



FOSS4G2006 - Free And Open Source Software

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Power User Workshop: GRASS image processing (with focus on optical and Lidar data)

Tuesday 12 Sep 2006 at 15:45 (01h45')

GRASS is a full-featured, open source Geographic Information System (GIS) with graphical user interface and scripting environment for raster and vector spatial analysis. The participants of this workshop will gain hands-on experience with a specialized field, the optical and Lidar remote sensing and image processing.

The workshop is organized in two parts. In part 1 we will show optical data processing and image classification. In part 2 we focus on LIDAR (Light Detection and Ranging), which is one of the most recent technologies in surveying and mapping. Lidar allows us to obtain very accurate and high resolution Digital Surface Models (DSM). For many applications the Digital Terrain Model (DTM) is needed: we will automatically detect and discard from the DSM all the objects (buildings, trees, etc.) present on the terrain. Participants will work with Lidar data and learn how to process massive point data sets in GRASS. We conclude with watershed analysis using Lidar-based DEMs and terrain change studies using multitemporal DEMs.

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