# **Turbo PMAC IOC Creation**

## Installing packages

* 1. Pcre
  2. streamDevice

Download source from <https://github.com/paulscherrerinstitute/StreamDevice>

Download pcre from

## tpmacApp/Db

## **autohome.substitutions (**homing PLC interface, needs PLC loaded to handle homing)

axis 1 🡪 PLC 8

multiple axes may share one PLC

comment unused PLCs

## **cs.substitutions**

MOTOR: defines coordination system

ADDR

## **motorstatus.substitutions (**better motor status, including limits. Linked to motor record PV name)

## **motor.substitutions**

MRES

EGU

POS: define direction

## **pmac\_asyn\_motor.substitutions (**utility records, including Kill)

## **pmacStatus.substitutions (**overall controller status information (PLCs, CPU usage - needs PLC loaded to do CPU calcs)

PLC: 5 (CPU/resource usage)

## tpmacApp/pmc

## **xf18ida-mca4-homing.substitutions**

Different homing strategy:

* "home\_to\_limit\_template.pmc"
* "home\_to\_enc\_ref\_template.pmc"

PLC: as in autohome.substitutions

SERVO

TIMER

## **xf28idc-mc01-plc05-cpu.substitutions**

## iocBoot/iocxxxctl/st.cmd

## **st.cmd**

pmacAsynCoordCreate("P0",0,2,2,10)

cs=ref

nAxes: always set to 8

pmacSetCoordStepsPerUnit(3, 6, 1e5) // reference to xf18ida-ioc1/mca4

## EPICS packages

-- epics-dev

-- epics-synapps-dev

-- libpmacasyn3.10=3.10.12-4

-- epics-pmacasyn-dev=3.10.12-4

-- libpmaccoord1.11=1.11-2

-- epics-pmaccoord-dev=1.11-2

-- epics-pmacutil-dev

-- epics-iocstats

-- epics-iocstats-dev