

List of PVs for Matlab Apps

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PV Lists for LCLS Data Acquisition and Device Control

This is a list of the PVs that will be available to Matlab applications for data acquisition, and some device control. This list currently includes only devices in the injection area. See the page [Injection Area Device Names|IN20DeviceNames] to relate these EPICS PV names to the corresponding MAD name of a device, and its corresponding SLC name.

*Note: *This is a work in progress* *

The Controls group is currently developing the interfaces to these devices; PVs will be added, and the names, units, and ranges will change as the interfaces develop.

Magnet PVs

Klystron PVs

EPICS PV Name	Purpose	Units	Range						
Klystron : Area : Position : Attribute									
KLYS_LLRF:IN20:801:G_LOB_P	RF Phase control	Deg.							
KLYS_LLRF:IN20:801:G_LOB_P_MON	Readback; actual value of phase	V							
KLYS_LLRF:LI21:101:G_L1S_A	RF Amplitude control	%	-5% to 5%						
KLYS_LLRF:LI21:101:G_L1S_A_MON	Readback; actual value of ampl	V							
KLYS_LLRF:LI21:101:G_L1S_P	RF Phase control	Deg.							
KLYS_LLRF:LI21:101:G_L1S_P_MON	Readback; actual value of phase	Deg.			Bunch Length Monitor PVs	EPICS PV Name	Purpose	Units	Range
Bunch Length Monitor : Area : Position : Attribute									
BLEN:LI21:265:WIDTH	Width of pulse (bunch length)	Fsec	100.0 to 300.0		BPM PVs	EPICS PV Name	Purpose	Units	Range
BPM : Area : Position : Attribute									
BPMS:IN20:<position>:<attribute> position = 211, 235,371,425, 511,525, 581, 631, 651, 731, 771, 781, 925, 945, 981									
BPMS:LI21:<position>:<attribute> position = 131,161,201,233,278, 301,315,401, 501,601,701,801,901									
Most commonly used Attributes:									
BPMS:<area>:<position>-X	beam position in X	Mm	-3.0 to 3.0						
BPMS:<area>:<position>-Y	beam position in Y	Mm	-3.0 to 3.0						
BPMS:<area>:<position>-TMIT	Electron count, charge?		1e10 to 3e10						
BPMS:<area>:<position>-XHST	array of last 500 X measurements								
BPMS:<area>:<position>-YHST	array of last 500 Y measurements								
BPMS:<area>:<position>-TMITHST	array of last 500 TMIT measurements				Toroid PVs	EPICS PV Name	Purpose	Units	Range
Toroid : Area : Position : Attribute									
TORO:IN20:215:TMIT position=215, 431, 791, 971	Electron count, charge?		1e10 to 3e10						
TORO:LI21:205:TMIT position=205, 277	Electron count		1e10 to 3e10		Wire PVs	EPICS PV Name	Purpose	Units	Range
WIRE : Area : Position : Attribute									
WIRE:IN20:531:<Attribute> Position=521, 561, 611, 741									
Most commonly used Attributes:									
WIRE:IN20:<Position>-YDARAW	Array of y measured raw data	numeric							
WIRE:IN20:<Position>-XDARAW	Array of x measured raw data	numeric							
WIRE:IN20:<Position>-UDARAW	Array of u measured raw data	numeric							
WIRE:IN20:<Position>-<Y,X,U>DATA	Plane arrays of processed data	numeric							
WIRE:IN20:<Position>-<Y,X,U>SIGMA	Plane calculated beam width	numeric							

