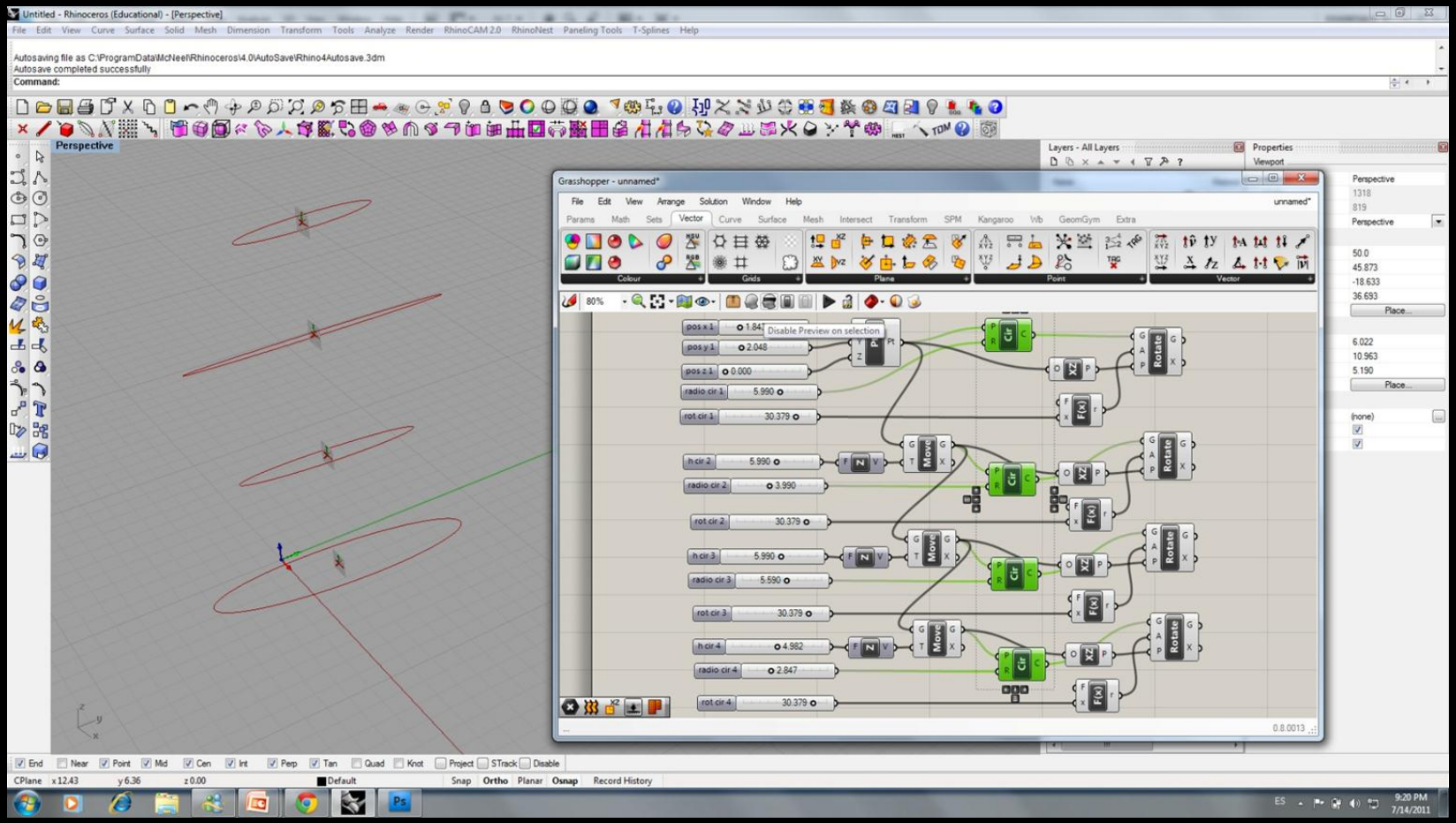

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
rot cir 1
30.379
h cir 2
5.990
radio cir 2
3.990
Pt
Cir
XZ
Rotate
Move
XZ (XZ Plane)
World XZ plane

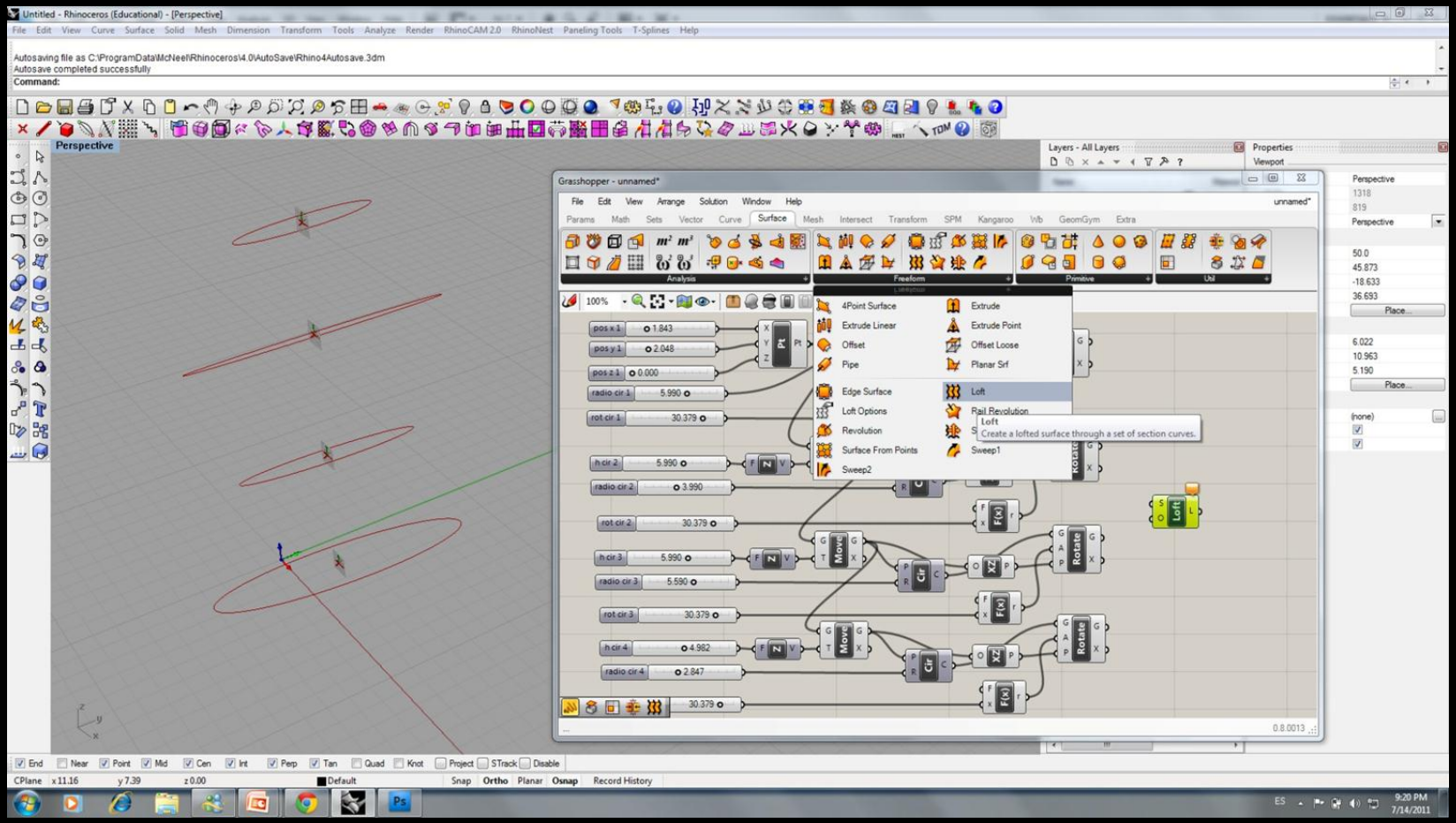

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
rot cir 1
30.379
h cir 2
5.990
radio cir 2
3.990
h cir 3
5.990
Pt
Cir
XZ
F(x)
Rotate
Move
Layers - All Layers
Properties

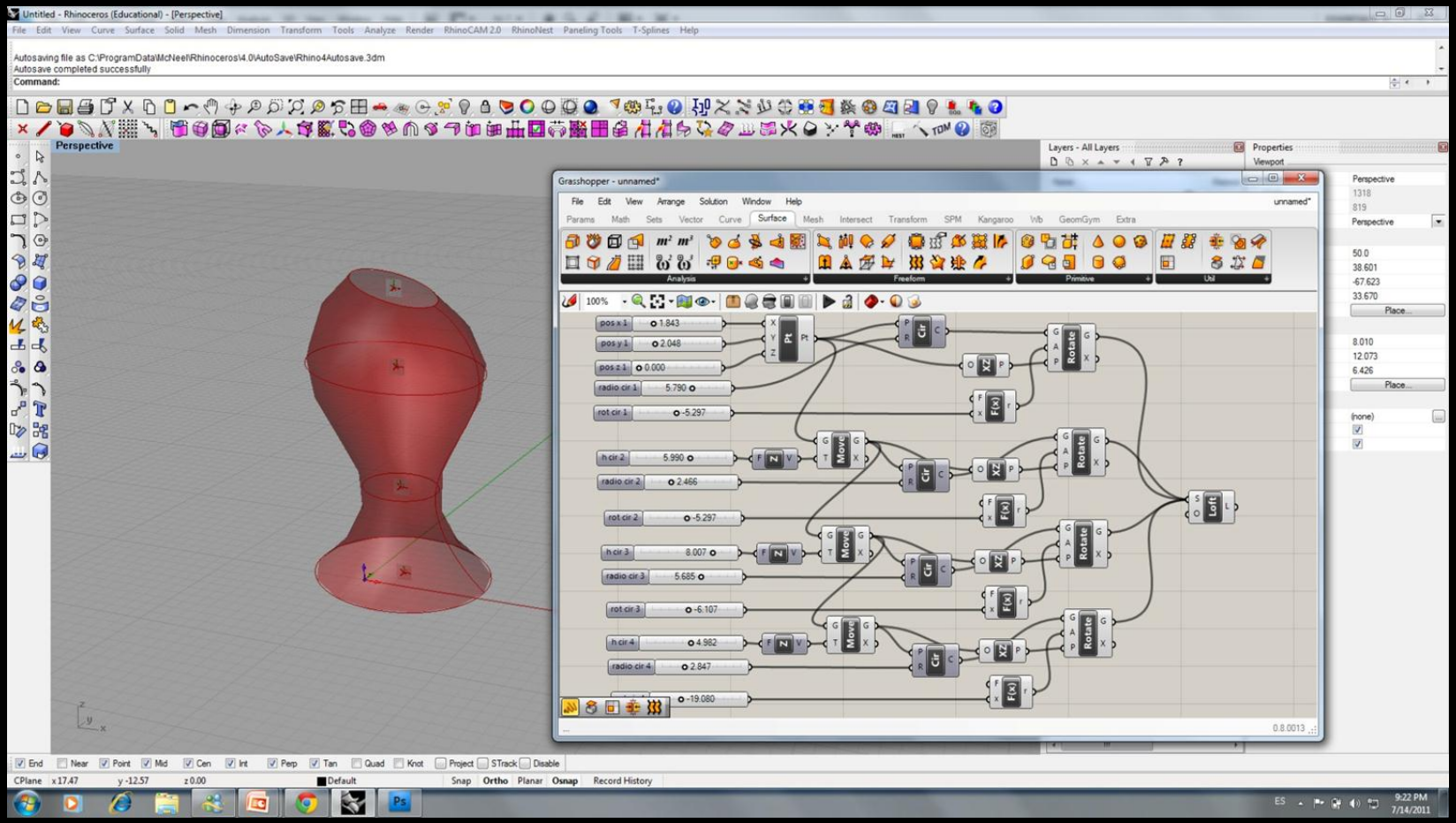

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
rot cir 1
30.379
h cir 2
5.990
radio cir 2
3.990
rot cir 1
30.379
h cir 3
5.990
5.590
Pt
Cir
Rotate
Move
F(x)
XZ

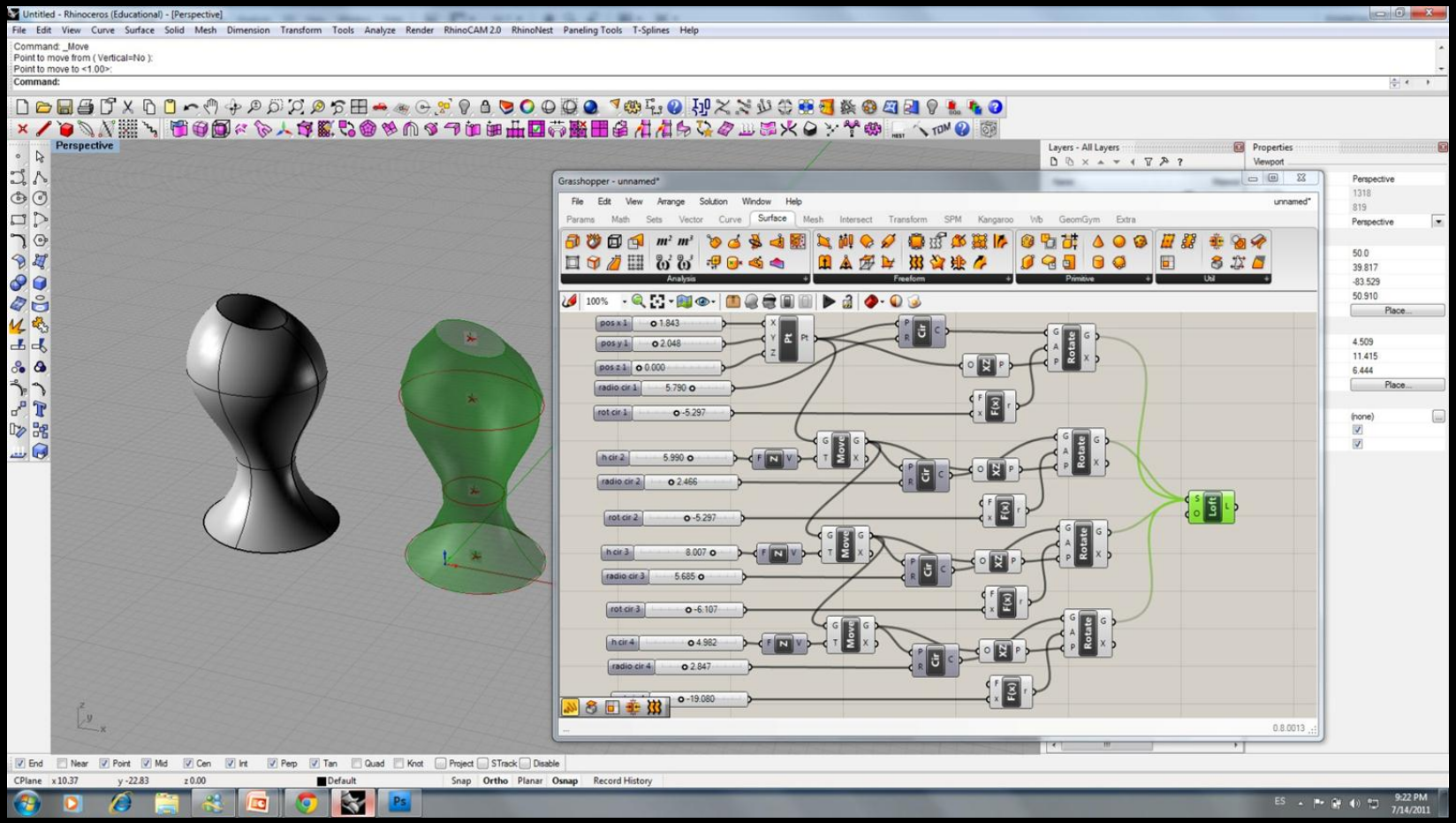

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
pos x 1
1.843
pos y 1
2.048
pos z 1
0.000
radio cir 1
5.990
rot cir 1
30.379
h cir 2
5.990
radio cir 2
3.990
rot cir 2
30.379
h cir 3
5.990
radio cir 3
5.590
rot cir 3
30.379
h cir 4
4.982
radio cir 4
2.847
rot cir 4
30.379

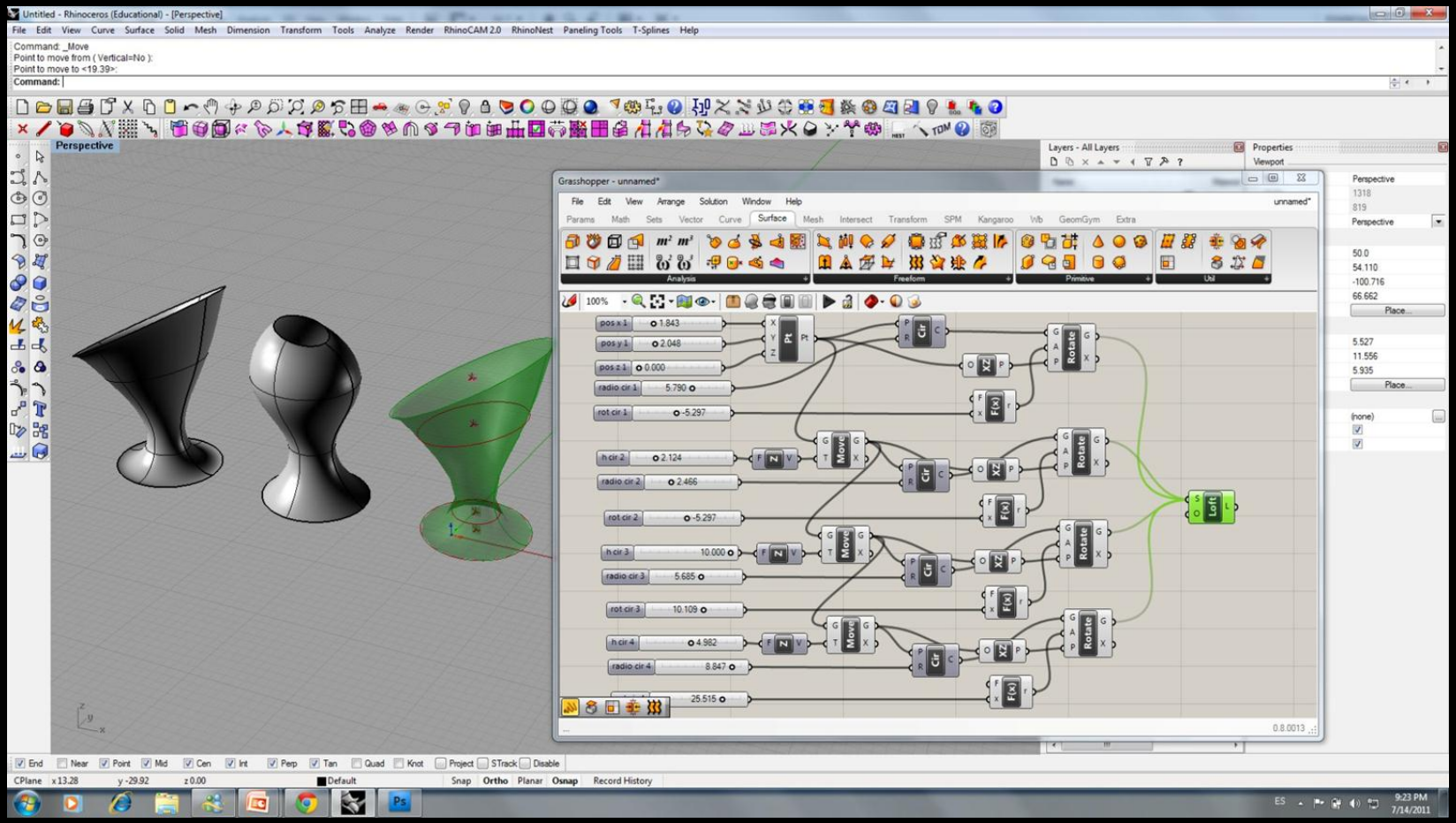

Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
Cir (Circle)
Create a circle defined by base plane and radius.


grasshopper
Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
Disable Preview on selection
pos x 1
pos y 1
pos z 1
radio cir 1
rot cir 1
h cir 2
radio cir 2
rot cir 2
h cir 3
radio cir 3
rot cir 3
h cir 4
radio cir 4
rot cir 4
Move
Rotate
Cir
F(x)


Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
4Point Surface
Extrude Linear
Offset
Pipe
Edge Surface
Loft Options
Revolution
Surface From Points
Sweep2
Extrude
Extrude Point
Offset Loose
Planar Srf
Loft
Rail Revolution
Sweep1
Loft
Create a lofted surface through a set of section curves.


Untitled - Rhinoceros (Educational) - [Perspective]
Perspective
Grasshopper - unnamed*
pos x 1
pos y 1
pos z 1
radio cir 1
rot cir 1
h cir 2
radio cir 2
rot cir 2
h cir 3
radio cir 3
rot cir 3
h cir 4
radio cir 4
Loft
Rotate
Move
Cir
Pt


Untitled - Rhinoceros (Educational) - [Perspective]
File Edit View Curve Surface Solid Mesh Dimension Transform Tools Analyze Render RhinoCAM 2.0 RhinoNest Paneling Tools T-Splines Help
Command: _Move
Point to move from (Vertical=No):
Point to move to <1.00>:
Command:
Perspective
Grasshopper - unnamed*
File Edit View Arrange Solution Window Help
Params Math Sets Vector Curve Surface Mesh Intersect Transform SPM Kangaroo Wb GeomGym Extra
Analysis Freeform Primitive Util
pos x 1 1.843
pos y 1 2.048
pos z 1 0.000
radio cir 1 5.790
rot cir 1 -5.297
h cir 2 5.990
radio cir 2 2.466
rot cir 2 -5.297
h cir 3 8.007
radio cir 3 5.685
rot cir 3 -6.107
h cir 4 4.982
radio cir 4 2.847
-19.080
Layers - All Layers
Properties
Viewport
End Near Point Mid Cen Int Perp Tan Quad Knot Project STrack Disable
CPlane x 10.37 y -22.83 z 0.00 Default
Snap Ortho Planar Osnap Record History
9:22 PM
7/14/2011


Untitled - Rhinoceros (Educational) - [Perspective]
File Edit View Curve Surface Solid Mesh Dimension Transform Tools Analyze Render RhinoCAM 2.0 RhinoNest Paneling Tools T-Splines Help
Command: _Move
Point to move from (Vertical=No):
Point to move to <19.39>:
Command:
Perspective
Grasshopper - unnamed*
File Edit View Arrange Solution Window Help
Params Math Sets Vector Curve Surface Mesh Intersect Transform SPM Kangaroo Wb GeomGym Extra
Analysis Freeform Primitive Util
pos x 1 1.843
pos y 1 2.048
pos z 1 0.000
radio cir 1 5.790
rot cir 1 -5.297
h cir 2 2.124
radio cir 2 2.466
rot cir 2 -5.297
h cir 3 10.000
radio cir 3 5.685
rot cir 3 10.109
h cir 4 4.982
radio cir 4 8.847
25.515
Pt
Cir
XZ
F(x)
Move
Rotate
Loft
Layers - All Layers
Properties
Viewport
End Near Point Mid Cen Int Perp Tan Quad Knot Project STrack Disable
CPlane x 13.28 y -29.92 z 0.00 Default
Snap Ortho Planar Osnap Record History
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