

EPICS CSV-to-CSS

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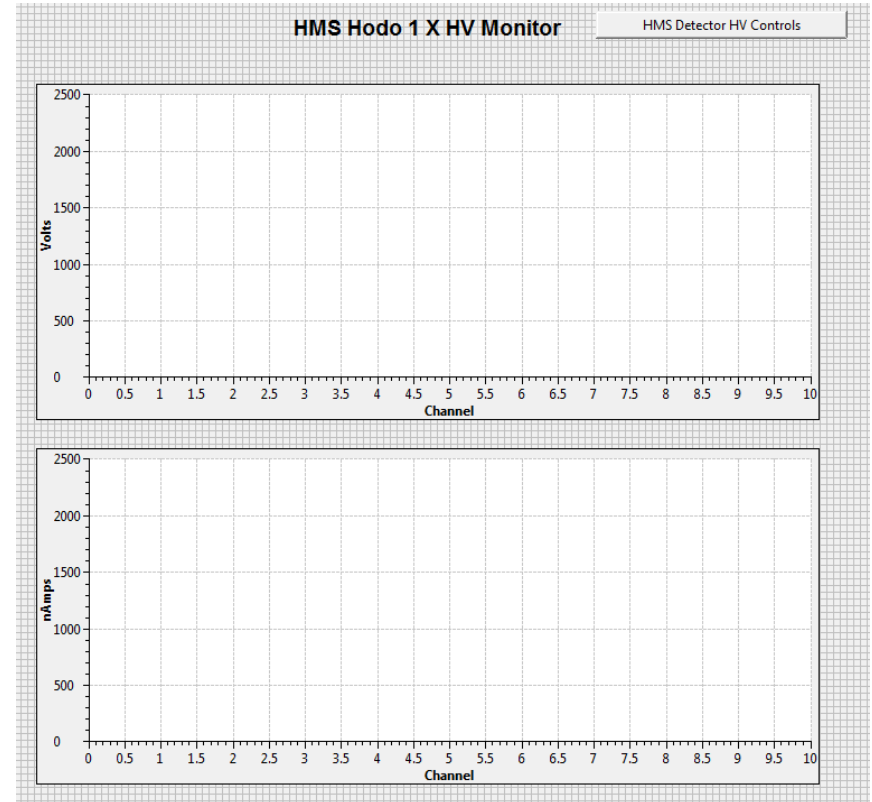
Python Script

- Python script used to convert PV data from a CSV file into CSS.
- Automates creation of EPICS screens using data from a CSV file.
- Script was made for 8 detectors for HMS:
 - Hodo 1-X
 - Hodo 1-Y
 - Hodo 2-X
 - Hodo 2-Y
 - Shower Counter A
 - Shower Counter B
 - Cherenkov and Aerogel
 - Drift Chambers

OPI Editor

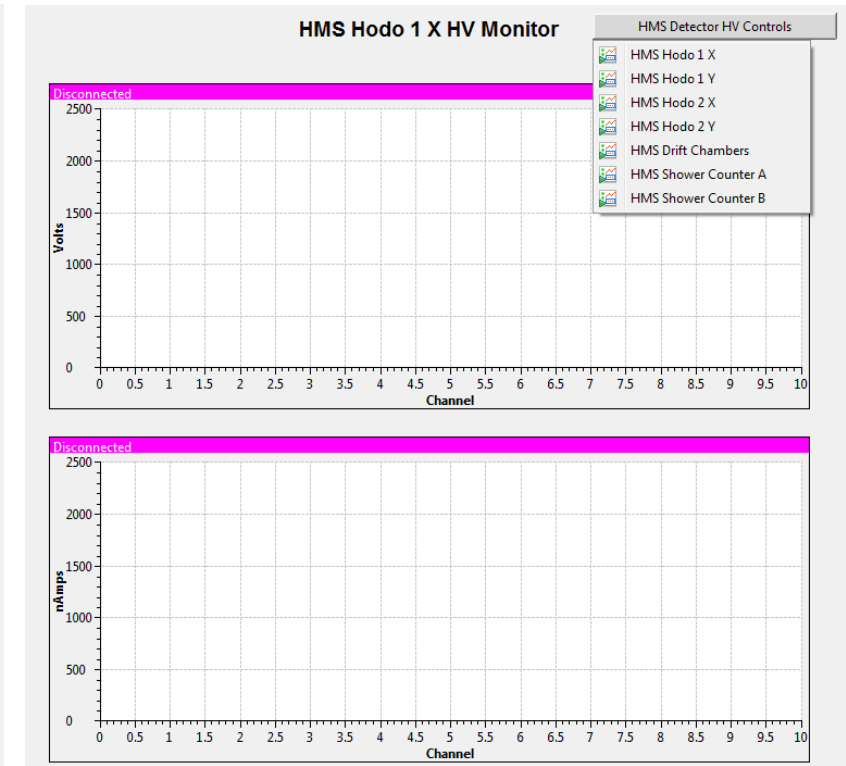
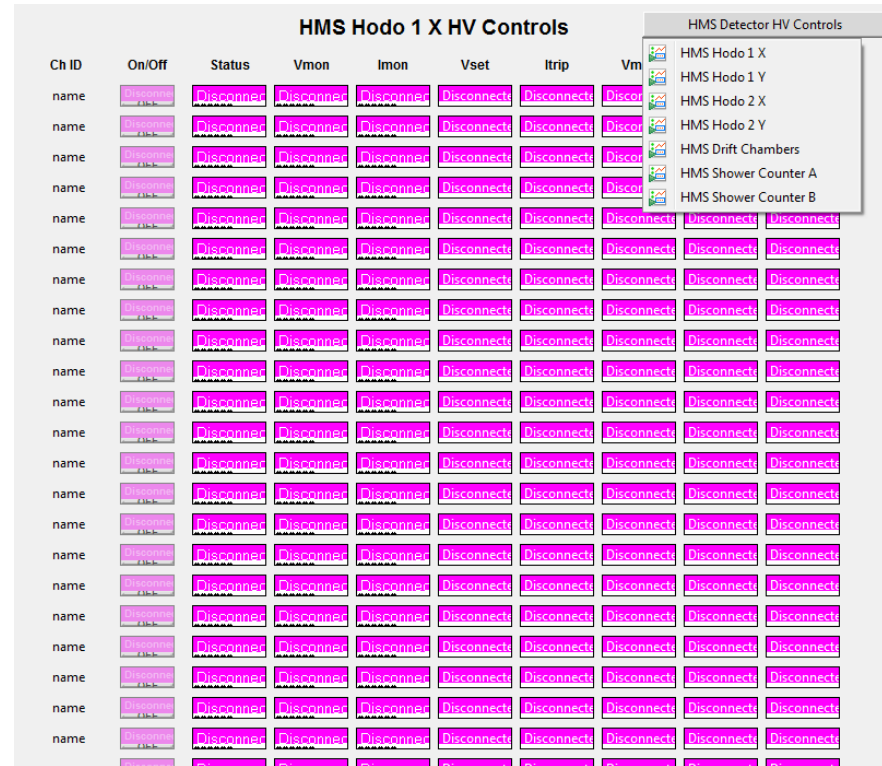
- HMS Hodo 1 X HV Controls
 - List
 - Histogram
- Controls:
 - Ch ID
 - On/Off
 - Status
 - Vmon
 - Imon
 - Vset
 - Itrip
 - Vmax
 - RmpUp
 - RmpDwn

HMS Hodo 1 X HV Controls				HMS Detector HV Controls					
Ch ID	On/Off	Status	Vmon	Imon	Vset	Itrip	Vmax	RmpUp	RmpDwn
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
name	OFF	#####	#####	#####					
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name	OFF	#####	#####	#####					



OPI Runtime

- Same HMS Hodo 1 X HV Controls, except opened in OPI Runtime.
- Both screens have a drop-down menu at top right to select other detector screens.
- PVs show as “disconnected” because the PC is not on Hall C subnet.



Problems Solved

- Problem: Drop-down menu would not allow user to switch to a different screen.
 - Would give error message saying the screen selected did not exist.
 - Solution: Path to selected screens in the Python script needed to have “.opi” (the file extension of the screens) specified.
- Problem: Histograms would not display in OPI Runtime mode.
 - Would give error message saying unexpected end-of-file.
 - Solution: Function used to create the histograms in the script was missing “return screen” at the end.
 - Without “return screen”, nothing returned from the function and the graphs were not created.

Next Steps

- Create script for SHMS detectors.
- Run programs on Hall C computer.
- Add drop-down menu for backup, restore, reset HV interlocks, and turn all HV on/off.