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UK Tests of CP subsystem - Another Discussion Initiator

Integrating CPM, CMM, ROD

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Original slice test programme

- **Subslice Tests – Separate for CP, JEP, PPR subsystems.**
- **Full Slice I – 9U prototypes (except ROD)**
- **Design production modules + 9U ROD prototype**
- **Make preproduction modules + 9U ROD prototype**
- **Full Slice II – preproduction + prototype 9U ROD**
- **Apply minor corrections + design production 9U ROD**
- **Manufacture & Test preproduction 9U ROD**
- **Module FDRs**
- **Main Production followed by testing**

Updated slice test programme (my interpretation)

- **Slice Tests (continuous evolution Subslice to Full Slice)**

- **Several parallel threads -**

Per-Module view
- Detailed **tests** per module
- Final module designs,
  - correct bugs on-the-fly.
- Preproduction

Slice view
- **Tests** of Groups of Modules leading to full system.
- System Aspects
- Multi crate/module software

- Integrate and **test** preproduction modules
- Apply minor corrections
- Module FDRs, then Main Production

What Tests when for modules?

- **Before preproduction modules submitted for manufacture:**
  - All internal algorithms checked
  - All operating modes used.
  - All I/O interfaces checked
    - *Not necessarily with final nearest-neighbour modules*
- **Before FDRs:**
  - All internal algorithms checked
  - All operating modes used.
  - All I/O interfaces checked
    - *With final nearest-neighbour modules*

Integrating CPM, CMM, ROD

- **Have already tested JEM-CMM, JEM-ROD.**
  - Result: firmware fixes to CMM, H/W & S/W fix to JEM
- **First attempts to connect CPM-CMM and CPM-ROD will (probably) reveal faults to be fixed at home. Urgent.**
- **Then…**
- **CMM -> B'ham, where priority is to test CPMs**
  - *CPM-CPM check, soak-test backplane with all LVDS & VME lines busy.*
- **CPM-> RAL, where priority is to get CP subslice running.**
  - *CMM-CMM check, readout all modules via ROD, eventually CTPD.*

Over To You