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Subject: Re: MILESTONE: gtk3 replaces gtk2 as default linux backend

Posted by [Tom1](#) on Sun, 19 Apr 2020 20:37:00 GMT

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Hi Mirek,

A 4K maximized window Paint from readily available Image/ImageBuffer Size(3840, 2035) comparison:

- Direct SetSurface: 5800 us
- Original DrawImage (1st>2nd>3rd...etc): 10900 us > 35000 us > 5100 us ...
- #if 0 variant (1st>2nd...etc): 18100 us > 6400 us ...
- Original without SetSurface optimization (1st>2nd...etc): 37000 us > 5000 us ...

This is still on Windows 10, Intel Core i7 with integrated Intel HD 4600.

So, SetSurface is always about 5800 us, which is a good all-around solution. #if 0 variant does not really help here. Original code with or without SetSurface optimization only starts to deliver after quite a few rounds when initialization penalty of 35-37 milliseconds is payed back with small gains like 700-800 us per round compared to direct SetSurface.

Maybe computers with better GPUs deliver better with these optimizations. (I don't know this as I do not have such hardware.) Anyway, with typical business setup this is not the case as high end GPUs only come with gaming rigs.

In the end I will probably stick with SetSurface for predictable performance.

On the Linux/GTK3 front the Ctrl::GetPrimaryScreenArea().GetSize(); (used for cache management) still eats half of the time. I think it should be cached in a per-monitor way.

Best regards,

Tom

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