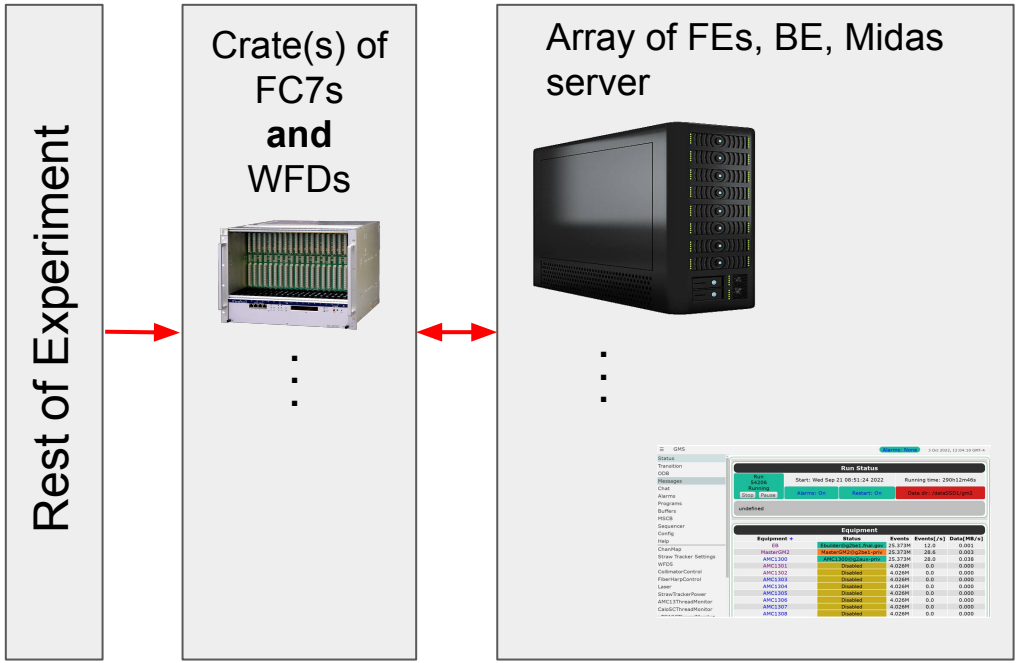
Basic Development Goals

- Develop a DAQ capable of handling a single crate system
  - WFDs and FC7s in same crate
- Do this by modifying g-2 DAQ
  - Maintains analysis software
  - Same hardware used



Simplified DAQ Diagram

Development Steps (Rough Outline)

- Compiled UKY g-2 teststand DAQ (software only)
  - Uses more recent midas version
- Modified AMC13xx frontend code to edit ODB to match configuration file
- Compiled modified g-2 DAQ on Cornell teststand
  - Connected and communicated with frontend hardware (AMC13s with FC7s or WFDs)
- Swap out hardware to one crate system
- Remove/replace hard coded references to FC7 crate from frontends
- Generate data, check “integrity” of files
- Clean up DAQ for easier user control, package with modified midas, distribute

```
<!-- 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