

Geospatial Research Data Management

Crop Yield Modeling Project

- Web manage, share geospatial data
- Annotate, extend automatically extracted metadata
- Keyword + geospatial bounds search

- Web preview of spreadsheet, geospatial (raster, vector) data
- Support for point data exploration, multiple base maps
- Files processed on-demand

Crop Yield Modeling Project

- Publish any set of files; metadata automatically bundled as RDF document
- DOI generated automatically

Geospatial Research Data Management

GABBs

Geospatial Data Management

Geospatial Processing & Visualization Tools, Toolkits





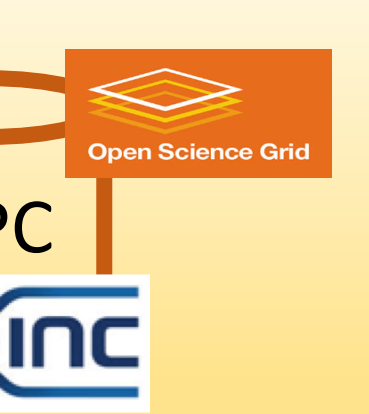



Content Management System

- User, community management
- Resource publication
- Instruction
- Collaborative research, web applications

Middleware

- Tool container management
- Load balancing tool execution hosts
- Rapture tool development toolkit

hubzero cyberinfrastructure Framework

External Resources

Education/Outreach

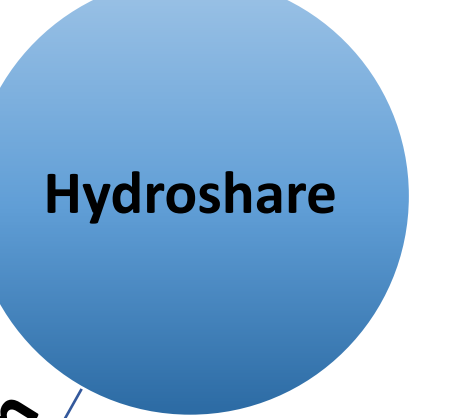
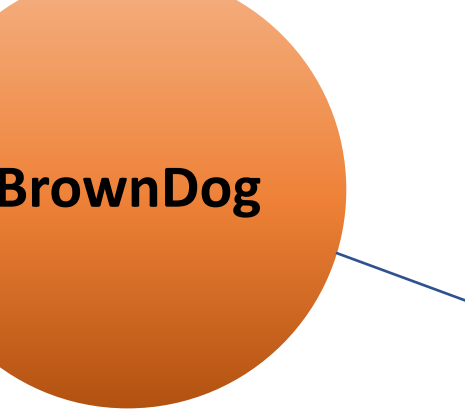
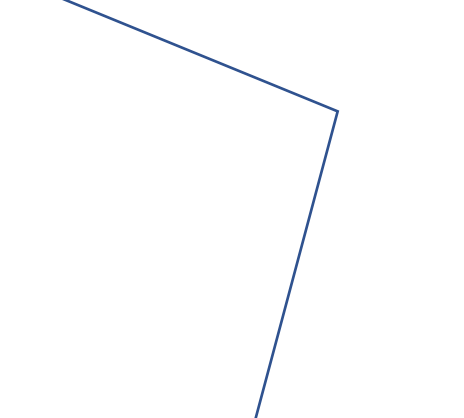
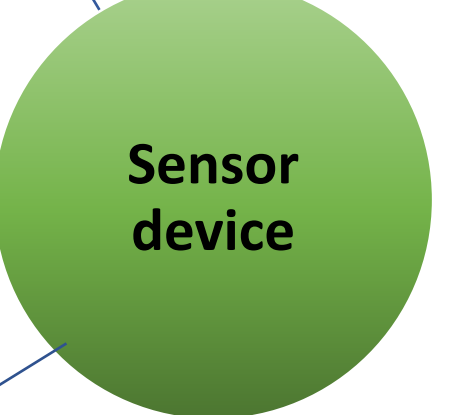
- MultiSpec used in outreach efforts by the GLOBE program, USGS and in Purdue's TOTAL (Turned On Technology and Leadership) Camp for middle school students in 2016, 2017
- GABBs toolkits and tools used along with Jupyter and R Studio for self-paced online courses and tutorial at PEARC17
- MyGeoHub used in the 2018 SCGI Hackathon

Education/Outreach

Geospatial Processing & Visualization Tools, Toolkits

- MultiSpec:** Visualize, process multi, hyperspectral geospatial data
- GeoBuilder:** Explore, visualize, filter geo-located spreadsheet data
- PyMapLib:** map & geospatial visualization toolkit

- Source agnostic metadata processing
- Launch tools from data management interface

- Access hydrologic models, data
- Launch MultiSpec directly on resource
- Use file converters and extractors
- Submit file for additional metadata extraction
- Transfer data from handheld devices in field
- Process/analyze data in GABBs tools
- Use GABBs tool in SERC education module
- CILogon support for institutional login

Interoperability