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# Initial screen at initial launch

A screen shot of a smart phone

Description automatically generated

Figure - Initial screen

1. Progress bar for tsx\_cmd’s
2. Session toggle controls
3. Monitor: Start and stop imaging sessions, telescope report, session reports, command log
4. Scheduler: Night report, selected targets and their constraints
5. Target: Target list for imaging – create, edit, enable what to do
6. Take Series: Define the series to assign to a target
7. Calibration: create Flats, Darks, Bias
8. Manual Tools: Autoguider calibration, Focus, rotate
9. Metroblue report
10. Last status reported, per progress bar
11. Database tools: create, restore database for tsx\_cmd
12. Park mount
13. Settings – MUST start here for setting up tsx\_cmd
14. Name of the current menu
15. Command for current menu, Add target in this case
16. Refresh all target information for date from TheSkyX, e.g. Alt, Az…
17. Search/Filter the target list
18. App name
19. The IP address for the TheSkyX PC
20. The PORT to access TheSkyX
21. Version number for tsx\_cmd
22. Build Date for tsx\_cmd

# Monitor

A screenshot of a video game

Description automatically generated

Figure - Monitor

1. Play – start an imaging session
2. Stop – stop an imaging session (can need TheSkyX to finish its process before complete)
3. Place for the Name of the Target being processed
4. Collapsible Coordinates area
5. Collapsible Session report
6. Date to view subframes gathered
7. Table for subframes for selected date
8. Command log

# Scheduler

A screenshot of a video game

Description automatically generated

Figure - Scheduler

1. Plan status
2. Refresh button – update plan when no other TheSkyX process is running
3. Night plan report and details
4. Name of target
5. Take Series assigned to target
6. Maximum Altitude. for the target – reported from TheSkyX
7. Minimum Altitude: target must be above this altitude
8. Start: the time after which the target can start
9. Stop: the time after which the target will stop
10. Priority: 1 = is top priority, 10 is lower; if imaging 10 and 1 becomes valid switch to 1

# Target

A screenshot of a cell phone

Description automatically generated

Figure - Targets

1. Target toggle – enabled/on to be included in the schedule
2. Name of target
   * Click title to edit target
3. Area for Optional Target Description – useful when filtering
   * Click area to show/collapse details
4. Manually refresh Target details from SkyX
5. Manual command to Close Loop Slew to target
6. Reset the Targets take series image counts – reset progress, no effect if repeating
7. Delete target (can need to do to delete a series)
8. Target toggle – off/disabled (not included in schedule)

## Target details

A screenshot of a cell phone

Description automatically generated

Figure - Target Details

## Target Editor - Sessions

A screenshot of a cell phone

Description automatically generated

## Target Editor – Constraints

A picture containing monitor, clock

Description automatically generated

## Target Editor – Focus

A screenshot of a cell phone

Description automatically generated

# Take Series

A screenshot of a computer

Description automatically generated

## Take Series - Editor

A close up of a computer

Description automatically generated

# Calibration Files

A close up of a calculator

Description automatically generated

# Toolbox:

A screenshot of a cell phone

Description automatically generated

# Cloud Report

A screenshot of a computer screen

Description automatically generated

# Settings

A screenshot of a computer

Description automatically generated

## Settings – TheSkyX Connection

A screenshot of a video game

Description automatically generated

## Settings – Guider

A screenshot of a cell phone

Description automatically generated

## Settings – Dithering

A screenshot of a cell phone

Description automatically generated

## Settings – Imaging Camera

A screenshot of a cell phone

Description automatically generated

## Settings - Focuser

A screenshot of a cell phone

Description automatically generated

## Settings - Rotator

A screenshot of a cell phone

Description automatically generated

## Settings – Filter wheel

A screenshot of a cell phone

Description automatically generated

## Settings – Default Constraints

A screenshot of a computer

Description automatically generated

## Settings – Clouds

A screenshot of a cell phone

Description automatically generated

## Settings – Default Start/Stop Time

A picture containing clock

Description automatically generated

## Settings – Artesky Flatbox

A screenshot of a cell phone

Description automatically generated

# Session Controls

A screenshot of a cell phone

Description automatically generated

# Backups

A screenshot of a cell phone

Description automatically generated

# Notes

## Location of all TheSkyX javascript files:

./bundle/programs/server/assets/app

## Default location of logs, skysafari, backup files:

Logfile = /Users/stephen/code/tsx\_cmd/logs/2020\_06\_06\_tsx\_cmd.log

DB Backup Folder = /Users/stephen/code/tsx\_cmd/backup/

SkySafari Settings = /Users/stephen/code/tsx\_cmd/skySafari\_files/

## Settings.json

Found in root of install directory:

{

"enable\_log": "yes",

"enable\_debug": "no",

"enable\_info": "no",

"enable\_warn": "yes",

"tsx\_cmd\_db": "tsx\_cmd",

"mongo\_port": "27017",

"tsx\_cmd\_server\_ip": "10.9.8.34",

"tsx\_cmd\_server\_port": "3000",

"removed-to-set-your-specific-directoy: skySafari\_files": "/media/odroid/PENSIVE2/skySafariSettings/",

"removed-to-set-your-specific-directoy: backup\_location": "/media/odroid/PENSIVE2/tsx\_cmd\_db\_backups/",

"removed-to-set-your-specific-directoy:tsx\_cmd\_log\_file\_location": "/media/odroid/PENSIVE2/tsx\_cmd\_logs"

}

## Do not enable debugging for complete imaging session

There is lots of data collected and it can consume too much memory on SBC: ODroid N2, RPI3, …