User's Manual

HoverCam Express Software for Mac OS X 10.5 or Later

Contents

Support

We encourage you to read through this short User's Manual to understand the HoverCam functionality. However, if an unexpected incident arises, please call us or submit a support ticket at http://www.thehovercam.com/support/ for a prompt and friendly reply.

When contacting The HoverCam Support, please make sure to tell us your operating system, the HoverCam Model number, the problem you are experiencing, and as much contextual information as possible.

You can alternatively email us at support@thehovercam.com.

You can also call our main number (858) 812-6358 and ask for technical support.

System Requirements

PC, Linux, or Mac

HoverCam T3, T5, Mini 3, and Neo 3 works with a Windows, Linux, or Mac computer. For Windows users, we suggest using HoverCam Express. HoverCam Express is used primarily for Mac users. Linux users can use a third party program to take pictures and record video, such as Cheese.

You need to connect the HoverCam to a host computer via USB 2.0 before video can be output to a projector or a TV Monitor from the host computer.

In rare cases, certain projector products can take direct USB output from the HoverCam. We will inform you of those specific products on our web site when one becomes available.

For now, assume you need to work with the HoverCam Express software on a PC or HoverCam Express software on a Mac. If you are going to use the software on a computer that barely meets the minimum requirements, you may experience slow refresh rate.

PC System requirements:

Processor: Minimum: Intel Pentium III 1GHz or faster processor
Recommended: Pentium 4 2GHZ or faster
OS: Windows 2000/XP/2003, Windows Vista, Windows 7
RAM: Minimum: 1GB RAM; Recommended: 2GB RAM.

Mac System Requirement:

CPU: Intel Core 2 Duo 1.6Ghz or PowerPC
RAM: 1GB
OS: 10.5 or later
Mac OS X10.4 or earlier versions is not supported due to the slow hardware on which the older OS versions run will not be able to handle high performance video.

Projector or TV Monitor

HoverCam Neo 5i and Neo 5p or other higher numbered models can output HD video directly to a projector. If the projector can handle HDMI input displaying minimum of 720P HD video, HoverCam has supplied a free HDMI cable for you. If the projector only takes VGA, or component or composite video input, HoverCam has also supplied the correct cables in the package.

Introduction

The HoverCam is a new type of device. We say it is "more than a scanner, and more than a camera". This means there are some new concepts when using the HoverCam.

Live vs. Static Preview

With the HoverCam, you get a live preview of the document under the camera. This means the document orientation can be adjusted in real time. You may place documents with various sizes freely. It is no longer necessary to wait for slow-showing static preview scans from a linear scanner.

Snap-Shot vs. Scanning

With the HoverCam, the entire page of a document is captured in a single snapshot. Expect that snapshot to finish within a split second. There is no mechanical sweeping action across of a scanning beam. If you are used to the long wait at a scanner, get ready for an instant change.

Life-Like vs. Copier-Style Images

With the HoverCam, the resulted image is a more accurate reproduction of the real document or 3 dimensional objects. Expect a life-like image that is significantly different from the carbon copy style of traditional scan images.

USB Video

The live video via USB can be used as a video presentation. This is an excellent solution for classroom instructors and visual presenters. The HoverCam is much more than just a scanner.

Depth of Field

The HoverCam lens offers a large depth of field, which makes it possible to take clear pictures even for scenes with multiple objects with varying heights or with a thick open book.

Unpacking Your HoverCam

The contents of your HoverCam box will depend on which HoverCam you purchased. Please see the chart below to ensure that you received all items.

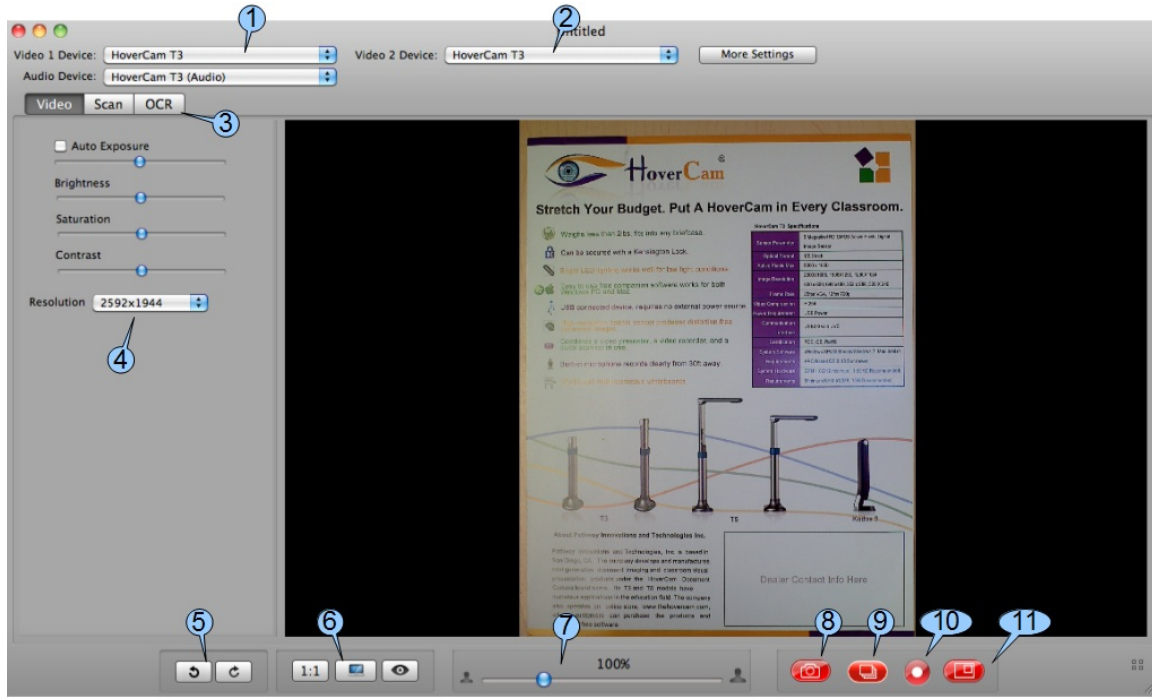|	HoverCam T5	HoverCam T5-V	HoverCam T3	HoverCam Kudos 3
HoverCam	X	X	X	X
Bumper	X	X	Not included	Not included
USB Cable	X	X	X	X
Carrying Pouch	X	X	X	Not included
Mat	X	X	X	X
Quick Start Guide	X	X	X	X

Consult the Quick Start Guide for the best way to setup your HoverCam. Lay the mat flat where you intend to scan. Plug the USB cable provided into one of the USB ports on your computer. Plug the other end of the cable into your HoverCam. Unfold the HoverCam arm to begin scanning.

Installation

You may need to download the HoverCam Software from the HoverCam website at
http://www.thehovercam.com

Windows users will use HoverCam Flex. Mac users will use HoverCam Express.
Linux users could use open source software such as Cheese with their HoverCams.

Chapter 1 – Video Mode

FIGURE 1.1 Video Screen

When you first start the HoverCam Express Software, you will see the screen above. There are three major tabs (3): Video, Scan, and OCR. You start in Video.

Video

There is a simple rule of thumb whenever working with video: USB connection has limited bandwidth. The higher the resolution set for display, the lower the refresh rate. Unless you want to see a very sharp high-resolution image without the need to present under the camera, try lowering the camera resolution settings, and you will get higher refresh rate and a smoother motion in the video.

In most cases, projectors used in classrooms or in corporate conference rooms have maximum resolution less than 1080P HD or 1920x1280. More often, projectors only work at VGA or 1024x768 resolution. 720P or 1080P HD projectors tend to get very expensive very quickly. Because of this limitation from the projector device, when you are ready to do a video presentation, it is basically unnecessary to set the HoverCam at the highest resolution. Instead, you set the resolution lower to see a higher refresh rate. Thisis often more desirable than static image resolution.

1) Video 1 Device. The drop down list lets you select from a list of recognized camera devices. This will display your HoverCam camera if a HoverCam is present and any other cameras (such as a built-in web cam)..

2) Video 2 Device. This is the secondary camera used in HoverCam Express used with picture-in-picture.

3) Function Tabs. These are the major sections of HoverCam Express: Video, Scan and OCR.

4) Change Video Resolution.

The higher the resolution, the slower the frame rate. The lower the resolution, the smoother the video. Use control (4) to set the video at various resolutions. By default, the HoverCam shows video at 4:3 ratio. The maximum is set to be 1600x1200 or UXGA resolution with refresh rate of 12 to 15 frames/second. When resolution is lowered to 640x480, there is less data being captured across the USB and the refresh rate can reach 30 frames/second.

5) Rotate the Image. Counter-clockwise or clockwise.

Images can be rotated in 90 degree increments in either counter clockwise or clockwise directions using controls (5).

6) Display Mode. 1:1, Full Screen, or Fit to Window. By clicking on Full Screen Control, the video display will take up the entire monitor screen. This is often very helpful for showing a maximized surface area.

You can exit Full Screen Mode at any time by hitting the "ESC" key.

Moving your mouse cursor near the bottom will bring up the same control bar found in normal display mode.

You can perform all the functions that appear normally, such as taking a snapshot, in Full Screen Mode.

7) Digital Zoom Control. Keep in mind, the FASTER way to zoom is to move the Mouse Wheel.

Anytime your cursor is inside of the HoverCam Express display window, you may use the mouse wheel's movement to zoom in or zoom out on the objects displayed.

8) Scan button. Push to capture a single image. Note: You can scan while in Video mode.

9) Auto Capture. This allows you to set a time-lapse on the document camera.

10) Record Video.

By pressing the Record button (10), a new window will pop up, in which a new preview video is shown. Please press the Record button in the new window one more time to start the recording process. All recordings are saved as AVI files.

To return back to the previous window, you will need to close the pop up window.

11) Enter Picture-In-Picture Mode.

When sharing your entire screen with a contact on Skype, WebEx, or GoToMeeting, it can be helpful to show a picture of yourself and a picture of the subject of discussion. Simply press on the PIP button (11) to bring out the second (smaller) window.
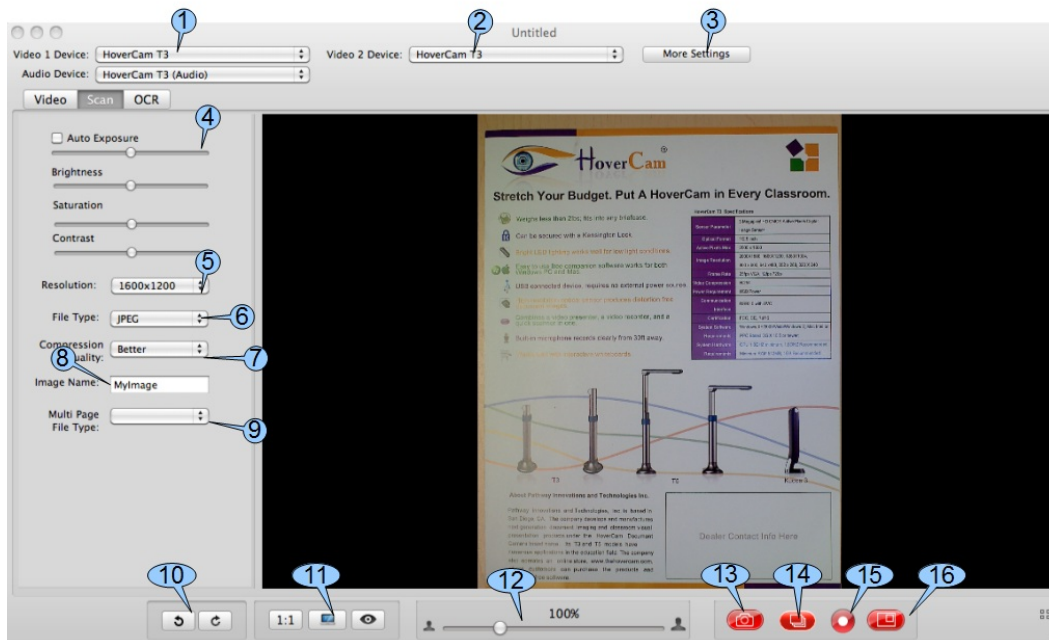
In the secondary PIP window, when move mouse cursor over the window, you will see the above control bar appear. The very left button let you swap the video in the two windows. The very right button with a gear icon let you change the settings. Here, you can select a different camera device for the video display in the second window. The rotation buttons are self explanatory.

Notice that you can't change the camera selection in the second window if both windows are displaying videos and there are only two cameras available. When both cameras are selected already, the only option is to swap windows.
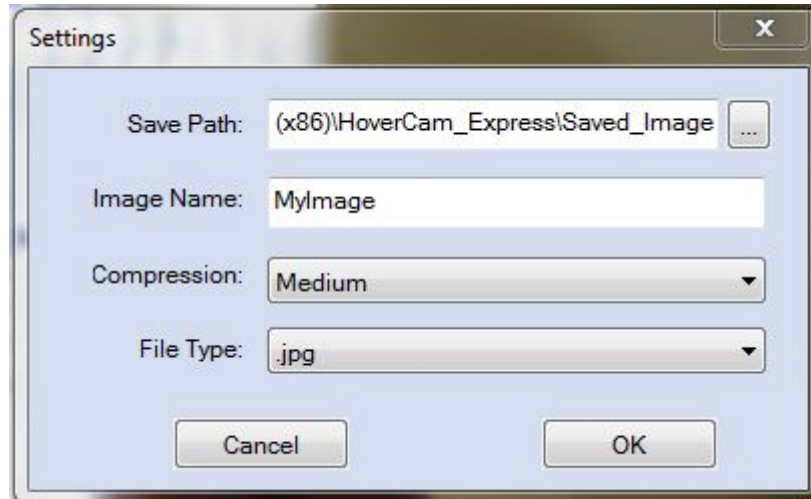
Chapter 2 - Scan Mode

In "Scan" mode, the main goal is to capture a clear picture with the highest resolution possible, and then save the image to a file with the proper format. The default resolution setting here is the maximum of the particular HoverCam model you purchased.

Scan mode is also able to capture a straightened image with little or no warping or any other distortion. You will find the controls here developed by our engineers to make straightening simple.

FIGURE 2.1 The Scan Mode Screen

1) Video 1 Device. The drop down list lets you select from a list of recognized camera devices. This will display your HoverCam camera if a HoverCam is present and any other cameras (such as a built-in web cam)..

2) Video 2 Device. This is the secondary camera used in HoverCam Express used with picture-in-picture.

3) More Settings. Under "More Settings" you can change the folder your image is saved in, the name of the scanned image, compression, and file type.

Figure 2.2 More Settings

4) Image Brightness, Saturation, and Contrast can be changed on screen using controls (4). However, these adjustments are digital effects implemented in software after the imaging in the camera devices is completed. Adjusting ambient lighting conditions for the camera is still the best way to achieve good image quality.

5) Change Resolution.

6) File Type. Change how the scanned image will be saved.

 7) Compression.

8) Image Name.

9) Multi-Page File Type. This is the file type that your images will be saved while using Auto-Capture.

10) Rotate the Image. Counter-clockwise or clockwise.

Images can be rotated in 90 degree increments in either counter clockwise or clockwise directions using controls (10).

11) Display Mode. 1:1, Full Screen, or Fit to Window. By clicking on Full Screen Control, the video display will take up the entire monitor screen. This is often very helpful for showing a maximized surface area.

You can exit Full Screen Mode at any time by hitting the "ESC" key.

Moving your mouse cursor near the bottom will bring up the same control bar found in normal display mode.

You can perform all the functions that appear normally, such as taking a snapshot, in Full Screen Mode.

12) Zoom In or Zoom Out Slider Control, which includes the +/- controls for 5% increments. Rotate the mouse wheel forward or backward is equivalent to moving the slider right or left.

13) "Scan" or "SnapShot" Button.

14) Capture Time Lapse Images or Auto Capture Multiple Images.

15) Record Video. Note: You can record video while in Scan mode.

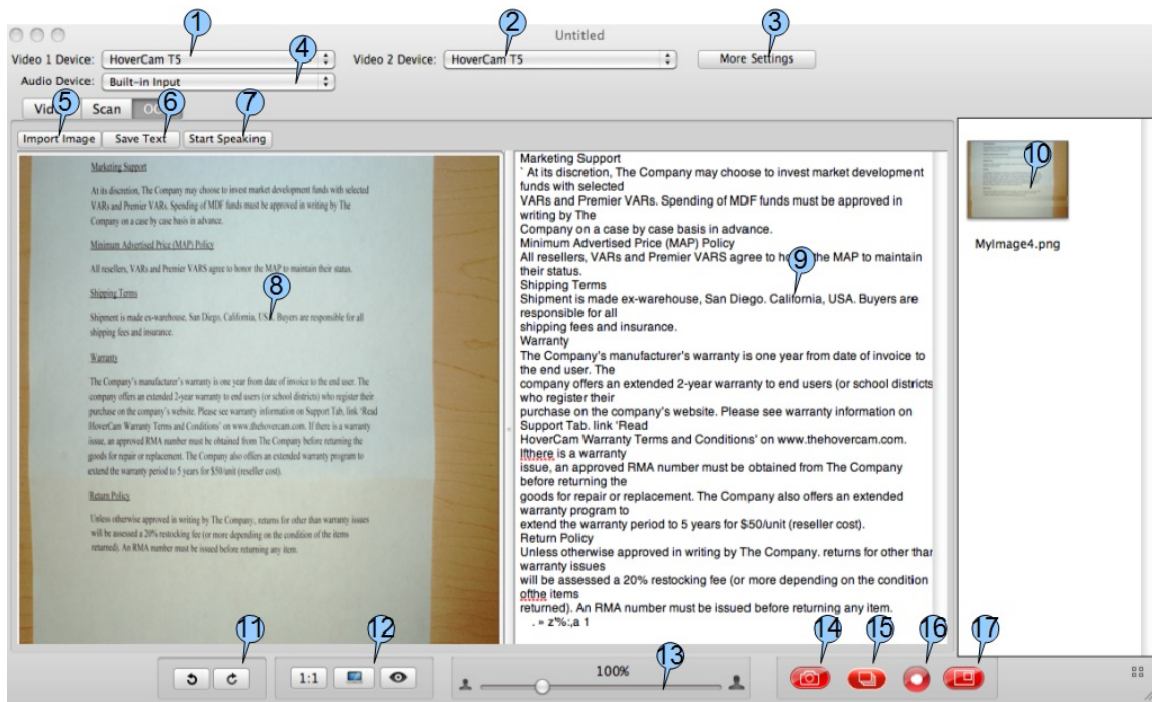16) Show Picture-in-Picture Mode.

Scan Mode Software

In Scan Mode, our focus is to capture the sharpest image of a document. The unwanted edges trimmed are off and the page are straightened. The HoverCam captures the image with color, making the result more life-like compared to traditional flatbed scanners which tend to produce more high contrast black-and-white images. The quality of color reproduction by the HoverCam depends on the ambient lighting condition. The best environment for "scanning" with the HoverCam is where there is in a room with even fluorescent lighting.
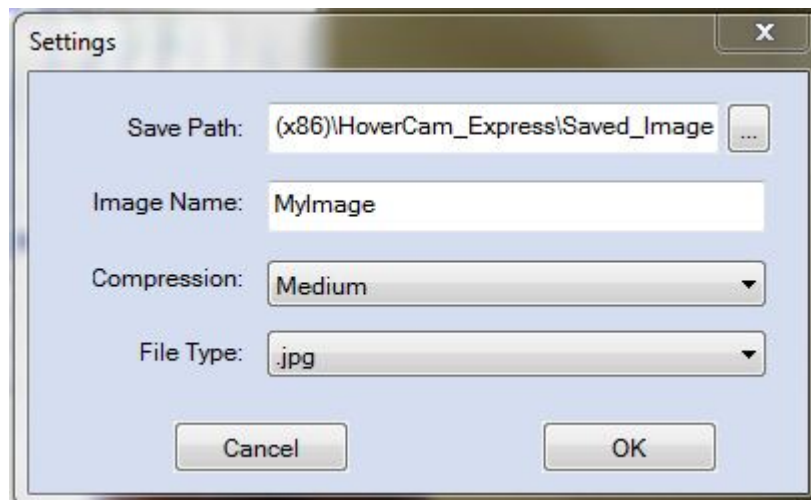
TIPS AND TRICKS

Ever want to just drag an image and drop it into the application that you are using? You might have an Optical Character Recognition (OCR) reader, or you may be working on a PowerPoint presentation. Simply use your mouse, pick up a thumbnail, drag it out of the HoverCam Express window (even when it is maximized), and discover how easy and fun it is. Drag-n-drop any thumbnail from virtually anywhere within HoverCam Express.

Keyboard shortcuts: try ctrl-c and ctrl-v on a captured image after entering an editing window.

Chapter 3 – OCR Mode

1) Video 1 Device. The drop down list lets you select from a list of recognized camera devices. This will display your HoverCam camera if a HoverCam is present and any other cameras (such as a built-in web cam)..

2) Video 2 Device. This is the secondary camera used in HoverCam Express used with picture-in-picture.

3) More Settings. Under "More Settings" you can change the folder your image is saved in, the name of the scanned image, compression, and file type.

Figure 2.2 More Settings

4) Audio Device. Select the device to be used for audio input.

5) Import Image. Import an image for use with OCR.

6) Save Text. Save the output of the OCR program.

 7) Start Speaking. A computerized voice will read the OCR output back to you.

8) On the left side of the screen, you will see the document that is being scanned for OCR.

9) On the right side of the screen, you see the output of the OCR software after scanning the document to the left.

10) A thumbnail of scanned images or videos.

11) Rotate the Image. Counter-clockwise or clockwise.

Images can be rotated in 90 degree increments in either counter clockwise or clockwise directions using controls (10).

12) Display Mode. 1:1, Full Screen, or Fit to Window. By clicking on Full Screen Control, the video display will take up the entire monitor screen. This is often very helpful for showing a maximized surface area.

You can exit Full Screen Mode at any time by hitting the "ESC" key.

Moving your mouse cursor near the bottom will bring up the same control bar found in normal display mode.

You can perform all the functions that appear normally, such as taking a snapshot, in Full Screen Mode.

13) Zoom In or Zoom Out Slider Control, which includes the +/- controls for 5% increments. Rotate the mouse wheel forward or backward is equivalent to moving the slider right or left.

14) "Scan" or "SnapShot" Button.

15) Capture Time Lapse Images or Auto Capture Multiple Images.

16) Record Video. Note: You can record video while in Scan mode.

17) Show Picture-in-Picture Mode.

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