

# How to Make (Multi-Frame) Movies from the Command Line

## Stitching Frames together to make a movie

Check out the man page at: <http://ffmpeg.org/ffmpeg.html> >ffmpeg -framerate 30 -i frame%03d.png -q:v 1 my\_movie.avi

Relevant options:

- -framerate: in frames per second, changes the speed of your movie
- -i: input data, takes typical formatting input. Will automatically find the first frame if the frame number is  $\leq 4$ , otherwise specify with -start\_number.
- -q:[stream] : here I specified the video stream with v, though there are other options you can use for the audio stream (but I haven't done that myself). On a scale from 1-31 sets the video quality (can specify the bitrate manually but I've found the most reliable way to get "lossless" video quality is to use -q:v 1, to reduce file size you might consider using lower quality videos).

Output is specified automatically as the final argument (as far as I can tell). The order of these options does matter, arguments passed before -i will apply to the input stream whereas arguments passed after -i get applied to the output.

## Using Imagemagick Command Line Tools to Tile Frames

Check out the man page at: <http://imagemagick.org/script/convert.php>

>convert +(-)append @filenames.txt my\_image.png

Horizontal or (vertical) tiling is specified with the +(-) in front of append. You can either type a list of files or use the @filenames.txt syntax to use a text file as the input source. The final name is the output, just be careful you don't accidentally overwrite something if you forget to put the final name there.

Check out the man page at: <http://imagemagick.org/script/montage.php>

>montage @filenames.txt -tile 3x1 -geometry +0+0 my\_image.png

I haven't used montage as much, but it seems more flexible in terms of tiling things all at once, however, there were some issues I ran into when trying to tile files that had CMYK vs. RGB color channels and then using ffmpeg to stitch the resulting frames together (I think that was the problem... I just switched to convert instead and it worked).