NetworkPagePreamble

LCLS Network Node Naming Conventions

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Network node names are meant to be consistent with the overall device LCLS Naming Conventions. However, the node names are separated by a dash, "-" whereas the fields of a node name is separated by a colon, ":". In addition, node names are in lower case, whereas PV names are all uppercase, due to SLC Controls System restrictions on VMS. In LCLS-II the uppercase restriction has been lifted for the attribute field of the PV name. A limitation of 24-characters is also current inforced due to a restriction on the VMS EPICS Channel Access Server. This too is a restriction lifted for LCLS-II.

The network node name conforms to the following format: <**Device Type** ><**Area** ><**Position**> ***< Subnet >***

The *DeviceType* Field for network devices is 2-4 characters in length and can be found in the Table 1.0. The *Area* Field is 4-character field, with numbers and letters and can be found in Table 1.1. Network devices, with the exception of IOCs tend to use the access building location rather than the sector, as some access buildings may server multiple sectors, such as B005. The *Position* Field contains a 2-character *Subsystem Prefix*, followed by a 2-digit *Index* from 01 to 99. The *Subsystem Prefix* designates a subsystem of the control system as follows in Table 1.2. The *Subnet* Field is currently only used for a secondary NIC on the processors. Currently this is only used for fast feedback subnet, in which "-fnet" is used.

Examples of a device name would look as follows:

Device Type	Nodename	Comment
Access Switch	ACSW-IN20-NW01	
Terminal Server	TS-IN20-NW01	
Scope	SCOP-IN20-NW01	LCLS Injector Scope
Scope	SCOP-SYS0-NW01	LCLS Roaming Scope
Magnet IOC	IOC-IN20-MG01	Magnet injector ioc
Magnet IOC 2nd NIC	IOC-IN20-MG01-FNET	Magnet injector ioc feedback

To obtain an ip address for an LCLS device click here for SCCS IP/Node Name Request form. Fill out this form according the the naming conventions described herein and email this information to Charlie Granieri.

The Device Type Field

Table 1.0

Device Type	Description	Manufacturer	Model
ACSW	AC Switch		
CHAS	Chassis		
GPIB	GPIB/LAN Gateway		
DDM	Digital Multimeter	Keithley	2701
RTR	Router	Cisco	
SWH	Ethernet Switch	CISCO	
SCOP	Scope	Tektronix	DPO4054B

TS	Terminal Server	DIGI	DIGI-TS16
UPS	Uninterruptible Power Supply	APS	
WKUP	Walk-up ethernet connection		
EIOC	Embedded IOC	NetBurner,Arcturus	Coldfire 5282, MicroC5282
IOC	IOC	Motorola	MVME6100, MVME3100
SIOC	Soft IOC	Linux Host	
VIOC	Virtual IOC (Process)		
CPU	Central Processing Unit	COMx,etc	
PLC	Programmable Logic Controller	Allen-Bradley,Pils	
PNA	Phase Noise Analyzer	Holzworth	HA7062C
PSC	Ethernet Power Supply Controller	SLAC (Dave MacNair)	EPSC
CAMR	Camera for Beam Line Optics	Pulnix	
CRAT	Intelligent VME Crates	Wiener/Dawn	
MET	Metrology		
INST	Instrument		

The Area Field

The *Area* field is 4 characters in length. There are currently 24 areas in the LCLS Accelerator. Going from the Drive Laser to the Experimental areas they include:

Table 1.1

Area	**Physical Location**
ACR0	Accelerator Control Room (B052)
AS01	Accelerator Structure Test System(ASTA)
LI00	LINAC Sector 0
LR20	Laser Room (Upstairs, near sector 20)
LA20	FACET Laser Room (Upstairs, near Sector 20)
IN20	Injector
LI20	LINAC Sector 20
LI21	LINAC Sector 21
LI22	LINAC Sector 22
LI23	LINAC Sector 23
LI24	LINAC Sector 24
LI25	LINAC Sector 25

LI26	LINAC Sector 26
LI27	LINAC Sector 27
LI28	LINAC Sector 28
LI29	LINAC Sector 29
LI30	LINAC Sector 30
MCC0	Main Control Center (B005) OBSOLETE. Replaced by ACR0
B005	Access Building 5
B052	Access Building 52
B136	Access Building 136
B911	Access Building 911
B912	Access Building 912
B913	Access Building 913
B921	Access Building 921
BSY0	Beam Switchyard
BSYS	Beam Switch Yard South
BSYN	Beam Switch Yard North
BSYA	Beam Switch Yart A-Line
ESA0	End Station A and Beam Dump East
BSYB	Beam Switchyard B-Line
LTU0	LINAC-to Undulator Switchyard
LTU1	LINAC-to-Undulator Line 1
UND1	Undulator on Line 1
DMP1	Beam Dump on Line 1
FEE1	Front End Enclosure on Line 1
NEH1	Near Experimental Hall on Line 1
XRT1	X-Ray Tunnel on Line 1
FEH1	Far Experimental Hall on Line 1
SYS0	LCLS System
SYS1	FACET System
SYS2	LCLS-II System
SYS3	LCLS-III System
SYS4	NLCTA System
SYS5	SPEAR System
SYS6	X-Band Test Area System

SYS7	ASTA System
SYSW	Global System West
SYSE	Global System East
GBL0	Global to all Machines
AS01	ASTA
XT01	X-Band Test Area

The Position Field - Subsystem Prefix

Table 1.2

Subsystem Prefix	Subsystem
LS	Laser Steering
PM	Profile Monitor
SP	Spectrometer
IM	Current Monitor
BL	Bunch Length Monitor
BP	Beam Position Monitor
MC	Motion Control
CL	Collimator
AM	Alignment Mirror
AL	Alarm Handler
LG	Data Logger
MG	Magnet
EV	Event
RF	Low-Level RF (LLRF)
KY	Klystron
MP	Machine Protection System (MPS)
NW	Network Device, terminal servers, switches routers, scopes, UPS, etc.
PP	Personnel Protection System (PPS)
BC	Beam Containment System (BCS)
TM	Temperature Monitor
TR	Toroid
VA	Vacuum

WS	Wire Scanner
FB	Beam-based Feedback