Ergo Architecture

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Ergo provides an extensible software platform and helps bridge the time-from-discovery gap among researchers, practitioners and decision makers (see Figure 1). The Ergo project has an intuitive graphical user interface that allows users to visually interact with workflows providing a better understanding of the inputs, outputs and readiness of the system for execution. This interface is built upon an open, extensible, and non-domain specific set of projects: Bard and the Analysis Framework.

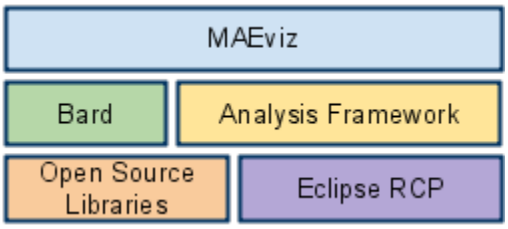

Figure 1: Simplified Ergo Architecture

Bard delivers the exploratory capabilities which allow users to visualize results in 2D and 3D, create charts and tables, and publish reports. Bard also includes a data catalog that gives the user the ability to import, export, explore, and share data.

The Analysis Framework facilitates the definition and connection of analyses to create workflows and explore new scientific possibilities by creating new workflows from the existing components. Also, the framework reports any problems to the user that would prevent the execution of the workflow and attempts to give some insight into what the problem might be so the user can correct it, thus saving time and reducing frustration. This platform also utilizes several other open source software projects including GeoTools and the Eclipse Rich Client Platform (RCP). The entire software stack is built upon the Eclipse Rich Client Platform, which is an open source project designed to be extensible using a plug-in based architecture. Eclipse RCP enables component development to be shared across multiple communities and creates cross-platform software solutions that are robust and well supported in both the open and enterprise software communities.