CapturePlay User Manual

Version 3,1

CapturePlay is a macOS application designed to display video and audio from USB capture devices (such as the USB Camlink 4K) connected to gaming consoles like the PlayStation 5 or Nintendo Switch in a dock. The application provides real-time video display, audio routing, image capture, and video recording capabilities.

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Introduction

CapturePlay enables you to:

- **Display video** from USB capture devices in real-time
- **Route audio** from capture devices to any output device
- **Capture images** during gameplay or video viewing
- **Record video** with audio in QuickTime-compatible MOV format
- **Transform video** with mirroring, rotation, and aspect ratio controls
- **Customize the window** with borderless mode and full-screen support
- **Prevent display sleep** during full-screen viewing or recording

System Requirements

- **macOS**: 12.4 (Monterey) or later
- **Hardware**: USB capture device (e.g., Elgato Camlink 4K, AVMedia, 4k HDMI Cpature card, or generic USB capture cards)
- **Permissions**:
  - Camera access (for video capture devices)
  - Microphone access (for audio capture)

Getting Started

First Launch

1. **Launch CapturePlay** from your Applications folder or Dock.
2. **Grant permissions** when macOS prompts for:
   - Camera access (required for video display)
   - Microphone access (required for audio capture)
3. **Connect your USB capture device** before or after launching the app.

Device Detection

- CapturePlay automatically detects connected USB video capture devices on startup.
- If no devices are found, the app will display an error and close.
- USB devices are monitored: connecting or disconnecting a device will automatically update the device list.

Initial Setup

1. **Select your video source**: Go to **Video > Select Source** and choose your capture device.
2. **Configure audio** (optional):
   - Choose an audio input: **Audio > Select Source**
   - Choose an audio output: **Audio > Select Output**
3. **Set capture directory**: Go to **CapturePlay > Preferences** and set where captured images and videos should be saved.

Menu Structure

CapturePlay Menu (Application Menu)

- **About CapturePlay**: Displays version information and copyright

- **Preferences...** (⌘,): Opens the preferences dialog
- **Hide CapturePlay** (⌘H): Hides the application window
- **Hide Others** (⌥⌘H): Hides all other applications
- **Show All**: Shows all hidden applications
- **Quit CapturePlay** (⌘Q): Exits the application

Note: Window position, size, and most other settings are automatically saved when you close the application.

File Menu

- **Open Capture Folder** (⌘O): Opens the folder where captured images and videos are saved in Finder
- **Save Image...** (⌘S): Saves the current video frame to a location of your choice
- **Capture Image** (⌘⇧S): Captures an image and saves it to the capture directory with automatic filename
- **Capture Video** (⌘⇧V): Starts or stops video recording

Edit Menu

Standard macOS text editing commands (Undo, Redo, Cut, Copy, Paste, Select All, Find, etc.)

Video Menu

- **Select Source**: Choose which video capture device to use (submenu lists all available devices)
- **Image** (⌥): Image transformation options — *Hidden by default; hold Option (⌥) key while opening Video menu to reveal*
    - **Mirror**:
        - **Mirror Horizontally** (⌘M): Flips the video horizontally (left-right)
        - **Mirror Vertically** (⌘⇧H): Flips the video vertically (top-bottom)
    - **Rotate**:
        - **Rotate Left** (⌘L): Rotates video 90° counter-clockwise
        - **Rotate Right** (⌘R): Rotates video 90° clockwise
- **Borderless Mode** (⌘B): Toggles window border on/off
- **Fix Aspect Ratio** (⌘A): Locks/unlocks the window aspect ratio to match video
- **Fit to Actual Size** (^⌘A): Resizes window to match the video's native resolution
- **Enter Full Screen** (^⌘F): Enters full-screen mode
- **Display Sleep** (⌘D): Toggles display sleep prevention on/off

Audio Menu

- **Select Source**: Choose audio input device (submenu lists all available audio capture devices)

- **Select Output**: Choose audio output device (submenu lists all available audio output devices)
- **Mute** (⌘M): Toggles audio muting on/off
- **Volume**: Adjust audio volume using the slider (submenu item)

Window Menu

- **Minimize**: Minimizes the window to the Dock
- **Zoom**: Maximizes the window
- **Bring All to Front**: Brings all CapturePlay windows to the front

Help Menu

- **CapturePlay Help** (⌘?): Opens the help system (if available)

Video Features

Selecting a Video Source

1. Connect your USB capture device.
2. Go to **Video > Select Source**.
3. Choose your device from the list.
4. The video feed will start automatically.

Note: CapturePlay monitors USB connections. If you connect or disconnect a device, the device list will update automatically.

Image Transformations

Image transformation options (Mirror and Rotate) are accessed through **Video > Image**. This menu item is hidden by default and only appears when you hold the Option (⌥) key while opening the Video menu.

Mirroring

Mirroring flips the video display:

- **Mirror Horizontally** (⌘M): Flips left and right (useful for webcam-style "mirror mode")
- **Mirror Vertically** (⌘⇧H): Flips top and bottom (useful for upside-down cameras)

Both mirroring options can be combined. The mirroring state is saved in preferences.

Note: To access mirroring options, hold Option (⌥) and open **Video > Image > Mirror**.

Rotation

Rotate the video to match your camera orientation:

- **Rotate Left** (⌘L): 90° counter-clockwise
- **Rotate Right** (⌘R): 90° clockwise

Rotation position is saved in preferences and applied automatically on startup.

Note: To access rotation options, hold Option (⌥) and open **Video > Image > Rotate**.

Borderless Mode

Borderless Mode (⌘B) removes the window title bar and borders:

- **Enabled**: Window has no border, is always on top, and is movable by dragging anywhere
- **Disabled**: Standard macOS window with title bar

Note: Borderless mode is automatically disabled when entering full-screen mode.

Aspect Ratio Control

- **Fix Aspect Ratio** (⌘A): When enabled, the window maintains the video's aspect ratio when resizing
- **Fit to Actual Size** (⌃⌘A): Resizes the window to match the video's native resolution

Full Screen Mode

Enter Full Screen (⌃⌘F) or click the green traffic light button:

- Video fills the entire screen
- Cursor is automatically hidden
- Display sleep prevention is automatically enabled (if configured in preferences)
- Press Escape or move mouse to top to exit

Note: Some features (like "Save Image") are not available in full-screen mode.

Display Sleep Prevention

Display Sleep (⌘D) prevents your Mac's display from sleeping:

- Useful during long recording sessions
- Can be enabled/disabled manually via menu
- Automatically enabled in full-screen mode (if configured in preferences)

Audio Features

Selecting Audio Input

The audio input comes from your capture device:

1. Go to **Audio > Select Source**.

2. Choose your audio capture device from the list.

3. Audio will route to the selected output device.

Note: If no audio input is selected, videos will be recorded without audio.

Selecting Audio Output

Choose where audio is played:

1. Go to **Audio > Select Output**.

2. Choose your output device (speakers, headphones, etc.).

Note: Audio settings are saved in preferences.

Mute

Mute (⌘M in Audio menu) temporarily disables audio output without changing volume settings.

Note: The mute keyboard shortcut (⌘M) is shared with "Mirror Horizontally" in the Video menu. Use the menu item if there's a conflict.

Volume Control

Adjust volume using the slider in **Audio > Volume**:

- Drag the slider to adjust output volume

- Changes apply immediately

- Volume setting is saved in preferences

Capture Features

Image Capture

Two methods for capturing images:

Method 1: Quick Capture (⌘⇧S)

- Captures current frame instantly

- Saves to capture directory with automatic filename

- Filename format: `CapturePlay Image YYYY-MM-DD at HH.mm.ss.png`

- Shows notification when saved

Method 2: Save Image (⌘S)

- Opens a save dialog to choose location

- Allows you to name the file

- Useful when you want to save to a specific location

Image Format: PNG (highest quality)

Note: Image capture temporarily removes the window border (if present) to capture a clean image, then restores it.

Video Recording

Capture Video (⌘⇧V) toggles video recording:

- **Start Recording**: Creates a new video file in the capture directory

- **Stop Recording**: Finalizes the video file

- **File Format**: QuickTime MOV (compatible with macOS, Windows, and most video players)

- **Audio**: Included if an audio input is selected

- **Filename Format**: `CapturePlay Video YYYY-MM-DD at HH.mm.ss.mov`

- **Notifications**: Shows notifications when recording starts and stops

Video Recording Details:

- Video resolution matches the source device's native resolution

- Frame rate matches the device's configured frame rate (typically 60fps or 59.94fps)

- Audio is encoded as AAC at 256 Kbps (QuickTime-compatible)

- Videos are saved with timestamps to avoid filename conflicts

Recording Status:

- The "Capture Video" menu item shows a checkmark (✓) when recording is active

- A notification appears when recording starts and stops

- Recording can be stopped by pressing ⌘⇧V again

Note: Ensure you have sufficient disk space. Video files can be large, especially at high resolutions and frame rates.

Opening Capture Folder

Open Capture Folder (⌘O) opens the capture directory in Finder, where all captured images and videos are saved.

Settings and Preferences

Preferences Dialog

Open **CapturePlay > Preferences...** (⌘,)

Capture Image Directory

- **Default Location**: `~/Pictures/CapturePlay`
- **Browse...**: Click to select a different folder
- **Path Field**: Displays current directory path (supports tilde notation, e.g., `~/Documents`)

Note: If you select a folder outside your home directory, CapturePlay will request permission to access it. macOS will prompt you to grant access.

Display Sleep in Full Screen

- **Checkbox**: "Automatically prevent display sleep during full screen"
- When enabled, display sleep prevention is automatically activated when entering full-screen mode
- When disabled, you must manually toggle display sleep prevention

Saving Preferences

- Click **OK** to save changes
- Click **Cancel** to discard changes
- Preferences are saved immediately when you click OK

Automatic Settings Retention

CapturePlay automatically saves and restores your settings:

- **Window position and size**: Automatically saved when you close the application
- **Video settings**: Rotation, mirroring, borderless mode, and aspect ratio preferences
- **Audio settings**: Input/output device selections and volume
- **Preferences**: Capture directory and display sleep preferences

All settings are automatically loaded when you launch CapturePlay.

Automatic Settings Management

All settings are automatically saved when you close the application and automatically loaded when you launch CapturePlay. There is no manual "Save Settings" or "Clear Settings" option — settings are managed automatically.

Keyboard Shortcuts

Global Shortcuts

Shortcut	Action	Menu Location
⌘,	Preferences	CapturePlay > Preferences…
⌘H	Hide App	CapturePlay > Hide CapturePlay
⌥⌘H	Hide Others	CapturePlay > Hide Others
⌘Q	Quit	CapturePlay > Quit CapturePlay
⌘O	Open Capture Folder	File > Open Capture Folder
⌘S	Save Image	File > Save Image…
⌘⇧S	Capture Image	File > Capture Image
⌘⇧V	Capture Video	File > Capture Video
⌘M	Mirror Horizontally	Video > Image > Mirror > Mirror Horizontally
⌘⇧H	Mirror Vertically	Video > Image > Mirror > Mirror Vertically
⌘L	Rotate Left	Video > Image > Rotate > Rotate Left
⌘R	Rotate Right	Video > Image > Rotate > Rotate Right
⌘B	Borderless Mode	Video > Borderless Mode
⌘A	Fix Aspect Ratio	Video > Fix Aspect Ratio
⌃⌘A	Fit to Actual Size	Video > Fit to Actual Size
⌃⌘F	Enter Full Screen	Video > Enter Full Screen
⌘D	Display Sleep	Video > Display Sleep

Menu-Specific Shortcuts

- **Audio > Mute** (⌘M): Shares shortcut with "Mirror Horizontally" — use the menu item directly if there's a conflict

Notifications

CapturePlay can send notifications for key events:

- **Image Captured**: When an image is saved to the capture directory
- **Video Recording Started**: When video recording begins
- **Video Recording Stopped**: When video recording ends and the file is saved
- **Display Sleep Prevention**: When display sleep prevention is enabled or disabled

Notification Permissions

On first launch, macOS will ask for notification permissions. Grant permission to receive notifications about captures and recordings.

To enable/disable notifications later:

1. Open **System Preferences > Notifications & Focus**
2. Find "CapturePlay" in the list
3. Adjust notification settings as desired

Troubleshooting

No Video Display

Problem: Video window is black or shows no image.

Solutions:

1. **Check device connection**: Ensure your USB capture device is connected
2. **Select correct source**: Go to **Video > Select Source** and verify the correct device is selected
3. **Check device permissions**: Ensure CapturePlay has camera access (System Preferences > Security & Privacy > Privacy > Camera)
4. **Try a different USB port**: Some USB ports may not provide sufficient power
5. **Restart CapturePlay**: Quit and relaunch the application
6. **Check device compatibility**: Ensure your capture device is recognized by macOS (check System Information > USB)

No Audio

Problem: No audio is heard during playback or recording.

Solutions:

1. **Select audio input**: Go to **Audio > Select Source** and choose an audio device
2. **Select audio output**: Go to **Audio > Select Output** and choose speakers or headphones
3. **Check mute status**: Ensure audio is not muted (Audio > Mute should be unchecked)

4. **Check volume**: Adjust volume in **Audio > Volume**

5. **Check microphone permissions**: Ensure CapturePlay has microphone access (System Preferences > Security & Privacy > Privacy > Microphone)

6. **Verify audio source**: Some capture devices have separate audio inputs — ensure audio is connected to the correct input

Audio Stops Working After Changing Video Source

Problem: Audio works initially but stops after switching video devices.

Solution: This is a known behavior when switching devices. The audio manager should automatically reconnect. If it doesn't:

1. Go to **Audio > Select Source** and re-select your audio input

2. Restart CapturePlay if the issue persists

Image Capture Not Working

Problem: Image capture fails or shows an error.

Solutions:

1. **Check macOS version**: Image capture requires macOS 10.12 (Sierra) or later

2. **Check capture directory**: Ensure the capture directory exists and is writable (Preferences > Browse...)

3. **Check disk space**: Ensure you have sufficient free disk space

4. **Check permissions**: If using a custom directory, grant CapturePlay permission to access it (macOS will prompt)

Video Recording Not Working

Problem: Video recording doesn't start or fails.

Solutions:

1. **Check capture directory**: Ensure the capture directory exists and is writable

2. **Check disk space**: Video files can be large — ensure sufficient free space

3. **Check permissions**: Ensure CapturePlay can write to the capture directory

4. **Verify device supports recording**: Some devices may have limitations

5. **Try stopping and restarting**: Use ⌘⇧V to stop, then start again

Window Won't Resize or Position Incorrectly

Problem: Window size or position is not as expected.

Solutions:

1. **Reset window**: Quit and relaunch the app to reset window state, or manually resize/reposition the window
2. **Disable aspect ratio lock**: Uncheck **Video > Fix Aspect Ratio**
3. **Fit to actual size**: Use **Video > Fit to Actual Size** (⌃⌘A) to match video resolution

Display Sleep Still Occurs

Problem: Display sleeps despite enabling prevention.

Solutions:

1. **Check menu state**: Ensure **Video > Display Sleep** shows a checkmark (✓)
2. **Check System Preferences**: macOS power settings may override app settings
3. **Try toggling**: Disable and re-enable display sleep prevention
4. **Full-screen mode**: Display sleep prevention works more reliably in full-screen mode

Preferences Not Saving

Problem: Settings don't persist between launches.

Solutions:

1. **Check permissions**: Ensure CapturePlay can write to the preferences location (usually `~/Library/Preferences/`)
2. **Reset preferences**: Quit the app, delete the preferences file at `~/Library/Preferences/org.windholm.captureplay.plist`, then relaunch and reconfigure
3. **Restart the application**: Settings are automatically saved when you close the app — ensure you close it normally (not force quit)

Device Not Detected

Problem: USB capture device is not listed in "Select Source".

Solutions:

1. **Check USB connection**: Unplug and reconnect the device
2. **Try different USB port**: Use a USB 3.0 port if available
3. **Check System Information**: Open System Information > USB and verify the device appears
4. **Install drivers**: Some devices require manufacturer drivers
5. **Restart CapturePlay**: The app detects devices on launch
6. **Check device compatibility**: Ensure the device is compatible with macOS

App Crashes or Freezes

Problem: CapturePlay crashes or becomes unresponsive.

Solutions:

1. **Check macOS version**: Ensure you're running macOS 12.4 or later
2. **Check device compatibility**: Some devices may cause issues
3. **Reset preferences**: Quit the app, delete the preferences file at `~/Library/Preferences/org.windholm.captureplay.plist`, then relaunch
4. **Check Console**: Open Console.app and check for error messages
5. **Reinstall**: Delete the app and reinstall from a fresh build

Performance Issues

Problem: Video is choppy or laggy.

Solutions:

1. **Close other applications**: Free up CPU and memory resources
2. **Check device resolution**: High-resolution devices require more processing power
3. **Lower frame rate**: Some devices allow frame rate adjustment (device-specific)
4. **Check USB bandwidth**: Use USB 3.0 ports for high-resolution devices
5. **Disable other video apps**: Close other apps using video capture devices

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Technical Details

Video Format

- **Container**: MOV (QuickTime)
- **Video Codec**: H.264 (device-dependent)
- **Audio Codec**: AAC at 256 Kbps
- **Frame Rate**: Matches device configuration (typically 60fps or 59.94fps)
- **Resolution**: Native device resolution

Image Format

- **Format**: PNG
- **Color Space**: RGB
- **Resolution**: Window resolution at time of capture

File Naming

- **Images**: `CapturePlay Image YYYY-MM-DD at HH.mm.ss.png`
- **Videos**: `CapturePlay Video YYYY-MM-DD at HH.mm.ss.mov`

Both use 24-hour time format (HH.mm.ss).

Preferences Storage

Preferences are stored in macOS UserDefaults, typically at:

```
~/Library/Preferences/org.windholm.captureplay.plist
```

Credits

CapturePlay
Version 3.1
Copyright © 2025 Harald Striepe

Original Quick Camera Code
Copyright © 2025 Simon Guest
Licensed under Apache License 2.0
[GitHub: quick-camera](#)

Acknowledgments

CapturePlay includes code from Simon Guest's Quick Camera project, which provided the foundation for video capture and display functionality.

License

This manual and the CapturePlay application are provided as-is. Please refer to the application's license for usage terms under Apache V2.0.

Support

For issues, feature requests, or contributions, please refer to the project repository or contact the maintainer at hstriepe@mac.com

Last Updated: 2025