Capabilities:

Data Visualization

The Unidata Program Center develops, distributes, and supports a variety of software packages for the visualization of geoscience data.

IDV

Unidata’s Integrated Data Viewer (IDV) is a freely available, multiplatform visualization and analysis tool for interdisciplinary geoscience data. The IDV brings together the ability to display and work with a wide range of data including satellite imagery, gridded data, observations, and radar data, all within a unified interface.

The IDV integrates a wide variety of data types including georeferenced netCDF data, common atmospheric data formats, GIS data, and others. It provides easy access to remote data sources including THREDDS Data Servers, OPeNDAP servers, and ADDE servers from within the graphical user interface.

In addition to an extensive suite of built-in data analysis tools, the IDV allows users to build custom analysis functions using a high-level scripting language.

AWIPS II

The Advanced Weather Interactive Processing System version II (AWIPS II) is a weather forecasting, display and analysis package currently being developed by the National Weather Service as a successor to the existing AWIPS system for use in its weather forecast offices and National Centers for Environmental Prediction. The Unidata Program Center is working closely with the NWS and its AWIPS II contractor to develop a version of the package suitable for use at universities and other non-operational sites. Unidata has already begun offering AWIPS II software training to its community members, and will be supporting the package for community use after it is fully deployed operationally by the NWS.
GEMPAK / N-AWIPS

The GEneral Meteorology PAcKage (GEMPAK) is an analysis, display, and product generation package for meteorological data. It was originally developed by the National Centers for Environmental Prediction (NCEP) for use by its various centers (Storm Prediction Center (SPC), Tropical Prediction Center (TPC), Aviation Weather Center (AWC), Hydrologic Prediction Center (HPC), Marine Prediction Center (MPC), Environmental Modeling Center (EMC), etc.). Along with a set of graphical user interface programs known as N-AWIPS (a set of Advanced Weather Interactive Processing System features customized for NCEP centers), these programs are widely used in operational weather forecasting, research, and teaching environments.

The Unidata Program Center works closely with NCEP to distribute and support GEMPAK for the Unidata community. GEMPAK and N-AWIPS functionality are incorporated directly in the new AWIPS II package; as AWIPS II is adopted operationally, Unidata’s GEMPAK development work will transition into the new environment.

McIDAS

The Man computer Interactive Data Access System (McIDAS) is a suite of applications for analyzing and displaying meteorological data for research and education. McIDAS has been in use and under continual development by the University of Wisconsin-Madison Space Science and Engineering Center (SSEC) since 1972. The Unidata McIDAS software (a superset of SSEC McIDAS) has been under development since 1985 and in distribution since 1988.

The Unidata Program Center provides software support for the Unidata McIDAS distribution and works closely with SSEC on the development of the McIDAS-V package, which is based on Unidata’s IDV.

For additional information, contact info@unidata.ucar.edu. June 2013