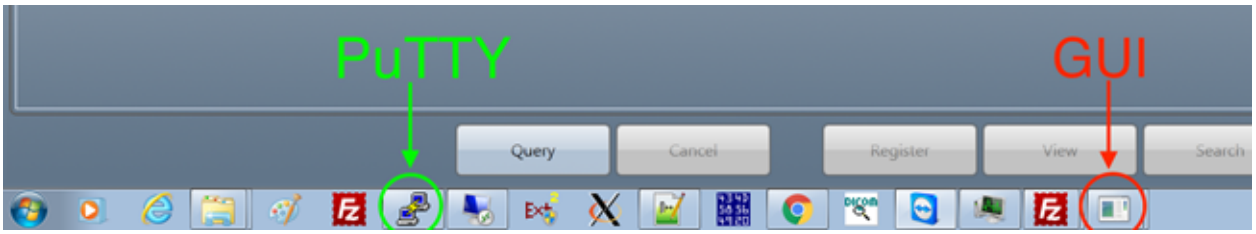
Instructions for monitoring a NeuroPET/CT scan after closing the GUI

Necessary for scans longer than 1 hour because of GUI crashing



SHORT INSTRUCTIONS

- Note the start time of the 2hr PET scan.
  - Once the GUI is closed you will need to watch the clock to know when the scan is done.

- Close GUI at 1 hr into the scan
  - Press the Windows key to get the task bar to appear at the bottom of the screen.
  - Right-click on the GUI icon ("Workstation Console") in the task bar and select "**Close all windows**".
  - GUI should disappear returning you to the desktop.

- Open a PuTTY window to monitor the PET scan list-mode files
  - If needed press the Windows key to get the task bar to appear at the bottom of the screen.
  - Right click the PuTTY icon on the task bar, choose "**proto02 – scanner**"
  - Login with `daq` [enter]
  - Password `DaqDaq` [enter]
    - If you make a mistake in the log in just close the window and open a new PuTTY window.
  - Option 1 and Option 2 below do the same thing.
  - **Option 1:**
    - `WatchCurrentListMode` [enter]
    - You can press Control-C at any time to exit this mode or just close the window.
  - **Option 2:**
    - `cd /data/master/` [enter]
    - `ll` [enter]
    - Double click on the newest scan directory (at the bottom of the list). This will highlight the directory name and it will copy the name to the clipboard.
    - `cd` [right-click][tab][tab][tab][enter]

        - `watch -n 5 ls -l *.d16`
        - You can press Control-C at any time to exit this mode or just close the window.
    - Expand the window so you can see the more info per line.
    - As the PET acquisition continues to run the list-mode files (*.d16) will collect all the events.
    - There are 7 list-mode files that will actively grow at one time (1 file for each of the 7 PET modules).
    - When a file gets to 2GB it is closed and a new one is created.
    - If all is working correctly the 7 files will grow throughout the 2hr PET acq.
    - Growth will slow as the isotope decays.
    - Some list-mode files will grow faster than others if their module is closer to the active region in the head.
    - `WatchCurrentListMode` may have to be closed [Control]-[C] and restarted if the initial files all reach 2GB – the new files won't show up automatically.
    - **If one or more of the seven files stops growing there is a problem.**
- Once the scan is done, you can [Control]-[C] in the PuTTY window to stop watching list mode, and just let it reconstruct on its own.
    - If you need to run another scan, enter the following into the proto02 PuTTY window that was used to watch the list mode:
        - `pdsi_setup` [enter]
        - `ImagingChainStop` [enter]
        - Wait a minute and run again: `ImagingChainStop` [enter]
        - Check that the reconstruction has stopped:
            - `ps –fu daq`
            - You should not see any processes related to "ImagingChain" or "Matlab" or "Prebinner" or "DynamicBinner"
                - If those still exist, run `ImagingChainStop` again
        - Open the GUI using the shortcut on the desktop. The status dot should now be **blue**. If not, follow the instructions below
- If something looks wrong with the list-mode files you will need to restart the PET acq
    - Restart the scanner's software (this will kill the current acq)
        - In the PuTTY window you are watching the list-mode files press Control-C to exit the list-mode monitoring.
        - Type in
            - `pdsi_setup` [enter]
            - `SystemShutdown.sh` [enter] (may take 5-30 secs)
            - `SystemStartup` [enter] (may take 5-10 secs)
    - Restart the GUI
        - Single click the GUI icon on the task bar.
    - Login to the GUI
        - User ID: **`Administrator`**
        - Pasword: **`p@ssw0rd1`**
    - Register a new patient
        - Same name is fine
    - Select a PET only scan
    - Enter the PET dose info

        - You have to enter something to make the dialog box happy but the values you enter don't matter. Don't waste time entering actual values.
    - Set the PET acq scan time to the remaining time
        - **Edit** the PET only series protocol.
        - The only value in the PET parameters dialog box that matters is the **Scan Duration**. Enter how many seconds you want the PET acq to run. Don't waste time changing the other parameters.
    - Press **Update**
    - Start the PET scan by pressing **Begin**