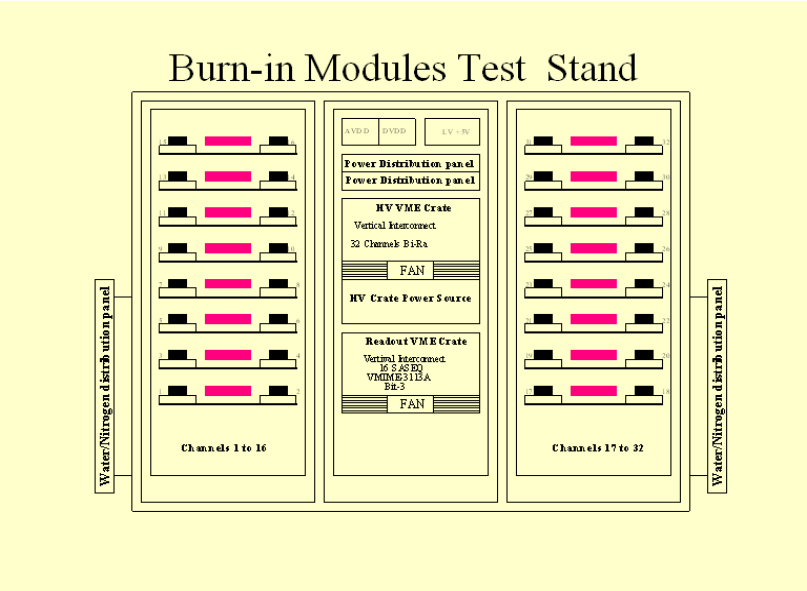
Burn-in Stands Status

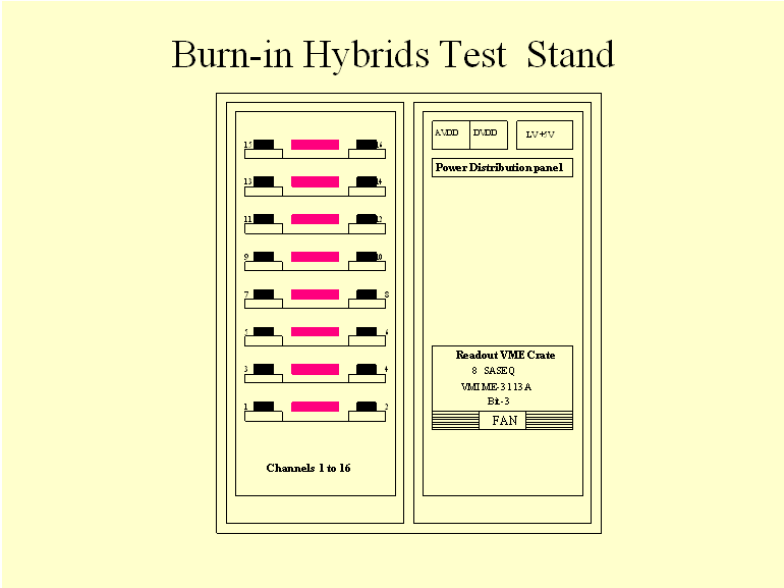
- Hardware status
- Software status
- Example
- Summary and Plans

Run 2B Silicon Electronics Meeting
June 23, 2003

Hardware

- All hardware is ready
  - 2 hybrid burn-in stations (16 channels each)
  - 2 module burn-in stations (32 channels each)



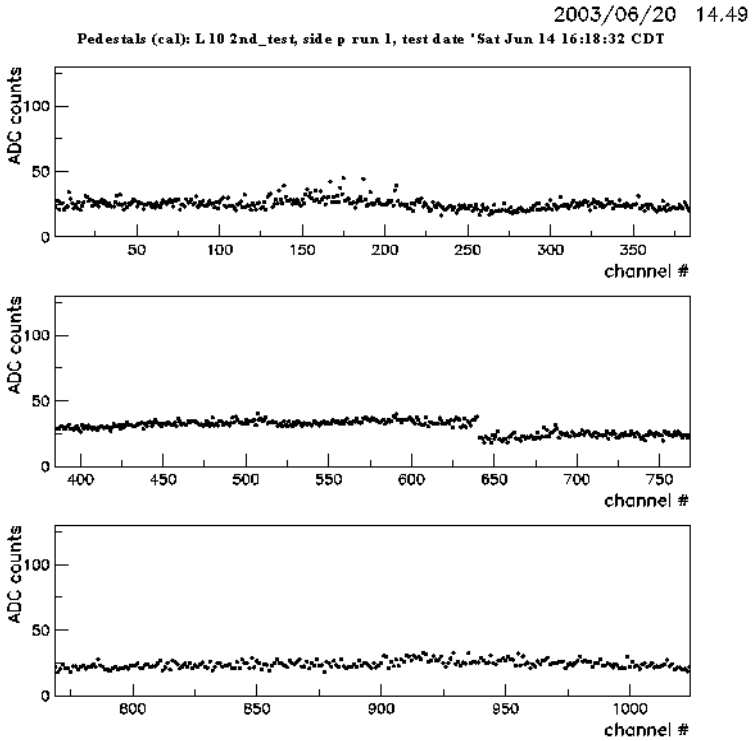


Software Status and Details

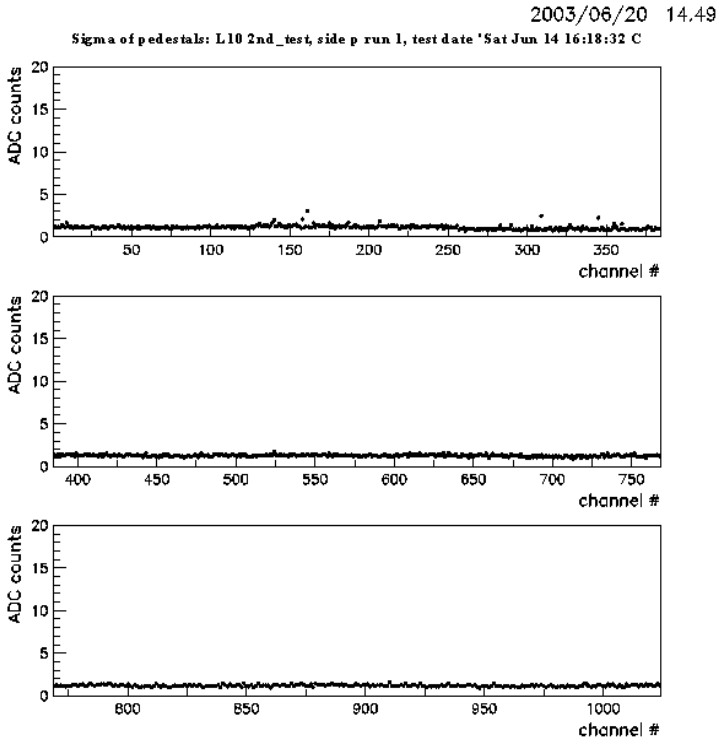
- **TCL script**
  - Runs for 4 and 10 chip hybrids
  - Fixed problems reading chain B
  - Can run burn-in for one device only (…find the nasty loop)
- **Macros**
  - Modified and tested for 4 and 10 chip hybrids
    - Needs some tuning
- **HV readout**
  - Cannot talk to the HV crate
    - Vertical Interconnect, HV crate, HV boards, software…?
- **SVX readout software**
  - Works for read all mode with the “old” chips
  - Modifications are needed for sparse mode
- **Monitoring**
  - Working for Temperature and LV currents (AVDD+DVDD)
  - 2/4 ADC boards calibrated

Pedestal and Noise in Cal. Inject Mode

Pedestals

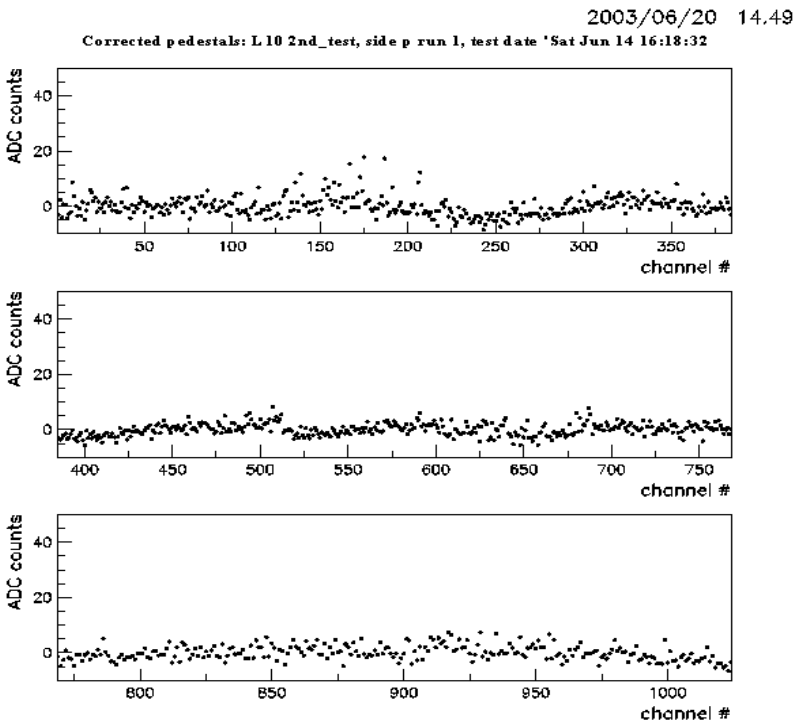


Total noise

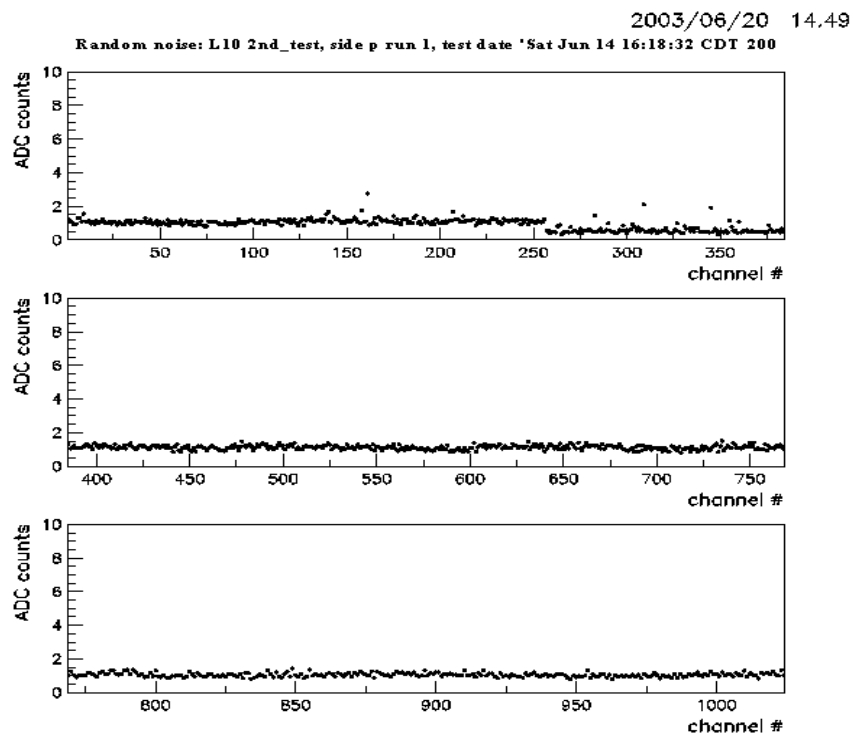


Pedestal and Noise in Cal. Inject Mode

Corrected pedestal



Random noise



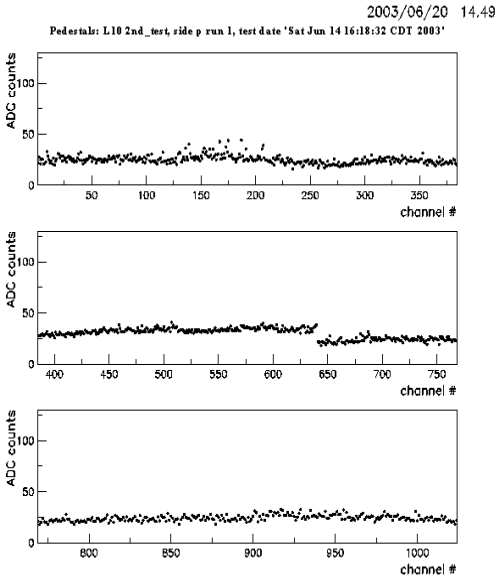
$$p_i^{cor} = p_i - \overline{p}_{chip}$$

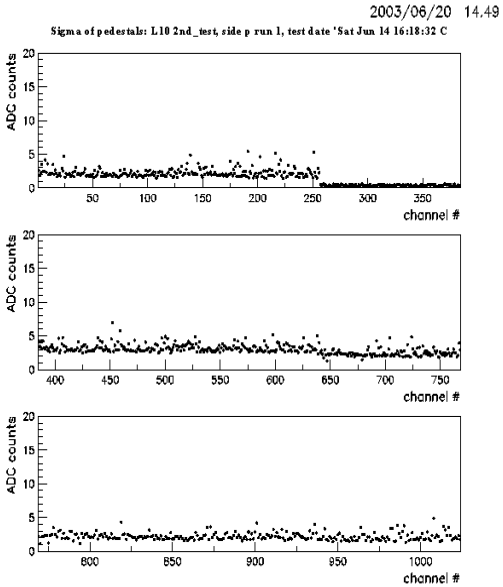
Pedestals and Noise in Data Mode

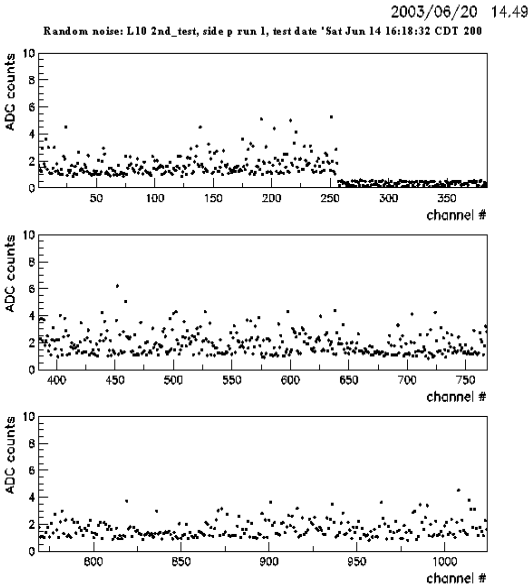
Pedestals

Total noise

Random noise

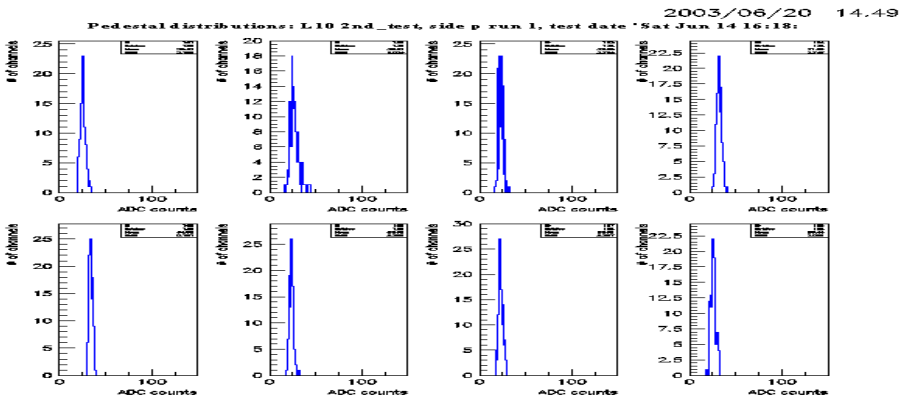




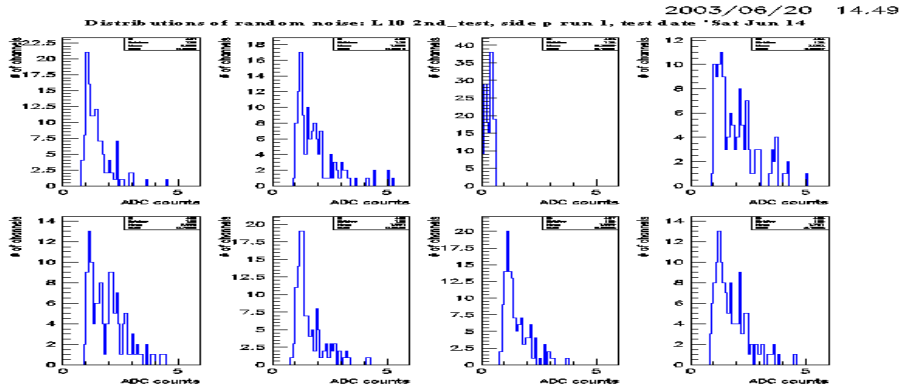


Pedestal and Noise Distributions

Cal. Inject mode

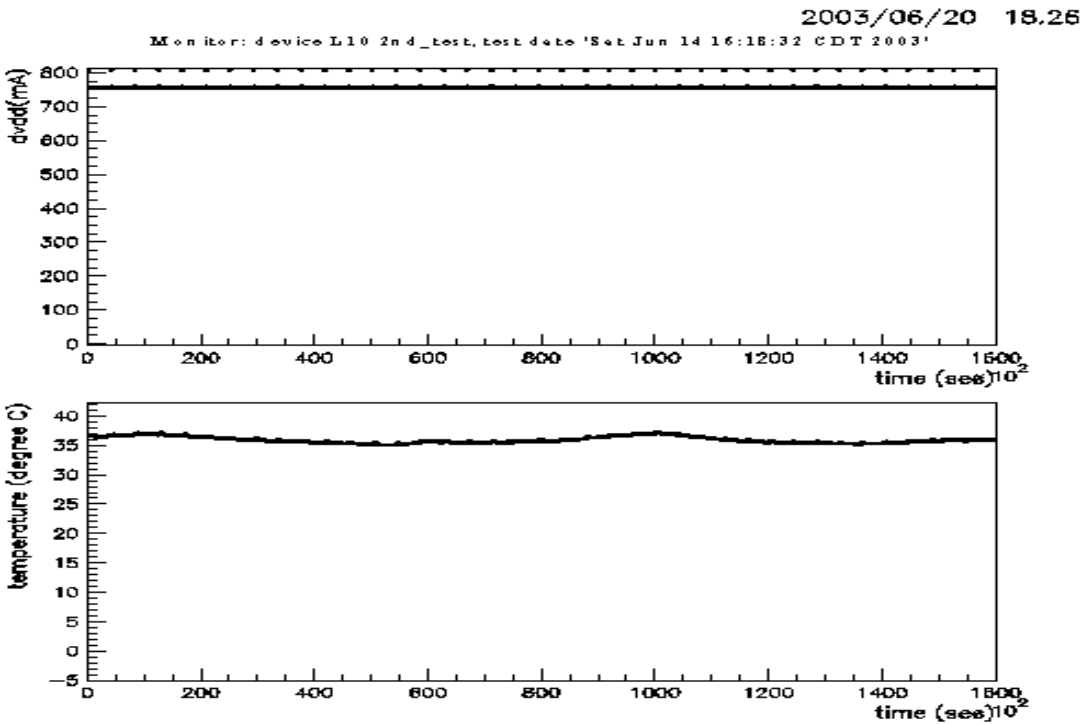


Pedestal distributions



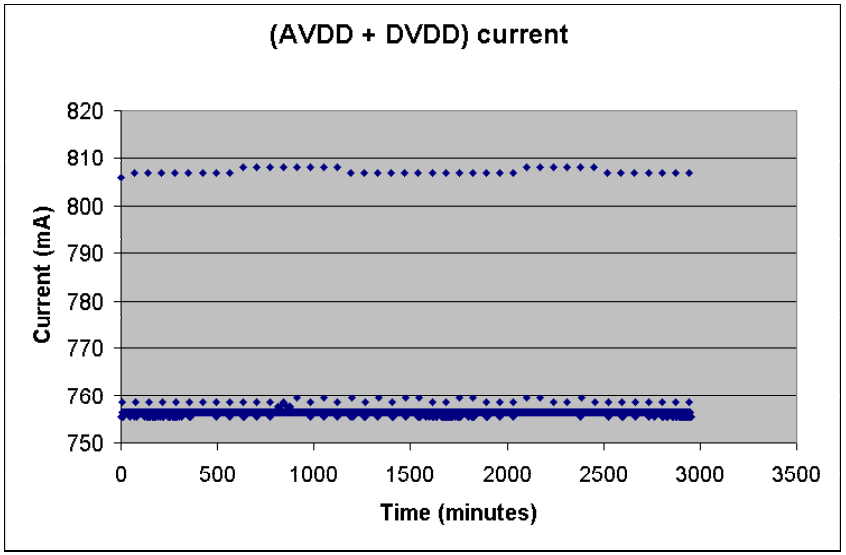
Random noise dist.

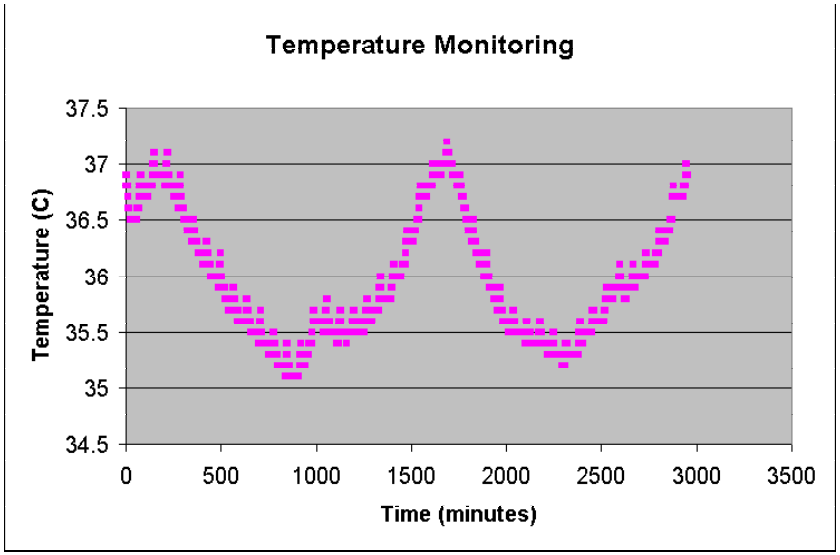
Temperature and LV monitoring



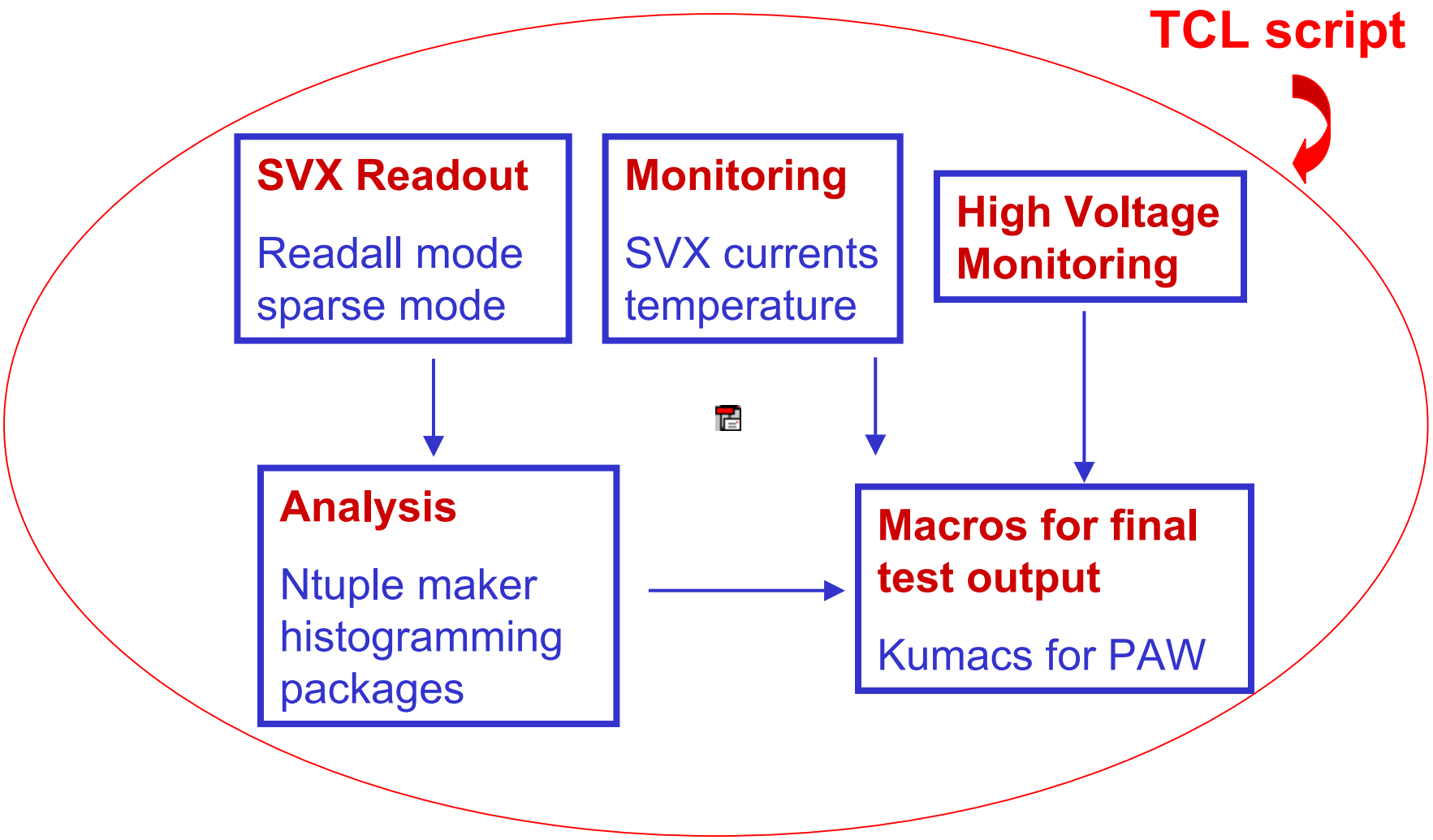
Temperature and LV Monitoring

43 runs in two days for a L2A hybrid





Summary and Plans

- Burn-in runs in read-all mode for a single hybrid
  - Pedestals and noise are reasonable
  - Monitoring of LV currents and Temperature works (with a software interlock)
- Short term “to do”
  - Fix TCL scripts to read more than one device
    - Should be ready to burn-in many hybrids very soon
  - Extend to 16 SASEQs
  - Add HV monitoring
  - As soon as hybrids with new chips arrive
    - Add Sparse Readout
    - Add Gain Meassurement

Burn-in Ingredients