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Shifter Interface

Sans-serif font, light grey, partially obscured by the title.





- Want a simple interface for shifters to be able to access + enable/disable a subset of detector elements
- Aim is to have a working version ready for NP02 release
- Discuss current progress + future improvements

- Based on Wes' slides from the mini-workshop <https://indico.fnal.gov/event/66612/>
- For NP02, workflow needs to
 1. Pick a configuration + make a copy
 2. Provide a view of resources that shifters can enable/disable
 3. Save this copy

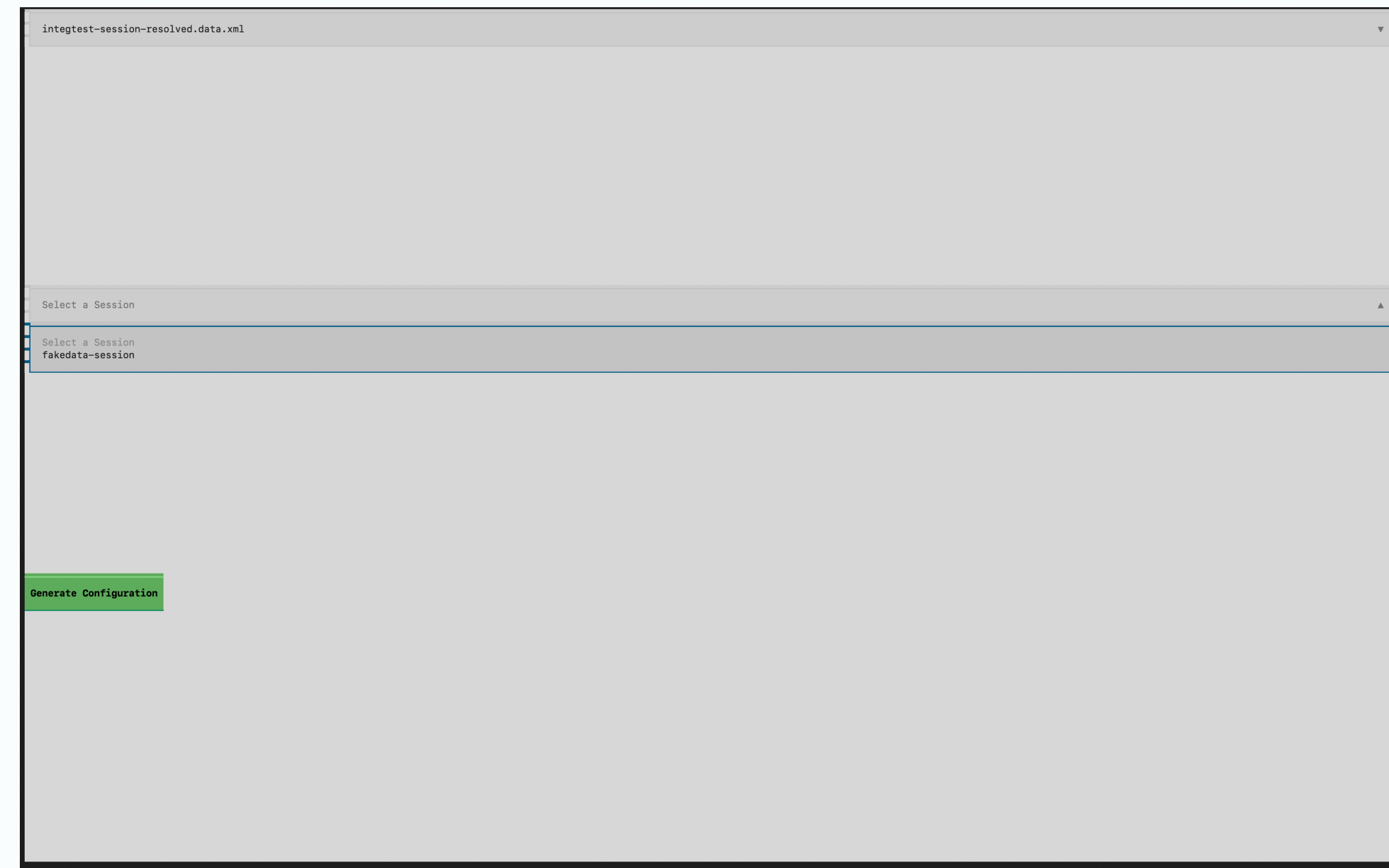
File/Session Select



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- Code lives in https://github.com/DUNE-DAQ/cider/tree/hwallace/shifter_interface
- Currently the user is first prompted with a screen to select the **session** + **database file**
- This will copy + consolidate all objects in this session into a new database
- This copying **toggleable** at the **command line level**
- Obviously **aesthetics** need improving but it is functional



Final Date for these features: 14/02

Disable/Enable



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- Enable/disable screen complete + **mostly** done
- Still requires a **TPG enable/disable** option
- Can toggle which objects a shifter can see via config file
- Saving **works** + produces a **time-stamped copy of the full configuration**



Final Date for these features: 14/02

Visibility Control



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- Shifter **visibility control** configured via a simple **JSON** file
- Better than **hardcoding** the paths... still not fantastic
- It will attempt to add all objects in “VisibleClasses” provided they aren’t also in IgnoredObjects/Classes
- Currently path to config is hardcoded...

```
{  
  "VisibleClasses": ["Component"],  
  "IgnoredClasses": ["DetectorStream",  
    "ConnectivityService"],  
  "IgnoredObjects": ["mlt"]  
}
```

Final Date for these features: 14/02

Visibility Control



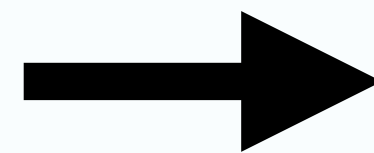
ShifterView
File: /home/hwallace/scratch/dune_software/daq/daq_work_areas/NFD_D...

Toggleable Components

- df-03 ENABLED ✓
- df-02 ENABLED ✓
- df-01 ENABLED ✓
- DPDKReceiver
 - dpdk-np04srv031-receiver-3 ENABLED ✓
 - dpdk-np04srv031-receiver-2 ENABLED ✓
 - dpdk-np04srv031-receiver-1 ENABLED ✓
 - dpdk-np04srv031-receiver-0 ENABLED ✓
- DetectorStream
 - DetStream-439 ENABLED ✓
 - DetStream-438 ENABLED ✓
 - DetStream-437 ENABLED ✓
 - DetStream-436 ENABLED ✓
 - DetStream-434 ENABLED ✓
- FakeHSIApplication

Save Local
Quit

Ignore
Detector
Stream



ShifterView
File: /home/hwallace/scratch/dune_software/daq/daq_work_areas/NFD_...

Toggleable Components

- DFApplication
 - df-03 ENABLED ✓
 - df-02 ENABLED ✓
 - df-01 ENABLED ✓
- DPDKReceiver
 - dpdk-np04srv031-receiver-3 ENABLED ✓
 - dpdk-np04srv031-receiver-2 ENABLED ✓
 - dpdk-np04srv031-receiver-1 ENABLED ✓
 - dpdk-np04srv031-receiver-0 ENABLED ✓
- DetectorToDaqConnection
 - apa4-connections ENABLED ✓
 - apa3-connections ENABLED ✓
 - apa2-connections ENABLED ✓
 - apa1-connections ENABLED ✓
- FakeHSIApplication

Save Local
Quit

To Do for NP02



- **TPG enable/disable** still needs adding in, which requires a small refactor of existing widgets
- Interface is still a **little rough** so needs a bit of tidying of the textual-CSS
- Code needs **documenting** and I need to make a proper document detailing the scope of the **interface**

It also needs a better name

Future Elements



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- Post NP02 release would be good to discuss **future** updates
- An expert view which has a more **CIDER-like** interface was discussed in the CCM workshop
 - Access to the full configuration
 - Ability to modify more attributes
 - Additional views/trees
- In addition having a “**nicer**” way of limiting shifter visibility than a simple config file would be nice
- This has been discussed pretty widely but having TPG enable/disable as a **component** rather than an **attribute of ReadoutApplication!**
- Would also be nice to give the shifter a “**mini-map**” view of the configuration



Any questions?