Abstract

We have developed an Erlang language implementation of the Channel Access protocol. Included are low-level functions for encoding and decoding Channel Access protocol network packets as well as higher level functions for monitoring or setting EPICS process variables. This provides access to EPICS process variables for the Fermilab Acnet control system via our Erlang-based front-end architecture without having to interface to C/C++ programs and libraries. Erlang is a functional programming language originally developed for real-time telecommunications applications. Its networking programming features and list management functions make it particularly well-suited for the task of managing multiple Channel Access circuits and PV monitors.

Acknowledgements

Thank you to Cosylab for the Channel Access protocol documentation and to the tech-talk community for their continued help.