An Introduction to McIDAS-V

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The Man computer Interactive Data Access System (McIDAS) project began over 30 years ago at the University of Wisconsin-Madison Space Science and Engineering Center (SSEC) to analyze and visualize data from the first generation geostationary satellites. A new generation of imaging and sounding sensors developed for current and future operational satellites will be supported through innovative techniques for developing algorithms, visualizing data and products, and validating results. The Integrated Data Viewer (IDV), a reference application based on the Visualization for Algorithm Development (VisAD) library developed at SSEC, is being developed by the Unidata Program and demonstrates the flexibility that is needed in this evolving environment, using a modern, object-oriented software design approach. The HYperspectral-viewer for Development of Research Applications (HYDRA) software developed at SSEC within VisAD allows users to interrogate multi and hyper-spectral data in powerful ways.

A project is underway at SSEC to transition the current McIDAS-X functionality into a VisAD/IDV/HYDRA-based, open-source system to be known as McIDAS-V. McIDAS-V displays multi and hyper-spectral satellite data and many different types of geophysical data in 2D and 3D. It also has the ability to analyze and manipulate data with powerful mathematical functions. McIDAS-V works with many different types of remote and local data types including satellite, model and conventional data. Current capabilities of McIDAS-V will be demonstrated using Antarctic data, utilizing extensive satellite imagery, 2D and 3D grid displays, as well as the other features of McIDAS-V.