Online Software for Phase 0

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- What we need
- By when?
- By whom?

What Do We Need (1)

- CMX
  - Requirements
    - New module services
    - New simulation
    - New online monitoring (Athena)
    - Addition: timing calibration for CMX
      - Automated scan was developed for CMM but never used
        - With few modules and 25ns clock speed, timing was done by hand
  - Issues
    - No special problems anticipated
    - Add new module type to existing frameworks
    - Just needs time and people

What Do We Need (2)

- L1Topo
  - Requirements
    - Support for complete new hardware platform
    - Implementation of tests, diagnostics, module services
    - New simulation
    - New online monitoring (Athena)
  - Issues
    - Needs decision on hardware libraries for ATCA
      - Use IPbus from CMS? Or will there be some different ATLAS "standard"?
        - Some ATCA support libraries being developed by LAr. What about FTK?
      - Prefer not to jump the wrong way, but need something very soon!
    - Need to decide whether to extend existing frameworks or start afresh
      - In principle nice to have single frameworks but may be more work/time/people/etc

By When? By Whom?

- **CMX**
  - Timescale
    - Need software for first prototype: few months?
  - Effort
    - MSU supported by existing online SW experts
- **L1Topo**
  - Timescale
    - As above. Help!
  - Effort
    - Should have coordinated work on developing frameworks for ATCA
      - Prototype for what we will need for phase 1
    - Contributions from previous developers of the current software?
    - Specific L1Topo configuration code from Mainz?
    - Algorithm simulation, monitoring etc from wider community?

Discuss!