



# Director's Report

## Users Committee Meeting

6 April 2009

Boulder, CO

Mohan Ramamurthy  
Unidata Program Center  
UCAR Office of Programs  
Boulder, CO



# 25<sup>th</sup> Anniversary!!!



- Unidata celebrates this significant milestone with a series of planned events throughout the year.
- Thanks to the work you all do and our community, we are fortunate enough to become an institution and an essential community resource.
- Happy 25<sup>th</sup>!!!

# Unidata Open House

- The UPC hosted an Open House on 17 March for all UOP staff.
- The Open House idea was developed by UOP's 4UNetwork, a program to foster a sense of community across UOP & FL4 programs and enhance communication and understanding of each other's programs.
- A team of outstanding volunteers are helping to increase communication and promote a communal feeling by organizing a series of social gatherings and other activities.
- Unidata's event was the best attended so far.





## 2009 Unidata Users Workshop

*Using Operational and Experimental Observations  
in Geoscience Education*



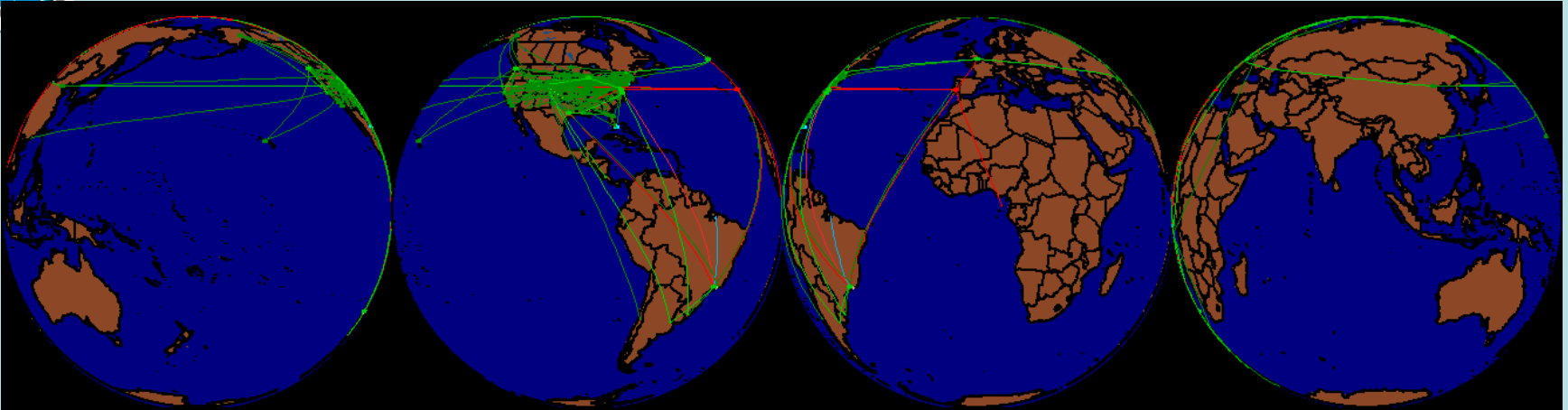
- Considerable time has been spent in planning and organizing the upcoming workshop.
- The proposal was submitted in February; Given the amount of funding requested, NSF had to get it externally reviewed. NSF expects responses within the next few weeks. I have told NSF that we will go ahead with our plans and hope for a positive outcome.
- So far, 42 participants have registered.
- More on this later during this meeting.

# Russell L. DeSouza Awarded to Prof. Elen M. Cutrim



- For dedication, enthusiasm, and inspiration that truly reflect the goals and ideals of the Unidata program.
- Elen has made significant contributions to broadening the Unidata community.
- She has been a strong promoter and ambassador for Unidata in national and international venues conveying the importance of community leadership and participation.
- Her efforts have broadened the Unidata community in the U.S. and beyond, and these efforts include helping to establish important connections in Latin America and serving as a co-organizer of many sessions at the AGU and EGU on issues important to Unidata.

# Data Flows



Unidata IDD Topology 081007/1423

- ❖ Approximately, 483 machines at ~250 sites were running LDM-6 and reporting real time statistics.
- ❖ UPC's IDD Cluster routinely relays data to more than 550 downstream connections (up from about 460 sites in Oct 08).
- ❖ Data input to the cluster is approx. 3.6 GB/hr (0.086 TB/day);
- ❖ Average data output by the cluster is approx. 280 Mbps (~2.8 TB/day);
- ❖ Peak outgoing rates exceed 750 Mbps (up from 600 Mbps);
- ❖ CONDUIT (~42%) and WSR-88D Level II radar data (~27%) make up the bulk of the volume.



# Remote Data Access Infrastructure

- Continued progress is being made on THREDDS Data Server (TDS), Common Data Model, and RAMADDA.
- NetCDF-Java 4.0 library is now available as a stable release.
- Advances in I/O Service Provider software have made many new data types accessible via the netCDF-Java API (HDF5, HDF4, HDF-EOS/HDF5-EOS metadata, GEMPAK grids, [BUFR](#), McIDAS Area files, Universal Radar Format, NIDS, and GEMPAK point data.)
- RAMADDA development continues and a beta release is imminent. Many new collections of data (including Case Studies) are now available via RAMADDA. Several projects are evaluating the use of RAMADDA.
- GALEON objective: establish a standards-based (OGC Web Coverage Service) interface to the TDS which includes THREDDS, netCDF, OPeNDAP services. The most important development of GALEON Phase 1 has been revision of the binary encodings section of the WCS 1.1 specification to make CF-netCDF one of the supported encoding formats.



# NetCDF Use Continues Grow

- Following extensive review, NASA's [Earth Science Data Systems Standards Process Group](#) concluded that netCDF classic should be adopted as a recommended standard.
- NOAA NESDIS has adopted netCDF-4 and CF metadata as the standard intermediate file format for new satellite products from the Center for Satellite Applications and Research operational systems and from the NOAA Office of Satellite Data Processing and Distribution.
- NetCDF-4 classic model will be used in the CMIP5 archive of climate models for fifth assessment report of the IPCC.
- A standards package including netCDF, CF conventions, OPeNDAP, and aggregation was reviewed and promoted to a Recommended DMAC Standard by the IOOS DMAC Steering Team.
- The International Best Track Archive for Climate Stewardship is archiving their data using netCDF.
- NetCDF-4 was also adopted at the UKAEA Fusion Culham Science Centre for storing fusion research data and model output.



# Integrated Data Viewer

- ❖ IDV use continues to grow. It now has users in 300-400 “institutions”.
- ❖ If you examine use by “networks” – first 3 octets in an IP address – 3200 networks have used the IDV at least once (and 1372 at least five times) since December 2007!

- ❖ IDV version 2.6 (and 2 updates) have been released since Dec '08.

- Use of netCDF 4.0 library
- Publication quality graphics
- Remote Level III/TDWR radar data access from TDS
- Objective analysis capability
- Weather text bulletin display
- ATCF Tropical Storm track display

- Four new GEMPAK users added to the IDV Steering Committee. Seven out of 11 SC members have used GEMPAK.

## Monthly summary

Month	Count	*5	10	20	30
2009-04	2094	57	27	12	4
2009-03	23008	312	195	113	81
2009-02	20610	292	185	100	66
2009-01	18586	286	184	99	65
2008-12	18120	264	144	95	58
2008-11	22622	264	162	98	68
2008-10	21294	254	153	86	61
2008-09	19210	268	160	92	55
2008-08	16374	251	146	73	49
2008-07	17224	267	166	85	49
2008-06	7606	128	74	39	19
2008-03	13226	209	115	57	42
2008-02	17896	264	154	99	67
2008-01	13064	224	121	62	49
2007-12	1358	32	19	7	3

\* - Count of unique sites that have used the IDV at least N times in a month

The IDV team received UCAR's Outstanding Achievement Award in Education and Outreach.





# AWIPS II Migration

- Unidata is continuing to work with NWS, NCEP and Raytheon staff on licensing and technical issues.
- UPC staff met with the key principals during the AMS meeting in Phoenix, including Don Berchoff, OST Director, NWS
- We have a verbal commitment that AWIPS II software will be made available to U. S. universities. A written letter to that effect has been requested from NWS and is currently in the works. We are hoping that this issue will be resolved before the Polcomm meeting next month, which will be attended by Don Berchoff.
- Brent Gordon, NCEP, provided an informative update to Polcomm in October 2008; He is scheduled to do the same later in this meeting.
- Unidata staff continue to participate in monthly conference calls and are receiving updates of the software under a NDA. We are currently evaluating the latest release (TO10) of AWIPS-II, released in Feb. '09. An alpha release of NAWIPS software within AWIPS II is expected soon.



# Software Download Metrics

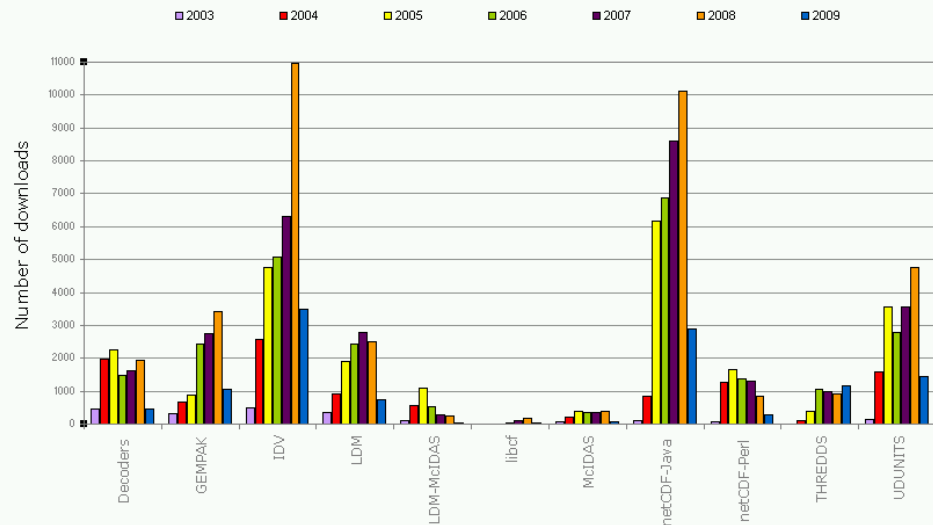
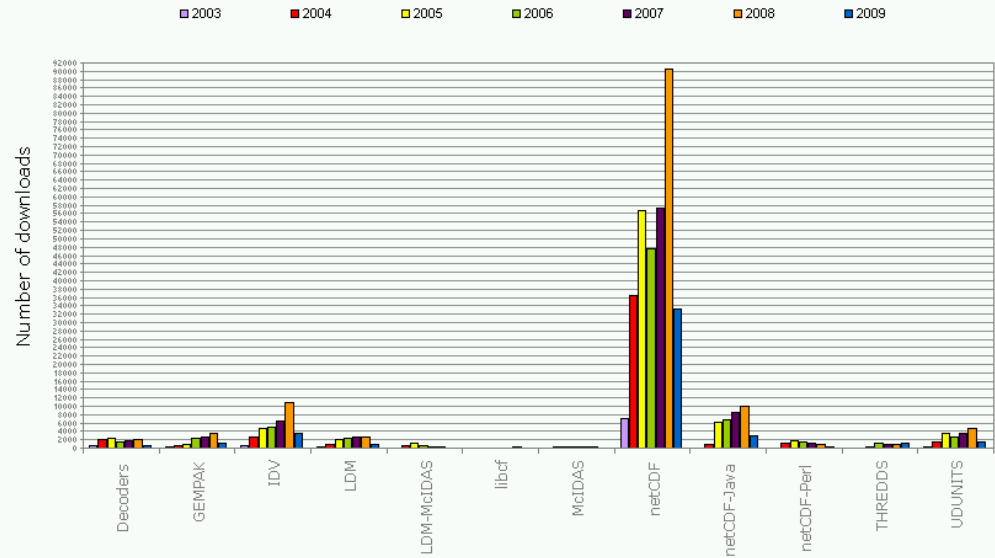
IDV had more downloads than GEMPAK in each of the past 6 years;

UDUNITS is the 4<sup>th</sup> most downloaded, ahead of LDM and GEMPAK;

Downloads for most packages are growing rapidly (GEMPAK 11%, IDV 20%, LDM 15%, netCDF (38%), and THREDDS (523%))

LDM-McIDAS and McIDAS seem to be decreasing from 2008 to 2009 (if you extrapolate).

All packages: Total number of downloads\* by year  
October 1, 2003 - March 31, 2009



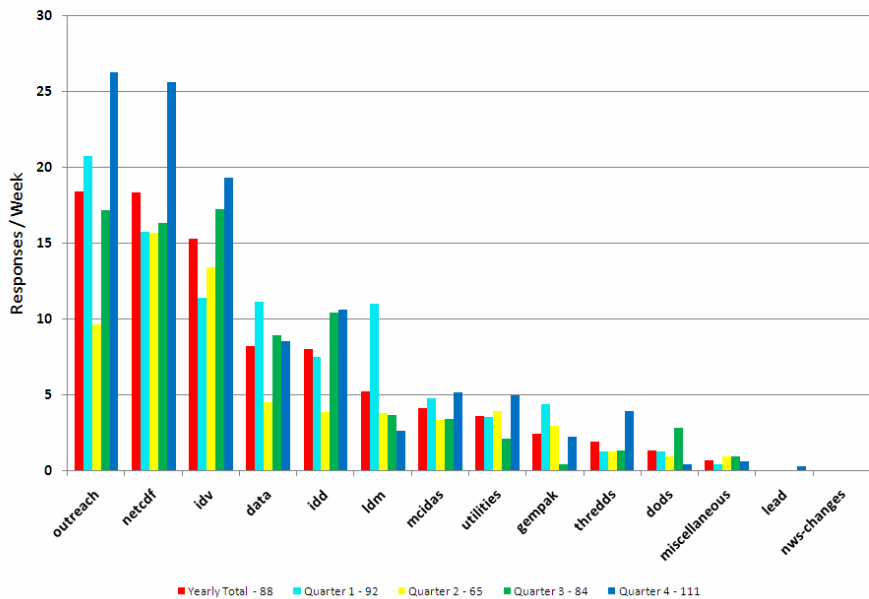
NetCDF downloads (just from the UPC) are nearly 10 times the next highest (IDV)!

\* Includes both HTTP & FTP download statistics  
Statistics for Oct 2003 - Nov 2005 contain only ftp data

# Support Load

- Total support averaged 88 responses/week for year;
- Q1=92, Q2=65, Q3=84 and 111 for the current quarter.
- Number of inquiries to support and mailing lists have gone up in recent months, in concert with increase in downloads and usage.

Unidata Support by Category



# AGU and AMS Annual Meetings

- The UPC staff participated actively at both the AGU 2009 Fall Assembly meeting in San Francisco and the 2009 AMS Annual Meeting in Phoenix.
- There were 43 Unidata-related papers at these two meetings and the staff was involved in eleven of them.
- Unidata also hosted a booth at the AMS and had interaction with many visitors.



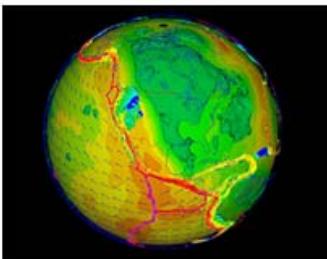
- EGU General Assembly will be held in Vienna 19-24 April 2009.
- In its first year as an official division, Earth and Space Science Informatics will be holding 15 sessions.
- A total of 178 abstracts were submitted.
- Another example of Unidata's role in providing CI leadership by bringing people together to discuss issues of importance to the global geoinformatics community





# 2009 Unidata Training Workshop

July 29th - August 15th



## 2009 Training Workshop for Unidata Software

[Click Here To Register](#)

- [Announcement](#)
- [Logistics](#)
- [Contact Us](#)
- [Instructors Only](#)

The Unidata Program Center is pleased to announce its 2009 Software Training Workshop.

Unidata's training workshops are developed and presented by the software developers and support staff for each package, so you can be sure to get your questions answered.

### Workshop Dates

July 29 – August 1	McIDAS	<a href="#">course description</a>	<a href="#">McIDAS homepage</a>
August 3	netCDF - Basic	<a href="#">course description</a>	<a href="#">netCDF homepage</a>
August 4	netCDF - Advanced	<a href="#">course description</a>	<a href="#">netCDF homepage</a>
August 5 - 6	TDS	<a href="#">course description</a>	<a href="#">THREDDS homepage</a>
August 7 - 8	LDM	<a href="#">course description</a>	<a href="#">LDM homepage</a>
August 10 – 12	GEMPAK	<a href="#">course description</a>	<a href="#">GEMPAK homepage</a>
August 13 – 15	IDV	<a href="#">course description</a>	<a href="#">IDV homepage</a>



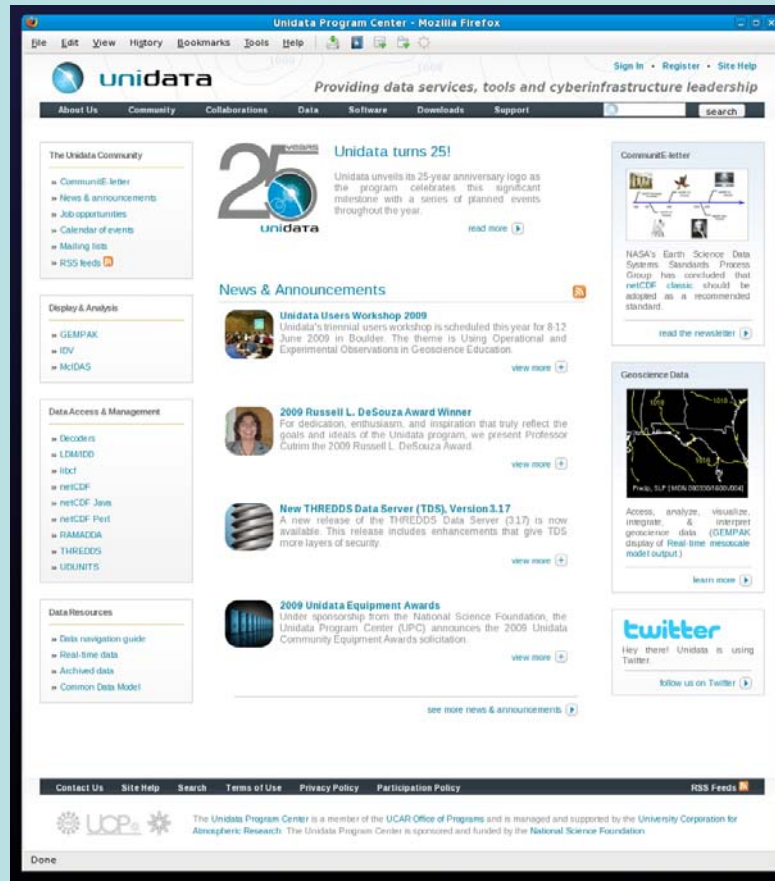
# Community Equipment Awards

This year, the selected themes are:

- Enhance participation and advancement of underrepresented populations. (Plan to make up to two awards in this category)
  - Provide useful datasets to the community to support and education and research.
- 
- Once again, we have set aside \$100K for this year's awards.
  - We have received eight proposals.
  - Proposals are being reviewed by a panel and decisions will be announced soon.
  - Would like your input on how we can increase the number of proposals submitted to this program.



# Unidata's New Website



You may have read in the April e-letter that the forums have been discontinued mainly due to lack of use. Mailing lists continue to be the preferred means of interaction.

We need your input on how Unidata can facilitate community interaction.



# Unidata & Social Networking

facebook Home Profile Friends Inbox Mohan Ramamurthy Settings Logout

**Unidata**  
Global


**Basic Info**  
Type: Organizations - Community Organizations  
Description: **Mission:** To provide the data services, tools, and cyberinfrastructure leadership that advance Earth system science, enhance educational opportunities, and broaden participation.

Unidata, funded primarily by the National Science Foundation, is one of eight programs in the University Corporation for Atmospheric Research (UCAR) Office of Programs (UOP). UOP units create, conduct, and coordinate projects that strengthen education and research in the atmospheric, oceanic and earth sciences.

Unidata is a diverse community of over 160 institutions vested in the common goal of sharing data, and tools to access and visualize that data. For 20 years Unidata has been providing data, tools, and support to enhance Earth-system education and research. In an era of increasing data complexity, accessibility, and multidisciplinary integration, Unidata provides a rich set of services and tools.

**Contact Info**  
Website: <http://www.unidata.ucar.edu/>  
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Boulder, CO

[View Discussion Board](#)  
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[Edit Members](#)  
[Edit Group Officers](#)  
[Invite People to Join](#)  
[Create Related Event](#)  
[Leave Group](#)



Unidata group on Facebook currently has 89 members



Hey there! **unidata** is using Twitter.

Twitter is a free service that lets you keep in touch with people through the exchange of quick, frequent answers to one simple question: What are you doing? **Join today** to start receiving **unidata's** updates.

**Join today!**  
Already using Twitter from your phone? [Click here.](#)

 **unidata**

**Name** Unidata  
**Location** Boulder, CO  
**Web** <http://www.unidata.ucar.edu/>  
**Bio** Unidata Program Center

10 following 13 followers 10 updates

**Updates**

**Favorites**

Announcing the Unidata Training Workshop for 2009.  
<http://www.unidata.ucar.edu/workshop2009/>  
*about 2 hours ago from web*



# 2009 UCAR Community Survey

- UCAR conducted a comprehensive survey of UCAR/NCAR/UOP programs, including Unidata.
- The results just became available and the feedback about Unidata is overwhelmingly positive.
- The community believes that Unidata is an essential facility.
- Lots of useful comments and responses in the survey results to help us with our future planning and activities.
- Will share the Unidata-related sections of the Survey sometime in the near future.

# State of the Program: A Snapshot

- Community relations : Green
- Data flows : Green
- Software development : Green
- Collaborations : Green
- Staffing : Yellow
- Support : Green
- Finances : Yellow

Questions?