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Subject: FileSel bug when displaying Han characters  
Posted by [cbpporter](#) on Sat, 22 Mar 2008 07:35:28 GMT  
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I was just about to get started with giving FileSel the face lift I promised a while ago, when I noticed this bug. It is hard to see in the picture, but the last two items in the list have their extension drawn over the file name. The name of the file is correctly drawn in the file info portion bellow, so I think it is related to the way the extension is made to appear blue.

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### File Attachments

1) [FileSel.PNG](#), downloaded 976 times

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Subject: Re: FileSel bug when displaying Han characters  
Posted by [cbpporter](#) on Sun, 23 Mar 2008 11:06:09 GMT  
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Here is the same dialog after the face lift:

I think it looks now almost 100% native, even though the same U++ code runs in the background. No more strange looks on peoples faces when they click open! The best part is, it even has better functionality then the native one thanks to search box, column list column resizing and name/extension sorting.

There is a lot to be done yet:

1. The new quick link buttons are just for show. Need to implement functionality for them.
2. The images are embedded into the exe and I think it should be better to rip them directly from shell32.dll. I have no idea how to do this yet, or if the indexes of a given icon in the dll are constant across OS versions.
3. Must not forget about Linux! Since theming is Gtk based, I'll make it look like a Gtk FileSel dialog.

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### File Attachments

1) [FileSelXP.PNG](#), downloaded 1006 times

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Subject: Re: FileSel bug when displaying Han characters  
Posted by [mirek](#) on Sun, 23 Mar 2008 13:15:28 GMT  
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Well, looks like "GetTextSize" problem to me...

Maybe you can place a nice DDUMP into the routine.

Can you send me the file zipped? (you can delete the content, I just have problems creating CJK filenames

Mirek

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Sun, 23 Mar 2008 13:18:53 GMT

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cbpporter wrote on Sun, 23 March 2008 07:06 Here is the same dialog after the face lift:

I think it looks now almost 100% native, even though the same U++ code runs in the background. No more strange looks on peoples faces when they click open! The best part is, it even has better functionality then the native one thanks to search box, column list column resizing and name/extension sorting.

Yeah, that is where I wish to be heading. I only do not like Open/Cancel buttons eating the space on right.

Quote:

2. The images are embedded into the exe and I think it should be better to rip them directly from shell32.dll. I have no idea how to do this yet, or if the indexes of a given icon in the dll are constant across OS versions.

AFAIK, they are fixed. You can use

`Image Win32DllIcon(const char *dll, int ii, bool large);`

to retrieve them.

Mirek

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mr\\_ped](#) on Mon, 24 Mar 2008 12:17:45 GMT

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I feel like the Open/Cancel in facelifted version is smaller (I'm too lazy to measure it, that's why I just "feel").

Any good idea how make them bigger (more important)? The original version had IMO more appeal in it, and I think GTK has even more emphasize on such important buttons?

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Subject: Re: FileSel bug when displaying Han characters

Posted by [cbpporter](#) on Mon, 24 Mar 2008 13:07:45 GMT

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Quote:AFAIK, they are fixed. You can use  
Image Win32DllIcon(const char \*dll, int ii, bool large);  
to retrieve them.

Thanks. Works well. I'll implement the functionality too, but I think I'll have to refactor a little the FileSel code. You don't mind, do you?

Quote:Can you send me the file zipped? (you can delete the content, I just have problems creating CJK filenames

I tried attaching a file with that name, but no luck. Also, zip does not allow those characters and in rar they where replaced by underscores. Talk about good Unicode support . But you should be able to rename any file on your system by copy-pasting the name from here. The text was:

mr\_ped wrote on Mon, 24 March 2008 14:17I feel like the Open/Cancel in facelifted version is smaller (I'm too lazy to measure it, that's why I just "feel").

Any good idea how make them bigger (more important)?

I think they are the same size. What kind of idea do you need to make them bigger?

Quote:The original version had IMO more appeal in it, and I think GTK has even more emphasize on such important buttons?

I'm not sure I understand what you mean...

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Mon, 24 Mar 2008 13:29:59 GMT

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cbpporter wrote on Mon, 24 March 2008 09:07Quote:AFAIK, they are fixed. You can use  
Image Win32DllIcon(const char \*dll, int ii, bool large);  
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Thanks. Works well. I'll implement the functionality too, but I think I'll have to refactor a little the FileSel code. You don't mind, do you?

Depends what you expect U++ is BSD license, means you can do whatever you want. Accepting patch into the "main tree" is completely different issue

I see just question marks here

Mirek

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Subject: Re: FileSel bug when displaying Han characters  
Posted by [cbpporter](#) on Mon, 24 Mar 2008 13:45:47 GMT  
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luzr wrote on Mon, 24 March 2008 15:29  
I see just question marks here

Mirek

Try this if you're willing to sacrifice about 200MB of disk space:  
<http://www.microsoft.com/globaldev/handson/user/xpintl supp.m spx>

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Subject: Re: FileSel bug when displaying Han characters  
Posted by [cbpporter](#) on Tue, 25 Mar 2008 22:22:44 GMT  
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[quote title=luzr wrote on Mon, 24 March 2008 15:29]cbpporter wrote on Mon, 24 March 2008 09:07

Depends what you expect U++ is BSD license, means you can do whatever you want. Accepting patch into the "main tree" is completely different issue

Well I don't expect anything, but it would be nice if it were included, since I consider it a nice improvement and I really want my apps to look native (I guess you already figured that out by the number of visual bugs I commented upon). So following that idea, I kept any unnecessary modification which I would have done out, and practically only added some extra buttons, modified a function or two and an extra layout.

It works fine, but it does have some limitations. For example, .lnk files are not read and displayed as explorer would, Desktop link does not display all items on you desktop, only those which are physically present in you directory (explorer would pull those links from multiple dirs), and most importantly, network browsing doesn't work.

I'll reinstall Linux and emulate Gtk look next.

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Subject: Re: FileSel bug when displaying Han characters  
Posted by [mirek](#) on Wed, 26 Mar 2008 09:23:41 GMT  
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[quote title=cbpporter wrote on Tue, 25 March 2008 18:22]luzr wrote on Mon, 24 March 2008 15:29cbpporter wrote on Mon, 24 March 2008 09:07

Depends what you expect U++ is BSD license, means you can do whatever you want. Accepting patch into the "main tree" is completely different issue

Well I don't expect anything, but it would be nice if it were included, since I consider it a nice improvement and I really want my apps to look native (I guess you already figured that out by the number of visual bugs I commented upon). So following that idea, I kept any unnecessary modification which I would have done out, and practically only added some extra buttons, modified a function or two and an extra layout.

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I'll reinstall Linux and emulate Gtk look next.

Are you aware than in Vista, it looks different again?

What I want to say, yes, let us make it as familiar as possible, fix all issues and perhaps add something to make it better. But I would like to find some middle ground, having single layout for all XP/Vista/Gtk.

And yes, network browsing is a major problem. I have even started solving this (in Win32), but abandoned for the lack of time&energy. Anyway, preliminary support is already in Core.

The main problem with current FileSel code and network browsing is that network browsing abandons the concept of "path" - you are just going through some nodes. This makes it a little bit difficult to e.g. serialize the current position of FileSel...

So basically, I ended at this. Anyway, further thinking was that perhaps we could emulate the path there, just introduce some arbitrary format to express network nodes. Something like "::Network places::The Whole Network::Microsoft Windows::My Group::Server". The only problem is that entering Server you get "regular path" again like: \\server\share\_c and the question is what is to happen if you press "Dir up" button here....

Mirek

Mirek

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Wed, 26 Mar 2008 10:55:29 GMT

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Oh, great. Looks like GetTextSize does not work with CJK:

```
void MyApp::Paint(Draw& w)
{
    w.DrawRect(GetSize(), SWhite);

    Size sz = GetTextSize(txt, Arial(30));
    w.DrawRect(100, 100, sz.cx, sz.cy, LtGray());
    w.DrawText(100, 100, txt, Arial(30));
}
```

```
GUI_APP_MAIN
{
    SetDefaultCharset(CHARSET_UTF8);
    MyApp().Run();
}
```

I was going down and it finally turned out that "GetCharWidthABC" does not return correct sizes for whatever reason. Just great...

(in void FontInfo::Data::GetMetrics(int page, CharMetrics \*t))

Mirek

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Subject: Re: FileSel bug when displaying Han characters  
Posted by [zsolt](#) on Wed, 26 Mar 2008 10:58:03 GMT  
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Quote:... I really want my apps to look native ...  
I think, it is much more simple to use Windows's built in file selector component to get native look and feel.  
It is very simple using FileSelector class instead of FileSel.

---

Subject: Re: FileSel bug when displaying Han characters  
Posted by [cbpporter](#) on Wed, 26 Mar 2008 11:27:01 GMT  
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Quote:Are you aware than in Vista, it looks different again?

What I want to say, yes, let us make it as familiar as possible, fix all issues and perhaps add something to make it better. But I would like to find some middle ground, having single layout for

all XP/Vista/Gtk.

Yes, I'm aware and I have no intention to emulate that look and would strongly advice against it, simply because Vista FileSel dialogs have very poor functionality and ergonomics. They are poorly suited for anything except If you want to open a file from you documents folder. I don't know who designed them, but certainly did a poor job.

As for a middle ground, I would propose basically the same layout that you had, only with a nav bar on the right. As you can see in the first two images, the dialogs are almost identical, but with a few items moved around, a navbar and OS icons, it looks familiar. Also, I looked over GTK one, and just remembered that it also has not the best ergonomics: it is without a path input field and has few locations in it's quick bar. The good part is that you can add extra ones and also has a nice folder navigation toolbar on top.

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Wed, 26 Mar 2008 12:05:29 GMT

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OK, further investigation:

```
void MyApp::Paint(Draw& w)
{
    w.DrawRect(GetSize(), SWhite);

    Size sz = GetTextSize(txt, StdFont(30));
    w.DrawRect(100, 100, sz.cx, sz.cy, LtGray());
    w.DrawText(100, 100, txt, StdFont(30));
    sz = GetTextSize(txt, Arial(30));
    w.DrawRect(100, 200, sz.cx, sz.cy, LtGray());
    w.DrawText(100, 200, txt, Arial(30));
}
```

...it looks like Win32 always paints it using some standard font other than Arial. Standard GUI font returns correct metrics for this font; Arial returns wrong metrics.

Now tell me what to do with this... I certainly could take metrics from different font, but that sounds a little bit weird... (and I am not sure it would always work).

Mirek

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Wed, 26 Mar 2008 12:19:29 GMT

Nope, I was wrong:

```
void MyApp::Paint(Draw& w)
{
    w.DrawRect(GetSize(), SWhite);

    Font fnt[4] = { StdFont(30), Arial(30), Roman(30), Courier(30) };
    for(int i = 0; i < 4; i++) {
        Size sz = GetTextSize(txt, fnt[i]);
        w.DrawRect(10, 100 + 50 * i, sz.cx, sz.cy, LtGray());
        w.DrawText(10, 100 + 50 * i, txt, fnt[i]);
    }
}
```

So it seems to return correct values for StdFont (which in fact is Tahoma) and Courier, wrong values for Arial, Times New Roman...

Damn it...

Mirek

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Wed, 26 Mar 2008 12:31:21 GMT

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Just a bit improved testcase, to show it should work (with non-ASCII roman chars):

```
void MyApp::Paint(Draw& w)
{
    w.DrawRect(GetSize(), SWhite);
    WString txt = "?????";
    for(int q = 0; q < 2; q++) {
        Font fnt[4] = { StdFont(30), Arial(30), Roman(30), Courier(30) };
        for(int i = 0; i < 4; i++) {
            Size sz = GetTextSize(txt, fnt[i]);
            w.DrawRect(10 + q * 250, 100 + 50 * i, sz.cx, sz.cy, LtGray());
            w.DrawText(10 + q * 250, 100 + 50 * i, txt, fnt[i]);
        }
    }
}
```



Mirek

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Subject: Re: FileSel bug when displaying Han characters

Posted by [cbpporter](#) on Wed, 26 Mar 2008 15:18:43 GMT

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Proportions seem OK, except the fact that it displays only question marks and boxes. I know that under X11, when dealing with characters not available for a font, they are sometimes pulled from a different font (depends on windowmanager). Windows definitely does this, and it plain right changes the font sometimes to adapt to the characters. But I don't know how it works. Have to Google a little.

PS: How did you enter the CJK characters in that literal? Does that even compile?

---

---

Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Wed, 26 Mar 2008 15:59:08 GMT

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cbpporter wrote on Wed, 26 March 2008 11:18Proportions seem OK, except the fact that it displays only question marks and boxes.

Well, then something more is wrong. It should display CJK, but background rectangle ("GetTextSize") is wrong...

Quote:

I know that under X11, when dealing with characters not available for a font, they are sometimes pulled from a different font (depends on windowmanager).

Yes, but that is the job of toolkit, not windows manager.

Quote:

PS: How did you enter the CJK characters in that literal? Does that even compile?

Set the file to utf-8

Mirek

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Subject: Re: FileSel bug when displaying Han characters

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Posted by [mirek](#) on Wed, 26 Mar 2008 16:02:32 GMT

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## File Attachments

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1) [h.png](#), downloaded 744 times

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Sat, 29 Mar 2008 14:44:09 GMT

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OK, looks like I have found the workaround, so consider this fixed.

Well, in the process I had to refactor the whole Font infrastructure too, because workaround made it too slow...

(Fix is too scattered to be posted here).

Mirek

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Subject: Re: FileSel bug when displaying Han characters

Posted by [cbpporter](#) on Sun, 30 Mar 2008 10:19:35 GMT

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luzr wrote on Sat, 29 March 2008 16:44: OK, looks like I have found the workaround, so consider this fixed.

Well, in the process I had to refactor the whole Font infrastructure too, because workaround made it too slow...

(Fix is too scattered to be posted here).

Mirek

Thank you! I'll wait until it makes it to SVN version and check it out. I'm really curious about how such an issue appears and how it can be fixed. Does it work under Linux too?

PS: I'll ask again: how do you get the real name of the StdFont()?

---

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Subject: Re: FileSel bug when displaying Han characters

Posted by [mirek](#) on Sun, 30 Mar 2008 12:19:03 GMT

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---

[quote title=cbpporter wrote on Sun, 30 March 2008 06:19]luzr wrote on Sat, 29 March 2008

16:44OK, looks like I have found the workaround, so consider this fixed.

Well, in the process I had to refactor the whole Font infrastructure too, because workaround made it too slow...

(Fix is too scattered to be posted here).

Mirek

Thank you! I'll wait until it makes it to SVN version and check it out. I'm really curious about how such an issue appears and how it can be fixed.

Quote:

Does it work under Linux too?

AFAIK, bug is not related to Linux. But generally, CJK has problems in linux; basically it would now only work if you have standard fonts installed with CJK support.

Frankly, I am not yet sure how to handle CJK in Linux. Any help is appreciated. Now it looks like I should search for glyphs in other fonts if glyph is missing. (But the problem is: which fonts

Quote:

PS: I'll ask again: how do you get the real name of the StdFont()?

You cannot.

Mirek

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