Visualization of Geo-science data with Unidata's Integrated Data Viewer

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The Integrated Data Viewer (IDV) from Unidata is a Java(TM)-based software framework that provides new and innovative ways of displaying and analyzing Earth science data, as well as common 2D, 3D, and 4D visualization capabilities. Many features designed in the IDV can be used to view the daily weather forecasting, to analyze the model output in the climate research, to study satellite observations, to navigate the deep ocean environment, or to explore the complex three-dimensional data in geophysics. The IDV has recently undergone major improvements we would like to highlight to our community. These advancements are targeted in the areas of model analysis, data integration, and publication quality graphics according to feedback from our stakeholders. In the model analysis arena, the IDV has enhanced capability for statistical analysis of ensemble model output. Averages, probabilities, and other statistical quantities can be computed and visualized for ensemble model output leading to a clear view of ensemble forecast distribution. In the area of data integration, the IDV has new time matching capabilities allowing users to intelligently combine multiple datasets over the time dimension. Lastly, in the area of publication quality graphics, the IDV has new multi-view image and movie capture features as well as axis labeling advancements for improved publication figures.