TOC

Other pages:

Reports

January 2012

A - UML/Doxygen documentation Progress:

1. Development of the sequence diagram of the device driver module.
2. Development of the class diagram of the device driver module.
3. Development of the file dependency diagram of the device driver module.
4. Implementation of doxygen-style code documentation for the device driver source-code files compliant with ITER specification.

B - Progress on the production of “processed” signals and related EPICS PVs:

1. Implementation of all PVs in the SDD tool with alarm limits, thresholds and hysteresis and smooth fields.
2. Add new configuration PVs related with ATCA-IO-PROCESSOR and ATCA-PTSW-AMC4 boards and new sensors of the Shelf Manager - IPMC interface.
3. Test of the EPICS device support to shelf manager communication via http protocol to get, via IPMC, the temperature sensors data.

C - Device Drivers Progress:

1. Device driver adding features to support up to 48 acquisition channels for the ATCA-IO-PROCESSOR boards. Only for 2 were implemented.
2. Study and development of the new device driver for the ATCA-PTSW-AMC4 board. To aim this objective it was created a virtual device driver to emulate the hardware and to test the EPICS device support module and CSS tools (BEAUTY, BEAST and OPI).

February 2012

1. Software Engineering and Design document implementation of sections 4.1 and 4.2.

2. ATCA-IO-PROCESSOR device driver study and related UML software diagrams development for future software features implementation.

3. ATCA-PTSW-AMC4 device driver study and related UML software diagrams development for future software features implementation.

4. Overall System PV naming convention revision compliant with ITER requirements as described in "Signal and Plant System I&C Variable Naming Convention (IDM UID: 2UT8SH).pdf".

March 2012

1. Updating sections 4.1 and 4.2 of document: ATCA_Software_Architecture_and_Design.docx

2. Updating of document: ATCA_Software_Architecture_and_Design [UML Sequence Diagrams].vsd

3. Updating of document: ATCA_Software_Architecture_and_Design [Process Variables].xls

4. Answers of document: ATCA_Software_Architecture_and_Design [Document Review Form].docx

5. Development and Implementation of an EPICS device support (fpsc-shm-ipmc in PSH machine) to communicate with temperature sensor implemented by the IPMC.

April 2012

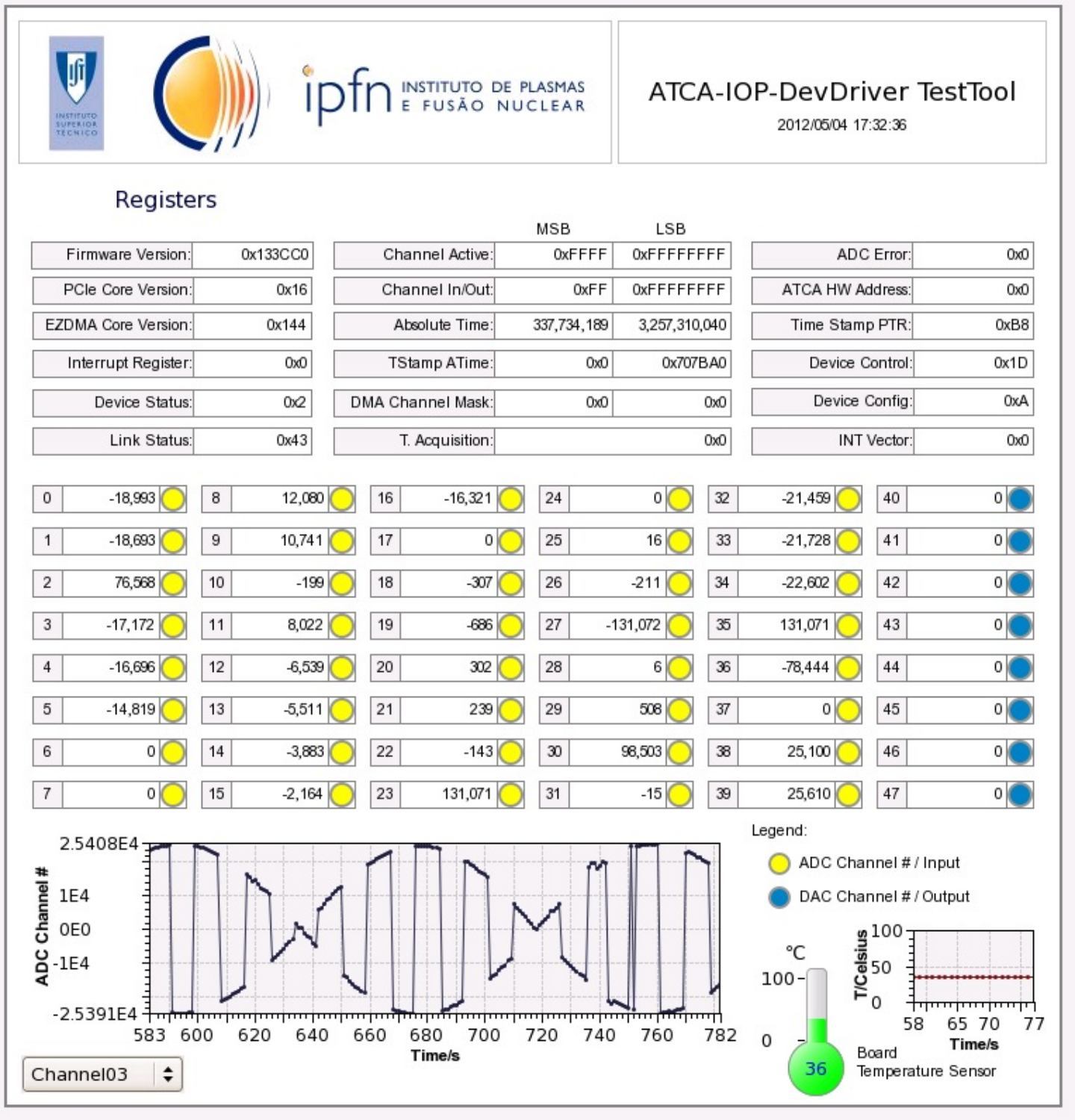
1. Extended functionalities of ATCA-IO-PROCESSOR device driver module.

2. Development of an EPICS device support for ATCA-IO-PROCESSOR test purposes.

3. Development of an EPICS CSStudio Operator Interface Panel for visualization purposes.

4. Under going study of EPICS asyn driver module device support implementation...

Output Preview:



May 2012

1. Extended functionalities of ATCA-IO-PROCESSOR device driver module.

2. Optimization and features implementation of the EPICS device support for ATCA-IO-PROCESSOR.

    i - Chopper effect implementation.

    ii - Board selection capabilities.

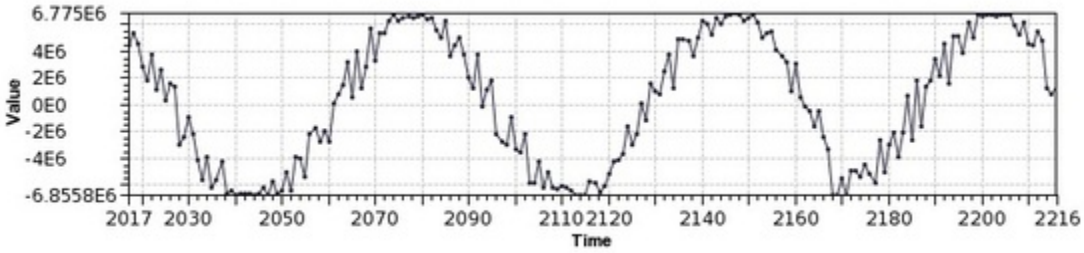
iii - Synchronism test:

Board 00 Absolute Time (s):	337,669,129	Board 07 Absolute Time (s):	
Board 01 Absolute Time (s):	337,669,129	Board 08 Absolute Time (s):	
Board 02 Absolute Time (s):		Board 09 Absolute Time (s):	
Board 03 Absolute Time (s):		Board 10 Absolute Time (s):	
Board 04 Absolute Time (s):		Board 11 Absolute Time (s):	
Board 05 Absolute Time (s):		Board 12 Absolute Time (s):	
Board 06 Absolute Time (s):		Board 13 Absolute Time (s):	

iv - Registers fields detailed view:

Link Status	0x43		
link width	link rate	link gen2 cap	init link width
1	0	0	3
1 - Lane	2.5 Gb/s	Not Capable	Link not trained
2 - Lane	5.0 Gb/s	Capable	1 - Lane Link
4 - Lane			2 - Lane Link
8 - Lane			4 - Lane Link
			8 - Lane Link

v - Real time data plot visualization:



vi - ATCA-IO-PROCESSOR DAC40 to 47 write implementation.

[State: Implemented and tested: OK].

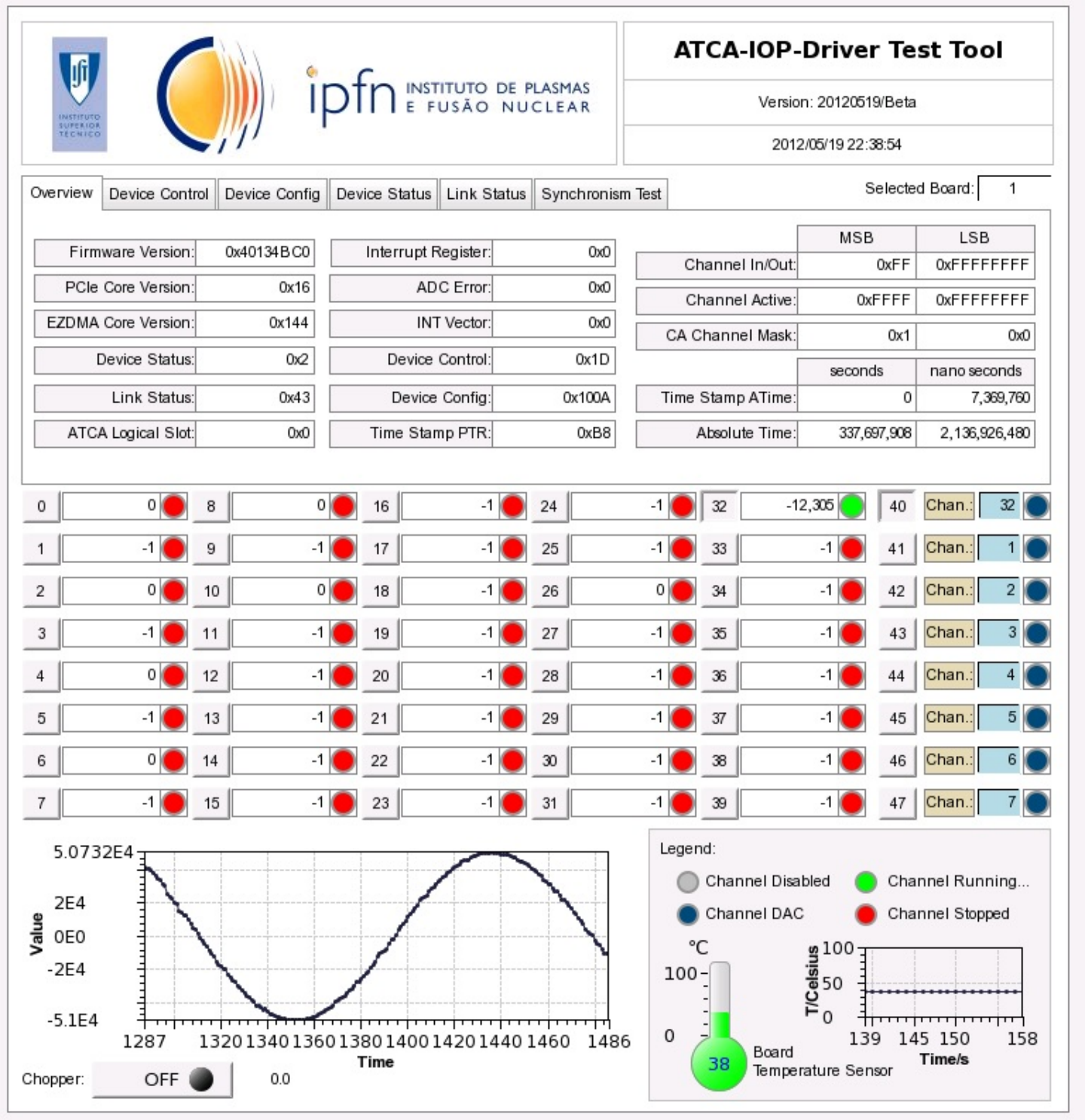
3. Optimization and features implementation of the EPICS CSStudio Operator Interface Panel for visualization purposes.

[State: Implemented and tested: OK]

4. Optimization and 2 board temperature sensor features implementaion of the EPICS device support for ATCA-IO-PROCESSOR Shelf Manager Sensor Monitoring.

[State: Implemented and tested: OK].

Output Preview of all work summary:



June 2012

1. Some minor updates in the following modules:

    i. ATCA device support test module.
    ii. ATCA Shelf Manager device support module.
    iii. ATCA-IO-PROCESSOR device driver lib API.

2. AsynDriver module development and implementation for the ATCA-IO-PROCESSOR Board: [status]: debugging and optimization.

3. Development of a sample application to test the asynDriver module: [status]: debugging and optimization status].

July 2012

Work preparation for Article and Poster for SOFT 2012 Conference to be held at Lìege, Belgium from 24-28 September 2012.

August 2012

Summer Vacations.

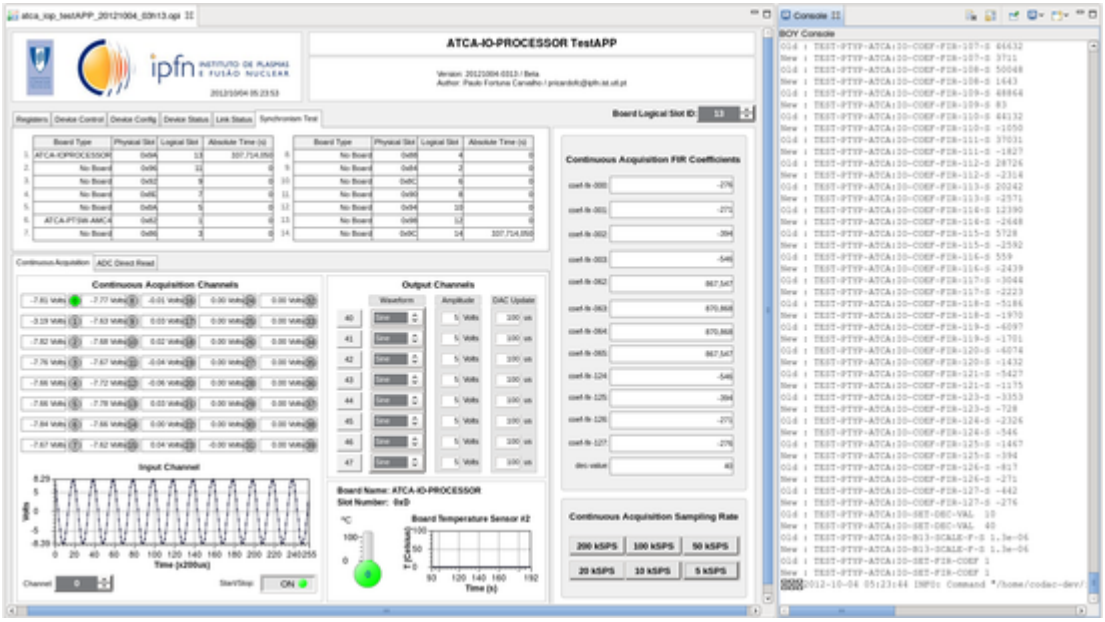
September 2012

1. Development of the Paper and Poster for the 27th SOFT Conference to be held in Liege, Belgium from 24 September to 28 September.

2. Paper preparation and revision to submit for publication in International Fusion Engineering and Design review.

October 2012

1. Software Interface modules and device support new implementations to test the ATCA-IO-PROCESSOR board for demonstration at Grenoble (by the colleagues Antonio Batista and Bruno Santos), France from 8 October 2012 till End of Week.



2. Preparation of documentation for the European PhD new candidate presentation to be ready for delivery at 8 October 2012.

3. Preparation of European PhD new candidate Interview to be held at IPFN/IST, Lisbon, 26 October 2012.

November 2012

1. Control System Studio Panels ITER FPSC ATCA-IO-Processor updates and tests.

2. Control System Studio Panels ITER FPSC Shelf Manager updates and tests.

December 2012

1. SOFT2012 paper analysis as reviewer for another author.

2. SOFT2012 my paper revision and submission.