Mana Overview

In this document, we provide a description of the data analysis program 'mana' and discuss how the program is used with the Elixir system.

Overview

Mana is a program to manipulate and display 1-D (vector) and 2-D (matrix) data. Mana may be run in either as an interactive command-line driven program, or it may be used to process scripts in a non-interactive fashion. Mana has a simple command-line interaction that resembles the UNIX tcsh, but with many additional useful features for data manipulation. Mana consists of several, vaguely independent portions: the command-line interpreter language (Opihi), the image display tool (Kii), the graphing tool (Kapa), and the vector and matrix manipulation commands.

The user interface of Mana is based on the opihi shell also used in the Elixir program Status. Not only does the user interface have the same conventions and syntax, many commands are shared between the two programs. This makes it easy for a user to transition between them.

Mana includes an interpreted programming language as part of the user interface. The programming language provides many of the standard programming operations, such as logical expressions, loops, scalar variables and 'subroutines' (macros). In addition, mana knows about 1-D and 2-D datatypes, making it powerful for data manipulation.