



Présentation de NINA

Nighttime Imaging 'N' Astronomy



Sommaire de la Présentation

1 - Les Principales Fonctions

2 - Une séance photo de A à Z



Les Principales Fonctions

➤ Gestion des Equipements

- Caméras, Roue à filtre, Focuseur, Rotator, Monture, Guider, Switch, Flat Panel

➤ Atlas des Cibles du Ciel Profond

- Recherche multicritère
- Permet de pointer les cibles ou de les basculer en « Framing » ou « Sequence »

➤ Assistant de Cadrage

- Gère le cadrage des cible et permet de générer des mosaïques de 2, 4, 6, etc ..
- Gère la rotation des cibles

➤ Constructeur des Séquences Photos

- Multicible avec temps de pose, filtre et nombre de poses
- Gère plusieurs filtres et/ou temps de pose par cible

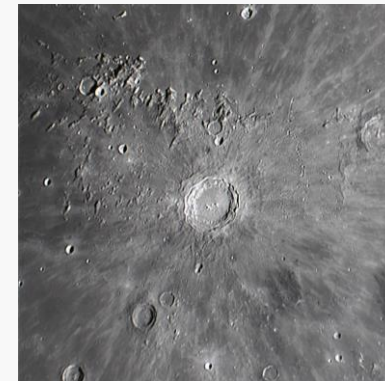
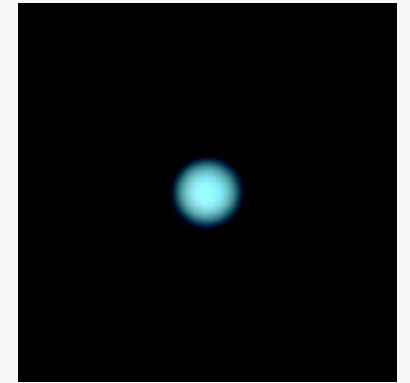
➤ Pilotage des prise de vue

- Astrométrie paramétrable
- Ecran customisable donnant toutes les informations : stats photos, guidage, état de la séquence, état des équipements, etc ...

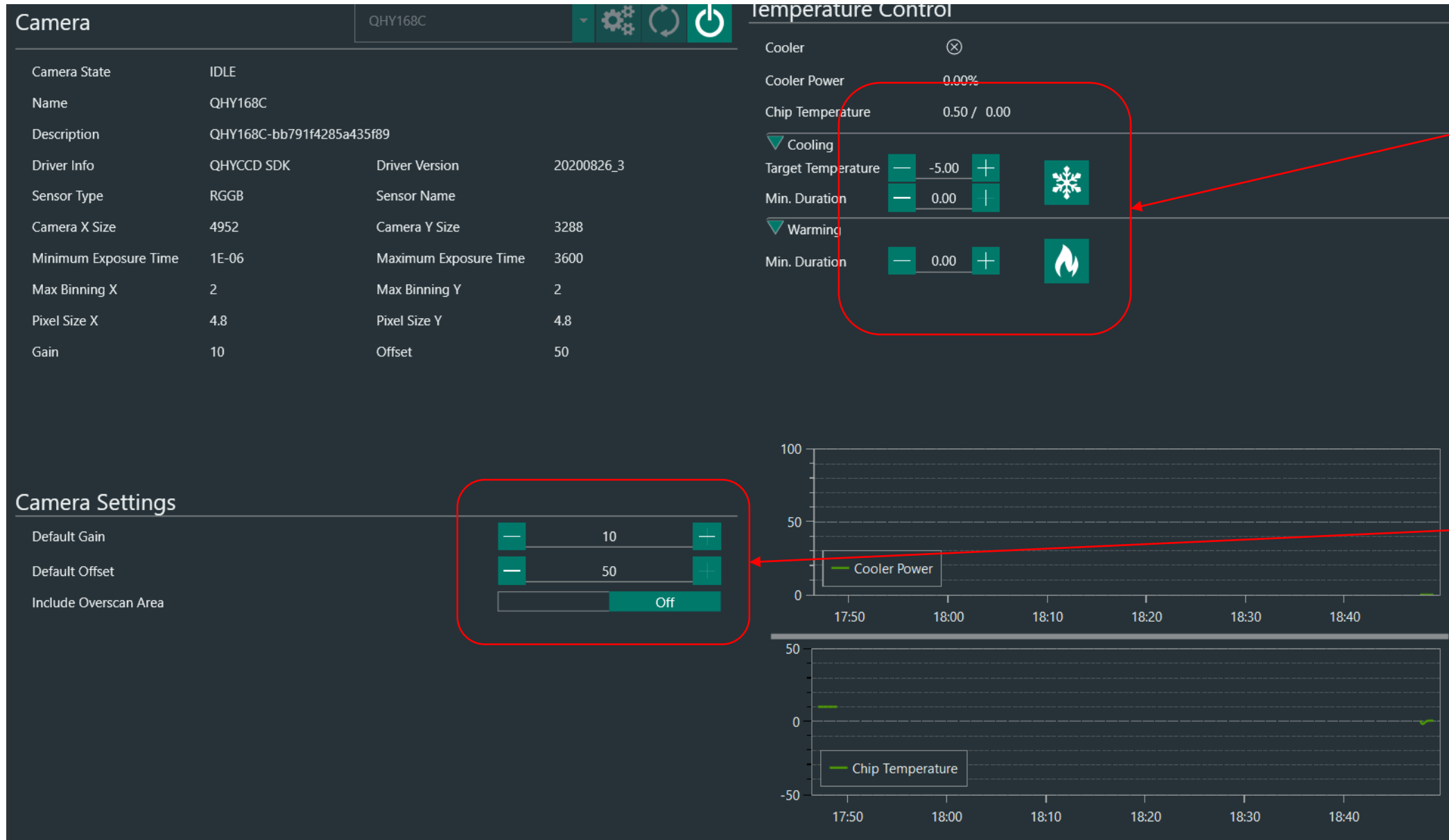
➤ Aide à la gestion des Flats

➤ Autres Fonctions :

- Aide à la MAP manuelle, Gestion auto des flip méridien, Aide au calcul des temps de pose



Equipements - Caméra



Camera Settings

Default Gain: 10

Default Offset: 50

Include Overscan Area: Off

Commandes la température de la caméra

Gain et Offset par défaut

Equipements - Montures

Camera

Filterwheel

Focuser

Rotator

Telescope

Guider

Switch

Flat Panel

Weather

Telescope

Telescope Simulator for .NET

Name

Telescope Simulator for .NET

Description

Software Telescope Simulator for ASCOM

Driver Info

ASCOM.Simulator.Telescope, Version=6.5.1.0, Culture=neutral, PublicKeyToken=565de7938

Driver Version6.5.1.0

Site Latitude

37.1166666666667

Site Longitude

-8.38333333333333

Site Elevation

905

Epoch

JNOW

Sidereal Time

04:05:20

Meridian in

00:00:00

Meridian Flip in

00:10:00

Right Ascension

04:05:20

Declination

-13° 57' 43"

Altitude

300.551478°

Azimuth

100.001000°

Manual Coordinates (J2000)

Manual Control

TargetRA

0 h

0 m

0 s

TargetDec

0 d

0 m

0 s

Slew

N

W

Stop

E

S

Rate

—

0.00

+

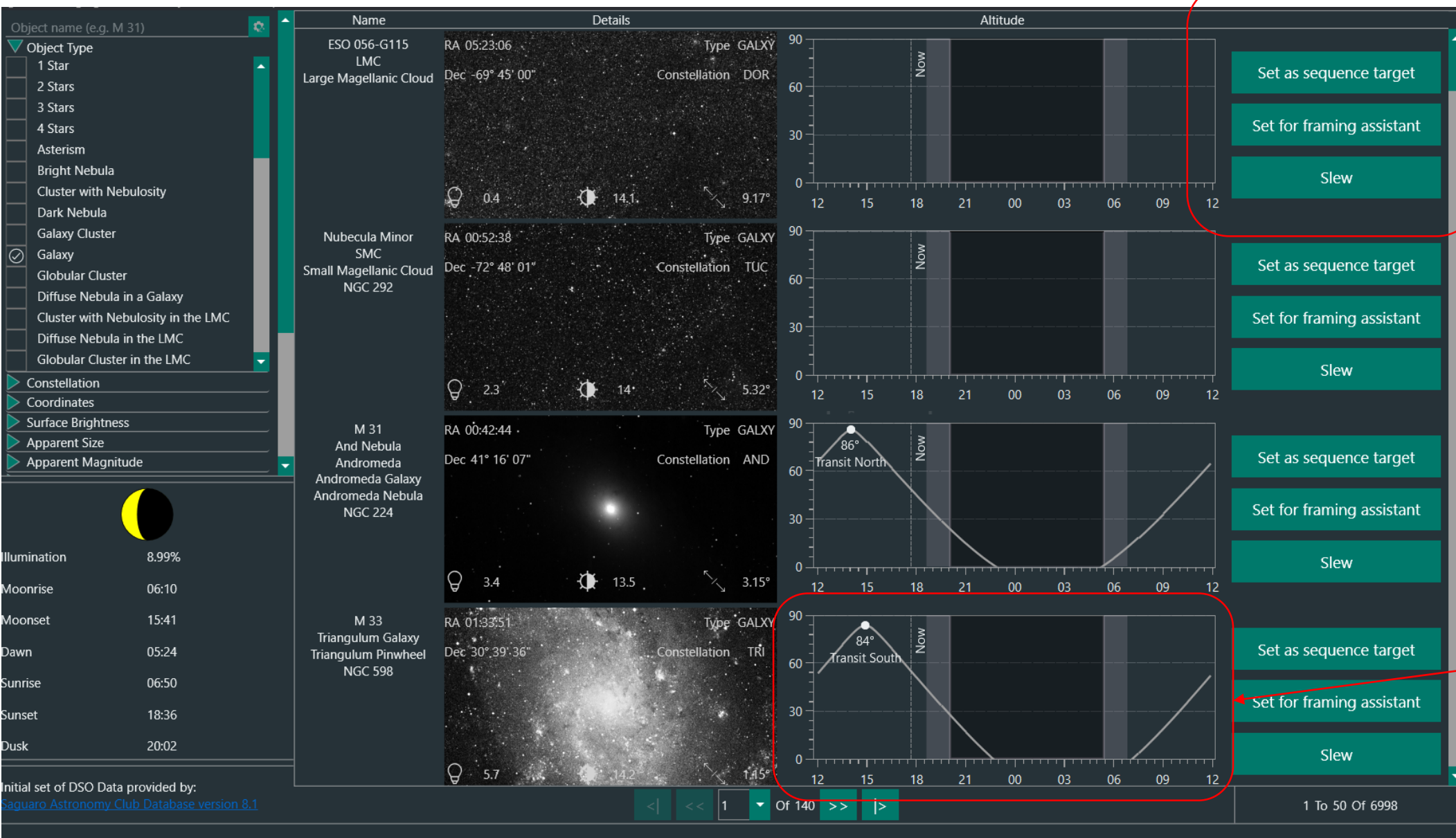
Park

Set As Park

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Atlas des Cibles



Commandes pour pointer, transférer en Cadrage ou ajouter à la Séquence

Profil altitude de la cible pour le lieu

Assistant de Cadrage

🔍

🔍

↔️

1:1

15 %

Opacity 0.20

Name NGC 3623

RA 11 h 18 m 10 s

Dec 13 d 10 m 14 s

Field Of View 3.00 degree

Load Image

Camera Parameter

Width 4952

Height 3288

Pixel Size 4.8

Focal Length 647

Targets

Horizontal Panels 1

Vertical Panels 1

Overlap percentage 20%

Rotation 0

Recenter Image

Slew

Replace as Sequence

Add as Sequence Target

RA 11:18:11
Dec 13° 10' 15"

Gestion du nombre de panneau de la cible

Fenêtre de Cadrage

Commandes pour pointer, ou ajouter à la Séquence

Constructeur de Séquence

Multicible

NGC 2244 *

NGC 3623 *

Sequence

Target (J2000)

Delay start (seconds)

0

Sequence Mode

One after another

Start guiding

On

Slew to target

On

Estimated Download Time

00:00:07.9589220

Estimated Finish Time

From 18:01:47 To 04:10:18 Duration 10:08:31

Est. finish time (this target)

From 23:00:21 To 04:10:18 Duration 05:09:56

Auto Focus

On start

Off

After elapsed Time

Off

After # exposures

Off

After temperature change

Off

After HFR increase

Off

On filter change

Off

Time

30 min

exposures

10

Temperature amount

5 °

HFR amount

10 %

Enabled	Progress	Total #	Time	Type	Filter	Binning	Dither	Dither Every # Frame	Gain	Offset
<div>On</div>	0 / 75	75	240	LIGHT		1x1	<div>On</div>	5	(10)	(50)

Target Name

NGC 3623

RA

11 h 18 m 10 s

Dec

13 d 10 m 14 s

Rotation

0

90

60

30

0

12

15

18

21

00

03

06

09

12

Now

66°

Transit South

+

-

↺

▲

▼

📄

📄+

🔍

▶

Paramètres de La cible

Paramètres de l'Autofocus

Temps de pose, nombre de pose, gain, filtre, dithering

Pilotage des Séances photos

Fonctions : Astrométrie, Annotation, MAP, Assistant expo.

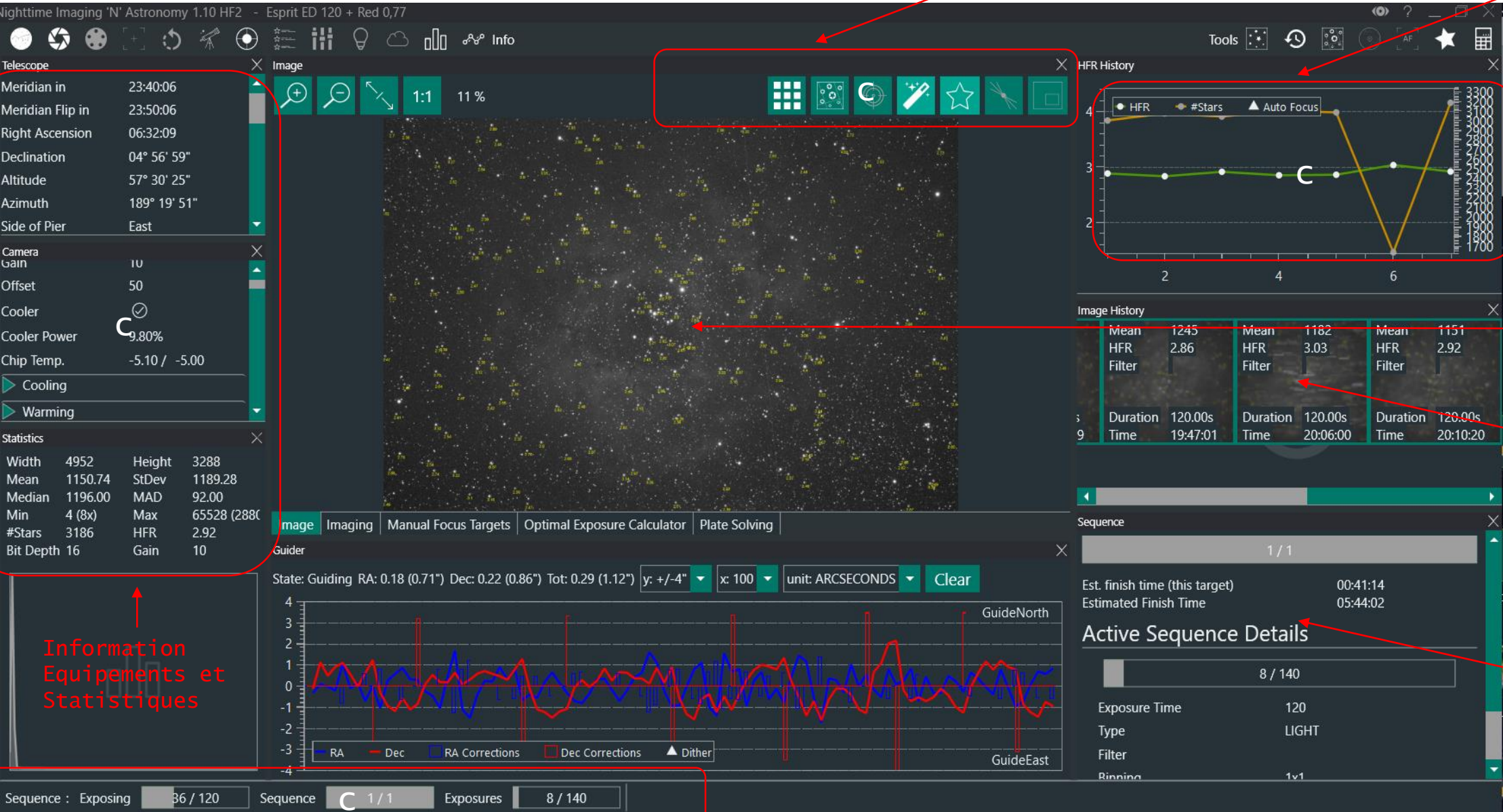
Courbes de qualité # Stars et HFR

Image Débayerisée et Strechée

Historique des poses

Information Séquence

Information Pose en cours



Information Equipements et Statistiques

Information Pose en cours

Assistant Gestion des Flats

Flat Wizard

Target Name

FlatWizard

Flats to take

—

10

+

Dark Flats to take

—

0

+

Binning

▼

East

▼

Slew to zenith

Single Mode

Multi Mode

Filter

(Current)

▼

Flat Min Exposure

1.00000

s

Flat Max Exposure

30.00000

s

Flat Step Size

0.10000

s

Histogram Mean Target

1

75

%

Mean Tolerance

1 - 1

10

%

▶

+

−

↔

1:1

100 %

Calculated Target Exposure Time

0.00000 s

Calculated Target Histogram Mean

0 ADU

Options - Equipements

General

Equipment

Imaging

Plate Solving

About

Camera

Pixel Size

4.8

Bit Depth

16

Bayer Pattern

Auto

Advanced Settings

Telescope

Telescope Name

ED 120

No Sync

Off

Focal Length

647

Focal Ratio

5.4

Settle time after slew

10

Focuser

Use FilterWheel Offsets

Off

Auto Focus Step Size

10

Auto Focus Initial Offset Steps

4

Default Auto Focus Exposure T

6

Advanced Settings

Weather

Fahrenheit Temperatures

Off

Imperial Units

Off

OpenWeatherMap API Key

Filterwheel

Position	Name	Focus Offset	Auto Focus Exposure Time
0	Red	1110	0
1	Green	9811	0
2	Blue	2346	0
3	Clear	5005	0
4	Ha	2646	0
5	OIII	5995	0

+ -

Import Filters from Filterwheel

Guider Settings

PHD2 path

C:\Program Files (x86)\PHDGuiding2\phd2.exe

PHD2 Server Url

localhost

PHD2 Server Port

4400

Dither Pixels

5

Dither RA Only

Off

Settle Pixel Tolerance

1.5

Minimum Settle Time

10

Settle Timeout

40

Direct Guide Duration

2

Guiding Start Retry

On

Guiding Start Timeout (in seco

60

Planetarium

Preferred Planetatium software

Stellarium

Host

localhost

Port

8090

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Options – Images et Séquences

File Settings

Save Image as

FITS

ⓘ

For DSLRs the image file format setting is ignored. RAW format will be saved instead!

File Format Options

There are no options for this file format

Image File Path

C:\Users\HP\Documents\Data Photos\

Image File Pattern

\$\$TARGETNAME\$\$\\$\$DATE\$\$\\$\$TIME\$\$\\$\$SENSORTEMP\$\$\\$\$GAIN\$\$\\$\$EXPOSURETIME\$\$s_\$
\$FRAMENR\$\$

Pattern Preview

M33 > 2016-01-01 > 12-00-00_-15_1600_10.21s_0001

Pattern Name	Description
\$\$APPLICATIONSTARTDATE\$\$	Application start date with format YYYY-MM-DD
\$\$BINNING\$\$	Camera binning
\$\$CAMERA\$\$	Camera Name
\$\$DATE\$\$	Date with format YYYY-MM-DD
\$\$DATEMINUS12\$\$	Date shifted back by 12 hours with format YYYY-MM-DD
\$\$DATETIME\$\$	Date with format YYYY-MM-DD_HH-mm-ss
\$\$EXPOSURETIME\$\$	Exposure Time in seconds
\$\$FILTER\$\$	Filter Name
\$\$FOCUSERPOSITION\$\$	Current focuser position
\$\$FOCUSERTEMP\$\$	Focuser Temperature
\$\$FRAMENR\$\$	# of the Frame with format ###
\$\$GAIN\$\$	Camera Gain
\$\$HFR\$\$	Calculated HFR of image (HFR detection has to be enabled)
\$\$IMAGETYPE\$\$	Light, Flat, Dark, Bias, Snapshot
\$\$OFFSET\$\$	Camera Offset
\$\$READOUTMODE\$\$	Camera Readout Mode
\$\$RMS\$\$	Root mean square error of guiding during exposure in pixels
\$\$RMSARCSEC\$\$	Root mean square error of guiding during exposure in arc seconds
\$\$ROTATORANGLE\$\$	Angle of the rotator
\$\$SENSORTEMP\$\$	Camera Temperature

Auto Meridian Flip

Enabled

On

Minutes after Meridian

10

Use Telescope Side of Pier

Off

Recenter after Flip

On

Scope settle time after flip (seconds)

30

Pause before Meridian (minutes)

1

Auto Focus after Flip

Off

Image Options

Autostretch factor

0.2

Black clipping

-2.8

Annotate Image

On

Debayer Image

On

Debayered HFR

On

Unlinked Stretch

On

Star Sensitivity

High

Noise Reduction

High

SharpCap Sensor Analysis folder

Sequence

Default folder for sequence files

C:\Users\HP\Documents\Data Photos\NINA\Sequences\

Sequence Template

Run command when sequence completes

Park mount when sequence ends

On

Warm camera when sequence ends

On

Options – Astrométrie

Plate Solving

Plate Solver

ASTAP

Blind Solver

All Sky Plate Solver

Exposure Time 10

Filter (Current)

Binning 1

Gain 10

Pointing Tolerance 1 arcmin

Rotation Tolerance 1 degree

Number of Attempts 1

Delay between attempts 10 min

Plate Solver Settings

Astrometry.Net

Local Platesolver

Platesolve2

All Sky Plate Solver

ASTAP

API Key [oxjcwldrqslpljpv](#)

Url <http://nova.astrometry.net>

Platesolve service provided by



Séance Photo de A à Z



Etapes	ECRAN/FONCTION NINA	Action
1 - Choix d'une Cible	Sky Atlas	Selectioner et envoyer en cadrage
2 - Cadrage de la Cible	Framing Assistant	Cadrage, Mosaïque ? En envoi en Séquence
3 - Temps de pose, nombre, etc ...	Sequence	Entrer les paramètres
4 - Sauver la séquence	Sequence	Quand toutes les cibles sont entrées
5 - Connecter les Equipements	Equipement	Caméra, Monture, Guider, Filter Wheel, etc ..
6 - Première Astrométrie et MAP	Imaging	Vérifier orientation et MAP (données HFR)
7 - Lancer Séquence	Séquence	
8 - Surveiller	Imaging	Ou pas 😊 😊
9 - Faire les Flats	Flats Wizard	



Merci

Des Questions ?

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