Subject: Know what you're using. Size of some common types.
Posted by Lance on Mon, 27 Dec 2021 18:33:50 GMT
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Test result

Now I have redone the test in Release mode, the result is not as eye-catching.

Event<> is of the same size as void *, this is better than I had expected. Of course actual memory used might be more than that: a thisfn with the sizeof of member function pointer and an object pointer for this will have difficulty to fit in the room for a void *.

Using 64 bit for context. I would think a ScrollBar is too big for the job it does. Ideally it should be done without containing 4 Buttons or Button should somehow be compacted to use significantly less room and leave some functions to derived class or optionally(pay per use) memory allocated from heap.

Anyway, the result is quite satisfying and reassuring.

BTW, test program:#include <CtrlLib/CtrlLib.h>
#include <GridCtrl/GridCtrl.h>
#include <TabBar/TabBar.h>

using namespace Upp;
#define SZ(t) "\n"#t"\t" << sizeof(t) /*<<"\t"<<alignof(t)*/

```
GUI_APP_MAIN
{
 String s;
 s << SZ(void *)
  << SZ(Value)
  << SZ(String)
  << SZ(Event<>)
  << SZ(Vector<int>)
  << SZ(Button)
  << SZ(EditField)
  << SZ(ScrollBar)
  << SZ(TabBarCtrl)
  << SZ(ArrayCtrl)
  << SZ(GridCtrl);
 RLOG(s);
}
```

File Attachments

1) a.png, downloaded 1327 times

SizeOf	CLANG	CLANG64	MSBT22	MSBT22x64
void *	4	8	4	8
Value	16	16	16	16
String	16	16	16	16
Event<>	4	8	4	8
Vector<int>	12	16	12	16
Button	160	224	160	224
EditField	320	440	320	440
ScrollBar	808	1136	816	1136
TabBarCtrl	728	1024	728	1000
ArrayCtrl	2680	3784	2688	3752
GridCtrl	4912	6784	4904	6712