Unidata
Providing data services, tools, & cyberinfrastructure leadership that advance Earth system science, enhance educational opportunities, & broaden participation

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Data: the series begins. UNIWISC

Measuring impacts is a tricky business. To say that on any given day, approximately 104 domains and 167 sites receive the Unidata-Wisconsin datastream and that of these nearly one hundred are educational domains may lend some support to the assertion that the "Uni-Wisc" datastream is having and has had a significant impact on education and research endeavors among members of the Unidata community.

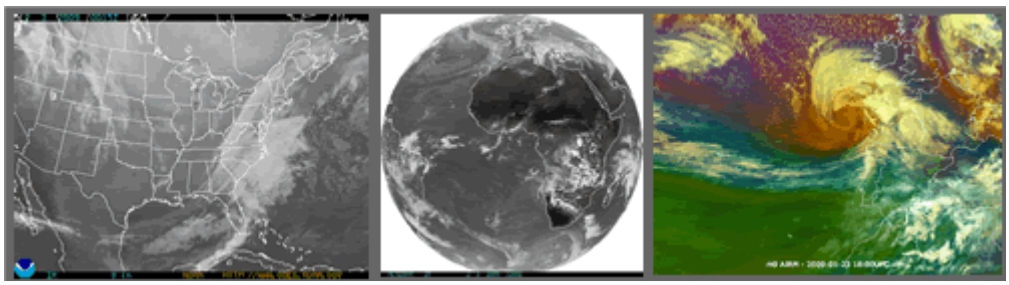
If the term "venerable" can be applied to a datastream, UNIWISC has earned it. Its origins date from 1987 when a McBe (McIDAS Broadcast Evaluation) committee was formed by the University of Wisconsin with a mandate of determining the products to be included in the Wisconsin Broadcast. (A second arm of the mandate was evaluating the preliminary and final versions of the McIDAS software.) The preliminary list of products included: hourly visible and infrared GOES data; graphical products of the NMC numerical grid point data; graphical products of surface data for 12 U.S. regions; and, list of text of surface hourly observations by state.

It would be safe to assume that UNIWISC has evolved and expanded in the 20 or so years since then, and indeed it has. See the table below for a list of products currently provided in the UNIWISC IDD datafeed:

Satellite Imagery:	
Frequency	Product
3 hr	Antarctic 10.7 um IR Global Composite
3 hr	Mollweide Multi-satellite Composite (nominal) 10.7 um thermal IR
3 hr	Mollweide Multi-satellite Composite (nominal) 6.8 um Water Vapor
1 hr	Manually Digitized Radar
0.5 hr	GOES-West (currently GOES-11) 0.65 um Visible
0.5 hr	GOES-West (currently GOES-11) 3.9 um IR
0.5 hr	GOES-West (currently GOES-11) 6.8 um Water Vapor
0.5 hr	GOES-West (currently GOES-11) 10.7 um IR Band 4
0.5 hr	GOES-West (currently GOES-11) 12.0 um thermal IR
0.5 hr	GOES-East (currently GOES-12) 0.65 um Visible Composite

	(Includes GOES-10)
0.5 hr	GOES-East (currently GOES-12) 3.9 um IR Composite (Includes GOES-10)
0.5 hr	GOES-East (currently GOES-12) 6.5 um Water Vapor Composite (Includes GOES-10 even though GOES-10 WV is 6.8 um)
0.5 hr	GOES-East (currently GOES-12) 10.7 um thermal IR Composite (Includes GOES-10)
0.5 hr	GOES-East (currently GOES-12) 13.3 um CO2
Satellite Derived Products	
Frequency	Product
1 hr	Cloud Top Pressure
1 hr	Precipitable Water
1 hr	Lifted Index
1 hr	CAPE
click for larger table	

Archived data is available. See: http://www.unidata.ucar.edu/data/unirec.html.



University of Missouri-Columbia

Patrick Market, University of Missouri-Columbia

The overarching purpose of the equipment award proposal University of Missouri-Columbia (UMC) wrote in 2007 was the desire to integrate the Integrated Data Viewer (IDV) into our program's daily analysis, forecasting, and educational routine. The introduction of the new generation of computers purchased with these funds has allowed our students to embrace fully the (IDV) and its capabilities.

During the spring 2008 semester, the IDV became a mainstay in map discussions in the Synoptic Meteorology II course. On occasion, the IDV was the sole platform for conducting that day's weather briefing. In addition to the systems spun up on the newer Linux cluster, the IDV was installed on the new Windows-based machines as well, and many students then downloaded the software for even broader use on their personal PCs and laptops.

The historical configuration in the UMC Atmospheric Science Program (ASP) since the late 1990s had been Unix platforms with a few associated Windows-based machines, the latter providing a critical bridge between our data and analysis source (the Unix cluster) and the standard campus means of creating assignments (Windows Office software). In recent years, campus mandates have forced the UMC ASP to adopt Red Hat Linux as the operating system for the workstations in the Weather Analysis and Visualization (WAV) lab. Because of Unidata funding, the transition of the UMC WAV Lab to a completely Linux environment is nearly complete.

With funds received from the award, we purchased a total of six Dell computers. Of these, three became Windows-based machines, and one became the teaching machine in the WAV teaching and research laboratory. That system is used by faculty and students for classroom teaching as well as conducting weather briefings and map discussions, primarily in the Synoptic Meteorology I & II sequence. Other courses that make regular use of these systems include Daily Analysis and Forecast Interpretation and Radar Meteorology as well as graduate-level classes including Numerical Weather Prediction and Advanced Synoptic Meteorology. The three remaining Dell systems that were purchased were configured with Red Hat Linux and replaced aging UNIX systems in the UMC WAV Lab.

Because of price declines, systems specified in the proposal, we were able to purchase additional memory for each of the three Linux systems. One of these machines has become dedicated largely to performing simulation studies of various meteorological phenomena using the Weather Research and Forecasting (WRF) model. These results have been used for both research and educational purposes.

Editor's Note: The 2007 Equipment Award Request for Proposals specified special consideration to proposals that further the use of the Integrated Data Viewer (IDV).

Software updates

GEMPAK:
A new beta release of GEMPAK / N-AWIPS (5.11.4) is now available. See the GEMPAK 5.11 home page for a list of new features and download information: http://www.unidata.ucar.edu/software/gempak/GEMPAK5.11/

IDV:
January 29, 2009, developers announced the release of IDV 2.6, Update 1. An update of the Integrated Data Viewer (2.6u1) is now available for download. This update fixes some bugs in the 2.6 release which includes remote access to Level III and TDWR radar from a THREDDS Data Server (TDS), PDF/PostScript output, display of weather text products, and a Barnes objective analysis for point data. Please see the release notes for a complete list of new features.

THREDDS:
A new stable release of the THREDDS Data Server, v. 3.17, was announced on the Unidata home page on January 23, 2009. This release includes enhancements that give TDS more layers of security, developed in close consultation with NOAA security experts.

News briefs

VACT Project
We featured the VACT (Volcanic Ash Coordination Tool) project in the January 2006 issue of the CommunitE-letter. That issue appeared at a time when the volcano, Mt. Augustine, was active and erupted a total of eight times in one week. To revisit that news item seems a propos at this time since warnings about an eruption at Mt. Redoubt seems to be imminent. Both the VACT project and the Alaska Volcano Observatory (AVO) are LDM-IDD data users.

Users Workshop
Unidata's triannual users workshop is scheduled this year for 8-12 June 2009 in Boulder. The theme is Using Operational and Experimental Observations in Geoscience Education. Six focus areas have been identified: Remote Sensing, Data Assimilation, Instrumentation, Climate Observations, Field Experiments, and Research and Operational Networks.The workshop will feature a mix of hands-on labs with informative presentations as well as a few social events designed to allow participants to converse and get to know one another.

Equipment Awards
We're happy to announce the 2009 Unidata Community Equipment Awards solicitation, described below, along with the proposal submission requirements. A total of $100,000, including UCAR overhead, is available for awards this year. Proposals for amounts up to $20,000 will be considered. The deadline date for submitting proposals is March 16, 2009. Notification of award status will be made by mid May, 2009. Special consideration will be given to proposals that enhance participation and advancement of underrepresented populations, and to those that will provide useful datasets to the Unidata community to support education and research. The RFP provides more information.

AMS Fellow

Unidata director, Mohan Ramamurthy, was named a Fellow of the AMS at the annual meeting in Phoenix, Arizona. Mohan is pictured at left with AMS president, Walt Dabertt. At right is the notice that was posted in the lobby at the conference hotel.