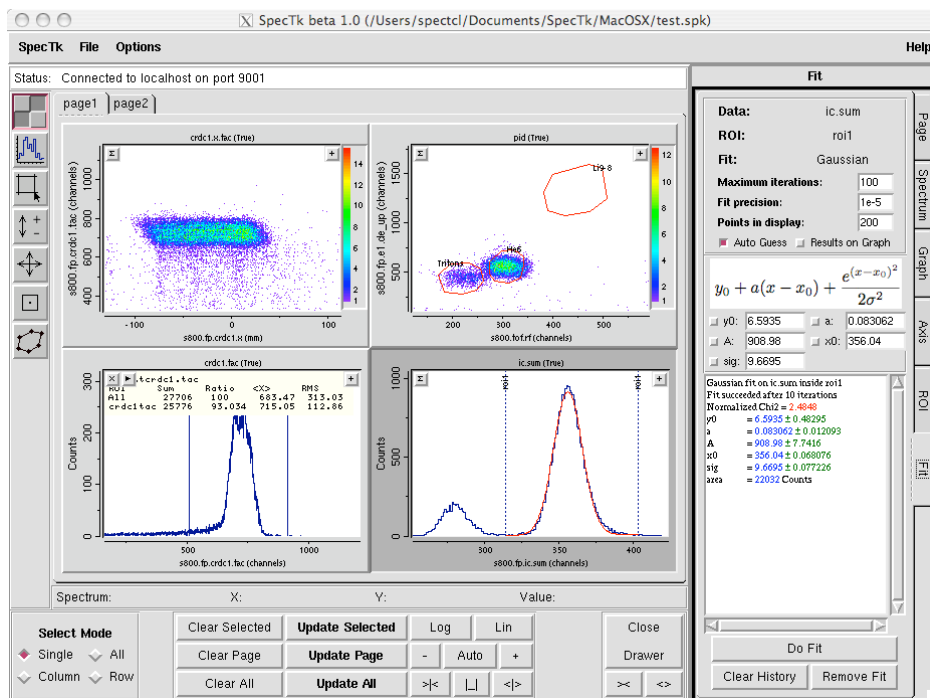


SpecTk: a displayer for SpecTcl

or how even a physicist can build a high level application with Tcl/Tk

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The program SpecTk is a data displayer designed to work in tandem with the histogramming program SpecTcl written by R. Fox at the NSCL¹. Its purpose is to display and manipulate the various objects handled by SpecTcl in the process of inspecting and analyzing data from nuclear physics experiments. In addition, several functions needed during the data taking and analysis phases of an experiment are implemented. Written almost entirely in Tcl/Tk, SpecTk is a good example of the use of the expansion capabilities of Tcl/Tk, as it relies heavily on the two libraries BLT² and Incr Tcl³. The program also takes advantage of the client-server architecture provided in Tcl/Tk to allow the flexibility of connecting one or more displayer to any SpecTcl source in a given local network. Originally developed on a Macintosh platform, the program has been ported to the Linux and Windows platforms thanks to Tcl/Tk portability. The overall design will be presented, with emphasis on the use of pre-existing features found in the libraries, followed by a description of the functionalities, and finally a look at future developments and improvements. The figure below shows a snapshot of the program in action.



¹ The SpecTcl Data Analysis System, R. Fox, C. Bolen, K. Orji and J. Venema, Proceedings of the 2003 IEEE Conference on Real-Time Applications of Computers in Nuclear, Particle and Plasma Physics

² The BLT library, by G. A. Howlett

³ The Incr Tcl library, by M. McLennan