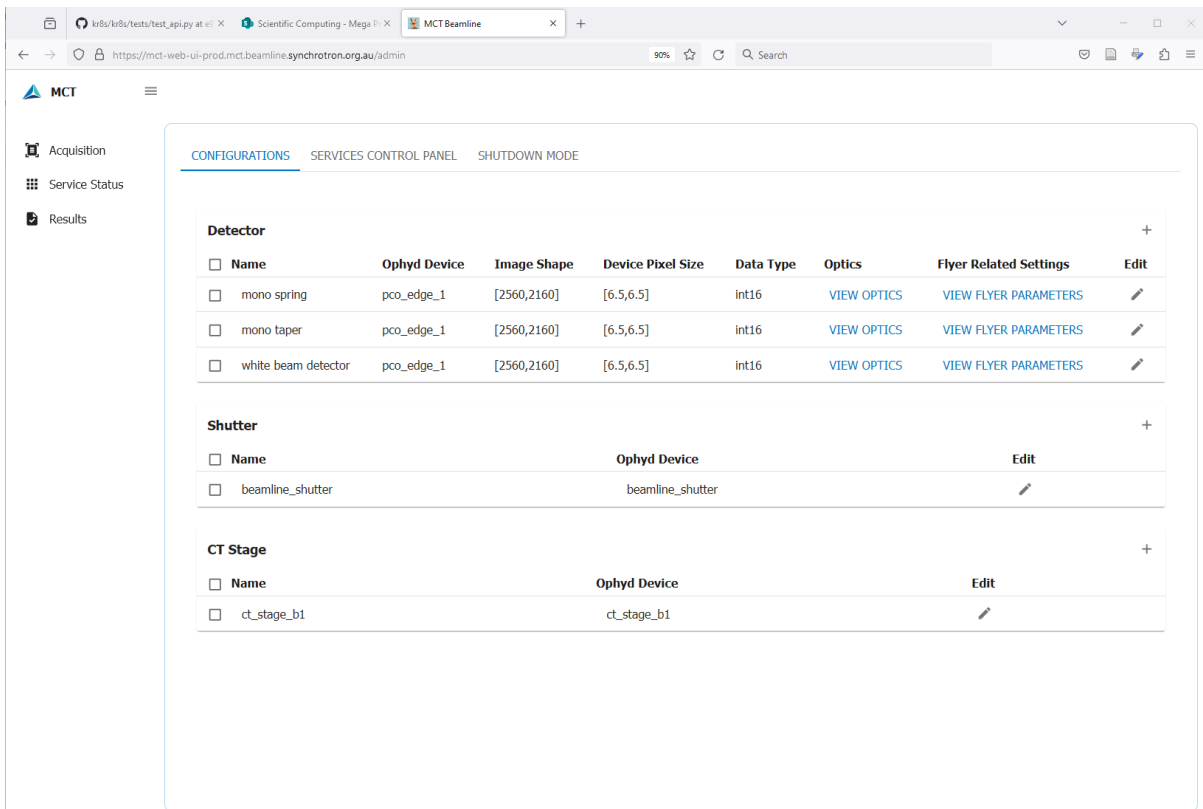
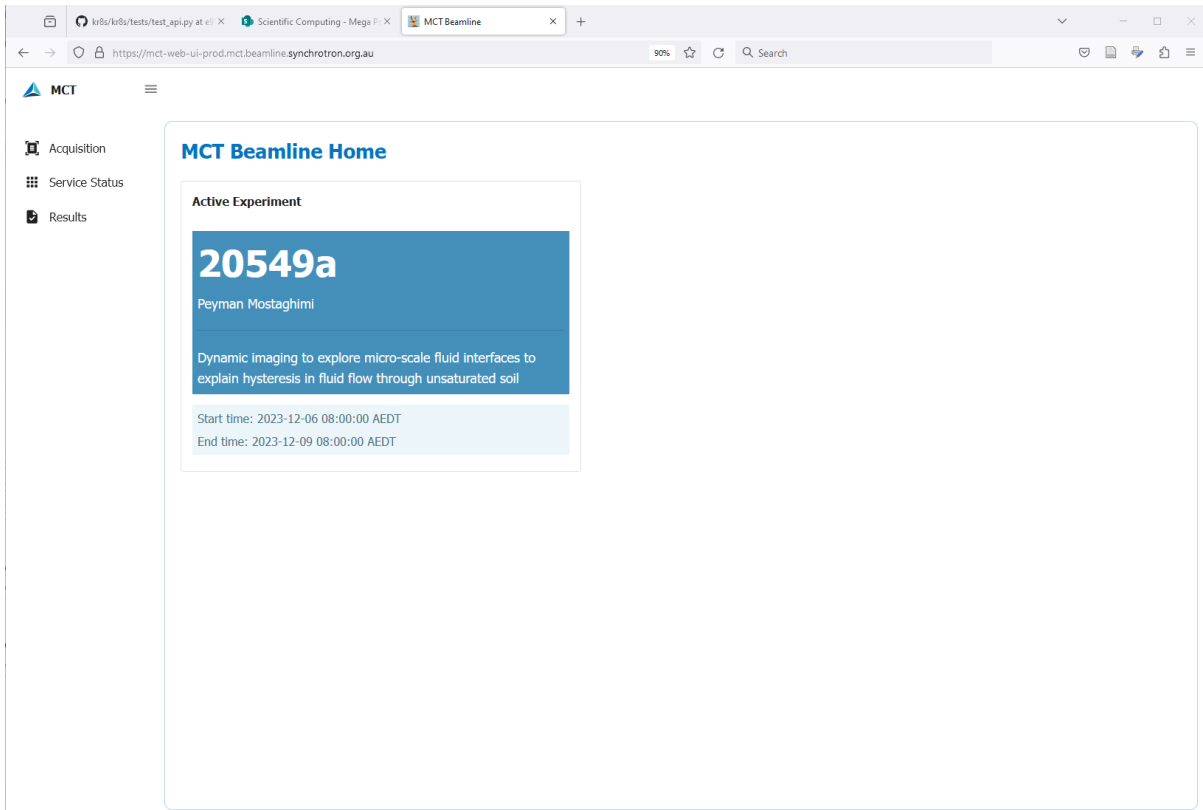


Beamline GUI screenshots 2024-01-18

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MCT beamline



[MCT](#) | [Acquisition](#) | [Service Status](#) | [Results](#)

1 Setup | 2 ROI setup | 3 Acquisition | 4 Monitoring | 5 File viewer

Detector

Detector: mono taper | Sample to detector distance: 0.16 m

		FOV(mm ²)	Effective Pixel Size (μm)
<input checked="" type="radio"/>	1.25	[13.3,4]	[5.2,5.2]
<input type="radio"/>	2	[8.3,4]	[3.25,3.25]
<input type="radio"/>	4	[4.2,3.5]	[1.625,1.625]
<input type="radio"/>	10	[1.7,1.4]	[0.65,0.65]
<input type="radio"/>	20	[0.8,0.7]	[0.325,0.325]

Source

Beam mode: MONO | Energy: 20.00 keV | Source to sample distance: 10 m

Sample Out Position

Stage motor: X | Positioning mode: Relative | Sample out position: 10 mm

[BACK](#) [NEXT](#)

[MCT](#) | [Acquisition](#) | [Service Status](#) | [Results](#)

1 Setup | 2 ROI setup | 3 Acquisition | 4 Monitoring | 5 File viewer

ROI Parameters

| | |

[SAVE](#) [RESET](#)

Saved ROI List

Origin X	Origin Y	Width(X)	Height(Y)
256	0	2048	2160

[BACK](#) [NEXT](#)

Browser: <https://mct-web-ui-prod.mct.beamline.synchrotron.org.au/acquisition>

MCT

Acquisition | Service Status | Results

Setup | ROI setup | Acquisition | Monitoring | File viewer

Acquisition Parameters

Scan name: FLY SCAN | Flyer speed mode: normal

Sample name: test_scan

Description:

Exposure time:

Pre flats/darks | Post flats/darks | Number of flats/darks: 0

Scan range: 185 deg | Number of projections: 1851 | Angle step: 0.1000 deg

Scan mode:

Tiling motors: Horizontally(X) | Vertically(Y)

Number of steps along X: | Step size along X: mm

Number of steps along Y: | Step size along Y: mm

Review parameters

Detector	mono taper
ROI shape (X * Y)	2560 * 2160
ROI origin (X, Y)	(0, 0)
Magnification	1.25
Effective pixel size (µm)	[5.2, 5.2]
Sample to detector distance (m)	0.16
Beam mode	MONO
Energy (keV)	20.00
Source to sample distance (m)	10
Stage motor	x
Position mode	Relative
Sample out position (mm)	10
Shutter	beamline_shutter
CT stage	ct_stage_b1
Flyer parameters	normal
Trigger mode	position
Rotation velocity mode	optimal
Manual velocity factor	0.5
Rotation velocity max (deg/s)	50
Kickoff timeout (s)	60
Complete timeout factor	2
Trigger time min	0.01

BACK | START ACQUISITION

Browser: <https://mct-web-ui-prod.mct.beamline.synchrotron.org.au/servicestatus>

MCT

Acquisition | Service Status | Results

Detector IOC Running

Core Services

RESTART ALL

<p>mct-acquisition-aggregator-prod-6d586dc9d7-49tjw Running</p> <p>RESTART LOG</p>	<p>mct-acquisition-api-prod-59b4db7cdb-dnwzt Running</p> <p>RESTART LOG</p>	<p>mct-bluesky-queue-server-prod-8469846959-svk9z Running</p> <p>RESTART LOG</p>
<p>mct-gpu-redis-prod-master-0 Running</p> <p>RESTART LOG</p>	<p>mct-ophyd-api-prod-58fc44d86-sl5wt Running</p> <p>RESTART LOG</p>	

[MCT Beamline](#) | Scientific Computing - Mega P | X | [MCT Beamline](#) | <https://mct-web-ui-prod.mct.beamline.synchrotron.org.au/result> | 90% | Search

MCT

- Acquisition
- Service Status
- Results**

CLEAR ACQUISITION RESULTS

File Name	Plan Name	Scan Parameters	Description	Time Start(AEDT)	Time Stop(AEDT)
/data/SAND_250um_WB_1p8x_H_19p50_TD.H5	ct_flyer	show parameters		2023-12-09 00:30:37	2023-12-09 00:33:26
/data/SAND_250um_WB_1p8x_H_19p00_TD.H5	ct_flyer	show parameters		2023-12-09 00:24:32	2023-12-09 00:27:19
/data/SAND_250um_WB_1p8x_H_18p50_TD.H5	ct_flyer	show parameters		2023-12-09 00:18:57	2023-12-09 00:21:47
/data/SAND_250um_WB_1p8x_H_18p00_TD.H5	ct_flyer	show parameters		2023-12-09 00:08:41	2023-12-09 00:11:30
/data/SAND_250um_WB_1p8x_H_08p40_TD.H5	ct_flyer	show parameters		2023-12-09 00:02:29	2023-12-09 00:05:18
/data/SAND_250um_WB_1p8x_H_11p00_SI.H5	ct_flyer	show parameters		2023-12-08 23:40:02	2023-12-08 23:42:49
/data/SAND_250um_WB_1p8x_H_08p00_SI.H5	ct_flyer	show parameters		2023-12-08 23:34:01	2023-12-08 23:36:49
/data/SAND_250um_WB_1p8x_H_03p00_SI.H5	ct_flyer	show parameters		2023-12-08 23:27:44	2023-12-08 23:30:33
/data/SAND_250um_WB_1p8x_H_2p00_SI.H5	ct_flyer	show parameters		2023-12-08 23:18:13	2023-12-08 23:21:02
/data/SAND_250um_WB_1p8x_H_23p40_SI.H5	ct_flyer	show parameters		2023-12-08 23:04:18	2023-12-08 23:07:04
/data/SAND_250um_WB_1p8x_H_28p40_SD.H5	ct_flyer	show parameters		2023-12-08 22:55:16	2023-12-08 22:58:05
/data/SAND_250um_WB_1p8x_H_26p40_SD.H5	ct_flyer	show parameters		2023-12-08 22:47:59	2023-12-08 22:50:49
/data/SAND_250um_WB_1p8x_H_24p40_SD.H5	ct_flyer	show parameters		2023-12-08 22:38:09	2023-12-08 22:40:58
/data/SAND_250um_WB_1p8x_H_21p40_SD.H5	ct_flyer	show parameters		2023-12-08 22:26:50	2023-12-08 22:29:38
/data/SAND_250um_WB_1p8x_H_18p40_SD.H5	ct_flyer	show parameters		2023-12-08 22:15:12	2023-12-08 22:18:00
/data/SAND_250um_WB_1p8x_H_08p40_SD.H5	ct_flyer	show parameters		2023-12-08 21:57:03	2023-12-08 21:59:51
/data/SAND_250um_WB_1p8x_H_03p40_SD.H5	ct_flyer	show parameters		2023-12-08 21:45:24	2023-12-08 21:48:12

XAS beamline (The first of the post-SAXS generation of GUIs)

The screenshot shows the 'Experiment Home' page of the XAS Beamline GUI. The header includes the XAS Beamline logo, a 'Use Dtaqc' button, and navigation tabs for 'Sample Alignment', 'Scan Methods', 'Scan Queue', 'Team Chat', and 'Logs'. The main content area is titled 'Experiment Home' and contains a 'Current Experiment Details' section. This section includes a title 'Identifying the Role of Nafion Binders I', an EPN '20462a', and a data path '/beamline/data/user_data/2023/3/20462a'. There are buttons for 'SUBMIT', 'DETAILS FROM CHANGEOVER', and 'RESET TO DEFAULTS'. A 'Links' section contains a button for 'DATA PROCESSING NOTEBOOKS'. A 'Page Description' section is partially visible. On the right, a control panel shows the time '13:39:23', date '18-01-2024 (AEDT)', current current '-0.22mA', and three beamline status indicators: HA (blue), HB (red), and FS (red). The current voltage is '-64.96' and there is a 'RUN AUTOROCK' button. A 'Reference Element' dropdown is set to 'V (122.6°)'.

The screenshot shows the 'Sample Alignment' page of the XAS Beamline GUI. The header is similar to the previous page, but the 'Sample Alignment' tab is active. The main content area is titled 'Sample Alignment' and contains several control panels. On the left, there are input fields for 'Energy (eV)' (3937.72), 'Illumination (mm)' (0.70), and 'Count Time (s)' (0.50). Below these are fields for 'Gain', 'V', '%', and 'Live-%'. A table shows detector parameters for i0, i1, and i2. A 'COUNT' button and a 'Monitor' checkbox are also present. In the center, there is a camera acquisition window showing a grayscale image of a sample with a green vertical crosshair and a purple horizontal crosshair. To the right of the camera window are input fields for 'RT X (mm)' (14.00), 'RT Y (mm)' (3.00), and 'RT Theta (deg)' (180.00). A 'TO CRYO STAGE' button is located below the camera window. On the far right, a control panel shows the time '13:38:56', date '18-01-2024 (AEDT)', current '-0.22mA', and the same three beamline status indicators (HA, HB, FS) and voltage '-64.96' as the previous page. The 'Reference Element' dropdown is also set to 'V (122.6°)'.

[XAS Beamline](#)
[Use Dtaq](#)
[Sample Alignment](#)
[Scan Methods](#)
[Scan Queue](#)
[Team Chat](#)
[Logs](#)

Scan Methods

> Define Scan Methods

SLEW SCAN
 STEP SCAN

Transmission
 Fluorescence

Label:

Sample Element:
 Edge:
 Reference Element:
 ROI start: eV
 ROI stop: eV

Phase 1: Start energy: eV, Stop energy: eV, Energy interval: eV, Sampling time: ms, Single-phase

Phase 2: Start energy: eV, Stop energy: eV, Energy interval: eV

Phase 3: Start energy: eV, Stop energy: k-space, k interval start: k-space, Max time: ms

Defined Scan Methods

13:40:34
18-01-2024 (AEDT)

-0.22mA

HA

HB

FS

-64.96

Reference Element
V (122.6°)

[XAS Beamline](#)
[Sample Alignment](#)
[Scan Methods](#)
[Scan Queue](#)
[Team Chat](#)
[Logs](#)

Scan Methods

> Define Scan Methods

SLEW SCAN
 STEP SCAN

Transmission
 Fluorescence

Label:

Sample Element:
 Edge:
 Reference Element:
 ROI start: eV
 ROI stop: eV

Phase 1: Start energy: eV, Stop energy: eV, Energy interval: eV, Sampling time: ms, Single-phase

Phase 2: Start energy: eV, Stop energy: eV, Energy interval: eV

Phase 3: Start energy: eV, Stop energy: k-space, k interval start: k-space, Max time: ms

Defined Scan Methods

> Setup XAS Scans

Select Positioners

<input type="checkbox"/> rt_theta	<input type="checkbox"/> cryo_x	<input type="checkbox"/> gain_J0	<input type="checkbox"/> illumination	<input type="checkbox"/> energy	<input type="checkbox"/> ref_wheel
<input type="checkbox"/> rt_x	<input type="checkbox"/> cryo_y	<input type="checkbox"/> gain_I1	<input type="checkbox"/> dcm_angle	<input type="checkbox"/> hrm_pitch	<input type="checkbox"/> table_pitch_motor
<input type="checkbox"/> rt_y	<input type="checkbox"/> fluoro_det_x	<input type="checkbox"/> gain_I2	<input type="checkbox"/> dummy_positioner	<input type="checkbox"/> hrm_y	<input type="checkbox"/> table_y_motor

Method	Repeats	Delay (s)	Autorock frequency	Duration (h:m:s)	Comment	Filename prefix	Controls
	1	0	1		comment	filename prefix	<input type="button" value=""/> <input type="button" value=""/>

13:42:58
18-01-2024 (AEDT)

-0.22mA

HA

HB

FS

-64.96

Reference Element
V (122.6°)

[XAS Beamline](#)
[Use Dtaqc](#)
[Sample Alignment](#)
[Scan Methods](#)
[Scan Queue](#)
[Team Chat](#)
[Logs](#)

Scan Queue

The scan queue lets you view and adjust the order of the plans/methods that will be executed.

You can see which plan is currently running, a history of previous runs, and the location of the data product.

plot PLOT

13:42:00
18-01-2024 (AEDT)
-0.22mA

HA

HB

FS

-64.96

RUN AUTOROCK

Reference Element
V (122.6°)

Queue contents

reorder Status Scan Type Dtaqc Method Positioners Repeats Delay(s) Autorock Frequency Comment Scan String Action

START PROCESSING STOP PROCESSING CLEAR THE QUEUE CLEAR HISTORY RESET QUEUESERVER

Manage Suspenders

Location of data

```

/beamline/data/user_data/2023/3/20462a/results/20231211_170148_fe_test_quick_fluor_006.xdi
/beamline/data/user_data/2023/3/20462a/results/20231211_170243_fe_test_quick_fluor_007.xdi
/beamline/data/user_data/2023/3/20462a/results/20231211_170338_fe_test_quick_fluor_008.xdi
/beamline/data/user_data/2023/3/20462a/results/20231211_170433_fe_test_quick_fluor_009.xdi
/beamline/data/user_data/2023/3/20462a/results/20231211_170529_fe_test_quick_fluor_010.xdi

```

[XAS Beamline](#)
[Use Dtaqc](#)
[Sample Alignment](#)
[Scan Methods](#)
[Scan Queue](#)
[Team Chat](#)
[Logs](#)

Team Chat

The team chat allows you to chat with anyone else that has access to the web page.

You can use this to chat amongst your own team, or as a communication channel with your beamline scientists and also members of the scientific computing team.

13:41:36
18-01-2024 (AEDT)
-0.22mA

HA

HB

FS

-64.96

RUN AUTOROCK

Reference Element
V (122.6°)

name message SEND A MESSAGE

MEX beamline (a couple of pages)

The screenshot shows the 'Device Controls' page of the MEX beamline interface. On the left is a sidebar with navigation options: Experiment Setup, Device Controls (selected), Scan Recipe, Queue Builder, Queue, μ -SDD Oneshot, μ -Camera Viewer, Scan Simulator, Ophyd Example, Plot Example, and Websocket. The main content area is titled 'Device Controls' and contains three panels: 1. 'DCM' panel with a 'DCM Energy' input set to 8 keV. 2. 'Autorock' panel with buttons for 'AUTOROCK', 'WIDE NARROW', and 'ABORT', and a plot showing a red parabolic curve. 3. 'Reference wheel' panel with a circular dial showing element positions (e.g., Fe, Mn, Cr, V, Ti, Sc, Ni, Cu, Zn, Ga, Ge, As, Se, Pt, Au, Pb, Ag, In, Sn, Ta, W, Hf, e7, e8) and a red arrow pointing to Fe. Below the dial are input fields for 'Reference element' (24 - e8 (345°)) and 'Reference position' (345 deg).

The screenshot shows the 'Scan Recipe' page of the MEX beamline interface. The sidebar is the same as in the previous screenshot. The main content area is titled 'Scan Recipe' and includes: 1. Recipe selection tabs: 'Epics' (selected), 'Epics Dummy', and 'Scan Type'. 2. A 'Label' input field and a 'Monitor detectors' toggle switch. 3. Configuration fields for 'Positioner settle time' (0), 'Detector delay time' (0), and 'Number of points' (10). 4. 'Before Scan' and 'After Scan' sections, each with 'PV' and 'Wait' input fields. 5. A 'PREVIEW' button and a 'CREATE NEW RECIPE (SCRAPE)' button. 6. A 'Defined Recipes' list on the right with a search bar and a scrollable list of recipes: Fe_XANES_quick, Fe_XANES, V_XANES, Ni_energy_drift, Ni_EXAFS, Co_EXAFS, Cr_EXAFS, Cr_XANES, Co_XANES, and Ni_XANES.