

Latin American Data Workshop

Unidata Staff

By all accounts last month's data workshop organized in collaboration with the University of Sao Paulo, and the Brazilian Meteorological Society (SBMET), was a resounding success. Attendees numbered about 50, plus or minus one or two, and their enthusiasm kept many of them sticking around until after its completion on Saturday evening August 23rd. Graphic confirmation of that enthusiasm is shown in the image below that shows learners participating in a hands-on IDV tutorial session.



The University of Wisconsin's Tom Whittaker, long-time activist in the Unidata community, contributed mightily to the workshop's success through his presentations on IDV, [Mc-IDAS-V](#), [educational applets](#), and [VISITView](#), a teletraining package used for remote training and education of meteorologists worldwide. Waldenio Gambi de Almeida, INPE/CPTEC, Tom Yoksas, UCAR-Unidata, and Elen Cutrim, Western Michigan University also contributed to the lecture and lab sessions and were major players in organizing the workshop.



The Data Workshop's stated goal was promoting scientific interactions between the US education and research community and its counterpart in Latin America and was a combination of plenary, breakout, and hands on/ demonstration sessions. The workshop ran for three-days and was held on the campus of the [University of Sao Paulo](#). Funds for staging the workshop were obtained from the [UCAR/UOP/JOSS](#) program.

In the image at below you can get a small idea of the challenge of setting up all of the labs. A non-trivial task!

Featured Site: Central Michigan University

Marty Baxter and Leigh Orf, Central Michigan University

With funds received from a 2007 Unidata Equipment award, 4 Dell Optiplex 745 2.66 Ghz dual-core machines were purchased to establish a new research lab for undergraduate meteorology students. This lab provides students with the resources necessary for them to work on research projects and coursework when our often used teaching lab is occupied. The new research lab has the Integrated Data Viewer (IDV), GEMPAK, and the N-PROGS installed, and the students can access their home directories just as they do in the teaching lab.

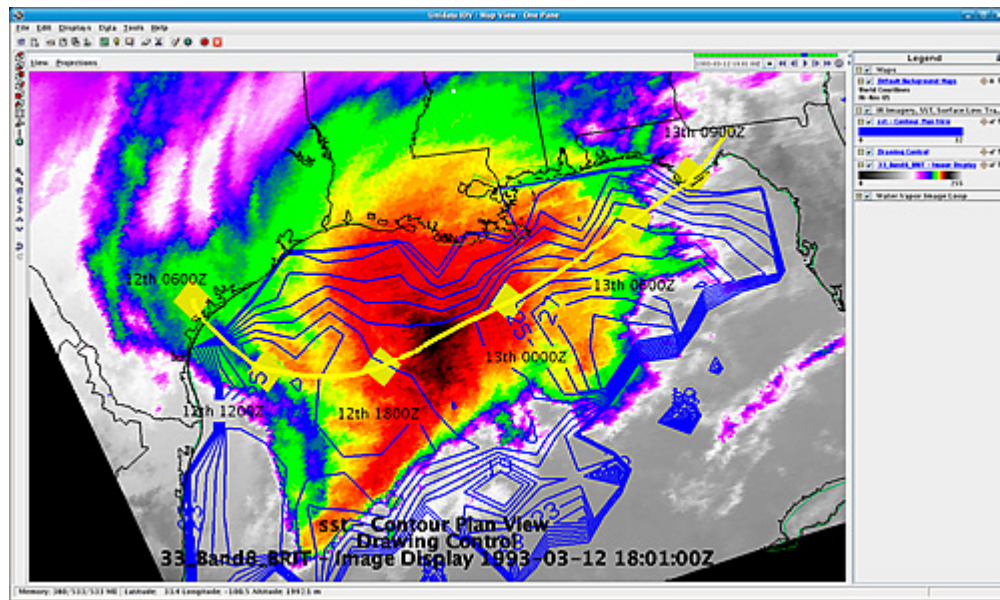
To further encourage use of the new equipment and Unidata products, Dr. Baxter has developed a new course at CMU entitled, "Computer Applications in Meteorology." This course improves students' skills in the Linux environment and focuses on aspects of data formats, the IDV, command-line and scripted GEMPAK, and scientific communication. Students are able to work with large amounts of real-time data accessed through the Local Data Manager (LDM) running on a server purchased from a prior Unidata Equipment award, but currently can only access a small amount of case study data archived at CMU. With funds from the Unidata Equipment award, 4 TB of disk storage was purchased to increase the amount of disk space available for case study archival.

Drs. Baxter and Orf have been working to improve access to case study data using IDV through their roles as members of the IDV Steering Committee and the Unidata Users Committee, respectively. Many members of the Unidata community have used the COMET case study library in the classroom, which features data in GEMPAK format accessible through GARP. Using THREDDS (Thematic Realtime Environmental Distributed Data Services) and ADDE (Abstract Data Distribution Environment) servers, we have made GEMPAK model data, satellite data, and surface data from the March 1993 Storm of the Century available to remote users. Rather than provide students with paper documents that instruct them on which buttons to click to answer a question, the lab exercise now takes the form of a web page which provides IDV bundles that will allow for easier interrogation of the data. This reduces the amount of time students must spend on the interface to the data, and gives them more time to think about the relevant meteorological processes. We received considerable assistance from the both the THREDDS and IDV developers through support requests. Dr. Orf gave a presentation at the May 2008 Unidata Users committee documenting our experience in developing the case study.

http://dendrite.cst.cmich.edu/SOC_IDV/SOC_idv_page.xidv

The current case study is proof of concept. In future case studies, more metadata could be included to describe the available datasets in order to take full advantage of the power of the THREDDS data server. The use of IDV for case studies allows for considerable more flexibility with respect to the types of data that can be incorporated, as IDV will accept

data in many different formats without the need for conversion to a common data type. The IDV also allows for effective inclusion of gif images, text notes, and vector drawings to annotate data. Our work demonstrates that COMET case studies can be converted for use with the IDV, and that a repository for use by remote users could be created by community members.



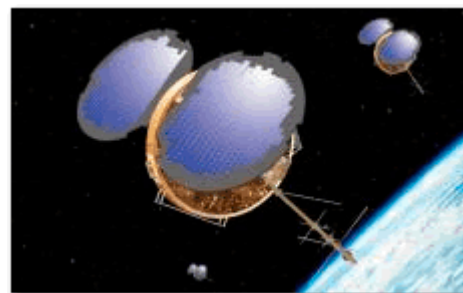
Infrared imagery for 18 UTC 12 March 1993 with AVHRR Pathfinder satellite sea surface temperature data from the National Oceanographic Data Center valid 9 March 1993, and surface low track overlay.

*The original report was submitted in fulfillment of the contractual agreement for Unidata Equipment Award recipients to submit an article detailing their use of funds received.
Editor*

News Briefs

COSMIC Data.

Participants in the recently-held Data workshop at the University of Sao Paulo (above), expressed interest in obtaining the COSMIC Data. So, we thought we'd repeat some of the information contained in our [original article](#) describing how to obtain the data, as well which provides up to 2,500 radio occultation observations on vertical profiles of atmospheric air density, temperature, and water vapor as well as ionospheric electron



density per day. The spatial/temporal coverage COSMIC offers provides unparalleled spatial and temporal resolution of sounding data." In last month's e-letter we provided a [follow-on](#) to the March article that quoted Purdue's Ben Cotton on why it's helpful to have ease-of-access to the data via the Unidata LDM: "...acquiring the data via the LDM means we can use our existing infrastructure instead of having to set up a new system for retrieving and storing the data." As with all atmospheric scientists who are aware of the COSMIC project's data, the Latin American scientists welcome easy access to upper air observations data.

Hail and Farewell

An enthusiastic welcome to Michael James! He steps into the position of GEMPAK developer and provider of support to that large community of users. Michael joins Unidata after a stint at NOAA's Climate Prediction Center.



In addition to previous experience as a GEMPAK developer, he has worked as a meteorologist, scientific programmer, and web developer. He's a graduate of the University of Oklahoma School of Meteorology where he was a GEMPAK user during his student days.

In his time away from work, Michael enjoys travel and photography, storm chasing, camping, fishing, and hunting. Since his wife remained back east at Penn State where she's a graduate student, we can be pretty sure that travelling to Pennsylvania will also occupy some of his leisure time.

Farewell Tom. It's with a mixture of feelings that Unidata will bid farewell to Tom Baltzer in a few days' time. Tom has been at Unidata since February 2004 joining the Unidata staff as a software engineer working on the [LEAD](#) project. Unidata's loss is NCAR [EOL's](#) gain. Tom will be going across town (out of town, actually) to EOL's Computing, Data and Software facility. So, we're happy for Tom because the new position will allow him to spend more time with his family, but we will surely miss his affable personality and smiling face.

New Community Information E-mail List

We again call your attention to a new Community e-mail list that was announced in the [August e-letter](#). Excerpted from it, here's a description of that list. "To make it easier for community members to share important announcements, opportunities, and activities with others in the community, Unidata has implemented a Community E-mail list called communityinfo. Examples of activities and opportunities that might be shared are opportunities related to Unidata's mission, AGU and AMS sessions on data and cyberinfrastructure topics or local and regional meetings. As with other topical e-mail lists administered by Unidata, you must be subscribed to the list before you can post. To subscribe go to: <http://www.unidata.ucar.edu/support/maillinglist/mailling-list-form.html>

Training Workshops



A while back, we announced dates for the 2008 Training Workshops on our home page.

The cutoff date for registration was August 29 2008, and September 29 remains the last day for return of the fifty dollar registration fee. With the exception of the netCDF Developers session, the workshop is fully subscribed. You can sign up for that session through September 30.

For more event details and registration information, please see:

<http://www.unidata.ucar.edu/events/2008TrainingWorkshop/index.html>