Subject: Re: Creating scientific MPEG using IDL 6
Posted by Rick Towler on Wed, 14 Jan 2004 23:31:31 GMT
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"Pat Dandenault" wrote in message...

> I'm creating MPEGs using 24-bit JPEG images.
> The MPEG comes out grainy, even with Quality set to 100.
>
> The MPEGs need to be created programatically, so using other codecs
> from within IDL doesn't seem possible (to me, anyway).

If you feel that the built in MPEG encoder is your only option then you can try a few things:

Writing MPEG-2 files will yield better results than MPEG-1 files. Note that you will need the appropriate codec to play MPEG-2 files. Any software capable of playing DVD's will work (winDVD, powerDVD, etc.). If you are on a Windows machine simply having one of these programs installed will allow WMP to play them. I'm sure there are programs for other platforms too.

With either format try playing with the individual "quality" parameters instead of simply the QUALITY keyword. The most influential parameter will be BITRATE. For MPEG-2 set the bitrate in the range of 3000-9000 kbit/s to start. This is the DVD spec so running higher than this will potentially yield files that are unplayable. For MPEG-1 1150 kbit/s is the VCD standard but the DVD spec does allow for MPEG-1 files at the same 3000-9000 kbit/s. I don't know about the playability of MPEG-1 files encoded at this bitrate.

If your animations have a lot of motion and you are getting a lot of artifacts between your I-Frames, set your own IFRAME_GAP value. Lower values yield higher quality files.

If file size isn't an issue you should be able to go crazy with these parameters and generate acceptable results. If file size is an issue, then you'll need to come up with another approach.

If you are creating these on Windows machines, Ronn Kling's IDL2AVI .dlm can help. While you can't programmatically set the encoder, you can set it once in an IDL session and every subsequent invocation in that session will utilize those settings. This .dlm will open up a world of codec options.

If you are on a unix box, you could write the individual frames to disk then spawn an external program to encode them. I used to do this with .flc animations back when 8-bit was cool :)

-Rick