PRESTIGE - A User-Oriented Interactive Portal for Purdue Terrestrial Observatory Remote Sensing Data Access

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Introduction: *PRESTIGE* is a web-based system for near-real-time access to the Purdue Terrestrial Observatory (PTO) satellite image data. The focus of the *PRESTIGE* system is to enable interactive PTO data and information access, including subscription, and dissemination. Different from a traditional remote sensing data system, PRESTIGE uses Web 2.0 and service-oriented distributed workflow technologies to create an efficient, user-oriented web based environment for processing, management, and delivery of customized remote sensing data in near real time. It gives users the ability to specify the data products they want and have the back-end data production system dynamically generate and deliver the products. This system serves users from research and education communities, ranging from K-12, college, to technical training.

PTO currently provides remote sensing data from the NOAA GOES-East, NASA MODIS Terra/Aqua and NOAA AVHRR satellite sensor systems.

Current Capabilities: *PRESTIGE* allows users to subscribe to the following products for the respective sensors:

Aqua & Terra MODIS
  MOD02 - Level 1B Calibrated/Geolocated
  MOD09 - Reflectance
  MOD09 - True Color
  MOD09 - NDVI+EVI
  MOD09 - NDVI Weekly Composite
  MOD09 - NDVI Bimonthly Composite
  MOD11- Land Surface Temperature
  MOD14 - Fire Detection

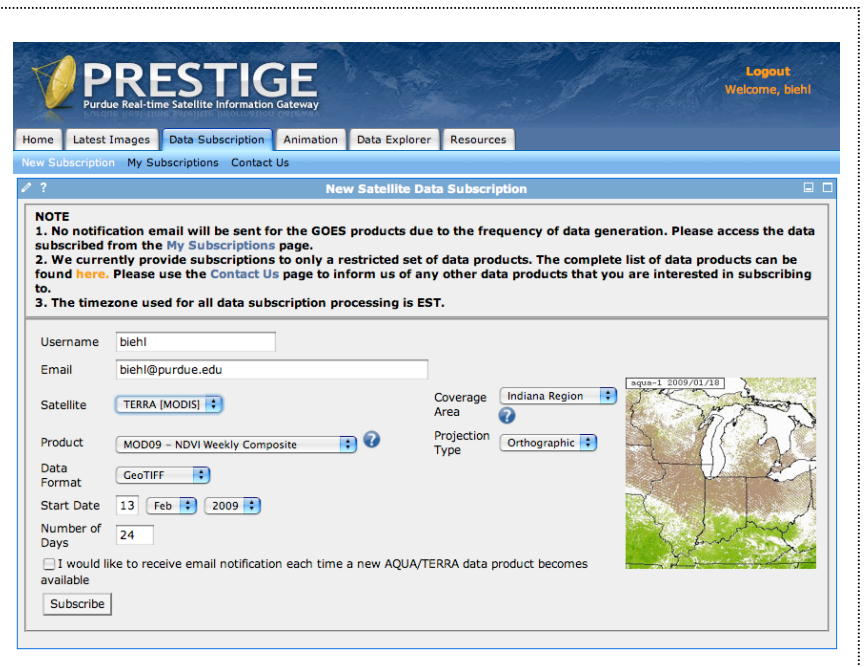GOES GVAR
  Level 1 Calibrated Geolocated
  Cloud Products
  Clouds on MODIS Blue Marble

Combined Aqua & Terra MODIS
  MOD09 – EVI Bimonthly Composite
  MOD11 – LST Weekly Composite

The geographical coverage areas for Aqua & Terra MODIS are: 1) State of Indiana; 2) Region around Indiana including Indiana, Michigan, Ohio, Kentucky, Illinois and Wisconsin; 3) the Entire Pass and 4) the Conterminous US. The coverage areas for GOES GVAR are: 1) Region around Indiana including 22 other states; 2) the Conterminous U.S. and 3) the

Figure 1. The "New Subscription" page above allows users to subscribe to a defined set of near real-time image products for local, region and entire pass geographical coverage area.

earth disk centered on 75 degrees West longitude. Other areas are added as needed for specific projects.

The current projections for the image data are Transverse Mercator for Indiana and Orthographic for the Indiana Region and for the entire pass coverage areas and Albers Conic Equal Area for the Conterminous US.

Data formats (depending on the respective product): can be hdf, geotiff, jpeg or png.

Users can request that a notification email be sent to them when a product is ready.

Future: Users can also request that other products be made available as long as they are available in the processing suite of software being used.

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FOR FURTHER READING:
http://www.purdue.teragrid.org/prestige