

Abstract for American Geophysical Union Fall Meeting Dec 14-18, 2009

CONTROL ID: 715005

TITLE: Environmental and Landscape Remote Sensing Using Free and Open Source Image Processing Tools

PRESENTATION TYPE: Assigned by Committee

SECTION/FOCUS GROUP: Earth and Space Science Informatics (IN)

SESSION: Open Source Remote Sensing Software and Applications for Earth and Environmental Science (IN18)

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ABSTRACT BODY: As global climate change and human activities impact the environment, there is a growing need for scientific tools to monitor and measure environmental conditions that support human and ecological health. Remotely sensed imagery from satellite and airborne platforms provides a geospatial foundation for environmental mapping. Remotely sensed imagery is becoming increasingly abundant, and increasingly accessible through virtual globes, web mapping services and other online services. Can we increase users' capacity to utilize remotely sensed imagery with free and open source software tools? In this presentation, we present examples of environmental landscape mapping using imagery derived from NASA World Wind using the EPA Data Export Plug-in, and processed using open source software plug-ins.
<http://www.epa.gov/nerlesd1/>

KEYWORDS: [0480] BIOGEOSCIENCES / Remote sensing, [0830] EDUCATION / Teacher training, [1640] GLOBAL CHANGE / Remote sensing, [0493] BIOGEOSCIENCES / Urban systems. =