
Subject: Re: BufferPainter::Clear() optimization
Posted by [mirek](#) on Fri, 15 May 2020 09:33:55 GMT
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Tom1 wrote on Fri, 15 May 2020 10:18

While interesting, I found that a plain `memset()` is way faster than `memsetd()` or `Fill()`. Just filling with `0xff` (as the RGBA is for white) you will get a superior speed. I currently use `memset()` for a clear white on a `ImageBuffer` before giving it to `BufferPainter`. For more complex fill colors, I guess, the `apex_memmove / memcpy` code could be investigated for a more optimal result. (I posted a link to the apex code here on the forum briefly before release of 2020.1

Best regards,

Tom

With CLANG, `memset` performance is about the same. However, with MSVC, it really is pretty damn fast.

I have digged into the code and the key ingredient seems to be `MOVNTPS` instruction, which means the code could be easily adapted to setting `dwords`. I just need to understand MT implications mentioned here:

<https://www.felixcloutier.com/x86/movntps>

It also might be questionable how this will affect the performance down the road (data not being in cache and everything...)

Mirek
