

Prospero Quick Reference Card for CCDS

(2005 November 29)

Typewriter font denotes command verbs and keywords.

Italics denote user-supplied arguments (numbers or strings).

Command Syntax

commands, keywords, & options

commands with numerical arguments

commands with string arguments

command *keyword=value* option

command *arg1 arg2 ...*

command '*an argument string ...*'

Observing Session Startup

connect to the instrument PCs (ICIMACS)

nightly observing session initialization

startup

runinit

Data Acquisition

Instrument and exposure status are continuously displayed in the status window. Green flags are

OK, Red flags signal error or non-default state.

Take an Exposure:

start a single exposure

start a sequence of exposures

go

go *#imgs*

Exposure Setup:

set exposure time to *t* seconds

this is an object image named *xxx*

this is a bias image named *xxx*

this is a zero image named *xxx*

this is a flat field named *xxx*

this is a dark frame named *xxx*

this is a sky image named *xxx*

this is a comparison lamp image named *xxx*

enable/disable exposure bell

exptime *t*

object '*xxx*'

bias '*xxx*'

bias '*xxx*'

flat '*xxx*'

dark '*xxx*'

sky '*xxx*'

comp '*xxx*'

exbell

Image File Management:

change the image filename

change the filename number

print the name of the last file written

print the name of the next file

check/confirm the image directory path

REQUIRED PATH:

filename *filename*

newext *nnn*

lastfile

nextfile

path *path*

/lhome/data

Instrument Control

update Prospero status display

refresh (clear) the status display

status

status clear

Filter Wheel:

select a prefilter

select a filter

retract the prefilter

retract the filter

print the filter table

prefilter *filter#*

filter *filter#*

prefilter reset

filter reset

print filter

Slit:

set the slit width (microns)

set the slit (encoder steps)

hardware reset the slit jaws

setslit *microns*

slitwidth *#steps*

slitwidth reset

Grating:

rotate grating to center wavelength *cwav*

set the grating grooves/mm

set the grating order

set the center pixel

estimate central wavelength

recalibrate center wavelength

rotate grating to *angle*

rotate grating to zeroth order

rotate grating in encoder steps

hardware reset the grating rotator

center *cwav*

grooves *g/mm*

order *n*

cenpix *pix*

xwave

newcenter *wav*

newangle *angle*

zerocenter

grattilt *#steps*

grattilt reset

Collimator Focus:

set the collimator focus (dial units)

set the collimator focus in steps

hardware reset the collimator focus

setfocus *foc*

colfocus *#steps*

colfocus reset

Calibration Lamps:

insert comparison lamp mirror into beam

retract comparison lamp mirror into beam

turn on a calibration lamp

turn off a calibration lamp

list of available lamps

mirror in

mirror out

lamp # on

lamp # off

print lamp

Instrument Shutter:

manually open the instrument shutter

manually close the instrument shutter

shutter 1

shutter 0

Detector Setup & Control

set CCD binning (symmetric)

set different x,y CCD binning

set number of overscan columns

start continuous readout mode

stop continuous readout mode

set IC real-time display scale

ccdbin bin=#pix

ccdbin xbin=*nx* ybin=*ny*

overscan xover=*ncols*

movie

stopmovie

icscale *min max saturation*

Telescope Control

print telescope pointing/focus info	<code>tcstatus</code>
(re)initialize the xtcs link	<code>tcinit</code>
Telescope Focus:	
change the telescope secondary focus (abs)	<code>telfocus foc</code>
step the telescope secondary focus	<code>telfocus step=$\pm df$</code>
Move the telescope...	
x arcsec E/W & y arcsec N/S	<code>offset ra=x dec=y</code>
x arcsec north	<code>north x</code>
x arcsec south	<code>south x</code>
x arcsec east	<code>east x</code>
x arcsec west	<code>west x</code>
issue a raw telescope command	<code>tcs 'command arg1 arg2 ...'</code>
put Prospero to sleep for t seconds	<code>sleep t</code>

Guide Probe Control

move guide probe to x,y (abs)	<code>guider x=x y=y</code>
move guide probe by dx,dy (rel)	<code>guider dx=dx dy=dy</code>

Command Procedure Scripts

edit the procedure script buffer	<code>pedit</code>
edit a procedure script file	<code>pedit procfile</code>
run the procedure in the buffer	<code>run</code>
call & run a procedure script file	<code>call procfile</code>
read in a procedure script file	<code>rp procfile</code>
write the procedure script buffer to disk	<code>wp procfile</code>

Special Procedure Commands

go to sleep for t seconds	<code>sleep t 'sleep message'</code>
pause a procedure	<code>pause 'pause message'</code>
resume a pause'd procedure	<code>continue</code>
suspend a procedure and wait for (return)	<code>wait 'wait message'</code>
repeat a message $nrep$ times w/ t sec delay	<code>alert 'alert message' nrep t</code>

Modify Prospero Environment

These commands are used to customize the Prospero environment.

change default directories	<code>setdir code dir=path ext=fileext</code>
change the working directory	<code>cd path</code>
define a command alias	<code>alias synonym 'command arg1 arg2...'</code>
undefine an alias	<code>unalias synonym</code>
use <i>vi</i> as the default screen editor	<code>seteditor vi</code>
use <i>emacs</i> as the default screen editor	<code>seteditor emacs</code>
use <i>more</i> as the default help pager	<code>setpager more</code>
use <i>less</i> as the default help pager	<code>setpager less</code>

Expert Commands

These commands are used for engineering-level interaction

change to expert mode	<code>setmode expert</code>
revert to normal mode	<code>setmode normal</code>
view current mode	<code>setmode</code>
edit internal device tables	<code>tedit table</code>
send a raw ariel command	<code>ar 'cmd arg1 ...'</code>
send a raw WC command	<code>wc 'cmd arg1 ...'</code>
send a raw IC command	<code>ic 'cmd arg1 ...'</code>
send a raw IE command	<code>ie 'cmd arg1 ...'</code>
send a raw TC command	<code>tc 'cmd arg1 ...'</code>
view default timeouts	<code>settimeout</code>
change default communication timeouts	<code>settimeout proc=time</code>

Miscellaneous

execute a Unix command	<code>\$ unixcomm</code>
start a Unix command shell	<code>\$</code>
exit the Unix shell & return to Prospero	<code>exit</code>
toggle command prompt bell on/off	<code>bell y</code>
ring the bell	<code>bell r</code>
read news messages	<code>news</code>
time a command	<code>time command arg1 arg2 ...</code>