GEONIS: Management, documentation, and publication to the NIS of spatial data

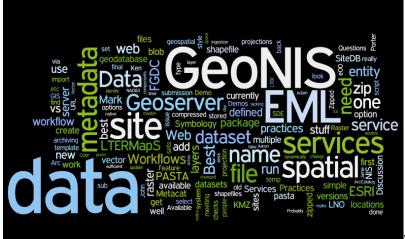


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 $\operatorname{Home} > \operatorname{GIS} > \operatorname{GEONIS}:$ Management, documentation, and publication to the NIS of spatial data

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Fri, 02/24/2012 - 11:26am — tvalentine



 $\mathrm{Th}\epsilon$

LTER GIS Working Group began the LTERMapS project to add a common geographic look into the LTER site level data stored in SiteDB, and to begin the process of integrating geographic/spatial data into the NIS. The first phase of LTERMapS resulted in a Google Maps application deployed from the LTER Network Office (http://www.lternet.edu/map/ [1]). The next phase is to provide a portal for more detailed site level data and linkage to study site data for five pilot LTER sites. Traditionally spatial data has been stored in systems and formats that were separate from many long term tabular study databases, and the metadata was created to the Federal Geographic Data Committee (FGDC) standard for geospatial metadata. IM supplement funds were used in 2010 to begin creating metadata for spatial data and to investigate translators for converting the metadata to EML, meeting LTER EML Best Practices. This provided a strong knowledge base to continue working toward developing "PASTA ready" spatial data for LTER sites.

Update: September 2013

The GeoNIS working group, coordinated with University of New Mexico to contract with Ron Beloin to automate a workflow to bring PASTA data with a spatial component (SpatialRaster and SpatialVector EML tags) into a centralized geodatabase, quality check the EML and data, and create web services for each LTER site. The contractor also created a user interface where sites can view their spatial data, link to map and image web services, and view a report on their data (check for errors). The programs are developed as tools within the esri toolbox structure (programed in Python), and are located on a server in the LNO office. The application is programmed with the ArcGIS Javascript API, and is available at the following link: http://geonis.lternet.edu/ [2].

Specifications for the projects were developed at a meeting with the contractor, GeoNIS working group, and LNO staff in January of 2013. Additional on-line meetings were held throughout the contract period, and a demonstration of the capabilities of the system was presented to the Information Managers Committee

and during a working group breakout session, at their 2013 annual meeting in Fairbanks, Alaska.

Following discussions with LNO staff at the LTER Information Managers Committee in Fairbanks, a value added product was discussed to provide a geoprocessing service that PASTA could initiate for a data check, prior to data being placed in the production PASTA portal. The current GeoNIS tools work in production and testing mode. It would be possible to have sites submit data to the testing mode before submitting their data to PASTA. The contractors did not have time to complete this task on this contract. They did outline a process for the task, and estimate that it would take about 80 hours to complete the task at a cost of \$3,200.

The GeoNIS working group has committed to monitoring the project, and will be moving it to production mode (where the workflow runs on a schedule, searching PASTA for new spatial data, and running the workflow and updating the web services).

The GeoNIS working group would like to acknowledge the support it received from the LTER Network Office to fund this development. The project has helped sites document their spatial data with EML, incorporating said data into PASTA, and provides services to the sites for their spatial data. In addition, several LTER sites provided sample datasets for testing, and worked to improve the workflow and best practices for documenting spatial data.

Members of the GeoNIS working group are: Adam Skibbie (KNZ), Theresa Valentine (AND), Jamie Hollingsworth (BNZ), and Aaron Stephenson (NTL). Contractors were Ron Beloin and Jack Peterson

Downloads

• View all releases [3] [4]

Development

• View pending patches [5]

Attachment	Size
Final report on the GeoNIS workflow project September 2013.docx [6]	63.27 KB
GeoNIS working group notes from IM Meeting in Fairbanks 2013 (docx) [7]	$19.36~\mathrm{KB}$
Report on the GeoNIS meeting at the LTER Network Office January 2013 [8]	$20.06~\mathrm{KB}$
GEONIS Diagram, version 2 [9]	$145.38~\mathrm{KB}$
GEONIS.pptx [10]	$189.2~\mathrm{KB}$
GEONIS Conference Call Notes 3/29/2012 [11]	$17.92~\mathrm{KB}$
Metadata_presentation.pptx [12]	$64.43~\mathrm{KB}$
GeoNIS Agenda (docx) [13]	$15.43~\mathrm{KB}$
Results of Spatial Raster instances in EML (pdf) [14]	$206.19~\mathrm{KB}$
Results of Spatial Vector instances in EML (pdf) [15]	$120.5~\mathrm{KB}$
GeoNIS Components v3.0 [16]	$159.84~\mathrm{KB}$
geonis_wordle1.jpg [17]	$109.33~\mathrm{KB}$

Attachment	Size
GeoNIS Workflow Group Notes.docx [18]	108.98 KB
GeoNIS_Meeting_Notes_AS1.docx [19]	96.15 KB

- GIS concepts [20]
- gisData [21]
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Source URL: http://im.lternet.edu/project/GEONIS

Links:

- [1] http://www.lternet.edu/map/
- [2] http://geonis.lternet.edu/
- [3] http://im.lternet.edu/node/988/release
- [4] http://im.lternet.edu/node/988/release/feed
- [5] http://im.lternet.edu/project/issues/search/GEONIS?status[]=8&status[]=13&status[]=14
- [6] http://im.lternet.edu/sites/im.lternet.edu/files/geonis_project_contractor_reports.docx
- [7] http://im.lternet.edu/sites/im.lternet.edu/files/GeoNIS_Working_Group_notes_2013.docx
- [8] http://im.lternet.edu/sites/im.lternet.edu/files/Report on the GeoNIS meeting at the LTER Network Office.docx
- [9] http://im.lternet.edu/sites/im.lternet.edu/files/geo_diagram2.jpg
- [10] http://im.lternet.edu/sites/im.lternet.edu/files/GEONIS.pptx
- [11] http://im.lternet.edu/sites/im.lternet.edu/files/geonis_call3_29_2012_0.docx
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- [20] http://im.lternet.edu/taxonomy/term/107
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