



Karabo Controls at XFEL

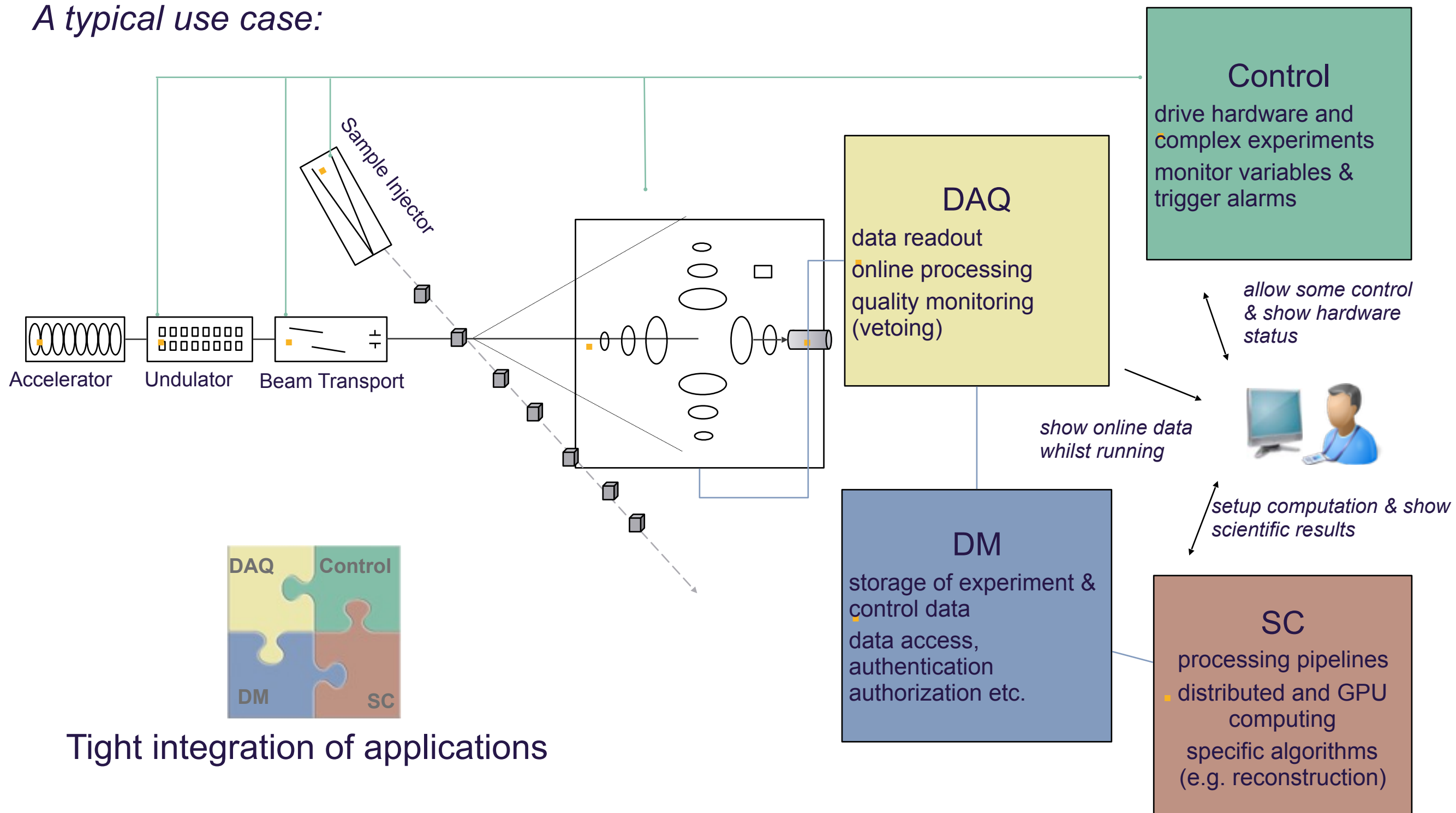


Marc Messerschmidt

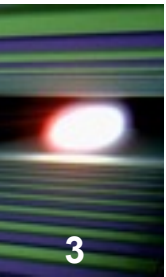
European XFEL & BioXFEL STC

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A typical use case:



Karabo Concept



- Event driven control
- Interactive Control and monitoring
 - direct interface to Beckhoff PLCs
 - full access to Doocs servers
 - communication with EPICS IOCs and Tango servers
- Slow and fast data flow (TCP/IP and shared memory)
 - Central Broker communication
 - point-to-point data pipelines
- Online data analysis
 - identical to offline data types
- C++ framework with Python devices

Karabo user interface



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Login

Username:

Password:

Provider:

Hostname:

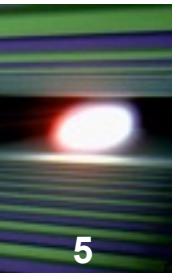
Port:

Load project

Save to:

Project	Checked out	Checked out t	Author	Last modified	Creation date
Controlroom_Mockup	Yes	operator	operator	2016-08-11 ...	2016-08-11 10:58:34.675898
DifferentialSystem	No		operator	2016-10-28 ...	2016-10-28 18:31:19.628292
DifferentialSystem_NOSCENE	No		operator	2016-10-28 ...	2016-10-28 18:28:07.662811
Light_Beamline	Yes	admin	admin	2016-10-28 ...	2016-10-28 13:52:06.226758
Mirror	Yes	admin	admin	2016-10-27 ...	2016-10-27 09:55:21.566519
NagiosTest	No		operator	2016-09-27 ...	2016-09-27 17:21:52.262461
SA1_Motion	Yes	operator	operator	2016-10-28 ...	2016-10-28 15:56:09.666196
SA1_Motion2	Yes	admin	admin	2016-10-28 ...	2016-10-28 15:49:58.513607
SA1_Overview	Yes	admin	admin	2016-10-12 ...	2016-10-11 17:19:33.528450
SA1_Section	Yes	operator	operator	2016-09-21 ...	2016-09-21 18:39:14.017745
SA1_Section_motor	Yes	operator	admin	2016-09-21 ...	2016-09-21 18:27:15.629230
SA1_XTD2	Yes	admin	admin	2016-10-11 ...	2016-10-11 12:11:44.291625
SA1_XTD2_VAC	Yes	operator	operator	2016-10-11 ...	2016-10-11 11:01:03.162679
beckhoffSimTestScenarious	Yes	operator	operator	2016-09-21 ...	2016-09-21 18:07:08.582593
test	Yes	operator	operator	2016-08-11 ...	2016-08-11 10:58:34.675898
test1	Yes	operator	operator	2016-08-11 ...	2016-08-11 10:58:34.675898

Device level



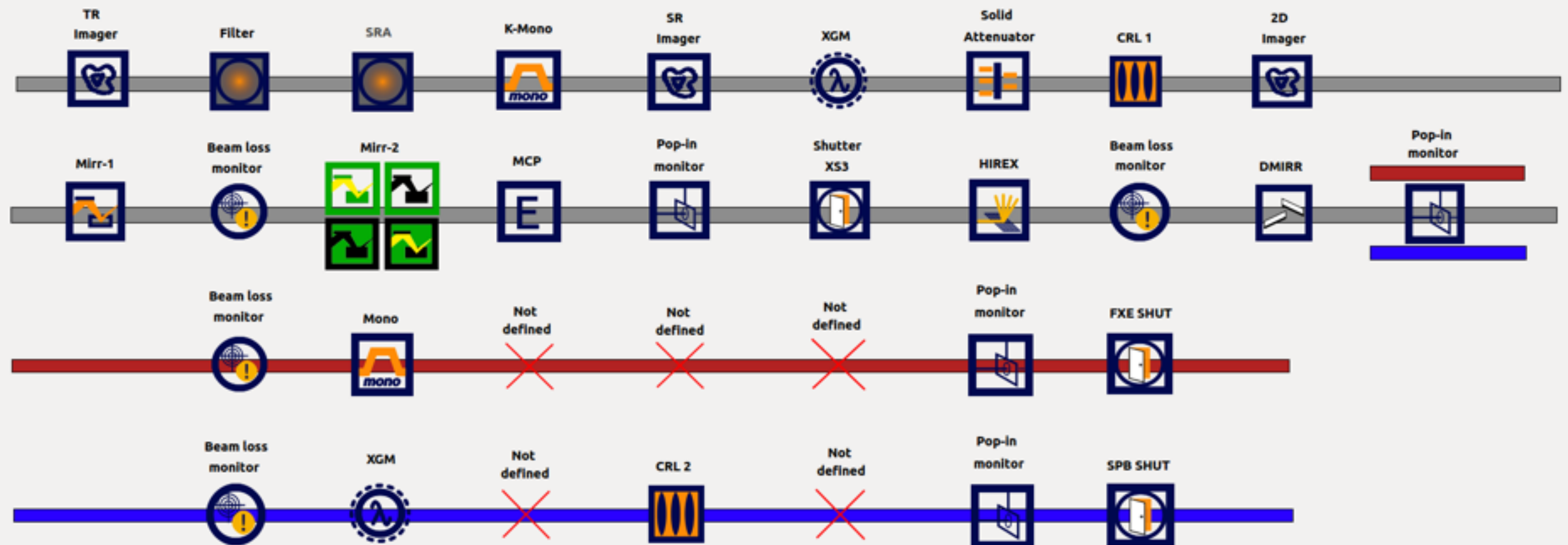
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Configurator

↓ ↗ ↘

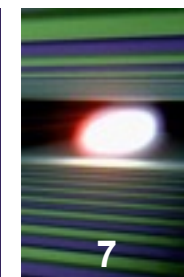
Parameter	Current value on device	Value
☐ DeviceID	SimConfigurator	
☐ Compatibility		
☐ State	uninitialized	
☒ Archive	True	☒
☐ Status Descriptor		
☐ Configure Bound Device:		
☐ Configure Middle Layer		
☐ Reset Ion Pumps		
☐ Reset Pressure		
☐ Start All Ion Pumps		
☐ Stop All Ion Pumps		

⏏ Shutdown instance ✓ Apply all ✗ Decline all



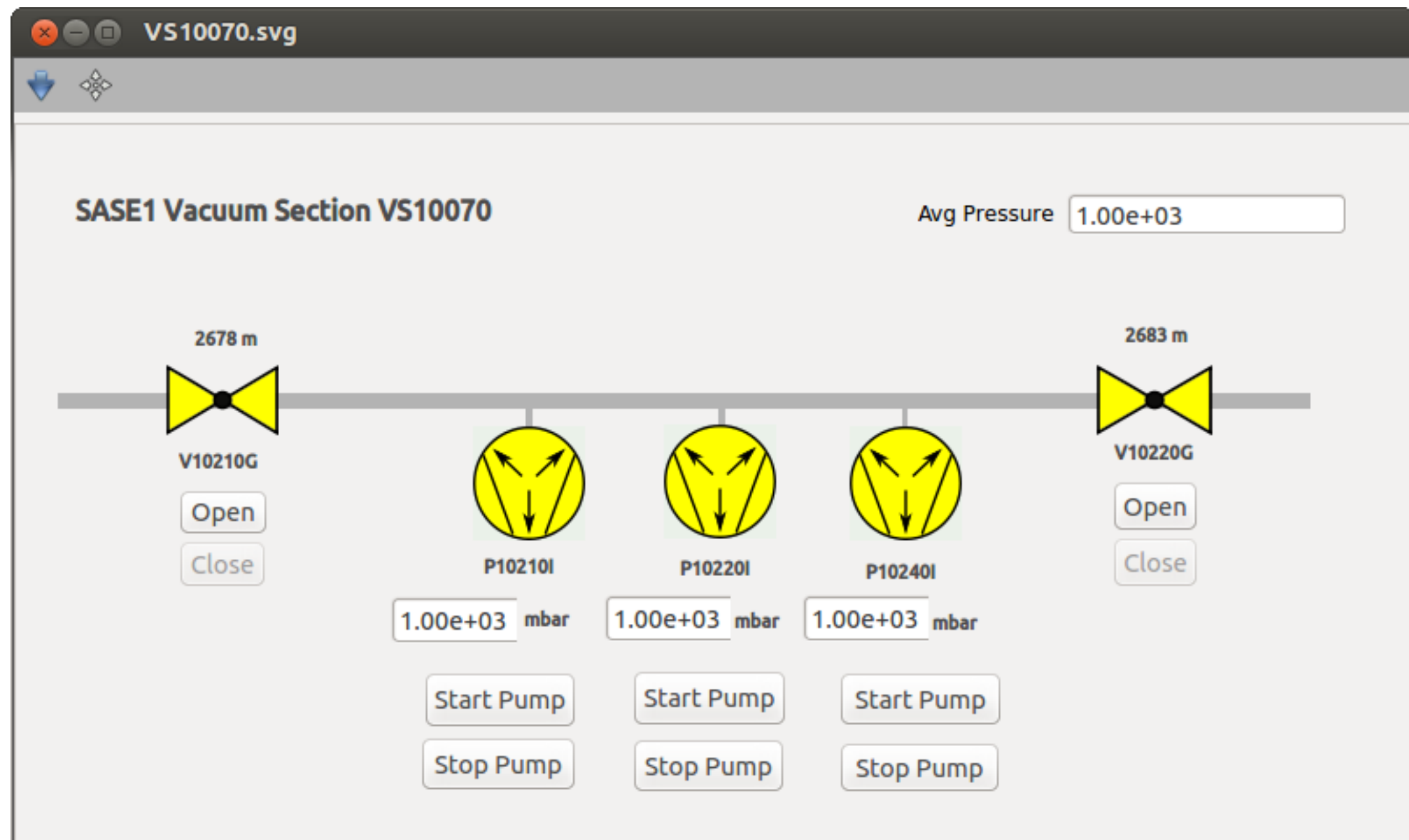
SASE1 Beam Transport Motion

Overview

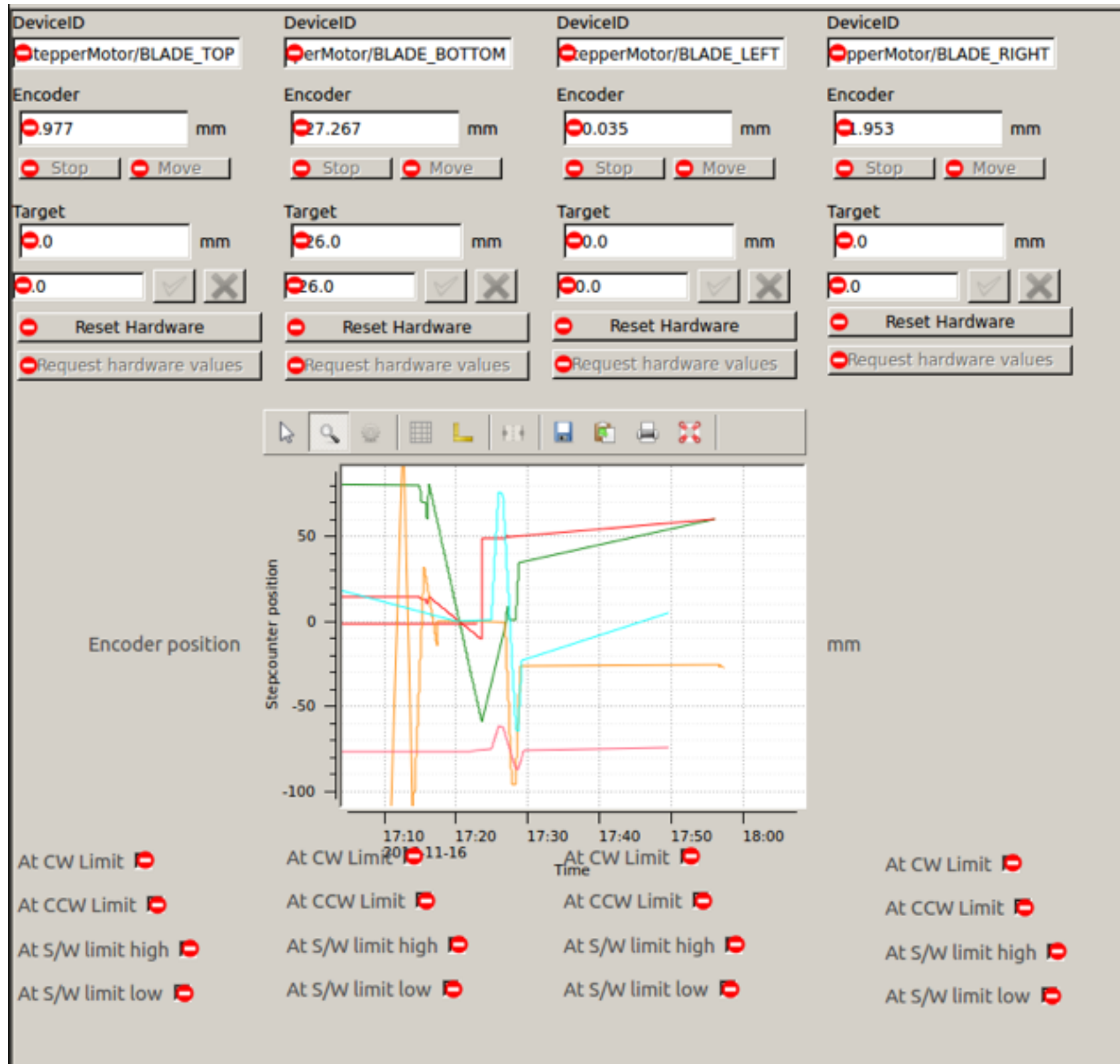


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SLIT Control Screen



- everything will move from 1.4 to 2.0.x starting Dec