

User Manual
admetec flamingo

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1. Flamingo Camera System

1.1 Product Overview and Components

Flamingo is a high-definition camera that is designed to capture visual records in dental and surgical environments.

The Flamingo camera kit consists of the following components:

1. Camera & light module
2. Camera module cable to MCU
3. Charging stand
4. MCU with 2 batteries
5. AC/DC adaptor
6. Wireless Pedal
7. Power cable to the AC/DC adaptor
8. Pedal Type-C charging cable
9. Screwdriver
10. Frame-temple adaptor for cable
11. Clothing cable-clip
12. Wi-Fi USB dongle and USB-A adaptor
13. External composite (Yellow) filter
14. Extra lens (if ordered)
15. White balance / Focus Card



1.2 Assembly Instructions

low these 5 steps in order to assemble the Flamingo camera system:



1. Begin by removing the protective foil from the battery terminals.



2. Align and insert the battery into the power pack, ensuring the terminals correspond with the orientation depicted in the illustration.



3. Connect the camera cable to the power pack using the Type-C connector.



4. Connect the opposite end of the camera cable, the micro-USB connector, to the camera module.



5. Secure the camera onto the loupes frame and route the camera cable along the left temple of the frame.

2. Power Pack and Camera Functions

2.1 Activating and Deactivating the Camera

Press the **ON/OFF** ① button located on the Power Pack under the Camera section to turn the Camera on.

- The Flamingo logo on the **Control Unit** is illuminated in white.
- A blue light begins to flash, indicating the system is loading.
- Once the system is ready, the flashing stops, signaling readiness for connection with Flamingo software on your computer.



Turn off the camera by holding the **ON/OFF** button for three seconds.

2.2 Activating the Lighting Control

Activate the light by pressing the **ON/OFF** button ① in the Light section. Modify the brightness using the **+** or **-** buttons.

Press the **ON/OFF** button ① again to turn the light off.

NOTE: For convenient control, a button on the cable also toggles the light's **ON/OFF** function.



2.3 Battery Charging

1. Connect the AC/DC adapter to the charging stand. A blue LED indicates the charger is ready to receive the battery.
2. Place the battery in the stand. A red light indicates that the battery is charging. A green light indicates the battery is fully charged.



2.4 Checking the Battery Level

Press the **Check** **1** button in the **BATTERY** section to display the charge level. Each of the five LED bars represents roughly 20% charge.

NOTE: If the battery is very low, the camera may not function. Replace the battery with a charged one and reconnect the camera.



3. Setting Camera Focus and Aligning the Field of View

Flamingo integrates camera and light in a single unit, designed with a 2-degree angular offset. This ensures the camera's focus and the light beam converge at a standard working distance of 45-50cm, providing clear and focused illumination at the center of the viewing area.

3.1 Focus Adjustment

1. Determine the actual working distance of the loupes by measuring with a measuring tape or ruler.
2. Place the Focus Card at the same distance from the camera as your working distance.
3. Rotate the camera's outer ring until the object appears sharp and clear in the Flamingo software.



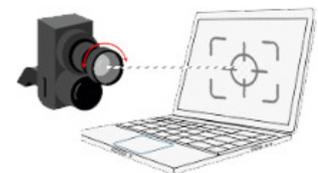
1

Measure the working distance - from the loupes to the work area



2

Aim the Flamingo camera at the same distance in front of an object. and connect to the Flamingo software



3

Adjust the camera's outer ring until the image appears sharp and clear on the screen

3.2 Centering the Camera's Field of View (Requires Assistance)

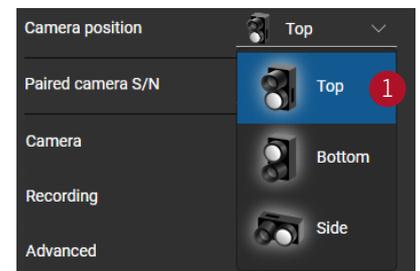
1. Mount the camera on the loupes.
2. Focus on an object, centering it in your view along both the horizontal and vertical axes.
3. An assistant should then adjust the camera until the object is located in the center of the Flamingo application.
4. Secure the camera's position by tightening the mount screws.



3.3 Flamingo Super Connector

The Super Connector integrates multiple functions into a single connector:

- **Rotating mode** - the camera position can be modified to suit the user's preference, with the software adapting accordingly:
 - **Top** camera on top, recommended for Ergo users, cable exit from the right side of the user 1.
 - **Bottom** camera on bottom, recommended for Galilean/ Prismatic users, cable exit from the left side of the user 2.
 - **Side** for video format of 9:16
- Option for centering the camera on both the horizontal and vertical axes
- Extender mode in Normal mode (replacing the need for the Ergo Extender adapter) for users who use a yellow filter with Ergo loupes.



4. Flamingo Software Configuration Guide

Download and install the Flamingo software through the following URL:
<https://www.admetec.com/flamingo-loupes-camera/>

4.1 Minimum System Specifications

Flamingo software is designed to handle the real-time processing of high-definition videos. This requires a computer that meets the following specifications:

Minimum PC requirements:

- Operating System – Windows 10 or above.
- Processor (CPU) – Intel Core i5 or superior, or AMD Ryzen 5 or higher.
- Graphics – An integrated graphics card.
- Memory (RAM) – Minimum 8GB.
- Storage – A minimum of 250GB available on an SSD.
- USB Port – One available USB 2.0 or 3.0 port.

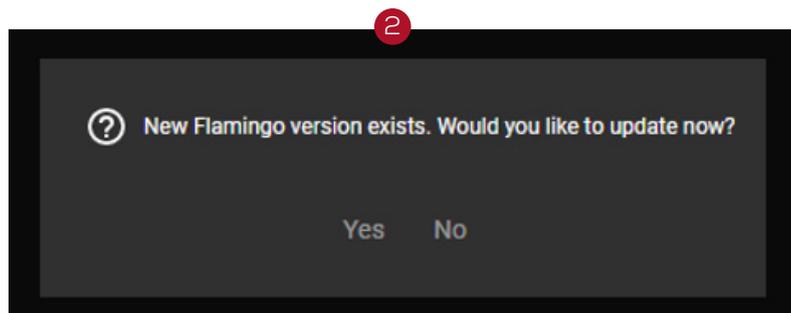
Minimum Mac requirements:

- Mac Operating System- MacOS 12 Monterey
- Minimal hardware requirements:
 - For Apple Silicon Macs - M1, M2, M3 and newer
 - For Intel Macs - Intel i5 with 8GB RAM and USB-C port

Upon starting, the Flamingo software automatically checks your system's CPU, RAM, storage, and GPU to ensure they align with the necessary specifications, alerting you to any mismatches.

4.2 Software Updates

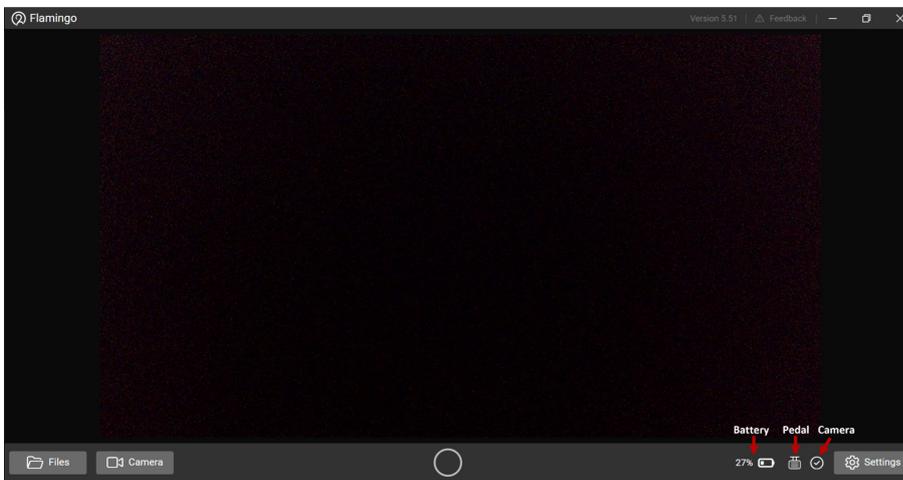
When updates are released, Update available will appear in the upper right-hand corner of the Flamingo application **1**. The Flamingo app checks for updates on startup and prompts you to install updates when they become available **2**. It's recommended to always update to the latest available version.



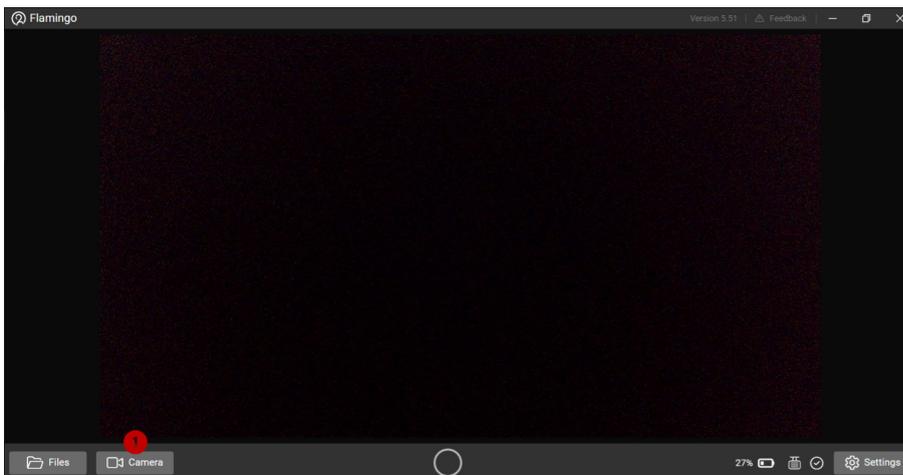
5. Camera Connection

5.1 Establishing a Connection with the Camera

1. Connect the Dongle to the computer.
2. Press the **ON/OFF** button on the Power Pack (refer to section 2.1). Wait until the blue light stops flashing.
3. Launch the Flamingo application and check the connections (Battery, Pedal, Camera- shown in the picture below with red arrows) are secure by ensuring their icons are white in the app. White means connected; gray means disconnected.



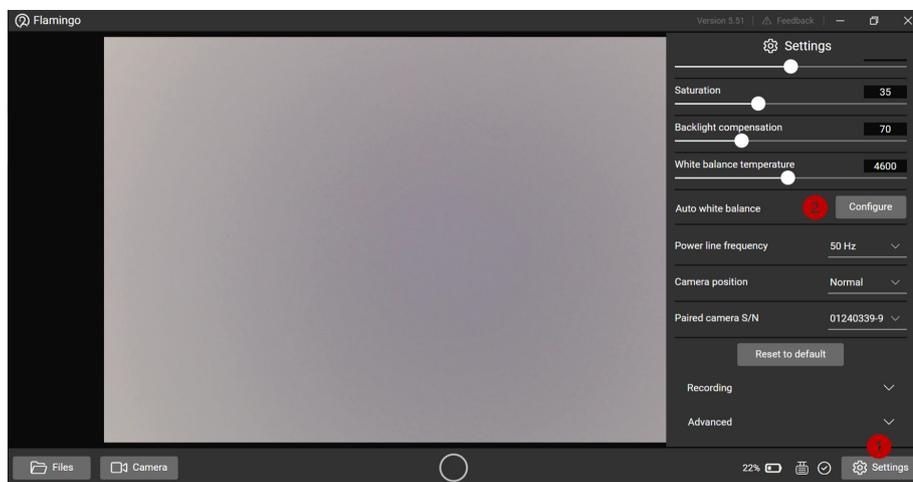
4. Click the **Camera** button **1** to begin the video stream from the camera.



5.3 White Balance Recalibration

If white objects do not appear true to color, recalibrating the white balance may be necessary.

1. Focus the camera on the White Balance Card, and navigate to **Settings** ① within Flamingo.
2. In the **Auto white balance** section, click Configure ②.
3. Keep the camera steady on the white target for three seconds to allow for recalibration.



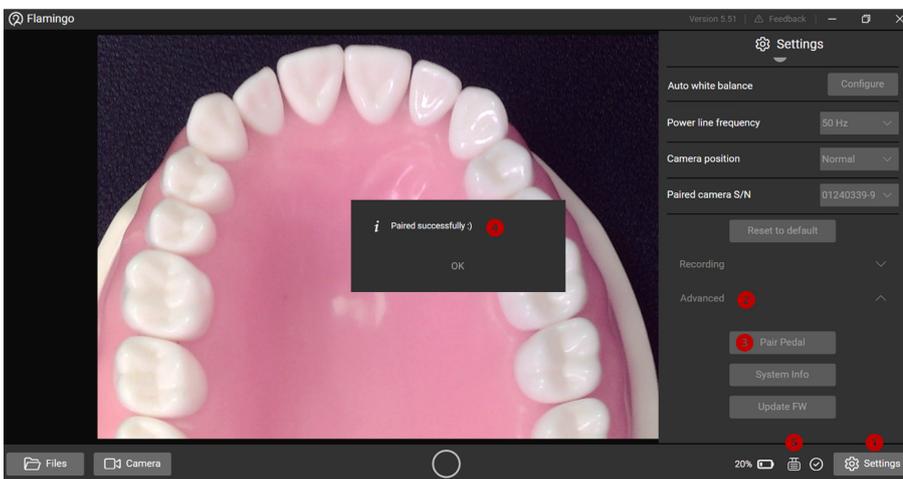
5.2 Pedal Usage

Each Flamingo camera system includes a **pre-paired pedal**. The pedal provides hands-free control during procedures, enabling you to pause and resume recordings along with audio cues indicating the recording's status.

While the pedal can control recording actions like pause and resume, entering or exiting the recording mode must be performed through Flamingo software on the computer.

If, for any reason, there is a need to repair the pedal again:

1. Press the **Pair** button on the backside of the pedal and wait for the blue light to flash:
2. Select **Settings** ① within Flamingo.
3. Press **Advanced** ②
4. Click **Pair Pedal** ③
5. Upon pairing, a notification of "**Paired successfully**" will appear ④
6. Check the Pedal icon- white ⑤ means the pedal is connected.



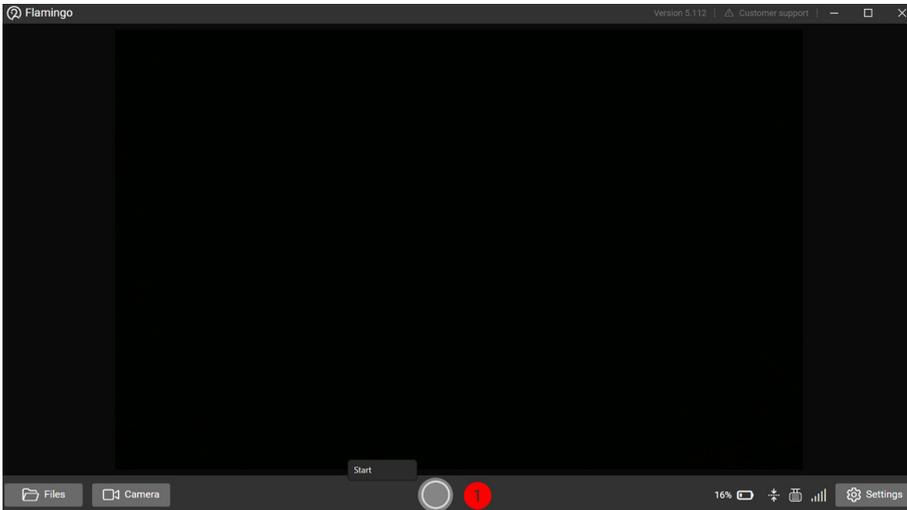
NOTE: If the button does not flash blue, the pedal's battery may be empty.

Please connect the pedal to a computer using the included USB Type-C cable to charge it before attempting pairing.

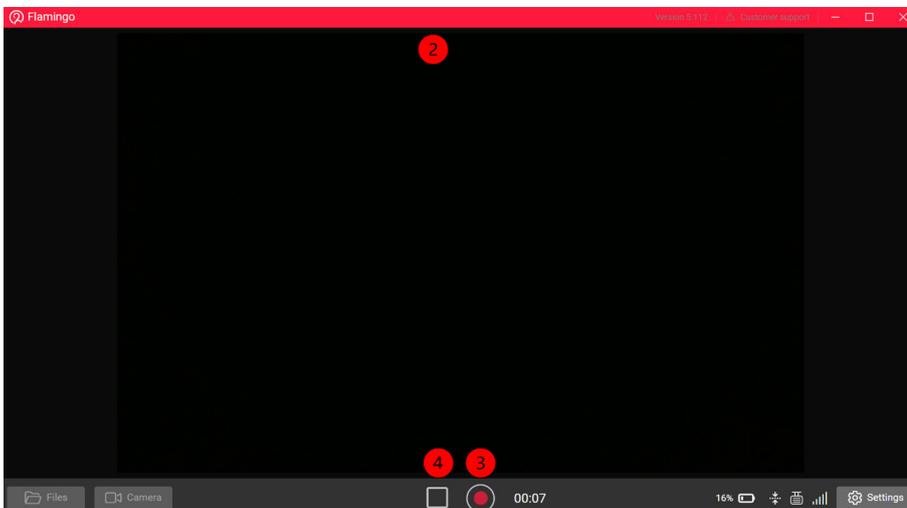
6. Video Recording

6.1 Starting Video Recording

1. Click the **circular** button ① in the bottom center to start recording.



2. Upon starting the recording, the button will flash, and a red bar ② will appear at the top of the screen to indicate active recording.

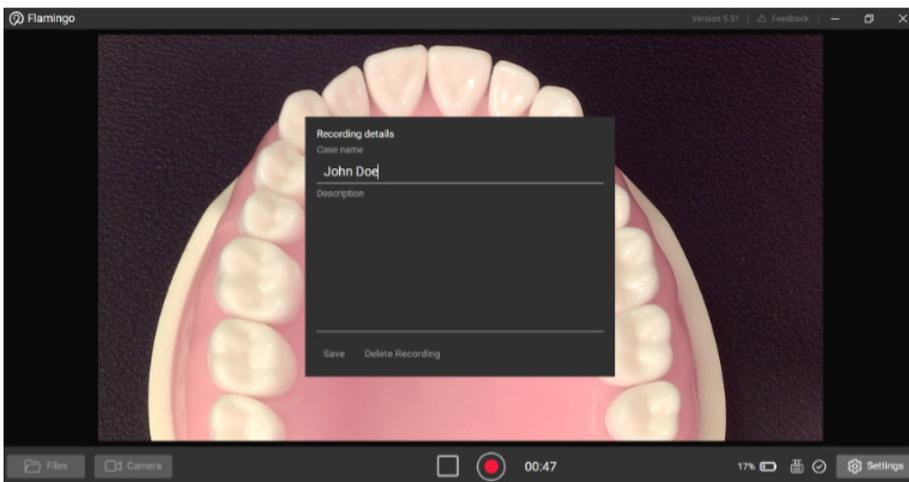


Optionally, use the Pedal for hands-free control to start and pause the recording.

Alternatively, press and hold the REC button for 3 seconds to activate Recording mode.

- Upon entering REC mode- the light will flicker red to indicate entry into REC mode.
- During recording, the light will maintain a steady red signal.
- Upon exiting REC mode- the light will turn off.

3. During the procedure, pause and resume recording as many times as needed by clicking the **Start/Pause recording** ① button or using the pedal.
4. To finish and save the recording, click the **Exit Recording Mode** ③ button.
5. The system will prompt you for a recording name and description before saving it to the Flamingo repository.

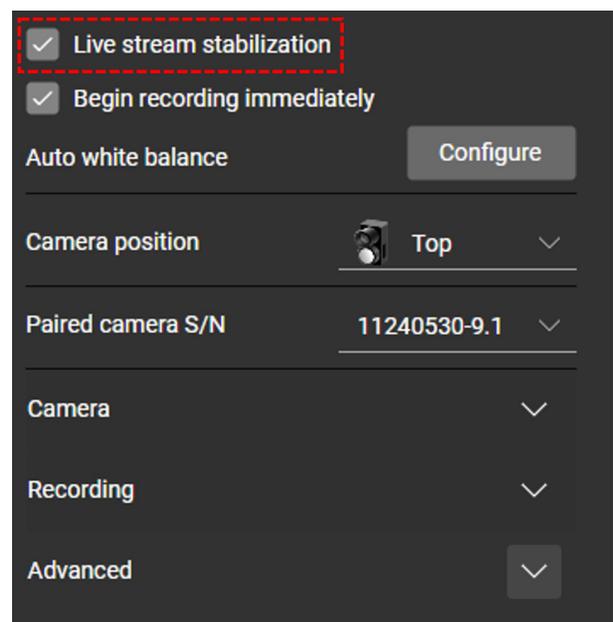


6.2 Video Stabilization

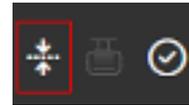
Video stabilization allows for smoother, more stable video footage, which improves the quality of your video documentation.

Live Video Stream Stabilization

Under Settings, select "Live stream stabilization" check box:



After the Live stabilization has been activated, the indicator on the bar below will turn white (marked with a red square).



This feature requires a modern PC and has been shown to be compatible with recent Mac models (M1+) and Intel/AMD CPUs released in the past 4 years.

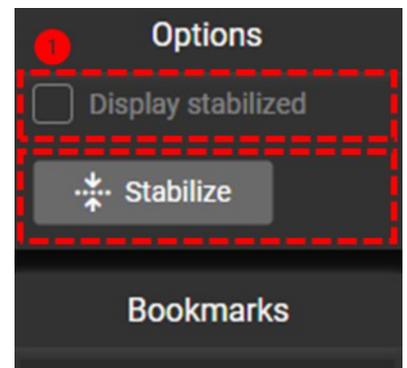


Live stream stabilization will be disabled automatically if there is not sufficient computing power on the PC and the indicator will turn grey (marked with a red square).

Offline Video Stabilization

You can now apply stabilization to recorded videos. In order to stabilize videos recorded without “live streaming stabilization”, click the “Stabilize” button.

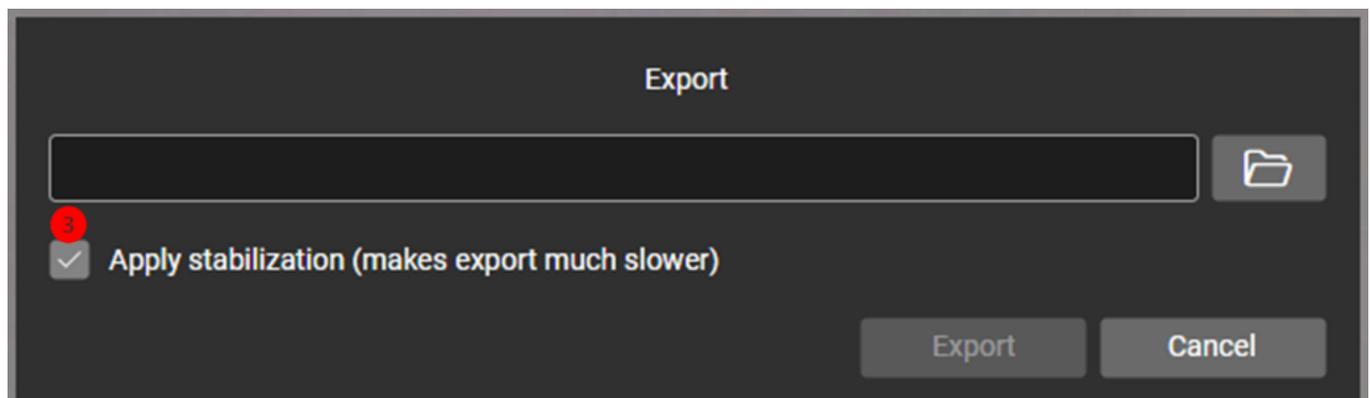
Once the video has been stabilized, you can choose whether to display it with or without stabilization by clicking on the “Display stabilized” checkbox (marked as 1).



This feature works on all computers, though older models may experience slower processing times. On newer computers, stabilizing a 60-minute video is expected to take around 20 minutes.

Flexible Export Options

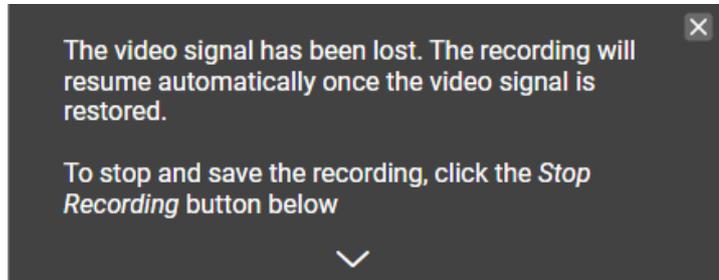
There is the option of exporting either the original video or the stabilized video. If you wish to export the video with stabilization, click the Export button (marked as 2), select the file you wish to save it in, and then check the "Apply Stabilization" option (marked as 3).



Please note that exporting stabilized videos involves re-encoding and may be time-consuming, depending on your PC's specifications.

6.3 Recording Interrupted

If the camera disconnects during recording, Flamingo automatically pauses and tries to reconnect and resuming recording. Flamingo will prompts you to name and describe the recording.



In the event of a system failure or unexpected shutdown during a recording session with Flamingo, the recording currently in progress is automatically preserved. The file is automatically saved as "active recording".

7. Accessing and Managing Recordings with Flamingo

7.1 Files Storage

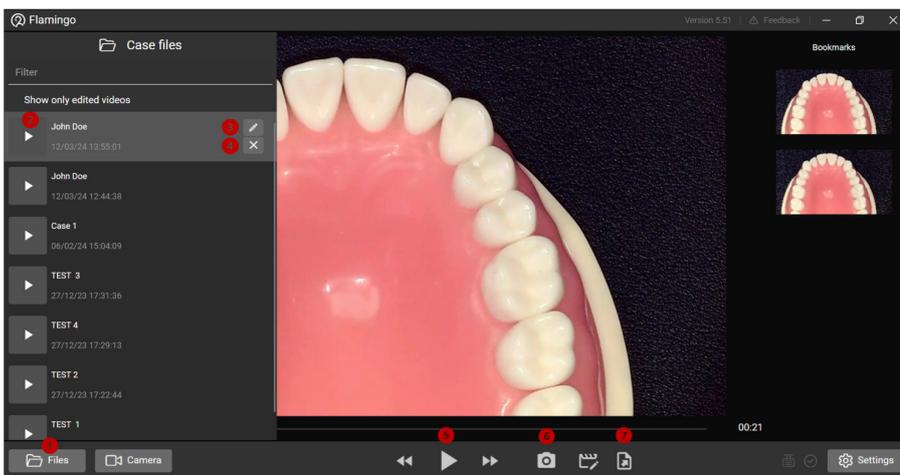
1. The files (videos and bookmarks) are stored on the local computer and can be accessed either through the software (files button) or the Documents folder (divided by date)

NOTE: Changing the name of a file directly on your computer will make it inaccessible via the Flamingo software interface. To access such files, navigate to the specific local folder where they are stored.

7.2 Retrieval and Playback

1. Click the **Files** **1** button to display the **Case Files** panel, listing all recordings chronologically.
2. Scroll through the list or use the search bar to locate a specific recording by the patient's name. Each recording listed will have a **Play icon** **2**, **Edit** **3** icon (to edit video name or description), and **Delete icon** **4**

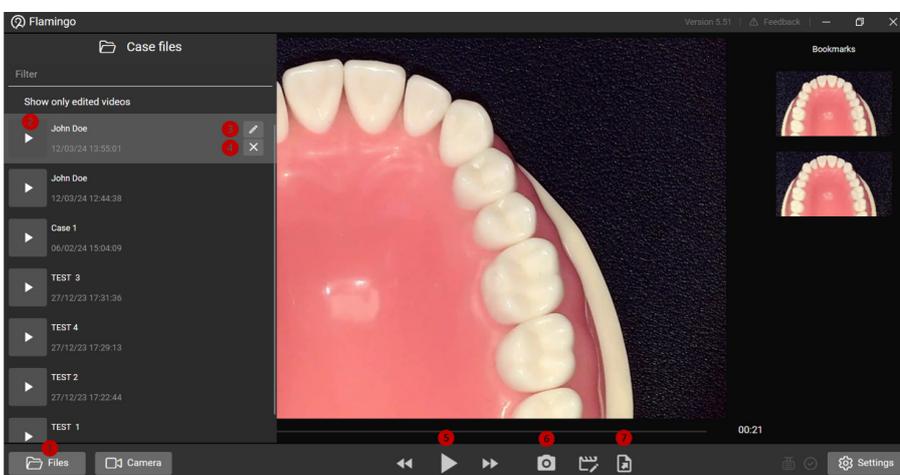
3. Select the **Play** 5 icon to view a recording.
4. Utilize the standard video controls for pausing, rewinding, fast-forwarding, or navigating to specific segments.
5. Click the **Export recording** 7 button to save the recording to a new location.
6. To free up space, manually delete the original recording as described in the Retrieval and Playback section.



7.3 Bookmarks

By selecting the **Bookmark button** 6, a snapshot of the video at that specific point is captured and displayed on the Bookmark panel for easy playback access.

Select a Bookmark from the panel and click the **Export bookmark** 7 button to download the screenshot as a .jpg. Delete the Bookmark by clicking the **X** icon.



7.4 Editing Recordings

Flamingo provides convenient basic video editing features directly within the software environment.

1. Click the **Edit recording** ① button to enter the editing interface.
2. Use the **Scissors** ② button to select sections to remove.
3. Click and drag with your mouse ③ to mark the start and end points.
4. Add multiple cuts. Click the **Play** ④ button to preview the edited video.
5. Click **Save** ⑤ once edits are complete. Upon clicking the **Save** button, the unwanted sections will be removed.
6. The new version is saved as a separate file, saved under the same name but marked with an [edit] suffix.
7. Click the **Edit Recording** ① button again to leave the editing interface.



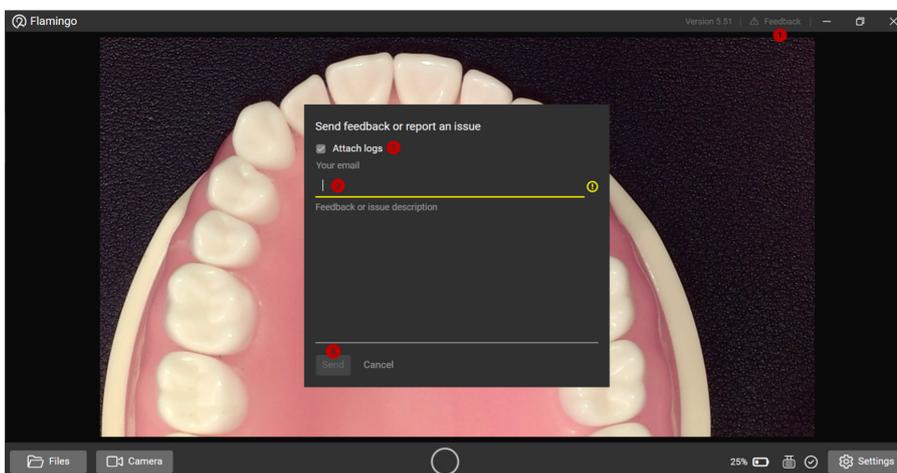
7.5 Making Additional Edits

Flamingo retains your editing configuration, allowing you to pause and resume editing later. This configuration is preserved even after saving an edited recording.

8. Reporting Issues with Flamingo Software

In case of encountering any issues or challenges with the Flamingo software, we encourage reaching out directly to our technical support team. Your insights and reports are crucial in assisting us to promptly identify and rectify any problems, ensuring an optimal experience with the Flamingo software.

1. Click on the Feedback **1** button
2. Ensure the **Attach logs** **2** checkbox remains checked. This action automatically includes essential diagnostic information that will aid our technical team in understanding the context and specifics of the issue.
3. Enter your email address **3** in the designated field. Provide a comprehensive description of the problem you're encountering. Be as detailed as possible, including steps leading up to the issue, any error messages received, and the specific context in which the problem occurred.
4. Once you've completed the details, click the **Send** **4** button to forward your issue report to the technical support team.



Our technical support team will review the information provided and may contact you for further details or clarification.

If you encounter any other issues, please report them to flamingo@admetec.com



We've got your back.

Admetec designs, develops, manufactures, and distributes handcrafted, custom-fitted magnifying loupes and LED headlights. We specialize in creating products that are exceptionally lightweight, convenient to use, and ergonomic - enabling you to focus on being effective while we focus on your comfort.



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