Subject: Re: BufferPainter::Clear() optimization
Posted by Tom1 on Fri, 22 May 2020 09:13:48 GMT
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Quote:I believe that the problem is that memcpyd became too fat and it screws inlining. So the thing to solve now is to find how to remove some if this fat to non-inline.... (svo_memcpy already has such non-inlined part). Probably same should happend to memsetd too....

Hi Mirek,

I think this could be the same phenomenon that caused me issues with 32-bit MSC. It was more critical to code length and the short transfers suffered immediately when code size increased. At the same time MSBT19x64 and both CLANG and CLANGx64 did not experience any trouble. Perhaps MSBT19 did not do as good job with code size as the rest and on my CPU the instruction cache was exhausted. I bet the instruction cache on your CPU is larger than what my i7 has.

At some moment I was thinking of offering the functions as two variants: inline and never_inline, in a way that the never_inline is simply calling the inline. An then when the code benefits from it, calling the never_inline variant.

Then I also thought of handling something like <= 16 .. 32 sizes inline and the rest in a deeper never_inline function. This would probably improve the situation without adding so much complexity.

Best regards,

Tom