Current Progress

- Installation script for RHEL7.9 machines finished
  - Small adjustments to make it more robust
- Midas bata bank parser finished
  - Small adjustments to make it more robust
- Sean and I are beginning to work on “opposite ends” of the DQM to meet in the middle
  - One end: midas experiment → service api data requests
  - Other end: DQM histograms, oscilloscopes ← make api data requests

```
# Run the subprocess scripts in the specified order
./reassemble_cactus_zip.sh
./install_openssl.sh
./install_root.sh
./install_erlang.sh
source ./install_midas.sh -e "$experiment_name" -d "$parent_directory"
mkdir -p "$pugi_prefix"
mkdir -p "$boost_prefix"
mkdir -p "$cactus_prefix"
./install_pugixml.sh --prefix "$pugi_prefix"
./install_boost.sh --prefix "$boost_prefix"
./install_cactus.sh --prefix "$cactus_prefix" --boost "$boost_prefix"
source ./install_gm2daq.sh
```

Install.sh handling package installations with subscripts

Development Steps (Rough Outline)

Frontend code:

- Clean up DAQ for easier user control, package with modified midas, distribute

Backend code:

- Correctly “bin” all header information, trailer information, ADC data, etc.
- Histogram/data reconstruction (offline)
- Establish Data Quality Monitor (DQM) that links with midas experiment (online)

```
<!-- The purpose of this file is to specify what devices are in each frontend crate -->
<!-- To declare frontend AMC130x create root node <frontend id="x"> -->
<!-- To declare device in slot 'y' of create, create node <slot id="y" type="device_type" -->
<!-- Select "device_type" from FC7, WFD, or Rider (WFD and Rider are the same device) -->
<?xml version="1.0" encoding="UTF-8"?>
<frontend id="0">
    <slot id="1" type="FC7" />
    <slot id="2" type="FC7" />
    <slot id="5" type="WFD" />
    <slot id="6" type="FC7" />
    <slot id="7" type="WFD" />
    <slot id="8" type="WFD" />
    <slot id="10" type="WFD" />
    <slot id="11" type="WFD" />
    <slot id="12" type="WFD" />
</frontend>
<frontend id="1">
    <slot id="1" type="WFD" />
    <slot id="2" type="FC7" />
    <slot id="3" type="WFD" />
    <slot id="4" type="WFD" />
    <slot id="5" type="WFD" />
    <slot id="6" type="FC7" />
    <slot id="7" type="WFD" />
    <slot id="8" type="WFD" />
    <slot id="9" type="FC7" />
    <slot id="12" type="WFD" />
</frontend>
```

Example crate contents configuration file