

GGSS Upgrade Status

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GGSS LS1 upgrade status - hardware

- PC already bought: **DELL PowerEdge R610**
- High voltage power supply: **CAEN N1470**
 - Tested at AGH
 - 3 more pc. needed 3600 Euro/pc (already ordered)
 - No need for external monitoring (ELMB will be used only for temperature and flow measurements)
- Multichannel Analyzer: **CAEN N957**
 - 1 pc. under the tests at AGH
 - 2nd pc. already ordered (2400 Euro)
- Home made analogue multiplexer – not found acceptable solution at the market
 - Improved version under the tests at AGH
- The rest of hardware will be kept as it is

GGSS LS1 upgrade status - PC

- Current PC partially broken after power cut in USA15
 - One of the power supply is dead
- Preparation and of new PC to be done soon
 - Installation of SLC
 - Remote access from Krakow needed
 - Windows 2008 R2 virtual machine
 - Chromatograph project will be running on this PC
 - Direct installation in the USA15 or on surface first?

GGSS LS1 upgrade status - software

- Current software runs on Windows XP 32-bit
- Required changes in software
 - Modify source codes to be platform independent and 64-bit
 - Core changes have been already done
 - Hardware drivers and their libraries
 - MUX – USB, virtual RS232 (micro-controller based)
 - HV – USB, virtual RS232 (micro-controller based)
 - MCA – USB with dedicated driver, Windows – everything OK, Linux some unclear problems – solved (at least for now)
 - Urgent need to run WinCC and GGSS project on SLC
 - Preparation just started
 - WinCC project adoption to new GGSS features – not yet started
 - Automated drivers and software installation – not yet started
- Desired changes in software (maybe to be implemented)
 - Independence of DIM – necessity to develop the WinCC service
 - Improvement of WinCC → GGSS communication

GGSS LS1 upgrade status - straws and other old components

- The new system will use most of the old equipment
- After the migration to the new PC and hardware components the GGSS shall run smoothly with existing straws
- The system will be under the test at CERN and if needed other elements will be exchanged
- Special care has to be taken to revalidate all GGSS straws
- NIM crate - small problems with the fans (some time ago)
- New patch panel maybe needed to be prepared
- Cables preamplifiers, amplifiers will be kept

Plans for near future

- Further work in Krakow until migrated system is fully operational
- Help needed to setup WinCC on SLC and migration of the old PVSS project
- Setup new PC at CERN to prepare it before installation of the new system
- Preparation of the software packages with GGSS project for automatic installation on SLC
 - Is that really important and necessary?

Conclusions

- Main components of the GGSS have been already moved to be compatible with new PC and SLC
- Migrated minimal system is in operational mode in Krakow
- Urgent need to setup WinCC in Krakow and migrate of the PVSS project
- All necessary new equipment already designed, bought or at least ordered
- Installation at CERN of the migrated system still feasible this year or at latest February next year

Thank you for your attention!

