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Subject: Callback: C++11 lambda support  
Posted by [mirek](#) on Mon, 17 Mar 2014 18:07:11 GMT  
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You can now assign lambda to callback. Have to say, simplifies things quite a lot, no more need to add methods to dialogs...

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Subject: Re: Callback: C++11 lambda support  
Posted by [Klugier](#) on Sat, 22 Mar 2014 12:28:36 GMT  
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Hello Mirek,

For me this is killer feature. Thanks!

Sincerely,  
Klugier

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Subject: Re: Callback: C++11 lambda support  
Posted by [Didier](#) on Thu, 27 Mar 2014 21:14:25 GMT  
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Hi Mirek,

It looks like the additional features broke some existing code:

I get the following errors when trying to compile docking  
package:/home/didier/upp/uppsrc/Docking/DockCont.cpp: In constructor

```
tabbar.WhenCloseSome = THISBACK(TabsClosed);
    ^
/home/didier/upp/uppsrc/Docking/DockCont.cpp:824:23: note: candidate is:
In file included from /home/didier/upp/uppsrc/Core/Callback.h:6:0,
    from /home/didier/upp/uppsrc/Core/Core.h:301,
    from /home/didier/upp/uppsrc/Draw/Draw.h:6,
    from /home/didier/upp/uppsrc/RichText/RichText.h:4,
    from /home/didier/upp/uppsrc/CtrlCore/CtrlCore.h:4,
    from /home/didier/upp/uppsrc/CtrlLib/CtrlLib.h:4,
    from /home/didier/upp/uppsrc/Docking/Docking.h:4,
    from /home/didier/upp/uppsrc/Docking/DockWindow.cpp:1,
    from /home/didier/upp.out/MyApps/Docking/GCC.Blitz.Gui.Mt.Shared/$blitz.cpp:3:
/home/didier/upp/uppsrc/Core/Cbgen.h:117:16: note: Upp::Callback1<P1>&
```

Upp::Callback1<P1>::operator=(const Upp::Callback1<P1>&) [with P1 = Upp::ValueArray]  
Callback1<P1>& Callback1<P1>::operator=(const Callback1& c)

^

/home/didier/upp/uppsrc/Core/Cbgen.h:117:16: note: no known conversion for argument 1 from

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Subject: Re: Callback: C++11 lambda support  
Posted by [Didier](#) on Thu, 27 Mar 2014 21:22:08 GMT  
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In Docking/DockCont.h & .cpp replacing :  
void TabsClosed(Vector<Value> vv);  
with  
void TabsClosed(ValueArray vv);  
solves the issue

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Subject: Re: Callback: C++11 lambda support  
Posted by [koldo](#) on Mon, 31 Mar 2014 11:35:01 GMT  
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Hello Mirek

Could you put a simple sample of it?

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Subject: Re: Callback: C++11 lambda support  
Posted by [mirek](#) on Mon, 31 Mar 2014 12:14:06 GMT  
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```
foo.WhenAction = [$(()) { foo <<= (int)~foo + 1; }
```

Anyway, there is still some work to be done; the main issues are overloading problems. Only  
Callback::operator= works so far.

The problem is that in order to capture lambda, you have to provide completely 'all-catch' template

```
template <class T>  
void CaptureLambda(T x);
```

which then is causing overloading problems..

I am almost inclined to add some stronger typing via macro, like

```
foo <<= lambda() { foo <<= (int)~foo + 1; }
```

and lambda would provide a case to something more reasonable, like #define lambda (LambdaCallback)[&].

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Subject: Re: Callback: C++11 lambda support  
Posted by [koldo](#) on Mon, 31 Mar 2014 14:22:47 GMT  
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Subject: Re: Callback: C++11 lambda support  
Posted by [mirek](#) on Sat, 12 Apr 2014 17:32:15 GMT  
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After some initial experience, overloading problems proved to be too ugly, so putting lambda into Callback now requires call to "lambda" function or using LAMBDA macro:

```
Callback1<int> cb = lambda([&](int x) { something(x); });
```

```
Callback cb = LAMBDA(int x) { something(x); };
```

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