Back-End Firmware Status

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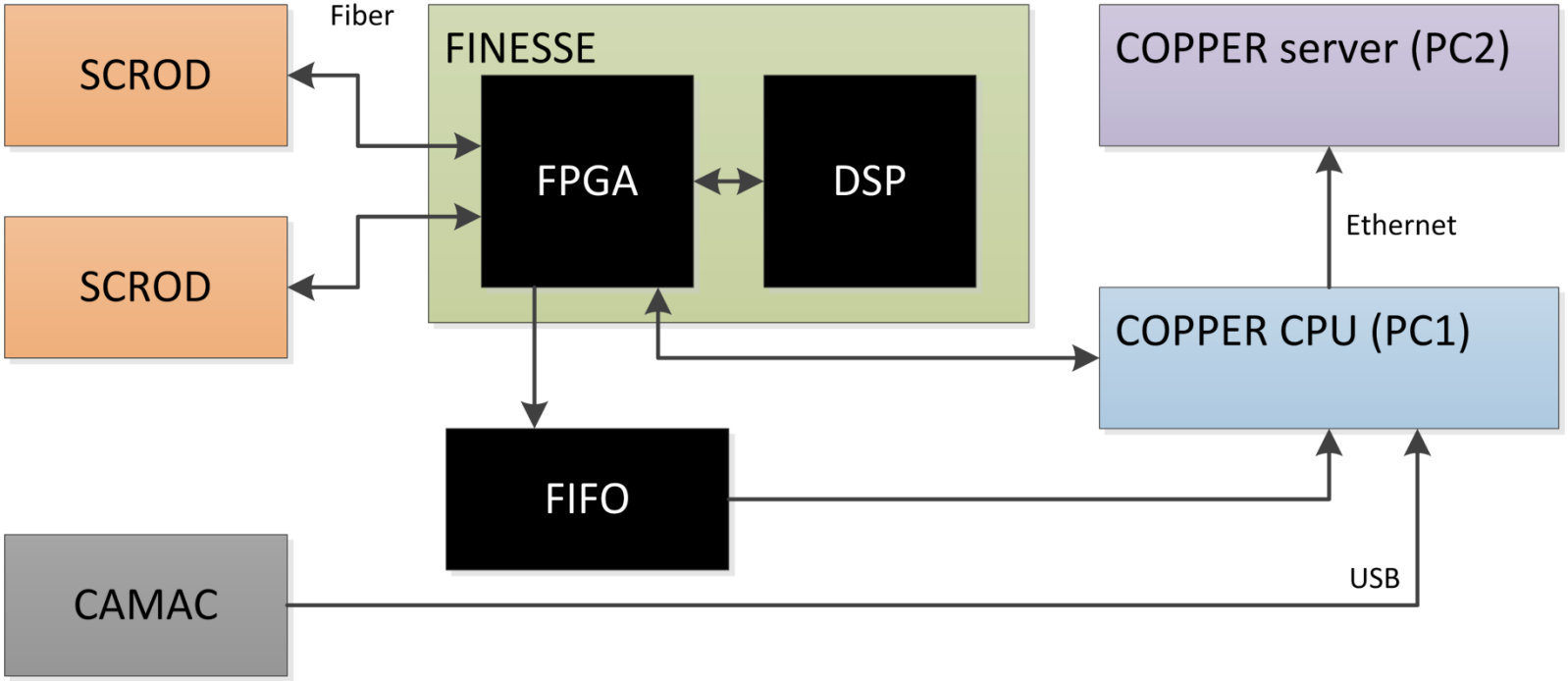
Back-End Structure



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Status

- **PNNL has recreated KEK setup in lab**
  - Signal sent into IRS2B, received by FINESSE and stored to disk
- **FINESSE firmware**
  - Data transfer from SCROD (w. latest firmware) to disk
  - Command send/response with SCROD (w. latest firmware)
    - Commands now read out via local bus (not dumped into FIFO)
  - Verified support for 4 fibers per FINESSE (2 planned)
  - DSP “alive”, can be programmed from cable
    - Linux-compatible JTAG dongle now available
- **COPPER**
  - Command packets sent/received
  - Data received from FIFO
  - USB interface talks to CAMAC interface

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Next Steps

- **FINESSE firmware**
  - Enabling FPGA-DSP interaction [Ryan]
  - Tracking down source of fiber errors [Eric, Hardeep]
- **DSP**
  - Connection/interaction with FPGA done by end of year [Ryan]
  - Program download from FPGA being “actively thought about” [all]
- **Back-end software**
  - Verification and test of existing code underway [Craig]
  - Port USB driver for particular CAMAC electronics at KEK [Craig, Lynn]
- **SCROD firmware**
  - Trigger timestamp effort starting [Eric, Hardeep]
  - PNNL getting more involved [Ryan, Lynn, others]

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Upcoming Travel Plans (tentative)

- Japan (KEK)
  - Craig Bookwalter ~Jan 23 – Feb 6
  - Ryan Conrad ~Jan 26 – Feb 2
- Meet w. Kurtis (SLAC)?
  - Ryan Conrad, Lynn Wood? early Jan?

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