

MANDATORY ON-CALL TRAINING
FOR BEAMLINER LOCAL CONTACTS

On-Call service@MAX IV

Mandatory On-Call Training for Beamline Staff

Remote seminars 2024:

Jan 23 9:00 – 10:30

<https://indico.maxiv.lu.se/event/5253/>

Jan 24 10:30 – 12:00

<https://indico.maxiv.lu.se/event/5254/>

Jan 25 13:00 – 14:30

<https://indico.maxiv.lu.se/event/5255/>

A catch-up event will be offered later in the spring.

Agenda:

Technical Division (Mirjam):

- The TD On-Call model
- Expectations on beamline staff calling the TD On-Call

HR (Anna-Lena, Ann):

- Working Hours
- Primula

Mandatory On-Call Training for Beamline Staff

Agenda:

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- The TD On-Call model
- Expectations

HR (Anna-Lena, Ann):

- Working Hours
- Primula

Off-hours operation support at MAX IV is a shared effort

Why is it needed?

- MAX IV user time is a valuable resource

Who is responsible?

- Accelerators: Operators, RF group, ID group
- Beamlines: Local Contacts, Floor Coordinators
- Technical Division: ICT groups, Electricians, Infrastructure (water cooling) team, Automation (PLC) team

How do we do it?

- Efficient interventions

TD On-Call Support model

Support during weekends and evenings
17-23 weekdays, 08-20 weekends

ICT: 046 – 222 66 00 from week 5

Electronics
Scientific Data
IT Infra
Software

24/7:

PLC: 046 – 222 69 70

Electricity: 046 – 222 69 40

**Infrastructure (cooling water):
046 – 222 69 60**



Who may call the TD On-call service?

- Operators
- Floor Coordinators
- Beamline Local Contacts

Users should **not** call the TD on-call

I schedule 2024.xlsx @
Call 2024 - Updated Dec 8, 2023 by Piotr Dziurdzia

156 | PD | HT | Open | Download

Red cell = Not needed

Green cell = Needed

Day	Date	Machine schedule injector	Machine Schedule R1	Machine Schedule R3	EL 24/7	PLC 24/7	VVS 24/7	RF 24/7	ICT (Electronics) Weekday 17-23 Weekend 8-20	ICT (Soft) Week
Monday	4	U	U	U	Fredrik	Johan Grube	Mats B.	Aleksandar M.		
Tuesday	5	U	U	U	Fredrik	Johan Grube	Piotr D.	Aleksandar M.		
Wednesday	6	U	U	U	Fredrik	Johan Grube	Piotr D.	Aleksandar M.		
Thursday	7	U	U	U	Fredrik	Johan Grube	Piotr D.	Aleksandar M.		
Friday	8	U	U	U	Claes	Tobias Jeppsson	Piotr D.	Robert L.		
Saturday	9	U	U	U	Claes	Tobias Jeppsson	Piotr D.	Robert L.		
Sunday	10	U	U	U	Claes	Tobias Jeppsson	Piotr D.	Robert L.		
Monday	11	U	U	U	Claes	Tobias Jeppsson	Piotr D.	Robert L.		
Tuesday	12	U	U	U	Claes	Tobias Jeppsson	Anders M.	Robert L.	Julio LS	Jason Brud
Wednesday	13	U	U	U	Claes	Tobias Jeppsson	Anders M.	Robert L.	Julio LS	Jason Brud
Thursday	14	U	U	U	Claes	Tobias Jeppsson	Anders M.	Robert L.	Julio LS	Jason Brud
Friday	15	U	U	U	Patrik	Jonas Lindkvist	Anders M.	Dionis K.	Julio LS	Jason Brud
Saturday	16	U	U	U	Patrik	Jonas Lindkvist	Anders M.	Dionis K.	Julio LS	Jason Brud
Sunday	17	U	U	U	Patrik	Jonas Lindkvist	Anders M.	Dionis K.	Julio LS	Jason Brud
Monday	18	U	U	U	Patrik	Jonas Lindkvist	Anders M.	Dionis K.	Julio LS	Jason Brud
Tuesday	19	U	U	U	Patrik	Jonas Lindkvist	Mikael J.	Dionis K.		
Wednesday	20	U	U	U	Patrik	Jonas Lindkvist	Mikael J.	Dionis K.		
Thursday	21	U	U	U	Patrik	Jonas Lindkvist	Mikael J.	Dionis K.		
Friday	22	U	U	U	Niclas	Tommy Carlsson	Mikael J.	Robin S.		
Saturday	23	U	U	U	Niclas	Tommy Carlsson	Mikael J.	Robin S.		
Sunday	24	U	U	U	Niclas	Tommy Carlsson	Mikael J.	Robin S.		
Monday	25	U	U	U	Niclas	Tommy Carlsson	Mikael J.	Robin S.		

February | March | April | Maj | June | July | August | September | October | November | December

Availability

- Start-up weeks
- User operation
- See the MAX IV On-Call schedule <https://lu.box.com/s/9w40vfemys0qihypazzrb84uff0q557w>

What is covered by the TD On-call?

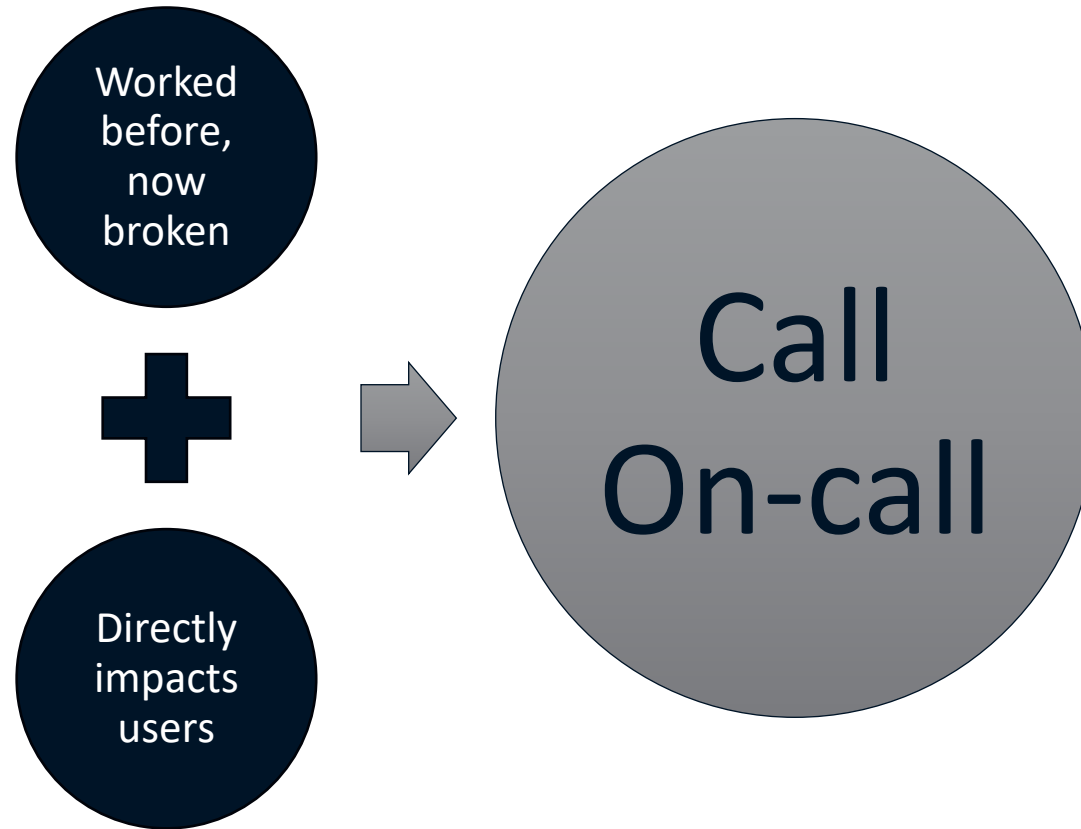
- Best effort support for standard operation.
- Systems that have been proven to work
- ... within a reasonable time frame

The person who has on-call duty decides what level of intervention is reasonable.

[On-call procedure – MAX IV Intranet \(lu.se\)](#)



When can I call the TD On-call?



Some Examples:

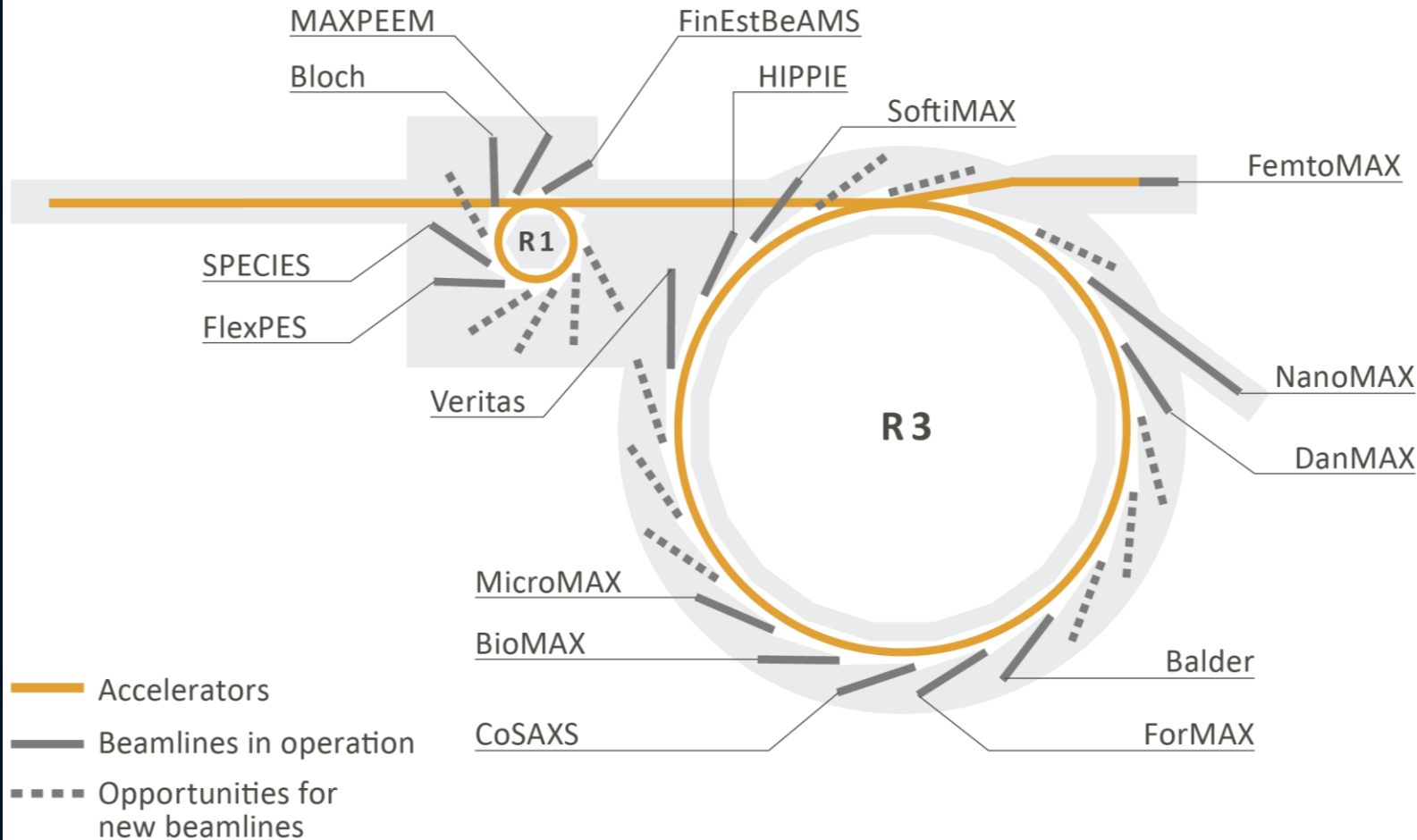
- Acceptable calls (all on previously tested systems)
 - Motor does not move – Electronics
 - Tango device stuck, GUI not responding, Scan not running – Software
 - Detector problem, Data pipeline stuck – Scientific Data
 - PLC alarm persists after PLC reset – Automation
 - Replacing a broken power supply – Electricians
 - Cannot write file to storage, network problem – IT Infra
 - Water cooling not working – Infrastructure
- Non-acceptable calls
 - Re-writing a scan macro
 - Installing or configuring new equipment
 - A newly changed and un-tested component is not working

Consider the urgency of the issue. Day time support has more capabilities to assist.

Prioritization:

If several issues are reported in the same timeframe, the priority is as follows:

1. Accelerator operations
2. Beamline user operations
3. Beamline preparations for user operation



Checklist before calling

- Search documentation – beamline docs, Elogy, Wiki
- Check alarm list
- PLC reset
- Hardware reset
- Restart in Astor
- Kill the process - sardana-restart script
- Talk to the floor coordinators

The screenshot displays a multi-tasking desktop environment. In the background, a Firefox browser window shows a logbook entry titled "Muscle experiments notes" by Ann Terry, dated Fri Dec 8 2023. The entry includes a pinned section and a section for "b-cosaxs-cc-0" with a note: "If the computer b-cosaxs-cc-0 needs to be restarted, there is a desktop icon called CC_0 Reopen_Apr may need to 'Allow Launching' to get this to work, sometimes you need to click multiple times to get it change to Allow Launching)".

In the foreground, a Wiki page titled "Veritas/Troubleshooting" is open. The page content includes a section for "In case of a PLC update (reboot) or a network failure" with the following instructions:

First of all, for a planned intervention, make sure that there always is a person for the BL present to monitor the status.

Some preparatory things prior to the PLC update:

1. Close the BL towards the ring
2. Turn off the voltage to the NEXAFS detector, 0th order detector(s) and DLD(s).

The reboot will close all valves and turn off (or at least loose the communication to) the pirani gauges, possibly the ACP, turbos and disrupt the Sveto-box. To recover the BL please do the following:

1. Reboot the AllenBradely server (Astor-> cc-1...)
2. Power cycle Sveto-box
3. Turn on the pirani gauges at the endstation for the forevacuum manifold (can be done through the synoptic)
4. Turn on the turbos in case they stopped
5. Turn on the ACPs in case they stopped
6. Turn on both fullrange gaguges in the endstation and check the pressure
7. Open the valve between the load lock and the load lock turbo
8. Open all relevant valves @ the BL (especially the ones around the gas-cell since there are some unpumped sections.
9. Power cycle the machine stop button (for the spectrometer)
10. Reset PLC from synopic

At the bottom of the page, it states: "In case the endstation was vented make sure to properly ramp the voltages on the NEXAFS detector and manually operate the Svetobox for some time and/or open all valves between the forevacuum and the turbos".

Overlaid on the right side of the Wiki page is a complex control panel titled "CoSAXS". It features a grid of buttons and indicators, with a "Ring Current" display showing "5.7000". Below the grid, there are sections for "vertical scan and collecting data" and "Flow is actually fine but got Flow Alarm: The flow is too LOW".

Information to provide:

- Your name and beamline
- Full name of equipment/software
- Description of symptoms and the impact on operations
- Actions taken so far

All calls are logged in as much detail as possible to allow follow up and improvement



Real life example: Closed loop error at Veritas

▼ wed 2023.03.01 20:57 - ONCALL - Veritas Manipulator stuck

21:29:47, Wed Mar 1 2023 ✎ 09:06:23, Mon Mar 6 2023

👤 Vincent Hardion

Status **Open** System **Veritas** Caller **Marcus** Tags **IcePAP** Classification **Hardware**

Description

- Technical details (Tango device name, IcePAP axis, hostname etc.): a_mp1_yaw in ALARM
- Effect on operations: Cannot continue experiment
- Last seen working: 5mn ago

Investigation

Check the status => Error close loop

Resolution

From spock (MacroExecutor in ScanGUI) I typed "ipap_esync a_mp1_yaw" to recover from the closed error.

```
Door_B316A [1]: %ipap_esync a_mp1_yaw
Collecting data a_mp1_yaw
Data collected
Sending ESYNC to a_mp1_yaw
ESYNC done
Power ON Motor
macro:ipap_esync: motor a_mp1_yaw: axis 16: {"PosAxis": 122713246.0, "PosTgtEnc": 244998.0, "PosMotor": 200248934.0, "EncTgtEnc": 4287495.0, "Position": 270.0, "StatusHome": false, "StatusIndexer": "Internal indexer", "StatusInfo": 0, "StatusLim-": false, "StatusLim+": false, "StatusMode": "OPER", "StatusMoving": false, "StatusPresent": true, "StatusReady": false, "StatusSettling": false, "StatusStopCode": "Close loop error", "StatusWarning": true}
Door_B316A [2]: a_mp1_yaw.state()
Result [2]: tango._tango.DevState.ON
Door_B316A [3]: █
```

Avoidance of recurrence: This is the instruction in the Veritas wiki <https://wiki.maxiv.lu.se/index.php?title=Veritas>

Open as it seems recurrent.

Thank you for your attention!

Questions?

CONTROL SYSTEM TRAINING

KITOS Operations Support

KITOS Support model

Support during **working hours**:

- 8-17 weekdays
- 2 people scheduled weekly + shift coordinator
- Stationed in the KITOS room
1st floor E-building
- +46703798665

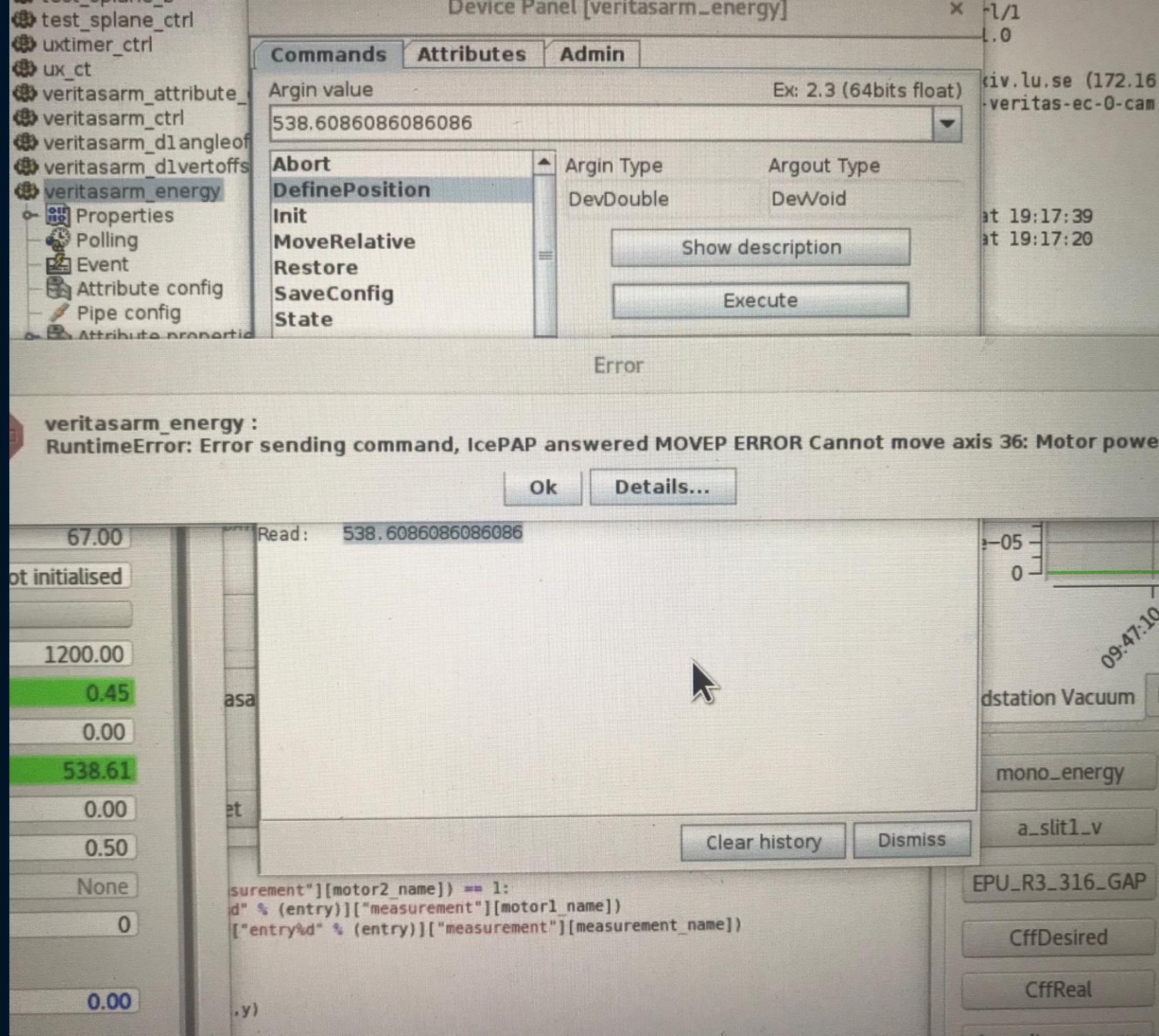


Who should call KITOS?

- All MAX IV staff can call KITOS
- Users should talk to their local contact or to the floor coordinators

Availability

- Full service all weeks that are marked as **beamline startup** or **user operation**



When should I call KITOS?

- You can **always** call KITOS for problems related to the control system or general IT system issues.
- KITOS reliably provides control system support for software and equipment that is in **standard operation**.
- Software and equipment that is currently undergoing development or improvement activities is not covered by KITOS

	Standard operation in BL, Standard/operation ready software or IT-equipment is used	Improvement and/or development of the BL equipment. Issues with standard underlying software or IT-equipment.	Improvement and/or development of the BL equipment. Issues with software or IT-equipment under development.
BL contact (from ICT), day-time working hours	N	N	Y
KITOS, day time working hours	Y	Y	N
On-call, from 17-23 on working days and from 8-20 on Saturday, Sunday and red-days.	Y	Y	N

Prioritization:

If several issues are reported in the same timeframe, the priority is as follows:

1. Accelerator operations
2. Beamline user operations while users are present
3. Beamline preparations for user operation
4. Beamline operations

