
Subject: Re: high quality videos with idlffvideowrite?
Posted by [David Fanning](#) on Wed, 24 Apr 2013 21:19:56 GMT
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George.millward@yahoo.com writes:

> Can anyone point me to some documentation on how to make a high quality
> video with idlffvideowrite - I'm sure Exelis put one together - but, as is often the case, I can't find
it.
>
> I can easily create videos with iflffvideowrite - but they are usually very horrible and
compressed. I have replaced all of the ffmpeg .dll files as described in the reference manual and
so I have lots of codecs and formats to work with... (I'm on windows7 btw)
>
> ...but I never seem to get anything other than a really poor quality movie. Surely this can't be
that hard ?!?

I didn't have any trouble with movie quality in the two movies I made
for the Coyote Gallery, but they are pretty simple. You can find the
code I used and the movies themselves here:

http://www.idlcoyote.com/gallery/index.html#AVI_MOVIE

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: high quality videos with idlffvideowrite?
Posted by [George.millward](#) on Wed, 24 Apr 2013 21:34:18 GMT
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On Wednesday, April 24, 2013 3:19:56 PM UTC-6, David Fanning wrote:

> George.millward@yahoo.com writes:
>
>
>
>> Can anyone point me to some documentation on how to make a high quality
>
>> video with idlffvideowrite - I'm sure Exelis put one together - but, as is often the case, I can't
find it.
>

Cheers

George.

Subject: Re: high quality videos with idlffvideowrite?
Posted by [AndrewM](#) on Wed, 24 Apr 2013 22:42:49 GMT
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Try out some different values for the BIT_RATE keyword of the AddVideoStream() function. The default value is 2000000- meaning the encoder will aim to squeeze every second of video into 250 kilobytes (2Mbps = 250KBps), even if it has to sacrifice some quality to do so. H.264 is pretty good, but squeezing ~62 million pixels into 250KB is still a tall order.

Since you've gone through the trouble of getting yourself H.264 support (good choice!), you might also try experimenting with the PRESET keyword as well. Most of the H.264 presets just set different priorities for the tradeoff between video quality and encoding speed- if you don't mind encoding taking a bit longer, you can get a little more quality with the slower presets. The lossless presets will guarantee absolutely perfect quality, but fewer video players support them (Windows Media Player doesn't, but VLC does), and the files can come out quite large- here, the BIT_RATE setting is ignored, and slower presets get you smaller files rather than better quality.

I did an experiment a while back to see how the different presets compared. The quality column is completely subjective to my eyeballs. Your experience may vary, depending on your video. (My apologies for how ugly this table is going to be if you're not viewing with a monospaced font.)

Preset	Time (s)	Quality (/10)	Size (KB)
ultrafast	9	4	3941
superfast	14	7	4306
veryfast	21	7	4532
faster	36	7.5	4487
normal	36	7.5	4488
fast	48	8	4553
default	54	8	4521
medium	54	8	4532
hq	89	8.5	4479
slow	91	8.5	4483
slower	157	9	4464
veryslow	307	9	4468
max	796	9.5	4454
placebo	893	9.5	4482
lossless_ultrafast	14	10	129048
lossless_fast	26	10	116800
lossless_medium	47	10	102583
lossless_slow	80	10	99142
lossless_slower	113	10	97086
lossless_max	460	10	96881

-Andrew Magill
ExelisVIS

Subject: Re: high quality videos with idlffvideowrite?
Posted by [George.millward](#) on Wed, 24 Apr 2013 23:09:24 GMT
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On Wednesday, April 24, 2013 3:07:42 PM UTC-6, george....@yahoo.com wrote:

> Hi there,
>
>
>
> Can anyone point me to some documentation on how to make a high quality
>
> video with idlffvideowrite - I'm sure Exelis put one together - but, as is often the case, I can't find
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>
>
>
> ...but I never seem to get anything other than a really poor quality movie. Surely this can't be
that hard !!?
>
>
>
> Cheers
>
>
>
> George.

Andrew

Thanks for your help. I was trying the presets - but i must have something wrong because
'lossless' was definitely still compressed.

Here's what i have:

```
vidStream = oVid.AddVideoStream(width, height, fps, codec='libx264', preset='slow')
```

is that the correct codec for H.264 ?

Cheers

George.

Subject: Re: high quality videos with idlffvideowrite?
Posted by [David Fanning](#) on Wed, 24 Apr 2013 23:15:25 GMT
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George.millward@yahoo.com writes:

> Thanks for your help. I was trying the presets - but i must have something wrong because
> 'lossless' was definitely still compressed.
>
> Here's what i have:
>
> vidStream = oVid.AddVideoStream(width, height, fps, codec='libx264', preset='slow')
>
> is that the correct codec for H.264 ?

I was just thinking that a tutorial on this subject by someone who knew what they were doing would be immensely helpful. Maybe George (when he gets things sorted) or Andrew can help us out. I'd be happy to host the tutorial on my web page. Or, even better, it could be the first entry to a new section in the IDL Documentation Center. :-)

Cheers,

David

--

David Fanning, Ph.D.
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Subject: Re: high quality videos with idlffvideowrite?
Posted by [AndrewM](#) on Wed, 24 Apr 2013 23:29:41 GMT
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Yup, libx264 is the one you want for H.264 encoding. Still, though, increasing BIT_RATE is the first thing to try. It's going to take a lot more than 2 Mbps to get good quality 1920x1080 video. Let me know if that doesn't work out.

Subject: Re: high quality videos with idlffvideowrite?
Posted by [David Fanning](#) on Wed, 24 Apr 2013 23:50:22 GMT
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AndrewM writes:

> Yup, libx264 is the one you want for H.264 encoding. Still, though, increasing BIT_RATE is the first thing to try. It's going to take a lot more than 2 Mbps to get good quality 1920x1080 video. Let me know if that doesn't work out.

Here is a link that seems particularly useful in this regard:

<http://bit.ly/jJ0ufx>

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: high quality videos with idlffvideowrite?
Posted by [George.millward](#) on Wed, 24 Apr 2013 23:51:21 GMT
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On Wednesday, April 24, 2013 5:29:41 PM UTC-6, AndrewM wrote:

> Yup, libx264 is the one you want for H.264 encoding. Still, though, increasing BIT_RATE is the first thing to try. It's going to take a lot more than 2 Mbps to get good quality 1920x1080 video. Let me know if that doesn't work out.

Yes, i did try bit_rate and it does make a big difference. I guess I'd assumed that the h264 'presets' would override any stated bit rate.

I agree with David... this needs a tutorial, or a much more complete set of examples - these days HD is almost standard and (for instance) the iPad goes way beyond HD.
