Firmware needs for special diagnostics

Presented by: Christopher Gerth
Summary of ‘Working Groups’ (parallel sessions)

1) **BAM:**
   - **Monday**
     - 16:05 BAM overview
     - 16:20 FMC25 DSBAM board test results
     - 16:35 BAM MTCA firmware/server needs
     - 16:50 Guided discussion: server and firmware integration
   - **Tuesday**
     - 09:00 Laser synchronization overview
     - 09:20 LASY board development status
     - 09:40 Guided discussion: LASY development

1) **Links:**
   - 16:05 BAM overview
   - 16:20 FMC25 DSBAM board test results
   - 16:35 BAM MTCA firmware/server needs
   - 16:50 Guided discussion: server and firmware integration
   - 17:15 Link lock and MTCA needs
   - 17:30 Guided discussion: server and firmware integration

1) **Laser Synchronization:**
   - 09:00 Laser synch server / firmware needs
   - 10:00 Laser synch server / firmware status
   - 10:20 Guided discussion: server and firmware integration
FMC25 required by BAM and LSU in different configuration

**BAM: FMC25 + DSBAM**

**LSU:**  
1) FMC25 + MD22  
2) FMC25 + SFP4

⇒ Urgent need identified for both projects (1 year delay)  
⇒ BAM at FLASH, LSU at XFEL  
⇒ Prototypes in test/operation by July 14
Next steps FMC25 testing and firmware development:

Firmware for AD84 and test – Konrad
Board support package - Lukasz

Application Software and integration
In SimuLink library – Pawel

procedure for board tests – Lukasz

Tests for BAM - Jarek
Board support package - Lukasz

Simple application Software for BAM - Jarek

BAM

LSU

July 14 Review
BAM Server

Marie discussing the BAM server layout

After firmware test and tests with simple application software => New Server in ‘Killenberg’ framework
To-do:
- Take newest base FW from Łukasz and combine it with Pawel's Simulink Interface
- Copy Uros' SysGen Model to other channels and provide switching between different inputs
FMC20 common for Laser & Link (almost)

- MSK-compliant board FW
- Support FW for connected modules
  - PZT4
  - MD22
  - LASIO

MD22:

⇒ Change from XFEL framework to LLRF framework to make it work on FMC20 (Konrad)

Many tasks on the server part were discussed ....
New boards under development: LASIO, LASY

=> Firmware when boards are produced