



EchoSystem 5.5 Documentation  
**Device Monitor User Guide**

August, 2015

Echo360 is continually updating the documentation. This manual is a snapshot as of the date above. Check the Echo360 documentation wiki for the most current version: <http://confluence.echo360.com/display/55/EchoSystem+Welcome+and+FAQs>

# Personal Capture Guides

In this section:

- [Overview](#)

## Overview

Echo360 Personal Capture is a stand-alone application that runs on Windows and Mac laptops and desktop computers. It is designed primarily for the Academic Staff user. With Echo360 Personal Capture, staff members can create captures external to the classroom that students can review both before and after class.

Our goal is to keep the application simple and clean. To create recordings, you select the inputs and record. The recordings can then be edited before publishing to the EchoSystem Server (ESS). Only recordings you select will be uploaded. Feel free to record several times to achieve your desired results.

Once published, the recording will be made available to students in all the formats ("products") selected during publishing.

If you are using CAS or Shibboleth for user authentication, please see [CAS and Shibboleth Authentication](#) for information regarding single-sign-on limitations and workarounds for Personal Capture.

Administrators should refer to [Administer Personal Capture](#) for information about troubleshooting Personal Capture and the infrastructure considerations associated with using it.

Users should refer to [Working With Cameras and Personal Capture](#) for tips and information on getting the best output from web cameras and Personal Capture.

Personal Capture software is split out into two completely separate versions, one for Windows and one for Macintosh. Depending on the version you are installing or using, refer to the appropriate guide linked below:

- [Personal Capture For Mac](#)
- [Personal Capture For Windows](#)

The main page of each guide provides minimum hardware and software specifications as well as a list of supported web cameras for use with each product.

One last thing: be sure you [assign personal capture licenses](#) to any user who plans to record and publish captures using Personal Capture.

## Administer Personal Capture

In this section

- [Monitor Personal Capture Usage](#)
- [Error Logs](#)
- [Capture Options](#)
- [Deployment Considerations](#)

## Monitor Personal Capture Usage

As an administrator, you may want to monitor which of your Personal Capture users are actually using the software and uploading captures.

On the ESS, Navigate to **Monitor > Personal Capture**. This opens a tab listing all of the Personal Capture publishing that has occurred, including user name and publishing time and date, as shown in the below figure.

Last IP Address	Platform	O/S Details	Software Version	Last Publish Request Time	Last Publish Request By
74.10.95.2	Windows 32-bit (x86)	Microsoft Windows 7 Service I 0.1.30961M		5/1/14 9:35 AM	tgetahun
74.10.95.2	Windows 32-bit (x86)	Microsoft Windows 7 Service I 0.1.		5/1/14 8:51 AM	acramer
74.10.95.2	Windows 32-bit (x86)	Microsoft Windows 7 Service I 0.1.30961M		4/30/14 1:50 PM	tgetahun
74.10.95.2	Windows 32-bit (x86)	Microsoft Windows 7 Service I 0.1.30961M		4/30/14 1:44 PM	tgetahun
74.10.95.2	Windows 32-bit (x86)	Microsoft Windows 7 Service I 0.1.30961M		4/30/14 1:40 PM	tgetahun
74.10.95.2	Mac (Universal)	Version 10.9.2 (Build 13C64)	2.0.40635	4/30/14 12:02 PM	tgetahun
74.10.95.2	Mac (Universal)	Version 10.9.2 (Build 13C64)	2.0.40732	4/30/14 9:12 AM	acramer

## Error Logs

If you encounter problems using Personal Capture, you (or your System Administrator) may find it useful to inspect the error logs. The error logs are also helpful when debugging malfunctions or when working directly with Echo360 Technical Support. The logs can be found in the following default locations:

- **Windows:** C:\ProgramData\Echo360\Personal Capture\logs
- **MacOS:** /System/Users/{user}/Documents/Echo360/Personal Capture/logs

The logs are kept separate from the actual recording media. If you require direct access to the recording media, they can be found at:

- **Windows:** C:\Users\{username}\AppData\Local\Echo360\Personal Capture\recordings
- **MacOS:**
  - Recordings: /System/Users/{user}/Documents/Echo360/Personal Capture/recordings
  - Backgrounder binaries and input/output folders: /System/Users/Shared/echo360

## Capture Options

Personal Capture can capture one audio and up to two video input channels at one time. This leads to the following combinations:

Combination	Example Scenarios
A: Audio Only	The Instructor records voice only. This is useful for recordings that do not require any display or video recording and if storage space is a concern. This scenario creates an mp3.
A/V: Audio and Video (USB Camera)	The Instructor records voice and a video input. The most common scenario is the "talking head" – the Instructor is recording himself speaking.

A/D: Audio and Display (PC screen)	This is probably the most common Personal Capture scenario. The Instructor records voice and the PC display. Consider the common example of an Instructor walking through a set of slides.
A/D/V: Audio and Display and Video	This scenario creates a full-rich media playback that includes the audio, the PC screen/display, and input from a USB capture device (webcam). A common use is the Instructor recording voice, a slide presentation, and a webcam headshot (the "talking head" as in the A/V combination).
A/V/V: Audio and Video and Video	This scenario captures audio with two USB video inputs. One common case is to have two "talking heads" being recorded, as in an interview with two individuals. Another example is audio plus two different views (or angles) of a performance and/or scientific experiment.

A/D/V and A/V/V recordings can be processor and storage intensive, depending on the settings chosen. Do test captures to assure the level of capture quality necessary.

## Deployment Considerations

### Networking

Network connectivity is not necessary for Personal Capture to capture and edit content. However, Personal Capture does need connectivity to upload the media to your EchoSystem Server (ESS).

Each version of Personal Capture will automatically (when downloaded and installed from an ESS) be configured to connect to the appropriate ESS. If the address of the ESS changes, then each fielded copy of Personal Capture must also be changed to reflect the new address.

### Automated Installation and Imaging

Personal Capture installer for Windows is provided as an .exe and can be run via [command line installation](#). Be sure when doing so, however, that the target PC is running either Windows 7 or Windows 8/8.1, and contains Microsoft .NET 3.5.

Personal Capture for MacOS X is only provided as a .dmg. The application can be bundled as a .pkg for automated installations.

### Licensing

Anyone can install and use Personal Capture; however the ability to upload and process content is licensed on a per user basis. ESS System Administrators assign and revoke licenses (see [License Presenters for Personal Capture](#)). They can also get more licenses from Echo360. Personal Capture licenses are offered as bundles of Personal Capture Licenses.

### Site Licensing

Please note that if your institution has purchased Site licenses for Personal Capture, licensing is no longer managed on an per user basis, all users will have the ability to utilize Personal Capture.

## Working With Cameras and Personal Capture

In this section:

- [Overview](#)
- [Best Practices for Web Cameras](#)
- [Test Protocol for Web Cameras](#)

### Overview

While Echo360 works with and attempts to support a wide variety of cameras, we strongly recommend you to use one of the tested web cameras listed for each version of Personal Capture. These cameras have been tested in house with the Personal Capture product. Click the following link for supported and recommended devices with Echo360 Capture products:

[Recommended and Supported Camera and Input Devices](#)

### Best Practices for Web Cameras

Follow these best practices:

- **Current drivers.** Use the most current drivers for your web camera. You can find these drivers on the the website of your PC or laptop manufacturer. You can also have the operating system of your computer search for current drivers.
- **OS Updates.** Please have the most current updates applied to your operating system.
- **"Driver-only" installation.** If possible, use the "driver-only" installation of the camera software. Most web camera vendors allow for this. Sometimes, the software included with the web camera can interfere with the Personal Capture connection to the web camera. In some cases, the "driver-only" method is the only supported method.
- **Test a capture.** Perform and review a test capture before using the camera routinely. See [Test Protocol for Web Cameras](#) below.

### Test Protocol for Web Cameras

To ensure successful recording, we encourage you to follow the below test protocol the first time you use any web camera, even if it has already been tested by Echo360. It is even more important to do this if you are using an unsupported web camera; in many cases an unsupported web camera will work. If the web camera fails, please enter a [support request](#).

**Follow these steps:**

1. Ensure that there are no other software applications accessing the web camera while Personal Capture is running.
2. Do a 15 minute A/V recording with the unsupported camera.
3. Examine the media using the Personal Capture software editor.

4. Publish the capture to the EchoSystem Server (ESS) and wait for processing.
5. Evaluate the processed results (the "output products") from the ESS.
6. Do the output products meet your standards?

## Personal Capture For Mac

On this page:

- [Overview](#)
- [System Requirements for Personal Capture for Mac](#)

### Overview

Personal Capture software is split out into two completely separate versions, one for Windows and one for Macintosh. The pages in this guide deal only with the installation and use of Personal Capture for Mac and include the following:

- [Install Personal Capture for Mac](#)
- [Configure Personal Capture for Mac](#)
- [Configure Recording Devices for Personal Capture for Mac](#)
- [Create a Recording in Personal Capture for Mac](#)
- [Review and Edit a Recording in Personal Capture for Mac](#)
- [Publish a Recording from Personal Capture for Mac](#)

See the [Personal Capture For Windows](#) guide for instructions for Windows users.

### System Requirements for Personal Capture for Mac

Personal Capture for Mac is supported on the Mac OS X 10.7 and above (including support for 10.9 Mavericks and 10.10 Yosemite).

**NOTE about Mavericks:** Personal Capture for Mac is supported on Mavericks (MAC OS X 10.9), however *upgrading* to Mavericks (OS 10.9) may cause corruption in an existing PCAP installation. Captures will work fine but publishing the capture will get stuck in the "Transcode Pending" state. If this happens, save any un-published captures, uninstall and reinstall Personal Capture.

The following table lists the hardware and other requirements for running Personal Capture for Mac.

Minimum Hardware for audio and display capture	Minimum Hardware for audio, display and/or video capture	Necessary Software
Intel Single Core 1.8 GHz processor; 2 GB RAM; 10/100 network interface; minimum 20 GB free hard disk space	Intel Dual Core 1.8 GHz processor; 2 GB RAM; 10/100 network interface; 20 GB free hard disk space	QuickTime 7.5.5 or later (installed with OS X)
For capturing: Internal audio device or USB port for audio capture	Internal audio device or USB port for audio capture; USB video device	

### Personal Capture and Macs with Retina Display

There are some known issues where Personal Capture cannot capture Display input properly at the native resolution for certain Retina Display models of Macbook Pro, Macbook Air and iMac.

On the **Macbook Air 11" Retina Display model**, the native resolution is 1366x768. Personal capture does not support this resolution/ratio. **Workaround:** Open System Preferences and change the screen resolution to something smaller (i.e., 1280x720).

On the **Macbook Pro 15" Retina Display model**, the native resolution is 2880x1880. Personal Capture does not support this resolution/ratio. NOTE that Personal Capture does *not* have issues capturing Display input from the 13" Macbook Pro with Retina Display (native resolution of 2560 x 1600 pixels).

- **Workaround 1 (for Macbook Pro 15" Retina Display model):** Since the Macbook Pro does not provide the same screen resolution selections as the Macbook Air, you must use a third-party application that allows you to select a different resolution. Echo360 has been successful testing with QuickRes, available at <http://www.quickresapp.com>. QuickRes is priced at \$2.99 at the time of this update.
- **Workaround 2 (for Macbook Pro 15" Retina Display model):** Use an External Monitor via the Macbook Pro Thunderbolt port.

Install and run QuickRes first, set the screen resolution below 2880 x 1880, then launch Personal Capture. If Display capture still shows issues or distortion, try a different resolution.

On the **iMac 27" Retina Display model**, the native resolution is 5120x2880. Personal capture does not support this resolution/ratio. **Workaround:** Configure your Audio/Video settings within Personal Capture to capture at a Smaller Size rather than at Actual Size. Please see [Configure Recording Devices for Personal Capture for Mac](#).

## Install Personal Capture for Mac

In this section:

- [Overview](#)
- [Download the Installer](#)
- [Install the Program](#)
- [Uninstall from MacOS X](#)

### Overview

Installing EchoSystem Personal Capture for Mac (also called PCAP Mac) is an easy process. You will need:

- Access to your EchoSystem Server (ESS). If you do not have access to the ESS, you can the get installer from your System Administrator.
- Permission to install software on your laptop or PC.

To install Personal Capture, follow these phases:

1. Download the correct installer for your operating system
2. Launch the installer. See the instructions for your operating system.

### **i Do I Need to Remove Personal Capture If It's Already Installed?**

Personal Capture will automatically check for updates on launch. If there is an update to the version you have installed, you will be asked if you want to update now or later. No need to uninstall to reinstall a new version.

## Download the Installer

Download the Personal Capture for Mac installer from the ESS web interface. If you have questions about accessing the ESS, see your ESS System Administrator.

1. Log in to the ESS.
2. Navigate to the **Downloads** tab.
3. Download the installer by selecting and clicking the appropriate link from the list of downloads, identified in the below figure. The installer must be run locally, so save the file to your computer.

Software Installer Downloads		1 - 7 of 7
Description	File	
Installer for EchoSystem Personal Capture (Windows)	<a href="#">EchoSystemPersonalCaptureForWindows_5.4.41370.exe</a>	
Installer for EchoSystem Classroom Capture (Windows)	<a href="#">EchoSystemClassroomCaptureForWindows_5.4.41370.exe</a>	
Installer for EchoSystem Personal Capture (Mac OS X)	<a href="#">EchoSystemPersonalCaptureForMac_5.4.41370.zip</a>	
Installer for EchoSystem Processor (Windows)	<a href="#">EchoSystemProcessorForWindows_5.4.41370.exe</a>	
Installer for EchoSystem Processor (Linux 64) [launch from console with sudo]	<a href="#">EchoSystemProcessorForLinux64_5.4.41370.bin</a>	
Installer for EchoSystem Processor (Linux 32) [launch from console with sudo]	<a href="#">EchoSystemProcessorForLinux32_5.4.41370.bin</a>	
Installer for EchoSystem Streaming Configuration Bundle	<a href="#">StreamingBundle_5.4.41161.zip</a>	

1 - 7 of 7

**Alternate method:** Get the installer directly from your System Administrator. In this case, the Administrator downloads the file from the ESS and provides it directly to you. Put the installer executable on your computer.

### **i Use Local Directories for Installation and Capture Storage Directories**

The Personal Capture installation and data directories **must** be on the local drive; They cannot be located on a network, remote (mapped), or USB thumb drive.

## Install the Program

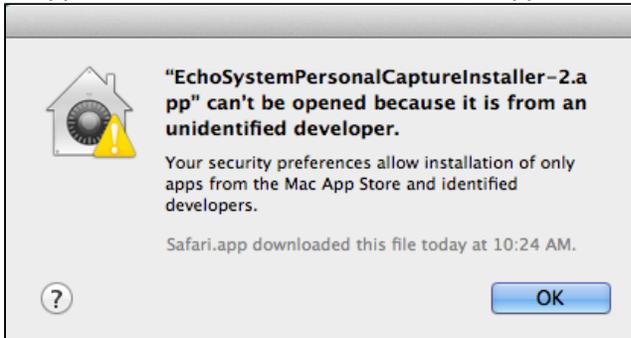
Depending on the browser you are using and the browser settings you have configured, clicking the software download link in the ESS results in either a .zip file or a .app file being saved to your Downloads folder. If it is a zip file, clicking the zip file should extract the .app file contained within it. Use the steps below to install Personal Capture from the .app file.

### **i Important: Unzipping Personal Capture for Mac zip file**

If an archive utility other than Apple's official Archive Utility is used to extract/unzip the Personal Capture for Mac zip file, a silent error may occur when trying to launch the application. This is documented on Apple's support forums here: <https://discussions.apple.com/thread/6141474?trt=0>

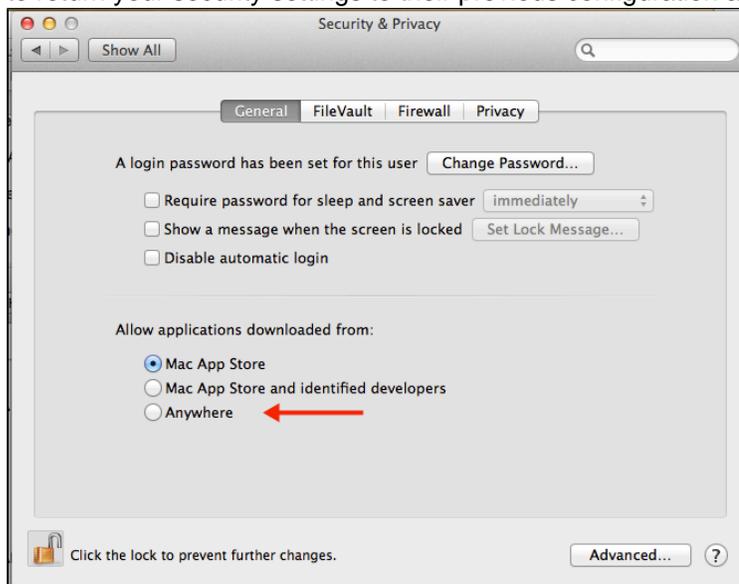
It is our recommendation to use Apple's official Archive Utility, built into OS X, to unzip the Personal Capture for Mac zip file.

1. Find and click on the downloaded or extracted .app file for the Personal Capture installer. In most cases it will be located in your Downloads folder.
2. Depending on your security settings, you may receive the following dialog box indicating that the installer cannot be opened. If you are running OS X 10.8 or later, the default security "curtain" is to only allow launch of applications downloaded from the Mac App store.



In this case, you have two choices:

- a. Locate and right-click or command+click the .app file and select **Open** from the pop-up menu. This should provide you with a similar warning box, but the option to Open the installer file. This method is recommended.
- b. Navigate to **System Settings > Security & Privacy** and change the settings to allow applications downloaded from "Anywhere" to be launched, as shown below. If you choose this option, you will want to return your security settings to their previous configuration after installation.



3. Once the installer is launched, follow the prompts to complete installation.

After Personal Capture is installed, launch it. Ensure it works as expected. If it does, you may delete the downloaded zip file and the extraction folder, including the installer file. These are no longer needed.

## Uninstall from MacOS X

Uninstalling Personal Capture is easy; however, please make sure that all your important content (captures/recording) has been uploaded to the ESS before uninstalling.

To remove Personal Capture, delete it from the Applications folder.

## Configure Personal Capture for Mac

In this section:

- [Overview](#)
- [Open Personal Capture](#)
- [Set General Configuration](#)

### Overview

In general, Personal Capture will self-configure on installation. It will define the locations for storing recordings and identify the EchoSystem Server (ESS) for uploading recordings. However, there are occasions where you may wish to change the default configuration.

Configuring Personal Capture settings involves these phases:

1. [Open Personal Capture](#)
2. Enter [general configuration information](#)
3. Enter [server configuration information](#)

You should need to enter this information just once, the first time you run the application.

### Open Personal Capture

1. Open Personal Capture.
2. Navigate to **Echo360 Personal Capture > Preferences...**

The Preferences dialog box appears. This dialog box contains a General and a Server tab, allowing you to set or change the corresponding configurations, as described on the subsequent sections of this page.

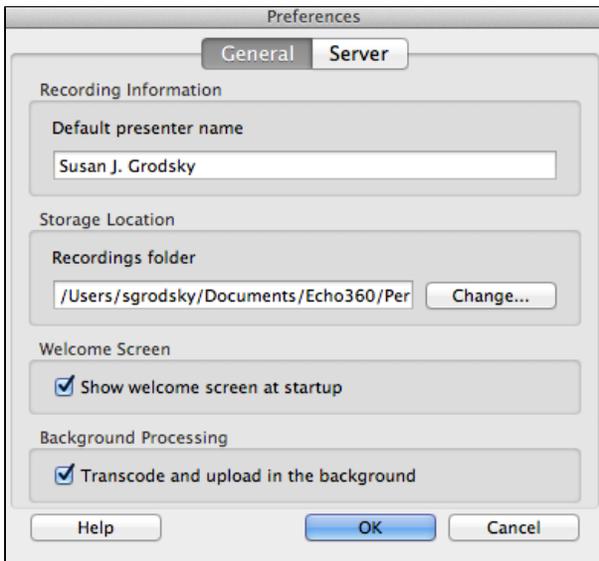
### Set General Configuration

The configuration settings are contained within two areas: General options or Preferences, and Server options or Preferences. There are only a few items:

- The Presenter name
- The location for saving recordings
- Whether to show the Welcome screen at startup
- Whether to allow uploading of a capture in the background.

To change any of the General options or preferences:

1. In the preferences dialog box, select **General**. This is the tab shown by default when the Preferences dialog box is opened.

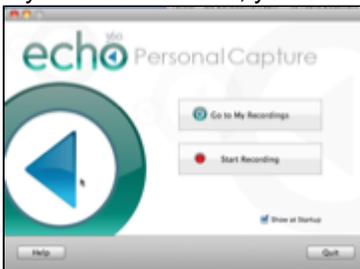


2. Enter the default presenter name (usually your name). When students see this recording listed in the EchoCenter, the name specified here will be associated with it. You can customize the name any time you need to.
3. Enter the storage location (the recordings folder name). Recordings will be stored in this folder on your computer's hard disk. The default location is */System/Users/{user}/Documents/Echo360/Personal Capture/recordings*
4. To change the storage location, click **Change...** and navigate to the desired directory.

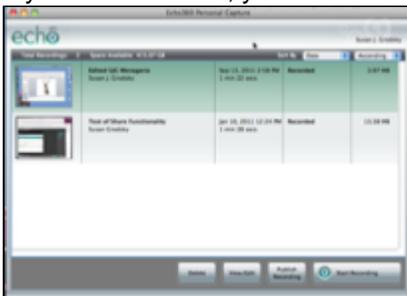
**i Use Local Directory for Capture Storage Location**

The Personal Capture storage location **must** be on the local drive; it cannot be located on a network, remote (mapped), or USB thumb drive.

5. Check or clear the **Show welcome screen at startup** box.
  - If you check the box, you see the **Welcome Screen** at startup:



- If you clear the box, you see the **My Recordings** screen at startup:



6. Check or uncheck the **Transcode and upload in the background** check box.
  - We recommend that you leave this preference checked (this is the default).
  - When checked, you can create a new recording or edit recordings while a completed recording is

being prepared and uploaded for distribution.

- This setting also allows you to use Personal Capture to capture a lecture you give in the classroom. You might want to do this when the usual capture methods set up by a System Administrator are not available.

## Set Server Configuration

### Consult Your System Administrator

If you do not know the name of your ESS, contact your System Administrator. If you believe the Hostname/URL for the ESS is correct but you still cannot connect, try changing the port number from 443 to 8443 or vice versa. Personal Capture always connects to the ESS via HTTPS, and the default HTTPS port settings are 8443 or 443, depending on the deployment.

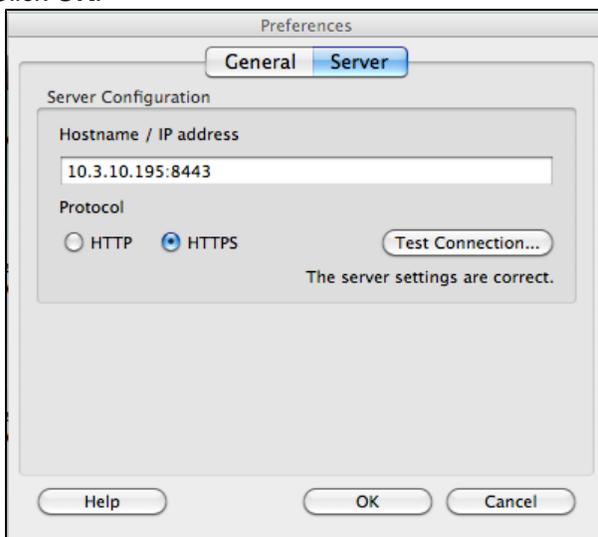
The Personal Capture software must know the location of the ESS in order to post or upload your recordings. This section allows you to define the ESS location, or web address. Change these settings only when directed by your System Administrator.

The items that the Server configuration settings specify:

- The ESS where Personal Capture will publish completed recordings
- The ESS that will be checked for software updates
- The protocol used when uploading Personal Capture recordings to the ESS

Follow these steps.

1. Click **Server**.
2. Enter the **Hostname / IP Address** of the ESS.
3. Select the connection protocol.
4. Click **Test connection**. If you do not see **The server settings are correct**, contact your System Administrator.
5. Click **OK**.



### **⚠ Always Test Your Server Configuration If You Change It!**

Personal Capture will not be able to upload your recordings if the server configuration is incorrect.

## Configure Recording Devices for Personal Capture for Mac

In this section:

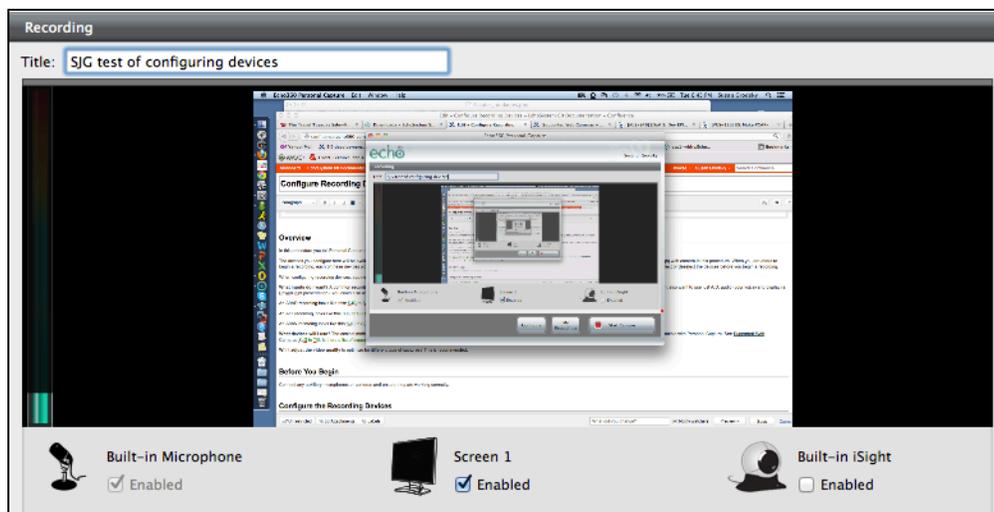
- [What Does It Mean to "Configure Devices"?](#)
- [How Do I Know What Devices to Configure?](#)
- [Configure the Recording Devices](#)
- [Addressing Audio Issues](#)
- [If You Are Using Two Cameras](#)

### What Does It Mean to "Configure Devices"?

Before you start a capture, you need to select which devices you will record. By "configure devices" we mean that process of selecting the devices to record. You could set this up once and use just those devices forever. But you can also use different devices and different configurations for different captures. You can capture:

- Audio only (A)
- Audio and screen display (A/D)
- Audio and video (A/V)
- Audio and screen display and video (A/D/V)
- Audio and video and video (A/V/V)

You use the Audio/Video Devices dialog box to select the devices. The devices you select will be available for you to enable or disable when you begin recording. Say, for example, that you configured the Built-in microphone, Screen 1, and the Built-in iSight web camera. When you are about to begin a recording, each of these devices would be shown at the bottom of the precapture page.



You can enable or disable them from the recording screen. (The Built-in iSight camera is disabled in the screen shown.) However, if you do not configure the devices in this procedure, you will not see them listed on the recording screen. You cannot enable or disable them at all.

## How Do I Know What Devices to Configure?

In many cases the devices you select will be fairly simple. Consider these questions when choosing the devices to configure. You can always toggle these on or off before the capture begins if your preferences change.

**What data do I want in the recording?** Probably the most common configuration is A/V/D: the recording contains a **audio** (your voice), **video** (your image), and **display** (a PowerPoint presentation or other screen display). This configuration gives you the ability to have a "talking head" with a slide presentation. It will be displayed within the EchoPlayer as a dual channel capture.

However, you might just want a simplified A/D capture with only **audio** and **display**. This way, if you are camera shy, you can walk through your slide presentation and discuss it, but your image is not recorded.

If you are more adventuresome, you could record a full A/V/V capture that contains **audio** and two **video** channels. You might use this if you are conducting an interview with another person: one camera is focused on your face, the other on your interviewee. The recording shows both of you. You might also want to use one camera on your face and another camera on an object that you discuss. For example, if you are teaching a physiology course, you might point this second camera at your hands while you disassemble a model of a human organ.

**What devices will I use?** The easiest method is to select and use the system display, the built-in microphone and the built-in video camera (which are very common on laptop computers). You can also connect other microphones and/or cameras, so long as they are compatible with EchoSystem Personal Capture (also called EchoCapture Personal or PCAP). See [Working With Cameras and Personal Capture](#).

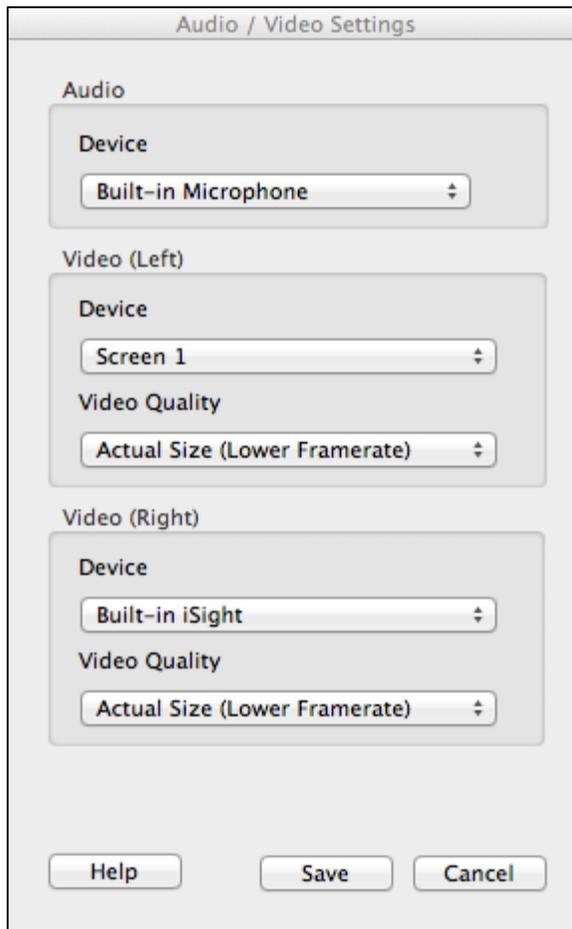
## Configure the Recording Devices

Follow these steps.

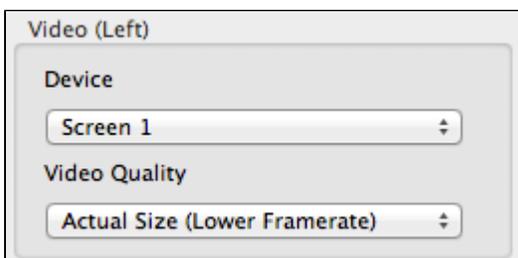
1. From the **Welcome Screen** or **My Recordings** screen, click **Start Recording**. This takes you to the precapture page.
2. In the bottom panel, click **Configure**.



3. The Audio/Video Devices page appears. Review the selections within the dialog box and correct any field as necessary.
  - The Device drop-down lists show the devices that are plugged in and registered with the operating system.
  - **If your device is not listed**, exit Personal Capture, plug in your device and restart Personal Capture. Devices not detected by the operating system are not usable by Personal Capture.



4. Under **Audio**, select the recording device from the drop-down list.
5. Select the **Video (Left)** device you will use. You can choose either a capture of the computer screen display, or video input. If you use two visual inputs (either display and video or two video inputs), the data captured with the Video (Left) device appears on the left side of the finished recording. That is, it will be to the left of the data captured by the Video (Right) device.
  - To capture your screen display (a PowerPoint presentation or other screen display) select **Screen 1** from the **Device** drop-down list.
  - To capture video, select the video input device from the Device drop-down list.
6. Select the **Video Quality** for the Video (Left) input. For a Display input, remember that **Actual Size (Lower Framerate)** will create the best capture, but requires a large amount of storage and processing time. It also produces large playback files that are slow to load and challenge students' patience. Choose **Smaller Size** unless you have a strong need for the higher resolution.



7. Select the **Video (Right)** device you will use. The data captured will appear on the right side of the recording. That is, it will be to the right the data captured by the Video (Left) device.
  - This device *must* capture video, using either the built-in camera or another camera you attach. To capture onscreen display items, use the Video (Left) selections noted above.

- The **Video Quality** drop-down list, shown in the Windows dialog box below, allows you to select **Low**, **Standard** or **High** resolution for the video capture. The higher the resolution, the larger the resulting file will be, and the more time it will take to upload to the server. Selecting Low or Standard resolution is sufficient in most cases. Select High resolution if there are details shown in the video capture that require the highest possible resolution.



8. Click **Save**.

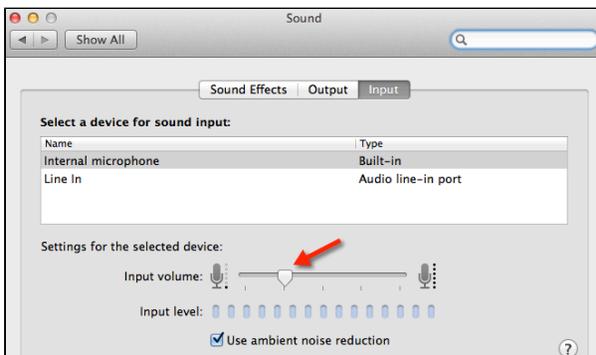
Now you have configured Personal Capture. You can always go back and re-select devices if you change inputs. These inputs appear on your precapture page. You can always toggle them on and off from the precapture page, changing the inputs for a particular capture.

## Addressing Audio Issues

In certain circumstances, audio recorded on a Macintosh sounds unusually loud when the recording is played back **within Personal Capture** but is **too low** when students play the Echo.

This occurs because playback within Personal Capture artificially raises the audio volume. When you, the Instructor, hear this loud volume during playback, you may attempt to compensate by adjusting the Macintosh system preferences. The sequence of events is as follows.

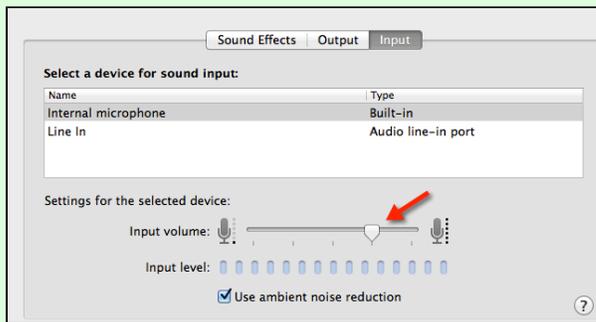
1. You, the Instructor, **lower** the input volume setting on the Macintosh (**System Preferences > Hardware > Sound**). In the screenshot below, the Instructor has lowered input volume to 25 percent.



2. You create the recording and play it back in Personal Capture. The audio volume is satisfactory.
3. You publish the recording.
4. Your students play the recording **outside of Personal Capture** and the volume is too low. Your students cannot hear what you are saying.

### ✓ **Best Practice: Keep Input Volume at 50 Percent or Higher**

Resist the impulse to lower the input volume setting. Keep it at 50 percent or higher. In the screenshot below, input volume is 75 percent.



Your voice may sound very loud when you play the recording in Personal Capture, but the volume will be normal when students play the Echo. This practice applies regardless of the input device (internal microphone or line in).

## If You Are Using Two Cameras

Capturing video with USB cameras has opened the door to many advancements in educational technology. Echo360 gives you the capability to use one or two ("dual") USB cameras in each capture. This opens up even more opportunity. However, USB cameras introduce computational and storage loads on personal computers and laptops. Even with the increased power of newer hardware, dual USB camera captures can strain the machines.

When you use two video cameras, please consider these issues:

- **Insufficient processing power.** The sheer amount of data captured by two cameras, especially if the cameras are capturing at high definition, can strain the processing power and internal bandwidth (data transfer) of your computer.
- **Mis-synchronization.** Differences in camera quality, initialization/start-up time, and configuration can cause the two videos to be slightly mis-synchronized.

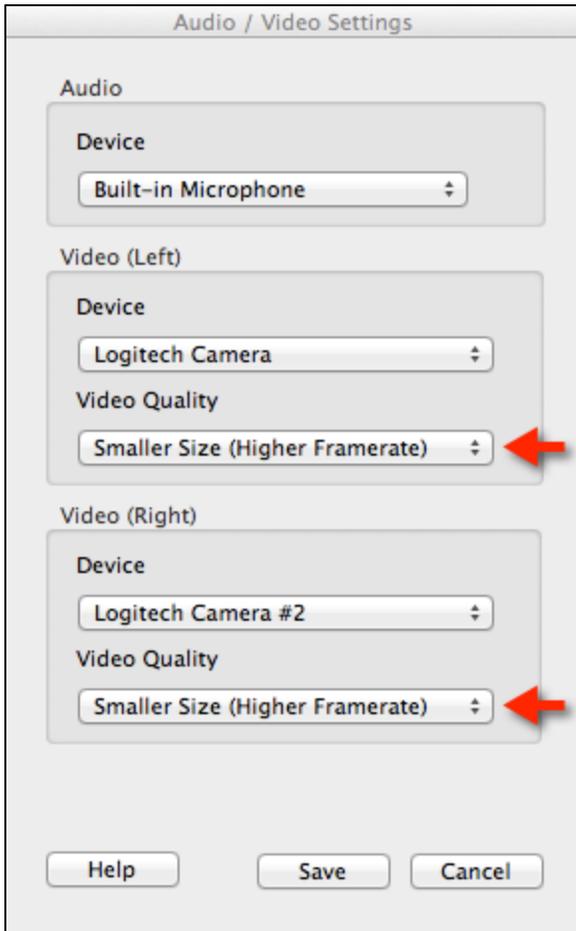
Follow the tips to minimize these issues.

### ✓ **Best Practice: Do Some Test Captures**

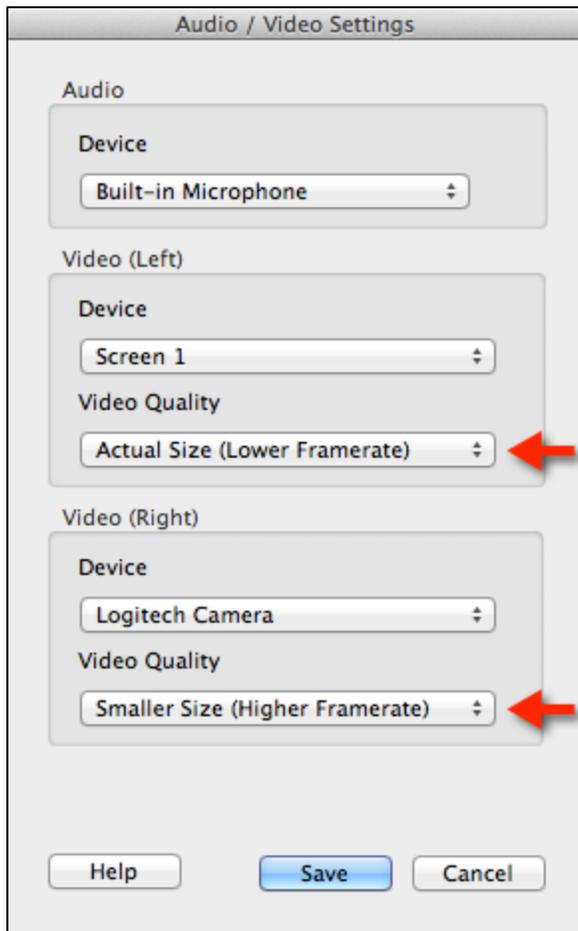
Do some test captures first. This is a good idea for any model camera but especially important with newer, high definition cameras, which can strain the processing power of your computer. Make sure the capture proceeds well and the output is what you expect.

## Addressing Synchronization Issues for AVV

On Macintosh systems, we have found that adjusting the Video Quality settings to a **Smaller Size** for both channels (as shown below) alleviates synchronization issues in an A/V/V capture. On the Macintosh, the **Smaller Size** resolution is equivalent to TV/VCR quality and requires less processing power from your computer.



When recording A/D/V captures, mix **Actual Size and Smaller Size**. Choose the **Actual Size (Lower Framerate)** Video Quality for the camera capturing the display, and choose **Smaller Size (Higher Framerate)** for the camera capturing the video. This mixed configuration provides high-quality display while optimizing the size of the video capture.



## Create a Recording in Personal Capture for Mac

In this section:

- [Overview](#)
- [Best Practice - Use the Keyboard Shortcuts](#)
- [Prepare to Record](#)
- [Start the Recording](#)
- [Pause and Resume a Recording](#)
- [Stop Recording](#)

### Overview

Before creating a recording, make sure you have [installed](#) EchoSystem Personal Capture and configured the [recording devices](#).

Now you can prepare and distribute a Personal Capture recording in three to six phases. The first four are these:

1. [Prepare to record](#)
2. [Start a recording](#)
3. **Optional:** [Pause and resume a recording](#)
4. [Stop a recording](#)

At this point, you have captured a learning moment, but you may want to [review and edit](#) the capture. You will

certainly want to [publish a recording](#) to the EchoSystem Server (ESS). Once it is published, the media will be processed and prepared for student viewing.

### Best Practice - Use the Keyboard Shortcuts

During the capture, we recommend that you use the keyboard shortcuts for pause, resume, and stop. Using shortcuts to pause/resume the capture allows you to hide your on-screen actions (that you will, most likely, want to cut out in the editor). The shortcuts are provided below.

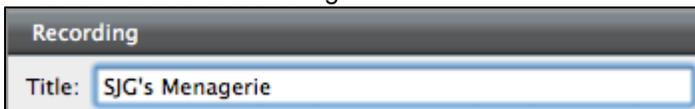
Action	Keyboard Shortcuts
Pause the recording	<b>Command + 6</b>
Resume the recording	<b>Command + 6</b>
Stop the recording	<b>Command + 8</b>

### Prepare to Record

#### ✓ **Best Practice: Clean Up Your Desktop**

Before beginning a recording, we recommend that you close (or at least minimize) all applications and windows except for Personal Capture and any applications you will use during the recording. The recording will be less cluttered and more professional looking.

1. Before starting Personal Capture, **attach** all the devices (microphones and cameras) you are planning to use.
2. Start Personal Capture.
3. You may be prompted with an update for Personal Capture. We recommend applying updates.
4. The next page will be either the **Welcome Screen** or **My Recordings** page. This depends on your settings. See [Set General Configuration](#).
5. Open the application (such as a PowerPoint presentation) that you want captured.
6. Click **Start Capture**.
7. Enter a title for the recording.

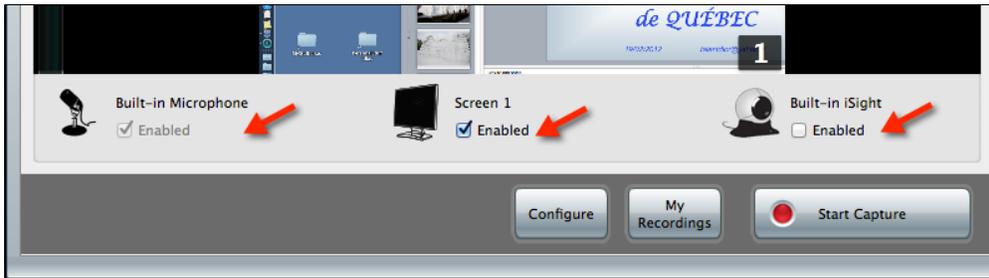


The image shows a dialog box titled "Recording" with a "Title:" label and a text input field containing the text "SJC's Menagerie".

#### ✓ **Best Practice: Enter a Title**

We recommend entering a descriptive title that will help you remember the content when you see it in the **My Recordings** list. You can change the title when you publish the recording.

8. On the preview or "pre-capture" screen, verify that all of the attached devices (microphones, cameras) appear, and use the checkmarks to select the devices you will use.



### **i** Audio is Selected by Default

Although the audio device check box is grayed, it is selected by default. Your voice will be recorded.

## Start the Recording

With everything set, we'll now start capturing your learning moment.

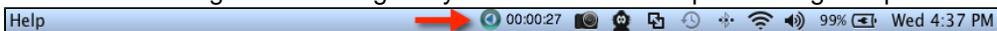
1. Click **Start Capture** to begin the actual capture of the selected devices.
2. The Recording screen minimizes and a countdown timer appears.

### **w** If You Are Using High Definition Cameras

If you are using two high definition cameras, the recording may abort at this point. This means that your computer may not have enough power to process the flood of data from both cameras. You have these alternatives:

- Reduce the resolution on one or both cameras and restart your capture
- Use just one high definition camera, not two, and restart your capture

3. When the countdown timer completes and disappears, a Personal Capture icon (and a timer) appears in the menu bar. Clicking on this icon gives you access to the stop recording and pause/resume commands.



4. Begin the presentation.
5. During the recording you can [pause and resume](#) the capture, using the keyboard shortcuts or the commands accessed from the Personal Capture icon.

## Pause and Resume a Recording

The **Pause Capture** and **Resume Capture** buttons allow you to stop a capture at any time, turn your attention elsewhere, and then resume the capture. You might use these buttons when any of the following situations occurs:

- A colleague or student comes into your office
- You need to look up some information
- Your recording environment becomes noisy or distracting

**You can pause a capture for up to 15 minutes.** After that, you are prompted to either continue or stop the capture.

### **✓** Best Practice: Use the Keyboard Shortcuts

We strongly recommend that you use the keyboard shortcuts for pause, resume, and stop. If you do not use the shortcuts, your capture will include screen actions that you will have to cut out in the editor. [Memorize the keyboard shortcuts.](#)

## Stop Recording

Certain actions will terminate your recording. These include shutting your laptop, logging out of your computer, and changing USB devices. If any of these events occur, your capture will be saved but not published.

When you are finished with your recording [use the keyboard shortcuts](#) (recommended) or the Personal Capture user interface to stop the capture.

To use the user interface commands, click on the Echo360 icon and select **Stop Recording**, as shown in the figure below.



## Review and Edit a Recording in Personal Capture for Mac

In this section:

- [Overview](#)
- [Review a Recording](#)
- [Edit a Recording](#)

### Overview

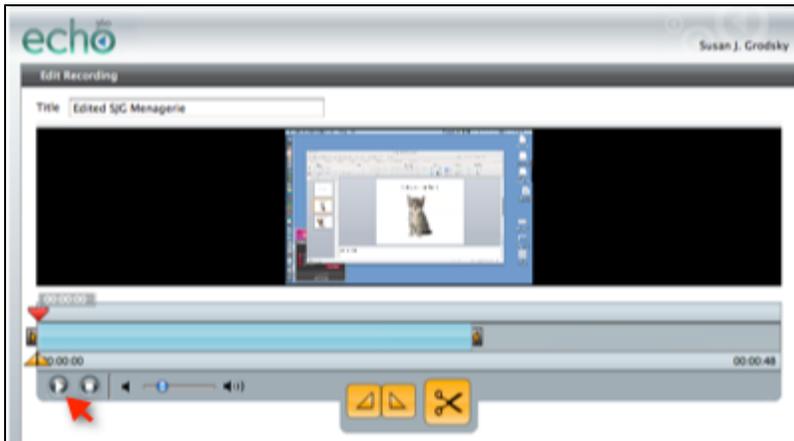
After you complete a recording, you will want to [review](#) it.

You may also want to [edit](#) it. When the recording is ready, you will want to [publish](#) the recording so it can be viewed by students.

If your institution has integrated Lecture Tools with EchoSystem, you can also [add Lecture Tools materials to a published Personal Capture recording](#), to provide students with pre-class exercises, such as polls or quizzes. Student responses can then be discussed in class.

### Review a Recording

1. Use either method to select a recording to edit:
  - In the **My Recordings** screen, select the recording and click **View/Edit**. The **Edit Recording** screen appears.
  - Immediately after stopping a recording, the **Edit Recording** screen appears.
2. In the **Edit Recording** screen, press the **Play** button.



3. Review the recording.
  - Check that the video quality is satisfactory, especially if you used high definition cameras.
  - Decide if there are any portions you want to remove in the editor. If you paused and resumed a recording but did not use the keyboard shortcuts, you will have on-screen actions that you may want to remove.

## Edit a Recording

You can:

- [Trim](#) the beginning and end of a recording ("top 'n tail")
- [Cut](#) a segment from the middle of a recording

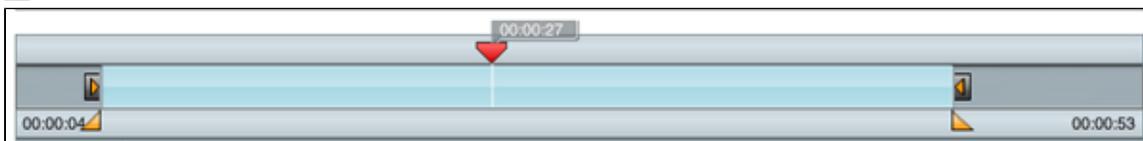
### Trim ("Top 'n Tail")

You may want to trim off the beginning and end of a presentation, leaving only the substantive portion.

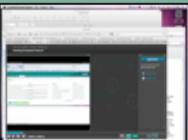
1. Select the recording to be edited.
2. Click **View/Edit**. The Edit Recording screen appears.
3. Drag the left slider in to trim the beginning of the recording.



4. Drag the right slider in to trim the end of the recording.



5. Make sure the playhead is at the beginning of the timeline.
6. Play the recording with the cuts in place.
7. Either [clear the cuts](#) (with the Clear Cuts button) or [save your changes](#) (with the Apply Edits button).
8. If you save changes, the edits are applied and the **My Recordings** page displays.
9. Notice that your recording is shown as **Edited**.

	<b>Test of Share Functionality</b> Susan Grodsky	Jan 10, 2011 12:24 PM 1 min 24 secs	<b>Edited</b> 
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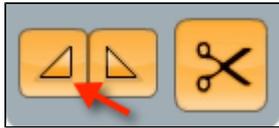
## Cut a Segment

If you paused and resumed a recording, you may want to cut out the middle portion of the recording that shows you clicking the pause and resume buttons.

1. Select the recording to be edited.
2. Click View/Edit. The Edit Recording screen appears.
3. Mark the segment you want cut, using either the playhead and marker buttons or the sliders.
  - a. To use the playhead and marker buttons:
    - i. Position the playhead on the section where you want the cut to start. In this example, the cut begins at 00:00:15 seconds.



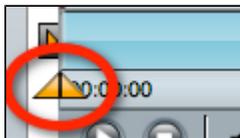
- ii. Click the **mark-in** button. This places the mark-in point at the current playhead position.



- iii. Position the playhead on the section where you want the cut to end.
    - iv. Click the **mark-out** button. This places the mark-out point at the current playhead position.



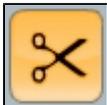
- b. To use the sliders:
    - i. Find the sliders to the left of the timeline.



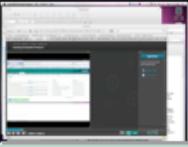
- ii. Drag the left slider in to the start of the segment.
    - iii. Drag the right slider in to the end of the segment.
    - iv. Verify that the sliders are in the correct positions.



4. Click **Cut**.



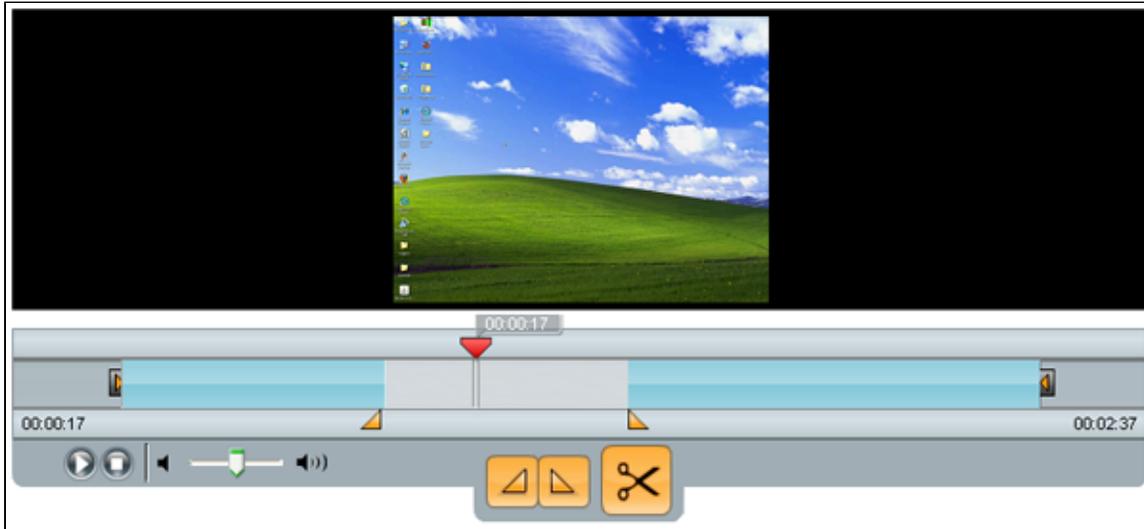
5. Notice that the cut area appears gray on the timeline.
6. Play the recording with the cuts in place.
7. Either [clear the cuts](#) or [save your changes](#).
8. If you save changes, the edits are applied and the **My Recordings** page displays.
9. Notice that your recording is shown as **Edited**.

	<p><b>Test of Share Functionality</b> Susan Grodsky</p>	<p>Jan 10, 2011 12:24 PM 1 min 24 secs</p>	<p><b>Edited</b></p> 
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### Clear Cuts

You can use these methods if you are cutting a middle segment. You cannot use this methods when trimming the beginning or end of a recording.

- To clear the last cut made, double-click the gray cut area.



- To clear all cuts made to the timeline, click the **Clear Cuts** button at the bottom of the application window. A pop up dialog box asks for confirmation to clear all cuts from the recording. Click **Clear all cuts**.

### Review Changes

Use the playback control buttons to view and/or listen to the edited recording.



### Save Changes

- Click **Apply Edits**.

**i Changes Are Permanent**

Changes cannot be undone after the edits are applied.

- Confirm or cancel changes.

## Publish a Recording from Personal Capture for Mac

In this section:

- [Overview](#)
- [Publish a Finished Recording](#)

## Overview

Publishing is the final phase when using Personal Capture. "Publishing" means that you upload the recording to the EchoSystem Server (ESS) so it can be viewed by students.

If your institution has integrated Lecture Tools with EchoSystem, you can also [add Lecture Tools materials to a published Personal Capture recording](#), to provide students with pre-class exercises, such as polls or quizzes. Student responses can then be discussed in class.

### Who can do this?

You must have a [Personal Capture license assigned to you](#) in order to publish your recording.

## Publish a Finished Recording

Publishing a recording consists of these phases:

1. [Select the recording](#) to be published.
2. [Review and edit](#) the recording's metadata (the title, date, and time).
3. [Publish the recording](#).

### Transcoding and Publishing May Take Some Time

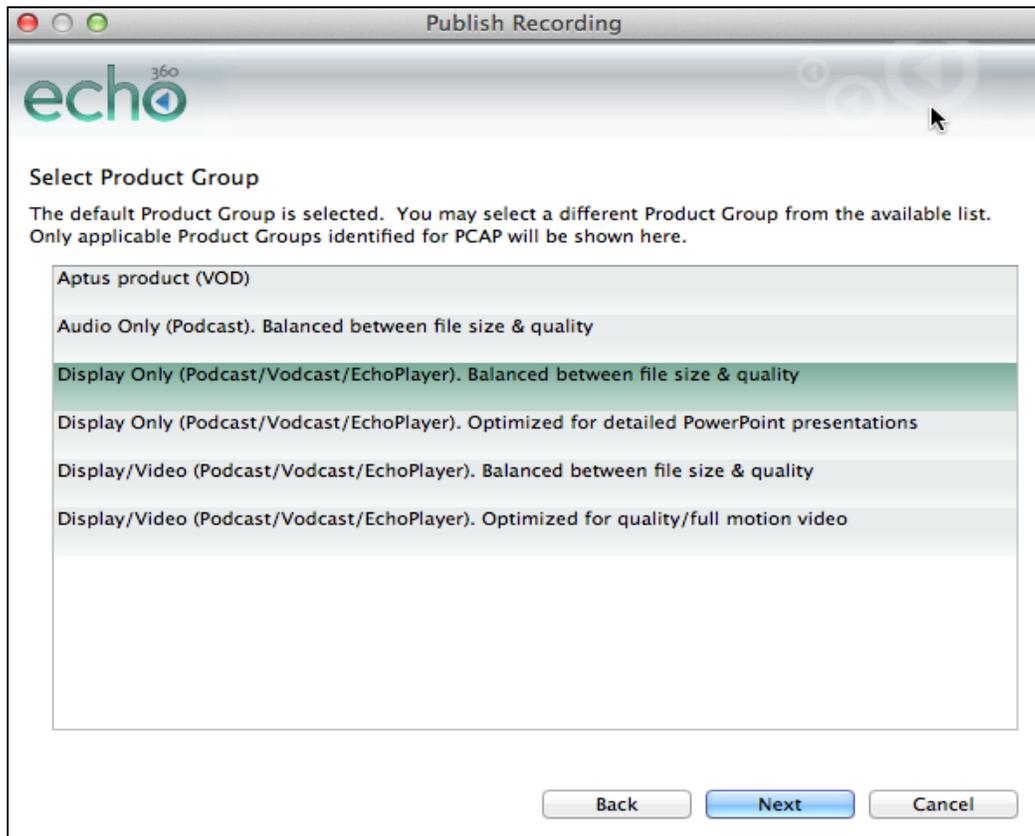
Publishing time depends on the edits you made, the size of the recording, and network conditions. Once you click **Publish**, the process of transcoding and publishing the media happens in the background. This means you can close the application; as long as the computer is running (not in "sleep" mode) and there is an active internet connection, these tasks will continue to run until they are complete. More specifically, the publishing process requires an active connection (to upload to the ESS); the transcoding part does not. In the event your internet connection is interrupted during the publishing process, the publishing task will start again when the connection is restored.

## Select the Recording

1. Select the recording to be published:
  - In the **My Recordings** page, select the recording in the list and click **Publish Recording**.
  - From the **Edit Recordings** page, click **Publish Recording**.
2. Log in to the ESS. If you are not able to log in, contact your System Administrator.

- Review the list of sections displayed. You will see only sections that you are associated with.

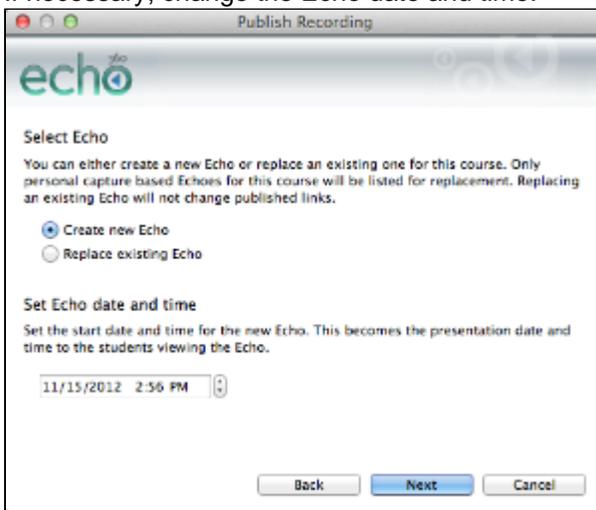
- Select the section.
- Click **Next**.
- Select the product group.
  - The product group determines which output products will be supported and what aspects of your recording will be optimized.
  - When your System Administrator or Scheduler set up recording for your section, s/he specified a default product group.
  - The default product group is, in most cases, the best choice, but you may want to select a different product group. For example, the default product group may be one that allows only audio and display products. But you have used a web camera to capture video for your recording (this is one of the benefits of Personal Capture). If you used the default product group, you would lose the video. You select a product group that includes audio, video and display products so that you do not lose the video capture.
  - Best practice: Choose the default product group then review the Echo. If the display or video seem blurry, or if the audio is unclear, discuss this with your System Administrator. You may want to reprocess the recording with a different product group.



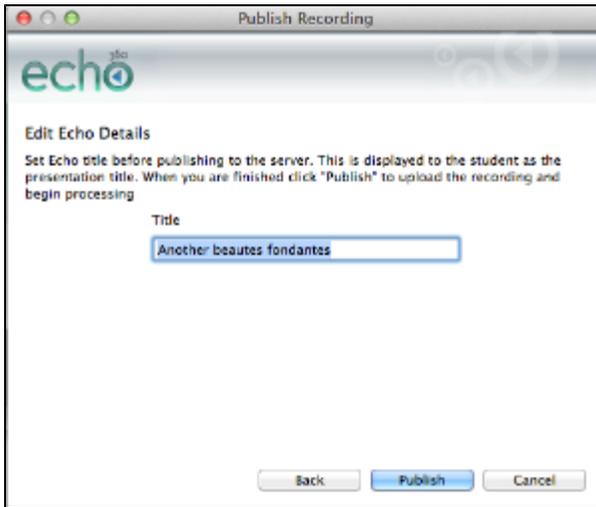
7. Click **Next**.

### Review and Edit the Metadata

1. Click the appropriate radio button.
  - Create new Echo
  - Replace existing Echo
2. If necessary, change the Echo date and time.

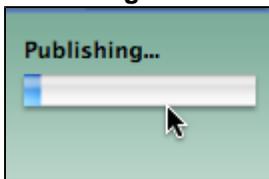


3. Click **Next**.
4. If necessary, edit the title.



### Publish the Recording

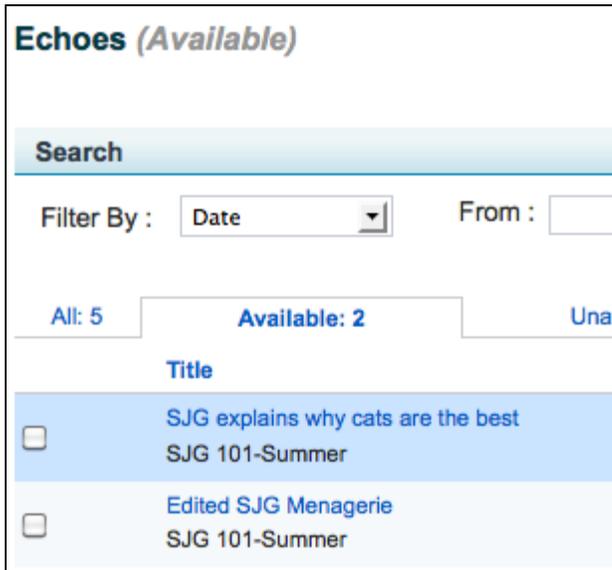
1. Click **Publish**.
2. Notice that the recording appears in the **My Recordings** page with a status of **Transcode Pending**, and then **Publishing**.



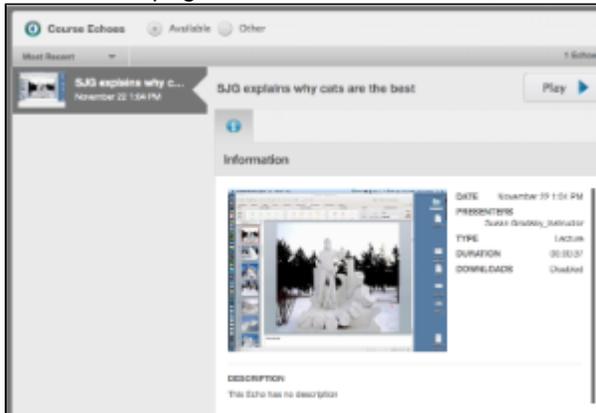
#### **Transcoding and Publishing May Take Some Time**

Publishing time depends on the edits you made, the size of the recording, and network conditions. Once you click **Publish**, the process of transcoding and publishing the media happens in the background. This means you can close the application; as long as the computer is running (not in "sleep" mode) and there is an active internet connection, these tasks will continue to run until they are complete. More specifically, the publishing process requires an active connection (to upload to the ESS); the transcoding part does not. In the event your internet connection is interrupted during the publishing process, the publishing task will start again when the connection is restored.

3. When the upload is complete, the status changes to **Published**.
4. You can see the published recording in both the ESS and on the EchoCenter page for the section.
  - ESS:



- EchoCenter page:



## Personal Capture For Windows

On this page:

- [Overview](#)
- [System Requirements for Personal Capture for Windows](#)

**!** When using PCAP for Windows, be sure that Windows Display Scaling is set to the default of 100% (see Control Panel > Display settings). Windows Display scaling, when enabled, can cause distortion and pixelization of the visual portion of PCAP captures. Refer to the [attached image](#) of the Control Panel > Display dialog box if necessary.

### Overview

The pages in this guide deal only with the installation and use of Personal Capture for Windows and include the following:

- [Install Personal Capture for Windows](#)
- [Configure Defaults in Personal Capture for Windows](#)
- [Configure Input and Output for Personal Capture for Windows](#)

- [Recording Captures with Personal Capture for Windows](#)
- [Review and Edit Recordings in Personal Capture for Windows](#)
- [Publish Recordings with Personal Capture for Windows](#)

See the [Personal Capture For Mac](#) guide for instructions for Mac OS users.

For this and all future upgrades a notice will appear at the bottom of the application window, informing you that an update is available. Clicking the notice launches the upgrade.

## System Requirements for Personal Capture for Windows

The following table provides recommendations for using Personal Capture for Windows. These configurations have been tested and verified in house. While we make every attempt to support a wide variety of hardware and devices, we cannot test all devices. Other devices may work, but we cannot guarantee them.

Personal Capture for Windows is *not* supported on netbook computers.

OS	Recommended Hardware for Audio and Display or Audio and Video capture (AD or AV)	Recommended Hardware for Audio, Display and Video or Audio, Video, and Video capture (ADV or AVV)	Necessary Software

<ul style="list-style-type: none"> <li>• Windows 7</li> <li>• Windows 8/8.1</li> </ul>	<p>Intel Core i5 processor or equivalent; 2 GB RAM; 10 /100 network interface; minimum 20 GB free hard disk space.</p> <p>Internal or external audio device.</p> <div data-bbox="522 430 755 1423" style="border: 2px solid orange; padding: 10px; text-align: center;"> <p> <b>Audio Input is Required</b></p> <p>You cannot create a capture with no audio. If you do not have an audio input (internal or external) you cannot begin recording.</p> </div>	<p>Intel Core i7 processor or equivalent; 2 GB RAM; 10 /100 network interface; minimum 20 GB free hard disk space.</p> <p>Internal or external audio device.</p> <div data-bbox="863 430 1096 1423" style="border: 2px solid orange; padding: 10px; text-align: center;"> <p> <b>Audio Input is Required</b></p> <p>You cannot create a capture with no audio. If you do not have an audio input (internal or external) you cannot begin recording.</p> </div>	<p>Windows .NET 3.5 is required. If it is not present, you are prompted to install it.</p>
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 **If Your Capture is Blank**

Personal Capture now uses the Windows Media Foundation (WMF) for video capturing. Specifically the cameras should be YUY2 or RGB24 compliant (the camera packaging should indicate this) and supported on a Windows 7 or Windows 8/8.1 platform. If your capture is blank, first check to make sure the camera is attached (if external) and then try an Audio/Video capture. Refer to [Test Protocol for Web Cameras](#) for basic instructions. You may also try [lowering the output quality](#) of the capture, if you selected High Quality/Large Files. This setting requires significant system resources to process.

## Install Personal Capture for Windows

In this section:

- [Overview](#)
- [Upgrading from Previous Versions](#)
- [Download the Installer](#)
- [Install the Program](#)

## Overview

Personal Capture for Windows is supported on the following operating systems:

- Windows 7
- Windows 8/8.1

You will also want to refer to the [Personal Capture For Windows](#) page for the following information:

- [Recommended Hardware and Software](#) to ensure your computer has sufficient resources to run the program properly.
- [Supported Web Cameras for Personal Capture](#) to determine what cameras you can use for your recordings.

## Upgrading from Previous Versions

For both this and all future upgrades, a notice appears in the bottom bar of the program letting you know an update is available. Click on the bar to launch the update.

## Download the Installer

Download the Personal Capture installer from the ESS web interface. If you have questions about accessing the ESS, see your ESS System Administrator.

1. Log in to the ESS.
2. Navigate to the **Downloads** tab.
3. Download the installer by selecting the appropriate link, identified in the below figure. The installer must be run locally, so save the file to your computer.

Software Installer Downloads		1 - 7 of 7
Description	File	
Installer for EchoSystem Personal Capture (Windows)	 <a href="#">EchoSystemPersonalCaptureForWindows_5.4.41370.exe</a>	
Installer for EchoSystem Classroom Capture (Windows)	<a href="#">EchoSystemClassroomCaptureForWindows_5.4.41370.exe</a>	
Installer for EchoSystem Personal Capture (Mac OS X)	<a href="#">EchoSystemPersonalCaptureForMac_5.4.41370.zip</a>	
Installer for EchoSystem Processor (Windows)	<a href="#">EchoSystemProcessorForWindows_5.4.41370.exe</a>	
Installer for EchoSystem Processor (Linux 64) [launch from console with sudo]	<a href="#">EchoSystemProcessorForLinux64_5.4.41370.bin</a>	
Installer for EchoSystem Processor (Linux 32) [launch from console with sudo]	<a href="#">EchoSystemProcessorForLinux32_5.4.41370.bin</a>	
Installer for EchoSystem Streaming Configuration Bundle	<a href="#">StreamingBundle_5.4.41161.zip</a>	

1 - 7 of 7

**Alternate method:** Get the installer directly from your System Administrator and save it to your local machine. In this case, the Administrator downloads the file from the ESS and provides it directly to you.

### Use Local Directories for Installation and Capture Storage Directories

For the installation instructions below, note that the Personal Capture installation and data directories **must** be on the local drive; they cannot be located on a network, remote (mapped), or USB thumb drive.

## Install the Program

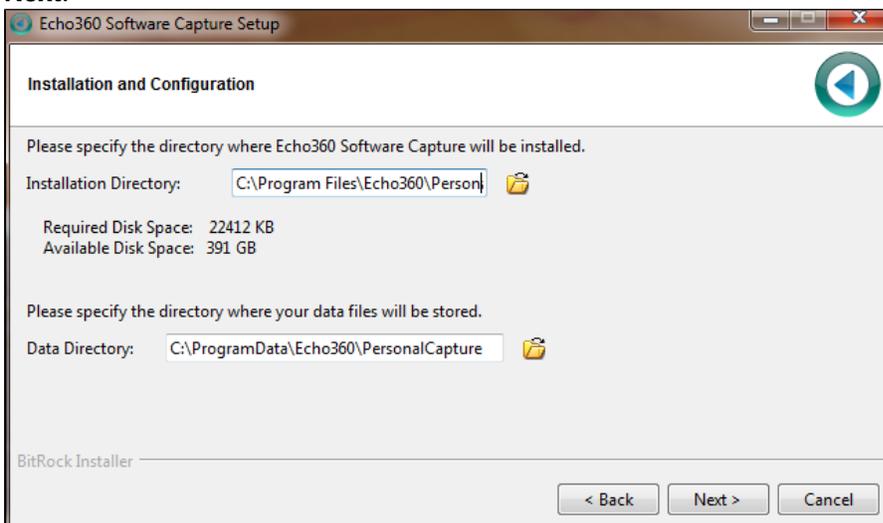
 When using PCAP for Windows, be sure that Windows Display Scaling is set to the default of 100% (see Control Panel > Display settings). Windows Display scaling, when enabled, can cause distortion and pixelization of the visual portion of PCAP captures. Refer to the [attached image](#) of the Control Panel > Display dialog box if necessary.

Personal Capture requires Microsoft .NET Framework version 3.5 or higher. According to the following article from Microsoft, newer versions of .NET are backwards compatible: <http://msdn.microsoft.com/en-us/library/ff602939%28v=vs.110%29.aspx>.

If an appropriate version of the .NET framework is not detected, the installer will attempt to download and install it for you. If it cannot be installed, installation will stop.

1. Locate the downloaded installer executable and double-click it. This starts the installation process.
2. Follow the installation wizard.
3. Confirm or change the locations for installation and for capture files, as shown in the below figure, then click

**Next.**



4. Continue through the installation wizard. When complete, click **Finish** to close the installer.
5. If you installed the .NET Framework during installation, or other registry changes were required, **you may be prompted to restart the computer**. Be sure to do so, as Personal Capture may fail until you restart the machine.

### Please Note

Please note that even if you already have .NET 4.0 installed, you may still be required to install .NET 3.5.

## Configure Defaults in Personal Capture for Windows

In this section:

- [Overview](#)
- [Configure Login](#)
- [Configure ESS Settings](#)

## Overview

Two things are required to publish a capture generated with Personal Capture (PCAP):

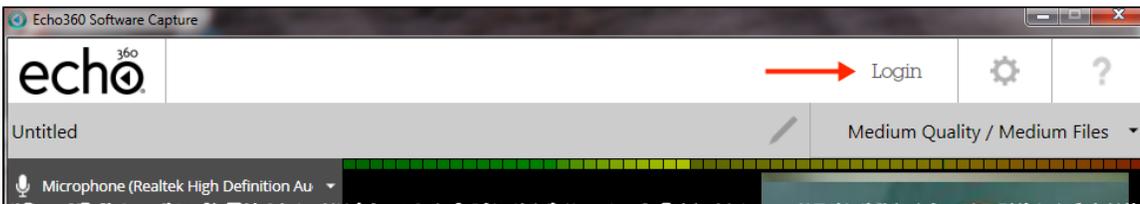
- Valid login for a [licensed user](#),
- The URL of the EchoSystem Server (ESS) to which the capture is to be published.

Configure these items for Personal Capture the first time, and as long as the information doesn't change, the settings are used every time for publishing captures.

## Configure Login

Click the **Login** link at the top of the Personal Capture window, shown in the below figure. The credentials you enter are used to:

- Identify the sections to which you are associated. This allows you to select the section to which a capture should be published.
- Determine whether you are licensed for Personal Capture. Any user can create a capture, but only licensed users can publish captures to the ESS.



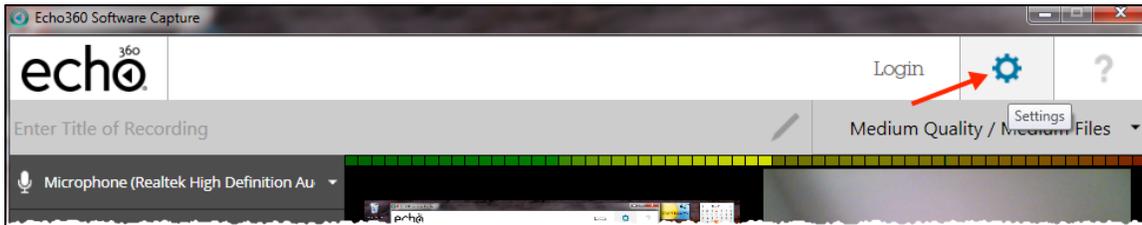
Use the dialog box that appears to enter your ESS Login credentials.

Click the **Save Password** checkbox to retain this information and use it for all captures published from this installation. Or leave the box unchecked and enter your credentials every time you publish a capture.

Once you are logged in, the "Login" label at the top of the window changes to show your username.

## Configure ESS Settings

Click the **Settings** button at the top of the Personal Capture window, identified in the below figure (it looks like a gear).

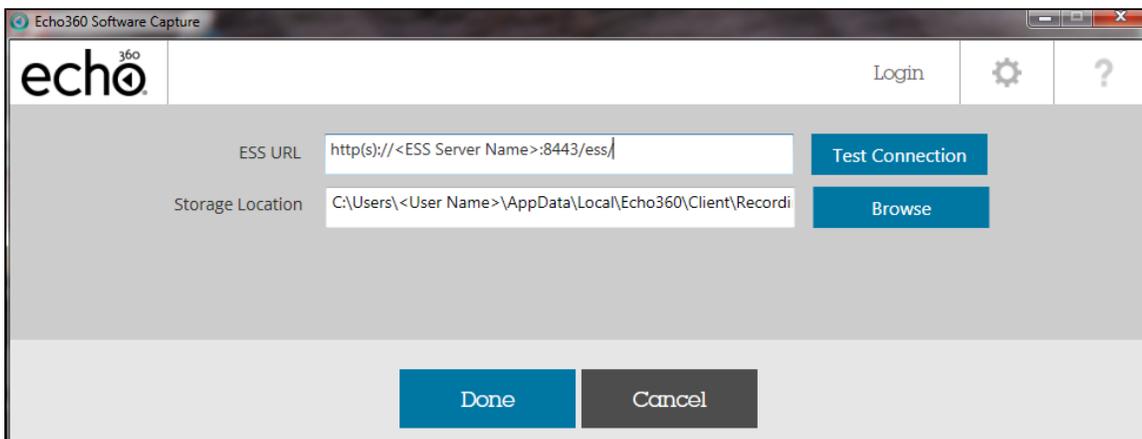


Use the dialog box, shown below, to enter the following information:

- **ESS URL:** The Hostname and Port number of the ESS to which you will publish captures. If this field reads a dummy address (*https://None:None/ess*), you will need to manually enter the information. For example: *https://EchoServer.institution.edu:8443/ess/*.
  - If you ever log into the ESS to manage your echoes or upload media, this is the same URL you use for that.
  - You may also be able to use the first segment of the URL for your course EchoCenters, if your institution does not use an LMS.
  - >Click **Test Connection** to be sure the information you enter is accurate.
  - Contact your System Administrator if you need assistance. See also the note below.
- **Storage Location:** Identifies the location on the local machine where capture files are stored. Click **Browse** to change this at any time.

#### **Use Local Directory for Capture Storage Location**

The Personal Capture storage location **must** be on the local drive; it cannot be located on a network, remote (mapped), or USB thumb drive.



This information is retained and used for all captures generated and published from this Personal Capture installation. It can be changed any time necessary.

#### **Try a different HTTPS port number**

If you believe the Hostname/URL for the ESS is correct but you still cannot connect, try changing the port number from 443 to 8443 or vice versa. Personal Capture always connects to the ESS via HTTPS, and the default HTTPS port settings are 8443 or 443, depending on the deployment. If you still cannot connect, contact your System Administrator.

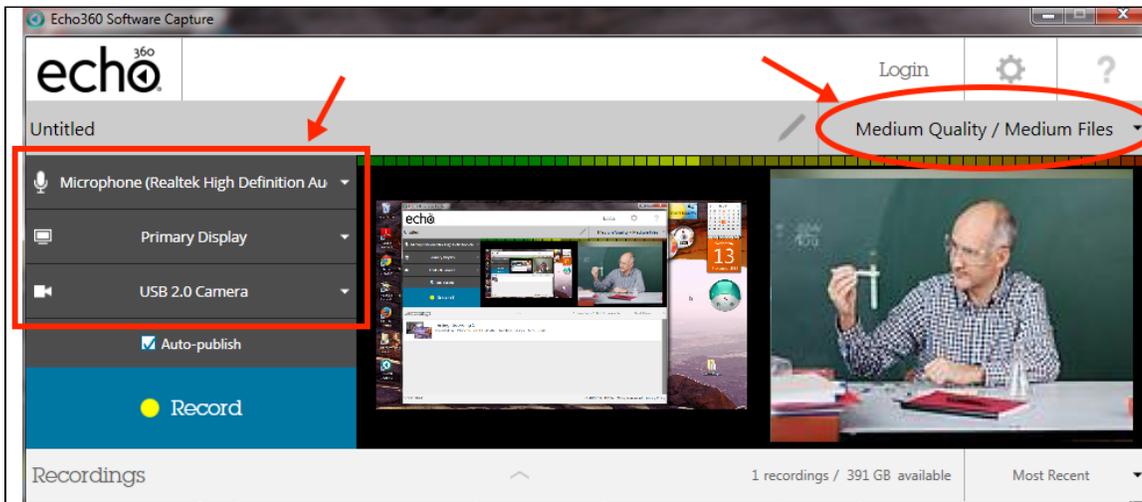
## Configure Input and Output for Personal Capture for Windows

In this section:

- [Overview](#)
- [Select Input for Recording](#)
- [Select Output Quality for Capture](#)

## Overview

Personal Capture allows you to select the inputs you want to capture for each recording, and the output quality for the capture. The below figure identifies the locations of the drop-down lists for selecting recording inputs and capture quality output.



The input and output selections you make are retained, even after you close the program. This means you can configure these settings once and use the same ones each time you create a recording, without the need to re-select them.

## Select Input for Recording

Personal Capture allows you to record up to three inputs, as follows:

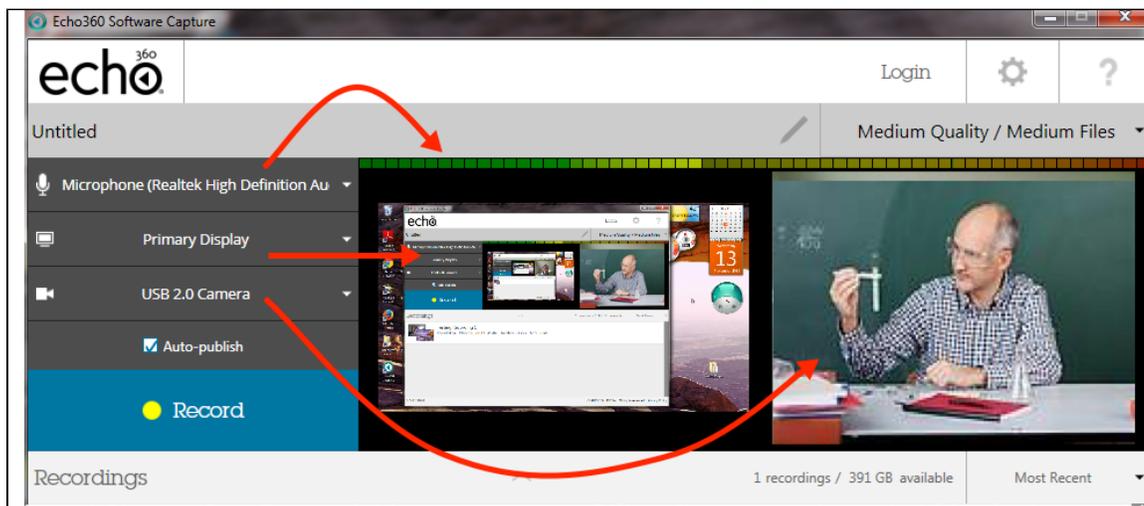
- **Audio only** - capturing only audio input. This will generate an MP3 file for students to listen to.
- **Audio and Video (A/V)** - capturing sound and video input from the built in or USB-connected video camera.
- **Audio and Display (A/D)** - capturing sound and whatever is shown on the computer screen.
- **Audio, Display, and Video (A/D/V)** - capturing sound, the display on the computer screen, and video input.
- **Audio and Dual Video (A/V/V)** - capturing sound and the input from two different video sources.

Use the three drop-down lists, identified in the above picture on the left side of the screen, to select the inputs you want to use. Choose **None Selected** if applicable to that input.

### Note the following about Audio input:

- You cannot choose None Selected for audio input; audio is always captured.
- You can use the internal microphone, an externally-attached microphone, or a microphone on an externally-attached camera if there is one.
- You **MUST** have at least one audio input. Personal Capture will not allow you to record without audio.

After you select the appropriate inputs, check the preview of those inputs shown on the screen. Each are identified in the following figure and described below the figure.



- **Microphone Input** is shown in the light-bar above the preview panes. If you do NOT see this bar changing as sounds are made, check your microphone connection and functionality. ***If the sound bar on the screen is not registering sounds, your capture may not have audio.***
- **Display or Second Video Input** is shown in the left panel of the preview panes. Capturing Primary Display, captures whatever appears on the computer screen. If you are using two video inputs, this will show whatever the selected camera is currently aimed to view.
- **Primary Video Input** is shown in the right panel of the preview panes. If you are not capturing video, this option will show **None Selected**, and the right preview pane will be blank.

## Select Output Quality for Capture

The output selection drop-down list is located on the right side of the preview screen above the Primary Video preview pane. It is circled in the figure at the top of this page. This selection allows you to determine the resolution of the video and display output of the capture, which in turn determines the size of the capture files saved to your drive and subsequently uploaded to the ESS and viewed or downloaded by students.

The selections available are as follows:

- **Low Quality/Smaller Files** - This creates a capture with low resolution video and display. The lower resolution keeps the final file size to a minimum. This is a good choice if section quota size is a concern, or if you or your students have bandwidth issues that may cause larger file uploads or capture playback to fail.
- **Medium Quality/Medium Files** - This is the default setting. It generates a capture with medium resolution video and display. This setting creates medium sized files for the recording. This setting is probably sufficient for playback on most devices.
- **High Quality/Larger Files** - This setting creates high-definition resolution for video and display. Consequently this setting also creates very large files for these captures. Use this setting if you have visual details in the display or video of the capture that requires students to see the recording in very high resolution. Otherwise this setting should be used sparingly, due to the time required to upload and process the completed capture. In addition, this setting uses significant computer resources; if your computer cannot process a high quality capture properly, your capture may be blank. If you DO need to use the High Quality setting, [run a test capture first](#), to be sure it will work.

## Configuring Quality Selection Settings - Advanced Users Only

The resolution defaults for Personal Capture outputs are maintained in a set of XML files installed with the program. If the resolution and other output details for the pre-configured selections are not appropriate for your situation and needs, you can manually configure these files. Changes in the XML files will change the output generated for captures made with the corresponding selection in the interface.

If you are not familiar with working in XML files, you are ***strongly encouraged*** to work with a local expert or contact [Echo360 Customer Support](#) for assistance. ***You must have Windows Administrator rights on the computer to alter these files.***

The output quality XML files are located in the `/config/` sub-folder of the Data directory identified during installation. By default this is: `c:/ProgramData/Echo360/PersonalCapture/config`

The directory contains the following files:

- **HighRes.xml** - This file controls the output resolution of the High Quality/Larger Files selection.
- **MedRes.xml** - This file controls the output resolution of the Medium Quality/Medium Files selection.
- **LowRes.xml** - This file controls the output resolution of the Low Quality/Smaller Files selection.

Each XML file contains property values that determine the capture output quality for Audio, Display, and Video inputs. If needed, you may change these files to generate different output settings for each of the selection options.

**You must restart the Personal Capture application for your changes to these files to take effect.**

#### **Create Copies of the Original XML Files Before Editing**

We ***strongly recommend*** that you save a copy of the original XML files, as installed, PRIOR to making changes. In the event something happens where the altered files do not work or are not generating the desired output, you will want to have the original files for the program to use. You can simply create a copy in the same directory with "\_ORIG" appended to the file name. For example, `MedRes_ORIG.xml`.

## Recording Captures with Personal Capture for Windows

In this section:

- [Overview](#)
- [Creating a Recording](#)
- [Deleting a Recording](#)

### Overview

Personal Capture allows you to create personal recordings, outside of the classroom, providing additional learning materials for students.

Personal Capture recordings are saved locally. You can then manually publish them to the ESS, or check the Auto-Publish checkbox to publish a recording immediately when finished.

The ability to [manually publish recordings](#) means that you can practice with the program and create as many test recordings as you like. You can even practice editing the recordings until you are comfortable with the interface, and delete the test recordings when you no longer need them.

The ability to [Auto-Publish a recording](#), means you can complete a recording and walk away from the computer and even close the application as soon as you are finished. The recording will be published to the ESS in the background.

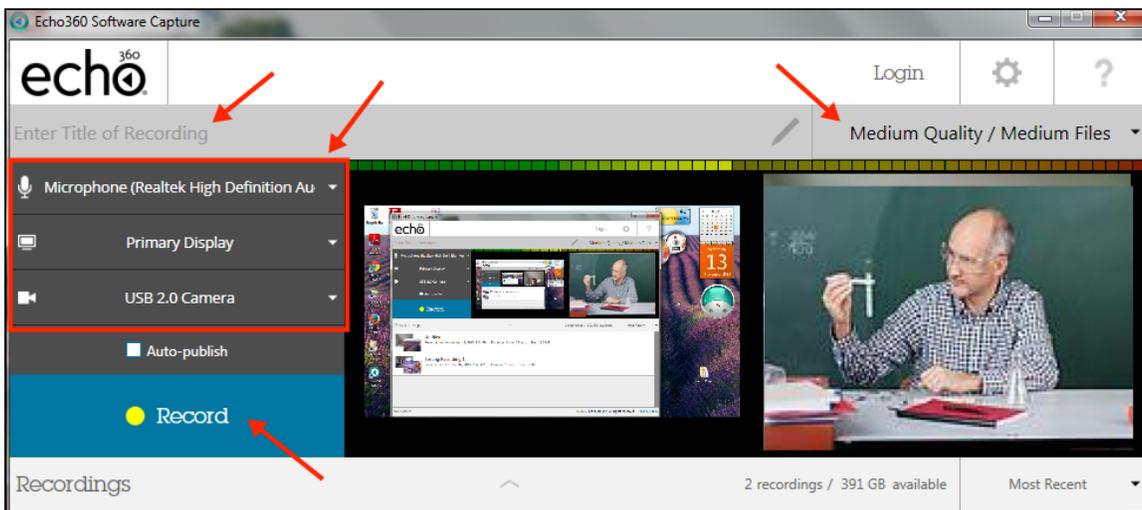
**⚠** When using PCAP for Windows, be sure that Windows Display Scaling is set to the default of 100% (see Control Panel > Display settings). Windows Display scaling, when enabled, can cause distortion and pixelization of the visual portion of PCAP captures. Refer to the [attached image](#) of the Control Panel > Display dialog box if necessary.

## Creating a Recording

To begin creating a Personal Capture recording:

1. Enter a **Title** for the recording using the title bar at the top of the page. You can change this later if needed.
2. Check or set the [capture inputs](#). Use the Preview window to make sure they are capturing what you need to include in the recording.
3. Check or set the [capture output quality](#).
4. Set up the presentation or visual experiment or other items you are planning to capture, and check the Preview panes for verification.
5. Check or Uncheck [Auto-Publish](#) as appropriate.
6. Click **Record**.

The locations for performing each of these steps is identified in the below figure.



After you click **Record**:

- If Auto-publish is checked, the following dialog box appears asking you to enter a **Title**, select a **Course**, and the **Output** you want for the published recording.

**Before recording, please provide the following information**

Title:

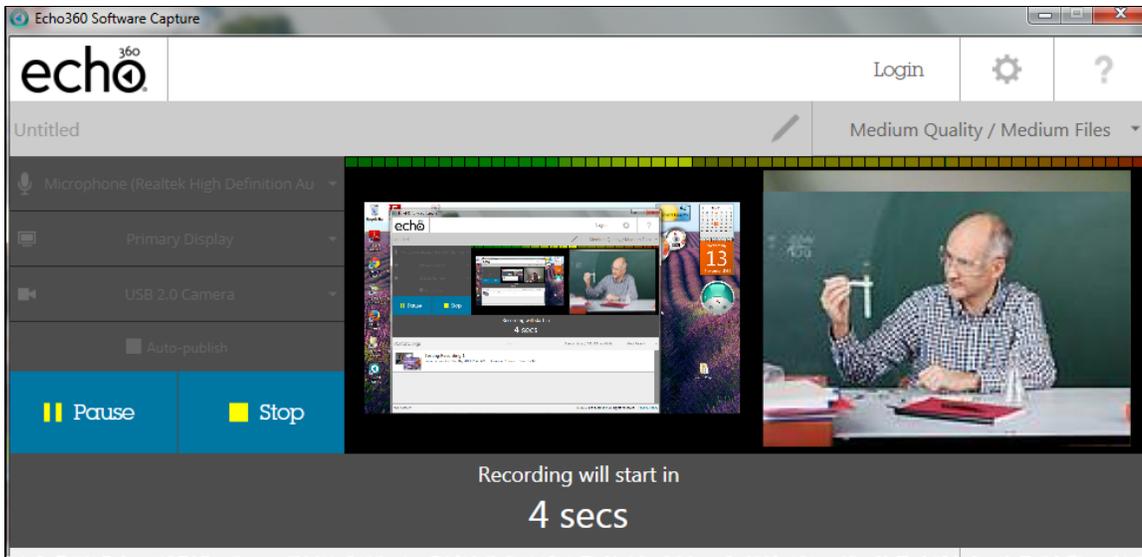
Course:

Output:

Make Available

- A five second countdown appears in the window, shown in the below figure.
- Once the countdown finishes, recording begins and the preview window minimizes to the taskbar.

- The Record button changes to show **Stop** and **Pause**.

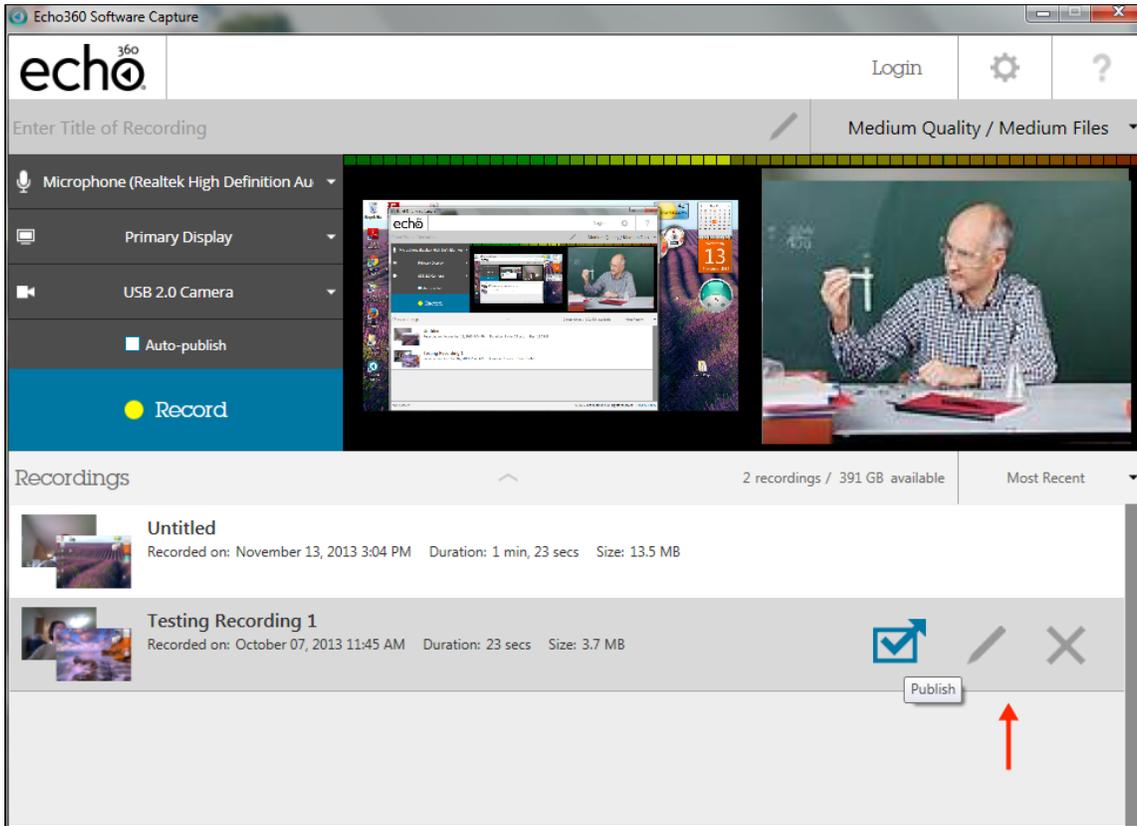


You can use the **Stop** and **Pause** buttons in the interface to manipulate the recording, or you can use the keyboard shortcuts as follows:

- Pause/Resume toggle: **Alt+F5**
- Stop: **Alt+F6**

After the capture is completed, the recording appears in the list of recordings at the bottom of the Personal Capture window. From there you can [publish](#), [review and edit](#), or [delete the recording](#). The figure below shows the Publish, Edit and Delete icons that appear when you hover your mouse over a recording in the list.

If the **Auto-publish** was checked, the capture is also automatically published to the ESS when you stop recording. Be advised, however, that if Auto-publish is checked, you cannot [review or edit the recording](#) before publishing it to the ESS. The recording will still be saved locally, so you can edit the capture and re-publish it later if necessary. Or you can [edit the published capture on the ESS](#) if needed.

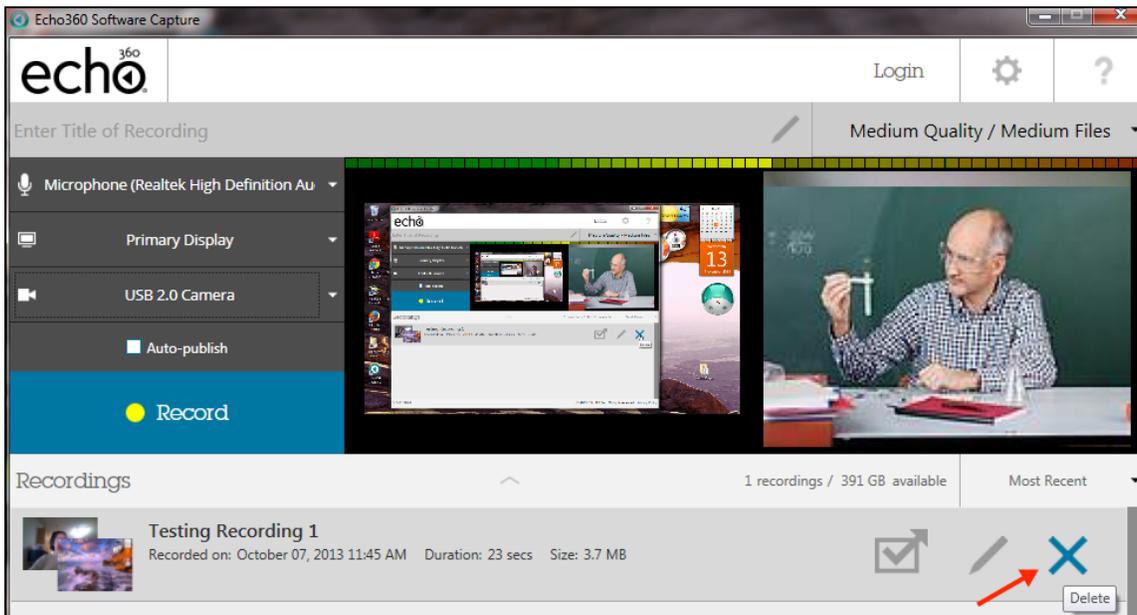


## Deleting a Recording

If you no longer need to keep a recording, you can delete it.

Deleting a recording in Personal Capture does not delete the capture from the ESS (if the recording was published). It simply deletes the recording from the local machine. If appropriate, you may want to check the information shown for the recording, to see that the recording was published, prior to deleting it.

To delete a recording, hover the mouse over the recording you want to delete and click the **Delete** icon, as shown in the below figure.



You will be asked to confirm the deletion. Deletion is permanent and cannot be undone.

## Review and Edit Recordings in Personal Capture for Windows

In this section:

- [Overview](#)
- [Access the Editing Window](#)
- [Review the Recording](#)
- [Trim the Recording](#)
- [Cut Segments From the Recording](#)

### Overview

The Personal Capture program contains some basic review and editing capabilities for captured recordings, including:

- Review the recording, including review of edits before applying them permanently.
- Trim the beginning and end of the recording ("top and tail")
- Cut segments out of the recording as needed.

Capture review and editing are performed through the Editing Window described below.

Please note the following about editing and Auto-Publish:

- Logically, captures that are Auto-Published cannot be edited in Personal Capture first; they are automatically published to the ESS as soon as recording ends.
- You can, however, [edit the capture through the ESS](#) if necessary.
- Or you can edit the locally saved version of the recording, and [manually re-publish the capture](#), replacing the original, if appropriate.

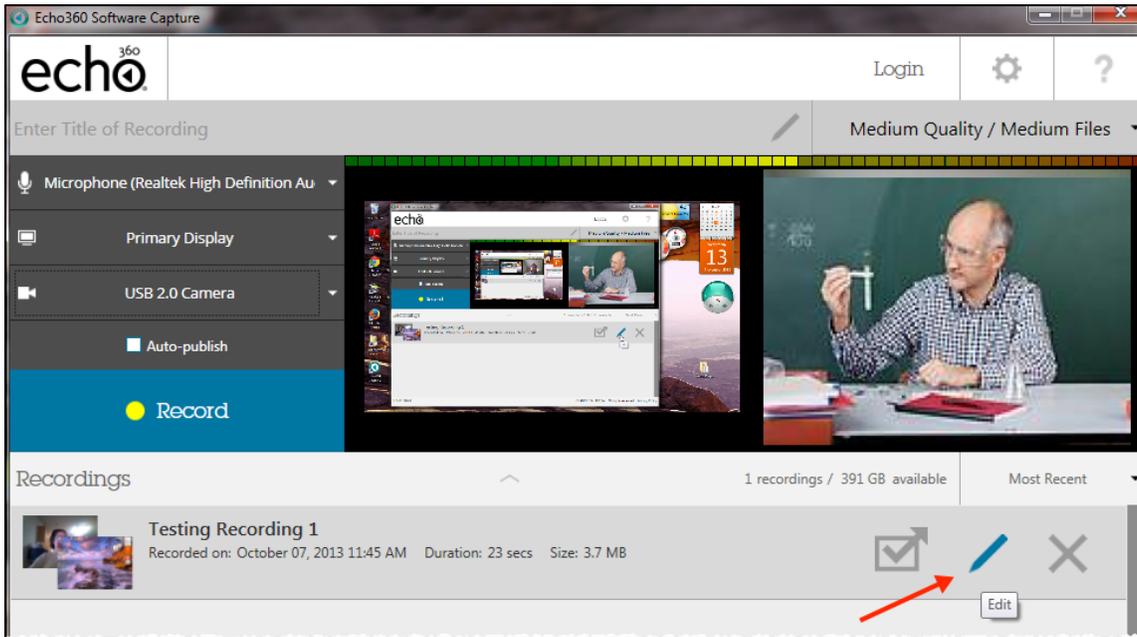
If your institution has integrated Lecture Tools with EchoSystem, you can also [add Lecture Tools materials to a published Personal Capture recording](#), to provide students with pre-class exercises, such as polls or quizzes. Student responses can then be discussed in class.

#### Long Recordings Take Time to Load for Editing

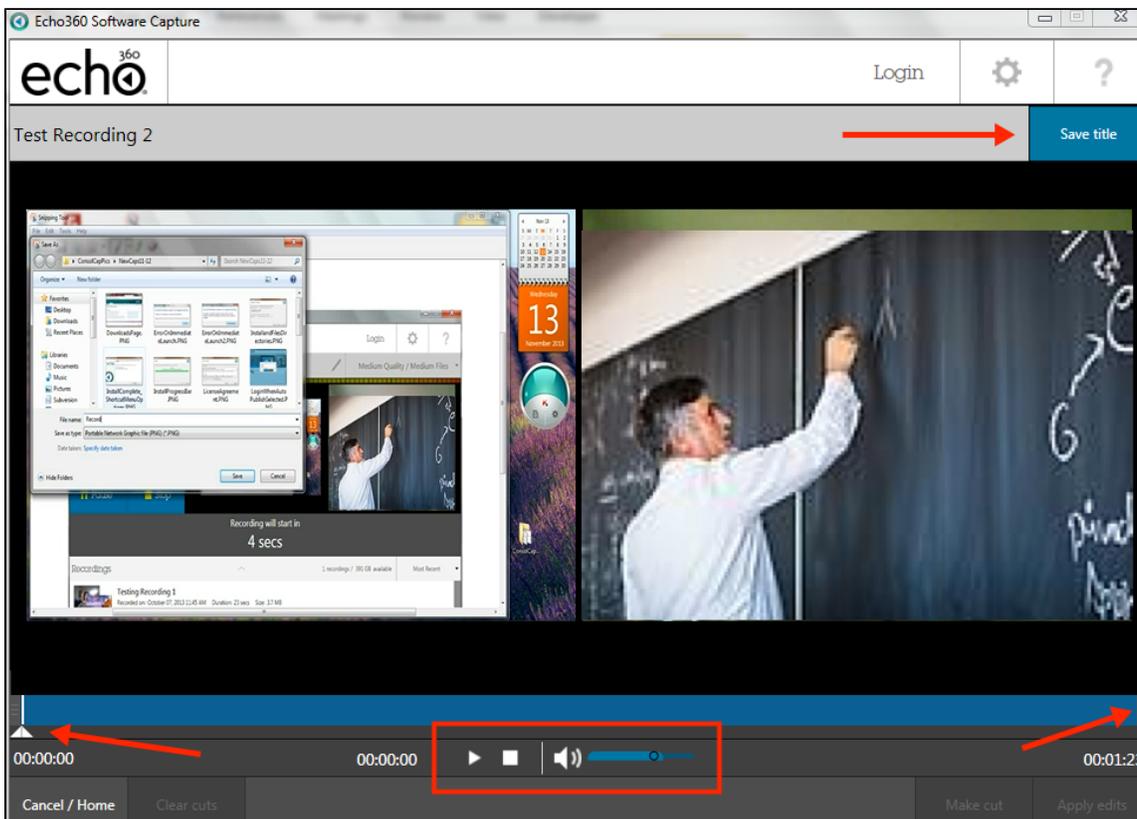
If you are editing a very long recording (multiple hours) it may take up to several minutes for the capture to fully load in the Editing Window. You will see the capture in the window, along with the editing tools, and you can make temporary cuts or trim the recording as needed. However you may notice that the **Apply edits** button reads **Loading...** instead. This will continue until the entire capture is loaded for editing.

### Access the Editing Window

Review and edit of a Personal Capture recording are both performed in the Editing Window. To open the editing window, hover your mouse over the recording and click the **Edit** button, as shown in the below figure.



The Edit Window appears, as shown in the below figure. The figure also identifies the main editing window features, which are discussed in more detail in the later sections on this page.



## Review the Recording

Use the playback controls to play the recording. If you have made cuts in the recording, the playback will skip the cut areas, so you can see how the edits affect the final product.

The figure below shows the playback controls, and has the current location of the playhead identified, both as the

timed location, and within the playback bar itself.



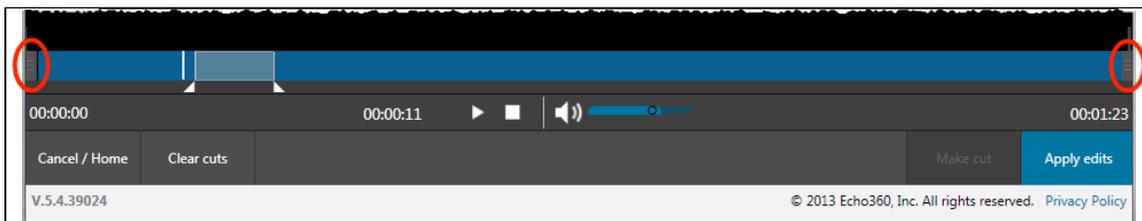
It can be useful to note the timed location of the playhead when the recording gets to a point you need to edit, either as a cut, or to trim the beginning or end of the recording. Jotting down the timed location can help you move the trim sliders or cut marks more quickly and accurately, to make edits.

When the playhead gets to a cut location (identified as the lighter area in the playback bar), the playhead will skip over the cut in the bar, and the timed location will change in conjunction with the skip.

## Trim the Recording

Also referred to as "top and tail", the editing window allows you to cut off the beginning and ending of the recording as needed. For example, you may begin recording then have to start over again. With the Trim capability, you don't have to stop and create a new recording. You can simply begin again while the current session is running, and then trim the "false start" from the beginning of the capture when finished.

This also allows you to remove any last keystrokes or other movements used to end the recording, such as opening the Personal Capture window and clicking Stop to end the session. This too can be trimmed from the final capture.



The figure above has the trim sliders circled. Notice they are located at the beginning and end of the playback bar.

- **Click and drag the trim sliders** to move them.

Notice that as you drag the sliders toward the center of the playback bar, the start time and end time change in conjunction with the new start or end points of the recording.

- When finished, click **Apply edits** to permanently apply these changes to the recording. **This cannot be undone!**

## Cut Segments From the Recording

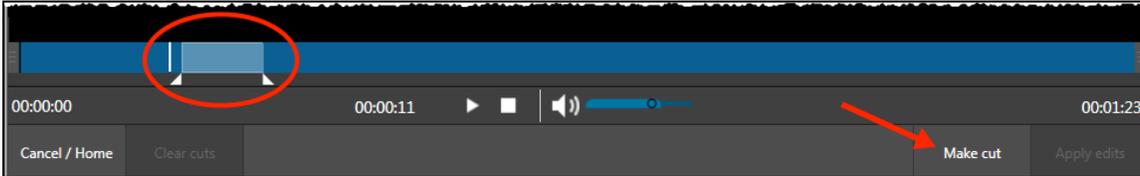
When you first open the Edit window, you see a larger triangle positioned at the beginning of the recording. If you click the triangle and slide it, you will notice that it is made up of two smaller triangles. These are cut markers and are used to identify the beginning and end points of a section to cut from the recording.

**NOTE:** Any cuts you make are temporary until you select to **Apply edits**. This is discussed in more detail below.

### To temporarily cut a segment from the recording:

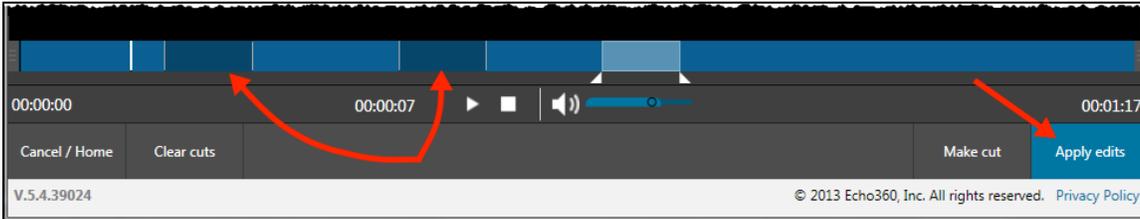
1. Click and drag the two smaller triangles to the appropriate beginning and end points of a segment.
2. Click **Make cut**, located at the bottom right of the window.

The below figure shows the two parts of this process.



Once the cut is made, the segment turns darker than the original playback bar.

Clicking **Make cut** frees up the cut markers to make another cut in the recording. The figure below shows a playback bar with multiple temporary cuts made.



As long as the cuts remain temporary, you can remove the cut and return that section of the recording to its original state.

#### To remove a temporary cut:

- Double-click the cut segment in the playback bar.

When a cut is removed, the segment returns to the same color as the rest of the playback bar.

#### To clear all temporary cuts:

- Click **Clear Cuts**, located on the bottom left side of the window.

Use the playback controls to [review your edited recording](#). The playback head will skip over any cuts you have made so you can see how the recording will look when it is published.

#### To permanently apply changes:

- Click **Apply edits**, located in the bottom right corner of the window, as identified in the above figure.

Clicking Apply edits makes your changes permanent. **This cannot be undone!** You will receive a warning message to be sure you want to apply your changes to the recording.

In the list of your recordings at the bottom of the Preview Window, those that have been edited are marked as Edited. This allows you to quickly determine which recordings may still require edits before publishing.

## Publish Recordings with Personal Capture for Windows

In this section:

- [Overview](#)
- [Auto-Publish a Recording](#)
- [Manually Publishing a Recording](#)

## Overview

Publishing a Personal Capture recording uploads the file to the ESS for processing. Once processed, the recording is posted in the EchoCenter for the section you identify, allowing students to view the material.

If your institution has integrated Lecture Tools with EchoSystem, you can also [add Lecture Tools materials to a published Personal Capture recording](#), to provide students with pre-class exercises, such as polls or quizzes. Student responses can then be discussed in class.

There are two publishing modes for Personal Capture:

- [Auto-Publish](#)
- [Manual Publish](#)

You should also understand the following about the publishing process as a whole, which applies to both Auto and Manual publishing:

- While the actual file upload process happens in the background, you MUST wait until the "Finalization" and "Prepare to Publish" processes for the capture have finished, BEFORE closing the application. These statuses are noted on the screen and you will receive a notice if you attempt to close the application before they are complete.
  - The Prepare to Publish process should take less than a minute.
  - The Finalization process may take several seconds, or several minutes, depending on the length of the recording. Plan to allot for this time for longer recordings.
- The Publishing process occurs in the background but does require a network connection to the ESS. If this process is interrupted (network outage, turning off the computer or putting it to sleep), publishing will resume once the connection is re-established.

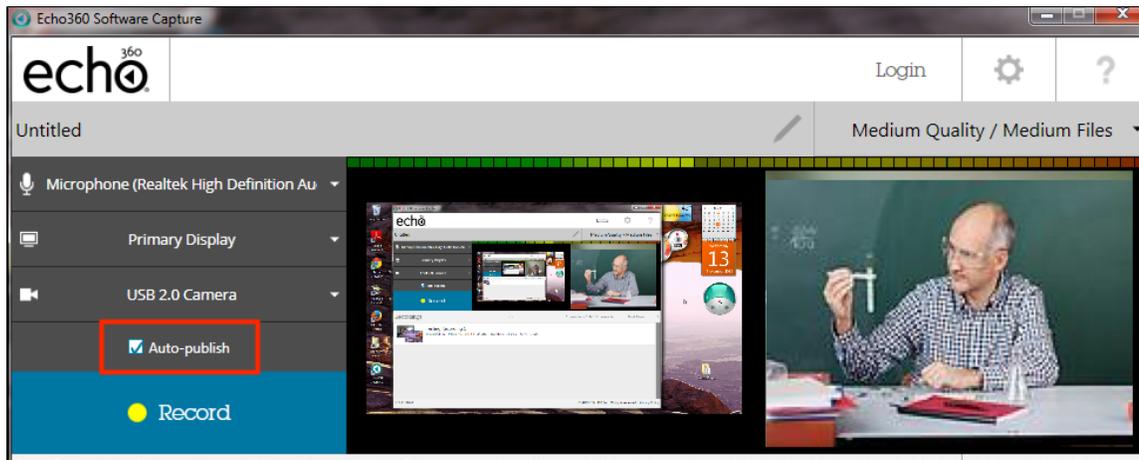
Once the recording is published, it must be processed by the ESS before posting to the section. This may take from several minutes to several hours, depending on the current load and configuration of the ESS. Wait an appropriate period of time, then check the EchoCenter for the section to find the newly published capture.

If you do not see the capture initially in the EchoCenter window, change the view to Show Unavailable. Your system administrator may have the section configured for Echoes to not be available immediately. In this case, you should be able to manually set the status of the recording to "Available" through the EchoCenter. If you cannot, contact your system administrator.

## Auto-Publish a Recording

The Preview Window of Personal Capture provides an Auto-publish option, shown in the below figure.

**Auto-publish** allows you to complete the recording, then walk away from the computer and even close the Personal Capture application while the recording is uploaded to the ESS in the background. Be sure the Finalization and Prepare to Publish processes (as noted above) have completed before closing the application.



If you plan to use Auto-publish, keep in mind:

- You cannot [review or edit the recording](#) before it is auto-published to the ESS.
- The recording is still saved locally, so you can edit the capture and re-publish it later, replacing the original capture, if appropriate.
- Alternately, you can [edit the published capture on the ESS](#) if necessary.

### To Auto-publish a recording:

1. Before you record, check the Auto-publish checkbox, shown in the figure above.
2. When you click Record, one or both of the following happens:
  - If you are not logged in, you will receive a Login dialog box. Enter your ESS login credentials.
  - A Publishing details dialog box appears, as shown below, asking you for a **Title**, the **Course** to publish the recording to, and the **Output** to generate for the recording (formerly called Product Group).
  - Check or Uncheck the **Make Available** checkbox. This determines whether the recording is immediately available for students. If unchecked, you can use the EchoCenter to make the recording available at a later time.

**Before recording, please provide the following information**

Title:

Course:

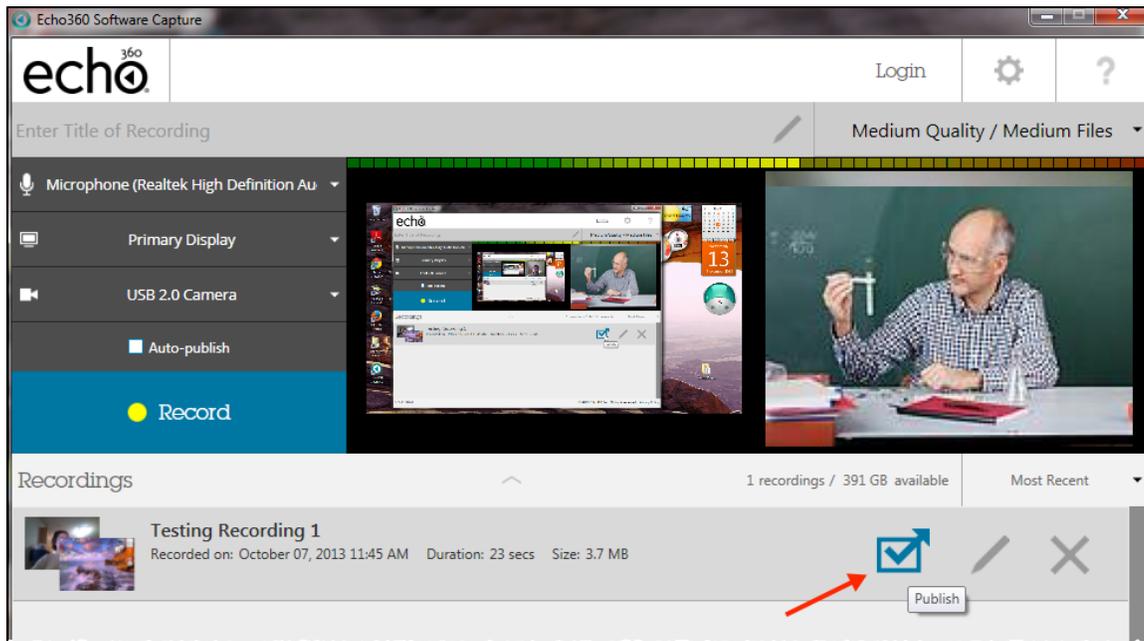
Output:

Make Available

3. When complete, click **Record**.
4. When you are finished recording, click **Stop**. The recording is published to the ESS immediately.

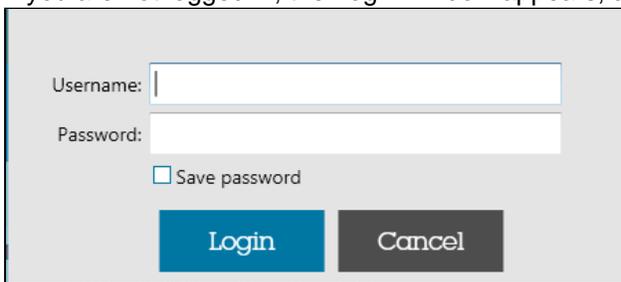
### Manually Publishing a Recording

To manually publish a recording, hover the mouse over the recording you want to publish and click the **Publish** icon, as shown in the below figure.

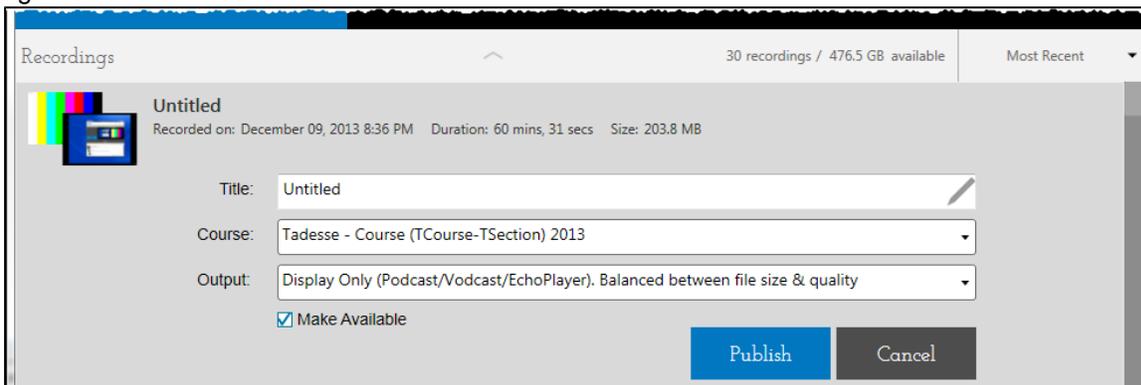


Once you click **Publish**, you may be asked to input information or receive messages as follows:

1. If you are not logged in, the Login window appears, asking for your Username and Password.



2. If you do not have a Personal Capture license assigned to you, you will receive an error message informing you of this. Contact your system administrator.
3. Once logged in, the Recordings list changes to display the Publishing Details dialog box shown in the below figure.



4. Enter a **Title**, select the **Course** to publish the recording to, and the **Output** products to generate for the recording (formerly called Product Group).
5. Check or Uncheck the **Make Available** checkbox. This determines whether the recording is immediately available for students. If unchecked, you can use the EchoCenter to make the recording available at a later time.

6. When finished, click **Publish**. You will see a status bar, indicating the status of the file upload to the ESS.