

# What is going on with motion control at Diamond

Motion Control Workshop

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Controls Group

Diamond

# Controllers in use

- Mostly Delta Tau Geo Brick
  - A few generations, VME based on some beamlines
  - Packaged in a different enclosure for Diamond's electrical standard
  - Except for insertion devices
- Legacy, in the accelerator
  - OMS maxV
  - OMS VME58

# Drivers in use

- Mostly tpmac model 2
- Also tpmac model 3
- oms non-async
- oms async (by Nick Rees/Austen Rose)
- pmac driver – support for power pmac
  - Needed for the mapping applications

# Motor record notes (1)

- MRES – demands in integers
- vs modern controller

# Motor record notes (2)

- Logic in the motor record
  - The motor record does not transmit demands if going beyond the limits

Biggest problem:

- “New Target Monitoring” NTM
  - Made worse when using jittery motors
  - Demands from high level are not sent through
  - Problematic in case of a diffractometer
- Current work-around: “Direct transfer” – demands sent to a separate record connected to the asyn port and driver, bypassing the motor record.