

Table of Contents

RICH ECS.....	1
PCs, projects, CCPCs,.....	1
Remote Access to ECS PC.....	2
PVSS projects running as services (Windows).....	2
PVSS projects running as services (Linux).....	2
ECS/INF: the infrastructure (interface to the externally provided services).....	2
ECS/DCS: Detector Control System.....	3
RichDCS.....	3
HV.....	3
ECS/DAQ: data acquisition system.....	3
L0.....	3
L1.....	3
ECS/ Configuration.....	3
ECS/ Condition.....	4

RICH ECS

The RICH ECS is managed starting from one out of two starting points:

- the RICH top-level FSM panel, running on the R2ECS1 PVSS project;
- the RICH manager panel, opened either from the User button in the RICH top-level FSM panel or via a dedicated shortcut.

The RICH top-level FSM allows navigating through the RICH FSM tree with its panels. It is mainly intended for routine operation and it should be simple and robust enough to be used by anybody, including non-RICH people. The RICH manager panel complements and integrates the FSM panels; it is intended more for easy and quick access to a number of functions and tools required outside routine operation and for debugging including

- opening the RICH ECS Web Summary page
- opening DEN, FSM, PARA, GEDI and SysManagement modules of any RICH PVSS project as well as the Manager panel itself from any other RICH PVSS project;
- opening all the user panels of any specific system in one go (any other missing panel can be added: those currently implemented are not the complete set);
- opening the DSS and Alarm panels;
- opening the TFC panels;
- watching the status/connection of the PVSS systems connected in the distributed system;
- opening the task manager and ProcessExplorer on the local PC.

It is also available via the shortcut RICH2_ECS-manager either in the usual oper folder of the group area or from the windows start menu (Programs -> RICH) of the two RICH console PC in the Control Room. Shortcuts for opening PVSS operation panels can be found in G:\rich\oper They use Clara's Console and those for DEN and FSM should now work from any windows machine where PVSS is installed.

The HTML file G:\rich\oper\RICH2-ECS.html (windows) or /group/rich/oper/RICH2-ECS.html (linux) opened with any browser running on a PC that has the group disk mapped, gives a number of useful links to the RICH2 ECS; in particular it allows you to browse any of the current RICH2 PVSS projects consoles for a quick overview of the overall status of all PVSS projects. The Web page, in fact, has links to all the pmon processes of all RICH PVSS projects: click on the link of the desired PVSS project to get to the PVSS project console. If you get no answer it means that the PVSS project is not running. From this you can: stop and restart the project; start/stop/restart managers. In case of starting/restarting managers note that if the manager is displaying any panel this will be displayed on the same display as the one used by the project when it was started. Therefore this is not always useful to open a panel. Note that this works from any PC, including the gateways. The use of the Web Console is by far the best way to check the status of a PVSS project and its managers. Note, in fact, that the Project Administrator and Console are known to be - sometime - unreliable: the Web Console is the only safe tool.

The responsables **MUST** take care of backing-up their systems as centralized backup is **not** available yet. In future the group area will be centrally backed up but not the local disks.

PCs, projects, CCPCs,...

PC	Project	SysNum
R2DCS01w	LV / SiBias	170
R2DCS01w	FSM	179
R2DCS02w	Monitoring	172
RIHV01	HV	171
R2DAQ01w	L0	---

R2DAQ02w	L0	175
R2DAQ01	UKL1	176
R2DCS02w OR any	ECS-CTRL	177
R2DAQ01	OnlMon	178

Remote Access to ECS PC

After logging into the LHCb network, any ECS PC can be accessed as follows.

- Windows to Windows: use remote desktop;
- Linux to Linux: use ssh, X sessions are not yet enables on the ECS PC;
- Windows to Linux (including CCPCs):
 - ◆ start the Exceed X server on the local PC (default options are normally ok: mode: passive, security: any host access. display: multiple and display in localhost);
 - ◆ logon via ssh with PuTTY (enable: X11 forwarding and X display location = localhost).

To be completed (Alessandro).

PVSS projects running as services (Windows)

The PVSS services run always in background and start automatically at boot-time. This implies a slightly different way of working than interactive work:

- all (Clara's) shortcuts are working as before;
- always use the Web console to check the status of the project: shortcuts to the Web console are available;
- never ever use the PVSS Project Administrator or PVSS Console to handle these projects: these tools are known to give problems;
- for a soft restart use the RESTART button in the Web Console: this restarts all but the basic pmon process;
- for debugging purposes it is typically necessary to log onto the machine where the project runs: from there run the shortcut Manage-ProjectName which opens the ECS-Manager panel allowing, among other things, to RESTART the project (a full restart including pmon), open the LogFile and many other things.

The services are running under my account (AP) by I setup security such that all the responsables/developers have full control on them. There are only two cases when you want to stop the service:

- when the PC is going to shutdown;
- when installation, update or debugging is necessary.

In this case: stop all the managers via the Web Console, open the Windows MMC (services), find the PVSS service, stop it.

PVSS projects running as services (Linux)

Not implemented, yet.

ECS/INF: the infrastructure (interface to the externally provided services).

The infrastructure deals with the interface to the externally provided services such as: Rack Control, Cooling and Ventilation Control, Gas Control,

- Rack Control: the (centrally managed) PVSS interface is usable but not yet complete (no FSM) nor user-friendly. For the time being crates can be checked and switched on/off via command line from any linux machine:
 - ◆ to check the status: `/group/online/rackctrl/rackctrl status | grep D3C`
 - ◆ to switch on: `/group/online/rackctrl/rackctrl start "Your Crate"`
 - ◆ to switch off: `/group/online/rackctrl/rackctrl stop "Your Crate"`
 - ◆ for help: `/group/online/rackctrl/rackctrl`
- Cooling and Ventilation Control: the implementation is not yet possible, waiting for the PLC to Controls PC communication to be established.
- Gas Control: the implementation is not yet possible, waiting for data to be published by the GAS WG.
- DSS interface: a panel is available showing (read-only mode) the RICH-DSS status.
- LHCb magnet interface: a panel is available showing (read-only mode) the LHCb magnet status.

If the PVSS is not running (as certified by the Web console) it can be started by logging into the controls PC (not the CCPC!), going to the OPER folder and running `StartINF.bash`. PVSS will continue to run in background also when the session to the controls PC will be closed: shortcuts can be used to operate it.

ECS/DCS: Detector Control System.

RichDCS

HV

See here for information on the controls system for the Rich HV.

ECS/DAQ: data acquisition system.

L0

Description

Switch-on and Switch-off

L0Controls

[Normal operation][Alarm handling and Emergency recovery].

To be checked/completed (Sean/Strig).

L1

Here are some shortcuts to ECS aspects of L1 operation:

- Switch on/off
- Controls quick start

ECS/ Configuration

The configuration DB is now available at the pit.

See https://twiki.cern.ch/twiki/bin/view/LHCb/Db_usage for more details.

- Use the latest framework component
<http://itcobe.web.cern.ch/itcobe/Projects/Framework/Download/welcome.html>
- database name: confdb (case insensitive)
- there are 3 users, the permissions of each user are reflected in the name. All of them share the same schema and permissions are propagated automatically
 - ◆ conf_rich_admin. This user should not be used, normally.
 - ◆ conf_rich_writer, password wr1ter. This should be the day to day user.
 - ◆ conf_rich_reader, password reader. Read only access to the database.

All the rich users will use the same database! Therefore you will see all the recipes for all the rich and you might be able, in principle, even to delete them! Therefore we all need to be very careful. In particular, since now on, it is essential that the FwConfDB component we use are strictly synchronized, because new versions might change the DB schema automatically and this operation, if done the wrong way, will delete the recipes of your colleagues (it happened already!).

ECS/ Condition

-- StephenWotton - 22 Nov 2007

This topic: LHCb > RichECS

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