Perspectives is designed to allow you to visualize data sets graphically, potentially using multiple viewers linked together through interaction (an operation, such as selection, performed in one is mirrored into the others). Thus, it is important to note that in Perspectives a data source is not necessarily tied to a viewer. Instead, a data source is created independently and several viewers can be created for it.

Another important concept is that of Properties. Each data source and viewer have associated properties that control their contents, behavior or appearance. Each time a data source of a viewer is selected, their properties are displayed in a designated slot on the left hand side of the system. Properties can be of many forms: numbers, text, colors, files etc.

The types of viewers and data sources available in Perspectives are not predefined. They can be extended by developers independently and even loaded at run time. Users can select what types of data sources or viewers they want to create while using the system.

To create a new data source users should click on the “New” button in the data source section. They should then select the desired data source type, name it, and create it. The new data source will show up in the data source list, will be selected, and its properties displayed. Often time a data source’s properties will allow a user to load a specific data file, such as a text file, csv file, etc.

User can create new viewers buy clicking on the corresponding button. A viewer creator dialog will open. On the left hand side a list will inform the user of the possible types of viewers they can create. Each viewer will require certain data sources as inputs which a user can select from the list on the right. The user will be informed of a viewer’s data source requirements in the text area under the viewer list. Once a viewer was selected, it’s data source input requirements met, users can name their viewer and create it.

Viewers will be displayed in the large open area of the system. As with any windows, viewers can be moved, resized, maximized or minimized. Once users click on the viewers they will be placed in focus and their properties will be displayed in the designated property spot. Users can adjust a viewer’s properties to adjust its appearance or behavior.

Viewers can also be linked together. This means that operations performed in one viewer will be translated to other viewers it is linked with. To link viewers a user needs to first activate the “Links” toggle button. The viewers will be reduced in size, each with two icons displayed below. One icon corresponds to one-directional links, the other to bi-directional links. User can click on one of these icons and drag a linkage arrow to another viewer. If they release the arrow over a target viewer they will establish a link between those two viewers. Existing links can be deleted by clicking on the ‘X’ displayed at their midpoint.

Screen Capture