Subject: Lossless compression with IDLffVideoWrite
Posted by dg86 on Mon, 01 Aug 2016 13:06:27 GMT

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Dear Folks,

I'd like to store sequences of tens of thousand of grayscale images as video files for playback and subsequent retrieval. Being able to retrieve the individual frames in their original state is an important part of the application. It appears that IDLffVideoWrite only supports codecs with lossy compression. These introduce compression artifacts into the stored data. Is there a way to configure IDLffVideoWrite to use lossless compression?

Storing video data as rawvideo (no compression) is lossless, but isn't a great option because IDLffVideoWrite only supports RGB images, and so inflates the file size by a factor of 3 relative to just writing the data to a binary file.

Lossless compression with the h264 codec would be ideal, but requires replacing IDL's ffmpeg libraries, which I'd like to avoid because of library version mismatches. I'm looking for a solution that offers compression without artifacts using the standard IDL installation.

Any pointers would be much appreciated.

Many thanks,

David

Subject: Re: Lossless compression with IDLffVideoWrite
Posted by markb77 on Mon, 01 Aug 2016 14:35:17 GMT

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Do you need to save the video "on-the-fly" i.e. as you acquire it, or can you buffer it to memory before saving?

If you don't need to save it on the fly, it would seem fairly straightforward to save your images as, for example, a compressed TIFF stack, perhaps using the OME-TIFF standard. These files can then be read by ImageJ, and also created/accessed using the Bio-formats library, etc.

Mark