Omega-Prime
Macro Command Summary

The following commands and syntax can be used in macros or typed directly into the command window. Use with caution - some commands are better left out of macros! For example, quit will exit a macro at the point it occurs, no further instructions in the macro will be executed. Also, if interactive is on, and ls, dir, or history are used in a macro, the macro could stop executing and wait for a carriage return.

abort

syntax: abort

Aborts 'read' and/or 'macro' execution

alarm

syntax: alarm [soundfile][volume]

Play the soundfile at the specified volume. If no parameters are given, the 'General Error' sound is used at the default volume. The soundfile must be located in $CAMHOME/SOUNDS. The 'volume' range is from 1 to 100.

area

syntax: area x1 y1 x2 y2

Sets the area of the image that is used for all 'save' operations.

(x1,y1) is the lower left corner
(x2,y2) is the upper right corner

autosave

syntax: autosave yes,on [-f n] [-l n] [-r n1 n2] [-1] [-i] [-d]

Enables automatic 'save' operation after a 'read'. The switches are explained with the save command.

syntax: autosave no,off

Disables automatic 'save'-operation after a 'read'.

syntax: autosave ?

Prints the status of the autosave flag.

cd

syntax: cd [directory]

Changes directory for 'save' operations (UNIX style).

clobber

syntax: clobber yes,no,on,off

Enables/disables overwriting existing files. Default is 'no'.

continue

syntax: continue

Continues a paused macro.

control

syntax: control [-x xserver] [-f font]

Opens the main camera-control GUI window.

-x	where to open the window (e.g. xt28:0)
-f	font familt (e.g. lucida)

crep

syntax: crep n

Sets the cycle repeat count. When starting a measurement with 'read', 'n' images are taken.

ctype

syntax: ctype readmode [parameters]

Sets the cycle-type. Valid cycle-types 'readmode' are:

scr	single correlated read
dcr	double correlated read
orrr	dcr without hardware coadder
mcr	multiple correlated read (parameter=number of end points)
omult	mcr without hardware coadder (parameter=number of end points)
orm	sample-up-the-ramp read mode (parameter=number of ramp points)

syntax: ctype ?

Prints actual cycle-type.

dir

syntax: dir [filenames]

Executes 'ls -l' in current directory. The output stops after 1 page, to proceed with the next page, enter: to abort the output, enter: q

display

syntax: display [-c #][-l table][-i #][-x xserver][-f font]

Starts display module.

-c	# of colors 4...240 (default=100)
-l	color look-up table gray,temp,heat (default=gray)
-i	image size 256, 512, 1024 (default=512)
-x	where to open the window (e.g. xt28:0)
-f	font familt (e.g. lucida)

exit

syntax: exit

Leave the OMEGA-shell. Subprocesses are not killed.

filter

syntax: filter position

Moves the filter wheels to a (combined) position. Issuing a filter command without a parameter returns a list of the available positions. This list is identical to the menu items on the GUI.

fits

syntax: fits

Prints the actual FITS-header. The output stops after 1 page, to proceed with the next page, enter: to abort the output, enter: q

syntax: fits comment text

Sets 'text' in the FITS-header as COMMENT.

syntax: fits mosstep text

Sets 'text' in the FITS-header as MOS-STEP.

gui

syntax: gui [-x Xdisplay] [-f font]

Starts a graphical user interface (GUI) for the camera. This command has the same function as control.

-x: where to open the window (e.g. xt28:0)
-f: font-family (e.g. lucida)

help

syntax: help [command]

Prints the part of camera.hlp that describes the command. If no command is given, a list of the commands will be printed.

history

syntax: history

Prints the command history.

syntax: !!

Repeats the last command.

syntax: !xxx

Repeats the last command that starts with 'xxx'.

interactive

syntax: interactive on,off,yes,no

If you use the interactive-mode, the outputs are blocked after 19 lines, until you enter.

syntax: interactive ?

Prints status of the interactive-flag.

itime

syntax: itime time

Set the integration-time 'time' in seconds.

syntax: itime ?

Prints the actual integration-time.

kill

syntax: kill process

Sends a 'terminate' to the following subprocesses:

param	effect
process	terminates
display	disp, ddisp, tdisp
infowin	sawin, sewin
satcheck	satcheck

load

syntax: load filename [n]

Loads 'n' FITS-files into the shared memory. Since the shared memory frame-buffers are unsigned short integers, the displayed values may be not correct. You also have to swtich the cycle-type to reset.read (rr).

logfile

syntax: logfile filename

Sets 'filename' as logfile name.

syntax: logfile ?

Prints name of logfile.

ls

syntax: ls [switches] [filename]

Executes 'ls' (UNIX style).

macro

syntax: macro filename

Executes the macro 'filename'. This macro-file contains commands like you use with the shell. Be carful when invoking commands like 'read', 'telescope' or 'filter' that run in the background. Make sure that the next command does not conflict with the previous or use the 'sync' command. The default-drectory for the macros is $HOME. If you want to start the macro test.mac in $HOME/macros then enter 'macro macros/test.mac'.

next

syntax: next filename

Sets 'filename' as the default-filename. This filename is used, when no filename is given with the 'save' command.

object

syntax: object text

Sets 'text' as object in the FITS-header.

syntax: object ?
Prints the actual object.

observer

syntax: observer name

Sets 'name' as observer in the FITS-header. This name is used as password for the privileged commands.

syntax: observer ?

Prints the actual observer's name.

pause

syntax: pause

Stops macro execution. The macro will be continued by entering the 'continue' command or may be aborted by 'abort'.

pwd

syntax: pwd

Shows the actual directory for the 'save' operation. (UNIX style).

quit

syntax: quit

Quits the OMEGA-shell, kills all subprocesses (e.g. display, telescope, satcheck ...), and copies the logfile to the actual save directory.

read

syntax: read [n] [-c]

Read 'n' images according to the actual cycle type. Default is the 'crep' parameter. A continous read is initiated with the '-c' parameter, and continues until aborted.

satcheck

syntax: satcheck on [limit]

Switches the saturation check on. The optional limit uses absolute counts of the A/D converter. These counts range from about 10000 - 55000. The non-linearity starts at about 40000 counts, which is the default limit. If 'sound' is on, you get a accoustic warning.

syntax: satcheck off

Switches the saturation check off. This is recomended at intgration times smaller than about 150 ms.

save

syntax: save [-f n] [-l n] [-r n1 n2] [-i] [-1] [-d] [-c] [filename]

Save frames in the shared mamory according to the actual cycle type (ctype). If no filename is given, the default filename is used.

param	effect
-f	save from frame 'n' (= 'first frame is')
-l	save up to frame 'n' (= 'last frame is')
-r	save only frames from 'n1' through 'n2' (range).
-i	save the integral of the selected frames.
-1	write all images into one FITS-file (cube).

sky

syntax: sky filename

Use 'filename' for sky-subtraction in the display. This filename is also written into the FITS header under the SKYFRAME parameter.

sound

syntax: sound on,off

Enables/disables sound after some operations like 'read', 'filter', 'telescope', 'macro', or as a warning if the saturation check is on. Default is 'off'.

syntax: sound ?

Prints the sound status.

stripc

syntax: stripc [-x Xdisplay]

Starts a graphical user interface (GUI) for the stripchart recorder.

-x	where to open the window (e.g. xt28:0)

sync

syntax: sync [read] [tele] [wheel]

Waits for termination of the read, telescope, and/or filter wheel moving process.

telescope

syntax: telescope absolute hr min sec dg min sec [equinox]

Moves the telescope to the absolute position. Be carefull with negative declinations. If 'dg' = 0 'min' has to have the minus ('-').

alpha:	'hr'	'min'	'sec'
delta:	'dg'	'min'	'sec'

syntax: telescope relative dx dy

Moves the telescope 'dx' arcseconds north and 'dy' arcseconds east. Negative values move the telescope in the opposite direction.

syntax: telescope position

Returns the telescope position.

telegui

syntax: telegui [-x Xdisplay] [-f font]

Starts a graphical user interface (GUI) for telescope control.

-x	where to open the window (e.g. xt28:0)
-f	font familt (e.g. lucida)

verbose

syntax: verbose on,off,yes,no

If you set 'verbose yes', you will get more output to the screen. e.g. while executing a macro the system will print every command (and the line number), so you always know which macro-line is executed. Default is 'yes'.

syntax: verbose ?

Prints status of the verbose-flag.