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Subject: Re: Building & using U++ without TheIDE  
Posted by [sergei](#) on Sat, 15 Sep 2007 23:43:10 GMT  
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Yes, UTF-8 can have BOM. Actually it has, and all programs I've used write/recognize it, with the unfortunate exception of GCC (it takes UTF-8 without BOM - such files aren't always shown correctly in text editors).

There is no need to modify existing UTF-8 handling since I doubt BOM is used in strings (it's essential for files). Yet my UTFBOM might be useful since LoadFile/SaveFile aren't encoding-aware, and files that are saved in UTF-16 format (that's what I commonly use for non-English text) would be loaded as ANSI/UTF-8. Or maybe just add autodecode to LoadFile and optional encoding params to SaveFile.

Multiple encodings in one file? Any examples? I don't think any text editor would recognize such a file.

I tried your suggestion about WinCE. Is PocketPC Unicode-only (that would be awesome if MS actually made such good decision)? First of all, `cAlternateFileName`, from `Path.h`, is never defined. As such, `GetMSDOSName` can't be defined either, and can't be used in `FileSystemInfo::Find`. That's likely a bug - I just commented everything out, or is there a way to implement `GetMSDOSName`?

Well, it didn't really work. The same "craziness" returned. I replaced:

```
#ifdef PLATFORM_WINCE
```

with:

```
#if defined(PLATFORM_WINCE) || defined(UNICODE)
```

and define UNICODE in `main.cpp`:

```
#define UNICODE
```

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

```
using namespace Upp;
```

```
...
```

Still, in the debugger it insisted to go into the `#else`. Rebuild all didn't help. My guess is that the solution could've worked (`WString` should cast into `WCHAR*`).

BTW, I've found some mistakes in UTFBOM and fixed that. Now I seem to be able to load/save UTF-8/UTF-16 LE/BE with/without BOM. I'm attaching the updated code (class + demo that I tried to use to read unicode-filename file). UTF-32 is kinda rare, though I might add it too for sake of completeness. However, that would require a `String/WString` that can work with embedded nulls - can they?

As for RTL, if I have time, I'll read Unicode specs on how LTR and RTL is mixed in same paragraph. The issue is quite interesting, but I'm afraid a standards-conforming solution might end up being an unusual one since many programs tend to ignore the existence of RTL languages.

P.S. is there a portable way to get a key from console (only key, without Enter)? Like `_getch()`?

P.S.2 `String` (UTF-8) seems to be the native U++ representation of text. Is `WString` used / recommended to be used for anything besides Unicode OS API calls?

### File Attachments

1) [UniTest.cpp](#), downloaded 604 times

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