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Subject: The next step: 32bit wchar  
Posted by [mirek](#) on Sun, 03 Oct 2021 07:40:27 GMT  
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So I was thinking about what to do next. From my point of view, there are 3 (or 4) areas that need improvement before I consider U++ "perfect":

1. Improve unicode support

That means a) add ability to handle complete unicode encoding, b) start using layout engines for more exotic languages, like right-to-left.

2. Improve Assist

This mostly means to implement expression parsing / type evaluation and then start supporting newer C++ language features.

3. Implement Dwarf/Linux debugger

Win32 clang can produce dwarf debug info as well as of it is produced by linux toolchains. Supporting dwarf in internal debugger would bring support to U++ types in linux and probably improve the quality of debugging in Win32 clang as well.

Now the simplest thing in the list is 1a, which IMO can be translated to "change wchar to 32 bits". I plan to start working on it today, but before I do:

Can you see any problems with this step? (Apart from implementation). Is any of your code principally bound to 16 bit wchar?

I believe that only places where this matters is when calling Win32 API. And that can be fixed easily (there are/will be UTF16/UTF32 functions).

Mirek

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Subject: Re: The next step: 32bit wchar  
Posted by [Zbych](#) on Sun, 03 Oct 2021 09:15:44 GMT  
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mirek wrote on Sun, 03 October 2021 09:40

2. Improve Assist

This mostly means to implement expression parsing / type evaluation and then start supporting newer C++ language features.

The thing I personally would like to see, is some information when and why (file name, line) code assist stopped parsing source code.

It happened many times that at some point code completion stopped working and I had no time to

undo the changes to check what part of code was the cause.

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Subject: Re: The next step: 32bit wchar

Posted by [mirek](#) on Sun, 03 Oct 2021 16:25:38 GMT

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Zbych wrote on Sun, 03 October 2021 11:15mirek wrote on Sun, 03 October 2021 09:40

2. Improve Assist

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The thing I personally would like to see, is some information when and why (file name, line) code assist stopped parsing source code.

It happened many times that at some point code completion stopped working and I had no time to undo the changes to check what part of code was the cause.

If you activate Verbose mode, some errors are printed on console during "rescan all".

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Subject: Re: The next step: 32bit wchar

Posted by [Zbych](#) on Sun, 03 Oct 2021 19:14:01 GMT

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mirek wrote on Sun, 03 October 2021 18:25

If you activate Verbose mode, some errors are printed on console during "rescan all".

I gave it a try, but it looks like scanner stuck.

## File Attachments

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1) [Screenshot from 2021-10-03 21-09-18.png](#), downloaded 450 times

GUI CLANG Debug

AddressBook

- Core
- CtrlCore
- CtrlLib
- Draw
- Painter
- PdfDraw
- Report
- RichText
- plugin/bmp
- plugin/png
- plugin/z
- <prj-aux>
- <ide-aux>
- <temp-aux>
- <meta>

AddressBook.cpp

AddressBook.lay

```

1 // This is an upp conversion of qt example, see
2 // http://doc.trolltech.com/3.0/addressbook-exa
3
4 #include <CtrlLib/CtrlLib.h>
5 #include <Report/Report.h>
6
7 using namespace Upp;
8
9 #define LAYOUTFILE <AddressBook/AddressBook.lay
10 #include <CtrlCore/lay.h>
11
12 class AddressBook : public WithAddressBookLayout
13     WithModifyLayout<ParentCtrl> modify;
14     WithSearchLayout<ParentCtrl> search;
15     FileSel fs;
16     String filename;
17
18     void SetupSearch();
19     void Add();
20     void Change();
21     void Search();
22     void Open();
23     void Save();
24     void SaveAs();
25     void Print();
26     void Quit();
27
28     typedef AddressBook CLASSNAME;
29
30 public:
31     void Serialize(Stream& s);
32
33     AddressBook();
34 };
35
36 AddressBook::AddressBook()
37 {
38     CtrlLayout(*this, "Address book");
39     CtrlLayout(modify);
40     CtrlLayout(search);
41     tab Add/modify "Modify" \

```

File	Line	Message (338 errors)
bits/stl_pair.h	442	Name expected
bits/stl_function.h	1389	Unexpected end
tr1/special_function_util.h	138	Name expected
include/omp.h	175	Missing ,
tr1/bessel_function.tcc	666	Name expected