



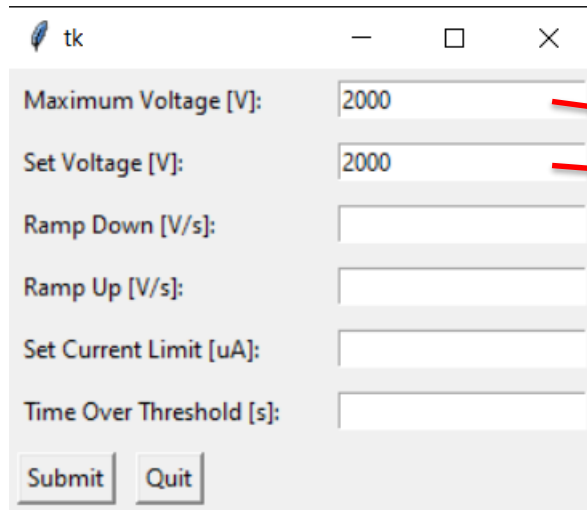
DSG NPS Status Update

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Detector Support Group
July 21, 2022

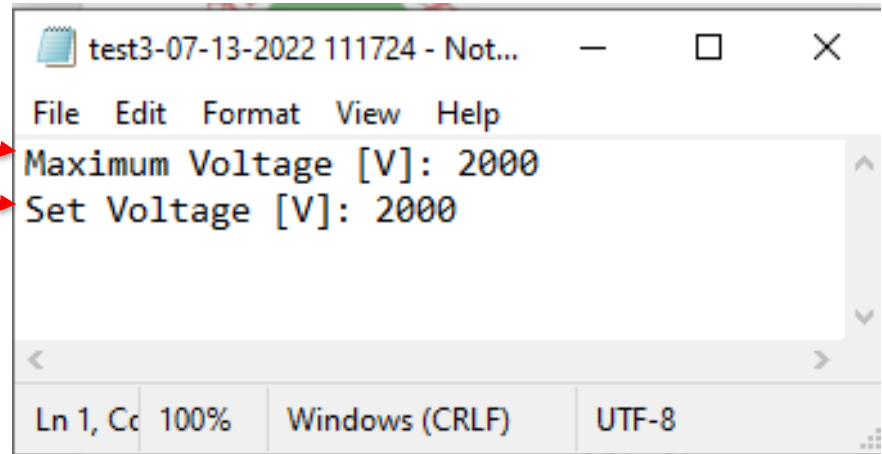
Contents

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High Voltage Settings GUI



A screenshot of a graphical user interface (GUI) titled "tk". It contains several input fields for setting high voltage parameters. The "Maximum Voltage [V]" and "Set Voltage [V]" fields are both set to "2000". Below these are fields for "Ramp Down [V/s]", "Ramp Up [V/s]", "Set Current Limit [uA]", and "Time Over Threshold [s]", all of which are currently empty. At the bottom of the GUI are two buttons: "Submit" and "Quit".



A screenshot of a Notepad window titled "test3-07-13-2022 111724 - Not...". The window displays the settings from the GUI: "Maximum Voltage [V]: 2000" and "Set Voltage [V]: 2000". The status bar at the bottom indicates "Ln 1, Col 100%", "Windows (CRLF)", and "UTF-8".

- GUI to set high voltage parameters for all channels and modules
- Value inputs are saved to a timestamped text file
- Changes to individual channels handled with HV EPICS pop-up screens

EPICS Phoebus Screen Development

NPS Monitoring and Controls

Monitoring

	Status	Latch
Crystal Zone Front Temperatures	OK	OK
Crystal Zone Back Temperatures	OK	OK
Crystal Zone Cooling Circuit	OK	OK
Electronics Zone Temperatures	OK	OK
Detector Frame		
Hall		
Chiller Coolant		

EPICS control

Off

Control

Crystal Zone Front Temperatures

Crystal Zone Back Temperatures

Crystal Zone Cooling Circuit

Electronics Zone

Detector Frame

Hall

Chiller Coolant

Reset averaging

Off

Reset interlocks

Off

CZ cooling circuit monitoring X

100 %

Crystal Zone Cooling Circuit Temperature Sensor Monitoring [°C]

Sensor	T	Avg	SD	Intlk status	Latch status
Inlet manifold 1	12.00	16.39	3.89		
Inlet manifold 2	19.00	16.79	4.10		
Outlet manifold 1	12.00	16.04	4.16		
Outlet manifold 2	16.00	17.05	3.92		

CZ cooling circuit controls X [Edit] CZ cooling circuit controls

100 %

Crystal Zone Cooling Circuit Temperature Sensor Controls

Sensor	High alarm limit [°C]	Sensor enable	Avg enable	# of pts to avg	Intlk enable	Trip delay enable	Trip delay time [s]
Inlet manifold 1	22.00	Enabled	Enabled	300.0	Enabled	Enabled	9999
Inlet manifold 2	22.00	Enabled	Enabled	300.0	Enabled	Enabled	
Outlet manifold 1	22.00	Enabled	Enabled	300.0	Enabled	Enabled	
Outlet manifold 2	22.00	Enabled	Enabled	300.0	Enabled	Enabled	

- Debugging controls & monitoring screens

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Conclusion

- High voltage settings GUI developed to set parameters for all CAEN modules/channels
- Debugging and revising EPICS Phoebus controls and monitoring screens
- Chiller communication and flow meter testing can start next week