Trigger crate orders for 2004

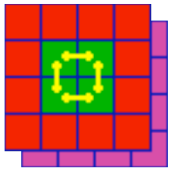
- ATLAS was asked to place all 2004 crate orders in December 2003
  - For us this is essentially all our crates, including test rigs
- Need 4 different types of 9U crate:
  - TileCal receivers *(same as LAr, copy their order)*
    - No VME64, custom backplane, rear-transition modules
  - CP and JEP
    - No VME64, custom backplane
  - RODs
    - VME64 with J3, rear-transition modules
  - Preprocessor
    - VME64, custom J3

TileCal receivers

- Backplane: Pittsburgh custom *(fitted by Wiener)*
- Rear-transition modules: 120mm *(non-standard)*
- 6U slots: None
- Power: 100A @ +5V digital,
  100A @ +5V analogue, 100A @ –5V analogue
- Configuration, cooling: Above crate, air
- Test-rig: *Pittsburgh responsibility*
- Problems: None
- Quantity: 2 *(Stockholm)*
- Delivery: CERN – June

CP and JEP

- Backplane: Stockholm custom
- Rear-transition modules: None *(i.e. no runners)*
- 6U slots: 2
- Power: 300A @ +5V, 200A @ +3.3V
- Configuration, cooling: Rear door, water
- Test-rig: Similar but power above crate, air
- Problems: None
- Quantities: 7 for system *(4 UK, 3 Stockholm)*
  2 for test-rigs *(UK)* *(+1 existing)*
- Delivery: Stockholm – June; test-rig – Nov.



RODs (1)

- Backplane: VME64x *(was VME64xP!)* + J3
- Rear-transition modules: 160mm
- 6U slots: 2
- Power: 200A *(was 300A)* @ +5V, 200A @ +3.3V, *24A @ +48V*
- Configuration, cooling: Rear door, water
- Test-rig: Similar but power above crate, air
- Quantities: 3 for system *(HD, UK, Stockholm)*
  1 for test-rig *(UK)* *(+1 existing)*

RODs (2)

- **Problems:**
  - Is power-pin limit 1.2A or 2.0A/pin? *Disagreement!*
    (1.2A is for multiple power pins at 60 ˚C)
  - If not 2.0A/pin, wanted to use J0 pins on **VME64xP**
  - But use of **VME64xP** is not advisable
    (P. Farthouat and G. Dumont)
    - E.g. possible conflict with Concurrent CPU, which might use J0 *if* an optional PMC card is present *and* CPU has a J0 connector
  - *PROPOSE* to use **VME64x** by using 48V pins on J1 and DC–DC converters for some of the power
- **Delivery: RAL – June, except 1 crate – Nov.**
  (But order not yet submitted, so possible delay?)

Preprocessor (1)

- Backplane: VME64x(P?) + HD custom J3
- Rear-transition modules: None *(i.e. no runners)*
- 6U slots: 2
- Power: 300A @ +5V, 300A @ +3.3V,
  40A @ +12V, 40A @ –12V
  (Not yet measured; probably less)
- Configuration, cooling: Front of rack, air
- Test rig: Front of rack, air
- Quantities: 9 for system *(HD)*
  1 for test rig *(HD)*

Preprocessor (2)

- **Problems:**
  - Power requirements cannot be met with 6 ‘bricks’, which is maximum in ATLAS-standard options
  - Power supply location must allow for mass of input and output cables
  - Power-pin limit 1.2A or 2.0A/pin?
    - *If not* 2.0A, wanted to use J0 pins on **VME64xP**, but use of **VME64xP** is not advisable
      - Can avoid possible **VME64XP** conflict with Concurrent if CPUs *without J0* are *always* used
    - *If* 2.0A/pin, can use **VME64x**
  - ATLAS crates not satisfactory; power supplies and power-pins will be discussed directly with Wiener
- **Delivery: ???**