



Carlson.[®]
BREAK NEW GROUND

Carlson Photo Capture Drone Image Processing

Before you start, set up your account using an email address and a password

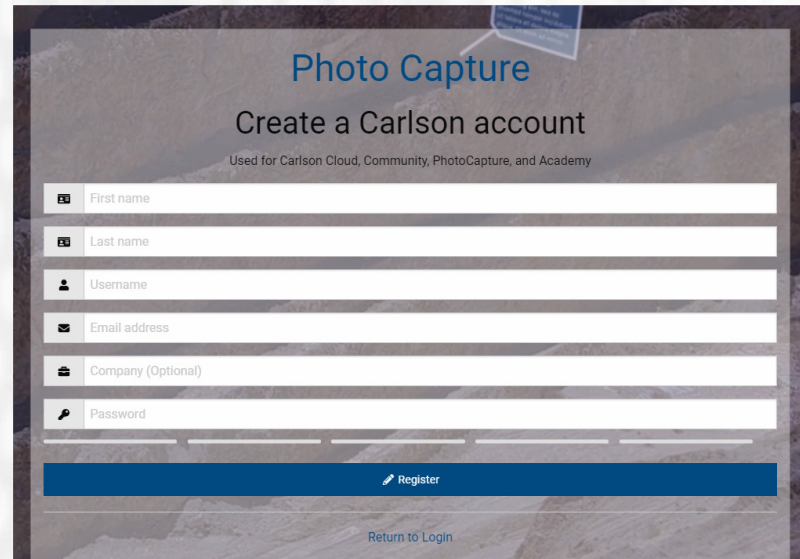


Photo Capture

Create a Carlson account

Used for Carlson Cloud, Community, PhotoCapture, and Academy

First name

Last name

Username

Email address

Company (Optional)

Password

Register

[Return to Login](#)

Then log in

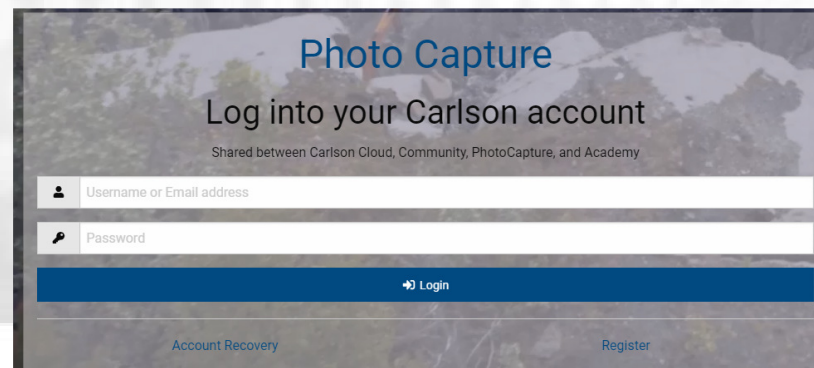


Photo Capture

Log into your Carlson account

Shared between Carlson Cloud, Community, PhotoCapture, and Academy

Username or Email address

Password

Login

[Account Recovery](#) [Register](#)


Click Launch to see your Dashboard

Click Create in the Project Tree at the upper left to start a project

Photo Capture

Profile Logout

Launch

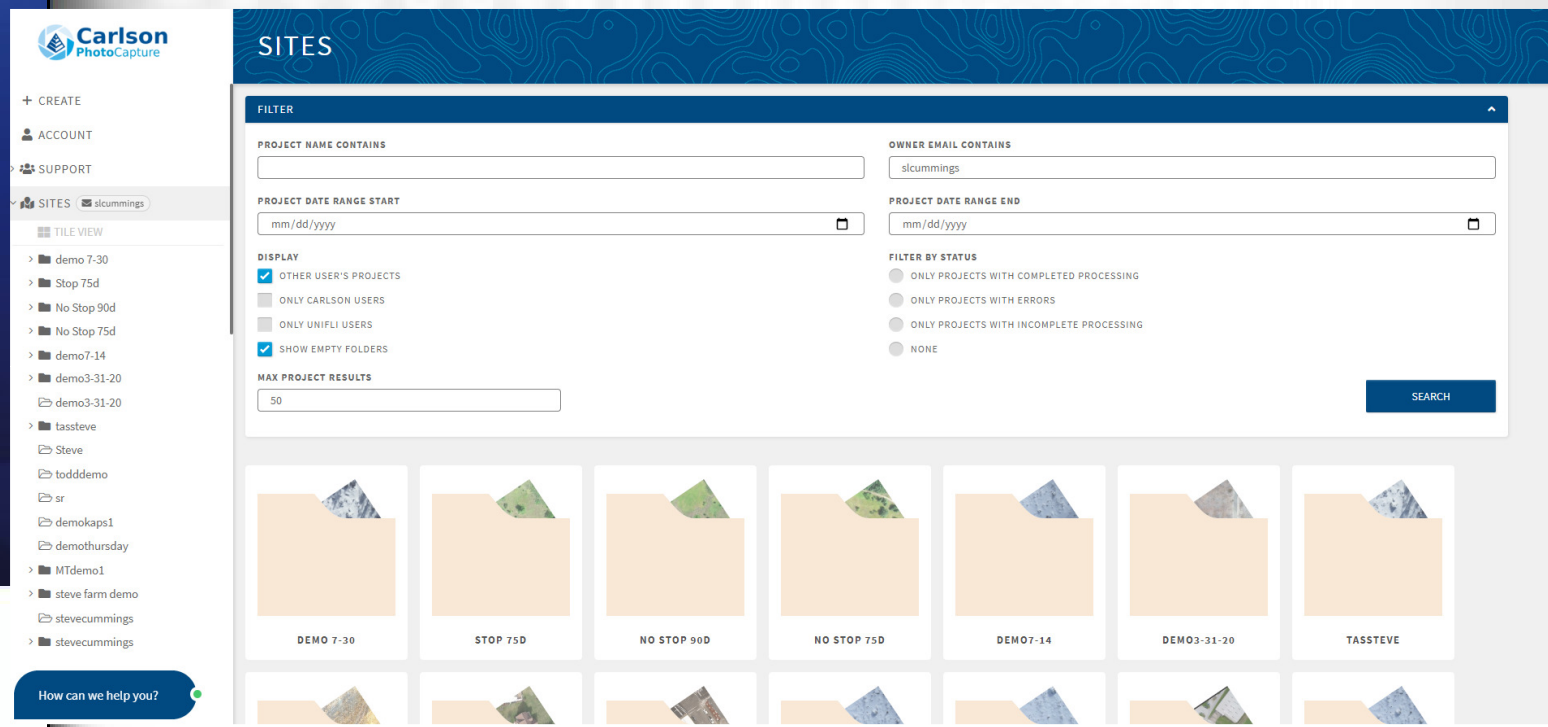


Subscription

Tier	
Expiration	1/31/22, 7:00 PM
Remaining	10GB

[Getting Started with Carlson PhotoCapture](#)

Some features are not supported by older versions of Internet Explorer. Chrome, Firefox, or Edge is recommended for best performance.



The screenshot shows the Carlson PhotoCapture web application interface. On the left is a navigation sidebar with the following menu items: + CREATE, ACCOUNT, SUPPORT, SITES (selected), and a list of project folders including demo 7-30, Stop 75d, No Stop 90d, No Stop 75d, demo7-14, demo3-31-20, demo3-31-20, tassteve, Steve, todddemo, sr, demokaps1, demothursday, MTdemo1, steve farm demo, stevecummings, and stevecummings. The main content area is titled "SITES" and features a "FILTER" section with the following options:

- PROJECT NAME CONTAINS: [text input]
- OWNER EMAIL CONTAINS: slcumings
- PROJECT DATE RANGE START: mm/dd/yyyy
- PROJECT DATE RANGE END: mm/dd/yyyy
- DISPLAY: OTHER USER'S PROJECTS, ONLY CARLSON USERS, ONLY UNIFLI USERS, SHOW EMPTY FOLDERS
- MAX PROJECT RESULTS: 50
- FILTER BY STATUS: ONLY PROJECTS WITH COMPLETED PROCESSING, ONLY PROJECTS WITH ERRORS, ONLY PROJECTS WITH INCOMPLETE PROCESSING, NONE

A "SEARCH" button is located at the bottom right of the filter section. Below the filter section, a grid of project folders is displayed, each with a thumbnail image and a label: DEMO 7-30, STOP 75D, NO STOP 90D, NO STOP 75D, DEMO7-14, DEMO3-31-20, and TASSTEVE.

Set up a project in Carlson Photo Capture by naming it, choosing the desired output unit of measure and the correct output coordinate system projection.

CREATE PROJECT

PROJECT DETAILS

NAME

Accident

OUTPUT UNIT OF MEASURE

US survey foot

OUTPUT COORDINATE SYSTEM

KENTUCKY SINGLE ZONE (FTUS) NAD83(HARN) (EPSG:3091)

ADD TO EXISTING SITE (LEAVE BLANK FOR NEW SITE)

PLATFORM



DRONE



AIRPLANE



OTHER

AVAILABLE PROCESSING

Progress bar showing 0.00 GB used and 20.00 GB available

Used: 0.00 GB

Available: 20.00 GB

NOTIFICATION SETTINGS

- ERRORS
- FINISHED PROCESSING
- PROGRESS UPDATES

MAP IMAGES BROWSE

SELECTED: 0 | 0

Pick the coordinate system by typing part of the location into the box, such as “India” and choose the desired projection

NAME

Steve

OUTPUT UNIT OF MEASURE

Meter

OUTPUT COORDINATE SYSTEM

India

- UTM zone 46N Indian 1954 (EPSG:23946)
- UTM zone 47N Indian 1954 (EPSG:23947)
- UTM zone 48N Indian 1954 (EPSG:23948)
- TM 106 NE Indian 1960 (EPSG:3176)
- UTM zone 48N Indian 1960 (EPSG:3148)
- UTM zone 49N Indian 1960 (EPSG:3149)
- UTM zone 47N Indian 1975 (EPSG:24047)
- UTM zone 48N Indian 1975 (EPSG:24048)
- India zone 0 Kalianpur 1880 (EPSG:24370)
- India zone I Kalianpur 1880 (EPSG:24371)
- India zone IIa Kalianpur 1880 (EPSG:24372)
- India zone IIb Kalianpur 1880 (EPSG:24382)
- India zone IIIa Kalianpur 1880 (EPSG:24373)
- India zone IVa Kalianpur 1880 (EPSG:24374)
- India zone IIb Kalianpur 1937 (EPSG:24375)
- India zone I Kalianpur 1962 (EPSG:24376)

Or drag and drop images into the image window and PhotoCapture will select the most current projection available

The screenshot displays the PhotoCapture software interface. On the left, there is a settings panel with the following fields:

- A text input field containing "Steve".
- A dropdown menu for "OUTPUT UNIT OF MEASURE" set to "Meter".
- A dropdown menu for "OUTPUT COORDINATE SYSTEM" set to "UTM ZONE 55S WGS 84 (EPSG:32755)".
- A text input field for "ADD TO EXISTING SITE (LEAVE BLANK FOR NEW SITE)".

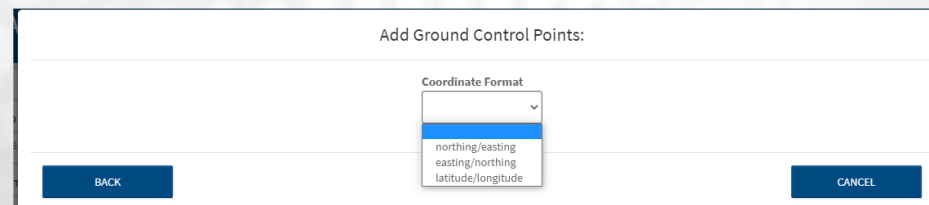
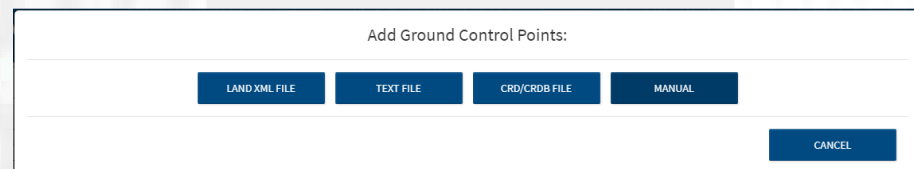
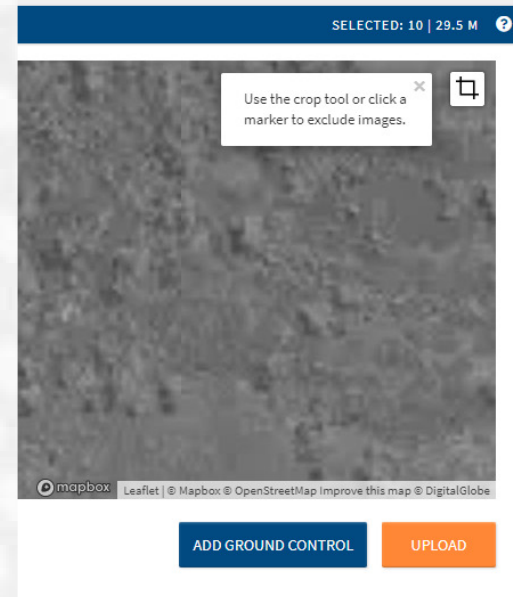
On the right, there is a control panel with three radio button options: "DRONE" (selected), "AIRPLANE", and "OTHER". Below these are three checkboxes, with the first two checked and the third unchecked. A "NOT" button is also visible.

At the bottom, there is a navigation bar with "MAP", "IMAGES", and "BROWSE" tabs. The "MAP" tab is active, showing a satellite-style map with several blue location pins. A zoom control with "+" and "-" buttons is located in the top-left corner of the map area.

**Use the crop tool or click images off to prevent uploading specific images. Blue – included
Orange - excluded**



Now upload a Ground Control File by clicking the **Add Ground Control** button, selecting the file type and the format



Browse to the file and select then click Finalize

Note that you see a list of Ground Control Points with the ability to make some checkpoints. Also note you can see the GCPs in the image window below

Add Ground Control Points:

Drag/drop file onto this modal or [browse](#) to upload your plain-text Ground Control file.

Ground control points must be provided as a plain text file (.txt, .csv, or .gcp extension) in the following format:

<Name>,<latitude>,<longitude>,<Elevation>

For example:
Red X,-42.6857053,98.5948348,1008.521
Black Circle,-42.6852053,98.5943248,1009.423

Specify latitude and longitude in **degrees** to at least 7 decimal places. Specify elevation in **meters** with 2 decimal places of precision.

[BROWSE](#)

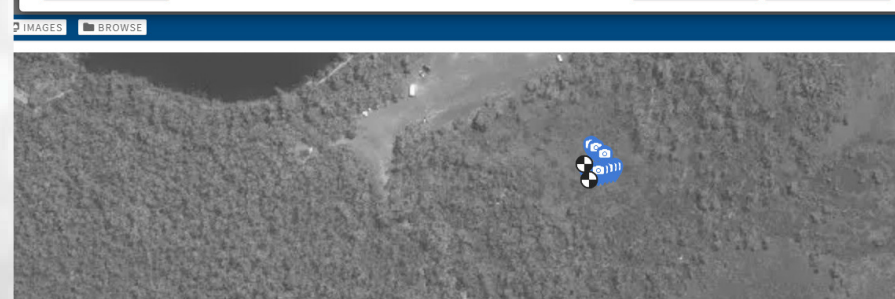
[BACK](#) [CANCEL](#) [FINALIZE](#)

Add Ground Control Points:

Click a GCP below to mark it as a checkpoint. These will not be used in the Aerial Triangulation, but will be used for independent cross-validation of 3D accuracy. Leave a GCP blank to exclude it from the project:

Description	GCP	Checkpoint
anything	<input checked="" type="checkbox"/>	<input type="checkbox"/>
whats up	<input checked="" type="checkbox"/>	<input type="checkbox"/>

[BACK](#) [CANCEL](#) [FINALIZE](#)



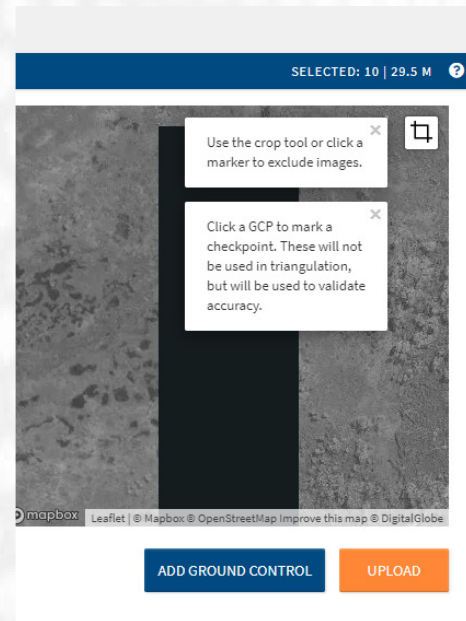
You are prompted to confirm you can see the GCPs in the image

Confirm:

Can you see your ground control points on the map? If not, you may need to change your projection.

NO YES

Then click the Upload button



One last chance for making corrections and adding any parameters to the Advanced Fields dialog by clicking the + or hiding these fields with the –

For RTK flights, input the GPS accuracy expected, found in the RTK specs, into the X, Y, Z boxes

Click the confirmation box at the bottom and click Create

PLEASE WAIT...

Zone:	UTM zone 55S
Earth Model:	WGS 84
Code:	EPSG:32755
Unit of Measure:	Meters

— Advanced Fields (optional)

Principal Point (mm)	Focal Length (mm)
xo: <input type="text"/>	<input type="text"/>
yo: <input type="text"/>	Min Stereo Models Per Point
Flight GPS Accuracy (meters)	<input type="text"/>
X: <input type="text"/>	<input type="checkbox"/> Run as single cluster
Y: <input type="text"/>	<input type="checkbox"/> Orbital dataset
Z: <input type="text"/>	<input type="checkbox"/> Confidential dataset
Demo Dataset Name	<input type="checkbox"/> Use alternate pipeline
<input type="text"/>	

The coordinate system and unit of measure above are correct.

**I acknowledge that my imagery must be within 60° of nadir and have at least 50% forward/side overlap

Images upload – don't close this window until all images are transferred

ACCIDENT

IMAGE UPLOAD

DETAILS

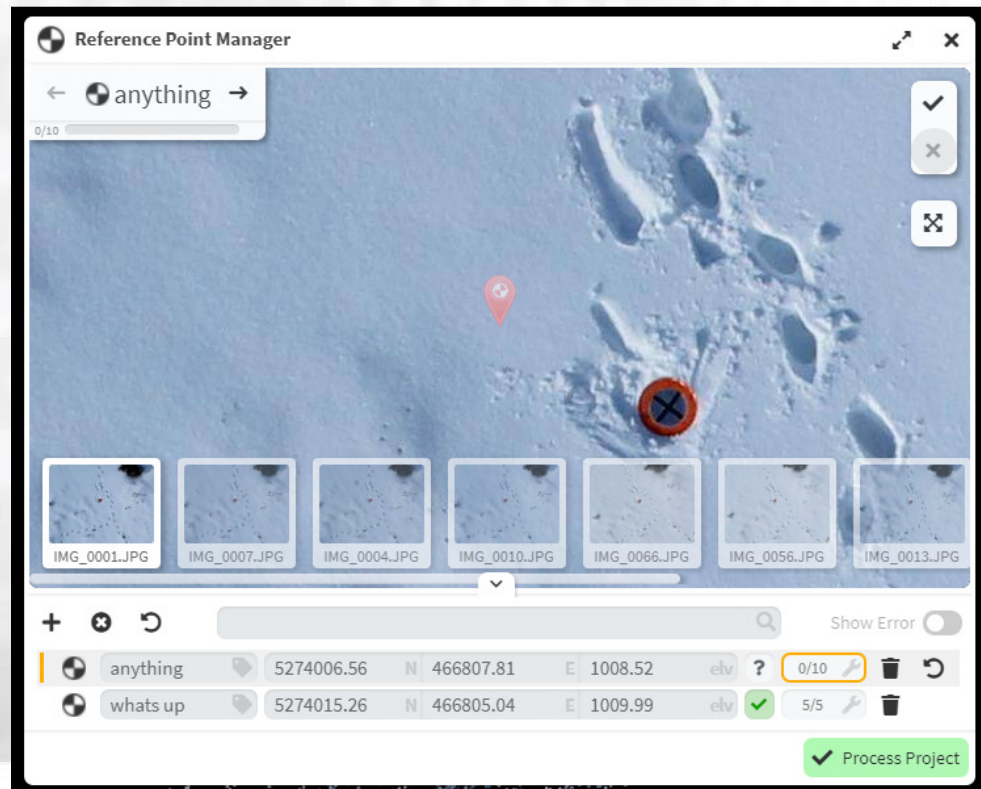
Digital Camera:	DJI FC6510		
Images:	7 of 111 (902.0 M)	100%	100%
Ground Control Points:	None		
Enabled Notifications:	Errors	Completion	Progress

BUNDLE ADJUSTMENT QUEUED 05/31/19 12:05PM

After some initial processing, correct the Ground Control Points

(GCPs are not required)

Move crosshairs to center of target and left click. If already in the correct position click the check in upper right. If you want to turn the tack back to red to skip this image's correction, click the x in the upper right. To expand the image, click the crossed arrows in the upper right. To move to the next image, right-click or click the image in the bottom row. Use the arrows at the top left to move from one GCP to another. Once completed, click "Process Project" in the lower right to continue.



After clicking the Process Project, you will be asked to confirm the processing changes.

Click the “Pause Processing...” box to stop the program at the Bundle Adjustment stage to review your error prior to producing the finished products. You can then add, delete, or modify gpcs over and over until you are satisfied with the results at no additional cost for online users.

CONFIRM PROCESS CHANGES

This will begin reprocessing your project with the new reference point data.

PAUSE PROCESSING AFTER REFERENCE POINT COMPUTE

CANCEL **PROCESS**

Note that even if the job is completed, you can still go back to the Processing Analyzer, click the gcp symbol in the upper left, change the gpcs and reprocess. At this point, online users will incur additional cost.

After final processing, products are ready for viewing and downstream uses

IMAGE UPLOAD	VIEW		05/28/19 09:56AM
BUNDLE ADJUSTMENT	VIEW	DOWNLOAD	05/28/19 09:56AM
DENSE POINT CLOUD	VIEW	DOWNLOAD	05/28/19 10:31AM
SURFACE MODEL	VIEW	DOWNLOAD	05/28/19 10:31AM
DIGITAL ELEVATION MODEL	VIEW	DOWNLOAD	05/28/19 10:31AM
ORTHOIMAGE	VIEW	DOWNLOAD	05/28/19 10:31AM
PROJECT REPORT		DOWNLOAD	05/28/19 10:31AM