









# N.I.N.A. - Nighttime Imaging 'N' Astronomy

N.I.N.A. - Nighttime Imaging 'N' Astronomy v. 0.1.0





## Camera & Filter Wheel

Description:

Sensor Type: Monochrome

## Imaging

## Frame & Focus

## Plate Solving

## Telescope

## PHD2 Listener

## Overview Mode

## Settings

### Camera Infos

Camera X Size: -1	Camera Y Size: -1
Minimum Exposure Time: -1	Maximum Exposure Time: -1
Max Binning X: -1	Max Binning Y: -1
Pixel Size X: -1	Pixel Size Y: -1

### Filter Wheel

Filter Name Focus Offset

Temperature Control



Cooler On

Target Temp. 0.0

Duration 0.0

Camera Temperature



### Camera

Camera State: cameraldle  
 Name: Sim  
 Description: Simulated Monochrome camera  
 Driver Info: Camera V2 simulator - Version 6.2.0.0  
 Driver Version: 6.2  
 Sensor Name:  
 Sensor Type: Monochrome

### Camera Infos

Size: 600

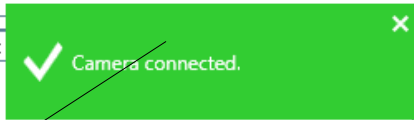
Minimum Exposure Time: 0.001    Maximum Exposure Time: 3600

Max Binning X: 4    Max Binning Y: 4

Pixel Size Y: 5.6

### Filter Wheel

Filter Name	Focus Offset




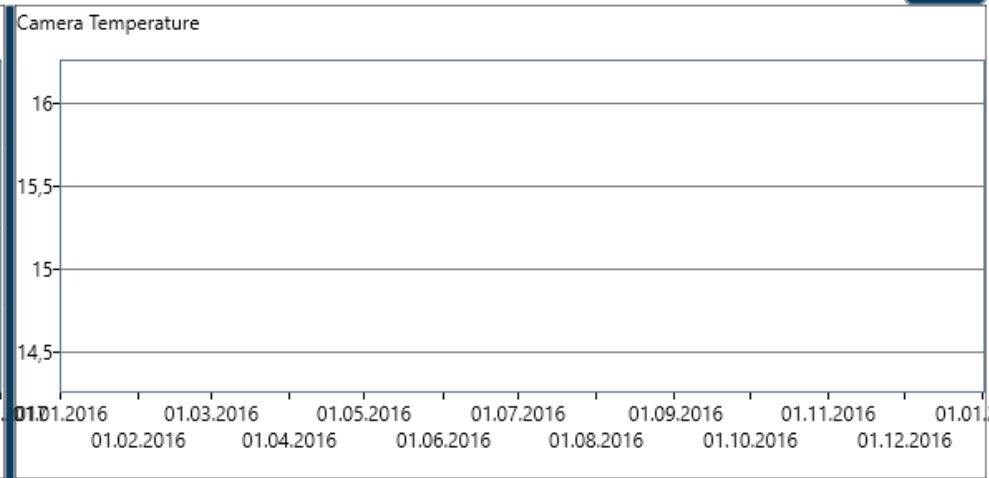
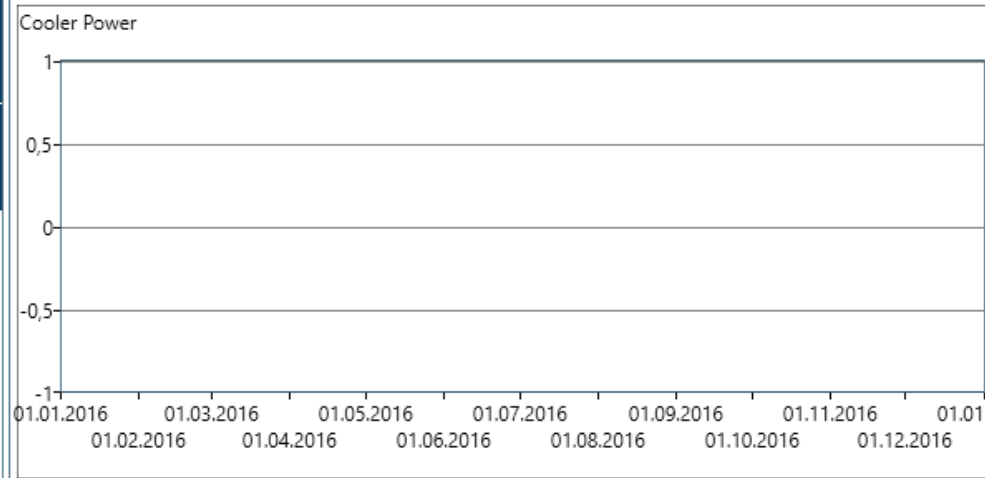
### Temperature Control

☒ Cooler On  
 Cooler Power .00%  
 CCD Temperature 15.25  
 Target Temperature 15.00

Target Temp. .0

Duration .0





# Camera screen

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## Camera

Camera State: cameraldle  
Name: Sim  
Description: Simulated Monochrome camera  
Driver Info: Camera V2 simulator - Version 6.2.0.0  
Driver Version: 6.2  
Sensor Name:  
Sensor Type: Monochrome



## Camera Infos

Camera X Size: 8000      Camera Y Size: 6000  
Minimum Exposure Time: 0.001      Maximum Exposure Time: 3600  
Max Binning X: 4      Max Binning Y: 4  
Pixel Size X: 5.6      Pixel Size Y: 5.6

## Filter Wheel

Filter Name	Focus Offset
Red	3301
Green	8737
Blue	1665
Clear	6239
Ha	5328
OIII	9208

## Filter Wheel

## Temperature Control

☒ Cooler On  
Cooler Power 100.00%  
CCD Temperature 3.32  
Target Temperature -10.00

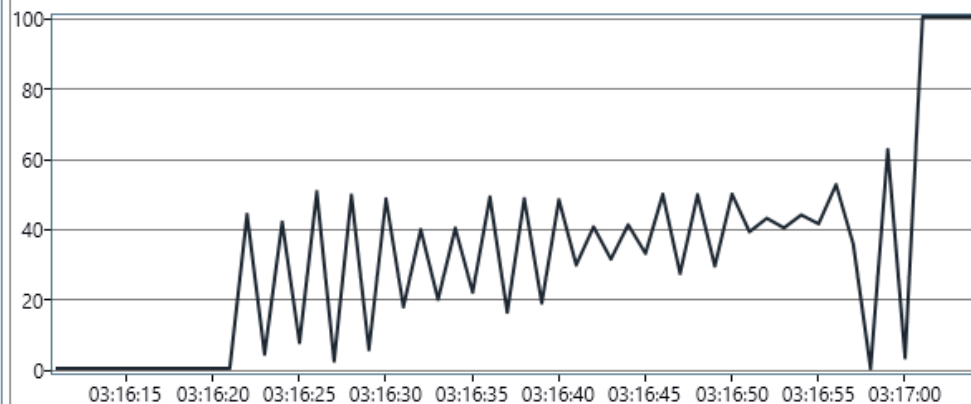
Target Temp.



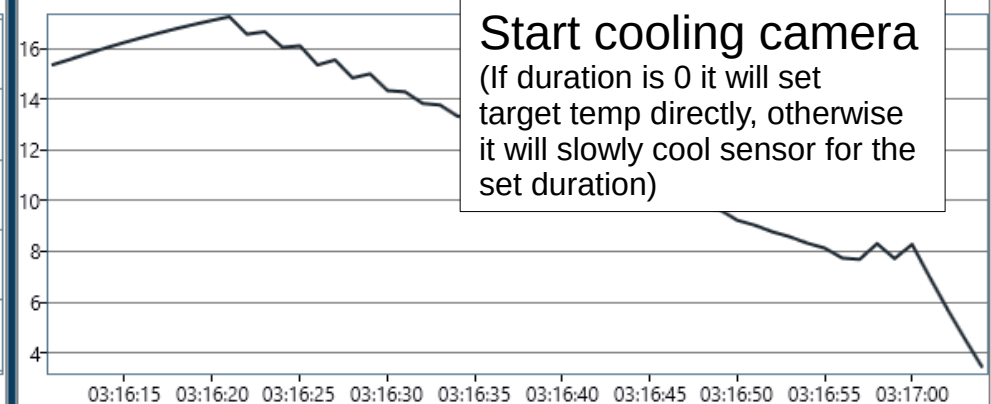
Duration



## Cooler Power



## Camera Temperature



**Start cooling camera**  
(If duration is 0 it will set target temp directly, otherwise it will slowly cool sensor for the set duration)

# Camera screen

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## Camera

Camera State: cameraldle  
Name: Sim  
Description: Simulated Monochrome camera  
Driver Info: Camera V2 simulator - Version 6.2.0.0  
Driver Version: 6.2  
Sensor Name:  
Sensor Type: Monochrome



## Camera Infos

Camera X Size: 8000      Camera Y Size: 6000  
Minimum Exposure Time: 0.001      Maximum Exposure Time: 3600  
Max Binning X: 4      Max Binning Y: 4  
Pixel Size X: 5.6      Pixel Size Y: 5.6

## Filter Wheel

Filter Name Focus Offset

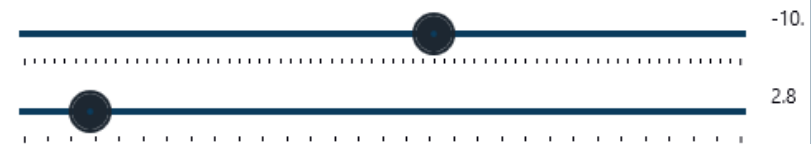
Red	3301
Green	8737
Blue	1665
Clear	6239
Ha	5328
OIII	9208

## Temperature Control

☒ Cooler On  
Cooler Power 19.64%  
CCD Temperature 13.68  
Target Temperature 13.19

Target Temp.

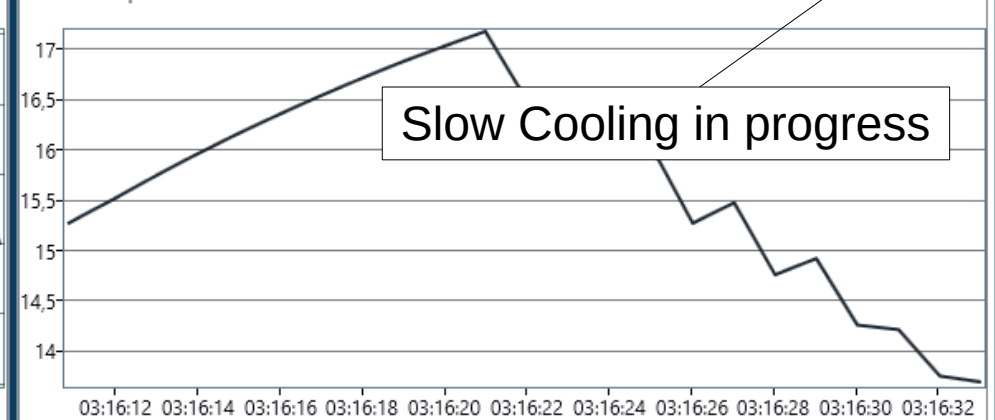
Duration



## Cooler Power



## Camera Temperature



# Imaging screen

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Define Sequence

Image Area

Start Sequence

Toggle Autostretch

Take snapshot and save to disk

#	Time	Type	Filter	Binning	Dither	Dither Every	# Frame
1	1	LIGHT			<input checked="" type="checkbox"/>	1	

Histogram

Snap Exposure Time in seconds: 1 Filter: Binning:

# Imaging screen

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Example Image

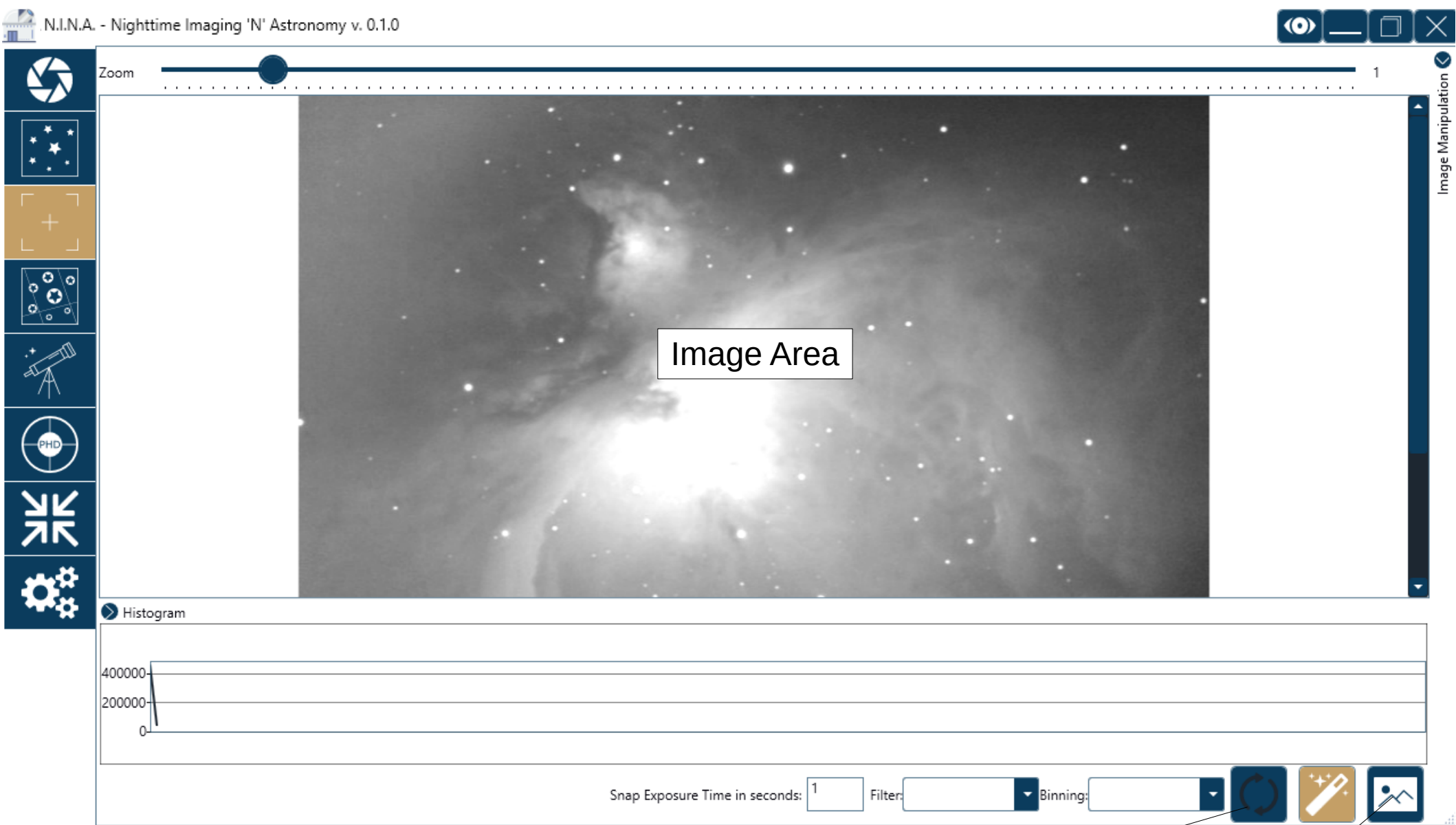
#	Time	Type	Filter	Binning	Dither	Dither Every	# Frame
1	1	LIGHT			<input checked="" type="checkbox"/>	1	

Histogram

400000  
200000  
0

Snap Exposure Time in seconds: 1 Filter: Binning:

## Frame & Focus



# Plate Solving

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Center RA:

Center RA hms:

Center Dec:

Center Dec dms:

Radius:

Pixel scale:

Image Area

Sync scope to solved coords

Idle...

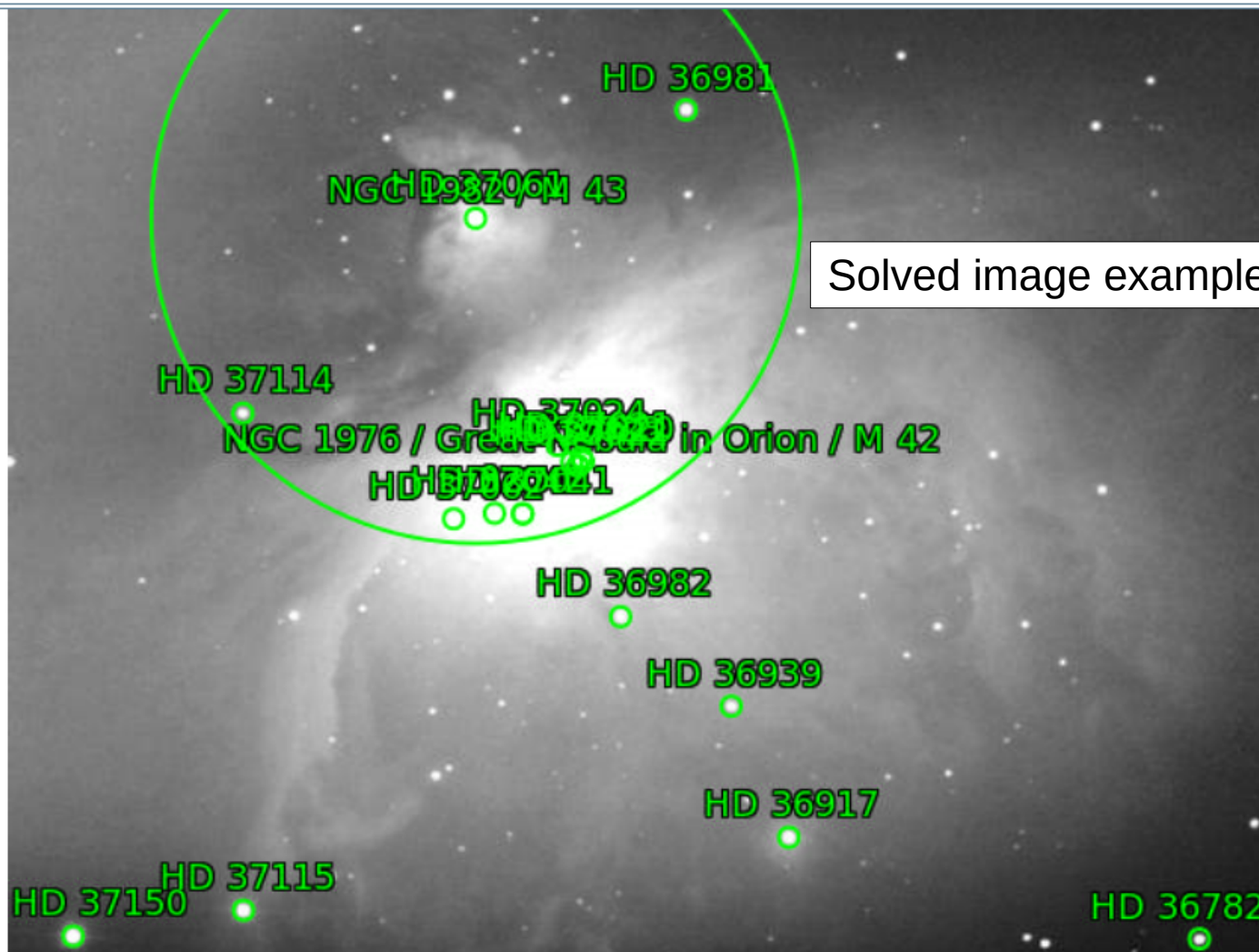
Start plate solve

The screenshot shows the N.I.N.A. software interface. The main window displays a grayscale astronomical image of a nebula. A toolbar on the left contains icons for various functions, with the plate solving icon (a square with stars) highlighted. A right-hand panel contains input fields for celestial coordinates. At the bottom, a status bar shows 'Idle...' and a 'Start plate solve' button. Callout boxes identify the 'Image Area' and the 'Start plate solve' button.



# Plate Solving

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Solved image example

Center RA: 83.787

Center RA hms: 05:35:09

Center Dec: -5.396

Center Dec dms: -05° 23' 46"

Radius: .405 deg

Pixel scale: 2.92 arcsec/pixel

Orientation: -175.84

Solved



# Telescope control

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## Telescope

Name: Simulator

Description: Software Telescope Simulator for ASCOM

Driver Info: ASCOM.Simulator.Telescope, Version=6.2.0.0, Culture=neutral, PublicKeyToken=565de7938946fba7

Driver Version: 6.2.0.0



Connect telescope

## Position

Sidereal Time: 07° 09' 33"

Right Ascension: 00:28:38

Declination: 00° 00' 00"

Altitude: 38° 55' 17"

Azimuth: 180° 00' 00"



## Control

Manual slew controls



Rate: ▼ 1 ▲

# PHD2 Screen

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PHD2 Status  
Connected: True  
State: Guiding

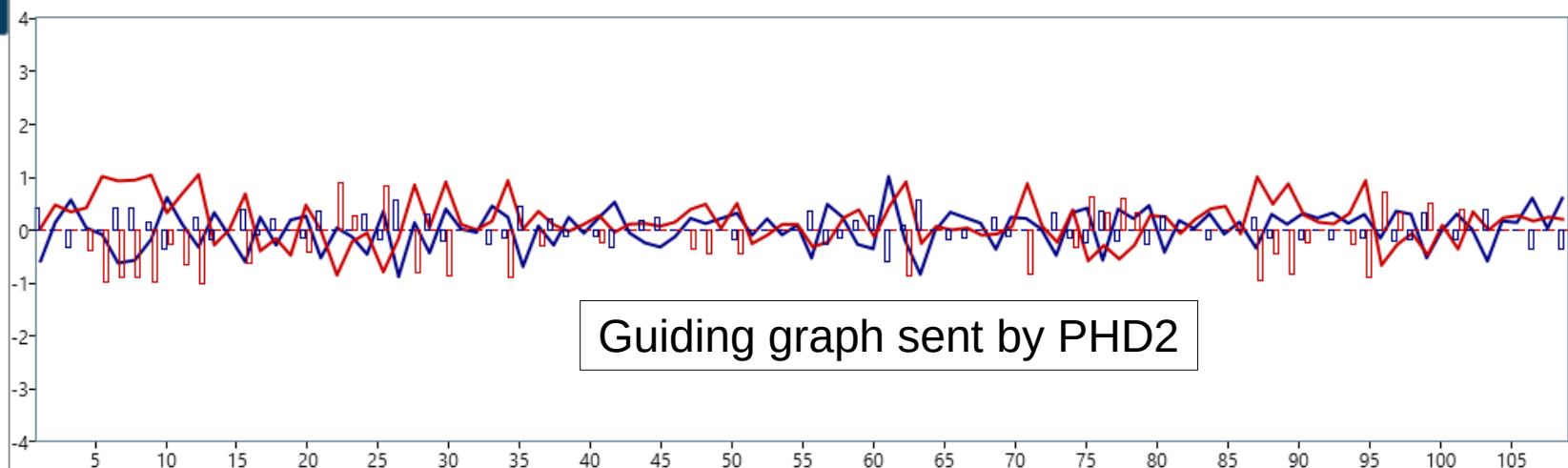


Connect PHD2

Y-Axis-Scale

4

Guide Graph



Guiding graph sent by PHD2

# Overview Mode

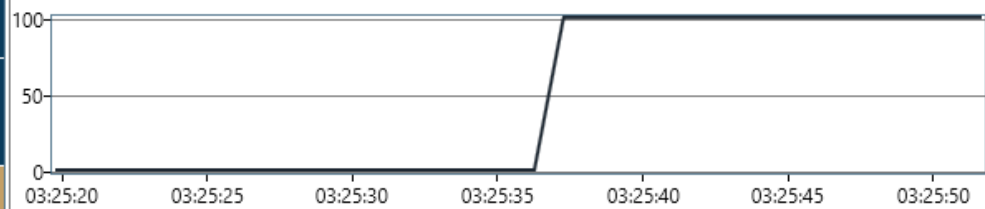
N.I.N.A. - Nighttime Imaging 'N' Astronomy v. 0.1.0



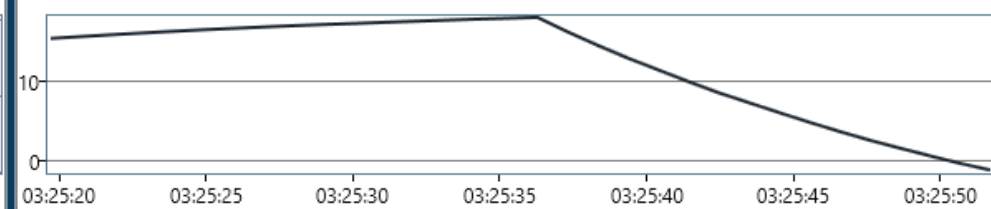
Exposing 4/20...

#	Time	Type	Filter	Binning	Dither	Dither Every # Frame
19	20	LIGHT			<input checked="" type="checkbox"/>	1

Cooler Power



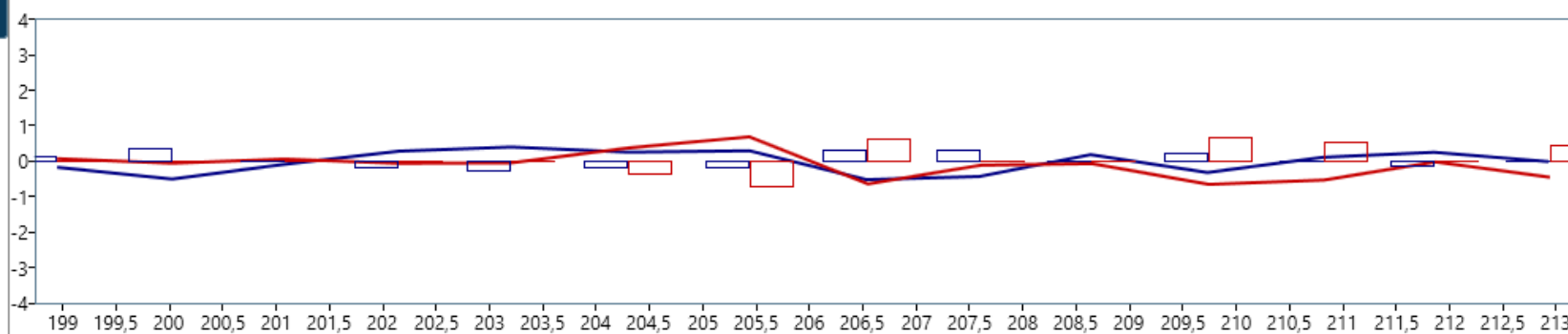
Camera Temperature



Y-Axis-Scale

4

Guide Graph



# Settings

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**File Settings**

Save Image As:

Image File Path:

Image File Pattern:

PatternName	Description
\$\$FILTER\$\$	Filtername
\$\$DATE\$\$	Date with format YYYY-MM-DD
\$\$DATETIME\$\$	Date with format YYYY-MM-DD HH:mm:ss

**Plate Solving**

Astrometry.net

API Key:

Use full resolution: ☒

**UI Colors Current**

Primary:  Secondary:

Border:

Button Background:  Button Background Selected:

Button Foreground:  Button Foreground Disabled:

**PHD2 Settings**

PHD2 Server Url:

PHD2 Server Port:

Dither Pixels:

Dither RA Only: ☒

**UI Colors Alternative**

Primary:  Secondary:

Border:  Background:

Button Background:  Button Background Selected:

Button Foreground:  Button Foreground Disabled:

Current color schema

Alternative color schema

# Alternative Color Schema

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File Settings

Save Image As: TIFF

Image File Path:

Image File Pattern: \$\$IMAGETYPE\$\$\\\$\$DATETIME\$\$\_\$\$FILTER\$\$\_\$\$SENSORTEMP\$\$\_\$\$EXPOSURE\$\$

PatternName	Description
\$\$FILTER\$\$	Filtername
\$\$DATE\$\$	Date with format YYYY-MM-DD
\$\$DATETIME\$\$	Date with format YYYY-MM-DD_HH-mm-ss

Plate Solving

Astrometry.net

API Key: xxxxxxxxxxxxxxxx

Use full resolution: ☒

UI Colors Current

Primary: #FF550C18

Secondary: #FF182A41

Border: #FF550C18

Background: #FF550C18

Button Background: #FF550C18

Button Background Selected: #FF96031A

Button Foreground: #FF02010A

Button Foreground Disabled: #FF443730

PHD2 Settings

PHD2 Server Url: localhost

PHD2 Server Port: 4400

Dither Pixels: 1.5

Dither RA Only: ☒

UI Colors Alternative

Primary: #FF000000

Secondary: #FF1D2731

Border: #AA0B3C5D

Background: #FFFFFF

Button Background: #FF0B3C5D

Button Background Selected: #FFC49F66

Button Foreground: #FFFFFF

Button Foreground Disabled: #FF1D2731

Toggle Colors