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Subject: Win\_CE

Posted by [arturbac](#) on Fri, 06 Jul 2007 21:06:41 GMT

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Code needs correction  
add in Link in MSCBuilder  
-NODEFAULTLIB:"oldnames.lib"

```
like :  
if(HasFlag("MSC8ARM"))  
link << " -subsystem:windowsce,4.20 /ARMPADCODE -NODEFAULTLIB:"oldnames.lib" ";
```

-----  
correct the line with GUI flag  
adding || HasFlag("MSC8ARM")

```
if(HasFlag("GUI") || HasFlag("MSC8ARM"))  
link << (HasFlag("WIN32") ? " -subsystem:windows" : " -subsystem:windowsce");  
else  
    link << " -subsystem:console";
```

-----  
And I added protetic fix for Unicode only on WCE in Core/log.cpp

```
#if defined(PLATFORM_WIN32)  
#if defined(PLATFORM_WINCE)  
    wchar_t pwcs[512];  
    mbstowcs(pwcs, backup, strlen(backup));  
    DeleteFile(pwcs);  
#else  
    DeleteFile(backup);  
#endif  
  
#elif defined(PLATFORM_POSIX)  
    unlink(backup);  
#else  
    #error  
#endif  
  
#if defined(PLATFORM_WIN32)  
#if defined(PLATFORM_WINCE)  
    wchar_t wfilename[512];  
    mbstowcs(wfilename, filename, strlen(filename));  
    MoveFile(wfilename, pwcs);  
#else  
    MoveFile(filename, backup);  
#endif  
#elif defined(PLATFORM_POSIX)
```

```
!rename(filename, backup);  
#else  
#error  
#endif
```

-----  
And this one helps digging problems

```
Add after PutConsole("Linking...");  
line PutConsole(link);
```

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Subject: Re: Win\_CE  
Posted by [arturbac](#) on Fri, 06 Jul 2007 21:36:58 GMT  
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Next part

Win32DnD.cpp

```
exclude from PPC CF_HDROP  
like
```

```
#ifndef PLATFORM_WINCE  
if(cf == CF_HDROP)  
    return "files";  
#endif
```

correct

```
static int CF_PERFORMEDDROPEFFECT = RegisterClipboardFormat(_T("Performed  
DropEffect"));
```

Threads also doesn't compile on PocketPC

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Subject: Re: Win\_CE  
Posted by [mirek](#) on Fri, 27 Jul 2007 11:25:11 GMT  
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Quote:  
Add after PutConsole("Linking...");  
line PutConsole(link);

You can achieve that (and more.. by activating Verbose in Setup menu.

Mirek

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Subject: Re: Win\_CE  
Posted by [mirek](#) on Fri, 27 Jul 2007 11:29:36 GMT  
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Patches applied.

BTW, does it mean you have achieved to compile&run something on PDA?

Mirek

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Subject: Re: Win\_CE  
Posted by [arturbac](#) on Sat, 28 Jul 2007 19:45:32 GMT  
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Some days ago i compiled one app but  
Startup of this app was so long so i forget about testing it more.  
It was a simple window app nothing more.  
Propably i will use in the future Core(NTL, types) on PPC.

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Subject: Re: Win\_CE  
Posted by [shalom](#) on Sat, 04 Aug 2007 21:58:19 GMT  
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I don't know what compilers you people were using, and exactly what you managed to do.  
I am using the Mingw32 version of cegcc (i.e. arm-wince-mingw32ce-gcc)  
I tried to compile an example (using the IDE) - and I started with compilation errors  
'cAlternateFileName not defined'. I added -DPLATFORM\_WINCE to the compile options, and that  
went away.

This definition needs to be added automatically when WINCE is chosen as the platform.

Now I have  
CtrlLib\RichTextView.cpp:458: error: 'PrinterJob' was not declared in this scope  
I suggest that this function be #ifdef'ed out (and replaced with a stub) on WINCE.

Those are the only problems in the CtrlLib.  
There are a few problems with the CtrlCore too.

In general - do these problems appear with other WinCE compilers?

Is anyone else using cegcc?  
Any advice?

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Subject: Re: Win\_CE  
Posted by [shalom](#) on Sun, 05 Aug 2007 01:33:39 GMT  
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Using the same compiler as above, I had to change the sDumpWindow function in Win32Wnd.cpp:

```
static BOOL CALLBACK sDumpWindow(HWND hwnd, LPARAM lParam) {
    String dump;
    dump << (IsWindowEnabled(hwnd) ? "ena" : "dis") << ' '
        << (IsWindowVisible(hwnd) ? "vis" : "hid") << ' '
        << Sprintf("owner=0x%x ", GetWindow(hwnd, GW_OWNER));
    Ctrl *ctrl = Ctrl::CtrlFromHWND(hwnd);
    if(ctrl) {
#ifdef _DEBUG
        dump << "Ctrl: " << UPP::Name(ctrl);
#endif
    }
    else if(!lParam)
        return TRUE;
    else
    {
#ifdef PLATFORM_WINCE
        wchar clsname[256], title[1024];
    #else
        char clsname[256], title[1024];
    #endif
        ::GetClassName(hwnd, clsname, __countof(clsname));
        ::GetWindowText(hwnd, title, __countof(title));

#ifdef PLATFORM_WINCE
        WString wClsName = clsname;
        WString wTitle = title;
        dump << "HWND: " << Sprintf("0x%x", hwnd) << ", class = "
            << wClsName << ", title = " << wTitle;
        #else
        dump << "HWND: " << Sprintf("0x%x", hwnd) << ", class = "
            << clsname << ", title = " << title;
        #endif
    }
    LLOG(dump);
    return TRUE;
}
```

I added the second `#ifdef`. The

I am surprised you didn't have problems with this - as apparently there is no `AsString` for `wchar *` since the template version uses `ToString`, and `wchar` is a primitive type. There is also a non-template version for `PLATFORM_MSC` that calls `FormatPtr` - for some reason I couldn't seem to use this (since the compiler decides that the template version is closer for `wchar *`).

Now I have a small problem with the compiler itself - after that I think it will all compile correctly.

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Subject: Re: Win\_CE

Posted by [arturbac](#) on Sun, 05 Aug 2007 08:47:22 GMT

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shalom wrote on Sat, 04 August 2007 23:58I don't know what compilers you people were using, and exactly what you managed to do.

I am using the Mingw32 version of `cegcc` (i.e. `arm-wince-mingw32ce-gcc`)

1. Microsoft (R) C/C++ Optimizing Compiler Version 14.00.60131 for ARM
  2. Code generated by mingw for win32 can be 50 times slower than by other available compilers for win32(just try for example `ntbench`). So using mingwce for WinCe probably is mistake...
- 

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Subject: Re: Win\_CE

Posted by [shalom](#) on Sun, 05 Aug 2007 13:27:29 GMT

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The reason I am using this compiler is that it is just about the only free compiler around. I have `EVC++ 3` and `4` - but I understand that `UPP` doesn't support these (quite rightly - the template support is at the level of the old `MSVC 6`).

The compiler is actually hosted (and compiled) under `Cygwin`.

Unfortunately I don't have anything to compare it with, unless I try to compile some of the `EVC++` applications with it.

Anyway I can now compile all the 'clock' example, but I am stuck with linking. The IDE insists on adding the following libraries to the link command line, and I am working on that right now.

`-ladvapi32 -lshell32 -lwinmm`

By the way, the linker also complains that the libraries have no indexes, so I ran `ranlib` 'by hand' - which I can live with, though I expect there's a way of adding in it somewhere.

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Subject: Re: Win\_CE  
Posted by [arturbac](#) on Sun, 05 Aug 2007 14:13:12 GMT  
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shalom wrote on Sun, 05 August 2007 15:27I have EVC++ 3 and 4

Probably evc4 sp4 is better choice than mingwce , hoever evc4 doesn't support full c++ standard and there could be problems for example with templates.

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Subject: Re: Win\_CE  
Posted by [mirek](#) on Sun, 05 Aug 2007 15:18:45 GMT  
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shalom wrote on Sat, 04 August 2007 17:58I don't know what compilers you people were using, and exactly what you managed to do.  
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In general - do these problems appear with other WinCE compilers?  
Is anyone else using cegcc?  
Any advice?

These are very good news. In fact, we planned full support for cegcc, even distributing U++ with it, but so far this has not gone anywhere (too much else to do).

If you would succeed here, the path would be open.

The only WinCE tests we did was with VS C++ 2005 compiler. I have succeeded to compile and run most of "examples" - it has looked a bit weird (we will need to make special chameleon branch for WinCE), but worked (with some crashing

Mirek

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Subject: Re: Win\_CE

Posted by [shalom](#) on Mon, 06 Aug 2007 06:52:28 GMT

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Since there is some interest, I will try to document what I have done in this thread.

Use of advapi32.lib etc: I added !GNU\_ARM to the 'when' clause of that line in the various packages.

Running ranlib: This can be added to the custom build steps as 'post-link':  
arm-wince-mingw32ce-ranlib.exe \$(PATH)

The current problem is that I have undefined externals LocalLock and LocalUnlock (and a couple of others). These come mainly from the clipboard code in Win32Wnd.cpp.

There is no LocalLock/Unlock (at least up to CE 4.2) however the Microsoft documentation indicates that GetClipboardData returns a handle. I have never tried the clipboard functions in WinCE, so I don't know if the handle is really a pointer or not.

- Shalom Crown

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