REPORT ON DCS ACTIVITIES

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Autumn 2002

Evaluation of the system and analysis of its weak points

↪ 4 Major problems found:

1. Reliability
2. Speed
3. Security
4. Incomplete control of the spectrometer

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↪ 0. Old software versions

(DIM, Framework, PVSS)

Software upgrading

$\Longrightarrow$ migration of operating systems

Status of DCS PCs in fall 2002:

- **Linux (RedHat 6.1) – pccompass04**

  (hot spare: pccompass07)

- **Windows NT – pccompass03**

  (3 types of cards, no spare)

Windows NT and Linux RedHat 6.1 no more supported by CERN

$\Rightarrow$ **migration to Windows 2000 and Linux RedHat 7.2)**

$\hookrightarrow$ pccompass03 refurbished (BIOS, W2K)

Software upgrading (cont.)

- **DCS program PVSS was upgraded to version 2.12**
- **Upgrade of the JCOP Framework to version 1.2**
- **Upgrade of the DIM Name Server**

$\Longrightarrow$ **Test upgraded DCS in** *Data Acquisition mode*

1. System Reliability

How the system can survive *disasters* as:

- **Computer crashes $\Rightarrow$ hot spares of the 2 main DCS computers:**
  - $\hookrightarrow$ **unused na58pc014 refurbished mirroring pccompass03 (Windows)**
  - $\hookrightarrow$ **pccompass07 mirroring pccompass04 (Linux)**
- **Power cuts:**
  - $\hookrightarrow$ **2 dedicated UPS**
  - $\hookrightarrow$ **backups of historical archive and PVSS project**

2. System Speed

Possible solutions:

- **optimization of SLiC and new JCOP Framework**
- **get rid of SLiC and use only OPC Servers**
  - ↪ **adopted by LHC**
  - ↪ **not fully tested**
  - ↪ **not an universal solution for COMPASS**

Considering the solution of **splitting SLiC survey in 2**, being one of $\simeq$ 1s

$\Longrightarrow$ COMPASS DCS requirements delivered to IT/CO

3. Security/Protections

- **Different logins in PVSS:**
  - ↪ **DCS engineer**
  - ↪ **Detectors engineer**
  - ↪ **Operator**
  - ↪ **Observer**
- Create action log file identifying **login name**, **time of action** and **kind of action**

4. Additional detectors' control

New monitorings will be done upon request

↪ but for this a detailed Users Requirement document is needed!

Provide us complete information on:

- Number of channels to be controled
- Name of these channels
- To each crate and board each channel belongs
- Crate and board types
- Parameters to be controled
- Values of dead bands for trendings

In the future a template for this document will be provided.

Tests

For debugging and tests

$\Longrightarrow$ **switch on harware**

$\hookrightarrow$ **corresponding responsible**

- **DCS final assessment**

$\hookrightarrow$ **Technical run: 1 week begin of May**

$\hookrightarrow$ **Switch on $>$ 80% of channels**