Bringing the Ocean Data View Software to the Web

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Ocean Data View (ODV) is an interactive data analysis and visualization software for use with oceanographic and other environmental data. ODV is freely available for all major computer platforms and has a large active user community of about 10,000 researchers. ODV allows creation of a wide range of publication-quality graphics types, including section plots along arbitrary cruise tracks as well as property plots on constant depth or density surfaces. ODV also provides a large suite of data importers for many popular data formats, thereby facilitating the creation of large, aggregated data compilation from one or many data sources. In the traditional configuration, ODV is installed on the end machine, and the data to be analyzed also reside on the same system. Internet connection is not required for the actual data exploration work, allowing ODV usage during expeditions or at remote locations.

In addition to the traditional end-user configuration, we are now developing in the context of the SeaDataCloud project a series of ODV web-services, where the ODV software as well as the data reside on dedicated servers, while the user is communicating with the server-side ODV using a web browser on the end machine. This web configuration is particularly useful when serving large community datasets such as the SeaDataNet data or the World Ocean Atlas (https://www.nodc.noaa.gov/OC5/woa18/). Users do not need to download the sometimes very large datasets nor is there a need to install the ODV software first. One of the services, ODV-online, offers an ODV-like interface in the browser window and provides interactive features very similar to the stand-alone ODV, allowing previous ODV users a smooth and easy transition. Supported features include: station and sample selection (left mouse click), context menus (right click), interactive zooming into map and data windows, and various interactive dialogs for property modifications. This presentation highlights the benefits of the ODV web configuration and provides a demonstration of ODV-online technology and capabilities. A web link to the first version is provided.