

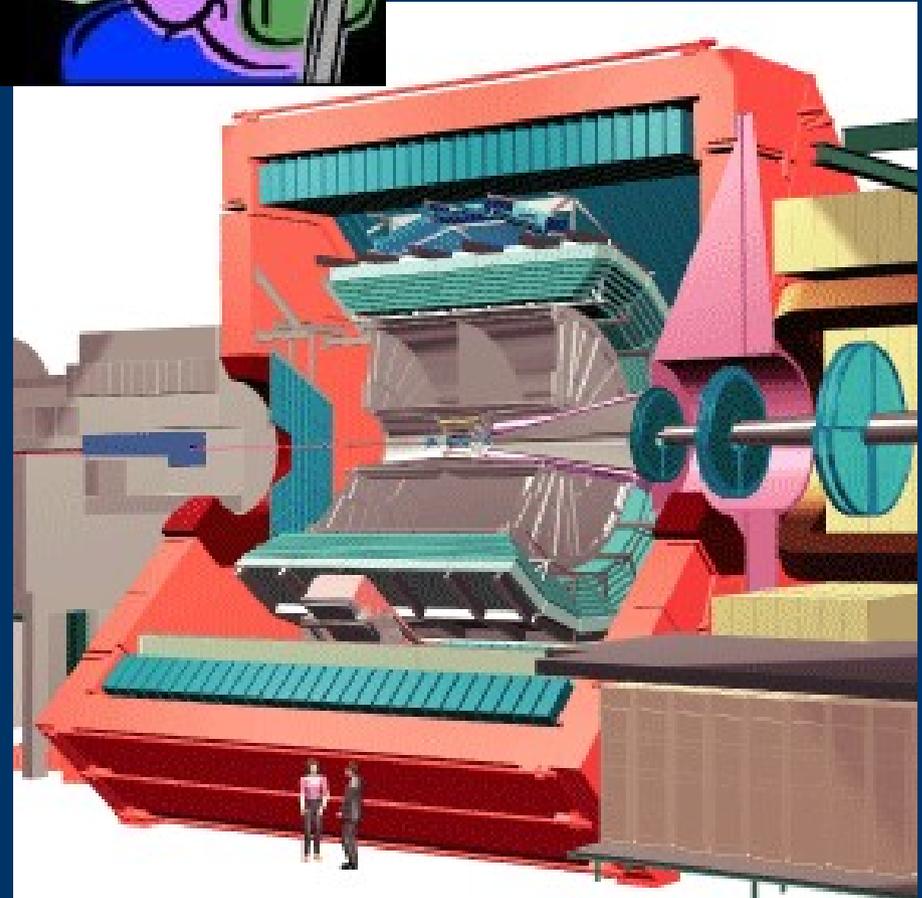
Detector Control System of Silicon Drift Detector in ALICE

Jiří Král

Czech Technical University

DCS ??

- provide control of large numbers of electronic devices
- gather information about current state (health) of the experiment
- safety & fast reaction
INTERLOCK



The big picture

Experiment
Control System

Offline

LHCM



ECS



OFFL

Accelerator

Data
Acquisition

Trigger

DCS

DAQ

TRG

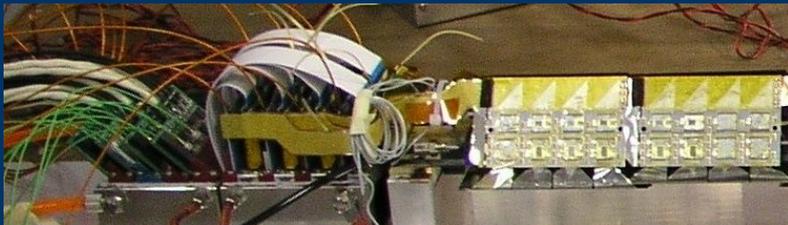


services

detectors

Configuration and calibration data

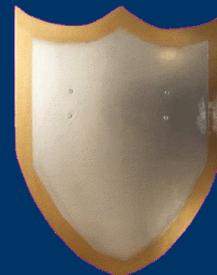
- Data smoothing thresholds
- Alarm thresholds
- Chip enable/disable
- ADC range and calibration data
- V set, I set, I max
- T max, En/Dis
- Ramp speed



Why is the status data important



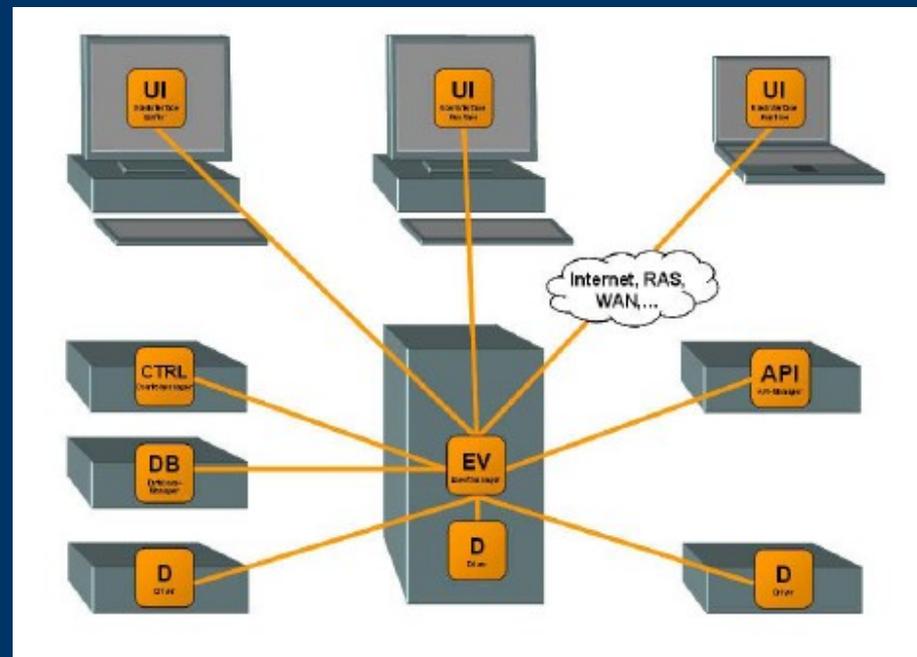
- Many things can go wrong
 - cooling plant breakdown
 - chip burn / short circuit
 - power failure
- Just to know, what is going on
- To identify physically not valid information
- To protect hardware



PVSS

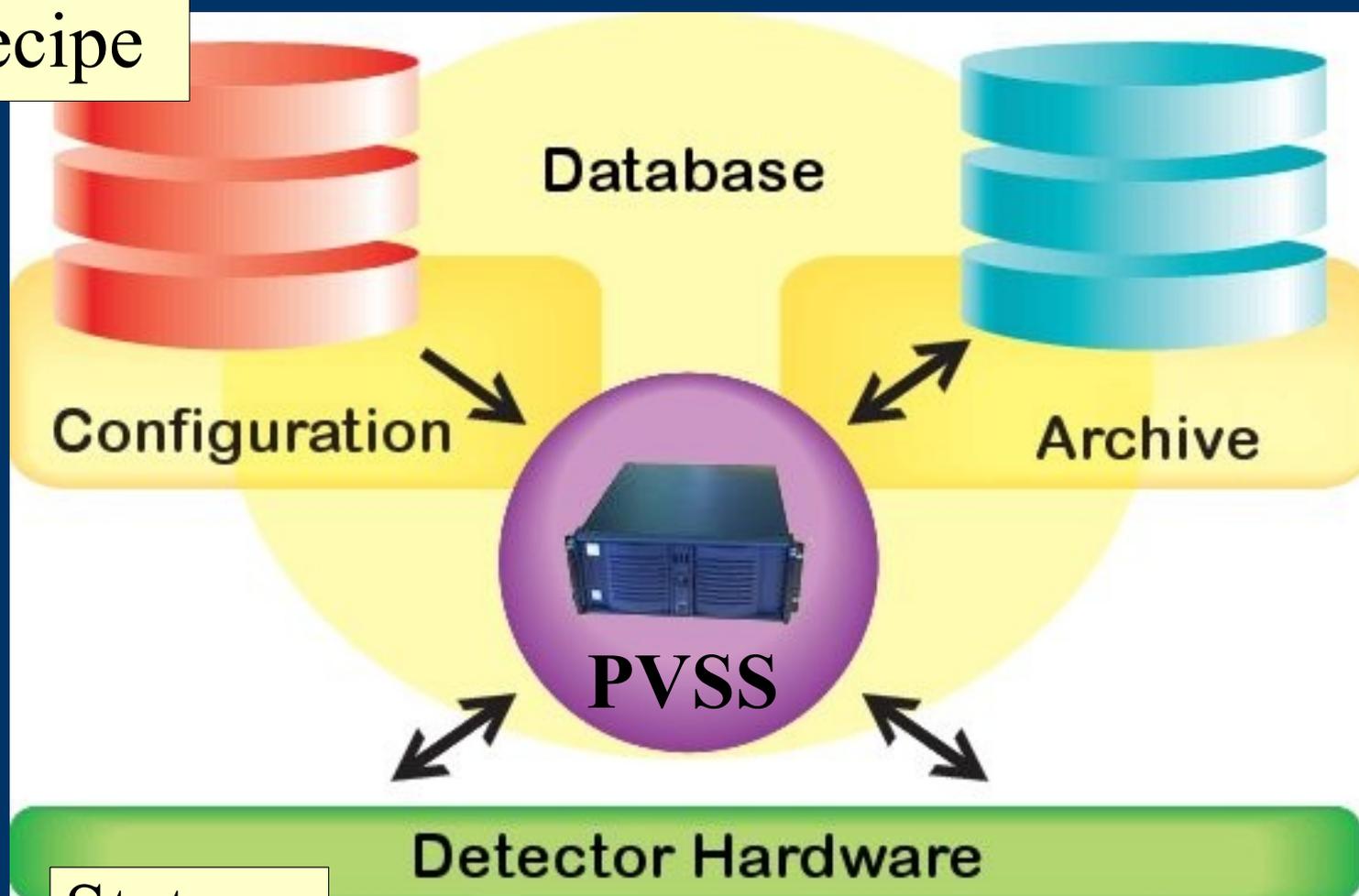


- PVSS is a SCADA system by ETM
- Database oriented, database driven
- Interpereted
- Distributed
- Expandable (API)
- IDE
- Monster



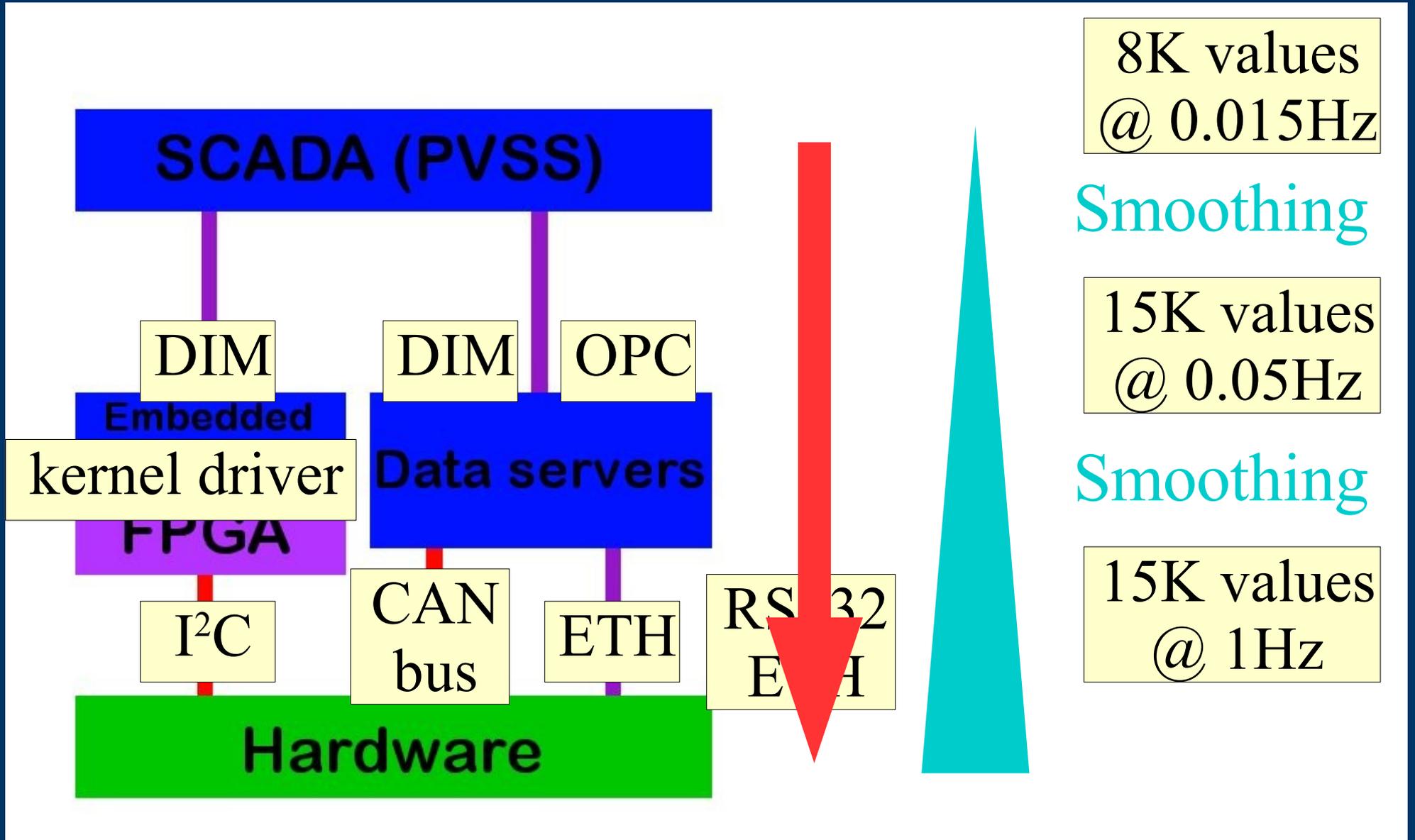
Data, where do they go, where do they come from...

Recipe

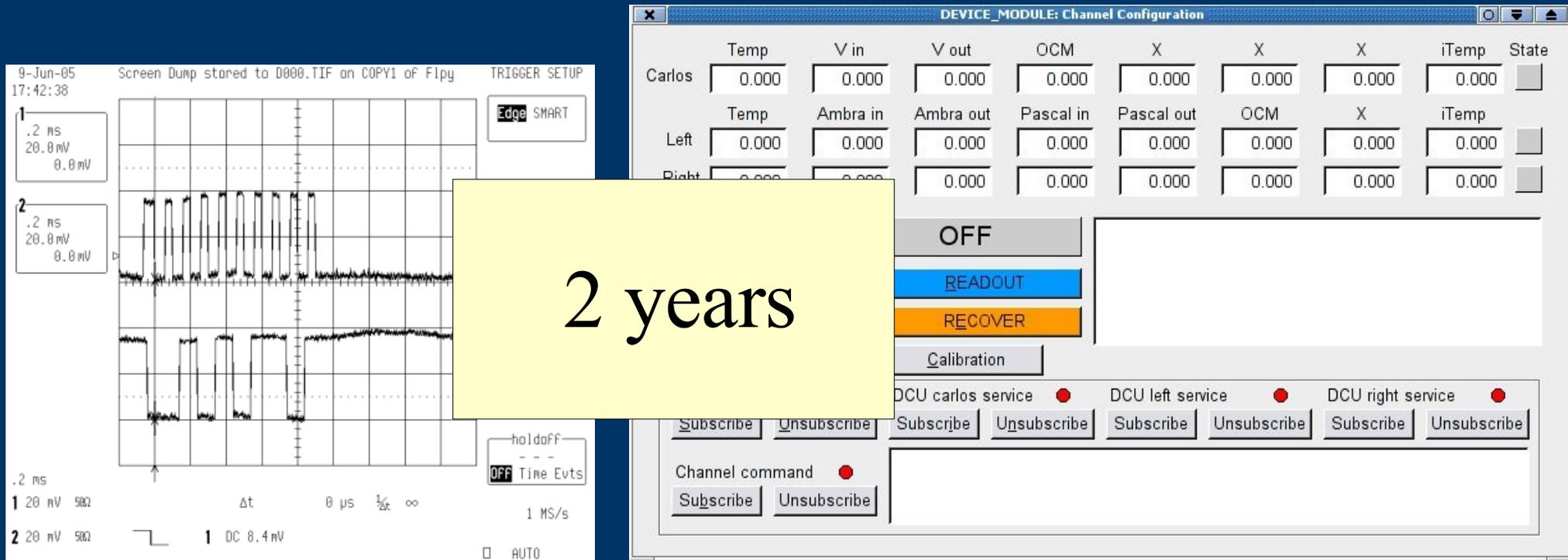


Status

Data path



Long way to go



Finite State Machine

