

Unidata

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

CommunitE-Letter

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Regional workshop at the University of Oklahoma

by Fred Carr, Director, School of Meteorology

The University of Oklahoma hosted a Unidata Regional Workshop on September 10-12, 2007 at the new National Weather Center (NWC) building in Norman. The primary purpose of the two-and-a-half day workshop was to provide training for new IDV users, Unidata's Java-based geoscience data analysis and visualization software. In addition, participants were given an overview of the Linked Environments for Atmospheric Discovery (LEAD) project by Kelvin Droegemeier, and they used the LEAD portal to submit a WRF model run. They used IDV tools to analyze the output from that run later in the day. Another highlight was a talk given by Mohan Ramamurthy on "[Unidata: a Program of the Community, by the Community, and for the Community](#)" presented to 80 attendees despite a (false) fire alarm preceding it! Participants also were briefed on the THREDDS software, had the opportunity to look over the WDSS-2 radar data analysis software being developed at NSSL, and see 3-D visualization of radar data. Coffee breaks and icebreakers were distributed throughout the NWC so that many of the features of the building could be visited.

Don Murray and Jeff McWhirter, Unidata developers, led three IDV sessions. Here participants learned installation and basic use of the package, followed by explanation of the more in depth functionality of the IDV, including learning about the Jython interface and how to create custom formulas. There was also a "Unidata in the Community" poster and oral session in which attendees presented their use of the IDV and other software in the classroom and research. At the end of the workshop, a "Meet the Developers" session provided the opportunity for attendees to interact one-on-one with Don and Jeff.



There were 24 attendees from 11 different organizations, and from as far away as the University of North Florida. A number of people from the NOAA organizations in the NWC participated as did two from the private sector. Fred Carr and Mark Laufersweiler were the workshop organizers at OU and Linda Miller, Don and Jeff were the Unidata organizers. Several SoM students and staff assisted as well, including Sean Arms, the Unidata student rep to its Users Committee. See Sean's comments in the accompanying text box.

I'm pretty new to the IDV. For me, the "ah ha" moment occurred when I saw the bigger picture and truly understood the name, Integrated Data Viewer. Don and Jeff showed how easily each users's images could be added to the IDV. They then demo'ed the IDV's ability to play movie files, like .avi and quicktime .mov files, which is a neat tool that could be used to create more informative bundles). The final piece of the "big picture puzzle" fell into place when they showed how the IDV could display web camera streams, potentially useful during field campaigns. At first, I thought justifying IDV's usefulness in field campaigns would be a hard sell, because they tend to focus on the microscale; but after seeing a broader view of the package's capabilities, that concern has been removed. Sean Arms

WSR-88D Super Resolution Level II Radar Data

Prepare yourselves. The data deluge is coming. And it'll be here before you know it. WSR-88D Build 10 or Super Resolution Level II radar data will make its debut soon. The projected date for the build to go into beta release is February 2008.

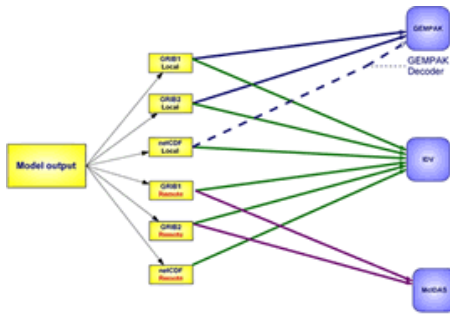
What exactly is "Super Resolution" WSR-88D data? The data provides twice the azimuthal resolution (0.5 degree versus today's 1.0 degree) and increases the range resolution of reflectivity data from 1 km to 0.25 km. As of August 31, 2007, there are [134 operational](#) NEXRAD systems in the continental United States and one in San Juan, Puerto Rico that are sending Level II data to users in real time.



Photo Credit: NOAA

Of 170 Unidata sites, 102 are subscribed to the NEXRAD2 data feed. That means that 102 of you will feel the pinch (or experience the joy) of this data which is 2.3 times greater than what you are receiving at present. You may think that you want it; you may think that you'd love it, but unless you have adequate bandwidth and change your data ingest software, you will be unable to use it--without giving up something else that is. The NWS is still determining the strategy and timing for implementing Super Res data in the Level II data stream due to the costs for the required bandwidth to transport the data.

Frequently check back at the web site listed below for updates. However, the format of the data will change from MSG1 to MSG31 as sites begin installing Build 10 software with the Build 10 Beta test. So, users must change their Level II ingest software to correctly decode the Build 10 Level II data stream.



What to do? NOAA has created an informative web site: http://www.roc.noaa.gov/NWS_Level_2/BuildInfo/b10main.aspx. which provides you with a wealth of information about Build 10. Unidata packages [GEMPAK](#) and [IDV](#) are preparing to accommodate the increased volume and the higher resolution of the data.

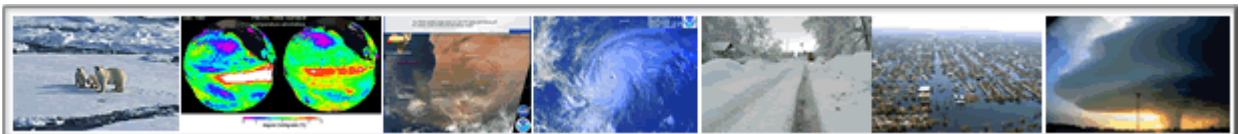
You'll find answers to many other questions at the WSR-88D Build 10 [FAQ](#). Or, contact [Tim Crum](#) at NOAA for more information.

Editor's Note: Tim Crum made substantial contributions to this article, for which we are grateful.

News Briefs

Unidata's Strategic Plan

A couple of weeks ago, we announced the completion of [Unidata's Strategic Plan](#) on the program office's [home page](#). The plan was written and designed to guide the program for the next five years and to serve as a map for the construction of its five-year funding proposal. While the scope and reach of the plan are broad, it is grounded to a well-established set of core values and governing principles that have guided Unidata since its inception. We invite you to read the plan and send your comments on its contents, vision, and goals to info@unidata.ucar.edu.



Data-flow Quick Help

Unidata associate scientist, Jeff Weber, has created a multi-layered, comprehensive [web document](#) that will assist you in locating and understanding data available through the program center. Jeff's document leads off with data types, formats, access protocols, and clients headers. Each of those headers contains links to more images and information. For example, "Data Type", when selected, expands to a diagram that illustrates the current display capabilities and maps out the process of how to use that type of data with Unidata tools. In addition, every object provides information about the data or format, and can be followed to find examples of how the data will look when visualized with Unidata clients.

OGC Interoperability Day

A series of meetings of the Open Geospatial Consortium took place in Boulder the third week in September, the 10th through the 17th. Included were meetings of the technical committee, a special GEOSS (Global Earth Observation System of Systems) workshop, and a special [Interoperability Day](#) took place on Wednesday the 19th. An outstanding group of [presentations](#) were made during the day. Webcasts of both [morning](#) and [afternoon](#) sessions are available. We will present a more in-depth look at Interoperability day in the November e-letter.