

Director's Status Report

Mohan Ramamurthy

Unidata Policy Committee Meeting

February 27, 2003

Boulder, CO



- ❖ A new person from a Midwest university has been sighted in the UPC offices since January 6
- ❖ Appears to have impacted staff morale 😊
- ❖ Total number of staff members: 26; FTEs: 24.25
- ❖ “Cabinet” renamed as UPC Management Team (UMT)
 - ❖ Ben Domenico, Joanne Graham, Linda Miller, Don Murray, Mohan Ramamurthy, Russ Rew, and Mike Schmidt
- ❖ Weekly UMT meetings
- ❖ Monthly staff meetings
- ❖ UMT used as a channel to/from staff
- ❖ A monthly Unidata Seminar Series has been started



- ❖ Presence at the AGU Fall Meeting, San Francisco (Unidata booth), and the AMS Annual Meeting, Long Beach (UOP booth)
- ❖ Eight papers presented by UPC staff at AMS, NSDL and ESIP meetings since Oct. 02.
- ❖ Russ DeSouza Award given to Tom Whittaker, University of Wisconsin.
- ❖ Unidata equipment award solicitation announced to the community
 - ❖ \$200K in the pool this year (due to carry over of \$100K from last year); \$5K to \$25K per award
- ❖ Summer workshop plans well underway.
 - ❖ Expanding Horizons: Using Environmental Data for Education, Research, and Decision Making
 - ❖ Dates: 22-27 June, 2003
 - ❖ Topics: Nowcasting, GIS, Weather and Policy/Decision Making, Unidata at 20





Community Activities-continued



- ❖ UPC hosting OpenDAP/DODS Developer's Workshop
 - ❖ 19-21 March 2003
- ❖ WSR 88-D Level II data from the CRAFT Project (61 radars) now available to University community (NSF funding to CRAFT channeled through UPC)
- ❖ NWS announces (in Long Beach) the roll out of Level II data from the *entire* NEXRAD network, beginning in six months
 - ❖ NWS will use IDD/LDM and Internet 2/Abilene
 - ❖ Discussions underway between UPC staff and NWS on topology, configuration, etc.
 - ❖ UPC staff serve on Advisory/Steering Committee
 - ❖ More information will be presented in tomorrow's discussion



Internet 2 Partnership



- ❖ Guy Almes, Chief Engineer for I2, visited UPC on 27-28 January
- ❖ Purpose:
 - 1) Become familiar with Unidata technologies
 - 2) Discuss the use of Unidata technologies to distribute WSR-88D Level II data; As a consultant to NWS, he has recommended the use of IDD/LDM for Level II data distribution
 - 3) Discuss Unidata-I2 collaborations, including placing LDM/NLDM systems at I2 Gigapops (close to the Abilene backbone), testing, and performance analysis of resulting configurations and routing patterns.



- ❖ UPC staff have been extremely busy with proposal submissions
- ❖ Seven proposals submitted since November '02, including Unidata 2008
 - ❖ NSF: Unidata 2008
 - ❖ NSF: Unidata Equipment Awards
 - ❖ NSF: DLESE Data Services* (in partnership with TERC)
 - ❖ NSF: Summer Workshop
 - ❖ NASA/NRA: NetCDF/HDF integration (with NCSA)
 - ❖ NASA/REASON: DODS/OpenDAP related* (with NOAA/PMEL)
 - ❖ NASA/REASON: DODS/OpenDAP related* (with U Rhode Island)
- ❖ A Proposal Tracker [Spreadsheet](#) has been created



Proposals in Preparation



- ❖ Linked Environments for Atmospheric Discovery (LEAD)
 - ❖ (NSF/Large ITR Category)
 - ❖ Kelvin Droegemeier, U. Oklahoma, lead PI
 - ❖ PIs from: OU, Unidata, UIUC/NCSA, U. Alabama-Huntsville, U. Indiana, Howard U., Millersville U.
 - ❖ Invited to submit full proposal (due March 21)
 - ❖ Focus: Development of Grid and Web Services for real-time, on-demand Weather Prediction
- ❖ Follow on to THREDDS (in response to NSDL solicitation - due April 21)
- ❖ More discussion later in the meeting



- ❖ Accounts for a significant portion of staff time
- ❖ Magnitude of Support: Over 4800 email replies last year; over half the staff involved
- ❖ Support is not just software packages, also systems administration and configuration
- ❖ Support areas: IDD, LDM, netCDF, McIDAS, GEMPAK, IDV, THREDDS, DODS, Case Studies, Decoders, VisAD, and Sysadmin
- ❖ New support form now integrated into new web site
- ❖ A new Sun Enterprise 450 has been installed in the SSEC machine room for creation and dissemination of Unidata-Wisconsin products
- ❖ Installation of a four channel NOAAport groundstation at the NSF (for redundancy)
- ❖ A Sun 280R (dual 900 Mhz SPARC with 8 GB RAM and substantial disk) was installed at the NSF offices in Reston, VA



- ❖ Support for project ended at the end of FY02;
- ❖ Carry over from above funding has allowed continuation of work;
- ❖ Three new case study datasets made available since September '02;
- ❖ A major new emphasis of the case study project is adding new decoders for creating THREDDS/IDV access to datasets



IDD/LDM/NLDM Progress



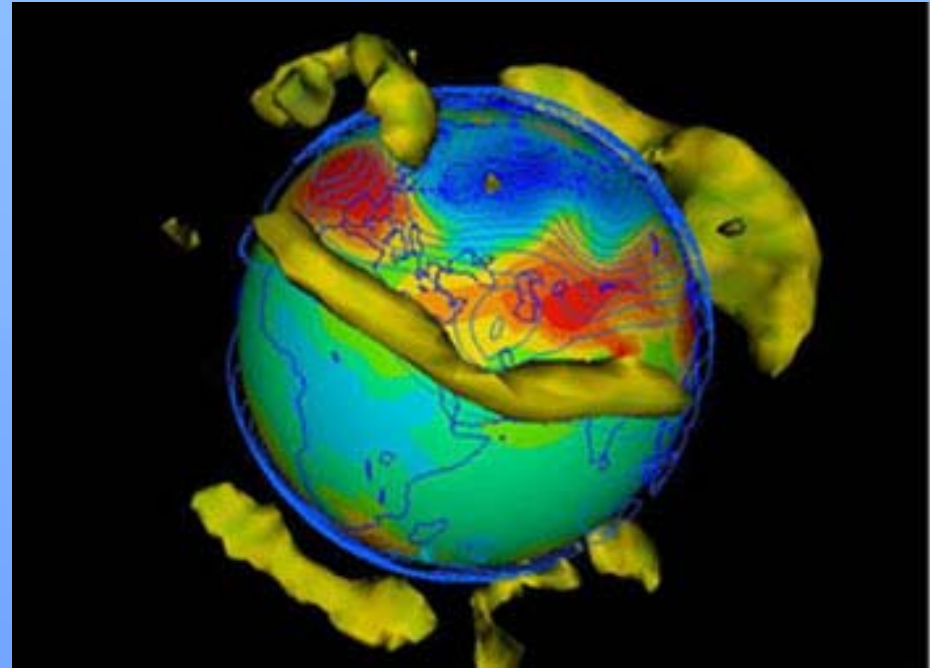
- ❖ International reach growing fastest (Brazil, Mexico, Hong Kong, Taiwan, Germany, Spain)
- ❖ Performance of the LDM has been greatly improved in LDM-6 (being readied for release soon)
- ❖ Most dramatic demonstration: IDD feed to Universidade Federal do Para in Belem, Brazil improved by a factor of 8.4
- ❖ WMO pilot project testing the use of the LDM for data relay (Germany)
- ❖ NLDM: Network News Transport Protocol (NNTP) based data streaming technology
 - ❖ Yielding promising results in early tests
 - ❖ For the CONDUIT data stream (our highest volume stream – 24GB/day) from Boulder to Washington, DC, ***all products*** over a 24 hour period were received ***within 50 seconds, with 99% arriving within four seconds.***
- ❖ Guy Almes has strongly encouraged us to conduct parallel tests of both methodologies using I2



- ❖ GEMPAK 5.6.i release in progress
 - ❖ Supports 16/24 bit displays (big step forward)
 - ❖ Supports FreeBSD
 - ❖ NEXRAD composites being created and inserted into datastream, including 1km GINI images
 - ❖ Many new decoders added
- ❖ McIDAS: Version 2002 released last August
 - ❖ 71 sites have downloaded this version
 - ❖ Unidata Graphical User Interface to McIDAS is development ongoing



- ❖ Since initial release in Sept. 2002, 3 additional beta releases have been made. A 4th release is scheduled for the end of February (beta5)
- ❖ New features include a new globe display for mapping data to a rotatable globe.
- ❖ Discussions are underway to determine how the IDV might be used in future field projects to access field data in the classroom
- ❖ Collaboration has continued with DLESE on the development of the VGEE using the IDV framework.
- ❖ IDV can now access data from other, non-Unidata THREDDS catalogs.
- ❖ Memory and performance enhancements: In some cases the memory usage has been cut in half and performance has been improved by 40% .





THREDDS Highlights



- ❖ A catalog of THREDDS catalog servers that can be accessed from within IDV now available
 - ❖ NCAR, LDEO, CDC, Unidata, and PMEL
- ❖ The LDEO analysis and display tools can now be employed on datasets on the UCAR THREDDS server
- ❖ THREDDS Data Viewer is a 2D viewer for quick browsing
- ❖ Efforts underway to integrate educational modules via VGEE
- ❖ Planning under way for the next phase of THREDDS (targeting an NSDL proposal)



Space: FL-4 Remodeling



- ❖ Remodeling will begin in September and take about six months
- ❖ All programs will move to swing space on Center Green
- ❖ Multiple stacking/blocking options on the table
- ❖ UPC options: Stay in the same location or move to the Third floor West Wing
- ❖ Decision will be made soon (within a few weeks)
- ❖ More information to be provided later in the meeting



- ❖ User relations : Green
- ❖ Data sources : Green (ACARS issue resolved)
- ❖ IDD : Green (LDM-6 release imminent, reduces latencies)
- ❖ Software : Green (netCDF development slow...)
- ❖ UCAR collaborations: Green
- ❖ Staffing : Yellow (increased workload, scheduling)
- ❖ Space : Yellow (UPC staff now split on two floors)
- ❖ Finances : Yellow (More in Joanne's budget report)
- ❖ Non-core funding : Red? (More in budget report)
- ❖ Case Studies : Yellow (No future funding; THREDDS II possibility)