dlcollector

collecting waveform data from a data logger with an orb-compatible ring buffer

Date

Goal: collect data with tcp protocol

- orb protocol has worked well for a decade

Problem: data logger may not be addressable

- It may not be possible to connect to the data logger from the central site.
  - may not know the ip address (dynamic addresses)
    - this problem may vanish as ipv6 is implemented
  - provider may not allow initiating connections

New orb protocol facility required

- orbserver initiated connections
  - typically, the client initiates the connection (orbstat, orb2orb, etc)
  - here, the orbserver-like ring buffer must initiate the connection
- must also provide some method of authentication
- must also provide some identification

More complex than it sounds

- Most pieces were already in Antelope
  - sgd(1) for authentication
- server initiated connection protocol
- authentication protocol
- datalogger id
- documented in various man pages

dlcollector

- can initiate connections to data loggers with fixed ip addresses (or dns): call-out
- can listen for incoming connections from data loggers without fixed ip addresses: call-in
- parameter file is dynamic: add or eliminate dataloggers from callin or callout list at any time

Commands

- dlcollector recognizes certain packets which must be directed to open connections, and sends them to the datalogger
- uses just the one tcp connection, not an additional one
  - this is required for call-in dataloggers
- does not copy these same packets from the data logger

Generality

- dlcollector is based on a fully described, open protocol
- basalt is the only data logger currently implementing the protocol
- but in principle, other data loggers could also