COMPASS DCS reliability program (proposal)

1. **pccompass04 (Linux)**

   This is main DCS Linux computer. It will be replaced by hot spare pccompass07 in case of a crush.

   1.1. File system protection:

   1.1.1. Implement a regular ADSM backup

   Which directories should be backuped?

   1.1.2. Install a UPS with emergency switch ('red button') near the computer and implement of procedure of computer shutdown in case of long power cut (UPS signal).

   1.1.3. Install Linux 7.2 and =ext3 (or other) journaling file system

   1.2. PVSS project protection (project and archived data):

   1.2.1. Implement a mechanism of regular coping of the PVSS project on hot-spare computer (pccompass07)

   Should it be done every night (?), every week (?),
   Should it be done by hand (?), automatically (?)

   1.2.2. Develop and implement a mechanism of storage of PVSS archive data (Archiving policy will be described in separated document)

2. **pccompass07 (Linux)**

   This is a hot spare Linux DCS computer

   2.1. File system protection:

   The same actions as for the pccompass04.

3. **pccompass03 (Windows NT, soon W2000)**

   This is main DCS Windows computer. Will be replaced by hot spare na58pc014 in case of a crush.

   The PC runs 3 OPC servers:

   ‣ OPCCanOpen (all ELMBs)

   ‣ Schneider-Aut.OFS (Connection to PLC1 and 2 - gas system of various detectors)

   ‣ APPLICOM.OPCSERVER (Hodoscope movement?).

The PC is keeping a File Maker database with CAEN HV PS control configuration.

3.1. File system protection:

    3.1.1. Install a UPS with emergency switch ('red button') near the computer and implement of procedure of computer shutdown in case of long power cut (UPS signal)

3.2. DCS protection:

    3.2.1. Install a CD writer and backup on re-writable CD each modification of OPC Servers configuration and File Maker database

    3.2.2. Mirror of the changes to hot spare computer

    Can we write a script for automatic mirroring? How often it should run?

4. **na58pc014 (W2000)**

This is a hot spare of Windows DCS computer.

4.1. File system protection:

    The same actions as for the pccompass04.

5. **pccofe14, pctri07, na58pc037**

These are the front-ends. The DCS software is store on AFS and is protected by AFS backup. In context of this program we can consider them as pure hardware (see DCS hardware list).