

## 8IDG Startup from Scratch

Revised: 2018.02.13

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/2018-1/"
      2. GRIDFTP\_DDIR\_NETWORKSTR="/export/8-id-g/2018-1/"
    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 definition 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/caQtDM
  1. open new terminal
  2. Under menu Terminal, Set Title, enter ‘start\_epics\_8idguser’
  3. pepper% start\_epics\_8idguser
4. Start Pilatus detector
  1. Open new terminal
  2. Under menu Terminal, Set Title, enter ‘s8pilatus1mf’
  3. %pepper s8pilatus1mf (will prompt for password) [s8pilatus1mf aliased to 'ssh -Y  
det@s8pilatus1mf' ]
  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”

/home/beams/8IDGUSER/Documents/8IDGstartup\_caQtDM.odt

5. Start Pilatus EPICS/medm and imageJ viewer
  1. Open new terminal
  2. Under menu Terminal, Set Title, enter 's8pilatus1mf\_epics'
  3. %pepper 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
  9. Change ImageJ from grayscale to false color scale. On the "ImageJ" toolbar, on menu Image>
  
6. 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
  
7. Macros: user-group-specific macros should be stored in directory  
/home/beams/8IDGUSER/local\_macros/*usergroupname*
  
8. Place holder