8IDG Startup from Scratch

Revised: 2017.01.27

1. Log into pepper. Login: 8idguser (Password required)

2. Start spec
    1. Check conf.mac file (usually only needs changing at the beginning of a new cycle)
        1. Use a text editor to open /home/beams/8IDGUSER/local_macros/conf.mac
        2. check that these parameters in the GRIDFTP section are current:
            1. GRIDFTP_DDIR_LOCALSTR = "/cygdrive/d/2017-1/"
            2. GRIDFTP_DDIR_NETWORKSTR="/export/8-id-g/2017-1/"
        3. Save file and quit text editor
    2. Check directory for 2-D data
        1. Use a text editor to open /home/beams/8IDGUSER/local_macros/ccdscan/multi_ccd_setup.mac
        2. edit the line in the defintion of select_pilatus_1MF : CCD_DATA_DIR = "/ramdisk/*usernameYYYYMMp*/"
    3. Open new terminal, go to directory for spec data (cd /home/beams/8IDGUSER/spec_data/YYYY/MMMYYYY/groupnameYYYYMMs where YYYY is the year , MMM is 3 or 4 letter month) – create directories following this convention as necessary (see http://8id.xray.aps.anl.gov/elog/controls/78)
    4. Under menu Terminal, Set Title, enter 'fourcGIS'
    5. Under menu View, Zoom in two times
    6. pepper% fourcGIS -f
    7. FOURCGIS> newfile *filename*
    8. FOURCGIS> select_pilatus_1MF
    9. FOURCGIS> ccdsetup [enter to accept the default settings; verify that 'directory where the Image Server saves the data' is correct, if not , enter correct value]

3. Start EPICS/medm
    1. open new terminal
    2. Under menu Terminal, Set Title, enter 'start_epics_8idguser_current'
    3. pepper% cd local_macros
    4. pepper% start_epics_8idguser_current

4. Start Pilatus detector
    1. Open new terminal
    2. Under menu Terminal, Set Title, enter 's8pilatus1mf'
    3. %pepper ssh -Y det@s8pilatus1mf (password required)
    4. s8pilatus1mf:~> start_detector [camserver window appears at lower left; tvx window appears at far right; runs diagnostics; Diagnostics complete when green and blue windows appear at upper left)
    5. After completion of detector boot sequence/diagnostics, enter "exit" in the tvx window – tvx window closes, and blue and green screens close, too
    6. In the camserver window, enter "gapfill -1"

5. Start Pilatus EPICS/medm and imageJ viewer
    1. Open new terminal

2. Under menu Terminal, Set Title, enter ‘s8pilatus1mf_epics’
3. %pepper ssh -Y det@s8pilatus1mf (password required)
4. s8pilatus1mf:~> start_mve
5. on toolbar at top left corner, “Image J EPICS_AD_Viewer Plugin,” click Start button, then OK to minimize this window
6. in window “pilatusDetector.adl (on s8pilatus1mf)”, check that “File path,” “File name,” and “Next file #” are set correctly. “file path” should agree with the path in 2.2.2, CCD_DATA_DIR. On the same window, under “Plugins”, click on “statistics” and select “Statistics 1-5”
7. take a test image with the photon shutter closed : FOURCGIS> pilexp 1
8. ImageJ should open a window to display the new image. On the “ImageJ” toolbar, on menu Image> Adjust> Brightness/Contrast opens a window to allow you to change the brightness and contrast

6. Start up the compact medm user interface
    1. Open new terminal and enter pepper% cd local_macros
    2. enter pepper% start_compact_medm_PILATUS_1MF
    3. medm window “pilatusDetector_8id.adl” appears. Now you can minimize the larger pilatusDetector.adl (on S8pilatus1mf) medm window.

7. Start Matlab
    1. open new terminal
    2. Under menu Terminal, Set Title, enter ‘matlab’
    3. changing directory to 2-D data directory will make open file requests convenient: pepper% cd /home/8-id-g/*YYYY-C/usernameYYYYMMp*
    4. pepper% matlab &
    5. Above the Workspace toolbar, click on the shortcuts for GIXSGUI and Spec Reader to start those applications

8. Macros: user-group-specific macros should be stored in directory /home/beams/8IDGUSER/local_macros/*usergroupname*

9. Place holder