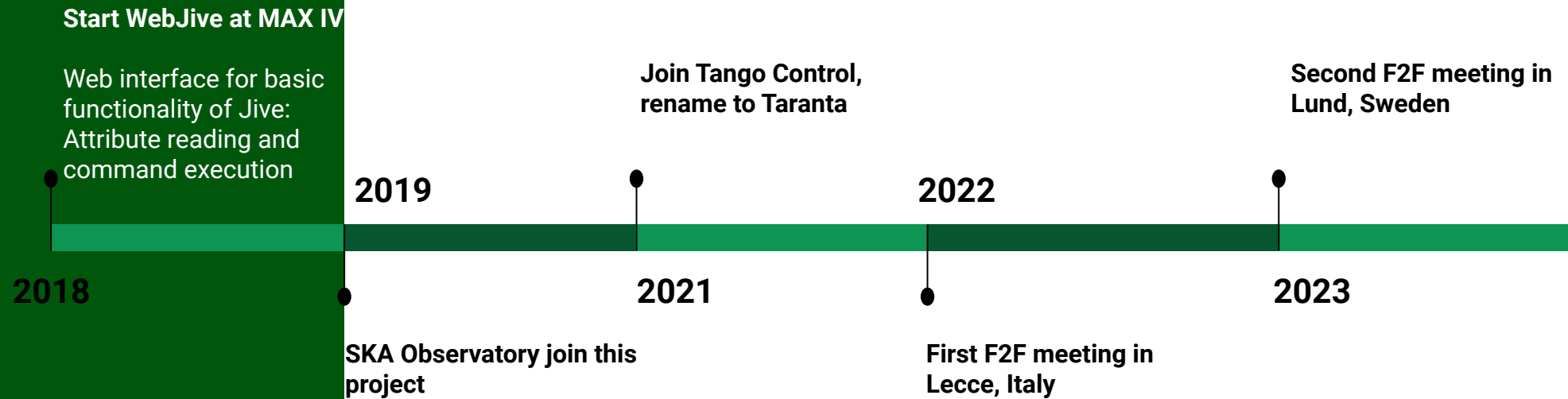


# Taranta Project Status

Yimeng Li  
Lund 2023

# Introduction



# Usage at MAX IV

## R3-301L RGA

DISABLE  Sensor MKS104-J0113006 is controlled by Process Eye v.MKS Spectra, by host: 10.0.107.40.

Active Filament: 1 Filament State: OFF Filament X-Trip State: Emission\_ Ion Energy: 5.5 eV  
 Active Filament:  Submit Filament State:  Submit Ion Energy:  eV

[Go to Archive Viewer](#)

Start Mass: 1 Accuracy: 5  
 Start Mass:  Accuracy:   
 End Mass: 100 Detector Type: SEM1  
 End Mass:  Detector Type:  Submit

Last scan started at:

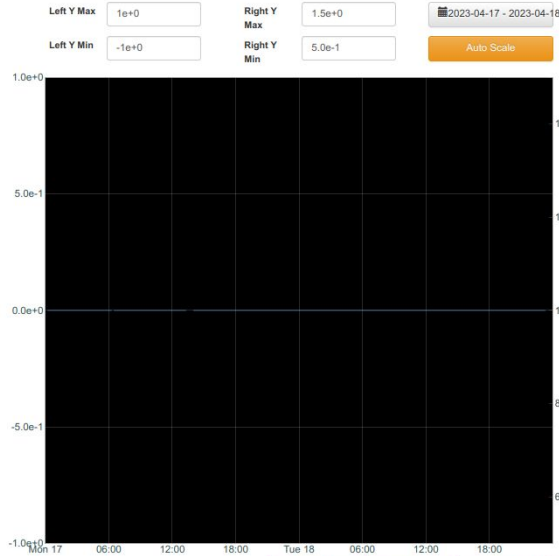
AMU	Pressure [mbar]	Threshold (in) [mbar]	Threshold [mbar]	State
2	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
16	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
18	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
28	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
32	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
40	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
44	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
69	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
<input type="text" value="1"/>	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>
<input type="text" value="1"/>	null mbar	<input type="text" value="1.00"/>	1.00e+0 mbar	<input checked="" type="radio"/>



MAX IV

HDB++ Archive Viewer

Help

g-v-casdb-0.maxiv.lu.se:1000C  
 e.g. "/vac"/pressure  
  
  
**Left Y axis**  Log  
 r3-301l/vac/rgacu-01/mass02  
 r3-301l/vac/rgacu-01/mass16  
 r3-301l/vac/rgacu-01/mass18  
 r3-301l/vac/rgacu-01/mass28  
 r3-301l/vac/rgacu-01/mass32  
 r3-301l/vac/rgacu-01/mass40  
**Right Y axis**  Log  
 r3-301l/vac/rgacu-01/amu8  
 r3-301l/vac/rgacu-01/amu9



Fast Shutter  Shutter  

Beam Conditioning Unit (BCU) In beam

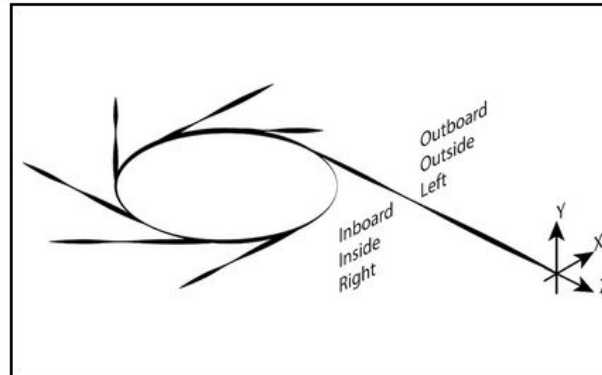
Laser  Move in  Move out

Slit 1

- b304a-ea01/opt/slit-01-hgap 1.50 mm  Move
- b304a-ea01/opt/slit-01-hoff 0.16 mm  Move
- b304a-ea01/opt/slit-01-vgap 1.50 mm  Move
- b304a-ea01/opt/slit-01-voff -0.03 mm  Move

Attenuator In beam

- Filter 1 (Ni 25um)  Move in  Move out
- Filter 2 (Ni 50um)  Move in  Move out
- Filter 3 (W 25um)  Move in  Move out
- Filter 4 (W 50um)  Move in  Move out
- Filter 5 (W 100um)  Move in  Move out
- Filter 6 (W 200um)  Move in  Move out
- Filter 7 (W 400um)  Move in  Move out



PXRD2D In beam

PXRD diode  Move in  Move out

Pilatus cover  Close  Open

Slit 2

- b304a-ea03/opt/slit-02-hgap 0.04 mm  Move
- b304a-ea03/opt/slit-02-hoff 0.07 mm  Move
- b304a-ea03/opt/slit-02-vgap 0.10 mm  Move
- b304a-ea03/opt/slit-02-voff -0.09 mm  Move

HUBER rotation stage

- b304a-ea03/dia/sams-02-ry 360.000 deg  Move

Capillary spinner

ALARM b304a-ea03/dia/sams-01-r Power is off.

velocity:  deg/s

Detectors

**BE AWARE OF POTENTIAL COLLISIONS WHEN MOVING DETECTORS!**

PILATUS 2M - Close cover before moving

- b304a-ea03/ctf/ppm-03-mlo1 276.990 mm  Move

Start live mode  Stop live mode

Status: Idle

Energy: 35000 eV Threshold: 17500 eV  
 nTriggers: 5 nFramesAcquired: 5  
 Temperature: 27 C Humidity: 5.10 %

XRF detector

- b304a-ea03/dia/taled-02-z 99.999 mm  Move

## Usage at MAX IV

### Engineers, Beamline Staffs, Experiment Users

Monitoring Usage	Insertion devices, Radio frequency
	Cooling systems, Vacuum systems
	Different beamline status
Interaction with Devices	Overview of all equipments
	Configure/Control motors, detectors
	Experiment control

# Taranta Structure

Taranta Auth

TangoGQL

Taranta

Dashboards

Edit mode

Run mode

Alerts

Widgets

Label

Attribute display/Writer

Attribute plot

Command executer

Sardana motor/macro

Embed page

Box

Image Display

Elasticsearch log viewer

Tabular view

Dashboards

Export

Import

Variable

Layers

Devices

Server

Properties

Attributes

Commands

Logs

# Meeting Board 2022

01	Must Have	<ul style="list-style-type: none"><li>• Template for Merge request and issues for both TangoGQL and Taranta projects</li><li>• Gitlab milestone to manage tasks</li><li>• Increase TangoGQL test coverage</li></ul>
02	Should Have	<ul style="list-style-type: none"><li>• Responsivity, Grid Layout</li><li>• Share dashboards with other users dynamically</li><li>• Independent widget code and loading</li><li>• Variable by URL</li><li>• Module federation - Webpack 5</li></ul>
03	Could Have	<ul style="list-style-type: none"><li>• Dashboard versioning with MongoDB</li><li>• Search box for searching/filter widgets</li><li>• Moving between dashboard in run mode</li><li>• Grouping widgets into groups for easier reusability</li><li>• Attribute value to command argument</li><li>• Referencing widget groups with possibility of replacing</li><li>• UI simple functional</li><li>• Variables connected to each widget</li></ul>

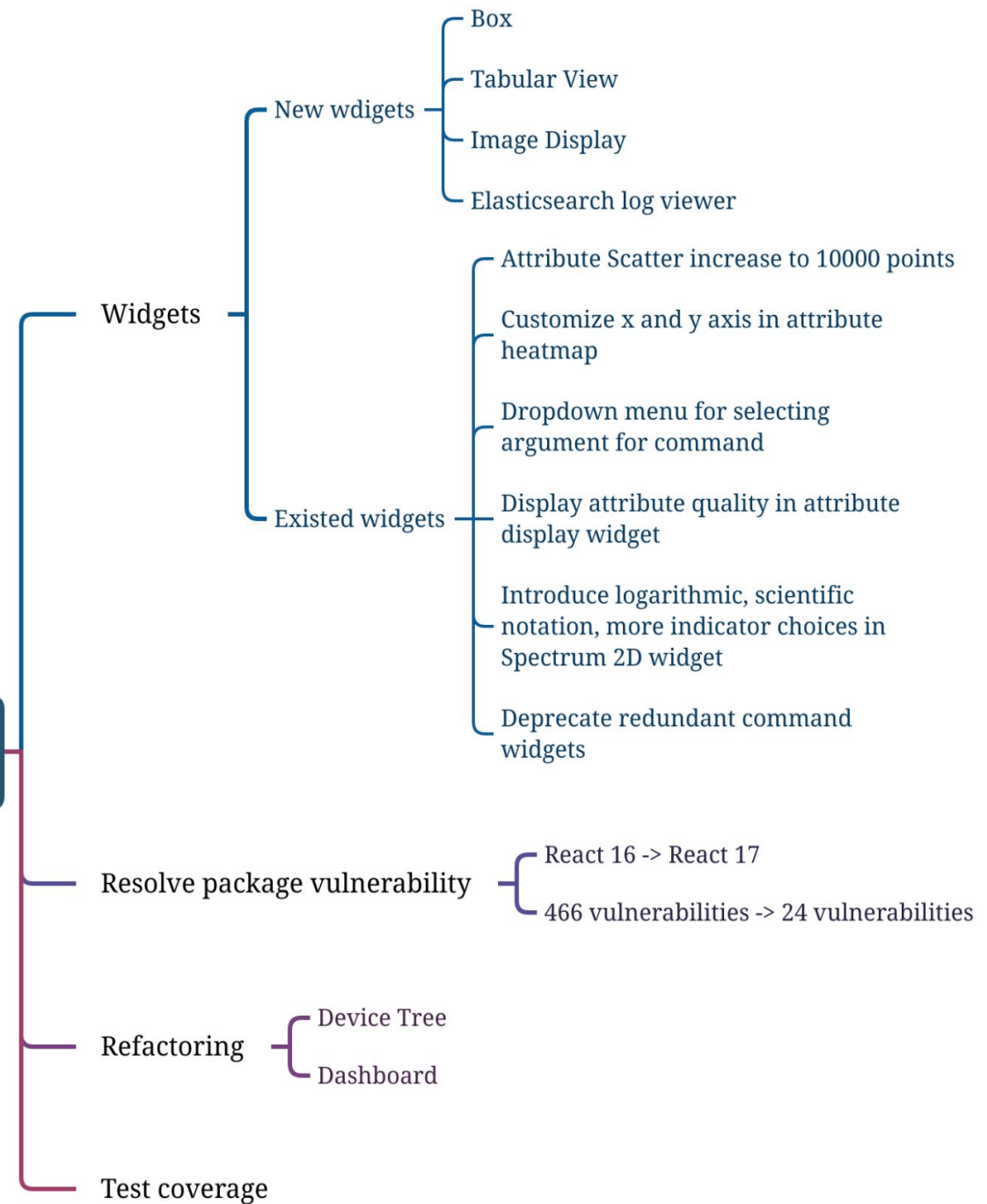
# Meeting Board 2022

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# What have been improved on Taranta

## Improvements



# What have been improved on TangoGQL

## Improvements

Fetch unexported devices

Properly handle subscription cancelling in the backend

Exclude excessive logging in normal cases

Improve linting in CI Pipeline

Improve documentation for local development

# Ongoing Tasks

## Multiple Tango Databases

- Access multiple tango databases from widgets
- One default tango database

## Web Synoptic

- SVG synoptic widget
- Mouse interaction (Zoom/Pan, layers)

## Popup System

- Tango device with functionalities
- Easy create and apply to Taranta

# Multi-Tango Database Prototype

← → ↻ 🏠 <https://taranta-test.apps.okdev.maxiv.lu.se/kitslab/dashboard> 110% ☆

Devices Dashboards 🔔 [Start](#) 2.2.0 Not logged in. [Log In](#)

### Attribute Display

Type in a database (or \* to list databases)

Type in a device (or \* to list devices)

Precision: 2

Device Name:

Attribute display: Label

Scientific Notation:

Show Enum Labels:

Show Attr Quality:

Text Color:

Background Color:

Text size (in units): 1

Font type: Default (Helvetica)

Custom CSS:

! attributeLabel: value

Widgets Dashboards Layers >

Box

Label

Label

Attribute Display

attributeLabel: value

Attribute Writer

device/attributeLabel: unit

Attribute Writer Dropdown

device/attributeLabel: Dropdown

Variable Selector

Name

No device found

Attribute Plot

attribute 1 attribute 2

5 0 -5

8x10<sup>15</sup> 6x10<sup>15</sup> 4x10<sup>15</sup> 2x10<sup>15</sup> 0

Time (s)

Attribute Scatter

attribute 2

5 0 -5

# Project Information



Home page

<https://taranta.readthedocs.io/en/latest/>

Community

<https://gitlab.com/tango-controls/web>

Taranta Suite

<https://gitlab.com/tango-controls/web/taranta-suite>