

PIG remote commands

The prefix “pig” may be omitted

Start und stop observation

piggosun	Telescope go to sun (Encoder server must be active)
piggosun:done	(after telescope reached sun)
piggohome	Telescope go to home position (Encoder server must be active)
piggohome:done	(after telescope reached home position)

Guiding

piggo	Guide to selected sensor position (x, y)
piggo:done	(message after set position reached)
piggf	Guide to selected sensor position (x, y) and follow sun rotation
piggf:done	(message after set position reached)
pigoff	Turn guiding off
pigoff:done	Replay (example)
pigabort	Abort going to selected position (Stop guiding mode)
pigabort:done	(effect same as “piggo” with additional warning)
Warning: piggo terminated abnormally	
pigxr?	Query for actual sensor x position [1/10 arcsec]
pigxr=-2125	
pigyr?	Query for actual sensor y position [1/10 arcsec]
pigyr=2291	
pigsx?	Same as pigxr?
pigsx=-2125	
pigsy?	Same as pigyr?
pigsy=2291	
pigx=%d	Select sensor x position (set point) [1/10 arcsec]
pigx=3046	
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pigy=%d	Select sensor y position (set point) [1/10 arcsec]
pigy=-5032	
pigx?	Query for selected sensor x position
pigx=1234	
pigy?	Query for selected sensor y position
pigy=2222	

PIG Command List

pigactu pigactu=done	Let actual position be set position
pigguidex? pigguidex=-7800	Query for presently guided x-position
pigguidey? pigguidey=5900	Query for presently guided y-position
pigenc=%d pigenc=0	Set guiding mode (0 = sensor, 1 = encoder guiding)
pigencgo pigencgo=done	Go to encoder set point
pigenc? pigenc=1	Query for guiding mode (0 = sensor, 1 = encoder guiding)
pigencxr? pigencxr=10000	Query for actual encoder x position
pigencyr? pigencyr=20000	Query for actual encoder y position
pigmco=\$m\$nn pigmco=204	Manual control command (\$m=1 slow \$m=2 medium speed, \$nn= 01=East 02=West 04=South 08=North, summing possible e.g. 10=North+West), without blank

Intensity threshold

pigi? pigi=234	Query for intensity
pigimin=%d pigimin=30	Set threshold for imin
pigimin? pigimin=30	Query for minimum intensity

Guiding accuracy theshold

pigthdelta=%d pigthdelta=15	Set threshold for delta [1/10 arcsec] (Default: pigthdelta=15)
pigthdelta? pigthdelta=15	Query for theshold for delta [1/10 arcsec]

PIG Command List

Flatfield

pigstartffm pigstartffm:done	Start flat field mode (if flatfield path starts)
pigstopffm pigstopffm:done	Stops flat field mode
pigloops=%d pigloops=500	Set nloops for sensor (number of averagings, default is 500)
pigloops? pigloops=500	Query for nloops of sensor
pigffmx=%d pigffmx=3000	X-length of flatfield area [1/10 arcsec]
pigffmy=%d pigffmy=4000	Y-length of flatfield area [1/10 arcsec]
pigffms=%d pigffms=2	Flatfield motor speed (1 = slow, 2 = medium)
pigffmx? pigffm=3000	Query for all flatfield X-length
pigffmy? pigffmy=2000	Query for all flatfield y-length
pigffms? pigffms=2	Query for all flatfield motor speed

PIG working mode and status

pigmode?	Query for motor status (possible answer 0 .. 6) 0 = motor is free 1 = manual control active 2 = guiding without following solar rotation 3 = guiding and following solar rotation 4 = flatfield mode active 5 = go to sun active 6 = go to home position active
pigmode=2	
pigstatus	Inquire status and fills the following variables: pigsb[0]? pigsb[1]? pigsb[2]? pigsb[3]? pigsb[4]? pigsb[5]? pigi? pigsit? pigsx? pigsy ?
pigstatus:done	

PIG Command List

pigsb[0]? pigsb[0]=2	See below
pigsb[1]? pigsb[1]=2	See below
pigsb[2]? pigsb[2]=0	See below
pigsb[3]? pigsb[3]=2	See below
pigsb[4]? pigsb[4]=1	See below
pigsb[5]? pigsb[5]=0	See below
pigsi? pigsi=203	Query for intensity
pigsit? pigsit=30	Query for intensity threshold

Meaning of pigstatus

pigsb[0]	
- no Guide & Scan or Remote:	0
- Guide & Scan Mode:	1
- Remote Mode:	2
pigsb[1]	
- no meaning:	0
- guiding on:	1
- guiding off:	2
pigsb[2]	
- guiding off mode:	0
- position reached:	1
- trying to reach position:	2 (remote mode only)
- correcting position:	3
- flat field mode	4
pigsb[3]	
- no meaning:	0
- follow solar rotation on:	1
- follow solar rotation off:	2
pigsb[4]	
- no meaning:	0
- intensity above threshold:	1
- low intensity:	2

PIG Command List

pigsb[5]
- for further extensions: 0

Special GUI commands

refresh Send status information every 3 seconds:
x-Pos., y-Pos., intensity, intensity status (1 = good),
gmode of motor (0 .. 6, see above), encoder mode (0 or 1, see
above)
refresh=1000,2000,156,1,0,0

unrefresh Stop sending status information (unsubscribe from PIG)
(this command returns no answer)

actual? Query for actual position and intensity (returns x, y, intensity)
actual=1200,3400,126

selected Query for selected position (x and y)
selected=3000,4000

calibrate Query for raw data from sensor, works somehow like "refresh"
GUI "calibrate" receives each second the raw position data from
PIG sensor.
calibrate=23489,12456

uncalibrate Stop sending raw data (unsubscribe for "calibrate")
(this command returns no answer)

pigffm? Get flatfield parameters: x-length, y-length, speed [1, 2]
pigffm=800,400,2

Other special commands (system manager only)

sensorCommand Send command directly to sensor
e.g. sensorCommand=l Receipt: sensorCommand=12453,23512,123

encoderPort=%d Change port of encoder

encoderIP=%ip Change IP of encoder

encoderConnect Try to re-connect to encoder (especially after encoder is newly
configured)

encoderCommand=%s Send command directly to encoder through PIG

setup_load Force PIG to load the setup data again
setup_load:done

PIG Command List

gethour? Query for system time of PIG
gethour 09/25/10 10:25 AM

Error messages

Error: 'command': kind_of_error

Examples for error messages

- pigyt?
Error: 'pigyt?': Unknown command

- pigxb[2]?
Error: 'pigxb[2]?': Unknown command

Example of the PIG setup-file (on the USB-stick)

speed_ns_1 9.10
speed_ns_2 98.50
speed_ew_1 2.90
speed_ew_2 89.30
switch_offset 0
center_ns 515.50
center_ew 309.04
faktor_ew 280.423
faktor_ns 293.59
delta 1.5
min_intensity 30
guide_loop 10
latitude 46.176906666
longitude 8.788544444
encIP 192.168.4.143
encPort 5001

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