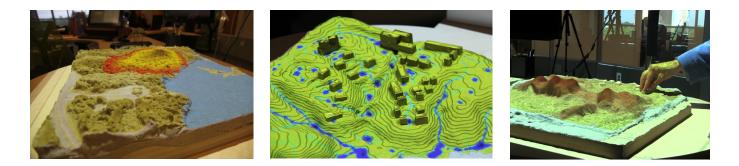
OSGeo Research and Education Laboratory Center for Geospatial Analytics North Carolina State University

Tangible Landscape



Tangible Landscape is a collaborative modeling environment for analysis of terrain changes. We couple a scanner, projector and a physical 3D model with GRASS GIS. We can analyze the impact of terrain changes by capturing the changes on the model, bringing them into the GIS, performing desired analysis or simulation and projecting the results back on the model in real-time. Tangible Landscape, as an easy-to-use 3D sketching tool, enables rapid design and scenarios testing for people with different backgrounds and computer knowledge, as well as support for decision-making process.

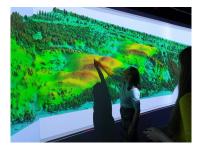
Tangible Landscape has been used for a variety of applications supported by the extensive set of geospatial analysis and modeling tools available in GRASS GIS. We have explored how dune breaches affect the extent of coastal flooding, the impact of different building configurations on cast shadows and solar energy potential, and the effectiveness of various landscape designs for controlling runoff and erosion. Have a look at our NCSU OSGeoREL website, Youtube channel, or Google+ profile.



http://geospatial.ncsu.edu/osgeorel/

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NCSUOSGeoResearch and Education Laboratory OSGeoResearch Analytics

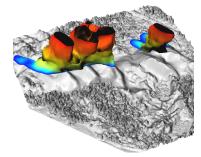


Mission

Our mission is to develop collaboration opportunities for academic, industrial, and government organizations in free and open source GIS software and data domain.

Teaching and open education

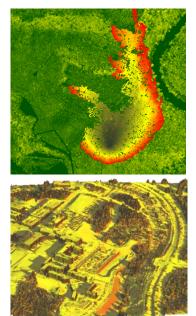
We teach GRASS GIS and other free and open source GIS software and share our teaching material online.



Research

We work on analytical visualizations techniques for 3D and 4D data such as lidar data time series and soil properties changes. We publish in open access journals and journals which have high reproducibility requirements.

GRASS GIS OSGeo Foundation project



New 7.0.0 release on February 20, 2015

After many years of development the new stable major release was published on February 20, 2015.

Vector, raster, 3D rasters and image processing

Wide range of new features was added in the new release; existing functionality was significantly optimized.

Spatio-temporal data handling

GRASS GIS 7 comes with functionality to process spatiotemporal data in GIS environment.

Graphical user interface and visualization

GRASS GIS includes visualization tools for 2D, 3D and 4D data. Graphical interface and visualizations can be also controlled using Python interface.