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Subject: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Fri, 18 Mar 2011 22:50:28 GMT  
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The programs I used to compare are UWord from the UPP, and MS Word. The platform is Windows 7.

The text I used to test is:

The problem with U++ drawn text is that some characters are notably larger than others and some have incorrect horizontal displacement.

Please see attached picture for a visual effect.

I also encountered issue where chinese characters are displayed correctly displayed on Windows but are blank on Ubuntu. And when I copies the same text that was displayed as blank to, say gedit, the text displayed correctly as in Windows. That part I will attach picture in future.

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[File Attachments](#)

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1) [font problem.png](#), downloaded 846 times

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Subject: Re: It's suspected to be an issue with Font.  
Posted by [mirek](#) on Sun, 10 Apr 2011 12:42:52 GMT  
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Lance wrote on Fri, 18 March 2011 18:50The programs I used to compare are UWord from the UPP, and MS Word. The platform is Windows 7.

The text I used to test is:

The problem with U++ drawn text is that some characters are notably larger than others and some have incorrect horizontal displacement.

It works fine on my Windows 7. However, I believe that the problem is caused by font substitution mechanism and perhaps on your system, you have some font that takes precedence for some glyphs, but does not contain other characters.

However, I have noticed that OpenOffice or Wordpad are preferring SimSun font, so I have given

it higher priority now. Please check.

The core table for font substitutions is in Draw/FontCR, table sFontReplacements. If U++ does not find required glyph in the font, it tries to get the glyph by going through fonts in this table and uses first glyph available... Maybe you could play with it a bit to get better results.

Quote:

I also encountered issue where chinese characters are displayed correctly displayed on Windows but are blank on Ubuntu. And when I copies the same text that was displayed as blank to, say gedit, the text displayed correctly as in Windows. That part I will attach picture in future.

I believe this is basically the same issue - gedit has better knowledge about fonts, so is able to find a better replacement.

Maybe, if openoffice behaves similary in Ubuntu as in Windows, you can try to paste characters into Openoffice and then check what font it has actually used for it. Then we can add this font to replacement table...

Alternatively please post some problematic text here so that I can do this myself.

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Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Tue, 12 Apr 2011 12:03:33 GMT

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Great Mirek.

Thank you very much for your effort. I didn't know you were working on it. Thanks a million.

I will download the most recent version and give it a try.

Lance

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Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Tue, 12 Apr 2011 13:19:17 GMT

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Sorry but the problem doesn't seemed to be fixed.

I tested only on Windows 7 with version 3336, didn't notice any improvement. Even font substitution is the old way (SimHei I believe instead of SimSun).

Has be fix been committed yet?

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Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Sat, 16 Apr 2011 18:54:48 GMT

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Lance wrote on Tue, 12 April 2011 09:19Sorry but the problem doesn't seem to be fixed.

I tested only on Windows 7 with version 3336, didn't notice any improvement. Even font substitution is the old way (SimHei I believe instead of SimSun).

Has be fix been committed yet?

Well, it was.

Maybe you could try yourself, I believe it is easy to do so.

Maybe create just simple app that only draws the text in window, then put a DUMP to Replace(Font fnt, int chr, Font& rfnt) in CRFont.cpp to find out what is going on....

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Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Sat, 16 Apr 2011 19:02:48 GMT

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```
#include <CtrlLib/CtrlLib.h>

using namespace Upp;

struct MyApp : TopWindow {
    virtual void Paint(Draw& w) {
        w.DrawRect(GetSize(), White);

    }
};

GUI_APP_MAIN
{
    MyApp().Run();
}
```

And this DDUMP

bool Replace(Font fnt, int chr, Font& rfnt)

```

{
static Vector<int> rface;
static Vector<dword> l, h;
ONCELOCK {
for(int i = 0; i < __countof(sFontReplacements) && rface.GetCount() < 20; i++) {
int q = Font::FindFaceNameIndex(sFontReplacements[i].name);
if(q > 0) {
rface.Add(q);
l.Add(sFontReplacements[i].l);
h.Add(sFontReplacements[i].h);
}
}
}

Font f = fnt;
dword tl = chr < 4096 ? 0x80000000 >> (chr >> 7) : 0;
dword th = 0x8000000 >> ((dword)chr >> 11);
// DDUMP(FormatIntHex(chr));
// DDUMP(FormatIntHex(th));
for(int i = 0; i < rface.GetCount(); i++) {
// DDUMP(Font(rface[i], 10));
// DDUMP(FormatIntHex(h[i]));
// DDUMP(FormatIntHex(h[i] & th));
if(((l[i] & tl) || (h[i] & th)) && IsNormal(f.Face(rface[i]), chr)) {
int a = fnt.GetAscent();
int d = fnt.GetDescent();
if(f.GetAscent() > a || f.GetDescent() > d) {
static sFontMetricsReplacement cache[256];
int q = CombineHash(fnt, f) & 255;
if(cache[q].src != fnt || cache[q].dst != f) {
cache[q].src = fnt;
cache[q].dst = f;
while((f.GetAscent() > a || f.GetDescent() > d) && f.GetHeight() > 1) {
f.Height(max(1, min(f.GetHeight() - 1, f.GetHeight() * 9 / 10)));
}
cache[q].mdst = f;
}
else
f = cache[q].mdst;
}
rfnt = f;
DDUMP(rfnt.GetFaceName()); // <<- HERE
return true;
}
}
return false;
}

```

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Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Sat, 16 Apr 2011 19:21:27 GMT

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BTW, I have tried with debian, default installation, and it does not display the text even in the browser

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Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Wed, 20 Apr 2011 20:07:21 GMT

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Just saw it. Thank for the effort! Font is too complicated a topic for me but I'll definitely give it a try.

---

Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Wed, 20 Apr 2011 20:30:16 GMT

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Here is the output. The test was done on a Windows machine.

```
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = Arial Unicode MS
```

---

Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Sat, 30 Apr 2011 08:37:17 GMT

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Lance wrote on Wed, 20 April 2011 16:30Here is the output. The test was done on a Windows machine.

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```
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = Arial Unicode MS
```

Well, for me, it is SimSun all the way...

Could you please try to paste the text into WordPad and tell me what font it reports?

Mirek

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Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sun, 01 May 2011 15:23:00 GMT

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Hi Mirek:

Thank you for your continued attention to this issue.

I don't have immediate access to a Windows U++ development environment. I did the same test on Ubuntu and here is a screen shot:

See how different characters are missing in TheIDE editors and in the running test program? That is the problem I mentioned earlier regarding missing characters on Linux. BTW: it's Ubuntu 11.04.

And the LOG file:

```
rfnt.GetFaceName() = UnDotum
```

I will report the result as soon as I can put my hands on a Windows version of TheIDE.

### File Attachments

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1) [Screenshot2.png](#), downloaded 1236 times

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Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sun, 01 May 2011 15:35:00 GMT

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---

As a comparison, in Ubuntu gedit, no matter what font I use, the Chinese characters either displayed as default font if these Characters are not in the Font's character set, or displayed with the font.

### File Attachments

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1) [Screenshot3.png](#), downloaded 1267 times

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Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sun, 01 May 2011 17:41:04 GMT

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---

On Windows XP, here is the LOG file content:

```
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = Arial Unicode MS
```

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Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Mon, 02 May 2011 05:07:19 GMT

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---

Well, but I am still not getting information about what font should be used on your systems.

I need to you to paste the text into editor that would display replacement font. I know for sure that

OpenOffice is capable of doing that. WordPad in Win7 as well.

Simply paste text there, move cursor over CJK characters, it would show what font is used.

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**Subject: Re: It's suspected to be an issue with Font.**  
Posted by [Lance](#) on Mon, 02 May 2011 13:58:44 GMT

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It seems OpenOffice hide the font substitution from end user. Here is the result of my experiment in Ubuntu + Open Office. See the hilighted character is related with nominal font "FreeSerif"

Let me know if I can somehow find the actual font used.

Regardless what font (serif, sans, etc), gedit/open office will render Chinese characters at uniform size and space, so the Upp way of interpret non-western font may have flaw. Interesting enough, on Windows, the characters almost always get displayed albeit with size/placement issues, while on Ubuntu, some characters cannot be displayed and become blanks.

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#### File Attachments

1) [Screenshot4.jpg](#), downloaded 1304 times

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**Subject: Re: It's suspected to be an issue with Font.**  
Posted by [Lance](#) on Mon, 02 May 2011 14:11:46 GMT

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By the way, SimSun should be a safe bet. Any Chinese characters should be representable in SimSun. Say there is a fancy font FancyFont. It only implemented 2000 most common chinese characters, than a character that's not in this set should be displayed in SimSun

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---

**Subject: Re: It's suspected to be an issue with Font.**  
Posted by [mirek](#) on Mon, 02 May 2011 18:07:11 GMT

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Lance wrote on Mon, 02 May 2011 10:11By the way, SimSun should be a safe bet. Any Chinese characters should be representable in SimSun. Say there is a fancy font FancyFont. It only implemented 2000 most common chinese characters, than a character that's not in this set should be displayed in SimSun

Well, but problem is that SimSun is already tested and required...

It is all really weird. In Windows, it works for me just fine. In your machine, it seems to choose "Arial Unicode MS" instead.

Hm, one possible explanation: Do not you have the same Arial Unicode MS installed on ubuntu?

It actually seems there is something wrong with that font, the replacement algorithm seems to have detected required glyphs in it...

OK, one more try: try to move SimSun in the list BEFORE Arial Unicode MS.

```
struct sRFace {  
    const char *name;  
    dword l, h;  
} sFontReplacements[] = {  
    { "sans-serif", 0xffee0008, 0xdc000801 },  
    { "Arial", 0xffffe0000, 0x09c00080 },  
    { "SimSun", 0xfd800000, 0x09ffff00 },  
    { "Arial Unicode MS", 0xffffc3fef, 0xfa7ff7e7 },  
    { "MS UI Gothic", 0xffc01008, 0x0fffff00 },  
    { "MS Mincho", 0ffc01008, 0x0fffff00 },  
    ....
```

Let us see, maybe it could help in windows.

Another thing to consider is to list all fonts to find out whether there is something bad with names:

```
GUI_APP_MAIN  
{  
    for(int i = 0; i < Font::GetFaceCount(); i++)  
        LOG(Font::GetFaceName(i));  
}
```

---

---

Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Tue, 03 May 2011 12:48:51 GMT

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DDUMP font result.

```
rfnt.GetFaceName() = UnDotum  
rfnt.GetFaceName() = UnDotum
```

## List Fonts Result:

STDFONT

serif

sans-serif

monospace

UnDotum

LMMonoLt10

Century Schoolbook L

OpenSymbol

Khmer OS System

LMSansQuot8

LMMathSymbols10

LMRomanSlant9

LMRomanSlant8

LMSans9

LMSans8

Mukti Narrow

Meera

Vemana2000

LMMonoSlant10

Umpush

Purisa

Pothana2000

DejaVu Sans Mono

Norasi

Loma

AR PL UKai TW MBE

URW Palladio L

Phetsarath OT

Sawasdee

Tlwg Typist

Lucida Bright

URW Gothic L

Dingbats

URW Chancery L

Ubuntu

FreeSerif

ori1Uni

Kedage

DejaVu Sans

Kinnari

LMSans17

LMSans12  
LMSans10  
Lohit Punjabi  
LMRoman17  
LMRoman12  
LMRoman10  
TlwgMono  
Symbol

LMRomanDunh10  
LMRoman7  
LMRoman6  
LMRoman5  
LMRoman9  
LMRoman8  
Bitstream Charter  
KacstOne  
AR PL UKai TW  
Khmer OS  
AR PL UKai HK  
Liberation Mono  
Courier 10 Pitch  
AR PL UKai CN

Nimbus Sans L  
TlwgTypewriter  
TakaoPGothic  
AR PL UMing TW MBE  
LMRomanDemi10  
Rachana

AR PL UMing HK  
LMMonoCaps10  
AR PL UMing CN  
LMMonoLtCond10  
AR PL UMing TW  
Standard Symbols L  
Lohit Gujarati  
Nimbus Mono L  
Nimbus Mono L  
Lucida Sans  
Liberation Serif  
Mallige  
LMMathItalic10  
Nimbus Roman No9 L  
LMMathItalic12  
LMRomanUnsl10  
Ubuntu

Lucida Sans Typewriter  
Liberation Sans  
LMMono10  
Lucida Sans Typewriter  
LMMono12  
LMMathItalic7  
LMMathItalic6  
LMMathItalic5  
LMMathItalic9  
LMMathItalic8  
Mukti Narrow  
LMMathSymbols6  
LMMathSymbols7

LMMathSymbols5  
FreeSans  
LMMathSymbols8  
LMMathSymbols9  
LMMono8  
LMMono9  
LMMathExtension10  
Lohit Tamil  
Tlwg Typo  
LMRomanCaps10  
UnBatang  
Lohit Bengali  
LMSansDemiCond10  
LMRomanSlant10  
LMRomanSlant12  
LMRomanSlant17  
Waree  
gargi  
Lohit Hindi  
DejaVu Serif  
Saab  
LMMonoProp10  
SimSun-ExtB  
Garuda  
Rekha  
WenQuanYi Bitmap Song  
URW Bookman L  
LMMonoPropLt10  
FreeMono

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Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Tue, 03 May 2011 12:50:34 GMT

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---

Above test was done on Ubuntu 11.04.

Will do a similar test on Windows as soon as I can. Thanks!

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Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Tue, 03 May 2011 12:52:27 GMT

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---

STDFONT  
serif  
sans-serif  
monospace

<< was skipped and the font below it was chosen.

---

---

Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Thu, 05 May 2011 16:46:07 GMT

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---

Results for test done on Windows XP

STDFONT  
Times New Roman  
Arial  
Courier New  
Symbol  
Wingdings  
Tahoma  
System  
Terminal  
Fixedsys  
Roman  
Script  
Modern  
Small Fonts  
MS Serif  
WST\_Czec  
WST\_Engl  
WST\_Fren

WST\_Germ  
WST\_Ital  
WST\_Span  
WST\_Swed  
Courier  
MS Sans Serif  
Marlett  
Lucida Console  
Lucida Sans Unicode  
Verdana  
Arial Black  
Comic Sans MS  
Impact  
Georgia  
Franklin Gothic Medium  
Palatino Linotype  
Trebuchet MS  
Webdings  
Estrangelo Edessa  
Gautami  
Latha  
Mangal  
MV Boli  
Raavi  
Shruti  
Tunga  
Sylfaen  
Microsoft Sans Serif  
Arial Unicode MS  
Book Antiqua  
Bookman Old Style  
Century  
Century Gothic  
Garamond  
MS Outlook  
Wingdings 2  
Wingdings 3  
MS Reference Sans Serif  
MS Reference Specialty

Haettenschweiler  
Bookshelf Symbol 7  
Bitstream Vera Sans  
Bitstream Vera Serif  
Bitstream Vera Sans Mono  
Myriad Web Pro  
Myriad Web Pro Condensed  
Arial Narrow  
Kartika  
Vrinda  
Lucida Sans  
Free 3 of 9 Extended  
Free 3 of 9  
DejaVu Sans Condensed  
DejaVu Serif  
DejaVu Serif Condensed  
DejaVu Sans Mono  
DejaVu Sans  
DejaVu Sans Light  
OpenSymbol  
MS Mincho  
MS PMincho  
MS Gothic  
MS PGothic  
MS UI Gothic  
Gulim  
GulimChe  
Dotum  
DotumChe  
Batang  
BatangChe  
Gungsuh  
GungsuhChe

MingLiU  
PMingLiU

And

rfnt.GetFaceName() = Arial Unicode MS  
rfnt.GetFaceName() = Arial Unicode MS  
rfnt.GetFaceName() = Arial Unicode MS

```
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = MS UI Gothic
rfnt.GetFaceName() = Arial Unicode MS
rfnt.GetFaceName() = Arial Unicode MS
```

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Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Fri, 06 May 2011 08:05:07 GMT

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---

Lance wrote on Tue, 03 May 2011 08:52

STDFONT

serif

sans-serif

monospace

<< was skipped and the font below it was chosen.

Ahaaa!

So the reason is that the name of font itself is translated to CJK. No wonder we cannot find it.

OK, the one simple step to prove this theory: Could you switch your windows to English and retest? (I believe that in english, the name would be SimSun, so it could be found).

---

---

Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Fri, 06 May 2011 08:36:56 GMT

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<http://msdn.microsoft.com/en-us/library/dd162620%28v=vs.85%29.aspx>

"The fonts for many East Asian languages have two typeface names: an English name and a localized name. EnumFonts, EnumFontFamilies, and EnumFontFamiliesEx return the English typeface name if the system locale does not match the language of the font."

Well, well, well, always some surprise waiting to bite us...

I guess the simple fix now is to simply add CJK names to FontCR.cpp, something like:

```
struct sRFace {
    const char *name;
```

```
dword l, h;  
} sFontReplacements[] = {  
    { "sans-serif", 0xffffe0008, 0xdc000801 },  
    { "Arial", 0xffffe0000, 0x09c00080 },  
    { "Arial Unicode MS", 0xffffc3fef, 0xfa7ff7e7 },  
    { "SimSun", 0xfd800000, 0x09ffff00 },  
  
    { "MS UI Gothic", 0xffc01008, 0x0fffff00 },  
    { "MS Mincho", 0xffc01008, 0x0fffff00 },
```

Above CJK glyphs are just example, please replace with CJK name (I cannot read CJK . Perhaps, if you can, there are more fonts with possibly alternate CHJ name in the table, they would need the same treatment.

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---

**Subject: Re: It's suspected to be an issue with Font.**

Posted by [Lance](#) on Fri, 06 May 2011 12:59:14 GMT

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---

I see. Is it that the linux world also follows MS principle on this regard?

I will do some test and report the result.

Thanks!

---

**Subject: Re: It's suspected to be an issue with Font.**

Posted by [Lance](#) on Fri, 06 May 2011 15:51:23 GMT

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Hi Mirek:

It works, even though not in the intended way.

I couldn't do it on Windows as the UTF-8 Chinese characters representation will fail MSVC and I don't have MinGW installed yet. But the test on Linux works beautifully. All previously invisible characters now display properly. Placement issue also disappears.

Only strange thing is that I use StdFont, and edit the name in sFontReplacements[] for SimSun only, but the Replacement font actually used is WenQuanYi Zen Hei, which is sans serif while SimSum is serif.

So it seemed edit the name of SimSun (that's the only entry I edited) makes WenQuanYi Zen Hei take precedence over UnDotum which would otherwise be selected.

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---

Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Fri, 06 May 2011 17:18:18 GMT

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Lance wrote on Fri, 06 May 2011 11:51Hi Mirek:

It works, even though not in the intended way.

I couldn't do it on Windows as the UTF-8 Chinese characters representation will fail MSVC and I don't have MinGW installed yet.

Ah, we have met this MSVC issue before...

The thing to do is that you will have to convert <32 >128 characters in string to escapes (octal or hexadecimal).

One way is to use this 'script'

```
#include <Core/Core.h>

using namespace Upp;

CONSOLE_APP_MAIN
{
}
```

and then paste text from log. Of course, you need to do that in Linux

Quote:

Only strange thing is that I use StdFont, and edit the name in sFontReplacements[] for SimSun only, but the Replacement font actually used is WenQuanYi Zen Hei, which is sans serif while SimSum is serif.

Sounds weird...

Well, whatever. If I may ask you, please fix that table by adding 'cjk' names and post here, so that it can be fixed in svn...

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---

Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sat, 07 May 2011 01:42:56 GMT

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Mirek:

Regarding MSVC character set issue, the suggested way doesn't seem to work all the time. For example, the T file for GridCtrl used to cause trouble with MSVC for zhTW; then recent version of the T file apparently change to the the octel escaped version suggested by you, but it still fails MSVC on my computer, while similarly escaped Russian etc translations are just fine. I don't know exactly why.

As for the sFontReplacements array translation part, I will do in the way you suggested. I guess I will need to put 4 fonts entries: two for the typical serif/sans serif fonts on Windows, and 2 for the counterpart fonts on Linux.

Update: I might be wrong. GridCtrl's T file is no longer causing compilation trouble on Windows.

---

---

**Subject: Re: It's suspected to be an issue with Font.**

Posted by [Lance](#) on Sat, 07 May 2011 02:00:42 GMT

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OK, here is what I am going to do:

1. On Windows(Linux), run our test program to enumerate fonts. Filter out non-chinese fonts.
2. Transalate to octet escaped version for font names when necessary
3. Create an entry for each of the font name, with the most favorite 4 fonts ( serif/sans serif on win/lin) listed on top of all chinese font entries.
4. Post the result to this thread.

If you have a better plan, please let me know. Thanks!

---

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**Subject: Re: It's suspected to be an issue with Font.**

Posted by [Lance](#) on Sat, 07 May 2011 03:19:07 GMT

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```
{"\346\226\260\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 },//SimSun (or New Song Ti)
 {"\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 }, // Song Ti
 {"\345\276\256\350\275\257\351\233\205\351\273\221", 0xfd800000, 0x09ffff00 }, //MS Ya Hei
 {"\351\273\221\344\275\223", 0xfd800000, 0x09ffff00 }, // Hei Ti
 {"\346\226\207\346\263\211\351\251\277\346\255\243\351\273\221", 0xfd800000, 0x09ffff00 },
 //WenQuanYi Zheng Hi
 {"\346\226\207\346\263\211\351\251\277\347\255\211\345\256\275\345\276\256\347\261\263\35
 1\273\221", 0xfd800000, 0x09ffff00 },//WenQuanYi Wei Hei
 {"\344\273\277\345\256\213", 0xfd800000, 0x09ffff00 }, //Fang Song
```

{"\346\245\267\344\275\223", 0xfd800000, 0x09ffff00 }, // Kai Ti

Above entries should covered the most common and acceptable fonts on both MS and Linux(ubuntu, free fonts) platforms. I am not sure if it will work as well for HongKong/Taiwan/Korean/Japanese users. But now we know where to go to fix similar issues.

Thanks for your effort. U++ becomes more frienldy to CJK users because of it!

I will build the TheIDE with the above entries applied and see how well it works on Linux(Ubuntu) and Windows, and will report the results hopefully within the next 24 hours.

---

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Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Sat, 07 May 2011 04:01:04 GMT

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---

Works beautifully on Linux.

On windows, I noticed the font replacement has some issue. See attached picture:

The second Chinese character is notably larger. I believe a different font is applied to it, possibly because it's not represented in the first font which other characters uses.

I will twink the ordering of the entries a little bit for best results.

---

#### File Attachments

1) [fontOnWin.jpg](#), downloaded 1298 times

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Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Sat, 07 May 2011 06:30:37 GMT

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---

OK, I will wait for your reordering attempt, then apply to svn.

---

---

Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sat, 07 May 2011 12:59:46 GMT

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---

Hi Mirek:

Sorry for keeping you waiting.

Here is the adjusted sFontReplacements array

```
struct sRFace {
    const char *name;
    dword l, h;
} sFontReplacements[] = {
    { "sans-serif", 0xffee0008, 0xdc000801 },
    { "Arial", 0xffffe0000, 0x09c00080 },
    {"\346\226\260\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 },//SimSun (or New Song Ti)
    {"\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 }, // Song Ti
    {"\345\276\256\350\275\257\351\233\205\351\273\221", 0xfd800000, 0x09ffff00 }, //MS Ya Hei
    {"\351\273\221\344\275\223", 0xfd800000, 0x09ffff00 }, // Hei Ti
    {"\346\226\207\346\263\211\351\251\277\346\255\243\351\273\221", 0xfd800000, 0x09ffff00 },
    //WenQuanYi Zheng Hi
    {"\346\226\207\346\263\211\351\251\277\347\255\211\345\256\275\345\276\256\347\261\263\35
    1\273\221", 0xfd800000, 0x09ffff00 },//WenQuanYi Wei Hei
    {"\346\245\267\344\275\223", 0xfd800000, 0x09ffff00 }, // Kai Ti
    {"\344\273\277\345\256\213", 0xfd800000, 0x09ffff00 }, //Fang Song
    { "Arial Unicode MS", 0xffffc3fef, 0xfa7ff7e7 },
    { "MS UI Gothic", 0xffc01008, 0x0fffff00 },
    { "MS Mincho", 0xffc01008, 0x0fffff00 },
    { "VL Gothic", 0xfd800000, 0x09a7ff80 },
    { "VL PGothic", 0xffe00008, 0x0de7ff80 },
    { "UnDotum", 0xe5800000, 0x0aa7ff7e },
    { "UnBatang", 0xe5800000, 0x0aa7ff7e },
    { "DejaVu Sans Mono", 0xffec0004, 0xfc00080 },
    { "DejaVu Sans", 0xffffd000c, 0xfc40080 },
    { "AlArabiyaFreeSerif", 0xffdc0008, 0xd8000007 },
    { "Kochi Mincho", 0xffdc0008, 0xd8000007 },
    { "Kochi Gothic", 0xffdc0008, 0xd8000007 },
    { "Sazanami Mincho", 0xffdc0008, 0xd8000007 },
    { "Sazanami Gothic", 0xffdc0008, 0xd8000007 },
    { "Gulim", 0xf7c00000, 0x0ba7ff7e },
    { "PMingLiU", 0xff800000, 0x09ffff00 },
    { "FreeSans", 0xfff23d00, 0xfc00000 },
    { "FreeSerif", 0xffffd3938, 0xfc00080 },
    { "Symbol", 0xe4000000, 0x88000002 },
};
```

Turns out "Arial Unicode MS" is the culprit. Some Chinese characters will be intercepted by it.

Not all the entries are strictly necessary. The first two Chinese fonts, Song Ti and SimSun(New Song Ti) are generally available on Windows and Linux platform. They are serif fonts. SongTi(or

SimSun) is the most popular/common font. Most Chinese Characters should be implemented in this(these two) font. In the past, I noticed on Linux platform that some supposedly Hei Ti font were actually rendered using Song Ti because those characters are not implemented in Hei Ti. Sorry for my expression but you know what I mean.

So if Upp doesn't actually differentiate between Serif/Sans Serif in font replacement logic, we should be able to keep the SongTi and SimSun entries only and eliminate other Chinese Font entries.

Thank you again for your attention to this issue! It's very important to me.

Edited by Lance, Reason: SimSun is the way to go. Tried Fang Song, looks great, but apparently it has much smaller implemented character set.

---

---

Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Sat, 07 May 2011 13:29:05 GMT  
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Sorry, one more issue. Refer to the following picture:

Notice when I draw it in the plain and simple way in MyApp, the text are compact and nice looking while in TheIDE code editor the same characters looks worse because of the excessive space in between.

If you can make theide code editor display Chinese character as compact as in MyApp or as it displays StdFont, that would be great. If too complicated then forget it.

#### File Attachments

1) [FontOnWin2.jpg](#), downloaded 1241 times

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Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Sat, 07 May 2011 15:39:12 GMT  
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Sorry but it's getting more complicated than we had expected.

I did test on another Windows XP machine. Here is the font replacement table:

```
struct sRFace {  
    const char *name;  
    dword l, h;  
} sFontReplacements[] = {
```

```

{ "sans-serif", 0xffffe0008, 0xdc000801 },
{ "Arial", 0xffffe0000, 0x09c00080 },
{ "\346\226\260\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 }, //SimSun (or New Song Ti)
{ "\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 }, // Song Ti
{ "\345\276\256\350\275\257\351\233\205\351\273\221", 0xfd800000, 0x09ffff00 }, //MS Ya Hei
{ "\351\273\221\344\275\223", 0xfd800000, 0x09ffff00 }, // Hei Ti

{ "Arial Unicode MS", 0xffffc3fef, 0xfa7ff7e7 },
{ "SimSun", 0xfd800000, 0x09ffff00 },
{ "MS UI Gothic", 0xffc01008, 0x0fffff00 },
{ "MS Mincho", 0xffc01008, 0x0fffff00 },
{ "WenQuanYi Zen Hei Mono", 0xfd800000, 0x0ae7ff7e },
{ "WenQuanYi Zen Hei", 0xfd800000, 0x0ae7ff7e },
{ "VL Gothic", 0xfd800000, 0x09a7ff80 },
{ "VL PGothic", 0xffe00008, 0x0de7ff80 },
{ "UnDotum", 0xe5800000, 0x0aa7ff7e },
{ "UnBatang", 0xe5800000, 0x0aa7ff7e },
{ "DejaVu Sans Mono", 0xffec0004, 0xfc00080 },
{ "DejaVu Sans", 0xffffd000c, 0xfc40080 },
{ "AlArabiyaFreeSerif", 0xffdc0008, 0xd8000007 },
{ "Kochi Mincho", 0xffdc0008, 0xd8000007 },
{ "Kochi Gothic", 0xffdc0008, 0xd8000007 },
{ "Sazanami Mincho", 0xffdc0008, 0xd8000007 },
{ "Sazanami Gothic", 0xffdc0008, 0xd8000007 },
{ "Gulim", 0xf7c00000, 0x0ba7ff7e },
{ "PMingLiU", 0xff800000, 0x09ffff00 },
{ "FreeSans", 0xffff23d00, 0xfc00000 },
{ "FreeSerif", 0xffffd3938, 0xfc00080 },
{ "Symbol", 0xe4000000, 0x88000002 },
};


```

Here is the result of font enumeration on the machine:

```

STDFONT
Times New Roman
Arial
Courier New
Symbol
Wingdings
Tahoma
System
Terminal
Fixedsys
Roman
Script
Modern
Small Fonts

```

MS Serif  
WST\_Czec  
WST\_Engl  
WST\_Fren  
WST\_Germ  
WST\_Ital  
WST\_Span  
WST\_Swed  
Courier  
MS Sans Serif  
Marlett  
Lucida Console  
Lucida Sans Unicode  
Verdana  
Arial Black  
Comic Sans MS  
Impact  
Georgia  
Franklin Gothic Medium  
Palatino Linotype  
Trebuchet MS  
Webdings  
Estrangelo Edessa  
Gautami  
Latha  
Mangal  
MV Boli  
Raavi  
Shruti  
Tunga  
Sylfaen  
Microsoft Sans Serif  
Arial Unicode MS  
Book Antiqua  
Bookman Old Style  
Century  
Century Gothic  
Garamond  
MS Outlook  
Wingdings 2  
Wingdings 3  
MS Reference Sans Serif  
MS Reference Specialty

Haettenschweiler  
Bookshelf Symbol 7  
Bitstream Vera Sans  
Bitstream Vera Serif  
Bitstream Vera Sans Mono  
Myriad Web Pro  
Myriad Web Pro Condensed  
Arial Narrow  
Kartika  
Vrinda  
Lucida Sans  
Free 3 of 9 Extended  
Free 3 of 9  
DejaVu Sans Condensed  
DejaVu Serif  
DejaVu Serif Condensed  
DejaVu Sans Mono  
DejaVu Sans  
DejaVu Sans Light  
OpenSymbol  
MS Mincho  
MS PMincho  
MS Gothic  
MS PGothic  
MS UI Gothic  
Gulim  
GulimChe  
Dotum  
DotumChe  
Batang  
BatangChe  
Gungsuh  
GungsuhChe

MingLiU  
PMingLiU

f.GetFaceName() = Arial Unicode MS  
f.GetFaceName() = Arial Unicode MS  
f.GetFaceName() = Arial Unicode MS

f.GetFaceName() = Arial Unicode MS

And here is the font substitution report:

f.GetFaceName() = Arial Unicode MS  
f.GetFaceName() = MS UI Gothic  
f.GetFaceName() = Arial Unicode MS  
f.GetFaceName() = Arial Unicode MS

SimSun and Song Ti are skipped even though the font are present in the system and they are supposed to take precedence over Arial Unicode MS and MS UI Gothic. The more weirded thing is it works just fine on Windows Vista and Ubuntu. Will do a test on a Windows 7 Machine.

---

---

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Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Sat, 07 May 2011 17:47:25 GMT

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In a newly installed machine with Windows 7 Home Premium English version and VC10 Chinese installed, I discovered that chinese font name are in English or Pinyin. And neither Song Ti or SimSun is present, while Microsoft YaHei is the default. I can confirm this is yet another SongTi.

looks decent even in small font size. So the following revised entries and ordering should work on most machine.

```
struct sRFace {  
    const char *name;  
    dword l, h;  
} sFontReplacements[] = {  
    { "sans-serif", 0xffffe0008, 0xdc000801 },  
    { "Arial", 0xffffe0000, 0x09c00080 },  
    { "\346\226\260\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 }, //SimSun (or New Song Ti)  
    { "SimSun", 0xfd800000, 0x09ffff00 }, //SimSun (or New Song Ti)  
    { "\345\256\213\344\275\223", 0xfd800000, 0x09ffff00 }, // Song Ti  
    { "\345\276\256\350\275\257\351\233\205\351\273\221", 0xfd800000, 0x09ffff00 }, //MS Ya Hei  
    { "Microsoft YaHei", 0xfd800000, 0x09ffff00 }, //MS Ya Hei  
    { "\351\273\221\344\275\223", 0xfd800000, 0x09ffff00 }, // Hei Ti  
    { "\346\226\207\346\263\211\351\251\277\346\255\243\351\273\221", 0xfd800000, 0x09ffff00 },  
    { "WenQuanYi Zheng Hi", 0xfd800000, 0x09ffff00 },  
    { "\346\226\207\346\263\211\351\251\277\347\255\211\345\256\275\345\276\256\347\261\263\351\273\221", 0xfd800000, 0x09ffff00 }, //WenQuanYi Wei Hei
```

```

// {"\344\273\277\345\256\213", 0xfd800000, 0x09ffff00 }, //Fang Song
// {"\346\245\267\344\275\223", 0xfd800000, 0x09ffff00 }, // Kai Ti
{ "Arial Unicode MS", 0xffffc3fef, 0xfa7ff7e7 },
{ "MS UI Gothic", 0xffc01008, 0x0fffff00 },
{ "MS Mincho", 0ffc01008, 0x0fffff00 },
{ "VL Gothic", 0xfd800000, 0x09a7ff80 },
{ "VL PGothic", 0xffe00008, 0x0de7ff80 },
{ "UnDotum", 0xe5800000, 0x0aa7ff7e },
{ "UnBatang", 0xe5800000, 0x0aa7ff7e },
{ "DejaVu Sans Mono", 0xffec0004, 0xfc00080 },
{ "DejaVu Sans", 0xffffd000c, 0xfc40080 },
{ "AlArabiyaFreeSerif", 0xffdc0008, 0xd8000007 },
{ "Kochi Mincho", 0xffdc0008, 0xd8000007 },
{ "Kochi Gothic", 0xffdc0008, 0xd8000007 },
{ "Sazanami Mincho", 0xffdc0008, 0xd8000007 },
{ "Sazanami Gothic", 0xffdc0008, 0xd8000007 },
{ "Gulim", 0xf7c00000, 0x0ba7ff7e },
{ "PMingLiU", 0xff800000, 0x09ffff00 }, // <--- SHOULD MOVE UP
{ "FreeSans", 0xfff23d00, 0xfc000000 },
{ "FreeSerif", 0xffffd3938, 0xfc00080 },
{ "Symbol", 0xe4000000, 0x88000002 },
};


```

I still cannot figure out why it would not work on my Windows XP machine. (it's Win XP Professional English version, but many Chinese software has been installed/uninstalled, so its precise condition cannot be determined and reproduced. One thing is for sure, Chinese character in MS Office or OpenOffice are just fine). I will do further investigation. If you can give me some ideas on how to figure out the exact trouble point, I would appreciate that.

Edit: Promote entry for PMingLiu to above that for Arial Unicode MS solve the problem on the WinXP machine. The reason is still unknown. Even though SimSun, SongTi, MS YaHei all are present and work just fine in MS Office and probably many other programs, and enumeration in U++ also shows them, they will somehow report false information to UPP font substitution logic so that they are eliminate as viable candidates.

---



---

Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sat, 07 May 2011 18:41:04 GMT

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Sorry for throwing too much at you. Here I discovered another issue which I believe is related to Upp way of interpreting UTF-8 characters.

will cause otherwise displayable Chinese characters following it disappear.

Here is a test program:

```
#include <CtrlLib/CtrlLib.h>

using namespace Upp;

struct MyApp : TopWindow {
    virtual void Paint(Draw& w) {
        const char * texts[]={
            "\346\234\213", //PENG
            "\345\217\213", //YOU
            "\346\234\213\357\274\214\345\217\213", //PENG CHINESECOMMA YOU
            "\346\234\213\345\217\213\357\274\214\346\234\213\345\217\213" // PENG YOU
        CHINESECOMMA PENG YOU
    };

    w.DrawRect(GetSize(), White);
    for(int i=0; i<4; ++i)
        w.DrawText(10, 10+i*30, texts[i]);
    }
};

GUI_APP_MAIN
{
    MyApp().Run();
}
```

Output is something like:

A second issue: On Ubuntu, I applied the above changes to font substitution table and recompiled theide, the Chinese font displays perfect, but this time the input method won't work. Chinese characters entered in the code editor are displayed as narrow blanks, when copy&pasting the blanks to gedit, gedit also display blanks; copy good text from web page or gedit to the code editor works fine.

#### File Attachments

1) [WideComma.png](#), downloaded 1144 times

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Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sat, 07 May 2011 21:10:36 GMT

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Quote:

A second issue: On Ubuntu, I applied the above changes to font substitution table and recompiled theide, the Chinese font displays perfect, but this time the input method won't work. Chinese characters entered in the code editor are displayed as narrow blanks, when copy pasted the blanks to gedit, gedit also display blanks; copy good text from website or gedit to the code editor works fine.

Regarding this issue, here is some results of my further experiments. It has been re-confirmed with the most recent version 3407. The test was done on a Ubuntu. G++ is 64bit. The patch to font replacement table has been applied.

When I compile theide using GCC Debug mode, the ide works beautifully: font is pretty, input method works fine; all is good, well almost, as the chinese wide comma issue remains.

When I compile theide using GCC Optimal mode, the ide display existing chinese fonts as well, but Chinese input method doesn't work. Strange, non-displayable characters are inserted, who are invisible to me but will fail the compiler.

BTW, the ide "version.h" file reads:

```
#define IDE_VERSION "3274-lucid-i386-nogtk"
```

As this is a pretty old version, the actually nightly release version may already have this issue fixed. That I wouldn't know.

---

---

Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Sat, 07 May 2011 21:25:45 GMT

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---

Mirek, if you want a quick status regarding where we are, here you go:

1. Apply the changes to Font Substitution Table as in message #32309 will fix 90% of the problem on both Linux and windows platforms.
2. There is a Wide Comma issue needs further investigation. See message #32311
3. There is a possible [Chinese]Input Method problem. We don't know if it actually exists in the current version of theide; if it does, I am not sure if it's caused by our change to the Font Substitution Table. For some symptom or for double check, please refer to latter part of message #32311 and message #32314.

---

---

Subject: Re: It's suspected to be an issue with Font.

Posted by [Lance](#) on Mon, 09 May 2011 03:55:21 GMT

Hi Mirek:

I found out that the WideComma issue is independent of Font Substitution Table. It's even independent of Chinese Characters. The symptom can be further generalized as the following:

1. a string, say "abc" will paint correctly.
2. the WideComma(and WideQuestionMark, maybe more) follows it ("abc") will not display;
3. otherwise good text, say "abc", following the WideComma, will not show
4. If select the WideComma only, or the text following it, the text become visible.

I believe the problem most likely happens in the process of translating the WideComma (or WideQuestionMark) from utf-8 to WString(wchar\_t?)

---

---

Subject: Re: It's suspected to be an issue with Font.

Posted by [mirek](#) on Fri, 13 May 2011 10:30:05 GMT

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---

Lance wrote on Sat, 07 May 2011 17:25Mirek, if you want a quick status regarding where we are, here you go:

1. Apply the changes to Font Substitution Table as in message #32309 will fix 90% of the problem on both Linux and windows platforms.

Applied.

Quote:

2. There is a Wide Comma issue needs further investigation. See message #32311

Fixed.

Quote:

3. There is a possible [Chinese]Input Method problem. We don't know if it actually exists in the current version of theide; if it does, I am not sure if it's caused by our change to the Font Substitution Table. For some symptom or for double check, please refer to latter part of message #32311 and message #32314.

Going to look into it now... Difficult, as I do not know how to install or use input methods

Mirek

---

Subject: Re: It's suspected to be an issue with Font.  
Posted by [Lance](#) on Sat, 14 May 2011 21:54:47 GMT  
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---

Thanks a lot!

I am going to do another test. Chance is the input method issue on ubuntu may have magically disappeared.

Update[@ Sun, 15 May 2011 00:03]:

Version 3418 works beautifully on Windows. All known issue fixed. I will test on Ubuntu later today. Thanks, thanks, thanks!

2nd Update: Works beautifully on Ubuntu. No input method issue detected!

---