

Mac users have access to the best program available for getting DVDs to your hard drive, iPod, or Apple TV:

**This Document references Handbrake 0.91 on Intel Mac Tiger x.4.11 in Dec 2008
iTunes 7.6.4, Quicktime 7.5.5 with Perian 1.13**

for Panther Handbrake 0.90
for Leopard Handbrake 0.93

Define RIP - removing duplication/editing inhibiting protection while transferring to editable media

Define Compression - Reducing 15 GIG per hour file size to 500MB per our or less while maintaining as much integrity of the content as possible in both video and audio data.

Define Video - 720x480 non square pixels at 29.97 frames per second NTSC SD and HD Standards
Video Cameras with Video tape or Digital formats conforming to TV standards.

Define Motion Pictures - Images of any size and format shown in sequence as to simulate motion.
Digital still cameras, Animation applications, Flip Books, image sequences

Handbrake.

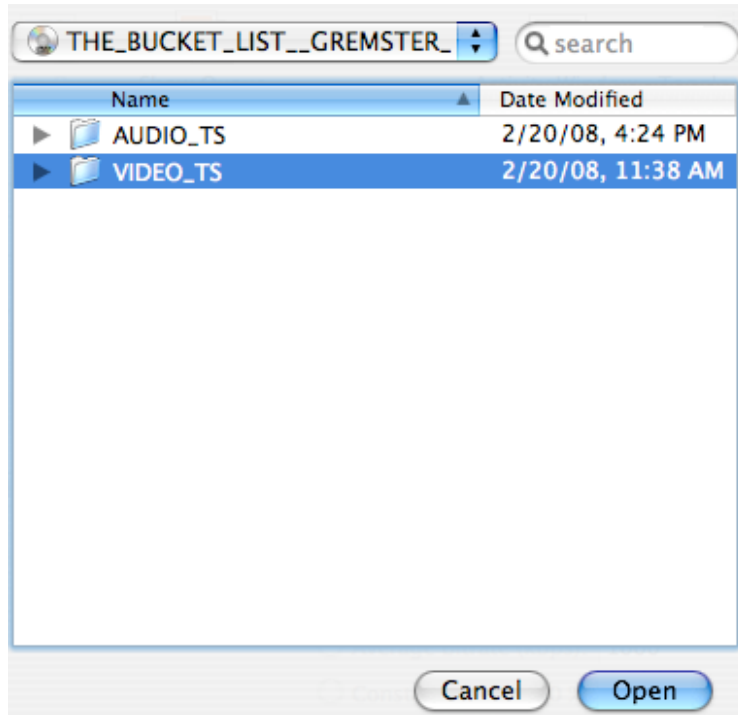


You can download Handbrake from <http://handbrake.m0k.org>. The program works with Mac OS 10.3.9 and later. Once you've downloaded and installed the program, you're ready to start ripping!

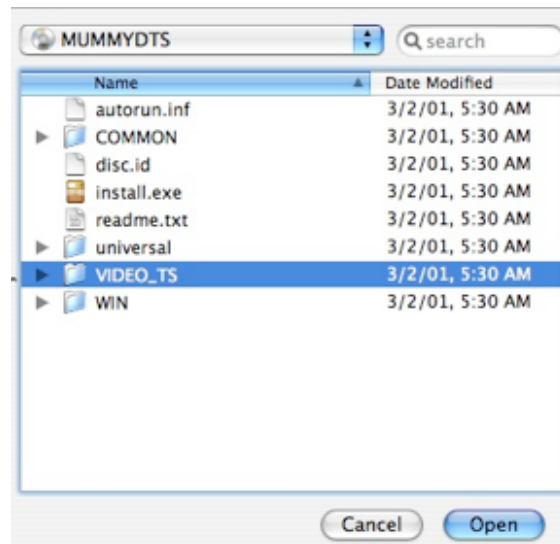
How to Rip DVDs to Your Mac

Basic movie ripping is fairly simple. Here's how to do it:

1. Insert a DVD into your Mac. Apple's DVD player may start -- just close it.
2. Start Handbrake.
3. First, Handbrake opens the selection screen, but this screen is fairly superfluous, unless you have multiple DVD drives. Make sure Detected Volume is selected (select/highlight the VIDEO_TS folder), and click Open.

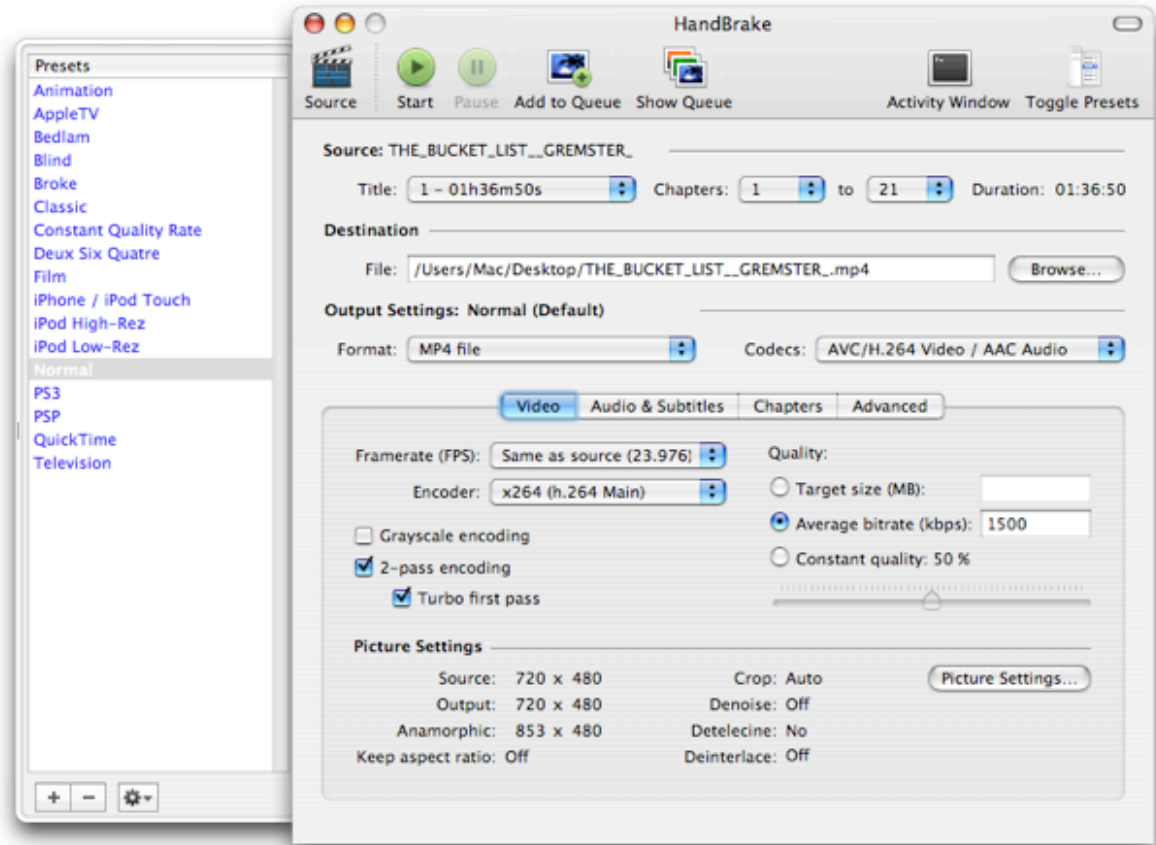


Or it may look like this if the DVD has additional Content

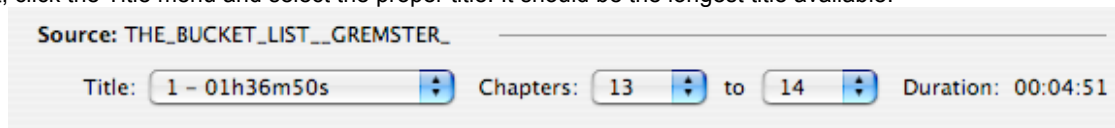


Handbrake scans your DVD to detect the various titles and chapters, and opens the main Handbrake window.

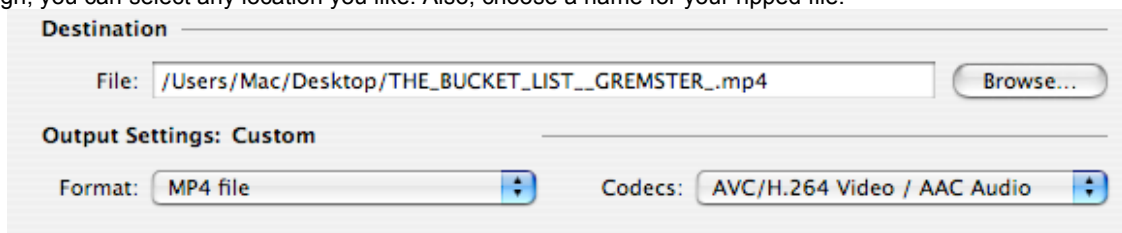
[Hint - the presets may be all you'll ever need to know for most ripping.]



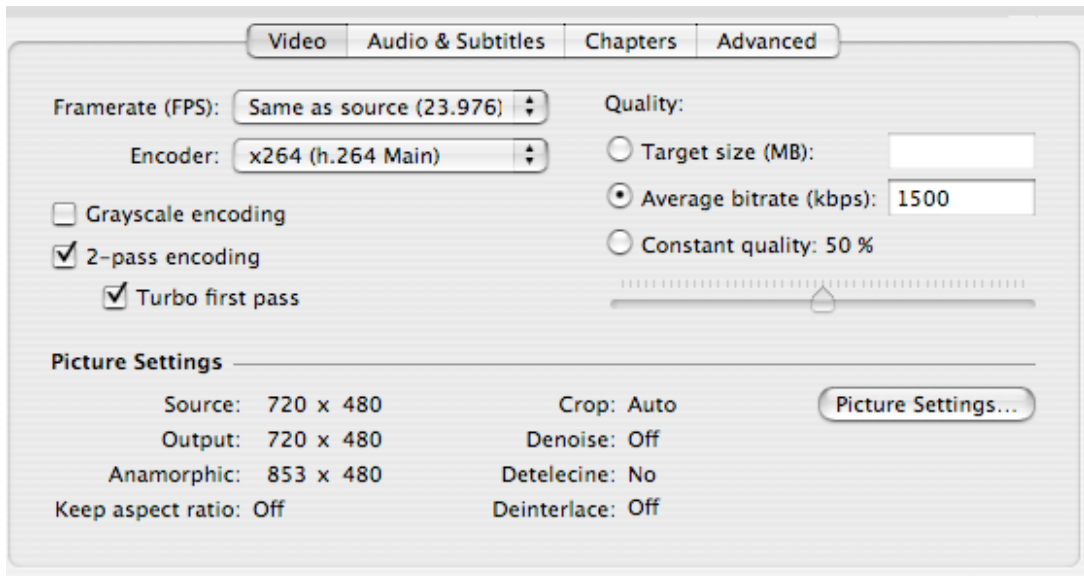
4. Make sure Handbrake has selected the proper title. Titles and chapters are like headings and sub-headings, and your average DVD will probably have a couple of titles -- one for the main movie, and one or more for any special features. Handbrake displays the length of the selected title, making it easy to tell if you've got the right one. If you don't, click the Title menu and select the proper title. It should be the longest title available.



5. Now, go to the Destination section. Handbrake's default destination is your desktop. To make life a little easier, though, you can select any location you like. Also, choose a name for your ripped file.



Leave the rest of the settings alone until you become more familiar with what they are specifically used for.



6. Click Rip to start importing your movie. Take a walk or go to sleep -- this process can take quite a while! (Ripping an entire movie will vary wildly based on what you have asked Handbrake to do. The more Handbrake is attempting to do, the longer it takes. Making a full size movie smaller for an iPod may seem like it is not hard, but Handbrake actually has to resize everyframe to one quarter it's original size, and at 30 images per second for 90 minutes, that's a lot of images.) Expect several hours for high quality Rips.

Ripping a single chapter will go much faster.

Tip-Always test with a short clip to make sure the compression scheme works with your settings, Handbrake allows settings that will result in no video(black/white/grey) or no audio (silence) even though Quicktime will show content for both fields.

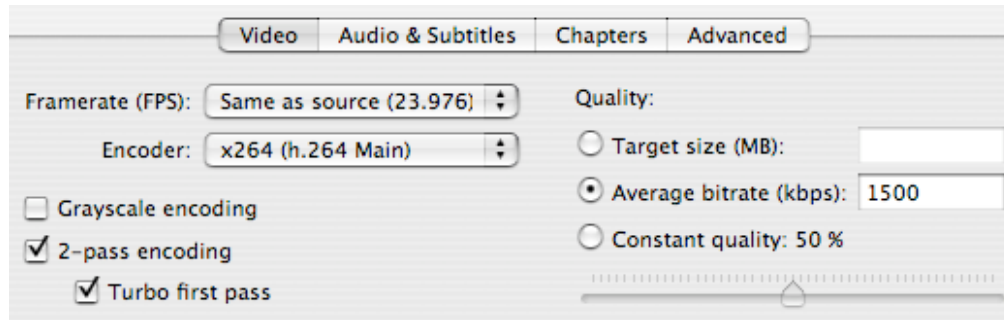
Reduce the Size of Ripped Files

Ripping files at full-quality is great if you've got a lot of storage space. A full movie, ripped fully-quality, can land at a gig of hard drive space or more! Sometimes, you just can't afford to use that much space, especially if you're ripping for your iPod.

In Handbrake, there are a couple easy ways to slim down your files:

* **Cut the Credits.** Be honest. Do you usually watch the entire credit reel? Most people don't. You can get rid of the credits easily through the Chapters selection in the Source section of Handbrake. This requires a bit of work outside the program. Remember Apple's DVD Player? You can use that player to figure out what chapter the credits run in. It's usually the last one. In Handbrake, you can cut out that chapter through the chapters fields.

* **Trim Down the Video.** Movies, by their very nature, are designed to be seen by large numbers of people at once. Movie creators spend a lot of time and resources getting the picture quality just right. However, if you're putting your movie on your iPod, it's probably going to be seen by only one person, and on a relatively small screen, to boot. Do you really need anything super-high quality? Probably not. Handbrake's Video section features several ways of altering the video quality of your file.

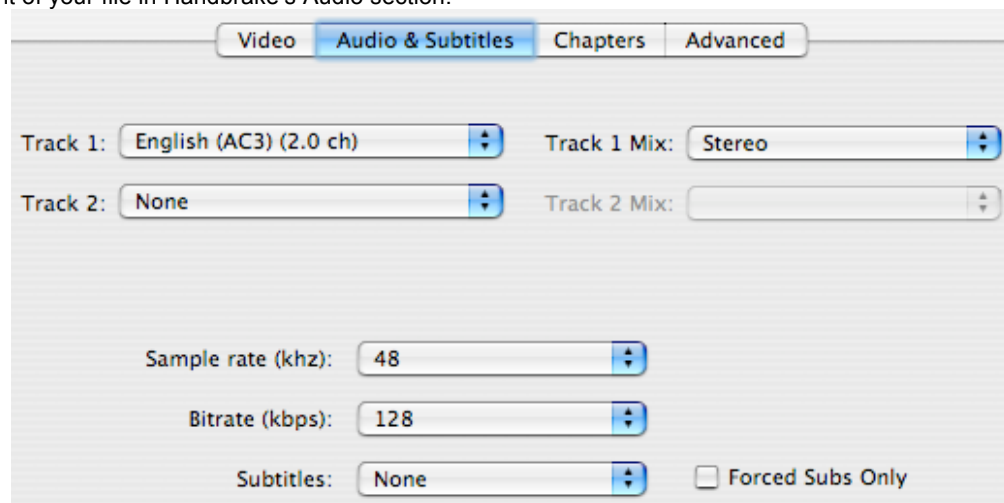


* **Target Size:** You can use Target Size to select a desired size for the final product. This size is measured in megabytes (MB). You can select any size you like, but remember: the longer the film, the poorer the result when you try and squeeze the file under 300MB.

* **Constant Quality:** With Constant Quality, you can reduce the quality of the file by a specific percentage. Use the slider to define just what you want that percentage to be.

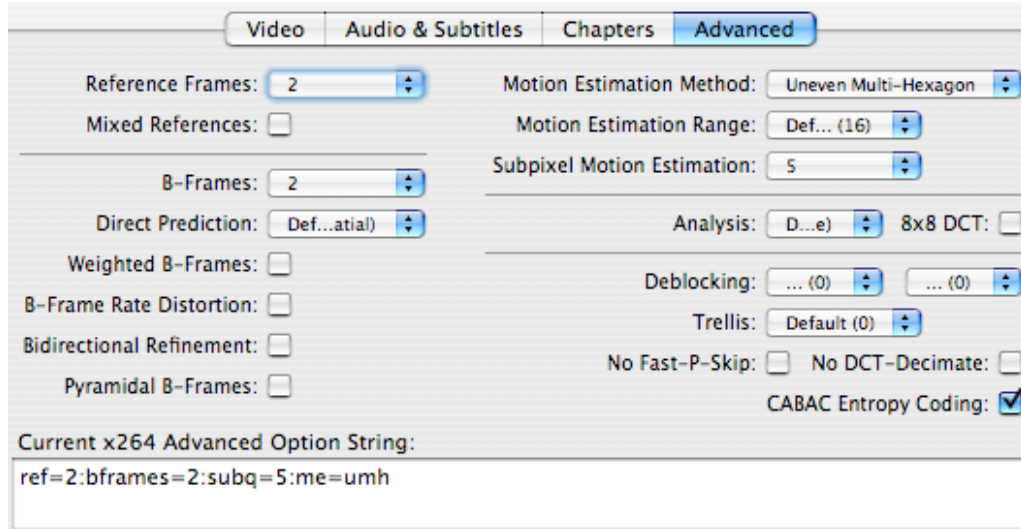
You can vary these selections until you've satisfied the quality-to-file size conundrum.

* **Slim Down the Audio.** Along with tweaking the video quality, you can also reduce the quality of the audio component of your file in Handbrake's Audio section.



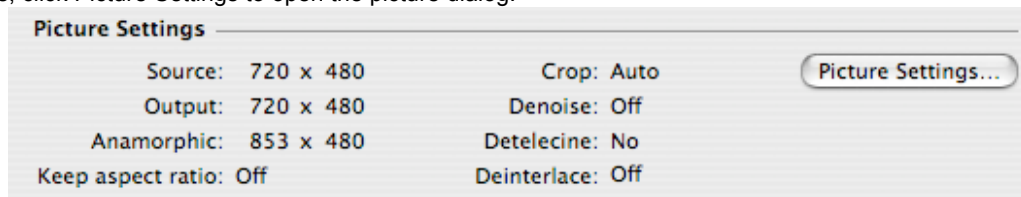
These controls function much the same as they would if you were ripping an audio CD. Click Bitrate to change the bitrate of your audio. The lower the bitrate, the lower the quality -- and the smaller the file. Most MP3s are encoded with a bitrate of 156-192bps, but for a movie, you can get along fine with a bitrate of 128bps. Changes to the audio quality can be a bit more subtle than changes to the video, so play around until you find something you like.

* **Advanced.** This section allows fine tuning of the CODECs and properties mainly to squeeze more quality out of a trimmed down group of settings, use with care.

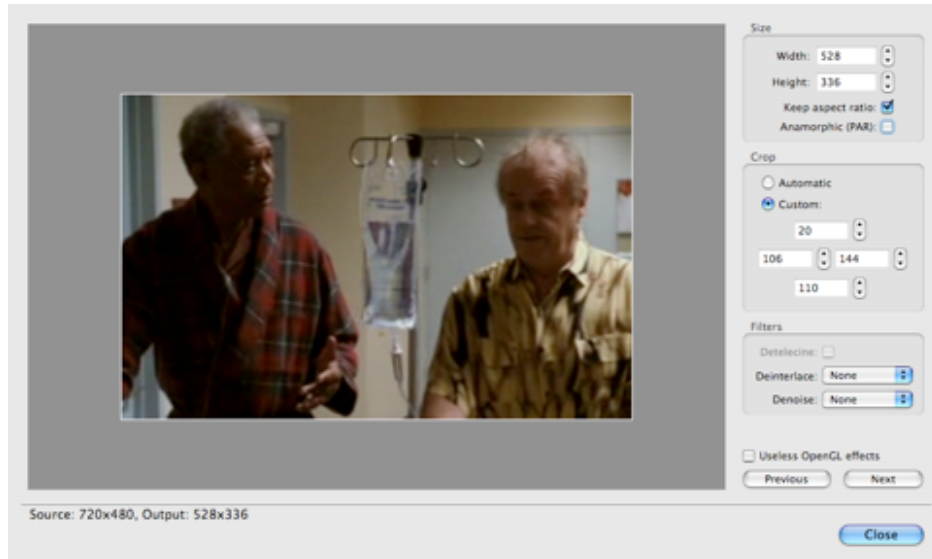


* **Chop the Screen.** This step is a great tool for anyone ripping to an iPod. You see, Handbrake automatically creates movies with a picture size close to that of the source you're ripping from. For many applications, that's fine -- if you're ripping for your new Apple TV, you'll want that resolution. But if you're going to load your movies onto your iPod, there's no sense in ripping a movie with a screen size twice the size of that on the device. With Handbrake, you can easily tweak the height and width of the picture to fit the destination. This keeps your file size down, especially when used with the other tips.

To do this, click Picture Settings to open the picture dialog.



Click the arrows next to the height and width to adjust the picture size. Use the Previous and Next buttons to advance through the chapters of your source and preview your screen dimensions.



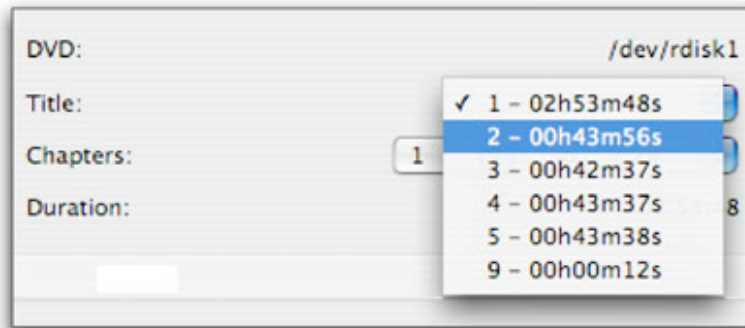
===== < > =====

Ripping TV Shows is slightly different

TV shows are great for iPods, and the process of ripping them is much the same as it is for movies. The big differences come in selecting the right titles, and in building a queue of titles (or episodes) to be ripped.

Here's how to do it:

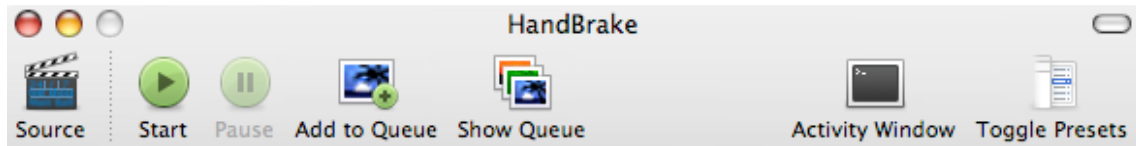
* **Titles:** When you're ripping a television show, making sure you have the right title selected is easy -- you just choose the longest available title. For a DVD from a TV show, the longest available title will be the one you get from selecting "Play All." It's all the episodes wrapped up in one convenient bundle! If you want that, then it's fine. If not, you'll have to select one of the shorter titles:



As you can see, one of these titles is not like another! The first title is the "play all" option. The last title is probably the animation you see when you first play the DVD. The other three are individual episodes. If you open your DVD player, you can figure out how long each episode is and match the title to the episode. If you're not willing to go to that much work, simply use a generic file name for each episode, and rename them when you've finished ripping.

* **Queues:** When you're ripping TV episodes off a DVD, you can build a queue to rip each episode in succession. That way, you don't have to go back to Handbrake after each episode is finished.

To build a queue, first select Enable queue. This activates the queue buttons.



To build your queue, set up all of the options you want to establish for your episode, then click Add to Queue. Then, go to the next episode and do the same thing. You can click Show Queue to look at the various tasks in the queue; if any are incorrect, you can click Remove to clear them from the queue. Note that once a task is saved, you cannot edit that task; you must delete it from the queue and create the task again. When you have finished building the queue, click Start to rip your episodes.

One more thing about queues: They're a great way to try a number of different settings for ripping the same material. For example, if you want to try a number of different video compression options to see which looks the best, you can set up a task for each option, then run them all to see which suits your fancy. Note, though, that if your Mac goes to sleep while Handbrake is running, Handbrake may eventually pause.

How to Add Subtitles

You can use the Subtitle section of Handbrake to select from the subtitles available on your DVD. When you select a subtitle, Handbrake imprints that subtitle onto the finished movie.

Handbrake is a fairly intuitive program, so if you want to see how things work, it's easy! Feel free to experiment as you see fit.