SSD Slow Control Notes

# EPICS

<http://www.aps.anl.gov/epics/>

<http://www.aps.anl.gov/epics/docs/GSWE.php>

## Install

export EPICS\_HOST\_ARCH=linux-x86\_64 (your os architecture) //bash

cd

mkdir epics

tar xvfz baseR3.14.11.tar.gz (<http://www.aps.anl.gov/epics/download/base/baseR3.14.11.tar.gz>)

(<http://www.aps.anl.gov/epics/base/R3-14/11.php>)

cd base-3-14-11

make

export PATH=$PATH:~/epics/base-3-14-11/bin/linux-x86\_64 //bash

## A Simple Example

Cd ~/epics

mkdir EpicsExample

cd EpicsExample

{EPICS base path}/bin/linux-x86\_64/makeBaseApp.pl -t example myexample

{EPICS base path}/bin/linux-x86\_64/makeBaseApp.pl -i -t example myexample

make

cd iocBoot/iocmyexample

../../bin/linux-x86\_64/myexample st.cmd

//test commands, dbl etc.

//open another terminal, test “caget <pvname>”

//refer to <http://physicsweb.creighton.edu/jiro/epics/example.html>

## MEDM

<http://www.aps.anl.gov/epics/download/extensions/>

cd

cd epics

tar xvfz extensionsConfig\_20040406.tar.gz

tar xvfz extensionsTop\_20070703.tar.gz

cd extensions

//check directories of EPICS base, header files and libraries

cd config

vi CONFIG\_SITE.Host.Linux

vi RELEASE // directories of EPICS base

cd ../configure

vi RELEASE // directories of EPICS base

cd os

vi CONFIG\_SITE.linux-x86\_64.linux-x86\_64

vi CONFIG\_SITE.linux-x86.linux-x86

cd ../../src

tar xvfz medm3\_1\_7.tar.gz

cd medm3\_1\_7

make

cd ../..

cd bin/linux-x86\_64

./medm

## synApp

<http://www.aps.anl.gov/bcda/synApps/index.php>

cd

cd epics

tar xvfz synApps\_5\_5.tar.gz

cd synApps\_5\_5/support

vi configure/RELEASE //change the directories of EPICS base and synApp

make release // see README for more details

make

//To use sequencer

vi {yourAppPath}/configure/RELEASE // Uncomment the line of sequence

## ALH, StripTool, Probe

//the steps almost the same as MEDM, optional.

tar xvfz alh1\_2\_26.tar.gz

cd alh1\_2\_26

make

tar xvfz StripTool2\_5\_13\_0.tar.gz

cd StripTool2\_5\_13\_0

make

tar xvfz probe1\_1\_5\_2.tar.gz

cd probe1\_1\_5\_2

make

## A Complicated Example(vlinac)

// optional, 1.5 needed.

<http://www.aps.anl.gov/epics/download/examples/index.php>

cd

cd epics

tar xvfz vlinac\_cvs.tar.gz

cd vlinac

rm –r configure

cp –r ../EpicsExample/configure .

make

copy medm alh striptool to vlinac/bin directory

./startIoc.sh

./startMedm.sh

./startAlh.sh

## Appendix

1. Sometimes to use caget caput etc, you need to set environment variable:

EPICS\_CA\_ADDR\_LIST=localhost

EPICS\_CA\_AUTO\_ADDR\_LIST=NO

/\*

Or instead for caget

makeBaseApp.pl –t caClient caClient

To get a client program, then execute <mytop>/bin/<hostarch>/caExample <pvname>

\*/

1. Some web pages about EPICS:

<http://www.bio.aps.anl.gov/~dgore/beamline/EPICS/>

<https://pubweb.bnl.gov/~mdavidsaver/>

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Last modified: 12-19-2012

[yanwh@rcf.rhic.bnl.gov](mailto:yanwh@rcf.rhic.bnl.gov)