

Is this a can of worms.....

Select your format depending on your audience, delivery method, and content. If you are putting this up for general consumption then requiring the download and installation of an external player will turn away many visitors (you can decide if that is good or bad). Will the file be available via the internet? If so, then you really can't throw out a 150MB animation and think that people will download it (but this goes back to the audience too since most researchers have a decent internet connection). Lastly, the actual images you are seeking to animate will have properties of that lend themselves to one compression scheme or another.

I agree that .flc is a decent format for scientific animations but it has its drawbacks. It is 8 bit, requires an external player, and depending on the images it compiles it can yield excellent to poor compression. A simple 2d animation of satellite tracked drifter movements intended for viewing by colleagues is a great candidate for .flc. Not so great is an object graphics fly thru of a school of pollock moving thru an echosounder beam intended for distribution to a wide audience.

MPEG has its problems as well. First, there are codecs for MPEG1 thru MPEG4. Windows Media Player only plays MPEG1 by default. Plus, the codec bundled with it only handles certain aspect ratios. You can't just pick an image size and assume that it will work. On top of this, the compression scheme fares quite poorly with "scientific animations" specifically ones with large collections of pixels with the same color. You can choose a high bit rate to alleviate the image quality issue but then you are left with huge files. MPEG1 is handled by most every bundled player, but at lower compression rates your animations may look like crap making it impossible to deliver small files that look good. But, for presentations it *MAY* work for you. You have to experiment.

.avi is yet another option. We have been working with this format lately and have been fairly happy with it. File sizes are moderate, quality is high (with our material) and every standard bundled player plays .avi files of reasonable dimensions. There are a number of codecs for .avi which yield different results so you may need to experiment to find the right one. So far, .avi has been the most flexible format of the three.

For actually compiling the frames into an animation I am using the shareware program VideoMach (<http://www.gromada.com/>). It uses whatever codecs are installed on your machine (so they will vary) but on a win2k box I have quite a few options (it will do all of the formats mentioned above and

more). I will usually load up 75 or 100 frames (.png images) and get my frame rate, compression scheme and size worked out then load up the rest and process the whole animation. It takes some time, but you will start to figure out what codecs are good at what and other methods to manipulate file size vs quality so you can target your audience and method of delivery.

Whatever format you choose, make sure the animation plays on your machine. .avi files created on my win2k box required a codec to play back on an Win NT4 machine. I don't have an NT machine so I don't know if NT lacks any .avi codecs or the bundled codec just didn't like the file I was giving it.

As for powerpoint.....

To keep the flow of a presentation I prefer to embed the animation in the presentation instead of going to an external viewer. Since we don't have a .flc plugin for WMP we steer clear of .flc. This leaves MPEG1 and AVI. Both work well, but I must warn you to **TEST THE ANIMATION ON THE PRESETATION MACHINE WHILE IT IS CONNECTED TO THE PROJECTOR!** I have seen many presentations where the animation plays on the laptop screen but the projector shows only a black box where the animation should be playing. I haven't had enough time to figure out why this is, but it hasn't been limited to a single laptop or projector.

Good Luck!

-Rick Towler

<mankoff@lasp.colorado.edu> wrote in message
news:Pine.LNX.4.33.0105022017540.6039-100000@sands.stuff.org ...
>
> Hi,
>
> Can anyone direct me to the most effecient way to get a movie into
> powerpoint? Which movie formats are easiest to write a sequence of images
> into and the import into powerpoint, or translate into an importable
> format?
>
> Thanks for any help,
>
> -k.
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