



TECH TUESDAY

ScreenFlow



www.depaul.edu/~jmoore/

Technology Tuesdays: ScreenFlow

Version 2.01

Last Edited: Thursday, April 14, 2011

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Introduction

I have updated these Technology Tuesdays handouts to include content from other presentation and documentation I have created on vodcasting, pencasting and screen recording. Some of the material shared here can also be found in:

Barefoot Vodcasting

www.depaul.edu/~jmoore/barefoot/

Guerilla Lecture Capture

www.depaul.edu/~jmoore/guerilla/

Contact Information



James Moore is the Director of Online Learning for DePaul University's College of Commerce. He teaches Internet Marketing classes in fully online, blended and face-to-face formats. He attempts to balance his love of technology and gadgets with the knowledge that quick and simple solutions are best. Unfortunately, creating quick and simple solutions often involves a long and complex process.

Contact Details



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Twitter: http://twitter.com/P_I_Marketing



ScreenFlow Screencasting

ScreenFlow is a screencasting tool that captures live desktop video, microphone and computer audio, and video camera input (internal or external) and then allows for editing after you have finished recording. There are other similar products out there in the marketplace, but I have found ScreenFlow to be the best option for these reasons:

1. **Affordable price.** ScreenFlow has a “street” price of \$99, and is available with a 10% educational discount.
2. **Quick and easy recording.** Unlike competing applications, ScreenFlow does not need to encode video immediately after recording.
3. **Sophisticated editing.** ScreenFlows editing options include zoom, panning, callouts, overlays and titling. Everything that I might need is there.

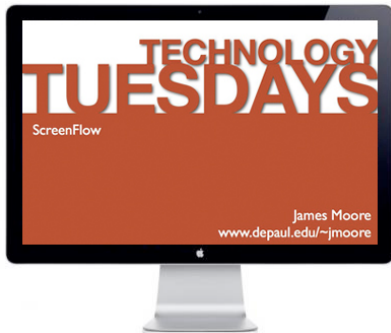
ScreenFlow runs only on OS X Leopard and above. You can download and purchase ScreenFlow from:

<http://www.telestream.net/screen-flow/overview.htm>

ScreenFlow Alternatives

- **Camtasia for Mac**
<http://www.techsmith.com/camtasia/>
- **iShowU HD**
<http://store.shinywhitebox.com>
- **Screen Mimic**
<http://www.decimus.net>
- **Snapz Pro X**
<http://www.ambrosiasw.com/utilities/snapzprox/>

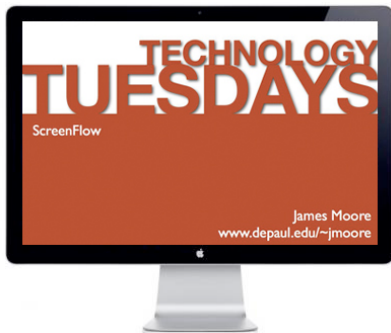
Recording A Presentation - Using An External Monitor



Secondary Monitor (Keynote)



Primary Monitor (Keynote)



Secondary Monitor (PowerPoint)



Primary Monitor (PowerPoint)

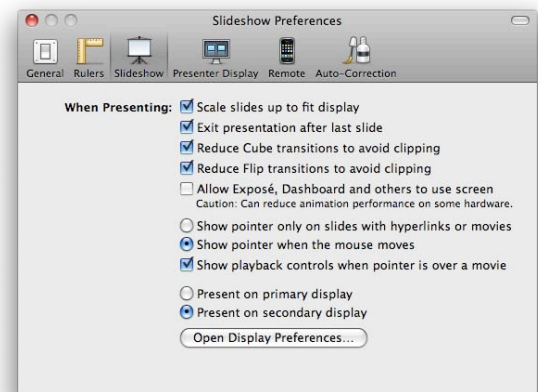
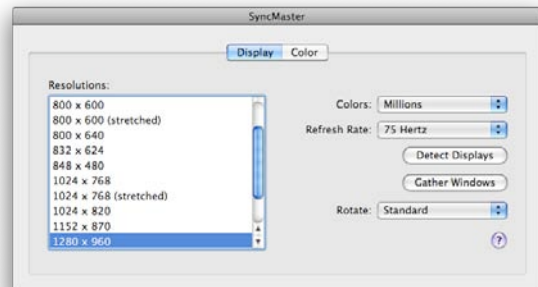
Ideally, you should record all presentations with a secondary monitor connected to your laptop or desktop computer. This way you can record what is presented on the secondary monitor, but use the primary monitor as your workspace. The advantage of this approach is that you can read “hidden” notes in your presentations and preview upcoming slides as you record your video.

Recording With Keynote (External Monitor)

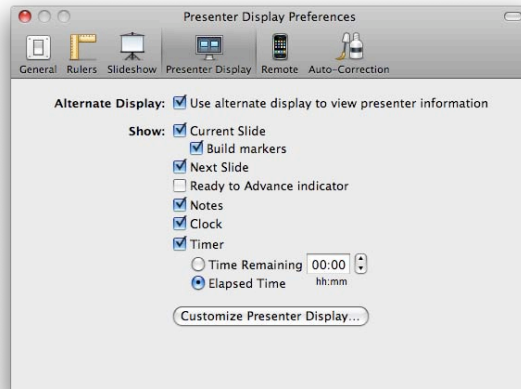
1. Open **System Preferences**.
2. Click on **Displays**.
3. On the window that represents the secondary display, change the **Resolutions** values to **1280 x 960**.
4. Click on the **Color LCD** window.
5. Click on **Arrangement**.
6. Uncheck **Mirror Displays**.
7. Close **System Preferences**.



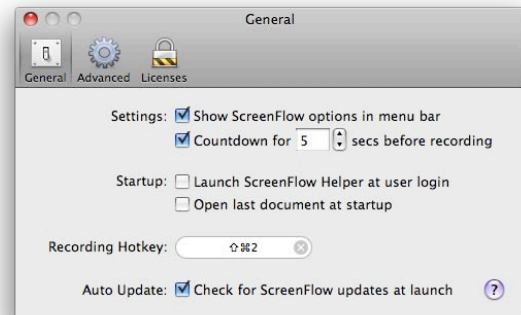
8. Open your **Keynote presentation**.
9. Click on **Preferences**.
10. Click on **Slideshow** and enable these settings:
 - **Scales slides up to fit display.**
 - **Exit presentation after last slide.**
 - **Reduce Cube transitions to avoid clipping.**
 - **Reduce Flip transitions to avoid clipping.**
 - **Show pointer when the mouse moves.**
 - **Show playback controls when pointer is over a movie.**
 - **Present on secondary display.**



8. Click on **Presenter Display** and enable these settings:
 - **Use alternate display to view presenter information.**
 - **Show: Current Slide.**
 - **Build markers.**
 - **Show: Next Slide.**
 - **Show: Notes.**
 - **Show: Clock.**
 - **Show: Timer.**
 - **Elapsed Time.**



9. Close **Preferences.**
10. Open **ScreenFlow.**
11. Open **Preferences** and enable these settings:
 - **Show ScreenFlow options in menu bar.**
 - **Countdown for 5 secs before recording.**
12. Close **Preferences.**
13. Click on **File / New Recording.**



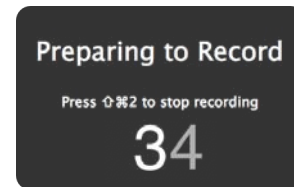
14. In the ScreenFlow window enable these settings:
 - **Record Desktop from: <secondary display>**
 - **Record Video from: Built-in iSight**
 - **Record Audio from: <external microphone>**
 - **Record Computer Audio**

15. Position the laptop so your face is appropriately framed in the preview window.

16. Then click on the red **Record** button



17. Wait for the countdown timer to finish.



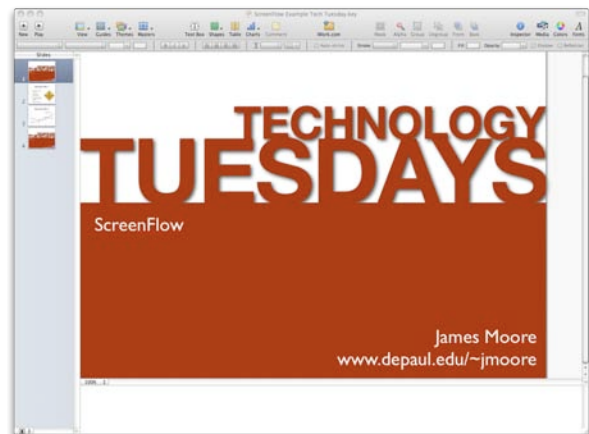
18. Return to your **Keynote** presentation and click **Play**.

19. Make your presentation as normal.

Tips

- Speak clearly and precisely.
- Ensure that you are in a quiet environment.
- Enjoy the experience!

17. When you are finished presenting click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⌘⌘2)



18. Your **ScreenFlow** recording will appear after you stop recording. Click on **File / Save As** and save the recording into an appropriate place.

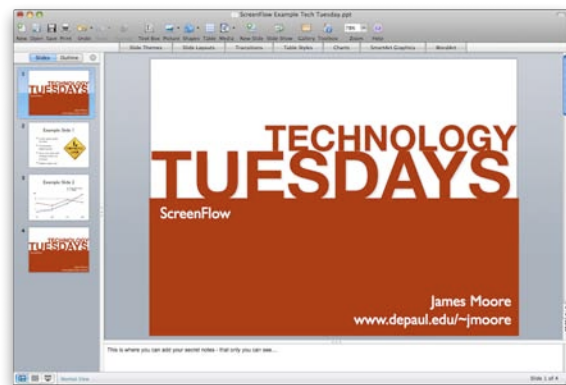
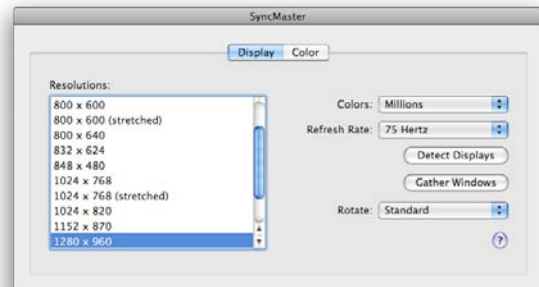
Tips

- Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
- ScreenFlow does not autosave. Remember to save your file periodically.
- Create a title slide for the first and last pages of your presentation.

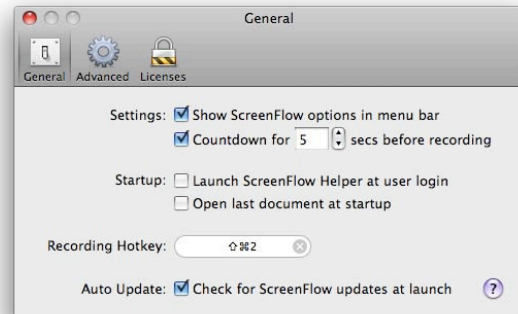


Recording With PowerPoint (External Monitor)

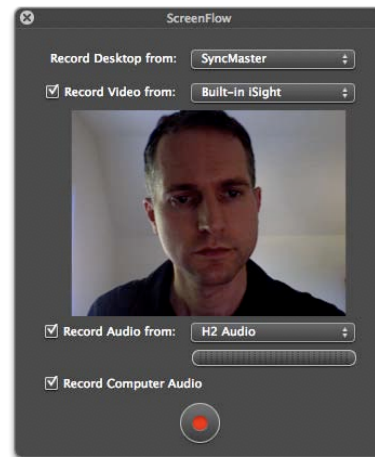
1. Open **System Preferences**.
2. Click on **Displays**.
3. On the window that represents the secondary display, change the **Resolutions** values to **1280 x 960**.
4. Click on the **Color LCD** window.
5. Click on **Arrangement**.
6. Uncheck **Mirror Displays**.
7. Close **System Preferences**.
8. Open your **PowerPoint** presentation.



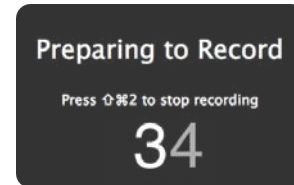
9. Open **ScreenFlow**.
10. Open **Preferences** and enable these settings:
 - **Show ScreenFlow options in menu bar.**
 - **Countdown for 5 secs before recording.**
11. Close **Preferences**.
12. Click on **File / New Recording**.



13. In the ScreenFlow window enable these settings:
 - **Record Desktop from: <secondary display>**
 - **Record Video from: Built-in iSight**
 - **Record Audio from: <external microphone>**
 - **Record Computer Audio**
15. Position the laptop so your face is appropriately framed in the preview window.
16. Then click on the red **Record** button



17. Wait for the countdown timer to finish.



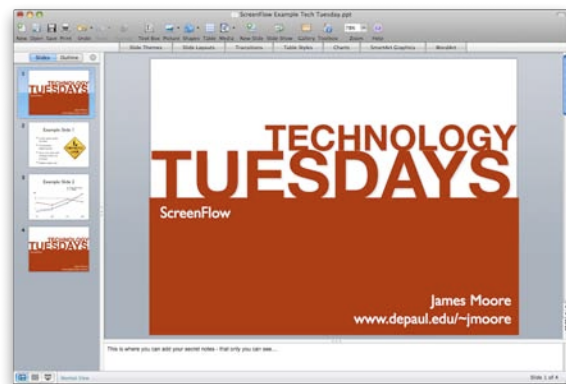
18. Return to your **PowerPoint** presentation and click **Play Slide Show**.

19. Make your presentation as normal.

Tips

- Speak clearly and precisely.
- Ensure that you are in a quiet environment.
- Enjoy the experience!

17. When you are finished presenting click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⌘⌘2)



18. Your **ScreenFlow** recording will appear after you stop recording. Click on **File / Save As** and save the recording into an appropriate place.

Tips

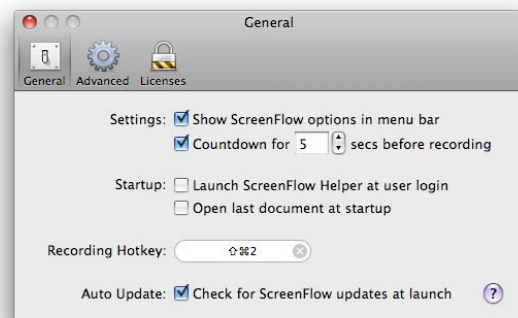
- Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
- ScreenFlow does not autosave. Remember to save your file periodically.
- Create a title slide for the first and last pages of your presentation.



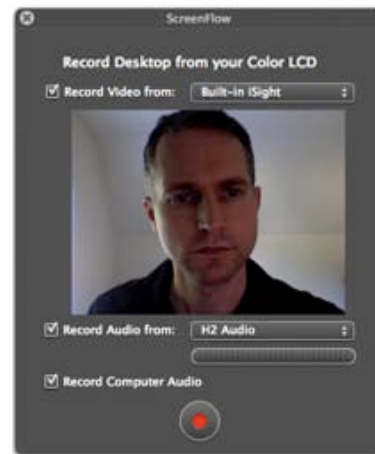
Recording A Presentation - Single Screen

Recording With Keynote

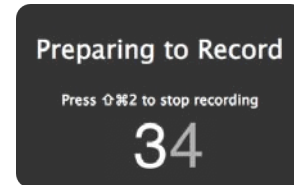
1. Open **ScreenFlow**.
2. Open **Preferences** and enable these settings:
 - **Show ScreenFlow options in menu bar.**
 - **Countdown for 5 secs before recording.**
3. Close **Preferences**.
4. Click on **File / New Recording**.



5. In the ScreenFlow window enable these settings:
 - **Record Video from: Built-in iSight**
 - **Record Audio from: <external microphone>**
 - **Record Computer Audio**
15. Position the laptop so your face is appropriately framed in the preview window.
16. Then click on the red **Record** button



17. Wait for the countdown timer to finish.



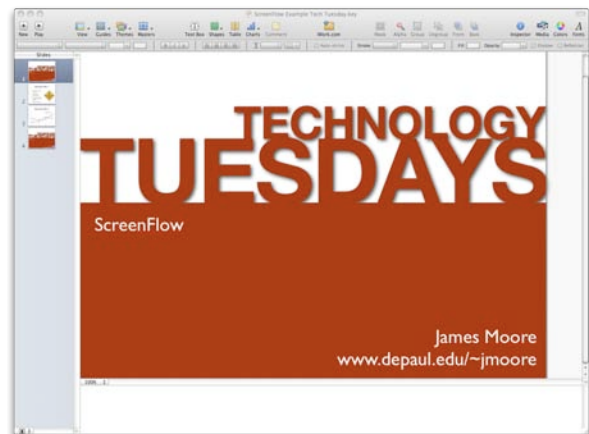
18. Return to your **Keynote** presentation and click **Play**.

19. Make your presentation as normal.

Tips

- Speak clearly and precisely.
- Ensure that you are in a quiet environment.
- Enjoy the experience!

17. When you are finished presenting click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⌘⌘2)



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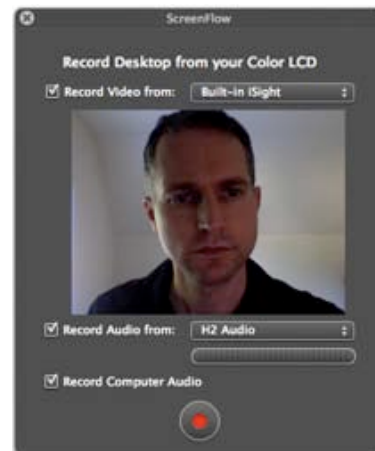
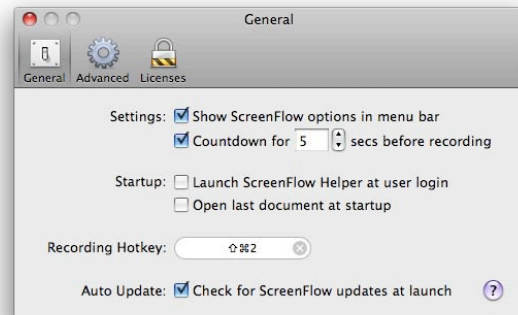
Tips

- Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
- ScreenFlow does not autosave. Remember to save your file periodically.
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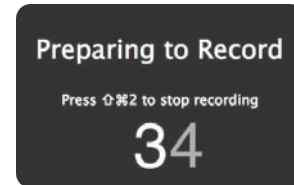


Recording With PowerPoint

1. Open **ScreenFlow**.
 2. Open **Preferences** and enable these settings:
 - **Show ScreenFlow options in menu bar.**
 - **Countdown for 5 secs before recording.**
 3. Close **Preferences**.
 4. Click on **File / New Recording**.
-
5. In the ScreenFlow window enable these settings:
 - **Record Video from: Built-in iSight**
 - **Record Audio from: <external microphone>**
 - **Record Computer Audio**
15. Position the laptop so your face is appropriately framed in the preview window.
16. Then click on the red **Record** button



17. Wait for the countdown timer to finish.



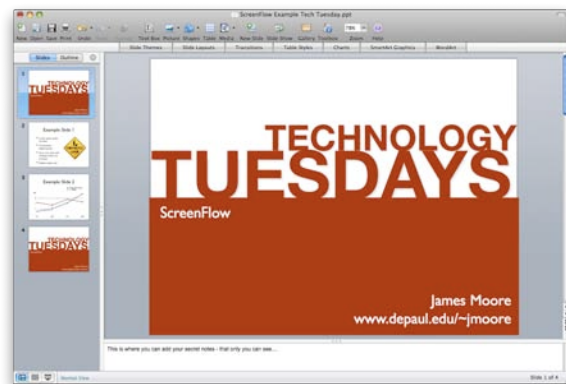
18. Return to your **PowerPoint** presentation and click **Play Slide Show**.

19. Make your presentation as normal.

Tips

- Speak clearly and precisely.
- Ensure that you are in a quiet environment.
- Enjoy the experience!

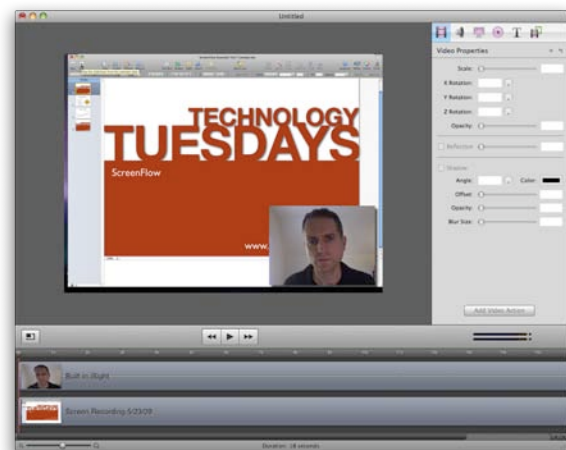
17. When you are finished presenting click on the **ScreenFlow icon** in the menu bar and select **Stop Record**. (NOTE: you can also press ⌘⌘2)



18. Your **ScreenFlow** recording will appear after you stop recording. Click on **File / Save As** and save the recording into an appropriate place.

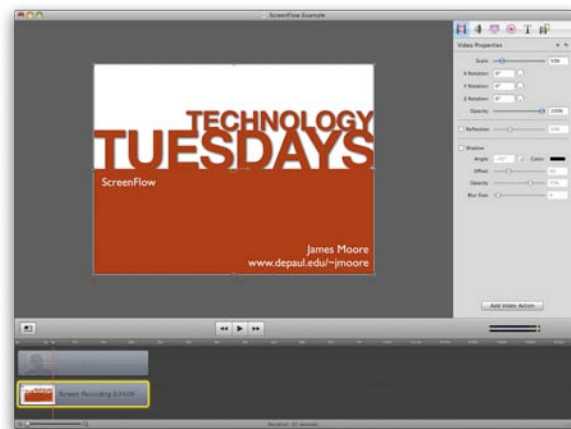
Tips

- Save your recording into a new directory. Keep associated files (presentation, video, etc.) in the same directory.
- ScreenFlow does not autosave. Remember to save your file periodically.
- Create a title slide for the first and last pages of your presentation.

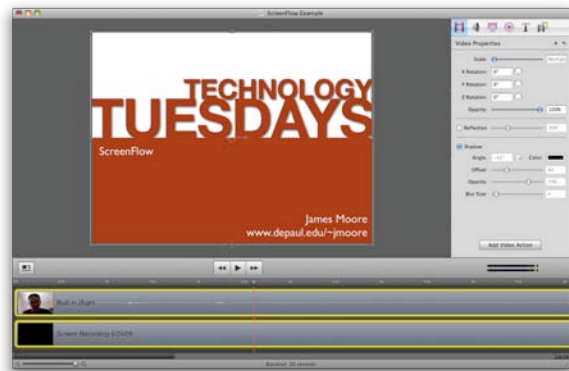
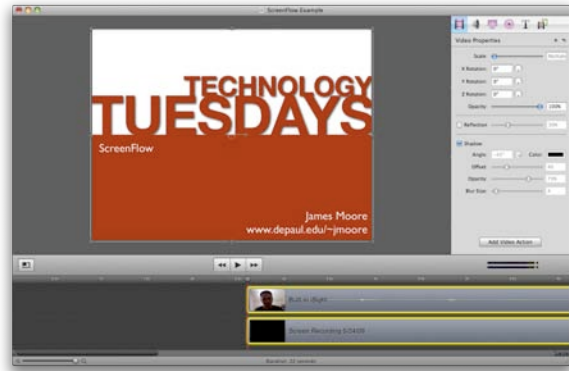


Editing Your Recording

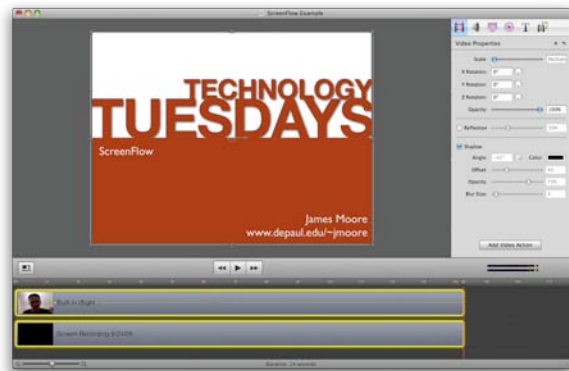
1. Open your **ScreenFlow** recording.
2. Remember to periodically save the file (ScreenFlow can crash, you do not want to lose your work).
3. **Resize the canvas area to 640 x 480 pixels** and then click on **Apply**. The canvas icon is on the left of the screen, just above the timeline.
4. Click on **View / Zoom to 100%**.
5. **Resize your Screen Recording** so that it fits all of the canvas. You can resize with the scroll button on your mouse, or you can change the **Scale** value under **Video Properties**.
6. **Move your Screen Recording** so that it is centered within the canvas. "Snapping" and the yellow guidelines will help you in centering the image.



7. Trim the start of your recording by moving the **scrubber** (red line) to a point in your recording where you want to delete all previous material. You may want to zoom in (slider on bottom left-hand side of screen) for greater control.
8. Then press the **Command** and **A** keys (**⌘A**) at the same time to highlight all your clips in the timeline (this will put a yellow border around each of your clips).
9. Click on **Edit / Trim Front to Scrubber**.
10. Click and drag your clips to the start of the timeline.



11. Trim the end of your recording by moving the **scrubber** (red line) to a point in your recording where you want to delete all subsequent material. You may want to zoom in (slider on bottom left-hand side of screen) for greater control.
12. Then press the **Command** and **A** keys (**⌘A**) at the same time to highlight all your clips in the timeline (this will put a yellow border around each of your clips).
13. Click on **Edit / Trim End to Scrubber**.



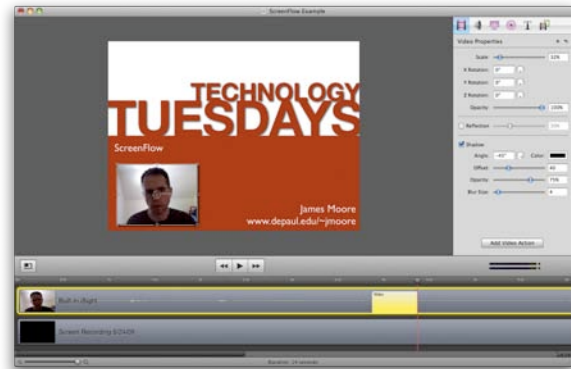
- Click on the **Built-in iSight** clip in your preview pane and then drag the clip to an appropriate place.
- Resize the **Built-in iSight** clip by using either the **scroll button** on your mouse or by changing the **Scale** value in **Video Properties**.



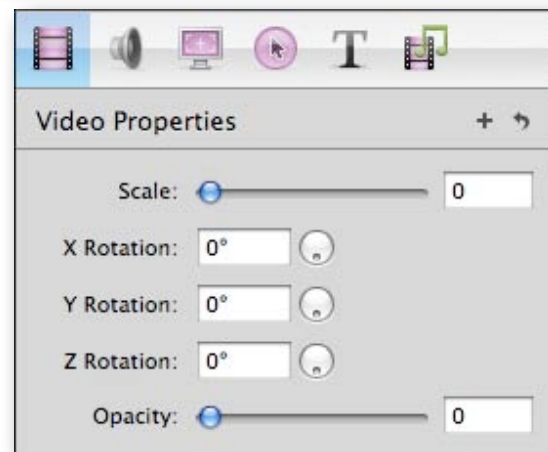
- Move the **scrubber** to a position in your recording where you would like to fade-out your image. Click on the **Add Video Action** button.



- This will add a yellow Video Action to your timeline. You can reposition the Video Action by clicking and dragging. You can increase or decrease the duration of the Video Action by clicking and dragging on the handles.



- Click on the **Built-in iSight** clip (to the right of the Video Action) and then change the **Scale** and **Opacity** values in **Video Properties** to zero.



Exporting Your Recording

Exporting to QuickTime MOV

If you wish to create a streaming video, export your completed video in the QuickTime format and then give this file to your FITS consultant. Your FITS consultant will convert the QuickTime file into a streaming Ooyala video.

1. In ScreenFlow, click on **File / Export**.



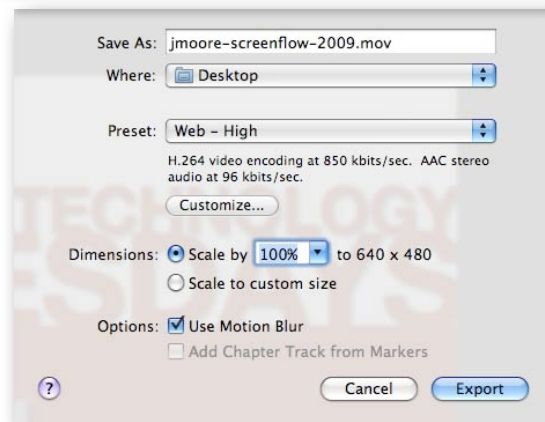
2. Choose an appropriate filename in the **Save As** textbox.

3. Change the **Preset** to **Web - High**.

4. Change the **Dimensions** to **Scale by 100% to 640 x 480**.

5. Under **Options** check **Use Motion Blur**.

6. Click on **Export**.



7. Wait for the QuickTime file to export.

8. After ScreenFlow has finished exporting, **open the QuickTime file** (in the QuickTime player) and verify that the video plays correctly.

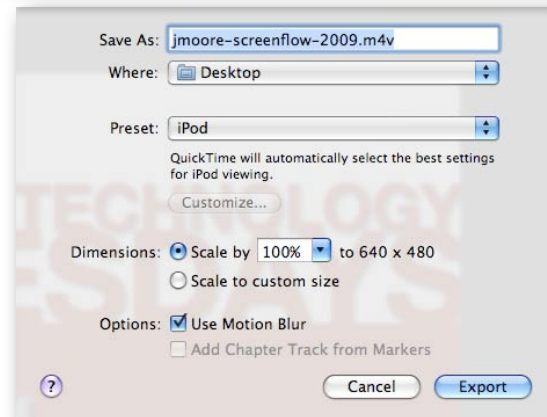
9. Send the **QuickTime file to your IDD consultant**. They will convert the file for you, and send you HTML code to add to Blackboard or your website.



Exporting to M4V/iPod

If you wish to create a downloadable video, export your completed video in the M4V format. The best way to distribute this file is through iTunes U.

1. In ScreenFlow, click on **File / Export**.
2. Choose an appropriate filename in the **Save As** textbox.
3. Change the **Preset** to **iPod**.
4. Change the **Dimensions** to **Scale by 100% to 640 x 480**.
5. Under **Options** check **Use Motion Blur**.
6. Click on **Export**.
7. Wait for the M4V file to export.
8. After ScreenFlow has finished exporting, **open the M4V file** (in the QuickTime player or iTunes) and verify that the video plays correctly.
9. **Upload the M4V file to iTunes U.**



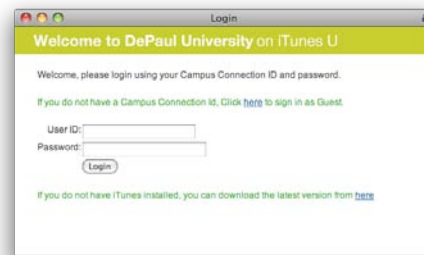
Upload to iTunes U

NOTE: You will need to have an account on iTunes U. Contact Diane Tarkowski (dtarkows@depaul.edu) if you need your course to be on iTunes U

1. Using a Web browser go to <http://itunes.depaul.edu/>
2. Click on “**Visit DePaul University on iTunes U now**” (the text below the photographs)



3. Type in your Campus Connection **username** (user ID) and **password** and then click on **Login**



4. This should open iTunes U on your computer

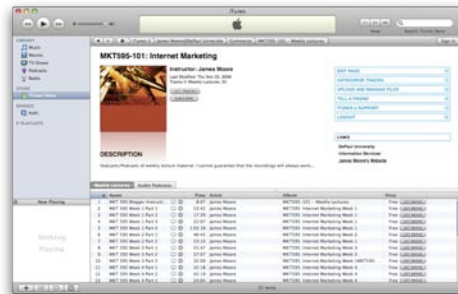


5. Under **Academics** click on **College of Commerce**

6. Click on your course



7. Click on **Upload and Manage Files**



8. Click on **Add New File**

9. **Browse** to the file that you want to upload and click on **Choose**



10. When your file has finished uploading you can click on **Done**

11. Your files are now on iTunes U for your students to download



Recording in the Classroom

My favored set-up is to present on an Apple MacBook Pro laptop. I use **Telestream ScreenFlow** (www.telestream.net) to record whatever materials I present in the classroom. Audio is captured by connecting a **Zoom H2 microphone** (www.samson-tech.com) via a shielded USB cable to my laptop. The Zoom H2 has four microphones positioned in such a way as to allow 360-degree recording. Generally this is sufficient coverage for a typical classroom. If the recording is not adequate, I can import my **Sansa Clip** audio (www.sandisk.com).

If I have to present on a Microsoft Windows machine, I can use **Camtasia Studio** (www.techsmith.com) as an alternative to ScreenFlow. However, Camtasia does not have the instant encoding capability or rich post-production options that ScreenFlow has. I can also Screenflow a Remote Desktop session to a Microsoft Windows machine if I need to demonstrate Windows software.

To enhance the completed video, I split-screen classroom footage with whatever material is displayed on the projector. There are two ways that I do this:

1) Importing from a Standalone Camera

One way I achieve this is by importing video from a standalone camera and combining the videos at the editing stage. The camera I currently prefer is the **Creative Labs Vado HD** (us.creative.com). This particular model has an 8GB capacity, which allows me to store up to eight hours of video (at 640x480 pixels). The Vado HD has a replaceable, removable battery with an approximate recording time of two hours. The combination of generous video storage and removable batteries in a small, pocketable package ensures that I am easily able to record any class at a moment's notice. Finding a suitable location to place the camera in the classroom can be problematic. I carry a small portable tripod, the **Manfrotto 785 Modo Maxi** (www.manfrotto.com), which fits in my briefcase, as well as two desktop/mobile tripods—the **Gorillapod** (www.joby.com) and the **UltraPod II** (www.pedcopods.com). The desktop/mobile tripods can be used to affix the camera to walls and ceiling projections.



2) Live Import from Bluetooth Webcam

My preferred method is to pair my laptop with the Ecam BT-1 (www.bt-1.com). This is a wireless webcam that I can position anywhere in the classroom within range of my laptop (generally no further than 10 meters away). Once paired, the BT-1 acts as an alternative video input. The BT-1 video feed is about a half-second slower than the desktop video feed, but I can solve this easily in editing by moving the BT-1 track a half second ahead.

The BT-1 has a charge that lasts between 4-5 hours, which is sufficient to record an entire class. The video quality (video resolution is 640x480 pixels, frame rate is 15 frames per second) is not as good as the Vado HD, but it is enough for my needs.



Recording, Editing and Distribution

The three-stage process is as follows:

1. Recording

- If I am using the Vado HD, the camera is positioned optimally in the classroom and I begin recording just before I speak. The BT-1 is switched on a few minutes before I start talking, and starts recording when ScreenFlow is running.
- As soon as I start speaking, I start recording the desktop with ScreenFlow. The Sansa Clip is used for audio backup.

2. Importing and Editing

- After class I open the ScreenFlow recordings and either import video footage from the Vado HD, or adjust the timing of the BT-1 track. I trim and synchronize the recordings. This part of the process takes less than five minutes.
- The edited recordings are exported as QuickTime MOV files. Exporting each recording can take as much as 30 to 45 minutes. However, this can take place in the background.
- I use an Apple Automator (<http://www.apple.com/macosx/features/300.html#automator>) workflow to append appropriate metadata to the QuickTime files and then send these to QuickTime Professional (<http://www.apple.com/quicktime/>) to export as M4V files (which are suitable for iTunes, iPods and Apple TVs) if I don't want to distribute QuickTime MOV files..

3. Distribution

- I distribute the videos in at least two formats: streamed and downloadable. The downloadable files (MOV or M4V) are uploaded to iTunes U, and streaming takes place by uploading these files to **Ooyala** (www.ooyala.com).
- Streaming via Ooyala allows me to prevent redistribution of materials and to access comprehensive viewing metrics. Once a file has been uploaded and converted to Ooyala, I simply paste some HTML code into my Desire2Learn course. The videos are then viewable in a web browser using the Adobe Flash plug-in.
- Downloadable files via iTunes U are preferred by most students. However, this raises the potential issue of redistributing copyrighted material. Guidance on how to follow either the Fair Use Guidelines for Educational Multimedia or the TEACH Act can be confusing (Taleb, 2007).

Pencasting

I bring both a **Livescribe Echo** smartpen (www.livescribe.com) and **PaperShow** smartpen (www.papershow.com/us/) to classes. The Livescribe Echo allows me to record both what I say and what I draw/write on special paper. This recording can then be shared as an embedded Flash video, exported as a PDF, or exported as an audio file. The term that Livescribe has coined for this process is “pencasting.”

Livescribe Echo

The Livescribe Echo comes in up to 8GB capacity. This allows me to record up to 800 hours of audio on the device. The pen requires special dot paper to record and digitize what is written. The dot paper can be purchased in a variety of formats (notebooks, journals, notepads), or printed via certain color laser printers. Livescribe provides free hosting services to share pencast recordings.

The advantage of using the Livescribe Echo is that all I need to carry with me is the pen and paper. If a classroom has an overhead projector, I can provide an ad-hoc presentation or lesson and then share this as a video after the class. For office hours I can work through a problem on paper with student, and then share the recording with them. The Livescribe desktop software allows me to export the session as an audio file with accompanying PDF. My preferred format is an Adobe Flash video, which can be embedded in any web page or shared via Facebook. The limitation to this approach is that Livescribe only provides 250MB of shared storage. My hope is to find an alternative way to export video files directly from the desktop. The Livescribe software also allows me to use the pen as a computer mouse, but I have found this to be of limited use



Papershow

The disadvantage in the classroom to the Livescribe Echo is that I need access to an overhead projector or to have software installed on a computer in the room. Instead, I can use a Papershow smartpen (www.papershow.com). The Papershow pen uses a similar dotpaper to the Livescribe Pulse, but communicates over Bluetooth to a USB drive connected to a classroom computer. Everything I write on the dotpaper is broadcast to the classroom projector via the classroom PC. Whilst the Papershow pen does not record in the same way as the Livescribe Echo, it is a superior tool for presenting. I use **ScreenFlow** to record in these situations where I need a video archive. My presentations can be saved to the USB drive, and the dotpaper allows me to navigate through the presentation.



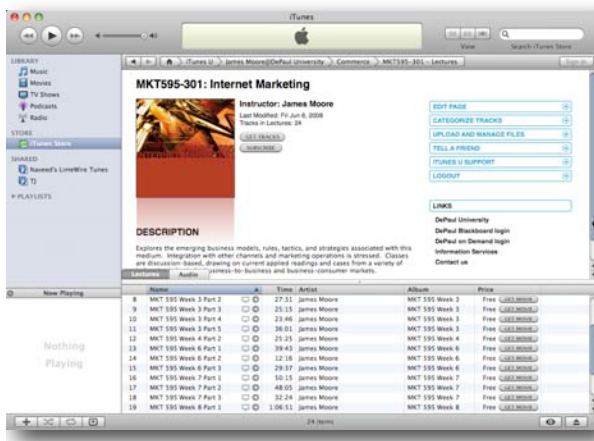
Hardware and Software

Software



Screenflow (\$99)

<http://www.telestream.net/screen-flow/>



iTunes (free)

<http://www.apple.com/itunes/>

Hardware



Snowball Mic (\$60)

www.bluemic.com/snowball/



Zoom H2 (\$150)

<http://www.samsontech.com>



Sansa Clip (approx. \$25-60)

<http://www.sandisk.com>



Belkin AV22201-06 PureAV Digital Camera Cable (\$25)

<http://www.belkin.com>



Gorillapod (\$20)

<http://www.amazon.com/Joby-GP1-E1EN-Gorillapod-Flexible-Tripod/dp/B000EVSLRO/>



Pedco UltraPod Digital (\$18)

<http://www.amazon.com/Pedco-UltraPod-Digital-Lightweight-Camera/dp/B000A1AQU8/>



Livescribe Echo Pen (\$150-200)

<http://www.livescribe.com>



Papershow Starter Kit (\$100-150)

<http://www.papershow.com>

Credits

Cover image taken from the Freewave Data DVD (Joel Evey - Blight)