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Welcome to the NP04/protoDUNE-SP DAQ TWiki Home page

Useful links

- E-Logbook [↗](#) (note: you may need to add CERN CA to your browser [↗](#))
- ProtoDUNE-SP DAQ Commissioning weekly meeting [↗](#) (FNAL indico)
- Accessing CERN and the DAQ resources
- Monet [↗](#) for online data monitoring
- NP04 online web viewer [↗](#) - links to slow control
- Log files viewer [↗](#) (You need to be a member of es-timber-protodune_kibana egroup)
 - ◆ np04-srv-010: `cat /var/log/logstash/logstash-plain.log`. There you can find all the messages that Logstash failed to interpret.
- CeSI (Centralized Supervisor Interface) [↗](#) (Read only user: np04daq:np04daq)
- Offline Dashboard (hosted at Fermilab) [↗](#) (Requires a Fermilab Services account to access)
- Offline data access [↗](#) (Requires a Fermilab Services account to access)
- Default DAQ Configurations
- Vertical Slice Test stand (VST) Operations
- DAQ Diagnostics

Operations

Partitioning

The DAQ system can be partitioned in multiple concurrent data taking sessions. It has been agreed that the **smallest partition granularity on the cryostat is the Cold Electronics/TPC (FELIX or RCE) and Photon System (SSP) electronics on one APA** and that the **maximum number of partitions for each timing master is 4**. This means that you can run one or more APAs together in up to 4 concurrent combinations, but that, if an APA CE or SSP component is used for one partition, none of the other APA CE/SSP sub components can be used for another partition.

In addition to the **cryostat** configuration, which is linked to the **PROD_FANOUT_0** timing master and represented in the Run Control by **Partitions 0-3**, we have setup test configurations, such as the VST, linked to the TERTIARY timing master: in the Run Control those are represented as Partitions 4-7 (⚠ the partition IDs will still be 0-3, but for a different timing master!).

Tools

- Run Control Graphical Interface (JCOP)
- Looking at application log files
- Online data quality monitoring [↗](#)
- Command Line Interface for Experts (ARTDAQ DAQInterface)

Development

- Upstream DAQ

Training

- DAQ On-call Training

Systems

Overview

* System Overview

RCE

- Basic Operation
- RCEAdvanced Operation
- Troubleshooting
- Setup

FELIX

- Basic Operation
- Advanced Operation
- Troubleshooting

Timing System

- Basic Operation
- Advanced Operation
- Troubleshooting
- Layout of timing system and active fanout
- Protocol Specification document [↗](#)
- Timing Firmware GitLab repo [↗](#)
- FHiCL parameters for timing board reader
- Installing a new version of the protodune_timing UPS product
- Prototyping the timing system for ProtoDUNE SP II

WIB (and FEMB)

- Basic Operation
- Advanced Operation
- ArtDAQ and FHiCL Config
- WIB DIM Monitoring
- Troubleshooting
- Development

SSP

- Basic Operation
- Advanced Operation
- Troubleshooting

Trigger

- Basic Information
- Advanced Information

CRT

- Basic Operation
- CrtHardware
- Advanced Operation
- Troubleshooting

artDAQ

- Basic Operation
- For dune-artdaq developers
- artdaq-database
- artdaq-demo [↗](#)
- Inhibit Master
- Installing a dev-version of an artdaq package (expert only)

Run Control

- Basic Operation
- Advanced Operation
- Troubleshooting

Online Monitor

- Basic Operation
- Troubleshooting Steps
- Tasks
- Step-by-step instructions on how to install a dunetpc development environment for online monitoring developers [↗](#)
- Monet online monitoring display
- Looking at offline histograms

Computing Infrastructure

- Cold start of DAQ
- Computer Assignments
- Infrastructure Software
- Backups
- USB Connections in DAQ Barracks
- DAQ Computer Optimization
- Computer Installation
- Network
- Controlling nodes over IPMI

Computing Access

- Login and Proxy Access to the NP04 DAQ Cluster
- VNC connection
- How to push to FNAL git repository
- Computing Setup - Obsolete

Self-trigger

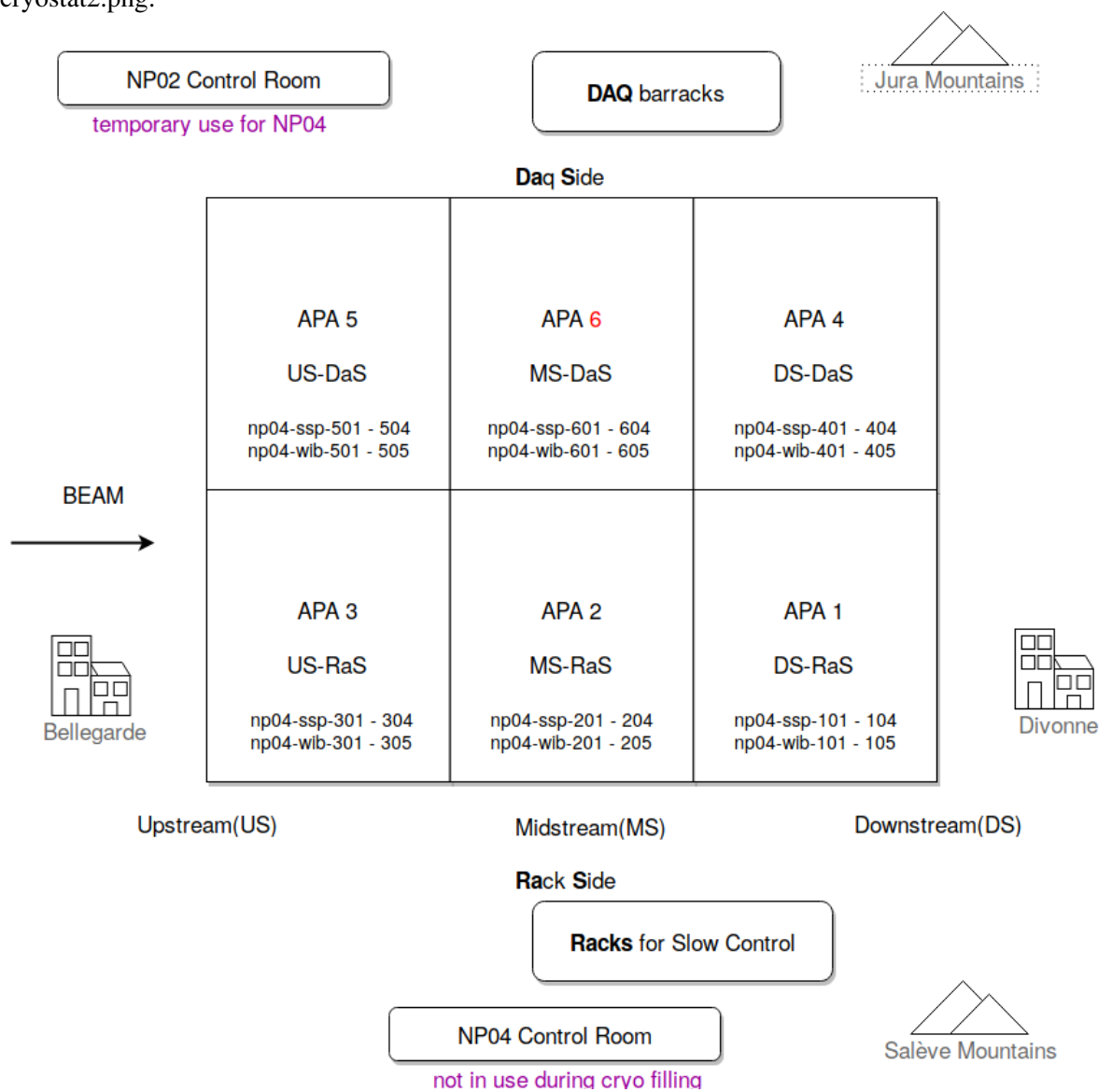
- Self trigger

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Major updates:

- NectarB - 21-Sept-2016
- np04-network-ports.xlsx: Network port connections.
- cryostat2.png:



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