

## New features, 2015-3 run

### General

- The new quad collimator is installed, reducing the background by ~60%

### Computing

- Operating system has been updated from Centos-6 to Centos-7
- File system has been changed from GFS to BEEGFS
- Graphical desktop has been changed from Gnome-2 to Mate
- Data storage will use one big partition Instead of several smaller partitions
- Software for mounting exFAT has been added
- The path to the external hard drive changed from /media/name to /run/media/name
- Globus server was updated to new version.
- Globus via ScienceDMZ is available in testing mode. ScienceDMZ bypasses Argonne firewall and thus may provide up to 6 times faster data transfer speeds compared to regular Globus. Users may need to request setting up ScienceDMZ on their side to achieve these speeds. National universities and government labs are eligible for free help from ESNET with the setup. Please contact your host if you want to try Globus via ScienceDMZ. The IP address of Globus client computer at your institution will need to be provided.

### Data backups

- After the OS updates to Centos-7, backing up data to external drives formatted as HFS+ (the default filesystem in MacOSX) became unstable. Until the vendor of HFS+ driver resolves the issue, please refrain from using HFS+ formatted disks for backups. You can still use ext2, ext3, ext4, fat32, exfat, and NTFS formats. The GM/CA Globus server for fast online transfer of data can also be used:  
<https://www.qmca.aps.anl.gov/remote/globusonline.html>

### Sample tab

- The ring light was removed on IDD to allow installation of the new collimator

### Screening tab

- 22-character limit is imposed in the CrystalID column of the spreadsheet. If this limit is exceeded, the spreadsheet will not load in JBlulce and will result in a pop-up notification
- If cool-down of the robot gripper exceeds 2 minutes, it indicates a problem and will result in a pop-up notification
- Deviation of the CryoJet flow or the temperature from the set point will result in a pop-up notification when "Start" is clicked

### Collect tab

- In Multi Crystal Strategy, when partial data sets are combined, the highest resolution will be passed to the Reference Data tab

### Analysis tab

- Auto-processing is faster
- The logs are displayed in qtrview instead of Firefox
- The auto-processing pipeline will use CTRUNCATE instead of TRUNCATE