

The logo for FOSS4G 2006, featuring a stylized red and white graphic that resembles a ribbon or a stylized letter 'G'.

FOSS4G2006 - Free And Open Source Software

Contribution ID : 45

GRASS 3D and visualization

Tuesday 12 Sep 2006 at 10:30 (01h45')

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** 3D data and how to import or create them

* nviz: 3D navigation and fly throughs
  1. how it works
  2. examples

* nviz: working with 3D vector points with multiple attributes
  1. new symbols
  2. added features
  3. examples

* surfaces (2D raster)
* nviz: working with multiple surfaces
* nviz: create dynamic surfaces using file sequencing tool

*** 3D-vectors in GIS GRASS

* v.in.ascii,
* nviz and vectors,
* v.trees3d,
* v.extrude && v.drape

*** 3D data and how to export them to VTK

* Short introduction
  1. What is VTK
  2. Why VTK and GRASS
  3. Paraview

* Export of raster maps to VTK
  1. The difference between cell and point data (hint -> almost the same in
r3.out.vtk)
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2. Elevation maps
3. RGB maps (hint -> same in r3.out.vtk)

* Export of raster3d maps to VTK

1. Elevation maps
2. Vector maps (hint -> same in r.out.vtk)
3. Combination of volumes and top/bottom surfaces

* Export of vector maps to VTK

1. How to export points, lines, areas, centorids and faces separately or together

* Sophisticated visualisation with Paraview

1. Contour filter (raster and raster3d maps)
2. Cutting and clipping filter (vector, raster and raster3d maps)
3. glyph3d and streamline filter (vector, raster and raster3d maps)
4. Tube filter (vector)
5. Threshold filter

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