

SideKick Star

User Manual

Astrophotography Workflow Tool for Adobe Photoshop

1. Introduction

SideKick Star is an Adobe Photoshop script for astrophotography workflow support. It automates the repetitive processing and judgment calls of lighten-compositing, RAW development, and Milky Way enhancement. Designed for Japan's light-polluted skies and the reality of large file batches.

"Sidekick Star is not about selling a 'process' for astrophotography — it's about externalizing the 'judgment' that gets repeated every time."

Key features:

- RAW Development — Automated Camera Raw development (stack mode / Milky Way mode)
- Star/Milky Way Enhancement — Lch/ab channel boost via Lab color space
- Lighten Composite Stacking — Stack thousands of frames with lighten blending
- AI Airplane Trail Removal (STAC) — Automatically remove airplane and satellite trails

2. Installation

Extract the distribution ZIP and copy the entire Sidekick_Star folder to (the script runs from any location):

Windows:

C:\Program Files\Adobe\Adobe Photoshop 2025\Presets\Scripts\

Mac:

/Applications/Adobe Photoshop 2025/Presets/Scripts/

Folder structure:

Scripts/

Scripts/Sidekick_Star/

Scripts/Sidekick_Star/SideKick_Star.jsxbin Main script

Scripts/Sidekick_Star/SideKick_Star_EditBlockPSB.jsxbin PSB block editor

Scripts/Sidekick_Star/SideKick_Star_RecomposeLighten.jsxbin Lighten re-compose

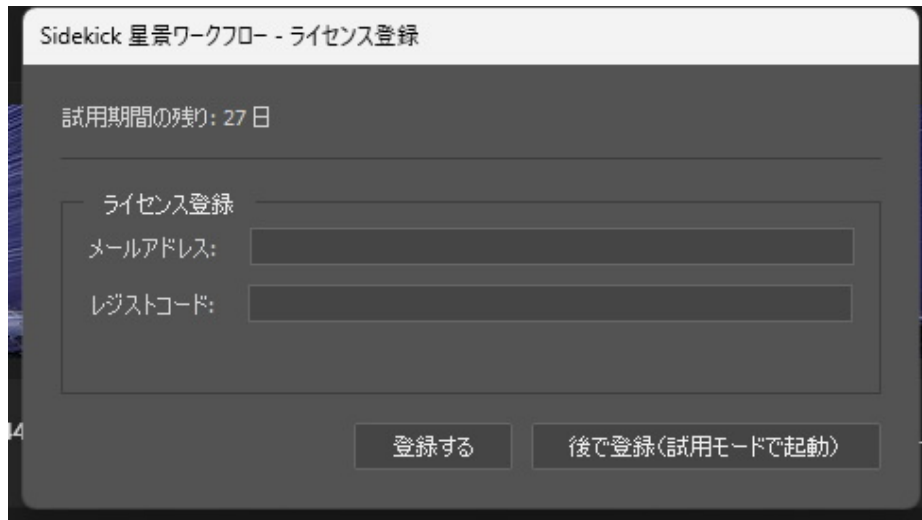
Scripts/Sidekick_Star/modules/

Right-click SideKick_Star.jsxbin → Open with → Adobe Photoshop. Check "Always use this app", then click OK. After that, double-clicking will launch Photoshop and run the script.

3. License Registration

On first launch, a license registration dialog will appear.

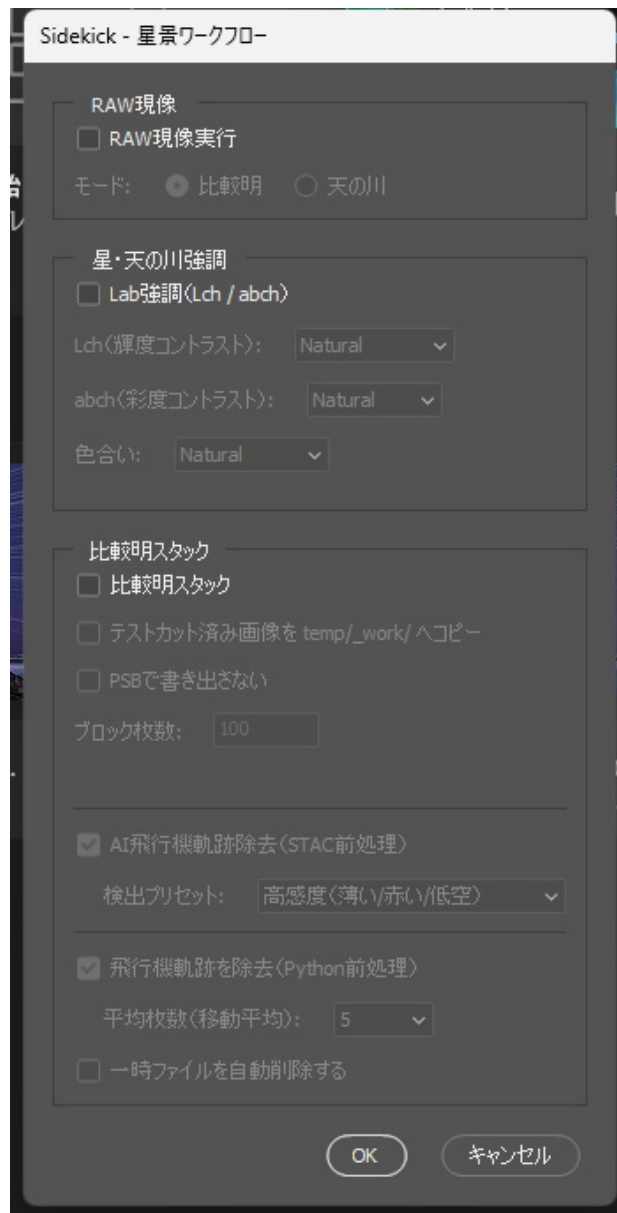
- Trial period: 90 days (full functionality)
- After purchase: Enter your registered email and license code, then click Register



License registration dialog (first launch)

4. Main Dialog Overview

Double-clicking SideKick_Star.jsxbn opens the Sidekick Star workflow dialog. Three independent panels let you enable only the processing you need, then click OK.



Main dialog (3-panel layout)

Note: [RAW Development], [Star/Milky Way Enhancement], and [Lighten Stack] are mutually exclusive — only one can be checked at a time. Uncheck the current selection before choosing another.

5. RAW Development

Automatically develops RAW files in a folder using Camera Raw. The development mode switches between stack and Milky Way workflows.

Item	Description
RAW Development (checkbox)	Enable this panel
Mode: Stack	Batch-develop frames before lighten stacking
Mode: Milky Way	Dual-WB layer method: sky and ground developed with separate WBs

6. Star/Milky Way Enhancement

Boosts luminance contrast, hue, and saturation in Lab color space (LabProxy method). Processing is applied only to the sky region via Sky-StarMask, leaving the ground unaffected.

Item	Description
Lab Enhancement	Enable this module
Lch (Luminance Contrast)	S-curve strength on the L channel Very Light / Light / Natural (default) / Strong / Hard
abch (Chroma Contrast)	a/b channel scale (saturation) Off / Light / Natural (default) / Strong / Hard
Hue	Hue shift via ab axis Off / Natural (default) / Warm / Cool / IR / NeutralG Automatically set to Off when abch=Off

7. Lighten Composite Stacking

Stacks multiple frames using lighten blending. Designed to handle thousands to tens of thousands of frames, with block-based processing, AI airplane removal, and automatic test-shot exclusion.

Item	Description
Lighten Stack	Enable this module
Copy to _work/	Auto-exclude the first exposure test shot; copy remaining files to _work/ (test-shot exclusion always runs)
No PSB Export	Block results can be exported as layered PSB files. Check this if PSB output is not needed (saves as PSD instead).
Block Size	Frames loaded into memory per block (default 100). Reduce if VRAM is limited
AI Airplane Removal (STAC)	Auto-detect and remove airplane/satellite trails before stacking
<input checked="" type="checkbox"/> Detection Preset	Sensitivity preset: 5 types (bright lines / high-sensitivity / dense trails / wide-angle / fine-tuning)
Airplane Removal	Reduces airplane trails and noise by averaging neighboring frames
<input checked="" type="checkbox"/> Window Frames	Number of frames to average (1-10)
Auto Cleanup	Automatically delete intermediate files after processing

8. Sky Mask Usage (sky.jpg)

Lighten composite stacking uses a sky mask to apply oil paint processing and ground noise reduction optimally to each region. The script can generate a sky mask automatically, but providing your own gives more accurate results.

■ What is a Sky Mask?

A grayscale image where sky is white and ground / mountains / trees are black. Oil paint processing (trail gap fill) is applied only to white areas; surface blur + unsharp mask ground NR is applied to black areas.

■ How to Create One

- Open one frame in Photoshop (a middle frame is recommended)
- Paint sky white and ground / mountains / trees black
- → Any method works: Quick Mask, Select & Mask, Pen Tool, etc.
- → Fully binary (pure black/white) is not required — gray edges work fine
- Save as sky.jpg (or sky.png / sky.tif / sky.psd)
- Place the file in the same folder as your RAW files



Original photo



Sky mask (white = sky / black = ground & mountains)

■ Automatic Handling

- On script run, sky.* is auto-detected in the image folder
- jpg / tif / psd files are auto-converted to grayscale PNG by Photoshop
- The converted file is saved as temp/AI_masks/sky.png for use
- If no sky.* is found, selectSky auto-generates one; if that also fails, the top 60% of the frame is used as fallback

Note: A sky mask is not required. One is generated automatically if omitted, but creating your own is recommended for complex ridgelines or bright ground light sources.

9. Example — Lighten Stack Before/After



Before (single frame)



After (lighten stack)

Star trail enhancement via 1,100-frame lighten stack. Sidekick Star automates this entire process.

10. Pricing

Price	¥9,800 (tax included, perpetual license)
Trial	90 days (no credit card required, full functionality)
License	1 license = 1 user (personal and commercial use OK)
After buy	License key sent by email (usually within a few days)
Contact	murata@mbg.nifty.com

11. Troubleshooting

Q: The script does not launch.

Try running Photoshop as Administrator. Or drag and drop the jsxbn file directly onto Photoshop.

Q: Camera Raw dialog appears.

SideKick Star uses Camera Raw for RAW development. It auto-closes normally, but a reset may occur after dozens of files are processed.

Q: Airplane removal (Python) does not work.

Python 3.x must be installed separately. The STAC (AI) removal method does not require Python and can be used as an alternative.

Q: The 90-day trial has ended.

Purchase a license, then enter your email and license code in the registration dialog.

Q: What RAW formats are supported?

Any RAW format supported by Camera Raw. Common formats: ARW / CR2 / CR3 / NEF / RAF / DNG / RW2 / ORF.

Q: What block size should I use?

100 frames is typical for 16 GB RAM. If processing is slow or crashes, try 50.

Q: Is commercial use allowed?

Yes, one license allows both personal and commercial use. However, 1 license = 1 user.

12. System Requirements

- Adobe Photoshop 2020 or later (including Beta)
- Windows 10 / 11 (64-bit)
- macOS 12 Monterey or later
- 16 GB RAM recommended (32 GB+ for large frame batches)
- Python 3.x (only required for Python-based airplane trail removal)

13. Support

For questions or issues, please contact:

murata@mbg.nifty.com