

## Protocol 24. Meeting Di, 26.04.12 14.00 – 15.00

Participants: Udo Krause, Ludwig Hechler, Solveigh Matthies, Matthias Wiebel, Stefan Rauch, Harald Bräuning, Alexander Schwinn(Protokoll)

### 1 SCU-Tests

In June, different components of the SCU-Bus will be tested by the FESA-team. The idea is to check, if the provided interfaces work smoothly, and to get an idea of the available features.

- Stefan talked about the different functionalities of the wishbone-bus, which will be used for for communication to most of the SCU components.
  - Via a gateway-component(Etherbone) it is possible to as well use the bus across the network (needed in order to configure White-Rabbit Timing Receivers)
  - Wishbone currently does not support interrupt handling. So the connection between FESA and the Timing Receiver will use the common interface.
- Available FPGA-Devices have to be tested. (e.g. Interrupt-pruduction via Waveform Generator)
- The Interface to the Timing-Receiver has to be tested (Read Timestamps, Programm interrupts, ..)
- Check and load of FPGA-Software during run-time has to be tested
- It is possible to run C++ code directly on a soft-CPU of the FPGA. This could be usefull to fulfill hard RT-constrains.
- Currently no ACU is available yet. Possibly at July/August we as well can work with the ACU.

### 2 Compilation of FESA ona 64 Bit Platform

- CERN(Leandro) was able to compile & link FESA for 64Bit/Sci.Linux. All 3<sup>rd</sup> party libraries are now available in 64Bit (RDA, RBAC, Timing .. )
- Alex will get all needed libraries from CERN and try to as well provide a 64Bit version of FESA at GSI. (Primarily affects the packages fesa-core and fesa-core-gsi)

### 3 Port from FESA 2.10 to FESA3.X

- Beam-Diagnostic has only two classes left, which are coded in FESA2.10
  - PLC-BIF ( A class which uses the FESA2.10 PLC-Interface). A port to FESA3 depends on the availability of the IEPLC-library which Frank Locci provides. Stefano Magnoni curenly working on a IEPLC-installation at GSI.
  - B(eam)P(osition)M(onitor)-Class. Rainer Haseitl will port this class to FESA3, when his workload allows it.
- The port of these FESA2.10 classes to FESA3 is not urgent. It just would be nice in terms of NFS-complexity and for the infrastructure-department.

### 4 CERN Stay

- Alex will be at CERN for the whole May, as requested by Stephane Deghaye.
- Solveigh and Harald will be the main contact-persons regarding FESA3 support for the time of the absence. Solveigh regarding the eclipse-plugin and Harald regarding class-development.
- Main reason of the CERN-stay is a knowledge-transfere, regarding the XML-Schema.
- Other issues to be discussed during the stay:
  - Make install-local
  - Transaction Settings
  - Background priority for RT-Actions
  - Document Schema Definition Languages (DSDL) as possible replacement for XSD

## 5 Miscellaneous

- Gasper Jansa will be at GSI starting from May.
  - He probably wants to port his Residuum Gas Analyzer FESA-Class to the current version, taking into account all restrictions of the GSI-Guideline.
  - Additionally he will program a FESA class for a stepmotor-control.
- At the CERN-FESA-team there is a ongoing discussion about the possibility to allow priority-management per FEC (currently it is managed in the deploy-unit). As well the direct use of round-robin priority-values (0-100) in the xml-files is discussed, instead of having (LOW\_RT\_Prio, NORMAL\_RT\_Prio, ... )
- In the Trunk-Version plugin-included html-Dokumentation is as well available for the Deploymnet-Unit and the instantiation-file now. (Was only available for the design-doc)
- FESA class structures in the trunk-version have slightly changed for different reasons:
  - No class-version folder any more
  - Usage of Make.generic as well for classes
  - Clear separation of code, which the user can modify, and pure generated code.
  - Creates the possibility to use Maven as well for classes (Auto-build of the checked-in class + compilation by Maven + execution of Class-specific UnitTests + email-notification on a failed maven-build )
- In order to do not force the class developers to change the class structures to frequently, no new release for class-developers is planned in the next weeks.