New features, 2018-1 run

General
- Enhanced Safety requirements continue to be enforced as last run. Please make sure you are wearing proper apparel and are using proper Personal Protection Equipment (PPE) when conducting experiment. On-site users will have to meet with floor coordinators before any work can be done.
- A new default directory structure has been implemented. Each tab has a separate directory structure: sample/screen, sample/raster, sample/collect and sample/scan. Sample refers to the directory information in the screening spread sheet.

- A new version of Standard Widget Toolkit (SWT) has been implemented in JBluice resulting in a consistent color scheme, but makes the widgets look different.

- Application state display added to the "Tools" Menu in JBluice, this shows why JBluice is "busy" and cannot start an operation.

Beamlines
- Flux limitations at ID-D are similar to those of last run and operational energy range is restricted to 9.36 – 18.4 KeV. We are partially recovered from our mirror problems but not fully recovered (see chart below).

Beam Size	Flux Ph/sec	
	Current	Before Feb 2017
Full beam	2.74E+12	9.65E+12
20 µm	1.91E+11	1.19E+12
10 µm	8.34E+10	3.81E+11
5 µm	5.96E+10	1.91E+11

- Reminder: High Capacity (18 puck) automounter is implemented on the IDD beamline. The IDB beamline has the old 6-puck capacity automounter. Use the spreadsheet appropriate for the beamline (Dewar capacity) you are using.

Data Collection
- Eiger 16M detector at IDB: shuttered data collection is supported.

Screening
- "Xtratools" button has been added. Item "add/move a crystal on top" has been added: the selected sample will be added at top of sample selection list. "Add all crystals" and Older buttons like clear crystal selection, clear color codes etc. have been combined

Analysis
- Data processing happens in a separate process directory, either sample/process (if the template structure is used) or imagesdir/process (in case a custom directory structure is used).

Analysis beta

- A new analysis beta tab is available for users. Automatic data processing with Gmcaproc, Autoproc and Dials software are performed in parallel. Autoproc available only for non-proprietary users. The number of Gmcaproc processes depend on total data collection time, if <= 60sec, run once with 100% of data;If 60.1-300sec, run twice with 50% and 100% of data; if >300sec, run thrice with 25%, 50% and 100% of data;

Remote Connection

- NOMACHINE upgraded to version 6, which introduced Web Browser-based remote access as the preferred login option. Connecting with standalone NX player is still supported, but Java-based installation of NX player is discontinued. Users preferring NX player over web player can either install NX player downloaded from the NOMACHINE website or unpack and run a portable NX player downloaded from the GMCA website. Using NX player-5 is still allowed for the 2018-1 run, NOTE: IT WILL BE DISALLOWED NEXT RUN.

Miscellaneous

- Most videos on the GM/CA "JBluice: Video Tutorial" webpage have been updated.