



# Slow-Control Status for Combined Testbeam



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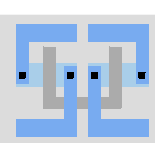
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13<sup>th</sup> DEPFET Workshop

Ringberg

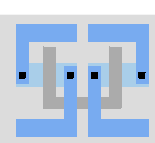
15.06.2013

- May Testbeam provides first live experience with EPICS/CSS SC.
  - EPICS is suitable as our SC platform
  - CSS provides a convenient way to implement operator GUIs
  - Functionality (esp. trendplotting) was received well
- EPICS Interface to all systems defined. Development quite advanced.
  - But adoption as primary platform already in the lab hasn't happened yet.



## Immediate Next Steps

- Bring PS and DHH IOCs together once the individual problems are solved.
  - PS IOC ready. Channel mapping to the module to be confirmed.
  - DCDB JTAG configuration
- Implement statemachine for power-up sequence.
- Schedule: „soon“ (matter of a few weeks)
  - Hardware has been made available for testing last week.



## Run State diagram

+ error handling

Initializing hardware

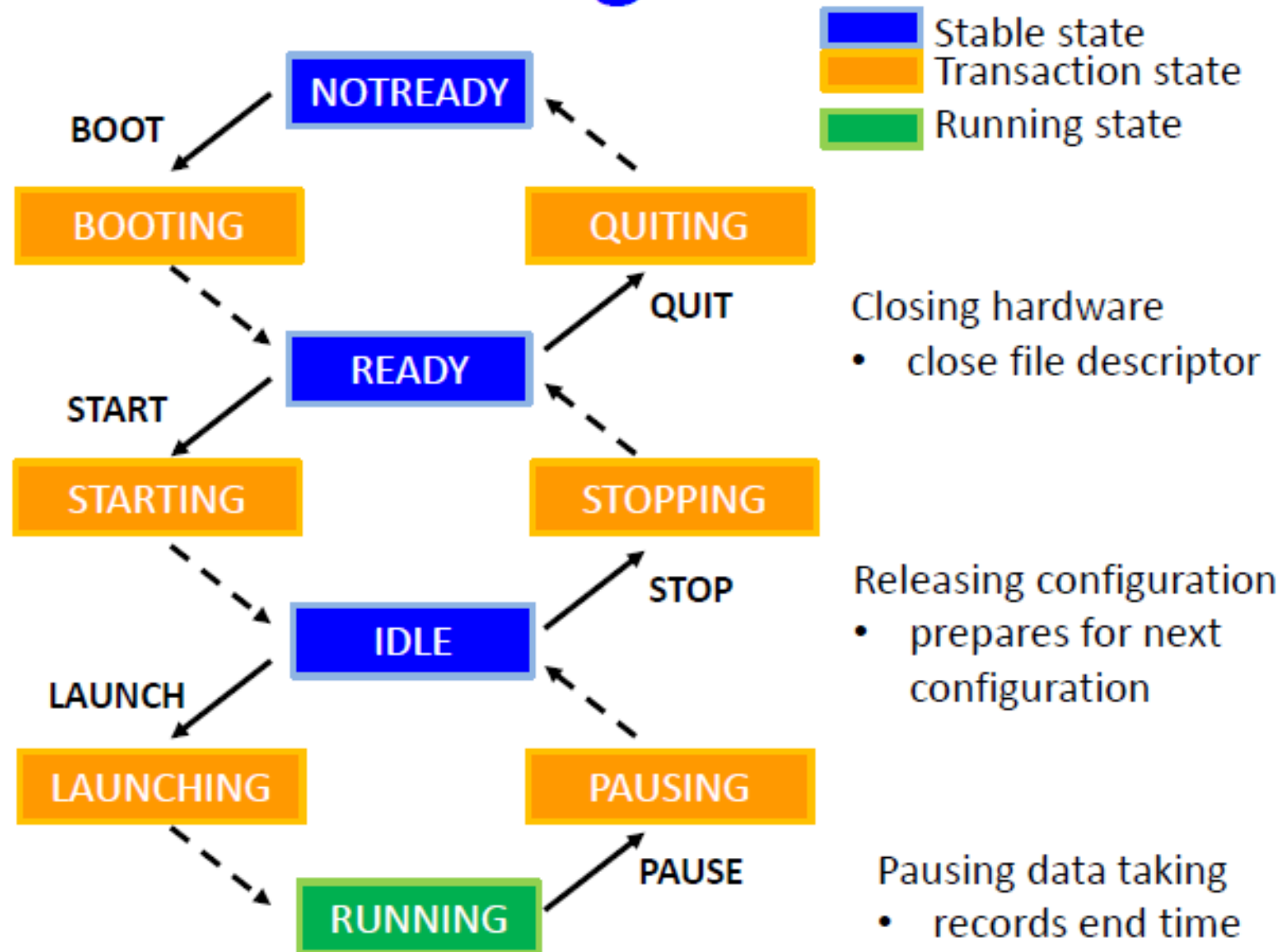
- open file descriptor
- upload firmware

Loading configurations

- setting parameters into the hardware

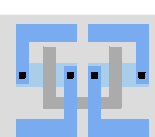
Starting data taking

- increments run #
- records start time



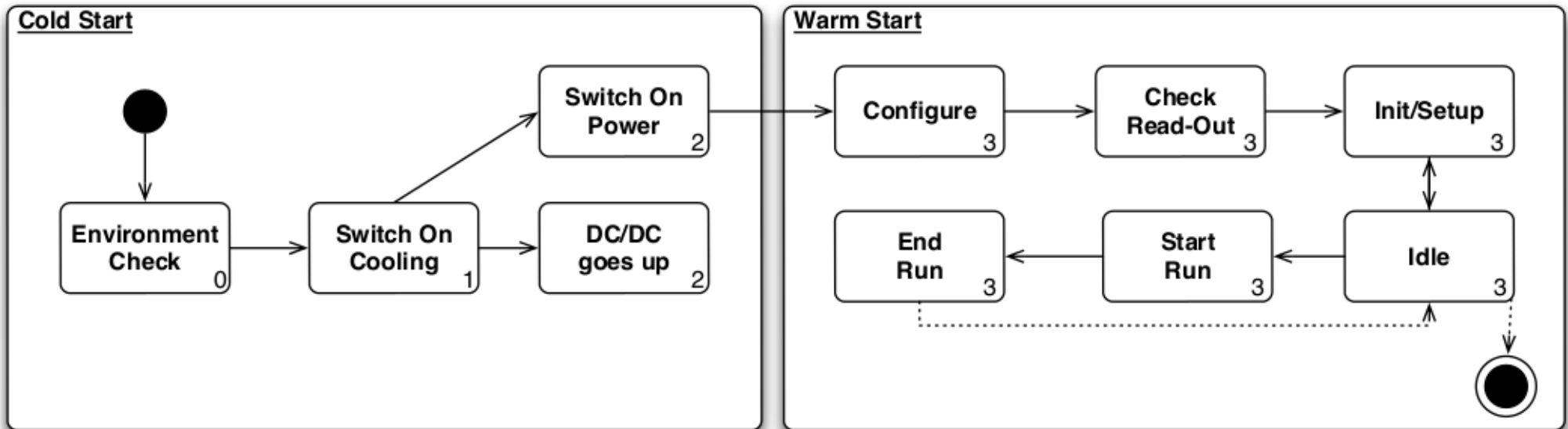
Tomoyuki Konno: „Status report for development of POCKET DAQ run control“, 07.06.2013

- We need to match the global states to our system.
  - What action to take when?
- Waiting for first code release from KEK to start the actual implementation.
  - Interface to NSM2 demonstrated in principle, but difficult to implement generic driver, as data structures have to be known at compile-time.

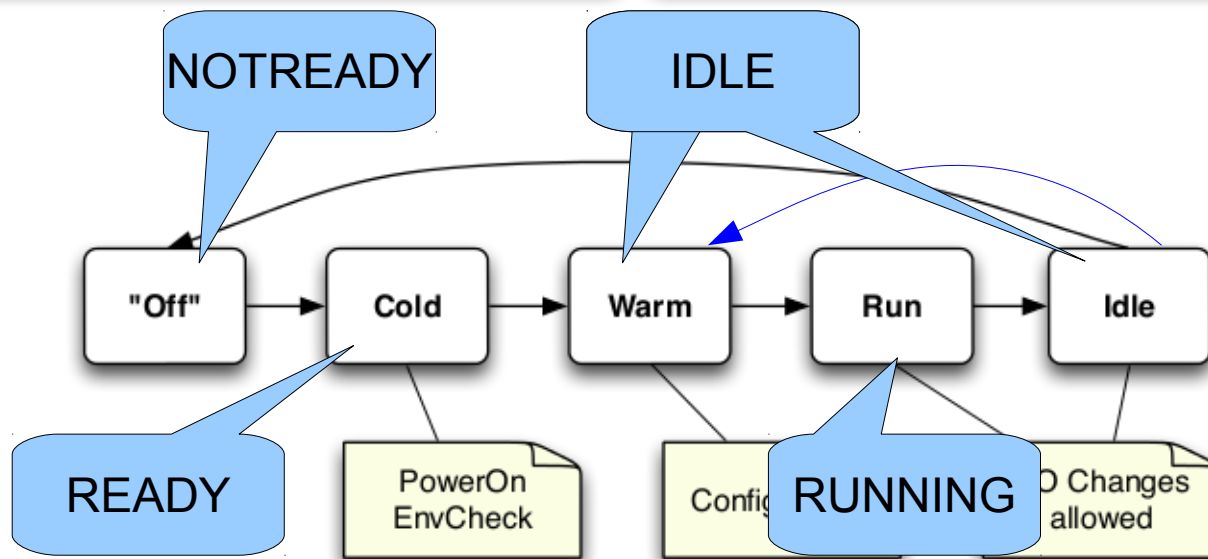


# To Compare: Our First Draft

## Start Up Process



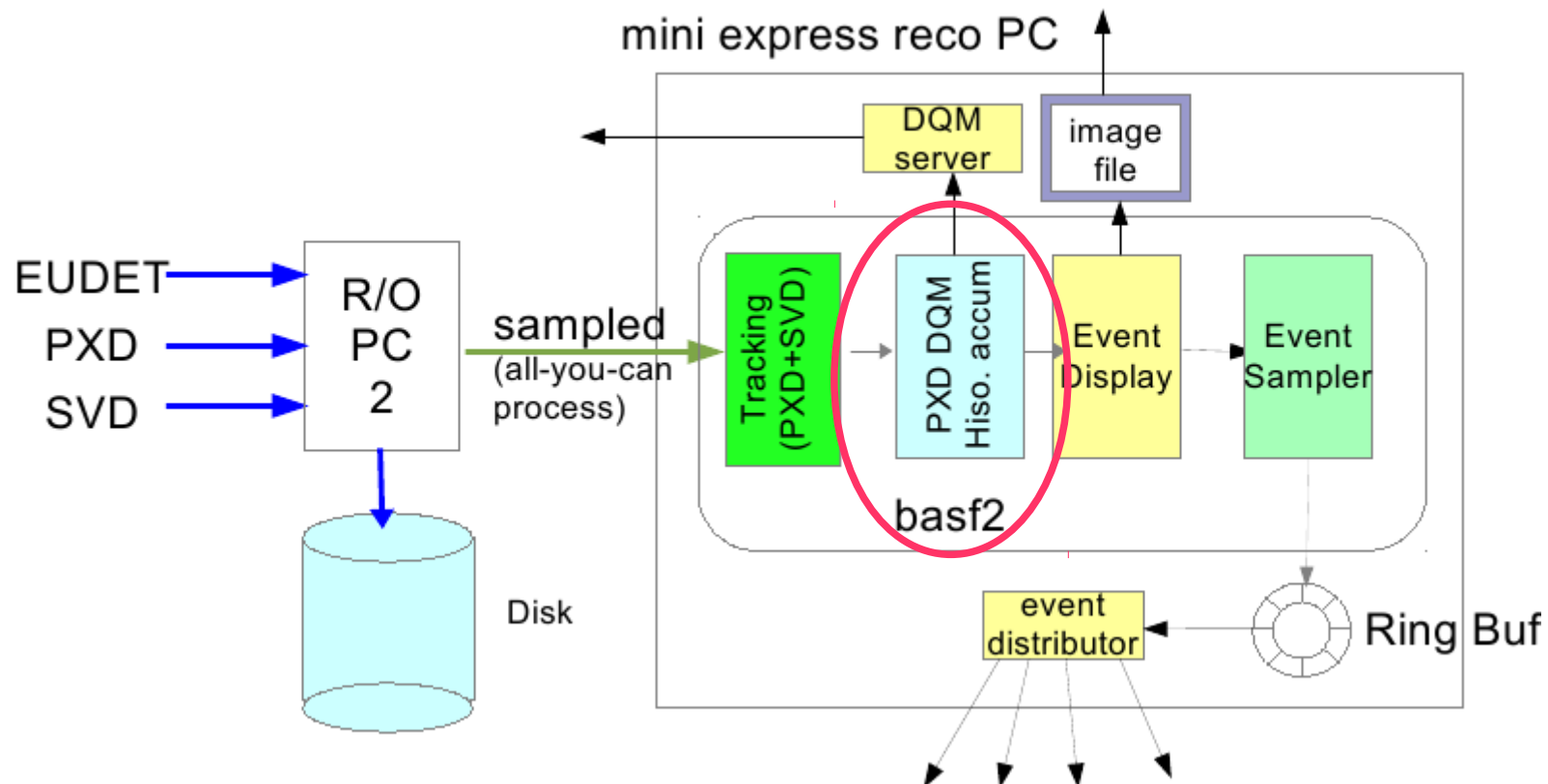
## System States



Not too different.

- Data prepared on conversion PC and in Express Reco.
  - Standalone viewer
  - Images provided in web-ready form to be linked to from CSS GUI.
  - Or will there be no conversion PC at all?
- Additional monitoring data from ONSSEN.

Data monitoring with mini express reco



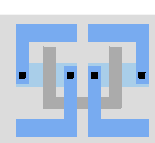
Only one slide, but lots of work...

- Finalize IOCs for all hardware
- EPICS-to-PVSS interface for MARCO
- More convenient way to manage PV databases
- Implementation of all Statemachines
- Handling of FOS data.
  - Position to Conditions DB?
- Logging messages from IOCs
- Parameters from Database
- ...



# Rough Schedule Towards January Testbeam

- Have the SC PC(s) ready when the first hardware arrives.
  - EPICS+CSS base installation ready
  - SC network prepared
  - Supporting services running
- Install IOCs for hardware as it arrives.
  - The hardware experts are there to support/verify the installation.
  - Alan on site to attend in case of trouble.
- Have one or two integration meetings to work on the integration between the systems.
  - One expert from each system that's involved.



Thank you!