



Microwave Schottky DAO

Very preliminary

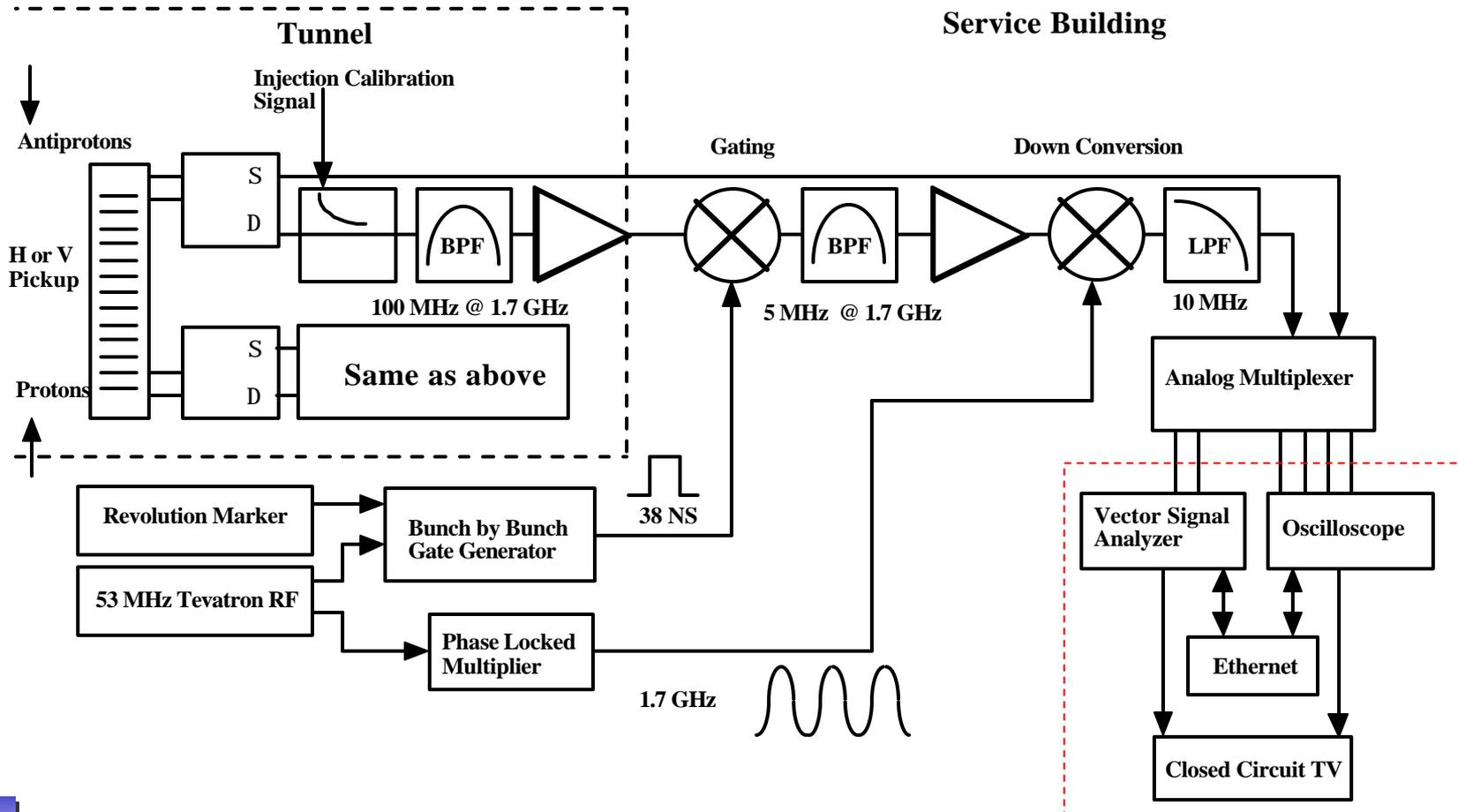
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Fermilab





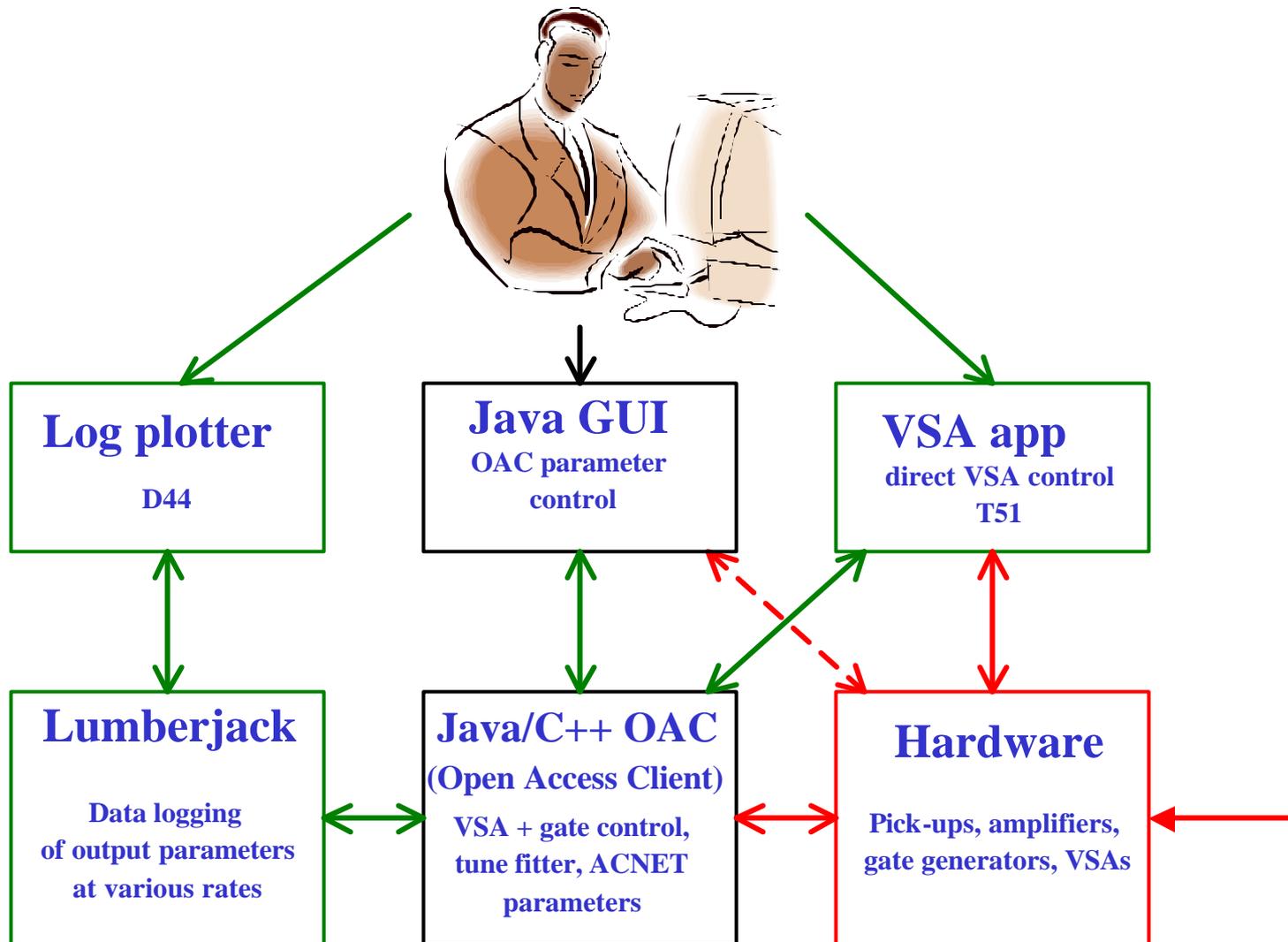
Hardware overview

Tevatron Schottky Signal Processing





Fermi software overview





Fermi style DAQ

- Hardware
 - Off-the-shelf 2ch 10MHz HP VSA
- OAC (Open Access Client/virtual front end)
 - Runs on a standalone Linux box (Controls)
 - **Java environment for ACNET interface**
 - C++ for VSA control and fitting (using ROOT library)
- GUI
 - **Simple Java viewer**
 - **Sets OAC state thru ACNET parameters**

Red stuff needs to be rewritten for CERN





DAB DAQ option

- Hardware
 - DAB board with 96kHz, 24bit ADC mezzanine card (narrow BW, higher dynamic range).
 - Gain switching?
- Front end
 - Generic DAB board firmware (eg FFT, averaging) exists (?)
 - Data analysis done on VME PowerPC.
 - Transfer Fermi analysis code to LynxOS RT task (ROOT?).
 - Generic communication protocol code exists!
- GUI
 - To be written (by CERN), or use some 'generic' GUI?

Better performance?

