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Subject: SOLVED: Array and Grid on high definition monitor  
Posted by [forlano](#) on Sun, 04 Mar 2018 22:53:47 GMT  
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Hello,

on Surface 4 with Windows 10 at 2160x1440 both ctrl do not show correctly. It seems the font are not scaled properly.

See picture attached.

The ArrayCtrl shows the problem in case of custom display.

Am I the only who experience this problem?

Thanks,

Luigi

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#### File Attachments

1) [pic.png](#), downloaded 671 times

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Subject: Re: Array and Grid on high definition monitor

Posted by [mirek](#) on Thu, 08 Mar 2018 09:01:22 GMT

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forlano wrote on Sun, 04 March 2018 23:53Hello,

on Surface 4 with Windows 10 at 2160x1440 both ctrl do not show correctly. It seems the font are not scaled properly.

See picture attached.

The ArrayCtrl shows the problem in case of custom display.

Am I the only who experience this problem?

Thanks,

Luigi

Is not it possible that you have some issue in your code, like using SetLineCy or some custom Displays? AttrText?

E.g. providing the short example would be nice...

Not sure if that is your machine, but if it is, do you experience any issue with e.g. theide?

Mirek

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Subject: Re: Array and Grid on high definition monitor  
Posted by [forlano](#) on Thu, 08 Mar 2018 11:10:22 GMT

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mirek wrote on Thu, 08 March 2018 10:01

Is not it possible that you have some issue in your code, like using SetLineCy or some custom Displays? AttrText?

In both case I use SetLineCy and custom Display.  
I have not a Surface machine. I'll try to do a short program showing the issue.

Thanks,  
Luigi

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Subject: Re: Array and Grid on high definition monitor  
Posted by [mirek](#) on Thu, 08 Mar 2018 13:30:08 GMT

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forlano wrote on Thu, 08 March 2018 12:10mirek wrote on Thu, 08 March 2018 10:01

Is not it possible that you have some issue in your code, like using SetLineCy or some custom Displays? AttrText?

In both case I use SetLineCy and custom Display.  
I have not a Surface machine. I'll try to do a short program showing the issue.

Thanks,  
Luigi

Well, those numbers with SetLineCy etc... are absolute number of pixels. They should always be scaled. You can scale with Zx / Zy (for zoom X or zoom Y) - this scales based on size of standard font and should therefore take care about HDPI displays.

Alternative is using DPI - this simply multiplies the argument by 2 if running on HDPI. Better for image related work.

Also note that .iml images can be scaled automatically, if they are set correctly - Image can be marked as normal DPI (and is then automatically upscaled in HDPI), or can be marked HIDPI (and is eventually downscaled), or is "no resolution" and left intact.

Mirek

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Subject: Re: Array and Grid on high definition monitor

Posted by [forlano](#) on Fri, 09 Mar 2018 18:24:41 GMT

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mirek wrote on Thu, 08 March 2018 14:30

Well, those numbers with SetLineCy etc... are absolute number of pixels. They should always be scaled. You can scale with Zx / Zy (for zoom X or zoom Y) - this scales based on size of standard font and should therefore take care about HDPI displays.

Hi Mirek,

I am sorry but I have not understood how to scale.

In the ArrayCtrl I am using 3 different display that affect 5 columns. Here are 2 Display:

```
struct FontDisplay3 : Display {
    virtual void Paint(Draw& w, const Rect& r, const Value& q,
                      Color ink, Color paper, dword style) const
    {
        Font fnt = Courier(15).Bold();
        ink = Blue();
        String txt = AsString(q);
        w.DrawRect(r, paper);
        w.DrawText(r.left + 2, r.top + (r.Height() - GetTextSize(txt, fnt).cy) / 2, txt, fnt, ink);
    }
};
```

```
struct PaperResult : Display {
    virtual void Paint(Draw& w, const Rect& r, const Value& q,
                      Color ink, Color paper, dword style) const
    {
        Font fnt = Roman(16).Bold();
        String txt = AsString(q);
        if (txt.Find("F")>=0) paper=Color(250,150,150);
        else if (txt.Find("U")>=0) paper=Color(124,252,0);
        else if (txt.Find(" ")>=0) paper=Color(255,255,204);
        w.DrawRect(r, paper);
        int a=(r.Width()-GetTextSize(txt, fnt).cx)/2;
        w.DrawText(r.left + a, r.top + (r.Height() - GetTextSize(txt, fnt).cy) / 2, txt, fnt, ink);
    }
};
```

Can you please show me how to scale one of these?

Thanks!

Luigi

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Subject: Re: Array and Grid on high definition monitor

Posted by [mirek](#) on Fri, 09 Mar 2018 18:29:36 GMT

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```
struct FontDisplay3 : Display {
    virtual void Paint(Draw& w, const Rect& r, const Value& q,
                      Color ink, Color paper, dword style) const
    {
        Font fnt = Courier(Zy(15)).Bold();
        ink = Blue();
        String txt = AsString(q);
        w.DrawRect(r, paper);
        w.DrawText(r.left + DPI(2), r.top + (r.Height() - GetTextSize(txt, fnt).cy) / 2, txt, fnt, ink);
    }
};

struct PaperResult : Display {
    virtual void Paint(Draw& w, const Rect& r, const Value& q,
                      Color ink, Color paper, dword style) const
    {
        Font fnt = Roman(Zy(16)).Bold();
        String txt = AsString(q);
        if (txt.Find("F")>=0) paper=Color(250,150,150);
        else if (txt.Find("U")>=0) paper=Color(124,252,0);
        else if (txt.Find(" ")>=0) paper=Color(255,255,204);
        w.DrawRect(r, paper);
        int a=(r.Width()-GetTextSize(txt, fnt).cx)/2;
        w.DrawText(r.left + a, r.top + (r.Height() - GetTextSize(txt, fnt).cy) / 2, txt, fnt, ink);
    }
};
```

(Use of DPI in FontDisplay3 is more matter of taste, could be Zx instead probably).

Mirek

Can you please show me how to scale one of these?

Thanks!

Luigi[quote]

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Subject: Re: Array and Grid on high definition monitor

Posted by [forlano](#) on Fri, 09 Mar 2018 21:55:05 GMT

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Great!

The problem disappeared. I was worried that on this device my program could not work properly.

Thanks,  
Luigi

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