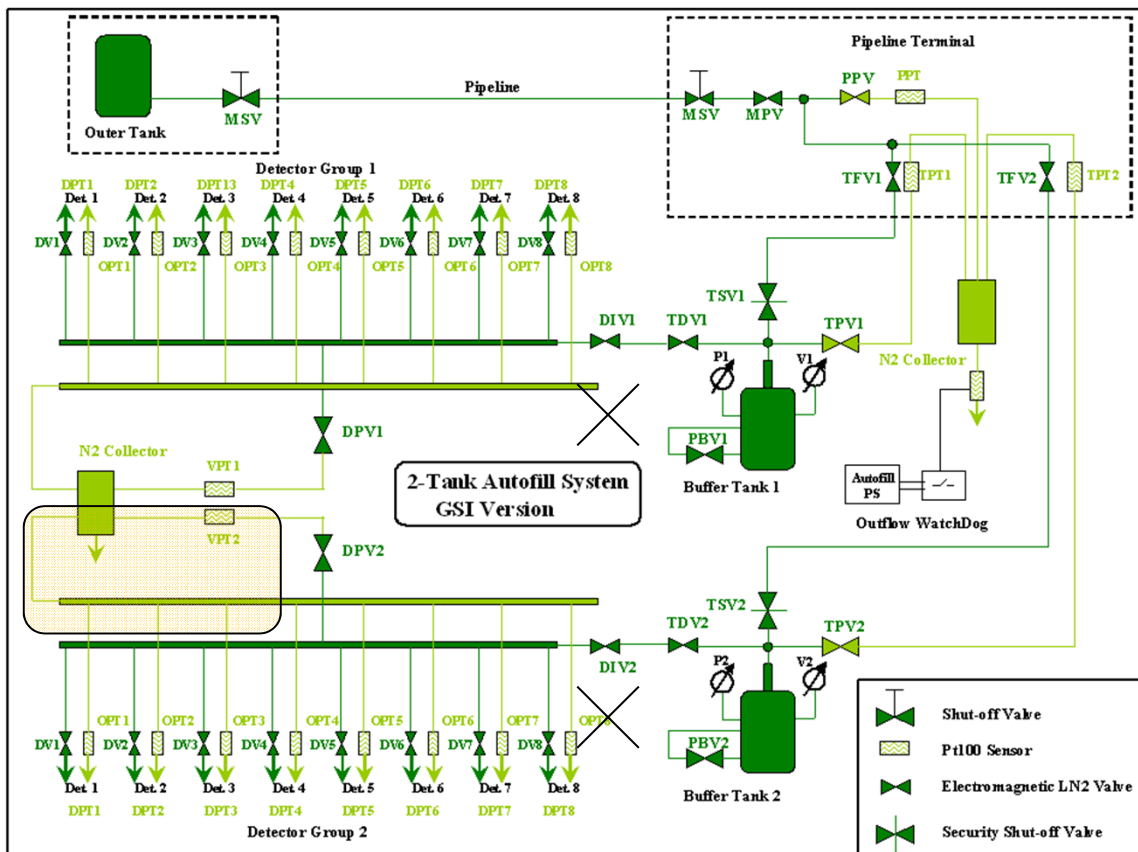


AGATA DSS at GSI
Status Report

I. Kojouharov

GSI cryogenic layout



Missing components of the final cryogenic system:

- one Pt100 bar
- missing cables between the LN2 distributors and the crates
- missing cables between the Pt100 bar and the crates
- missing cables between terminal and crates
- missing dialer (the delivery date is 06.06.2012)

Provisional:

- one 4 channel valve assembly
- provisional cabling for 4 channels

Last work done (hardware):

- the dry contact board revised and the new version boards are installed and tested
- transformer units (24 VAC) are ordered, one is delivered and installed at the "east" branch. At the "west" branch (to the side of the crane) installed one old unit. The other ordered unit is expected within this week.
- LN2 distributors are installed
- cabling between the sensors and actuators is ordered and will be installed within this week (at least the "west" branch)
- dialer is ordered and had to be delivered already, apparently a delay
- lot of other small, but important things which pave the road to further construction of the DSS...

To do:

- to install the second Pt100 bar
- cabling
- to set the dialer in operation

Last work done (software and test):

- successfully finalized PLC algorithm
- completed the new GUI version

Tests performed:

- in March 2012 – test at Saclay, successfully tested various components and cleared important questions.
- in April 2012 – test at GSI, successful run the Autofill with one tank. Used only service programs to drive the PLC.
- Mai 2012 – GUI successfully installed and connected to PLC, however, not on the computer foreseen. Use of μ box is complicated and unfriendly.

To do:

- to migrate to another "standard" PC as a GUI host
- commissioning of the GUI and PLC-program together
- to perform partial tests followed by full test under GUI controlled PLC

AGATA DSS at GSI

HV

I.Kojouharov

- based on CAEN HV crates
- inspected by CAEN
- extensive test performed by R.Menegazzo at GSI
- confirmed one channel faulty and one with unstable performance
- in conformity with the BSD cards proposed

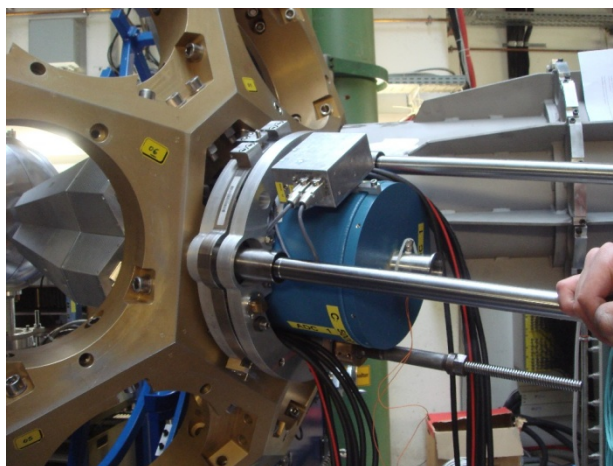
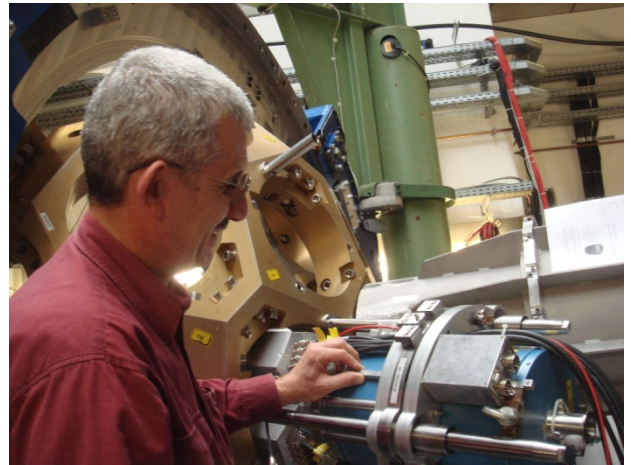
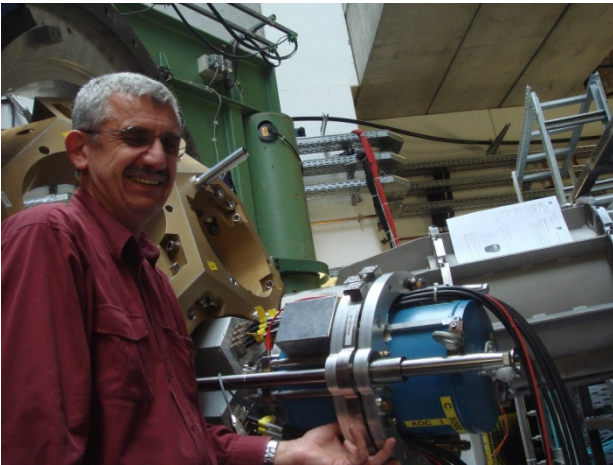
AGATA DSS at GSI

LVPS

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LVPS:

- 1 AXIS LVPS with problems
- suspicions on 1 patch box (connected to ADC2)
- mechanical problems with the patch boxes:



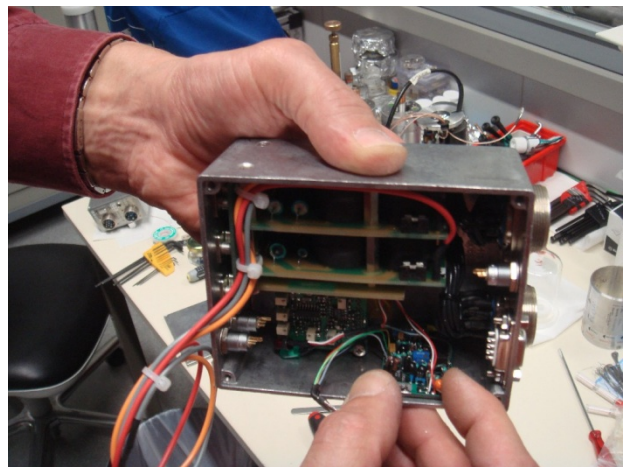
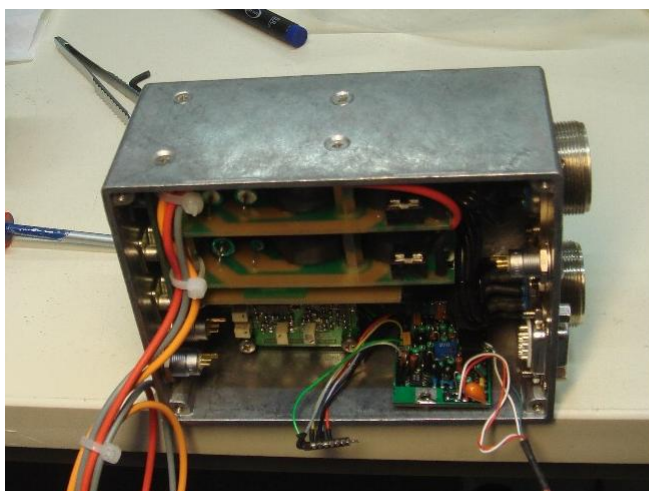
AGATA DSS at GSI

LVPS

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BSD board:

- proposed to be installed in the patch box where all the power supplies are available
- conform with the grounding concept
- based on industrial BSD board, CANBERRA - PSC 821/PSC822 or S-26406C
- proposed on 08.02.2012 and recently confirmed during the detector WG VC
- mechanical constraints:



END

AGATA DSS at GSI

I.Kojouharov



April 15, 2002

In October 2001, *Managing Automation* reported the results of *PLC Worldwide Outlook, Market Analysis & Forecast Through 2005* conducted by ARC Advisory Group, as well as some observations about who is and is not inclined to prefer PC-based controls.

Essentially, in industries where the PLC has been strongly entrenched, respondents did not find much interest in changing to PC-based control. The long-standing reason to choose a programmable controller is repeatable, reliable action that is conducive to high-speed, repetitive processes. Others have described it as “dedicated performance, a high level of security or where control applications are mission critical such as in the pharmaceutical industry,” according to *Managing Automation*. Otherwise, users recognized the merits of software controllers, focusing on the PC’s greater capacity for number crunching, data logging and report generation as well as some communication advantages.

When Software PC Control Makes Sense

The key reasons to go the PC-based control route include networking the control system to higher-level applications such as ERP; handling complex mathematical applications in recipe management or vision inspection systems...