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TRUEVIEW WEB UI USER GUIDE

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This document describes how to access the TrueView Web UI and use it. The TrueView Web UI provides the user interface (UI) for the TrueView payloads through any standard web browser. With the TrueView Web UI, the user can: monitor system operation, check on system readiness for data collection, and change settings. The TrueView Web UI also helps with troubleshooting by providing additional information about errors and issues.

TRUEVIEW WEB UI MAIN SCREEN

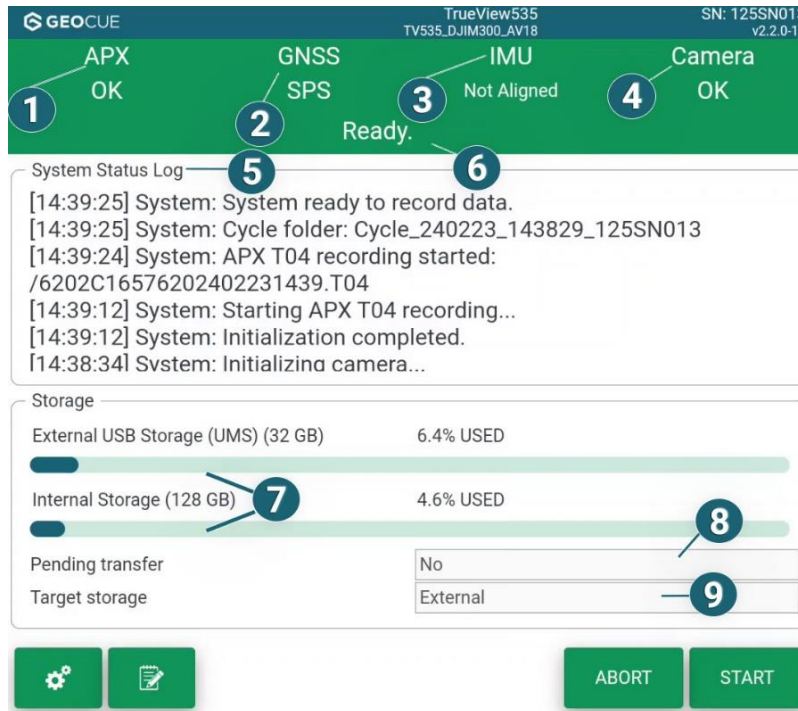


Figure 1. TrueView Web UI main screen

Item	Explanation
1. APX status	Indicates the current status of the APX.
2. GNSS status	Indicates if a GPS connection has been established.
3. IMU status	Indicates the status of the IMU. To make sure the operator can see if IMU alignment degrades, we highlight unaligned IMU with an orange warning color (For mobile mapping operation).
4. Camera	Indicates the status of the camera(s).
5. System status log	Provides details on the status of the payload. This is where error states will appear.
6. Current status	Indicates the current overall status of the payload.
7. External/Internal storage	Indicates how much internal or external storage has been used.
8. Pending transfer	Indicates if the data is ready for transfer.
9. Target storage	Available on systems that allow the user to write data to an external storage device, otherwise it will be disabled and default to internal storage.

Table 1. Summary of TrueView Web UI main screen.



ADDITIONAL TRUEVIEW WEB UI MAIN SCREEN SETTINGS

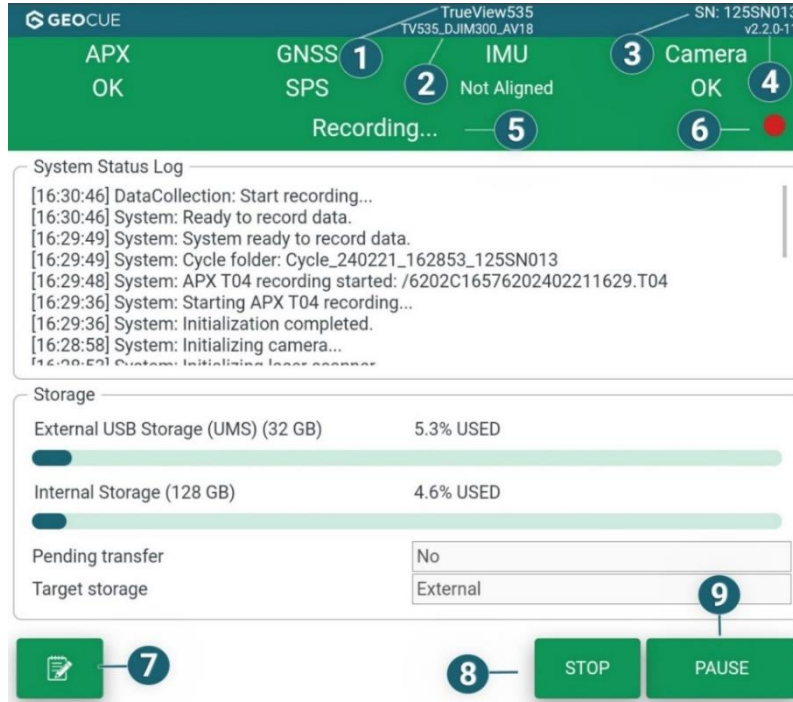


Figure 2. Additional TrueView Web UI main screen settings.

Item	Explanation
1. Payload Model	Indicates the type of payload.
2. Profile	Indicates the current profile loaded.
3. Serial Number	Indicates the Serial Number of the payload.
4. Firmware	Indicates the current firmware of the payload.
5. Status	Displays the status of the payload.
6. Heartbeat	Pulses red while a cycle is being recorded. When not recording, this will blink white.
7. Pilot Logbook	Allows notes to be added to a cycle folder.
8. Stop	Ends an active cycle followed by data transfer (if UMS is mounted)
9. Pause	Pauses data collection but allows for resuming the cycle later. This can be used during mobile mapping operation. For example: During a prolonged stop at a red light.

Table 2. Summary of additional TrueView Web UI main screen settings.



PILOT LOGBOOK

Notes can be added to a cycle pre-flight and will be saved in the cycle’s system folder. Template option (shown), allows the user to auto-fill common fields for use in a pilot log. If you click on the *Use Template* button in the bottom right of this dialog, you will see this autofill as reference below.

Pilot Logbook

Pilot Name:

Description:

Notes:
Date & Time Flown:
Mission Type:
Ground Conditions:
Weather Conditions:
Temperature (F):
Wind Speed (m/s) and Direction:
Flight Time:
Antenna Model:
Drone Model:
Drone Serial #:
Flight notes:

Cancel Use Template Save

Figure 3. TrueView Web UI Pilot Logbook.

Note: This log is stored in the Cycle\System folder available post flight. This is accessible in LP360 during post-processing of the sensor data. Please reference the [LP360 Drone Users Guide](#) for more information regarding this feature.



TARGET STORAGE

Some systems (TrueView 535) allow the user to write to the USB drive during the flight and when permitted this setting will be available in the Web UI settings page. If this feature is enabled in the TrueView Web UI settings page, the Target Storage will be set to **External**, meaning that any data that is written will be saved to the USB drive.

If the feature is disabled, the Target Storage will be set to **Internal**, and any data that is written will be saved to the internal storage of the system. In this case, if a USB drive is connected, the data can be transferred to the USB drive upon landing. If the USB drive is not connected, the data will be transferred after a power cycle.

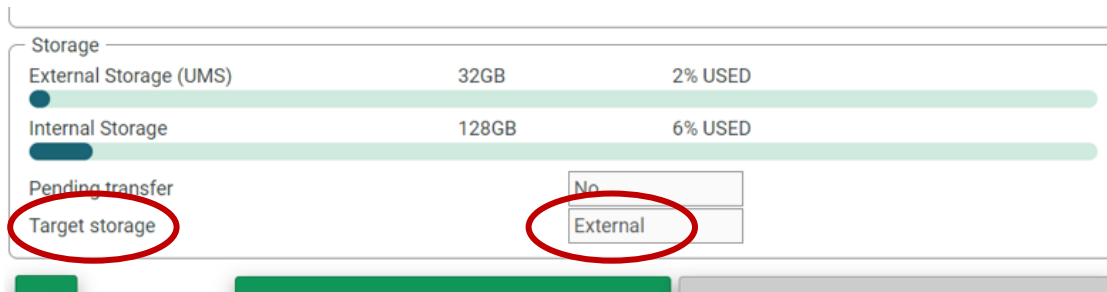


Figure 4. Target storage.

Additional storage progress bar provided for USB drives attached directly to LIDAR. Applies for all payloads using Riegl LiDARs. When USB drive or SD card is added to the Riegl LiDAR, progress bar is added automatically to the status page of Web UI. This gives a better overview to the user about used storage and helps estimate how much longer the recording will run.

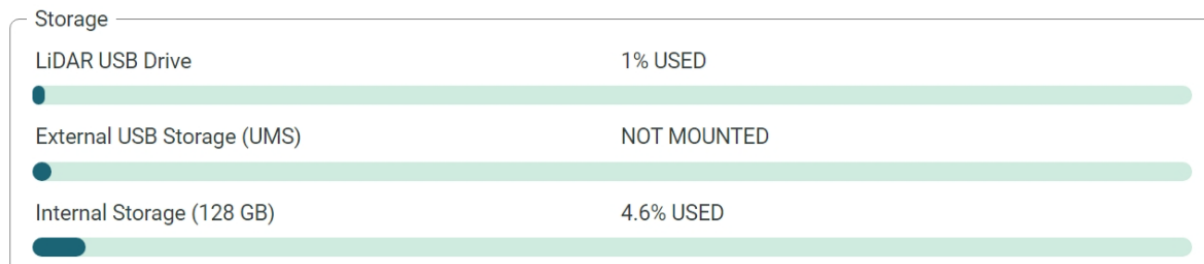


Figure 5. Target Storage - Riegl systems

Note: When the system is recording data, the External USB (UMS) will unmount. You will see the proper External USB (UMS) Drive storage amount when the data has finished transferring from internal storage or when the system is idle. For systems that write directly to the USB (TrueView535), the external storage will not unmount during data collection.



TRUEVIEW WEB UI SYSTEM SETTINGS

GEOCUE Settings

Profile

Saved profiles: = CURRENTLY ACTIVE =

Profile name: TV680_ALTAX_AV18_100M

Save profile on payload:

Delete profile from payload:

System

Disable WiFi:

Proximity Mode

Enable proximity mode:

Proximity distance [m]: 25

Reference to Primary GNSS Lever Arm

X [m]: 0.217000

Y [m]: 0.173000

Z [m]: -0.327000

Std Dev: 0.100000

Note: Recommended Std Dev is 0.1.
Note: In vehicle frame.

Sensor to Primary GNSS Lever Arm

X [m]: 0.217000

Y [m]: 0.173000

Z [m]: -0.327000

Std Dev: 0.100000

Note: Recommended to use the same values as for Reference to Primary GNSS Lever Arm.

Copy from "Reference to Primary GNSS":

LIDAR

FOV Low Angle: 120

FOV High Angle: 240

Note: FOV Angle 0° points upwards, increments clockwise.

Pulse Repetition Rate [kHz]: 1200

Limits: 0 kHz to 1200 kHz

Angular Step [Deg]: 0.06

Limits: 0.003° to 1.5°

Rotation Speed [Hz]: 200

Limits: 10 Hz to 200 Hz

Figure 6. TrueView Web UI system settings.

Note: Some fields applicable for specific system configuration type. Example: LIDAR field is only available for Riegl sensors.



PROFILE

SAVED PROFILES

This lists the profiles that are currently saved on the payload. Profiles are all available settings saved as a template to easily change parameters all at once. This contains antenna type, lever arm values, proximity mode and many other options. Please reference our [Payload Profile article](#) that reviews how to load and create these.

Note: To load exported profiles, the user must first access the advanced settings option. This is reviewed in the [Advanced Options section](#).

SYSTEM

DISABLE WIFI

This option can be used to enable or disable TrueView's internal Wi-Fi access point. Setting this option to disabled will prevent the Web UI from being accessed wirelessly.

SAVE DIRECTLY TO UMS

For some payloads, the firmware can now save all recorded data onto the approved USB drive directly in the flight. This saves time after the flight because no data transfer is needed.

This option is set by default on the TrueView 535 payload. If this option is not displayed, the payload does not support this feature.

PROXIMITY MODE

Allows the user to adjust the proximity mode and distance. This option is enabled by default and set to 25 meters. When proximity mode is active, a home point is created within the payload where it is powered on. It will automatically start recording data when the payload travels more than "Proximity distance" in meters X, Y, and Z from the home point. The system will automatically begin wind down when the payload re-enters the "Proximity distance" in meters X, Y, and Z from the home point and start transferring files to the UMS.

REFERENCE TO PRIMARY GNSS LEVER ARM

Allows the user to adjust GNSS Lever Arm settings. All fields in this section must be populated for the change to compute in the GNSS Lever Arm section. Round the lever arm to three decimal precision. If unsure, use 0.100 for Std Dev, as it provides good results in most common use cases.

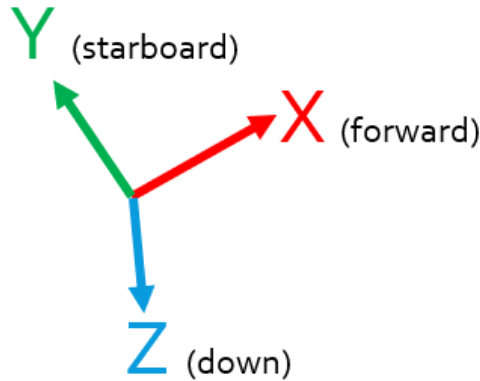


Figure 7. Reference point explanation

SENSOR TO PRIMARY GNSS LEVER ARM

Available for dual mapping mode settings. As referenced in the dialog, recommended to use the same values as for Reference to Primary GNSS Lever Arm.

LIDAR

Specific to Riegl systems, a calculator has been added to help the user calculate Pulse Repetition Rate, Angular Step, and other specific settings for Riegl LiDAR. Limits and options are adjusted automatically for each payload type. Incorrect values are highlighted red, and the system will refuse to save them. Please reference the [flight planning spreadsheet](#) from our [Flight Planning Guide](#) for information regarding these settings.

LiDAR

FOV Low Angle:	<input type="text" value="90"/>
FOV High Angle:	<input type="text" value="180"/>
<i>Note: FOV Angle 0° points upwards, increments clockwise.</i>	
Pulse Repetition Rate [kHz]:	<input type="text" value="100"/>
<i>Limits: 0 kHz to 300 kHz</i>	
<i>Note: 200 kHz and 360° FOV available with reduced power.</i>	
Angular Step [Deg]:	<input type="text" value="0.396"/>
<i>Limits: 0.018° to 0.36°</i>	
Rotation Speed [Hz]:	<input type="text" value="110"/>
<i>Limits: 10 Hz to 100 Hz</i>	

Figure 8. Web UI Settings - LIDAR section

HOME

Allows the user to return to the home page.



ADVANCED

Settings available for technicians or advanced troubleshooting.

LOAD & RESTART

Allows the user to change the settings. Make sure to Load & Restart every time a change is made. All fields must be populated for the change to compute in the GNSS Lever Arms section.



ADVANCED SYSTEM SETTINGS

Additional system settings can be accessed by clicking on the Advanced Tab at the bottom left of the Web UI settings page. A popup window will appear and ask for the necessary password to access these settings. The password is **tvadmin**. Once logged in, the additional advanced options are displayed.

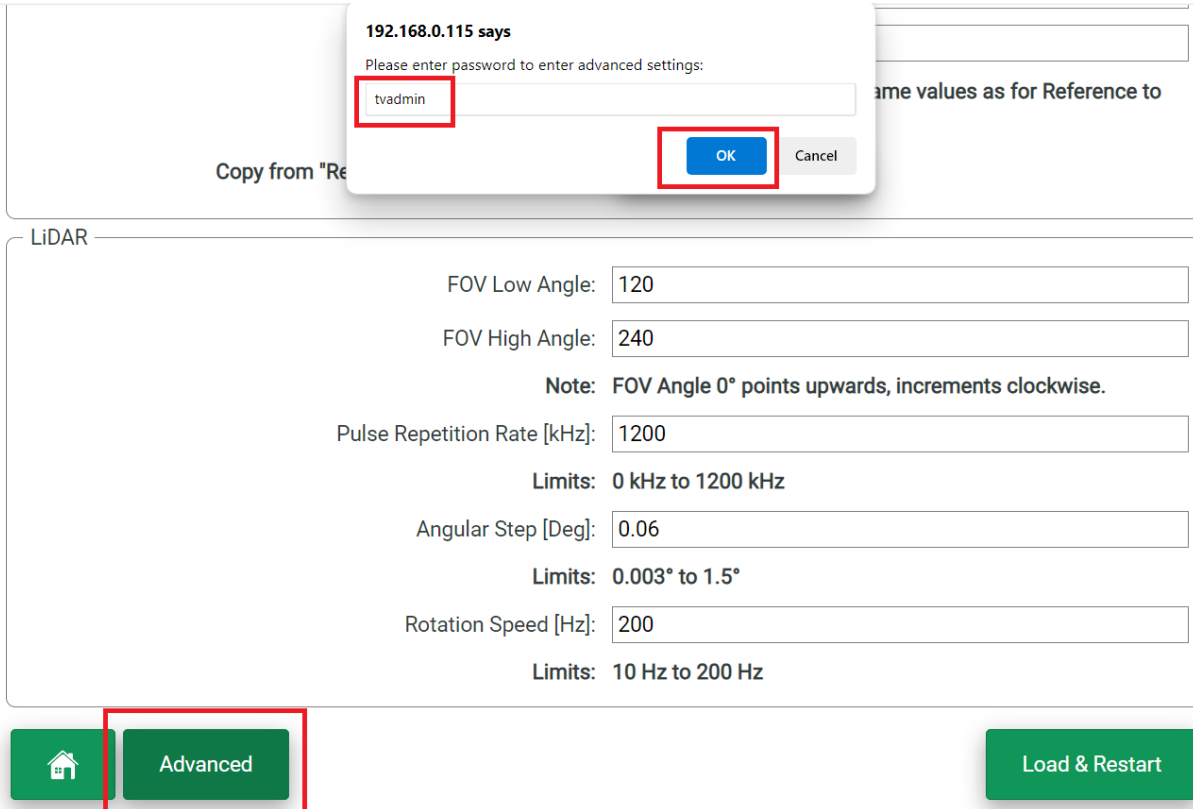


Figure 9. Entering password to access advanced settings options

PROFILE

Profile settings now include the ability to upload a saved profile to the unit. It's also possible to save a profile for storage and to potentially load onto other units in the future. Common profile settings for a variety of TrueView systems can be found in our [TrueView Payload Profiles](#) page.

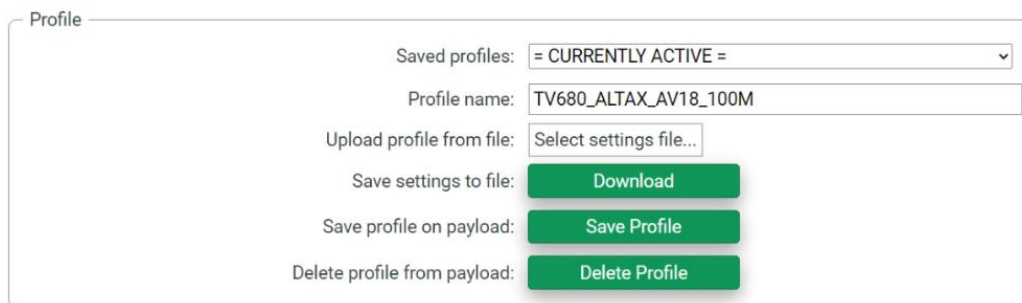


Figure 10. Advanced Settings - Profile



GNSS – AERIAL AND MOBILE MAPPING SETTINGS

GNSS

Static data collection timeout [s]:	<input type="text" value="60"/>
Antenna Type:	<input type="text" value="AV14"/>
Motion Type:	<input type="text" value="Mapping Vehicle"/>
Enable DMI:	<input checked="" type="checkbox"/>
DMI Type:	<input type="text" value="Quadrature"/>
DMI Scale Factor:	<input type="text" value="15"/>
DMI Scale Factor Std Dev:	<input type="text" value="0.1"/>

Figure 11. Advanced Settings - GNSS

STATIC DATA COLLECTION TIMEOUT

Pre-flight and post-flight static data collection can be configured through the Web UI. This adds a timeout during data collection and informs the user to not move the system. The static data collection can be used for APX magnetometer calibration or for mobile application.

ANTENNA TYPE

Should not need to be changed by default. If a profile needs an updated antenna type definition, this is user configurable between AV14 and AV18 antenna types. LV59 type is available for mobile mapping.

GNSS – MOBILE MAPPING SETTINGS

MOTION TYPE

Defines the type of platform that the sensor is being carried on. Can switch between aerial and mapping vehicle modes.

ENABLE DMI

Enables distance mapping sensor on compatible TrueView units.

DMI TYPE

Will define the type of encoder being used. This needs to be set properly for the type of DMI equipment used.



DMI SCALE FACTOR

This factor is used to adjust the raw data collected by the DMI (for example, the number of pulses from an encoder) into a meaningful and accurate distance measurement, considering the specific characteristics of the measurement system and the vehicle or device it's installed on. GeoCue will calculate and provide this value as part of the mobile mapping kit provided.

DMI SCALE FACTOR STANDARD DEVIATION

User configurable. If unsure use value 0.100 for Std Dev, as it provides good results in most common use cases.

CAMERA

DISABLE CAMERA

Enable to turn off camera image collection and perform a LIDAR only collection.

TRIGGER INTERVAL

Should be left to "Not changed" by default. Default setting is 1700 ms. This is user configurable if desired. Recommend not using a value that is a faster interval than the default setting.



ESTABLISH A CONNECTION

Choose your device to establish a Wi-Fi or Ethernet connection. Any computer, tablet, or smartphone can be used to connect the sensor using Wi-Fi. Make sure the device can connect to a 5.8 GHz Wi-Fi network.



NOTE

If a message appears reporting missing internet on this Wi-Fi connection confirm to stay connected on this Wi-Fi. This may happen with Android devices.

WI-FI CONNECTION

Once the payload initialization is complete the payload will provide a Wi-Fi access point. The SSID includes the payload name and serial number. Please contact [GeoCue Customer Service](#) if you cannot locate the payload serial number.

From your device, connect to the Wi-Fi with the SSID corresponding to your payload and enter the password and connect.

Password: **trueview**

When connected to the payload's Wi-Fi, open any web browser, and access the webpage for the sensor by typing any of the following URLs into your browser.

- <http://trueview.geocue.com>
- <http://10.0.0.1>



NOTE

If the browser fails to load the URL and defaults to https://, correct the URL and change the link to read http://

ETHERNET CONNECTION

Locate the debug cable provided with the payload and make sure it is connected to a computer and the debug port of the payload (see the appropriate TrueView Payload User Guide for details).

When connected to the payload's Ethernet, open any web browser, and access the webpage for the sensor by typing the following URL into your browser.

- <http://192.168.0.115>



NOTE

Make sure the Ethernet interface of the computer is configured to DHCP, the TrueView payload will automatically assign an IP so special configuration is not required.



DIRECT ACCESS TO INTERNAL MEMORY

This version adds an ftp server on the payload, which allows user to access the internal memory of the payload through Windows File Explorer. In the event you need to retrieve a specific folder or file that had not transferred properly, this option can be used to quickly access and transfer these files to the user's PC.

Note: Settings and data transfer should always be performed using recommended workflow techniques. Manual changes to internal memory performed incorrectly can result in data loss and unexpected system behavior. Only make changes when appropriate.

The connection works both for Wi-Fi and cable connection. Data transfer is faster through the Wi-Fi connection. Follow these steps to initiate the ftp connection from your Windows PC:

1. Make sure the payload is connected to the PC through Wi-Fi or cable.
2. Open Windows File Explorer and type the ftp address to the folder address line:
 - a. For Wi-Fi the address is: **ftp://tv.geocue.com/** or **ftp://10.0.0.1**
 - b. For cable connection the address is: <ftp://192.168.0.115>

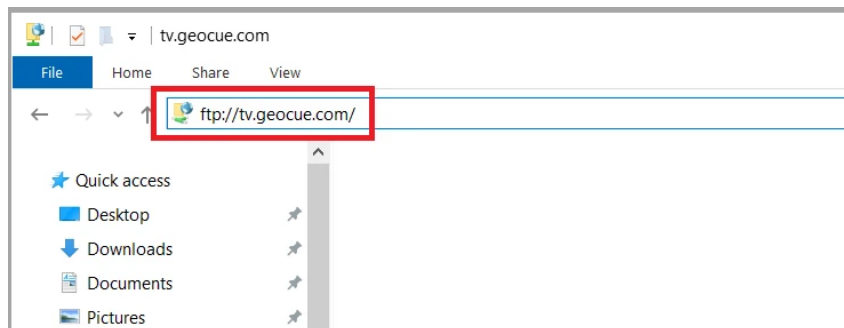


Figure 12. Direct access URL

3. Type the login credentials:
 - a. User: **admin**
 - b. Password: **tvadmin**

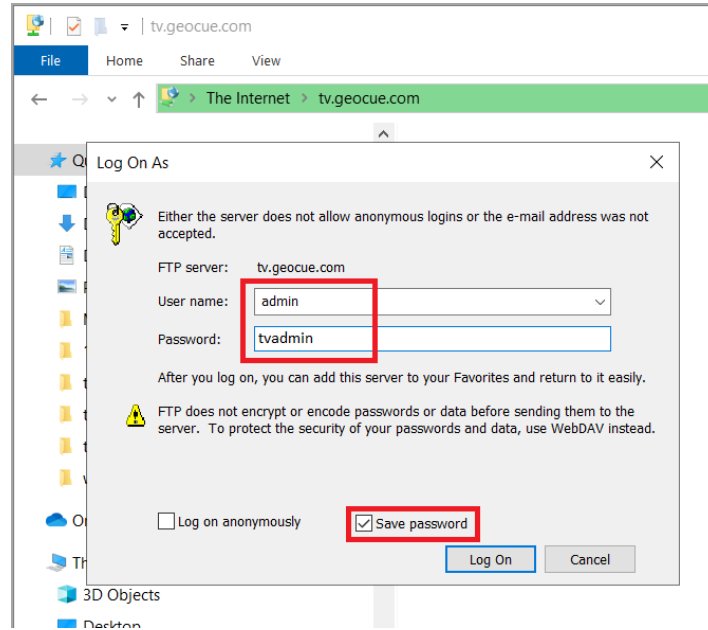


Figure 13. Direct access login credentials

4. The user should not be connected to the internal memory of the system. Files can be copied, deleted, and edited as needed.

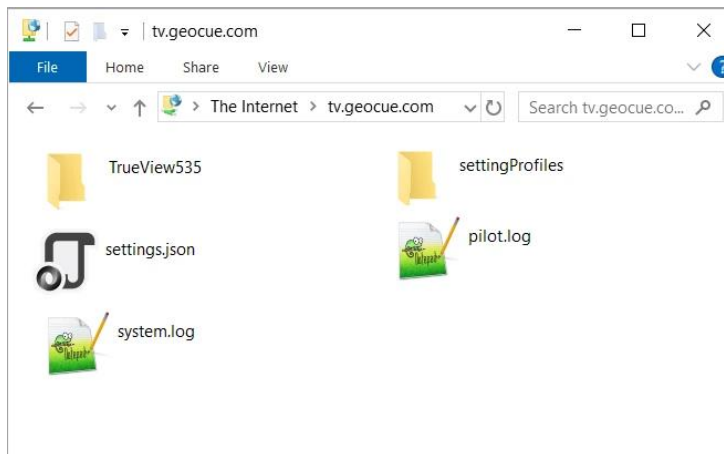


Figure 14. Direct access connected to internal memory



SUPPORT

Our searchable support knowledge base contains information on workflows, tips, hints, and probable resolutions to error messages or commonly encountered situations.

<https://support.geocue.com/>

Normal support business hours are **Monday - Friday, 8 AM — 5 PM** USA Central Time.

Our GeoCue Support website contains general workflow information, in addition to specific issue and error messages that you may encounter. Click on the link and search for information contained in the knowledge base.

If a support request is sent during business hours a representative will typically get back to you within 4 hours. If received after hours, a response will be sent the following day. To speed response time please include the following information in your request:

- Contact information - please include e-mail address and phone number
- Company name
- Product name and version number
- True View Model and Serial Number

If your request includes problems pertaining to a specific error message, please include a screenshot of the error message.

For hardware and software support contact: support@geocue.com



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