

Southern Appalachian Regional Information System

SARIS

Progress Report, July 28, 2000

SARIS node of the National Geospatial Data Clearinghouse

Despite repeated queries, we did not hear until July 27 from the Federal Geographic Data Committee's contractor who was supposed to follow up on the problems with the isite catalog server software after he wrote on June 21 that he would check things out "in the next day or so." Five weeks later he has promised to "look things over this weekend when I return [from travel] and get back to you early next week." On the same day, we received a message from FGDC's Doug Nebert, offering his personal help. We had been copying him on our messages to the contractor. Now that this matter has gotten his attention, we hope a resolution is near.

SunSITE and SARIS software installation

The convergence of several factors has led to long delays in SunSITE system administration tasks. UT computer personnel, including Ron Tipton, our system administrator, got assigned to a series of high-priority tasks related to initiatives of the new university president. Some of these activities, such as the reengineering of the campus network backbone, will benefit us in the long term, but they have been causing slowdowns or temporary suspensions of regular duties. Last week, a part-time assistant was assigned to the SunSITE system administrator. Once this new aide has learned the ropes, more time should be available to catch up on backlogged installation and configuration jobs that have grown even more rapidly with the arrival of new hardware and software purchased from end-of-fiscal-year funds. Nine new boxes awaiting installation are sitting in Ron's office, including a powerful new Sun Enterprise Server for SunSITE. To make matters worse, Ron's wife had a bad accident several weeks ago. She had surgery twice and needed much help from her husband, so he could not put in the extra hours he usually does.

As one of the consequences of these bottlenecks, the Lyris communications-server software on SunSITE was down for some three weeks until it got resuscitated on July 19. We purchased a Lyris List Manager Multiview Silver software license, which will allow us to create an unlimited number of mailing lists/discussion groups, each with up to 500 users. It will support synchronous email, NetNews, and web interfaces. We now are waiting for installation of the license code and the upgrade to version 4.0 of Lyris. We have been assured that this will be installed before the end of the month, barring unforeseen problems. So, we should have the messaging system up for public use early in August.

At long last, we received our copies of ArcIMS 3.0, the new Internet Map Server from ESRI. While we are waiting for it to be installed on SunSITE, we have been exploring configuration options on a standalone development system. ArcIMS 3.0 is very powerful software requiring a complex infrastructure and very substantial system resources (we had to upgrade our development system to 320 MB of RAM). There still are many inconsistencies in the documentation and several "known problems," particularly with Windows 2000. In our SARIS configuration, ArcIMS 3.0 requires the Java Runtime Environment, Apache JServ servlet engine, ArcSDE, ArcSDE for Coverages, and Oracle. All of these are non-trivial installations that require considerable thought to avoid software conflicts and optimize performance. The end user, however, will not see this complexity. We are very impressed with the quality of the mapping interface that can be made available—even without Java at the client end—in any web browser that supports Javascript.

Web-mapping testbed

We have not received official notification yet, but we discovered a list on the website of the Federal Geographic Data Committee (FGDC) showing that SAMAB did not receive the web-mapping testbed grant we had applied for.

We are exploring other funding possibilities as well as cooperation with ESRI on the Geography Network, a recently-announced initiative to establish a global network for accessing and exchanging geospatial data. The Geography Network will be launched this summer. All future ESRI client software will feature built-in user interfaces for the Geography Network. The open interface specifications, which can be implemented by any vendor, also support data discovery and access via the present NSDI protocols.

SARIS spatial data warehouse

The SAA vector datasets now are available at <http://samab.org> as stuffed shapefiles alongside the previous zipped ArcInfo export files. They will save download and conversion time for users of ArcView, ArcExplorer, and other software that can read shapefiles.

We also have made available all the figures from the published Southern Appalachian Assessment report as individual PDF (Portable Document Format) files that can be viewed and printed with the free Adobe Acrobat Reader. Previously these graphics were available only as EPS (Encapsulated Postscript) files, which most patrons found difficult or impossible to use. While these figures are actually included in the PDF files containing the full text of the SAA reports, they are reproduced in those reports only in black and white, which makes it much harder to distinguish mapped features. Our new series of individual PDF files makes it much easier to print out good-looking color copies and overhead transparencies for presentations.

Presently all the new files can only be accessed through directory listings of the SAA data. We are working on a new, much more user-friendly index to the SAA database with extensive search and preview capabilities. We have also been experimenting with ways to make SAA raster data more easily accessible. A few of these datasets are now available as stuffed BIL (Band Interleaved by Line) multiband images, which can be directly viewed with ArcView and ArcExplorer after unstuffing. We also are experimenting with other formats and will be seeking user input on the available options shortly.

We discovered some corrupted or missing SAA files on the SAMAB web site and replaced or added them.

Metadata

Wolf Naegeli took an FGDC metadata workshop at SAIC in Oak Ridge to obtain FGDC metadata certification. We still have not heard from SAIC, however, for how many and which of the SAA datasets they are planning to generate standard metadata. The University of Tennessee Library has been awarded \$3,300 to prepare metadata for some of the SAA under the FGDC's "Don't Duck Metadata" cooperative agreements program. The Library had applied for a grant of \$10,000. Mandatory training and software costs will require a good portion of the grant, so the amount of actual work that can possibly be completed under the small grant will be fairly limited.

Wolf is now preparing templates for SAA metadata to assure consistency and avoid redundancy among the efforts of those who will generate metadata for us. He met with Dennis Yankee and Roger Tankersly of TVA to discuss SAA data issues and metadata requirements.