IEEE Vis ParaView Tutorial

October 13, 2009

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Tutorial Rules

• Ask Questions
• Fill Out Comment Form
• Watch Some If You Cannot Watch It All
Obligatory Funding and Contributors Slide

- Army SBIR
- ERDC Contract
- US NSF SBIR

- Support Contracts
  - Electricity de France
  - Mirarco
  - Oil Industry
What’s New

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Kenneth Moreland
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Old Script

```python
from paraview import servermanager

if not servermanager.ActiveConnection:
    pm = servermanager.ProxyManager()

if len(pm.GetProxiesInGroup("views")) > 0:
    view = pm.GetProxiesInGroup("views").values()[0]
else:
    view = servermanager.CreateRenderView()

sphere = servermanager.sources.SphereSource(
    sphere.ThetaResolution = 36
    sphere.PhiResolution = 36
)

pm.RegisterProxy("sources", "sphere", sphere)

elevation = servermanager.filters.ElevationFilter(Input=sphere)
elevation.LowPoint = [-0.5, 0.0, 0.0]
elevation.HighPoint = [0.5, 0.0, 0.0]

pm.RegisterProxy("sources", "elevation", elevation)

elevrep = servermanager.CreateRepresentation(elevation, view)

lt = servermanager.rendering.PVLookupTable()
lt.RGBPoints = [0, 0, 0, 1, 1, 0] # Blue to Red
lt.ColorSpace = 1 # HSV
elevrep.LookupTable = lt
elevrep.ColorAttributeType = 0 # point data
elevrep.ColorArrayName = "Elevation"

view.ResetCamera()
view.StillRender()
```

New Script

```python
from paraview.simple import *

sphere = Sphere()

sphere.ThetaResolution = 36
sphere.PhiResolution = 36

elevation = Elevation()
elevation.LowPoint = [-0.5, 0.0, 0.0]
elevation.HighPoint = [0.5, 0.0, 0.0]

SetDisplayProperties(ColorArrayName = "Elevation")
Show()

Render()
```
These are color categories. When assigning colors to objects, one can select one of these categories. In that case if color is changed in this dialog, then all colors assigned to the same category are updated automatically.
Experimental Features

• VisIt Database Bridge
• StreamingParaView