ESRF HIGHLIGHTS

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(on behalf of the ESRF MXCuBE team)

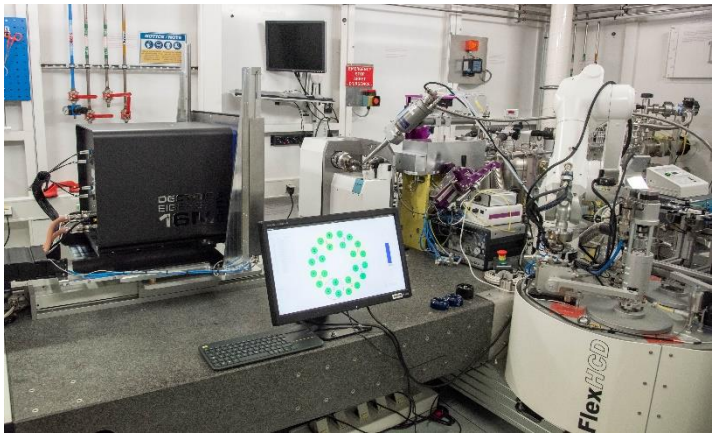
ESRF

- Remote access only. MX beamlines taking full advantage of MXCuBE3 intrinsic remote. Non MXCuBE beamlines use Guacamole.
- From NFS to GPFS for better performance.

Latest news: "…ESRF users for experiments, as well as visitors and contractors, are welcome on-site, as long as they comply with the sanitary and travel regulations applied in France…"

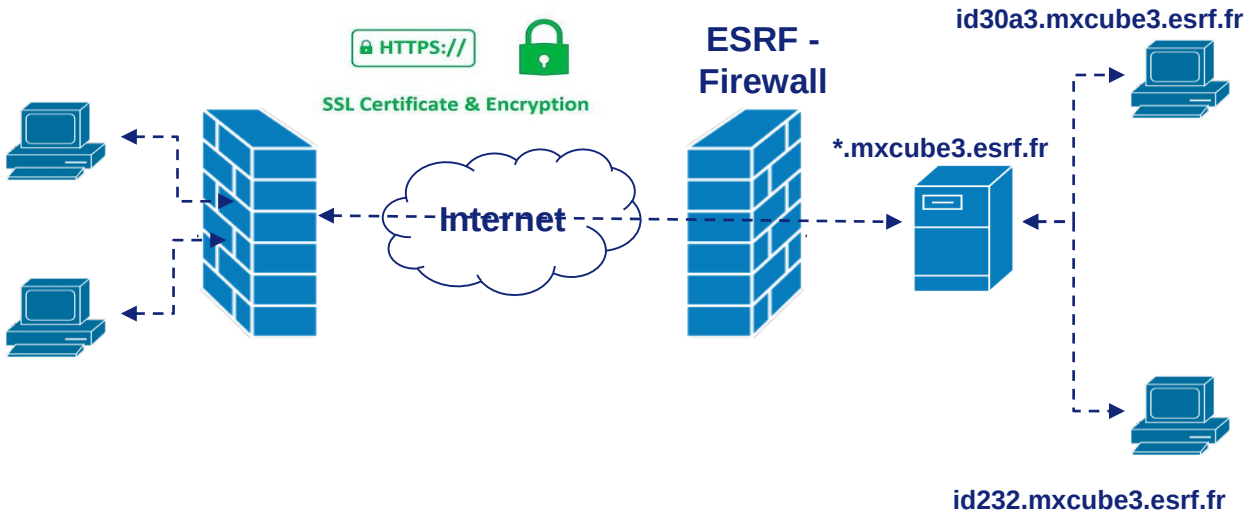
MX Beamlines

- Refurbishment (2021)
    - MASSIF-1 – MD2 replaced Robodiff, Flex SC
    - ID23-1 – MD2 replaced MiniDiff, Eiger 16M
- New equipment
    - MASSIF-1 – CrystalDirect Harvester 2.
- Construction of SSX Beamline (ID29)
    - See Daniele de Sanctis talk



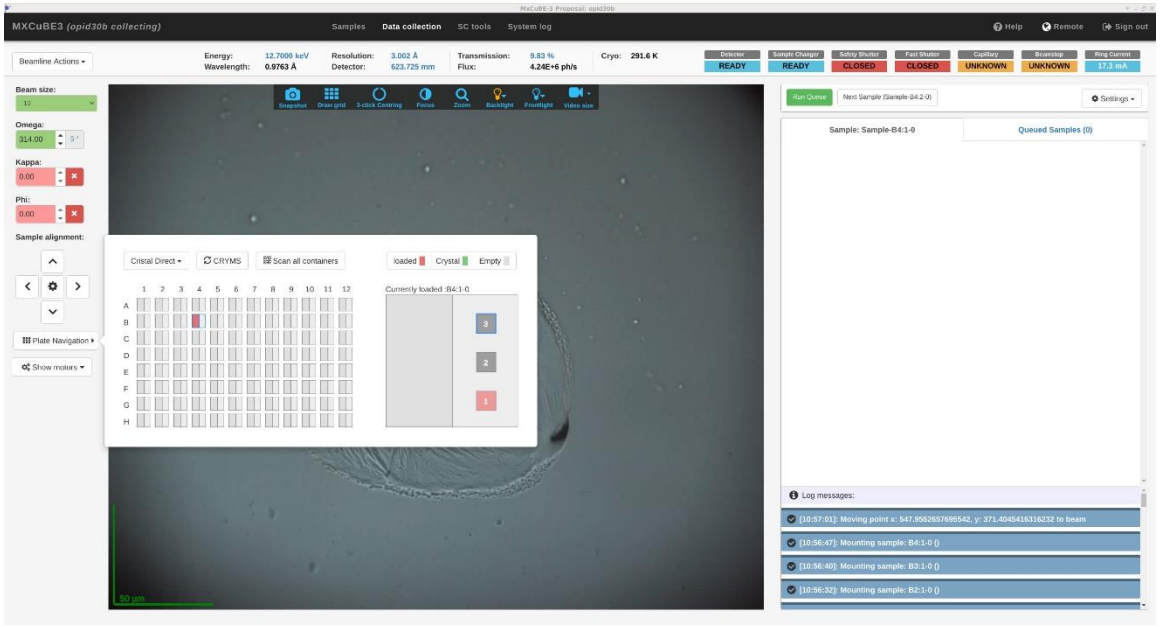
MXCuBE Remote

- 2021 statistics:
  - 684 user groups from 12 countries
  - 620 shifts (4960 hours)
- User guide - www.esrf.fr/mx-remote, https://www.esrf.fr/mxcube3
- Setup

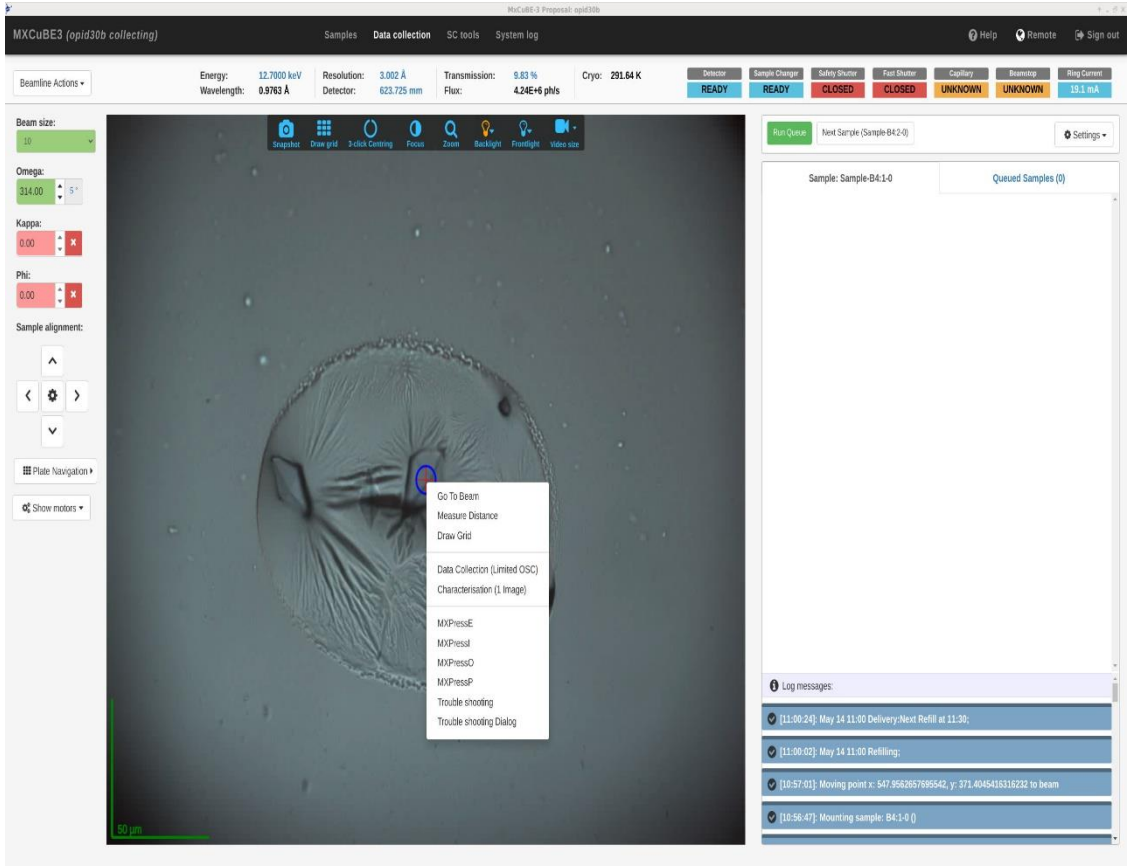


MXCuBE3

- Using Linux version of the FLEX sample changer software.
- Fully automatic data acquisition (Mxpress*) running on all beamlines.
- Plates (ESRF in collaboration with EMBL Grenoble)

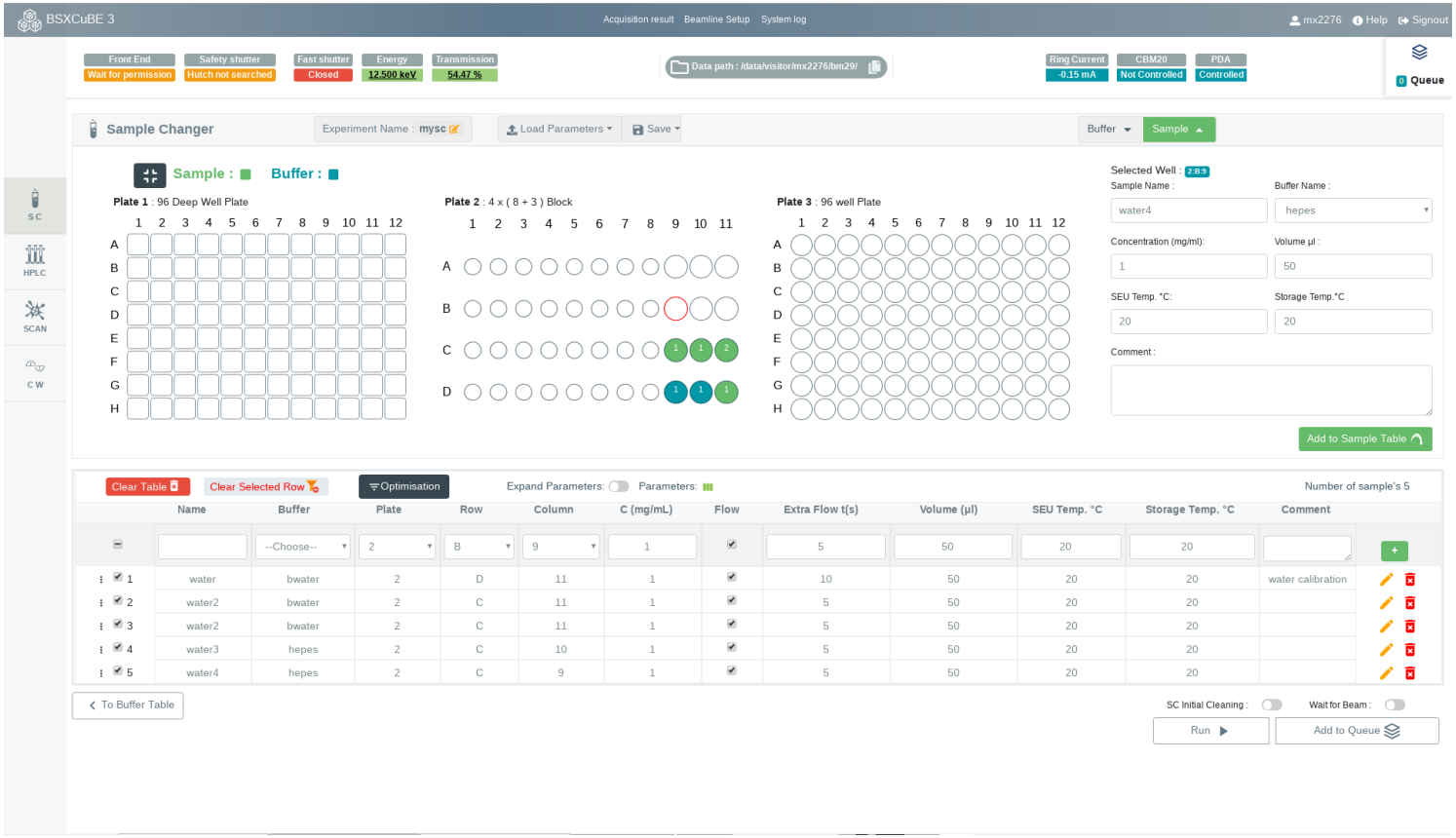


Plates (cont.)


MXCuBE3 (opid30b collecting)
Samples
Data collection
SC tools
System log
Help
Remote
Sign out
Beamline Actions
Energy: 12.7000 keV
Wavelength: 0.9763 Å
Resolution: 3.002 Å
Detector: 623.725 mm
Transmission: 9.83 %
Flux: 4.24E+6 ph/s
Cryo: 291.64 K
Detector READY
Sample Changer READY
Safety Shutter CLOSED
Fast Shutter CLOSED
Capillary UNKNOWN
Beamstop UNKNOWN
Ring Current 19.1 mA
Beam size:
Omega:
Kappa:
Phi:
Sample alignment:
Plate Navigation
Show motors
Snapshot
Draw grid
3-click Centring
Focus
Zoom
Backlight
Frontlight
Video size
Go To Beam
Measure Distance
Draw Grid
Data Collection (Limited OSC)
Characterisation (1 Image)
MXPressE
MXPressI
MXPressO
MXPressP
Trouble shooting
Trouble shooting Dialog
50 µm
Run Queue
Next Sample (Sample-B4:2-0)
Settings
Sample: Sample-B4:1-0
Queued Samples (0)
Log messages:
[11:00:24]: May 14 11:00 Delivery:Next Refill at 11:30;
[11:00:02]: May 14 11:00 Refilling;
[10:57:01]: Moving point x: 547.9562657695542, y: 371.4045416316232 to beam
[10:56:47]: Mounting sample: B4:1-0 ()

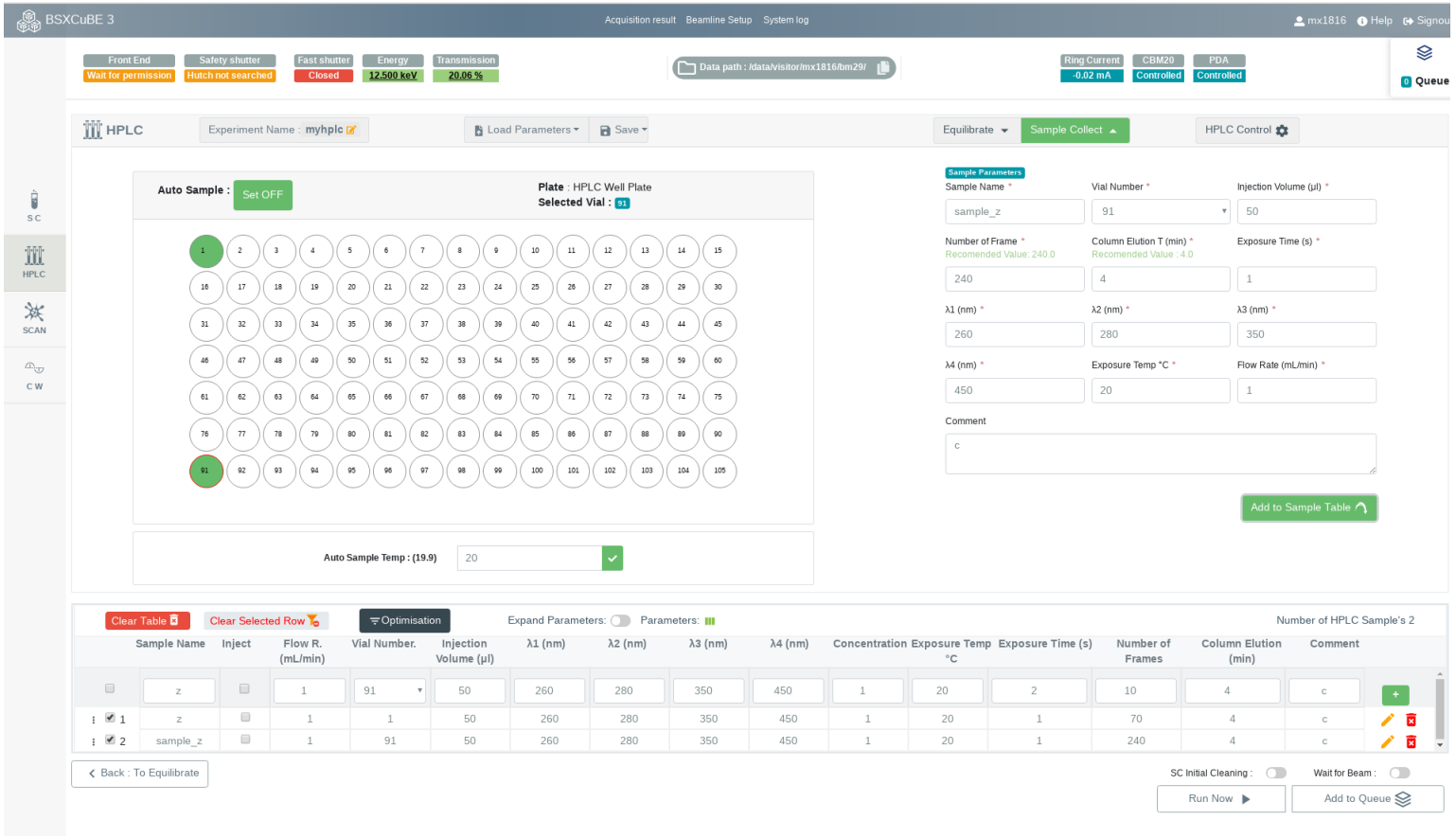
BSxCuBE3

- BM29 control (beamline open with mail in users).
- New Sample changer implementation.

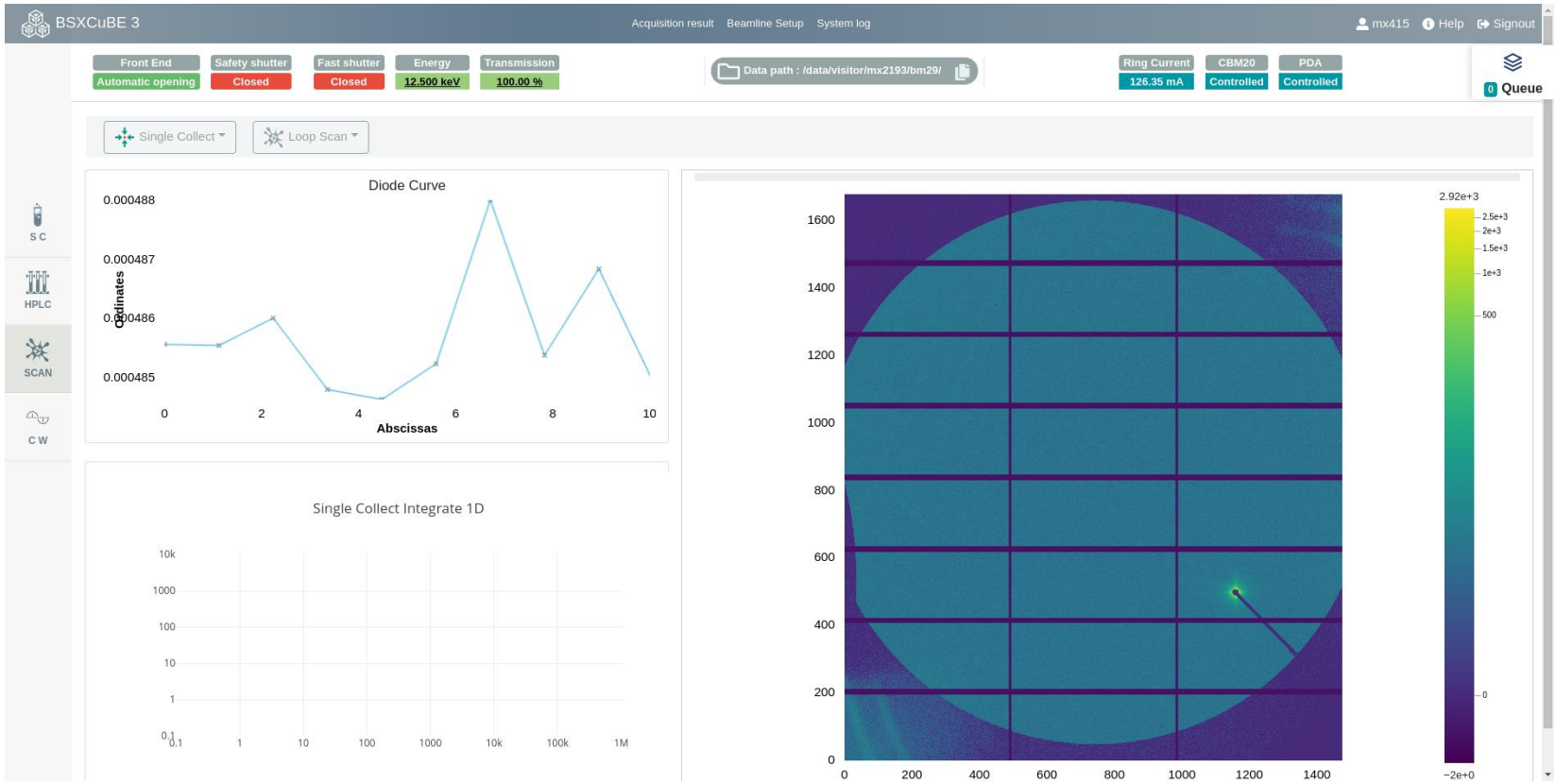


BSxCuBE3 (cont.)

- Ongoing HPLC (High Performance Liquid Chromatography) implementation.



BSxCuBE3 (cont.)



Users' corner

"So far we have measured on MASSIF-3, ID23-2 and BM29. The new EBS beam is very nice and we have been getting good data…MXCube3 is an intuitive and easy to use GUI for remote data collection"

"The introduction of the web-based MXCUBE3 was considered a major improvement in beamline remote control."

"Remote data collection is highly effective and generally works very well… (the) data collection is user friendly and robust."