Director’s Report

Unidata Users Committee

18 October 2010
Boulder, CO

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Boulder, CO
New and Departing
Users Committee Members

• Incoming
  – Francina Dominguez, University of Arizona

• Rotating Off
  – Bill Gallus, Iowa State University

A hearty welcome to Francina.
A BIG THANK YOU to Bill for his active and enthusiastic participation. We will miss his insights and thoughtful comments.
New and Departing Policy Committee Members

• **Incoming**
  – Kerstin Lehnert, Lamont-Doherty Earth Observatory, Columbia Univ.
  – Kevin Kloesel, University of Oklahoma

• **Steve Businger** has kindly agreed to continue as Polcomm Chair for another term.

• **Rotating Off**
  – Vanda Grubisic, University of Vienna
  – Paul Ruscher, Florida State University

A kind welcome to Kerstin and Kevin.

And a BIG THANK YOU to Vanda and Paul for all contributions over the years.

Vanda has just been appointed as the next EOL Director. Congratulations to Vanda!
Staffing Changes

• Jeff McWhirter and Don Murray left Unidata in May. Jo Hansen left in July.
• Julien Chasting joined Unidata in August. He comes to Unidata from NCAR/CISL. He has 12 years of experience in software development and has worked with netCDF, THREDDS, VisAD and IDV.
• Last month, Doug Dirks joined UPC as a Writer/Editor. He has spent the last two decades working as a technical writer in the software and telecommunications industries. Doug led the team that creates user documentation for IDL.
• The search for a Technical Project Manager is ongoing.
This year marks the 50th anniversary of UCAR.

In honor of this milestone, UCAR organized a year-long series of events honoring 50 years of accomplishments and service to the community and service to society.
About 500 machines at 250+ sites are running LDM-6 and reporting real time statistics. These numbers have not changed much in the past two years, but the data volume has grown significantly. Many more organizations are using the LDM but not reporting real-time stats to Unidata.

UPC’s IDD Cluster relays data to more than 650 downstream connections. Average data output/day: 5.7 TB or 525 Mbps! Peak rate exceeds 1.1 Gbps

Data input to the cluster has increased to ~7 GB/hour.

CONDUIT and WSR 88-D Level II remain the top two data streams based on volume.
Continued progress is being made on THREDDS Data Server (TDS) and Common Data Model software.

- TDS/netCDF-Java 4.2 released earlier this month.
  - refactored FMRC aggregation code to simplify configuration
  - improved performance.
  - Improved integration with ncWMS.

- CDM/TDS 4.3 development underway:
  - Improved metadata extraction from datasets for use in catalogs/metadata services
  - New services for Discrete Sampling Features (station, profiler, aircraft track data, etc.)
  - Performance improvement for collection/aggregation of large number of datasets

- RAMADDA development has slowed with Jeff’s departure but it continues to be deployed by new users. It is moving into a more collaborative development environment.
NetCDF

- Two recent releases. Major feature in 4.1.1 was the support for remote data access with the new built-in OPeNDAP client.
  - More portable and easier to install than a C++-based alternative from opendap.org
  - Provides users of C-based netCDF software access to Java-based server technologies (e.g., NcML aggregation, access to data in other file formats, and the netCDF subset service)

- 4.1.2-beta release: Improved documentation, bug fixes, performance improvements, and internal refactoring;

- Continued progress in advancing CF conventions for point data.

- netCDF-CF has been proposed as an OGC standard.

- Unidata staff are working with the GFDL and other groups in the development of GRIDSPEC in libCF, anticipating that this will become part of the CF conventions.

- **Metrics**: 76 open-source packages, 21 commercial packages, 6,090 entries in Google Scholar, 2,910 books, and 1 Colorado license plate!
OGC & netCDF-CF

This is a significant step in gaining broader adoption of netCDF in the geosciences.
Integrated Data Viewer

- IDV version 2.9 released on 27 May 2010. Two updates have been released since then.
  - Smoothing of grids
  - New grid diagnostics
  - Support for point cloud and CDM profiler data, as well as support for WSI NOWrad images

- Ongoing development
  - Support for GEMPAK surface and upper air data as well as additional GEMPAK grid diagnostics
  - Support for CDM Trajectory feature type
  - Support for Dual-pole NEXRAD dataset
  - Improved access to and display of COSMIC data
Display of Point Cloud data in the IDV
XiangFeng He, CMA:
“In four months, our staff was able to develop a system that runs every hour, generating more than 600 PNG image files from current weather data in less than 6 minutes.”
There is continued growth in the number of IDV downloads and its usage.

During the last 12 months, the IDV was downloaded 5 times more than GEMPAK and 60 times more than McIDAS.
UPC AWIPS II Update

- AWIPS-II DR11 acquired from NCEP and installed and tested at Unidata.
- LDM is being used to file unprocessed IDD data into AWIP-II scouring hierarchy.
- Unidata AWIPS-II system currently can display near real-time surface, upper-air, and lightning data.
- Michael James attended AWIPS-II Migration/Developers Workshop at NCEP in August.
- Further details and a demo after lunch.
Downloads in the last 12 Months

Yearly total represented for all packages download data: Oct 1 2009 to Sep 30 2010
Community Equipment Awards

• Over the past 8 years, Unidata has awarded 53 equipment grants and given $800K to universities to upgrade their classrooms and weather labs so that they can benefit from Unidata tools and systems.

• This year, the UPC made eight awards, totaling $100K, to the following universities:
  – University of North Carolina at Chapel Hill
  – University of Albany, SUNY
  – University of North Carolina, Asheville
  – Louisiana State University
  – Iowa State University
  – Pennsylvania State University
  – Millersville University
  – Central Michigan University
Diversity Activities

Working with AIHEC
Hosted visits by DINE College, University of Oklahoma REU students, and Tribal College and University of Alaska Distance Education professors.
SOARS Student

- SOARS Student Vanessa Vincente conducted a case study of Hurricane Wilma, a Category 5 hurricane that hit the Atlantic basin in 2005 using Unidata tools.
- Jeff Weber was a science mentor for Vanessa.
- She applied the IDV and RAMADDA to generate a case study that can be a collaborative activity with others in the community.
A New Website

A new version: v3.unidata.ucar.edu
It is 95% complete; Will go live next month.
In addition to a new look and feel, there are many changes under the hood.
2010 Training Workshops

57 71 Total Registrants from eight countries.

This figure is less than last year’s total of 91.

Participants will come from all sectors (Government, universities, research labs, and other organizations.)
2010 Community Survey

• Conducted by the Usercomm subcommittee; Closed on 8 October.
• 240 people started and 214 completed the survey.
  – In 2001, 148 people completed the survey
  – Announcements via targeted mailing helped
• High level of overall satisfaction with the program.
• Research use of Unidata data services and tools has gone up significantly.
• Broad international participation.
• GEMPAK received the most comments.
• Community quite anxious about AWIPS-II; would like to see more communication.
• Many users still don’t know of many of IDV’s capabilities.
• GIS use and importance mentioned by many