

Abstract Command Reference

OHS/CISCO Development Team (2002/5/20)

平成 14 年 5 月 20 日

1 List of Abstract Commands

The abstract commands of OHS/CISCO are roughly separated into two categories; for imaging observations and for spectroscopic observations. Each category is separated into numbers of OBE_MODEs according to the dithering pattern, and each has their abstract commands.

Following are the current OBE_MODEs and their abstract commands.

CISCO Those used for common procedures.

AGCENTER
AGOFFSET
AGOFFSETBYQDAS
BOOTQDAS
CATCHSAO
CHECKFIELD
CHECKFOCUS
FOCUSOBE
GETDARK
GETSKY
PROBECENTER
PROBEOFFSET
PROBEOFFSETBYQDAS
PROBEOUT
RESETUPOBE
SETUPCALIB
SETUPOBE
SHOWIMAGE
SHUTDOWNNOBE
SHUTDOWNQDAS
SHUTDOWNQDASVGW
TELMOVE
TELOFFSET
TELOFFSETBYQDAS
TELOFFSETBYVGW

OHS Those used for OHS procedures.

CISCOSLIT
OHSQL
OHSSLIT
RESETUPOBE
SETUPOBE
SHUTDOWNBE

IMAG Commands common to imaging without AG.

GETOBJECT
GETSTANDARD
SETUPFIELD

IMAG_2 Commands for 2-point dither imaging without AG.

GETOBJECT

IMAG_4 Commands for 4-point dither imaging without AG.

GETOBJECT
GETSTANDARD

IMAG_8 Commands for 8-point dither imaging without AG.

GETOBJECT
GETSTANDARD

IMAG_9 Commands for 9-point dither imaging without AG.

GETOBJECT
GETSTANDARD

IMAG_4S4 Commands to obtain sky frames at 4 surrounding fields.

GETOBJECT

IMAG_VGW Commands common to imaging with AG.

GETOBJECT
SETUPFIELD

IMAG_VGW2 Commands for 2-point dither imaging with AG.

GETOBJECT

IMAG_VGW4 Commands for 4-point dither imaging with AG.

GETOBJECT

IMAG_VGW8 Commands for 8-point dither imaging with AG.

 GETOBJECT

IMAG_VGW9 Commands for 9-point dither imaging with AG.

 GETOBJECT

IMAG_VGW4S4 Commands to obtain sky frames at 4 surrounding fields with AG.

 GETOBJECT

IMAG_BL64 Commands to do 64×64pixels partial readout.

 GETOBJECT

 GETSTANDARD

IMAG_BL128 Commands to do 128×128pixels partial readout.

 GETOBJECT

 GETSTANDARD

SPEC Commands common to spectroscopy with AG.

 GETOBJECT

 GETSTANDARD

 SETUPFIELD

SPEC_2 Commands for 2-point dither spectroscopy.

 GETOBJECT

 GETSTANDARD

SPEC_4 Commands for 4-point dither spectroscopy.

 GETOBJECT

 GETSTANDARD

SPEC_ABBA Commands for ABBA dither spectroscopy.

 GETOBJECT

 GETSTANDARD

SPEC_2S2 Commands to obtain sky frames at 2 surrounding fields when doing spectroscopy.

 GETOBJECT

 GETSTANDARD

SPEC_4S4 Commands to obtain sky frames at 4 surrounding fields when doing spectroscopy.

 GETOBJECT

2 Abstract Command References

2.1 AGCENTER

OBE_MODE

CISCO

Parameters

Parameter	Default Value
CISCO	
DX	$((!VGWQ.AGG1.X1 + !VGWQ.AGG1.X2 - !VGWQ.AGE.X1 - !VGWQ.AGE.X2) * 0.5)$
DY	$((!VGWQ.AGG1.Y1 + !VGWQ.AGG1.Y2 - !VGWQ.AGE.Y1 - !VGWQ.AGE.Y2) * 0.5)$
PA	$(-90.0 - 2.0 * !TSCL.INSROTPA)$

Description

Replace the AG start to the center of the FOV of AG-CCD. This command should be executed when auto-guiding is active, and only once.

DX, **DY**, **PA** are parameters for maintenance, so you should not set their value.

Last Update

2001/08/02

Author

Fumihide Iwamuro, Kentaro Motohara

2.2 AGOFFSET

OBE_MODE

CISCO

Parameters

Parameter	Default Value
CISCO	
DX	0.0
DY	0.0

Description

Nod the telescope to move the object **DX**pixels, **DY**pixels in the frame of OHS/CISCO. Accuracy of the nodding is defined by the pixel scale of the AG-CCD.

Auto-guiding should be active when you execute this command.

Last Update

2001/8/1

Author

Fumihide Iwamuro, Kentaro Motohara

2.3 AGOFFSETBYQDAS

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASETID	DS0000
OBJECT	FIELDCHECK
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
SKYSUB	OFF
FRAME	NEW

Description

Nod the telescope to replace the object on a frame as you designate in the frame. Accuracy of the nodding is defined by the pixel scale of the AG-CCD.

If **FRMAE=NEW**, new frame will be aquired and displayed. Otherwise, last the frame taken by **CHECKFIELD** command will be used.

If **SKYSUB=ON**, the frame after the subtraction of the sky-frame registered to QDAS (by **GETSKY** command) is displayed.

Auto-guiding should be active when you execute this command.

You can specify the filter**FILTER**, silt-width**SLITX**, slit-height**SLITY**, exposure time**EXPTIME**, and number of multi-sample**NSAMPLE**. In normal use, you don't have to specify **DATASETID**, **OBJECT**.

Last Update

2001/8/1

Author

Fumihide Iwamuro, Kentaro Motohara

2.4 BOOTQDAS

OBE_MODE

CISCO

Parameters

None

Description

Start skycat of QDAS(Quick DAta Statistics(?)) for OHS. Be sure to run this when you start observation.

Last Update

1999/3/3

Author

George Kosugi

2.5 CATCHSAO

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
X	304
Y	188

Description

Introduce a rationing star for spectroscopic observation to the slit of CISCO/OHS.

You have to specify **X** and **Y**, which are the coordinate of the slit on the AG-CCD when the AG-probe is set to $r = 0$, $\theta = 180$.

Last Update

2001/5/11

Author

Fumihide Iwamuro, Kentaro Motohara

2.6 CHECKFIELD

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASET_ID	"DS0000"
OBJECT	"FIELDCHECK"
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
NFRAME	1
SKYSUB	OFF

Description

Acquire **NFRAME** frames with exposure time **EXPTIME**, filter **FILTER**, slit-width x=**SLITX**, slit-height y=**SLITY**, and number of multi-sample **NSAMPLE**. Acquired images are displayed on the viewer of QDAS. If **SKYSUB=ON**, the frame after the subtraction of the sky-frame registered to QDAS (by **GETSKY** command) is displayed.

Last Update

2002/03/03

Author

Fumihide Iwamuro, Kentaro Motohara

2.7 CHECKFOCUS

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASET_ID	"DS0000"
OBJECT	"FIELDCHECK"
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
NSAMPLE	NOP
NFRAME	1
Z	!TSCL.Z

Description

Set the z value of the 2ndry-mirror of the telescope to **Z** and take 1 frame with exposure time **EXPTIME**, filter **FILTER**, slit-width x=**SLITX**, slit-height y=**SLITY**, number of multi-sample **NSAMPLE** The obtained frame is displayed on the viewer of QDAS.

Last Update

2002/03/03

Author

Fumihide Iwamuro, Kentaro Motohara

2.8 CISCOSLIT

OBE_MODE

OHS

Parameters

Parameter	Default Value
	CISCO
DX	NOP

Description

Move the CISCO stage to change the relative position of the slit of OHS and that of CISCO by **DX** pixels. If **DX** is positive, the image of the slit of the OHS moves right (positive direction) on the frame of CISCO.

Last Update

2000/12/14

Author

Fumihide Iwamuro

2.9 FOCUSOBE

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASET_ID	DS0000
OBJECT	"FOCUSING"
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
NSAMPLE	NOP
Z	!TSCL.Z
DELTAZ	0.1
NFRAME	3
SELECT	MANUAL

Description

Do focusing using OHS/CISCO.

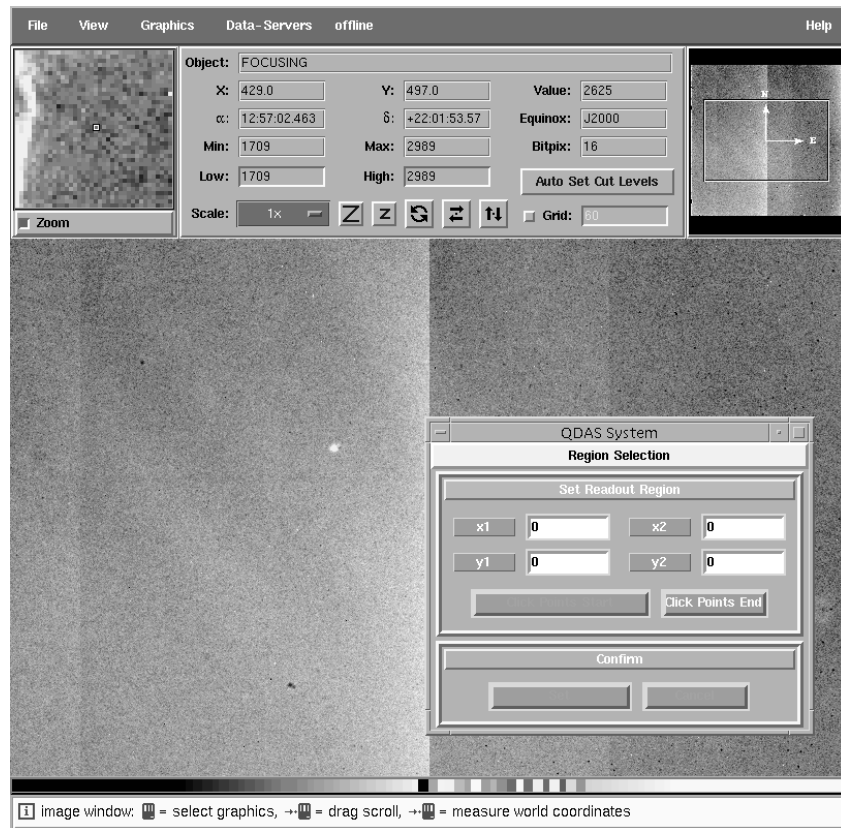
This command changes focus-Z value of the telescope from (**Z**+ 2***DELTAZ**) to (**Z**- 2***DELTAZ**) with interval **DELTAZ** and obtain **NFRAME** frames at each focus position. It then measures the FWHM of the stellar image, fit the FWHM–Z relation by a hyperbola to calculate the best focus-Z, and set the Z value to it.

Usage

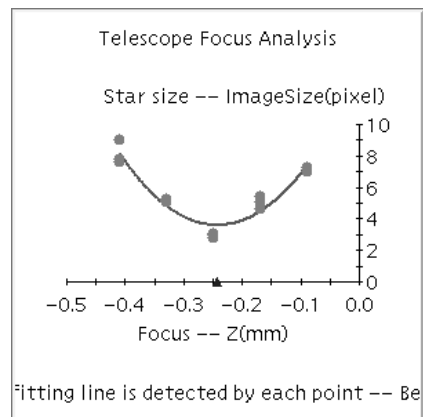
If **SELECT**=AUTO/SEMIAUTO, do following. When the frames of 3rd position have obtained, single image is displayed on the "OHS_Online" skycat of OWS (Figure below). Also, "QDAS System" window appears.

Push "Click Points Start" and enclose the stellar image with a square box. When finished, push "Click Point End", and push "SET".

Otherwise, these procedures are done automatically.



When finished, the plot of FWHM-Z relation and the best focus position are displayed in "QDAS plot" window as below.



Last Update

2000/12/18

Author

George Kosugi, Tomoyuki Taguchi, Kentaro Motohara

2.10 GETDARK

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASET_ID	DS0000
OBJECT	"DARK"
EXPTIME	NOP
NSAMPLE	NOP
NFRAME	1

Description

Obtain **NFRAME** dark frames with exposure time **EXPTIME**.

Last Update

2002/03/04

Author

George Kosugi, Kentaro Motohara

2.11 GETOBJECT

OBE_MODE

IMAG
 IMAG_2
 IMAG_4
 IMAG_8
 IMAG_9
 IMAG_4S4
 IMAG_VGW
 IMAG_VGW2
 IMAG_VGW4
 IMAG_VGW8
 IMAG_VGW9
 IMAG_VGW4S4
 IMAG_BL64
 IMAG_BL128
 SPEC
 SPEC_2
 SPEC_4
 SPEC_ABBA
 SPEC_2S2
 SPEC_4S4

Parameters

Parameter	Default Value	
	IMAG IMAG_VGW	IMAG_2, IMAG_4, IMAG_8, IMAG_9 IMAG_VGW2,IMAG_VGW4,IMAG_VGW8,IMAG_VGW9
DATASET_ID	"DS0000"	"DS0000"
DITH	–	10.0
OBJECT	"OBJECT"	"OBJECT"
RA	DUMMY	DUMMY
DEC	DUMMY	DUMMY
EQUINOX	DUMMY	DUMMY
PA	(-90.0-2.0*!TSCL.INSROTPA)	(-90.0-2.0*!TSCL.INSROTPA)
EXPTIME	NOP	NOP
FILTER	NOP	NOP
SLITX	NOP	NOP
SLITY	NOP	NOP
NSAMPLE	NOP	NOP
NFRAME	6	6

Parameter	Default Value	
	SPEC	SPEC_2, SPEC_4, SPEC_ABBA
DATASET_ID	"DS0000"	"DS0000"
DITH	–	10.0
OBJECT	"OBJECT"	"OBJECT"
RA	DUMMY	DUMMY
DEC	DUMMY	DUMMY
EQUINOX	DUMMY	DUMMY
PA	DUMMY	(-90.0 - 2.0 * !TSCL.INSROTPA)
EXPTIME	NOP	NOP
FILTER	NOP	NOP
SLITX	NOP	NOP
SLITY	NOP	NOP
NSAMPLE	NOP	NOP
NFRAME	3	3

Parameter	Default Value	
	IMAG_4S4	SPEC_2S2
	IMAG_VGW4S4	SPEC_4S4
DATASET_ID	"DS0000"	"DS0000"
DITH	20.0	10.0
OBJECT	"OBJECT"	"OBJECT"
RA	DUMMY	DUMMY
DEC	DUMMY	DUMMY
EQUINOX	DUMMY	DUMMY
PA	(-90.0 - 2.0 * !TSCL.INSROTPA)	(-90.0 - 2.0 * !TSCL.INSROTPA)
EXPTIME	NOP	NOP
FILTER	NOP	NOP
SLITX	NOP	NOP
SLITY	NOP	NOP
NSAMPLE	NOP	NOP
NFRAME	6	3
RASEC_SKY	180.0	180.0
DECSEC_SKY	180.0	180.0

Parameter	Default Value
	IMAG_BL64
	IMAG_BL128
DATASET_ID	"DS0000"
OBJECT	"STANDARD"
RA	DUMMY
DEC	DUMMY
EQUINOX	DUMMY
PA	DUMMY
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
NSAMPLE	DUMMY
NSTEP	1

Description

Get frames by dithering the pointing of the telescope.

- **[IMAG,IMAG_VGW]**

Obtain **NFRAME** frames with exposure time **EXPTIME** without nodding the telescope.

- **[IMAG_2,IMAG_4,IMAG_8,IMAG_9]**

Do (2,4,8,9)-point dithering and obtain **NFRAME** frames at each pointing with exposure time **EXPTIME**.

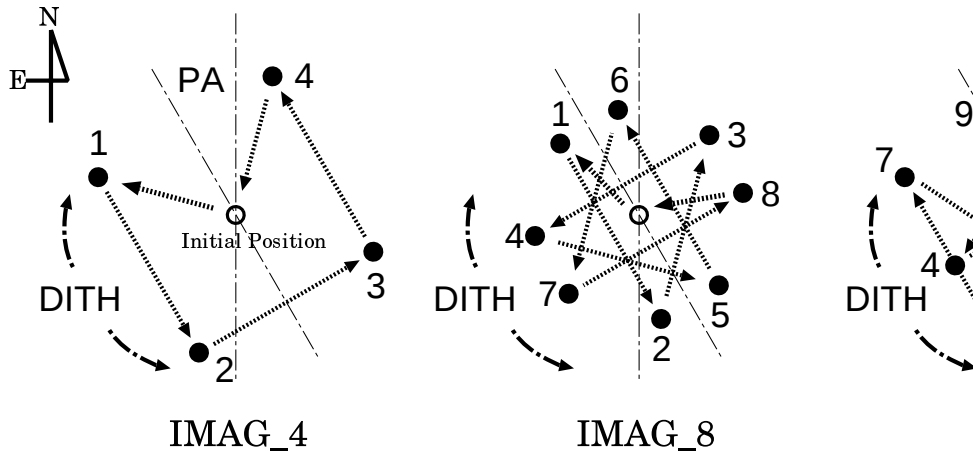
The dithering patterns are shown below.

- **[IMAG_VGW2,IMAG_VGW4,IMAG_VGW8,IMAG_VGW9]**

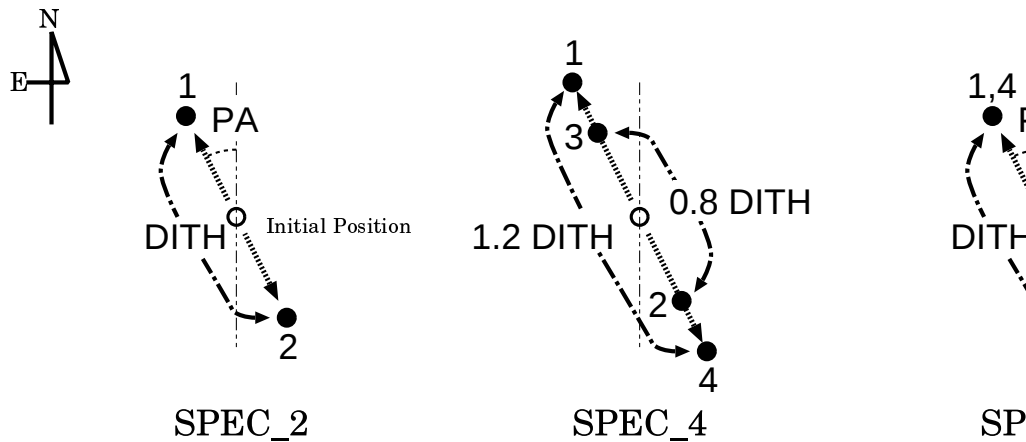
Same as above, but used when auto-guiding is active .

- **[IMAG_BL64, IMAG_BL128]**

Obtain high-speed partial readout frames without nodding the telescope.



- **[SPEC]**
Obtain **NFRAME** frames with exposure time **EXPTIME** without nodding the telescope.
- **[SPEC_2,SPEC_4,SPEC_ABBA]**
Do (2,4,ABBA)-point dithering along the slit of OHS/CISCO and obtain **NFRAME** frames at each pointing with exposure time **EXPTIME** and number of multi-sample **NSAMPLE**.
Because the nodding is realized by CCD offset, **DITH** should be smaller than 20. The dithering patterns are shown below.
- **[IMAG_4S4,IMAG_VGW4S4,SPEC_2S2,SPEC_4S4]**
Same as **IMAG_4**, **IMAG_VGW4**, **SPEC_2**, **SPEC_4**, except obtain sky frames by nodding
 $\Delta\text{RA}=\text{RASEC_SKY''}$
 $\Delta\text{Dec}=\text{DECSEC_SKY''}$
before each on-source pointing.
Expected to used for extended objects.



Last Update

2002/03/04

Author

George Kosugi, Fumihide Iwamuro, Kentaro Motohara

2.12 GETSKY

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASET_ID	DS0000
OBJECT	"FIELDCHECK"
EXPTIME	NOP
SLITX	NOP
SLITY	NOP
NSAMPLE	1

Description

Obtain one sky-frame with slit-width **SLITX**, slit-height **SLITY**, exposure time **EXPTIME**, and number of multi-sample **NSAMPLE**, and register it as a sky-frame of QDAS-pipeline.

Last Update

2002/03/03

Author

Fumihide Iwamuro, Kentaro Motohara

2.13 GETSTANDARD

OBE_MODE

IMAG
 IMAG_2
 IMAG_4
 IMAG_8
 IMAG_9
 IMAG_BL64
 IMAG_BL128
 SPEC
 SPEC_2
 SPEC_4
 SPEC_ABBA

Parameters

Parameter	Default Value	
	IMAG	IMAG_2, IMAG_4, IMAG_8 IMAG_9
DATASET_ID	"DS0000"	"DS0000"
DITH	-	20.0
OBJECT	"STANDARD"	"STANDARD"
RA	DUMMY	DUMMY
DEC	DUMMY	DUMMY
EQUINOX	DUMMY	DUMMY
PA	DUMMY	(-90.0-2.0 * !TSCL.INSROTPA)
EXPTIME	NOP	NOP
FILTER	NOP	NOP
SLITX	NOP	NOP
SLITY	NOP	NOP
NSAMPLE	NOP	NOP
NFRAME	6	6

Parameter	Default Value	
	SPEC	SPEC_2, SPEC_4, SPEC_ABBA
DATASET_ID	"DS0000"	"DS0000"
DITH	-	10.0
OBJECT	"OBJECT"	"OBJECT"
RA	DUMMY	DUMMY
DEC	DUMMY	DUMMY
EQUINOX	DUMMY	DUMMY
PA	DUMMY	(-90.0 - 2.0 * !TSCL.INSROTPA)
EXPTIME	NOP	NOP
FILTER	NOP	NOP
SLITX	NOP	NOP
SLITY	NOP	NOP
NSAMPLE	NOP	NOP
NFRAME	3	3

Parameter	Default Value
	IMAG_BL64
	IMAG_BL128
DATASET_ID	"DS0000"
OBJECT	"OBJECT"
RA	DUMMY
DEC	DUMMY
EQUINOX	DUMMY
PA	DUMMY
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
NSAMPLE	DUMMY
NSTEP	1

Description

Obtain standard star frames. Same as **GETOBJECT** except the default value of **OBJECT** parameter.

Last Update

2002/03/04

Author

George Kosugi, Fumihide Iwamuro, Kentaro Motohara

2.14 OHSQL

OBE_MODE

OHS

Parameters

None

Description

This command generates a quick-look image from frames taken by the last **GETOBJECT** command, when you are using imaging mode of OHS.

Last Update

2001/02/11

Author

Kentaro Motohara

2.15 OHSSLIT

OBE_MODE

OHS

Parameters

Parameter	Default Value
	OHS
SELECT	NOP
XOFFSET	0.0

Description

Set the slit of OHS to **SELECT**, and its offset to **XOFFSET**. **XOFFSET** is absolute value, and specified in pixel unit of OHS/CISCO.

Last Update

2000/5/21

Author

Fumihide Iwamuro

2.16 PROBECENTER

OBE_MODE

CISCO

Parameters

Parameter	Default Value
CISCO	
X1	0
X2	0
Y1	511
Y2	511

Description

Insert AG probe to the center of FOV ($r = 0.0$, $\theta = 180.0$) and start to readout the (0:511,0:511) region of the AG-CCD.

Last Update

2000/12/18

Author

Fumihide Iwamuro, Kentaro Motohara

2.17 PROBEOFFSET

OBE_MODE

CISCO

Parameters

Parameter	Default Value
CISCO	
DX	0.0
DY	0.0

Description

Nod the telescope to move the object **DX**pixels, **DY**pixels in the frame of OHS/CISCO. Accuracy of the nodding is defined by the precision of the movement of the AG-probe.

Auto-guiding should be active when you execute this command.

Last Update

2001/8/1

Author

Fumihide Iwamuro, Kentaro Motohara

2.18 PROBEOFFSETBYQDAS

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASETID	DS0000
OBJECT	FIELDCHECK
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
SKYSUB	OFF
FRAME	NEW

Description

Nod the telescope to replace the object on a frame as you designate in the frame. Accuracy of the nodding is defined by the precision of the movement of the AG-probe.

If **FRMAE=NEW**, new frame will be aquired and displayed. Otherwise, last the frame taken by **CHECKFIELD** command will be used.

If **SKYSUB=ON**, the frame after the subtraction of the sky-frame registered to QDAS (by **GETSKY** command) is displayed.

Auto-guiding should be active when you execute this command.

You can specify the filter**FILTER**, silt-width**SLITX**, slit-height**SLITY**, exposure time**EXPTIME**, and number of multi-sample**NSAMPLE**. In normal use, you don't have to specify **DATASETID**, **OBJECT**.

Last Update

2001/8/1

Author

Fumihide Iwamuro, Kentaro Motohara

2.19 PROBEOUT

OBE_MODE

CISCO

Parameters

None

Description

Pull out the AG-probe to $r = 90.0$.

Last Update

2001/8/3

Author

Fumihide Iwamuro, Kentaro Motohara

2.20 RESETUPOBE

OBE_MODE

CISCO

OHS

Parameters

Parameter	Default Value	
	CISCO	OHS
FILTER	"Kp"	H

Description

This command should be execute after spectroscopic observations; it changes the filter and opens the slits of OHS/CISCO.

- [CISCO]
Set filter to **FILTER** and full open the slit of CISCO.
- [OHS]
Set filter to **FILTER**, open the slit of CISCO to X=30, Y=75, and open the slit of OHS to "OPEN"

Last Update

2002/03/02

Author

Fumihide Iwamuro

2.21 SETUPFIELD

OBE_MODE

IMAG
IMAG_VGW
SPEC

Parameters

Parameter	Default Value		
	IMAG	IMAG_VGW	SPEC
OBJECT	DUMMY	DUMMY	"FIELDCHECK"
RA	!STATS.RA	!STATS.RA	DUMMY
DEC	!STATS.DEC	!STATS.DEC	DUMMY
EQUINOX	2000.0	2000.0	DUMMY
PA	0.0	0.0	–
AG_SELECT	–	MANUAL	–
I_BOTTOM	–	2200	–
DATASET_ID	–	–	"DS0000"
EXPTIME	–	–	NOP
FILTER	–	–	NOP
SLITX	–	–	NOP
SLITY	–	–	NOP
DX	–	–	0.0
DY	–	–	50.0

Description

This command points the telescope to **RA** and **DEC** and sets the position angle to **PA**°. It also pulls out the AG-probe to $r = 90.0$ if $r < 90.0$.

- **[IMAG]**

Nothing else.

- **[IMAG_VGW]**

Also, it chooses AG star in VGW and starts auto-guiding if **AG_SELECT** parameter set to AUTO/SEMIAUTO.

Default is **AG_SELECT**=MANUAL, and you have to do it manually. You can set the bottom threshold for AG by **I_BOTTOM**. Please set this value larger when the background is high.

- **[SPEC]**

This is different from above two, which introduce the target onto the slit of OHS/CISCO using the frames obtained by OHS/CISCO.

It

1. sets slit of CISCO to **SLITX**×**SLITY**, nods the telescope along RA and DEC direction **DX**, **DY** respectively, obtain one frame with exposure time **EXPTIME** and filter **FILTER**. This will be a sky-frame.
2. next points the telescope to the initial position and take another frame. This will be an object-frame.
3. then displays (object-frame – sky-frame) in the skycat of QDAS. You specify the position of the object and the slit in this image, and the object will be introduced to the position you specified as that of the slit.

Auto-guiding should be activated when you execute this command. Be sure you have run the following commands.

```
SETUPFIELD OBE_MODE=IMAG_VGW  
AGCENTER OBE_MODE=CISCO
```

However, this command requires a lot of overhead time, and not used anymore. We recommend you to use the combination of

```
SETUPFIELD OBE_MODE=IMAG_VGW  
AGCENTER OBE_MODE=CISCO  
PROBEOFFSETBYQDAS OBE_MODE=CISCO  
AGOFFSETBYQDAS OBE_MODE=CISCO
```

instead.

Last Update

2002/03/04

Author

George Kosugi, Fumihide Iwamuro, Kentaro Motohara

2.22 SETUPOBE

OBE_MODE

CISCO

OHS

Parameters

Parameter	Default Value	
	CISCO	OHS
PATH	"/home/messia/data"	"/home/messia/data"
FILTER	"BLANK"	H
OHSSLIT	–	OPEN

Description

This command sets up OHS/CISCO.

- **[CISCO]**

It sets the path in the CISCO-OBCP to **PATH** where the obtained frames are saved, moves the filter-wheels to the home position and moves them to **FILTER**, and then opens the slit.

- **[OHS]**

It sets the path in the CISCO-OBCP to **PATH** where the obtained frames are saved , moves the filter-wheels to the home position and moves them to **FILTER** again, and then opens the slit to X=30 and Y=75, moves the slit of OHS to the home position and moves it to **OHSSILT** again, and opens all the mirror-covers of OHS.

Last Update

2001/5/10

Author

Fumihide Iwamuro, Kentaro Motohara

2.23 SHUTDOWNBE

OBE_MODE

CISCO

OHS

Parameters

Parameter	Default Value	
	CISCO	OHS
MODE	ALONE	ALONE

Description

This command shuts down OHS/CISCO.

- [CISCO]

It sets the filter to BLANK, opens the slit of CISCO, and sets the MODE of messia III to **MODE**.

- [OHS]

It sets the filter to BLANK, opens the slit of CISCO to X=30, Y=75, closes all the mirror-cover of OHS, move the slit of OHS to HOME , and sets the MODE of messia III to **MODE**.

Last Update

2000/5/21

Author

Kentaro Motohara, Fumihide Iwamuro

2.24 SHUTDOWNQDAS

OBE_MODE

CISCO

Parameters

None

Description

Quit skycat of QDAS.

Last Update

1999/3/3

Author

George Kosugi

2.25 TELMOVE

OBE_MODE

CISCO

Parameters

Parameter	Default Value
CISCO	
DRA	0.0
DDEC	0.0

Description

Nod the telescope relatively by **RASEC''** along RA and **DECSEC''** along DEC. Accuracy of the nodding is defined by the encoder of the telescope.

If auto-guiding is activated, this will stop it.

Last Update

2000/5/19

Author

Fumihide Iwamuro

2.26 TELOFFSET

OBE_MODE

CISCO

Parameters

Parameter	Default Value
CISCO	
DX	0.0
DY	0.0

Description

Nod the telescope to move the object **DX**pixels, **DY**pixels in the frame of OHS/CISCO. Accuracy of the nodding is defined by the encoder of the telescope.

If the auto-guiding is activated, please use AGOFFSET or PROBEOFFSET.

Last Update

2001/5/11

Author

Fumihide Iwamuro, Kentaro Motohara

2.27 TELOFFSETBYQDAS

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
DATASETID	DS0000
OBJECT	FIELDCHECK
EXPTIME	NOP
FILTER	NOP
SLITX	NOP
SLITY	NOP
SKYSUB	OFF
FRAME	NEW

Description

Nod the telescope to replace the object on a frame as you designate in the frame. Accuracy of the nodding is defined by the pixel scale of the encoder of the telescope.

If the auto-guiding is activated, please use AGOFFSET or PROBOFFSET.

If **FRMAE=NEW**, new frame will be aquired and displayed. Otherwise, last the frame taken by **CHECKFIELD** command will be used.

If **SKYSUB=ON**, the frame after the subtraction of the sky-frame registered to QDAS (by **GETSKY** command) is displayed.

You can specify the filter**FILTER**, silt-width**SLITX**, slit-height**SLITY**, exposure time**EXPTIME**, and number of multi-sample**NSAMPLE**. In normal use, you don't have to specify **DATASETID**, **OBJECT**.

Last Update

2001/8/2

Author

Fumihide Iwamuro, Kentaro Motohara

2.28 TELEOFFSETBYVGW

OBE_MODE

CISCO

Parameters

Parameter	Default Value
	CISCO
F_SELECT	NS_IR

Description

Select an object on VGW, and point the telescope to it.

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Author

Fumihide Iwamuro, Kentaro Motohara