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Naming conventions and port numbers

System	VM name	Project/sysName	SysNum	pMonPort	dataPort
RICH1 DAQ	R1DAQ01	R1DAQ1	1130	11300	11301
RICH1 DCS	R1DCS01	R1DCS1	1131	11310	11311
RICH1 HV	R1HV01	R1HV1	1132	11320	11321
RICH2 DAQ	R2DAQ01	R2DAQ1	1160	11600	11601
RICH2 DCS	R2DCS01	R2DCS1	1161	11610	11611
RICH2 HV	R2HV01	R2HV1	1162	11620	11621
IBCDB	RIBCDB01	RIBCDB1	1133	11330	11331
ECS	RIECS01	RIECS1	1134	11340	11341

Install the (ECS+DAQ) project from scratch

Create a new WinCC project.

Copy the fwInstallation folder into the project folder and install the jcop fw components: fwCore, fwConfigurationDB, fwDIM and fwTrending.

Install the fwMiniDAQ component.

Open the MiniDAQ fsm, click on **Configure Subscriptions**, Configure Multi, delete existing devices, create the RICH_TELL40 type and apply the default settings for each device. Open the HW tool and create the TELL40_RICH device type using the appropriate xml. Also create the RICHPDMDB device type using the appropriate xml.

Define the other devices in the MiniDAQ FSM view and click on subscribe all. The click on the **Create FSM** button.

Install the fwRich component.

Open the fwRich_Configurator.pnl panel to create the new PDMDBs clicking on the **Generate** button.

Select the new devices in the table, select the firmwares, and click on the **Update Selected** button.

Click on the **Generate FSM** button.

Create the recipe DEFAULT/CONFIGURE in the hardware view tab.

Check that everything is ok within the fsm, i.e. try to take a run.

Modify the config file of the project to include the lbRichHV, lbRichDCS and lbRichECS as distributed peers. (it is not needed if the config file is present in the fwRich.xml file)

Import the fwRichMiniDAQtop.dpl using the Ascii Manager and append the RICH_DCS and RICH_HV partitions to the MiniDAQ fsm.

Add the HV and DCS partitions to the MiniDAQ FSM

FSM view, configuration, Create/Configure FSM objects, Import from sys: (lbRichHV or lbRichDCS) and import RICH_HV and RICH_DCS accordingly to the selected system.
Right click on MiniDAQ partition, select Add Object(s) from FSM View, System(s) (select the system), and the type you want to add (RICH_HV or RICH_DCS), tick as Control Unit, click OK.
Generate FSM.
Change the type of MiniDAQ from MiniDAQtop to MiniDAQtopRICH.

Add the PDMDB ADC monitoring to the DCS project

On the machine running the DIM_DNS_server type

cat etc/sysconfig/dnsd
and add the line DIM_HOST_NODE=machineName.dyndns.cern.ch

Install the fwGbt and fwHw component. Add -dim_dns_node machineName.dyndns.cern.ch to the options for dim manager involving Gbt.
From the Hw tool panel, ADVANCED tab, click on XML file button and select the HWDescription_PDMDB(R,H)_ADC.xml file containing the ADC line registers. Click import. Click on Edit to check the script is reasonable. Click on Execute. Close and reopen the hardware tool. Select the type and create devices in Hardware tab. Click subscribe and press OK to activate the DIM manager. Add the -dim_dns_node machineName.dyndns.cern.ch option to the corresponding manager. -- GiovanniCavallero - 2019-08-14

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