



Firmware Updates

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ROD Firmware work-in-progress

- 1) Separate **data-taking** and **Calibration** firmwares

Currently **ongoing**:

ise project (XISE), top file, CDC (ChipScope) and UCF modified (one for calibration, one for data-taking).



Pixels → finished (Firmware not tested yet)

IBL → not finished yet

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- 2) **Stabilize** firmware **generation**

Final goal: generate automatically firmware with “make” on multiple systems (Linux)

Major problematics:

- Slave firmware NORTH and SOUTH are DIFFERENT → **OK**
- Master with Chipscope has problem on Linux
 - master ucf line `“net */clock_generator_0/CLKOUT3” TNM_NET = “REFCLK”;`
#name of signal connected to TEMAC REFCLK input seems to be the problem,
commented it out → **generation ok, no timing errors, to be tested**

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- 3) **Cleaner merger** in PIXEL firmware

Task started by Gabriele, latches and bad structure of merger where causing **problems in stability**. Some **test version** have been **produced**, currently under testing

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- 4) (Major) change in **git structure**

The idea is to “isolate” the firmware from the rest of the DAQ software, while keeping the same general structure (some modification such as Pixel/vs IBL, data-taking VS calibration)

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- 5) **Consolidate new FW loading procedures**

Merge all the developments done by Gabriele to standard branch, and develop a consolidate procedure

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- 6) **Smart L1ID Forwarding** FW

Merge current status with state-of-the-art branch and test on “large” scale

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- 4) (Major) change in **git structure**
- 5) **Consolidate** new FW loading **procedures**
- 6) **Smart L1ID Forwarding** FW
- 7) Create a **ROD fw test-bench**