

ALL SKY CAM UPLOADER

Model ASC-U



Introduction:

Congratulations on your purchase of an All Sky Cam Uploader Kit! Please read the following important instructions before using the product.

Cautions & Warnings:

DO NOT CONNECT DIGITIZER TO PC BEFORE INSTALLING DRIVER!

This package is capable of uploading images to the public internet, for all to see. Do not use where there is an expectation of or need for privacy. To prevent divulging sensitive areas of the image, use the included Privacy Mask functionality.

Large amounts of data can be transmitted by the software. Use extreme caution when your internet access plan charges for bytes transferred or has a low monthly data cap.

The digitizer is not waterproof and may only be used indoors. Do not allow dew or rain on the digitizer.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Installation:

- 1) Insert installation disc in PC and follow prompts to install the digitizer driver and the ASC Uploader application. If the disc does not auto-run, navigate to the disc folder and double click the AutoRun.exe file. You may optionally also install the Grabbee application if you desire to record raw live video to a video file.
- 2) Connect All Sky Cam to the digitizer's yellow input cable.
- 3) Connect digitizer's USB cable to an available USB port on your computer. Wait for Windows to detect the digitizer and install the appropriate driver.
- 4) Start the All Sky Cam Uploader software and follow the setup wizard's instructions to enter your license key, and configure your latitude and longitude. The license key may be found on the paper CD sleeve.
- 5) If you have more than one capture device, you may need to select "USB 2820 Device" on the "Input" menu and restart the software.
- 6) Once you can see the All Sky Cam image, go to the "Settings | Image Center..." menu and tweak the target to be centered over the camera field of view. This is needed for proper operation of the panorama, reprojection, RA/Dec, and planetarium features.

Quick & Easy Uploading:

- 1) Click the "Uploads" menu, then "AllSkyCam.com...". Check the Enable box to signify your acceptance of the terms (see rear).
- 2) Click 'OK'. Then ensure that the "Uploads | Enabled" menu option is checked and observe the upload countdown in lower left.
- 3) Windows may request your permission for the Uploader to connect to the internet. Be sure to unblock access. It may also be necessary to grant ASC Uploader both http and ftp connection privileges in any firewall software.
- 4) Return to the "Uploads | AllSkyCam.com..." box and click the "Setup more options on website..." button.
- 5) In the web browser that pops up, create your account, entering an email address and password, and entering any basic data you want your public listing to display. Make a note of the web address of your camera, and share it with your friends!

Next Steps:

To upload to your own website, visit the "Uploads | Custom Upload Tasks" menu, and click the "New..." button. In case of problems, visit the "Uploads | Error Log" menu item for error messages describing the trouble.

To enable fireball meteor detection: visit the "Settings | Sky Mask..." menu and paint the area of the image that is the sky, free of obstructions like trees, buildings, or antennas. Then visit the "Settings | Motion Detection" menu and enable motion search. Note that a large number of false detections of clouds and noise can occur with higher sensitivity settings. We recommend keeping the system at lower sensitivity ("less detections") except for clear meteor shower nights.

For More Information:

Select the "Help | User Manual" option in the Uploader software for a complete description of features and usage.

AllSkyCam.com Uploading:

To enable the easiest possible uploading of images to the Internet, AllSkyCam.com was created to host images by Moonglow Technologies All Sky Cams.

To keep operation as simple as possible, and to ensure a consistency of presentation across all cameras, a limited number of options are provided. The options are as follows:

- **Enable Uploads, I agree** - Turns on uploads and signifies that you have read and agree to the AllSkyCam.com and Moonglow Technologies Terms & Conditions.
- **Items** - Choose from Low Bandwidth, Normal, or Deluxe.
- **Upload Summary of Day** - Enables upload of Summary of Day images.
- **Upload Interval** - Choose how often to upload images.
- **Overlay Logo (& choose file)** - Enables overlay of logo file in the lower right corner. Alpha-transparent PNGs are supported.
- **Overlay labels** - Enables overlay of labels.
- **Setup more options on website** - Takes you to the AllSkyCam.com account creation and maintenance webpage, to control the view as presented on the website.

Custom Upload Tasks:

To upload JPEG image files to your personal website or to save images elsewhere on your hard drive, use the Custom Upload Tasks feature. Up to 100 custom tasks can be defined. After clicking 'New' on the Custom Upload Tasks page, the following options are presented. Note that all custom tasks execute within a single thread, so that multiple image uploads will not choke your internet connection.

- **Description** - Enter a description of this task for your own reference in error messages, etc.
- **Upload Interval** - How often to run the upload, in minutes.
- **Offset from top of hour** - Actually the offset from midnight, this controls the exact phase timing of the upload within the interval.
- **Image Type** - Select the image mode to upload (raw, panorama, etc).
- **Movie Options** - Opens the Custom Movie box (see below).
- **Size** - Choose the pixel count of the image.
- **Quality** - Choose the JPEG file quality.
- **Overlay...** - Overlay options like timestamp, logo in lower right corner, etc.
- **Trail** - A powerful but simple feature for creating simple animations on a website, in combination with some javascript code (see below). Before uploading a new image, it renames the existing images to one higher number. So if trail is set to 3, the following files will be maintained on the website, in order of increasing age:
image.jpg
image2.jpg
image3.jpg
- **Destination** - Choose FTP or copy to directory.
- **Server** - FTP server. Do not include ftp:// or http:// in the server name.
- **Username** - FTP account username.
- **Password** - FTP account password.
- **Folder (Choose)** - Enter the folder on the FTP server or hard drive to copy the image to.
- **Filename** - Enter the filename.

Menu Item Descriptions:

File Menu

- **Save Still...** - Save a live image to a JPEG, BMP, or PNG file.
- **Exit** - Exits the application.

View Menu

- **Raw Video** - This is the raw video as received from the camera. It is a fisheye view, showing 360 degrees around the horizon. If the All Sky Cam was oriented with the 'N' engraved side to the North, then the top of the image will be to the North.
- **Panorama** - The video image is remapped into a panoramic horizon strip, showing approximately 30-40 degrees above the horizon and 360 degrees in azimuth. North is always at the left edge.
- **Reprojected** - The video image is reprojected using a Gnomonic projection to simulate the view through a non-fisheye lens. The pointing direction and field of view can be adjusted in the Settings | Reprojection dialog.
- **RA/Dec Map** - The video image is reprojected onto a Right Ascension and Declination square grid showing the entire sky. RA 24 hours is on the left, 0h on the right. Declination +90 is at the top, -90 at the bottom. The current mouse position is displayed on the

status bar. Note that due to any inaccuracies in the camera orientation and any distortions introduced by the glass dome, the mapping will be imperfect and does not replace a proper least-squares plate reduction.

- **Summary of Day** - Once per minute, ASC Uploader stores the central column of the camera view, going through the pole and zenith. This static image shows that column over the course of the past 24 hours. Midnight is on the left, noon in the middle. The status bar will indicate the time at the current mouse position.
- **Planetarium** - Switches the display to a simple planetarium showing the positions of stars, RA, Dec, and ecliptic lines, planets, and the Sun and Moon. The display matches that of the currently selected video view. Note that due to any inaccuracies in the camera orientation and any distortions introduced by the glass dome, the star positions will not precisely match the video view.
- **Directions** - This option overlays North, South, East, and West labels over the live video image.
- **Detected Stars** - To prevent scintillation from triggering a false motion detection, stars are automatically detected when motion detection is enabled. When viewing raw video, this option overlays the autodetected stars as red circles proportional in size to the star magnitude.

Archive Menu

- **Live Image** - Disables the archive viewing feature and returns the image to live video.
- **Back 1 minute / Ahead 1 minute** - Enables the archive viewing feature and jumps 1 minute from the current time. Note that archiving must be enabled for these options to work. The view mode (raw/pano/reprojected/radec/SoD) follows the currently selected view mode, if that mode has been archived.
- **Back 1 hour / Ahead 1 hour** - Enables the archive viewing feature and jumps 1 hour from the current time.
- **Back 1 day / Ahead 1 day** - Enables the archive viewing feature and jumps 1 day from the current time.
- **Jump to Date/Time...** - Opens a dialog box that allows you to view the image archive at a specified date or time. The image in the archive closest to that date/time will be returned.
- **Settings...** - Opens the Archive Settings dialog box. See the Settings help page for details.

Animate Menu

- **Live Image** - Disabled the animation viewing feature and returns the image to live video.
- **Last 5 minutes** - Displays a simple animation of the last 5 frames in the archive, to show recent changes in the sky. Double clicking an image will stop the animation on that frame.
- **Last hour** - Displays a simple animation of the past hour at a cadence of 5 minutes per frame.
- **Last day** - Displays a simple animation of the past day at a cadence of 30 minutes per frame.
- **Daily at time** - Displays a simple animation of the past 30 days at the same time each day. To choose a different time of day, use the Archive back/ahead options before enabling the animation.
- **Custom Movie...** - Displays a simple animation with user-adjustable frame count and interval. There can be a maximum of 60 frames.
- **Fast / Medium / Slow Speed** - Adjusts the frame rate of displayed animations to 5fps, 2.5fps, or 0.5 fps.

Uploads Menu

- **Enabled** - Globally enables or disables uploads to the Internet or scheduled file copies. Use this when you need to perform quick maintenance on the camera, such as cleaning the glass.
- **Custom Upload Tasks...** - Displays the Custom Upload Tasks dialog, where you can schedule periodic uploads or file saves. See the Custom Upload help page for details.
- **AllSkyCam.com...** - Displays the AllSkyCam.com dialog, to configure uploads to the AllSkyCam.com website. See the AllSkyCam.com help page for details.
- **Weather Underground...** - Displays the Weather Underground dialog, to configure uploads to Wunderground.com's webcam feature. See the Weather Underground help page for details.
- **Custom Schedule...** - Displays a text file showing three hours of scheduled image uploads, to show what time of day each item is configured to execute.
- **Error Log...** - Displays a running log of any problems encountered during uploads, such as unreachable servers, file generation problems, etc.

Settings Menu - See the Settings help page for more details on each dialog.

- **Image Center...** - Allows calibration of the routines that remap and reproject the fisheye image.
- **Latitude/Longitude...** - For motion detection and planetarium features to work, a reasonable knowledge of your location is required.
- **Orientation...** - Allows calibration of the camera's orientation, so that the RA/Dec mapping is more accurate. If your camera is not oriented north, visit this dialog to correct the direction labels.
- **Reprojection...** - Allows adjustment of the reprojected image position and vertical field of view.
- **Sky Mask...** - Required for good motion detection, the Sky Mask defines the area of the image that is clear sky free of obstructions like trees or buildings that would generate false detections.
- **Hot Pixel Removal...** - Nighttime images may have a number of hot pixels that are various colors. This feature allows them to be masked. Care must be taken to click the center of each pixel precisely for best results.
- **Privacy Mask...** - If you do not want a portion of the image to be uploaded to the internet, use this dialog to paint out part of the image. This is commonly used if you do not want to reveal whether you are home or not.
- **Label Image...** - Allows labeling of the image in generated files (labels do not show on live video.)
- **Motion Detection...** - Configures motion detection.
- **Video Input Standard** - Sets the input video standard of the digitizer, which must match the camera's video standard. For the All Sky Cam, be sure to select NTSC M.

Input Menu

- **(Digitizer List)** - A list of the available video digitizers. Please select "USB 2820 Device".
- **Video Adjustments...** - Allows adjustment of video contrast, brightness, saturation, etc.
- **Video Input** - Allows selection between the composite and S-Video inputs of the digitizer. For the All Sky Cam, select Composite.

Hardware Specifications:

Video system supported: NTSC 60Hz or PAL 50Hz interlaced, composite or S-Video
Interface: USB 2.0
Origin: Assembled and printed in USA, digitizer made in Taiwan.
RoHS compliant.

Software Requirements:

Operating System: Windows XP, Vista, or 7.
Processor: Modern 1 GHz+, with two or more cores recommended for motion detection.
Disk Space: Minimum 50MB, recommended 10GB+ for image archive.
Memory: 200MB free (typical usage is 30-50MB).
Internet connection: Always-on required.
Internet speed: For uploading, we recommend 20kbps+ upload speed.

End User License Agreement / Terms and conditions:

You agree not to reverse engineer, modify, circumvent, decompile, disassemble the software; nor lease, rent or export the software. The provided license key is valid for one (1) user on one (1) computer only. You may not share, export or lease the license key or make copies of the software or license key except as needed for backup of the hard drive. One (1) year of hosting is included with the purchase of this software, subject to the terms and conditions on allskycam.com/terms.shtml. Upon expiration of one year term, additional fee schedules may apply. Only all sky camera images pointed upwards may be uploaded. No lewd, indecent, illegal, profane, or abusive images or text may be submitted to the website. By uploading images to AllSkyCam.com, you acknowledge that the images are gathered from locations within public view, where any person or objects photographed have no expectation of privacy. You hereby indemnify and hold harmless Moonglow Technologies and AllSkyCam.com for third party copyright and privacy infringement. We reserve the right to discontinue hosting at any time, for any reason, without compensation or refund. We reserve the right to delete or modify any image or text, description, or labeling for any reason. You agree not to hold us responsible for any damages, consequential or otherwise. Installation, usage of the software, and/or uploading to AllSkyCam.com signifies your acceptance of these terms and conditions and the additional terms and conditions at <http://www.allskycam.com/terms.shtml>.

Correct Disposal of This Product:



(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicate that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. This product should not be mixed with other commercial wastes purchased this product, or their local government office, for details of where and how they can take item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. Household users should contact either the retailer where they for disposal.

Warranty:

Warrantor: Moonglow Technologies LLC

Elements of Warranty: Moonglow Technologies warrants, for one year of the original retail purchase owner, this Product to be free from defects in materials and workmanship with only the limitations or exclusions set out below.

Warranty Duration: This warranty to the original user shall last for one year of the original user. The warranty is invalid if the Product is (A) damaged or not maintained as detailed in the User's Manual (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Moonglow, or (C) serviced or repaired by someone other than Moonglow Technologies for a defect or malfunction covered by this warranty. This warrantee includes shipping to any point inside the United States. Insurance upon that shipping and/or international shipping and/or any customs and/or import duties attached are the sole responsibility of the owner.

Statement of Remedy: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will repair the defect and return it to you without charge for parts, service or any cost incurred by the warrantor in connection with the performance of this warranty. THE ONE YEAR WARRANTY SET FORTH ABOVE IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO THE PRODUCT AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Procedure for obtaining performance of warranty: Upon discovery of flaw, we require that the user communicate by telephone and/or email to the Moonglow Technologies Service department to report the failure of equipment. Should technical support be unable to resolve the conflicts of the product, it should be packaged in its original packaging and returned with evidence of original purchase and note describing defect to include owner contact information. The product should be shipped freight pre-paid by traceable means or delivered to warrantor at:

Moonglow Technologies, 149 NW County Road OO, Warrensburg, MO 64093 USA
<http://www.MoonglowTech.com> - 660-747-7782 - sales@moonglowtech.com