NSCL Support of the CAEN V288 CAENNET Controller

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The CAEN V288 is a VME module, which provides a remote method of controlling certain CAEN electronics via High Speed CAENNET (H.S. CAENNET). High Speed CAENNET is a bus that was developed by CAEN for slow control of electronics. It is most often used in cases where mechanical controls (switches, knob, etc) would limit the channel density of a product and there is no other I/O available (e.g. NIM modules). It is also used occasionally in electronics that have other control mechanisms but it is thought the user may prefer H.S. CAENNET. H.S. CAENNET uses standard LEMO cable for data transfer.

As of the time of this was written CAEN produced three different controllers for H.S. CAENNET, handheld, PCI based, and VME based. The handheld controller is plugged into the component you wish to setup and operated using a twelve key numeric pad, there is very little overhead with this controller but it is awkward to use since it only has twelve keys. The PCI based controller allows the user to use a full keyboard and CRT monitor for control; this means that while there is more overhead involved, it is often faster if you have multiple modules to configure. The CAEN V288 is the VME based controller. It allows a user to configure H.S. CAENNET modules via a VME backplane, meaning that remote configuration was easier; however, it requires the most overhead, both monetary and time.

At the NSCL the V288 is the method of choice and with the all of the overhead programming done it is a fast and easy way to configure modules. Support for the V288 is based on a Tcl library called caennet. The library is intended to be buried beneath several other layers of support. One example of how the V288 module info is buried is the support for the CAEN V568

Spectroscopic Amplifier. A Tcl library is defined to sit on top of the V288 library, completing hiding caennet from the user. In the case of the N568 a GUI hides the presence of the N568 library also.

Since sitting alone this module is completely unspectacular, a working example of this module is not possible without a complete discussion of another module. Although not yet written (as of January 6, 2005) a complete description of the N568, with working example, is planned. When it is finished it will be placed at http://docs.nscl.msu.edu/daq/samples/

This is intended only as a general introduction to the CAEN V288 and should not be seen a substitute to reading the user manual.

If you feel that something important has been left out here please contact **daqdocs@nscl.msu.edu** .