

USD Video Delivery For Itunes/Ipod/Podcasting/Streaming

When you take a master video file and need to put in the web, it should be optimized for playback, download and quality without one sacrificing the other.

If students will be viewing videos elsewhere besides USD, they may be on a slower connection. The settings below can ensure you are compatible with both.

Here are some helpful resources to get you started with the **.mp4 format (MPEG-4)**, that is compatible with the USD streamer, Podcaster and Itunes U so you can export your videos using the MP4 Export you see below.

Creating Videos Just For Itunes/Ipod

If you are creating videos for Itunes without using the podcast streamer, you can use the tutorials in the links below where you can use Itunes to create your podcast video. These default settings are optimized for the highest quality that creates bigger file sizes, uses more bandwidth and often buffers when streaming.

How To Create Podcasts Directly With Itunes

<http://support.apple.com/kb/HT1211>

Creating Video For Ipod/Itunes from Quicktime

<http://www.apple.com/quicktime/tutorials/creatingvideo.html>

How To Sync Itunes With IPods

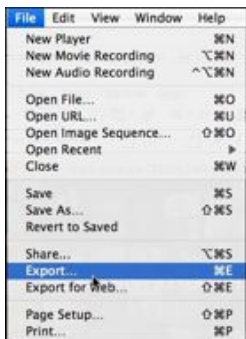
<http://www.apple.com/support/ipod/tutorials/>

All of the examples above produce maximum quality and take up a very large file space. With the settings above, a 3 minute video is 25 Megabytes.

To optimize the quality, download and minimizing hard drive space where videos are stored, here are the settings to use to have downloads and podcasts with 60% less size. These podcast settings will also work with the USD Podcast Streamer.

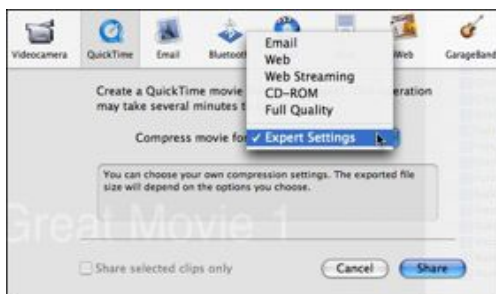
Creating Videos For Itunes/USD Podcast Streamer

Open Up Your Video In Quicktime Pro or IMovie and **Select Export** from the **File Menu**.



If you are exporting from **IMovie**, do the same as above, then click the **Quicktime** tab and select **Expert Settings**.

Select **Share** and you can now select your **Export Options**.



From IMovie or Quicktime Pro, **Select MPEG-4** to export.



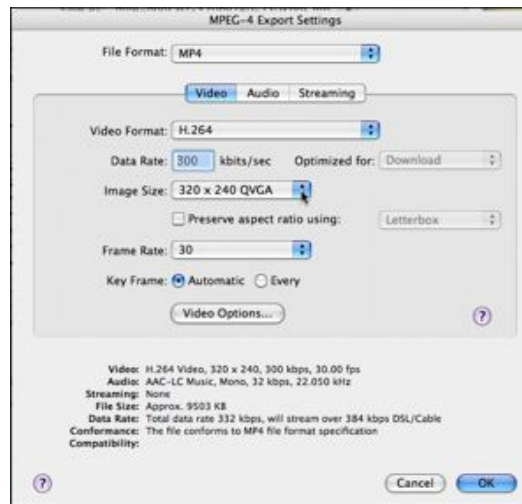
You will now see a screen that looks similar to this. Under **File Format**, select **H.264**



Now we will optimize the video by taking down the **Data Rate** from **1500 to 290-500**. This **Data Rate** can be adjusted lower or higher as needed to ensure proper quality. The sweetspot Data Rate for decency quality is 290-320 and can always be increased if needed.

Data Rate (Kbps/Bitrate)=The amount of processing used to encode video that directly effects the overall quality of the video and amount of bandwidth being used.

The threshold for a 320 by 240 size podcast is around 235 kbps before noticeable loss of quality.



Now the size can either stay at 320 by 240 or changed. There are three standard sizes in podcasting, with larger dimensions such as 640 by 480 or 1280 by 768 (consumer widescreen) being sample exceptions.

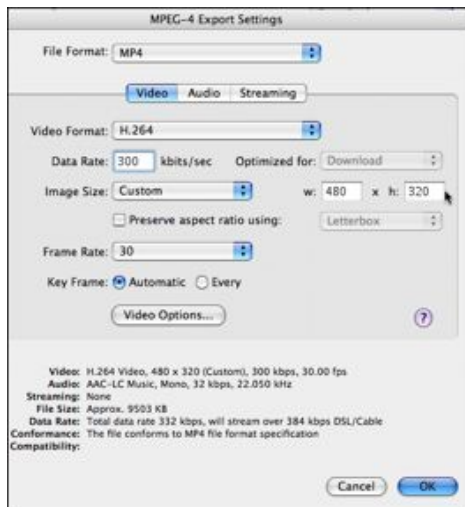
320 by 240 - Small size: Lectures and E-Learning Audio



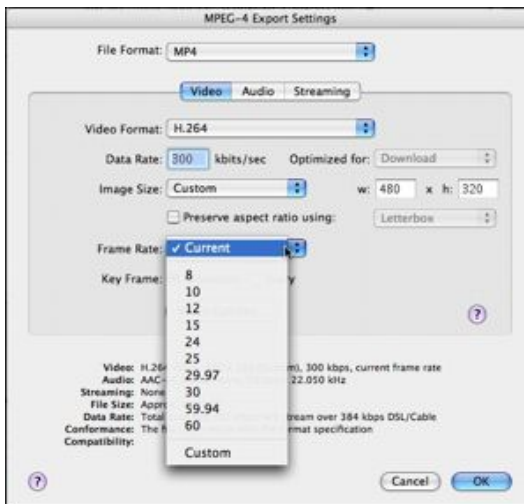
450 by 270 – Medium size: Popular web streaming format (recommended)



480 by 320 – Large size: Cross compatible on all monitors to ensure decent size. When streaming **powerpoint specifics**, **480 by 360** is also widely used.



Select **Current** for the **Frame Rate**



With the video settings adjusted, click on the **Audio Tab** and adjust the settings below. This is the threshold before it starts sounding compressed.

Audio Format: AAC

Data Rate: 32 kbps (for streaming) or 48 kbps (for podcasting and iTunes)

Channels: Mono

Sample Rate: 22.050 (for streaming) or 32 KHz (for podcasting and iTunes)



Click **OK** and **Export** your video. Once exported, you can use your **MPEG-4 Video** and send it the Podcast Server, Streaming Server, play it in iTunes or on Ipods.