Subject: Re: BufferPainter::Clear() optimization
Posted by mirek on Tue, 28 Apr 2020 08:12:35 GMT
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Tom1 wrote on Mon, 27 April 2020 19:19Hi,

Here's an optimization for BufferPainter.

BufferPainter::Clear(RGBA) speed is improved by over 30 % with the following change in Painter/Render.cpp:

```
void BufferPainter::ClearOp(const RGBA& color)
{
// UPP::Fill(~*ip, color, ip->GetLength());
 FillRGBA(~*ip, color, ip->GetLength());
 ip->SetKind(color.a == 255 ? IMAGE_OPAQUE : IMAGE_ALPHA);
}
```

And in Painter/Fillers.h:

```
namespace Upp {

// Add the following line:
#define FillRGBA(a,b,c) memsetd((a),*(dword*)&(b),(c))

struct SolidFiller : Rasterizer::Filler {
```

This may be significant in some usage scenarios as it can currently take e.g. 4.5 milliseconds to clear a 4K ImageBuffer before drawing to it. This can now be reduced to 2.8 milliseconds.

Now this is really interesting. Fill for RGBA* is actually one that is optimized for filling huge blocks. I will need to do some benchmarks...