

## Yale Titan Krios G2 Projection venting and evacuation

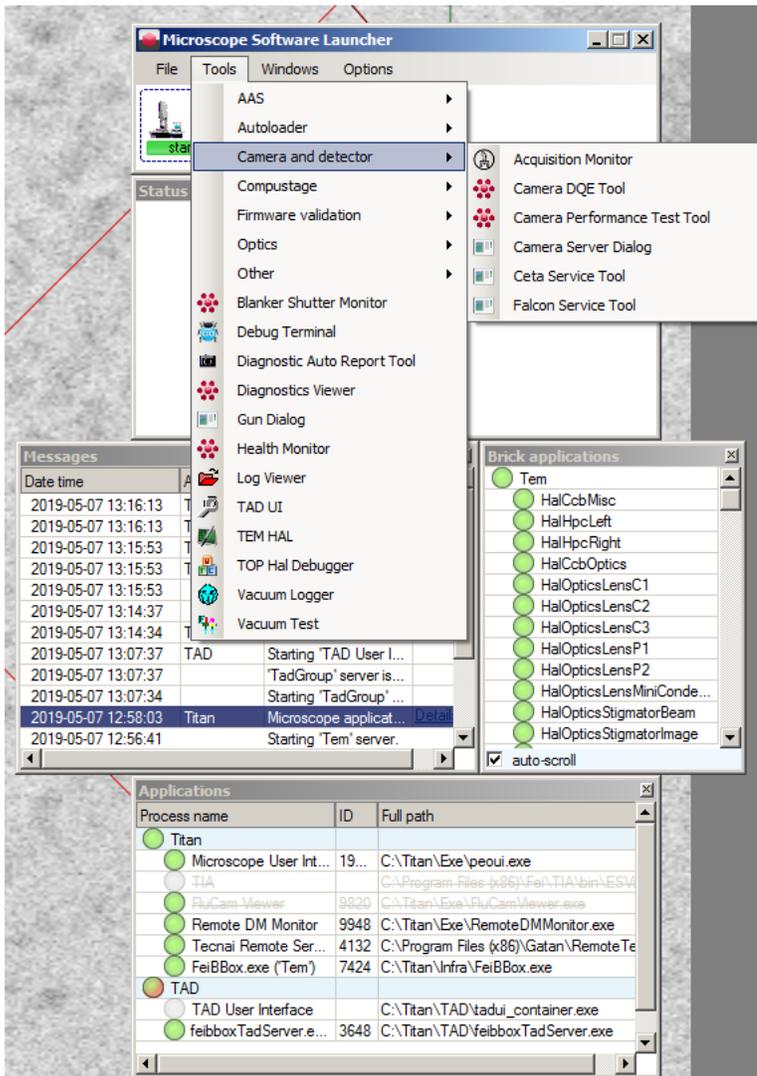
For services on the detectors, the projection chamber needs to be vented.

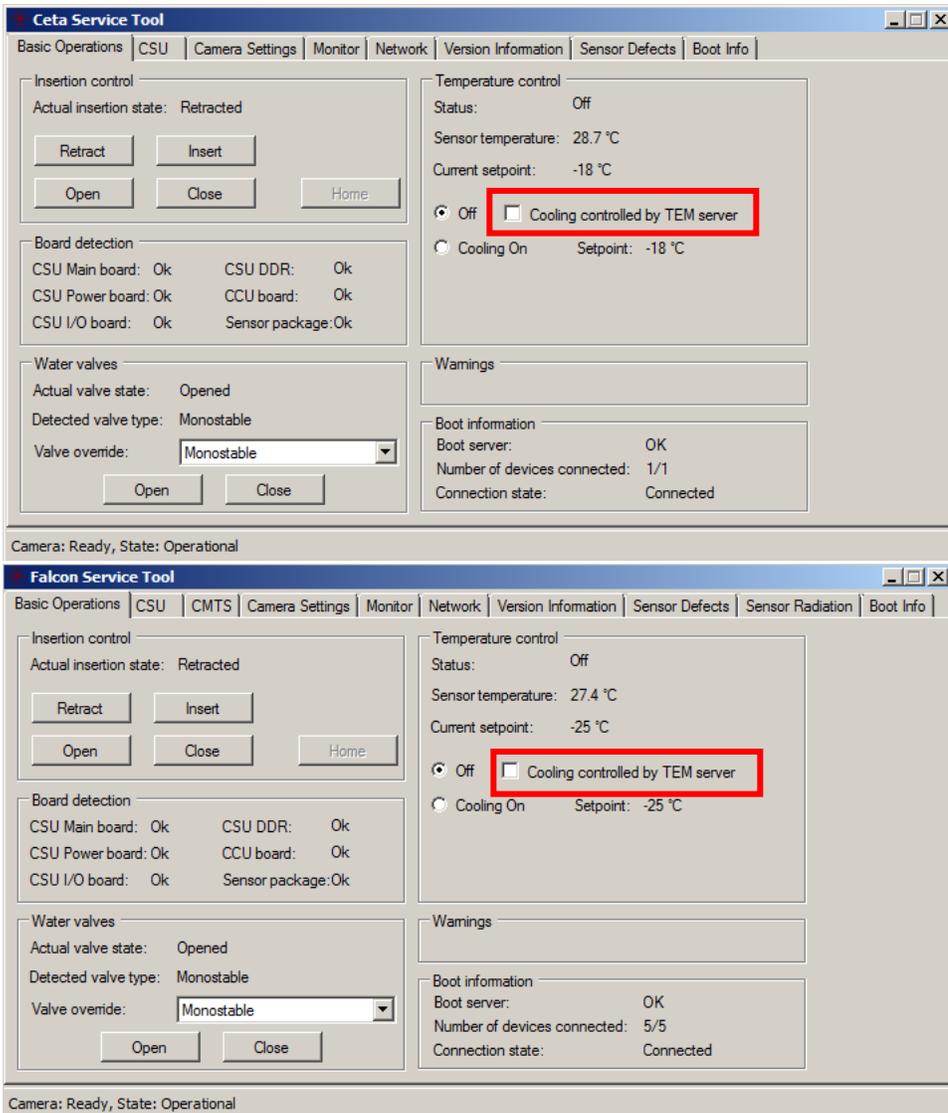
Prerequisite:

1. Column valves are closed, objective apertures are retracted.
2. Detectors (Falcon, Ceta, K2) are retracted. Double check the Blank shutter monitor and Camera ocx.

Warm up detectors:

1. K2: temperature set to 20C, wait.
2. Ceta and Falcon: Microscope software Launcher  -> tools -> camera and detector -> Ceta/Falcon service tool -> uncheck cooling controlled by Tem server, wait till temperature rises to 20C

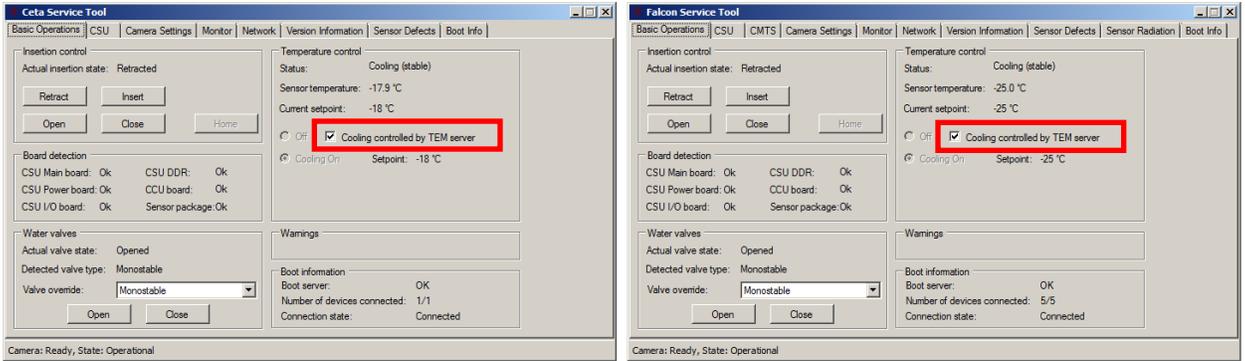




3. Vacuum ocx -> flap-out Settings -> click Projection Vented, this button will turn yellow -> wait for Turbo pump TMPp to spin down.
4. It's ready for the service engineer to work on the detectors.

Recover the projection vacuum.

1. Vacuum ocx -> flap-out Settings -> click the yellow Projection Vented -> Turbo pump starts, wait for the Projection vacuum to turn green. It takes half a day or so to go back to original level (26~27 log). If it stabilizes at a much higher level (poorer vacuum), call service.
2. Cool down detectors  
Ceta and Falcon: check cooling controlled by Tem server



K2: Set temperature to -20C

To get immediate technical assistance from Thermo customer service

1. Call from lab phone: dial 9 + 1 877 727 9112, follow the instructions, and provide the serial number (D3572) to the representative. For immediate technical support, provide the Rapid IP address (can be found in the Rapid UI on the support PC): 172.27.13.158 password: d3572
2. Start up RAPID if it is not on: Rapid (remote control program used by ThermoFisher engineers) should be always on. If the Titan PC or Support PC is rebooted, then Rapid needs to be manually started.
  - On Support PC: Desktop -> Run 'RAPID connection wizard' as administrator -> Click Start RAPID connection.
  - On Titan PC: Start menu -> Run 'RAPID connection wizard' -> Click Test RAPID connection.