

Description of commands for Beamline Control Manager V1.0

List of commands:

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GETPOL
GETROLL
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SETCONST
SETDIFF
SETENERGY
SETHEIGHT
SETOFFSET
SETPITCH
SETPOL
SETROLL
SETYAW
STOP

FIND

Syntax:

FIND AXIS A

Finds the reference switch and sets to this point the coordinate A

GETCONST

Syntax:

GETCONST CENBETA

Gets the angle of the radiusvector CENR.

Syntax:

GETCONST CENR

Gets the radiusvector of the pole of the toroidal mirror to the axis of rotation at

Syntax:

GETCONST DD

Gets the line density of the grating

Syntax:

GETCONST DELTA

Gets the angle between theSurface of the plane grating and the plane grating lever

Syntax:

GETCONST DISTENSPG

Gets the distance between the entranceSlit and the plane grating

Syntax:

GETCONST DISTPGSM

Gets the distance between the plane grating and theSpherical mirror

Syntax:

GETCONST DISTSMEXS

Gets the distance between theSpherical mirror and the exitSlit

Syntax:

GETCONST EPSILON

Gets the output angle of the optical axis after the plane grating in respect to the

Syntax:

GETCONST GAMA

Gets the angle of the linear cam in respect to the horizontal plane

Syntax:

GETCONST H

Gets the height of the grating above the optical axis

Syntax:

GETCONST LEVERPG

Gets the length of the plane grating lever

Syntax:

GETCONST LJOY

Gets the length of the lever of the joystick.

Syntax:

GETCONST MAXENERGY

Gets the minimum energy for the whole beamline, i.e. monochromator and prefocus mirro

Syntax:

GETCONST MAXJ1

Gets the maximum position of the J1 axis

Syntax:

GETCONST MAXJ2

Gets the maximum position of the J2 axis

Syntax:

GETCONST MAXPAL

Gets the maximum position of the PAL axis

Syntax:

GETCONST MAXPAU

Gets the maximum position of the PAU axis

Syntax:

GETCONST MAXPM

Gets the maximum position of the plane mirror carriage

Syntax:

GETCONST MAXXPG

Gets the maximum position of the plane grating cam carriage

Syntax:

GETCONST MAXZ1

Gets the maximum position of the Z1 axis

Syntax:

GETCONST MAXZ2

Gets the maximum position of the Z2 axis

Syntax:

GETCONST MINENERGY

Gets the minimum energy for the whole beamline, i.e. monochromator and prefocus mirror

Syntax:

GETCONST MINJ1

Gets the minimum position of the J1 axis

Syntax:

GETCONST MINJ2

Gets the minimum position of the J2 axis

Syntax:

GETCONST MINPAL

Gets the minimum position of the PAL axis

Syntax:

GETCONST MINPAU

Gets the minimum position of the PAU axis

Syntax:

GETCONST MINPM

Gets the minimum position of the plane mirror carriage

Syntax:

GETCONST MINXPG

Gets the minimum position of the plane grating cam carriage

Syntax:

GETCONST MINZ1

Gets the minimum position of the Z1 axis

Syntax:

GETCONST MINZ2

Gets the minimum position of the Z2 axis

Syntax:

GETCONST RSM

Gets the radius of the Spherical mirror

Syntax:

GETCONST RWHEEL

Gets the diameter of the ball bearing on the plane grating lever

Syntax:

GETCONSTSPANZZ

Gets theSpan of the kinematical mounting of the prefocus mirror chamber

Syntax:

GETCONST THSM

Gets the incidence graying angle of theSpherical mirror

Syntax:

GETDEFOCUS

Gets the current defocus calculated from the current positions of the PM and PG and e

Syntax:

GETDIFF

Gets the current diffraction order in which the monochromatorShould work

Syntax:

GETENERGY

Gets the current energy calculated from the current positions of the PM and PG

Syntax:

GETHEIGHT

Gets the heights of the prefocusing mirror

Syntax:

GETPITCH

Gets the pitch of the prefocusing mirror

Syntax:

GETPOL

Gets degree of polarization

Syntax:

GETROLL

Gets the roll of the prefocusing mirror

Syntax:

GETYAW

Gets the yaw of the prefocusing mirror

GETDEFOCUS

Syntax:

GETDEFOCUS

Gets the current defocus calculated from the current positions of the PM and PG and engine constants

GETDIFF

Syntax:

GETDIFF

Gets the current diffraction order in which the monochromator should work

GETENERGY

Syntax:

GETENERGY

Gets the current energy calculated from the current positions of the PM and PG

GETHEIGHT

Syntax:

GETHEIGHT

Gets the heights of the prefocusing mirror

GETPITCH

Syntax:

GETPITCH

Gets the pitch of the prefocusing mirror

GETPOL

Syntax:

GETPOL

Gets degree of polarization

GETROLL

Syntax:

GETROLL

Gets the roll of the prefocusing mirror

GETYAW

Syntax:

GETYAW

Gets the yaw of the prefocusing mirror

MOVE

Syntax:

MOVE AXIS A

Moves the axis AXIS to the absolute position A .

MOVEREL

Syntax:

MOVEREL AXIS A

Moves the axis AXIS from the current position by A. B is the resulting coordinate.

SCAN

Syntax:

SCAN A B C D

Scans energy from energy A [eV] to B[eV] with step C[eV] with dwell time D[s]

SET_Z_PG

Syntax:

SET_Z_PG A

Sets the position B [mm] of the plane mirror to have zero order light for position of the plane gr

SET_Z_PM

Syntax:

SET_Z_PM A

Sets the position B [mm] of the plane grating to have zero order light for position of the plane m

SETCONST

Syntax:

SETCONST CENBETA X

Sets the angle of the radiusvector CENR. Syntax:

SETCONST CENR X

Sets the radiusvector of the pole of the toroidal mirror to the axis of rotation at Z1 Syntax:

SETCONST DD X

Sets the line density of the grating Syntax:

SETCONST DELTA X

Sets the angle between the surface of the plane grating and the plane grating lever

Syntax:

SETCONST DISTENSPG X

Sets the distance between the entrance slit and the plane grating Syntax:

SETCONST DISTPGSM X

Sets the distance between the plane grating and the spherical mirror Syntax:

SETCONST DISTSMEXS X

Sets the distance between the spherical mirror and the exit slit Syntax:

SETCONST EPSILON X

Sets the output angle after the plane grating in respect to the horizontal plane Syntax:

SETCONST GAMA X

Sets the angle of the linear cam in respect to the horizontal plane Syntax:

SETCONST H X

Sets the height of the grating above the optical axis Syntax:

SETCONST LEVERPG X

Sets the length of the plane grating lever Syntax:

SETCONST LJOY X

Sets the length of the lever of the joystick. Syntax:

SETCONST MAXENERGY X

Sets the minimum energy for the whole beamline, i.e. monochromator and prefocus mirror chamber Syntax:

SETCONST MAXJ1 X

Sets the maximum position of the J1 axis Syntax:

SETCONST MAXJ2 X

Sets the maximum position of the J2 axis Syntax:

SETCONST MAXPAL X

Sets the maximum position of the PAL axis Syntax:

SETCONST MAXPAU X

Sets the maximum position of the PAU axis Syntax:

SETCONST MAXPM X

Sets the maximum position of the plane mirror carriage Syntax:

SETCONST MAXXPG X

Sets the maximum position of the plane grating cam carriage Syntax:

SETCONST MAXZ1 X

Sets the maximum position of the Z1 axis Syntax:

SETCONST MAXZ2 X

Sets the maximum position of the Z2 axis Syntax:

SETCONST MINENERGY X

Sets the minimum energy for the whole beamline, i.e. monochromator and prefocus mirror chamber Syntax:

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Sets the minimum position of the J1 axis Syntax:

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Sets the minimum position of the J2 axis Syntax:

SETCONST MINPAL X

Sets the minimum position of the PAL axis Syntax:

SETCONST MINPAU X

Sets the minimum position of the PAU axis Syntax:

SETCONST MINPM X

Sets the minimum position of the plane mirror carriage Syntax:

SETCONST MINXPG X

Sets the minimum position of the plane grating cam carriage Syntax:

SETCONST MINZ1 X

Sets the minimum position of the Z1 axis Syntax:

SETCONST MINZ2 X

Sets the minimum position of the Z2 axis Syntax:

SETCONST RSM X

Sets the radius of the spherical mirror Syntax:

SETCONST RWHEEL X

Sets the diameter of the ball bearing on the plane grating lever Syntax:

SETCONST SPANZZ X

Sets the span of the kinematical mounting of the prefocus mirror chamber Syntax:

SETCONST THSM X

Sets the incidence grazing angle of the spherical mirror

Sets the actual diffraction order in which the monochromator should work

SETDIFF

Syntax:

SETDIFF X

Sets the actual diffraction order in which the monochromator should work

SETENERGY

Syntax:

SETENERGY A [D] [C]

Sets energy of the monochromator A= energy [eV], D= diffraction order [-], C= Cff constant, parameters

SETHEIGHT

Syntax:

SETHEIGHT A

Sets the heights of the prefocusing mirror

SETOFFSET

Syntax:

SETOFFSET AXIS A

Sets the current coordinate to A without movement

SETPITCH

Syntax:

SETPITCH A

Sets the pitch of the prefocusing mirror

SETPOL

Syntax:

SETPOL A

Sets degree of polarization to A

SETROLL

Syntax:

SETROLL A

Sets the roll of the prefocusing mirror

SETYAW

Syntax:

SETYAW A

Sets the yaw of the prefocusing mirror

STOP

Syntax:

STOP [AXIS]

Stops the axis AXIS, optionally without parameter AXIS, this command stops all the axis