
Subject: Running a CtrlLib application "headless"
Posted by [nixnixnix](#) on Fri, 24 Aug 2012 18:30:35 GMT
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Hi,

I have a rather large and complex GUI application. This application can run in batch mode and I have an academic user who wants to run it headless (no GUI) on a cloud.

Is there a simple way to recompile a CtrlLib application to run without it's GUI or is the only way for me to use preprocessor directives to cut out all the GUI code?

I imagine that the first thing is to not use the Run command.

Does anyone have experience of doing something similar?

Nick

Subject: Re: Running a CtrlLib application "headless"
Posted by [mirek](#) on Sat, 25 Aug 2012 07:37:44 GMT
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nixnixnix wrote on Fri, 24 August 2012 14:30Hi,

I have a rather large and complex GUI application. This application can run in batch mode and I have an academic user who wants to run it headless (no GUI) on a cloud.

Is there a simple way to recompile a CtrlLib application to run without it's GUI or is the only way for me to use preprocessor directives to cut out all the GUI code?

Yes. You have to use Rainbow to supply "Nil" GUI, which can be represented by "Skeleton" package.

As example, see uppweb; it runs completely headless on our web server but it still includes "ide" package (as quick and dirty fix to include documentation).

Mirek

Subject: Re: Running a CtrlLib application "headless"
Posted by [nixnixnix](#) on Sun, 26 Aug 2012 19:58:31 GMT

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Thanks Mirek,

That sounds perfect. I can't find upweb in the examples or in any of upp. I have version 5202 installed but I see from release notes that it has been around for a while. I just can't find it. I've looked for uppbox as well and still nothing.

Nick

Subject: Re: Running a CtrlLib application "headless"

Posted by [koldo](#) on Sun, 26 Aug 2012 20:17:22 GMT

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Hello Nick

You can find it easily for example in Google here:

<http://code.google.com/p/upp-mirror/source/browse/#svn%2Ftrunk%2Fuppbox%2Fuppweb>

Subject: Re: Running a CtrlLib application "headless"

Posted by [nixnixnix](#) on Sun, 26 Aug 2012 20:34:22 GMT

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Ah I didn't realise there was all this other code not included in the standard download.

I am trying to download using tortoiseSVN and the address

<http://upp-mirror.googlecode.com/svn/trunk/upp-mirror-read-only>

but I get the error that it doesn't exist. I've tried with and without the space.

Cheers,

Nick

Subject: Re: Running a CtrlLib application "headless"

Posted by [chickenk](#) on Sun, 26 Aug 2012 21:40:19 GMT

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try

<http://upp-mirror.googlecode.com/svn/trunk/uppbox>

Lionel

Subject: Re: Running a CtrlLib application "headless"
Posted by [nixnixnix](#) on Mon, 27 Aug 2012 02:41:13 GMT
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Thanks Lionel. Thanks Mirek. Thanks Koldo.

Very nice that we can take GUI apps and easily convert them to headless batch mode

Subject: Re: Running a CtrlLib application "headless"
Posted by [nixnixnix](#) on Mon, 22 Oct 2012 04:16:07 GMT
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Hi,

I managed to get it to build under Windows but under Linux I can compile but not link. I have copied the upplib files to /home/nick/upplib/upplib/ but I suspect I need to do something to tell the IDE to use them

I get the following link errors:

```
----- plugin/bz2 ( MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON GCC
SHARED LINUX POSIX ) (22 / 23)
----- OpenWind ( MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON MAIN
GCC SHARED LINUX POSIX ) (23 / 23)
Linking...
/home/nick/.upplib/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::gtk__parent()':
ChGtk0.cpp:(.text._ZN3Upp11gtk__parentEv+0x11): undefined reference to `gtk_window_new'
ChGtk0.cpp:(.text._ZN3Upp11gtk__parentEv+0x20): undefined reference to `gtk_widget_realize'
/home/nick/.upplib/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::Setup(_GtkWidget*)':
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x12): undefined reference to
`gtk_fixed_new'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x21): undefined reference to
`gtk_container_get_type'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x34): undefined reference to
`g_type_check_instance_cast'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x3f): undefined reference to
```

```

`gtk_container_add'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x4b): undefined reference to
`gtk_widget_realize'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x50): undefined reference to
`gtk_fixed_get_type'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x5f): undefined reference to
`g_type_check_instance_cast'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x6e): undefined reference to
`gtk_fixed_put'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x76): undefined reference to
`gtk_widget_realize'
ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x7e): undefined reference to
`gtk_widget_show'
/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::GtkInt(_GtkWidget*, char const*)':
ChGtk0.cpp:(.text._ZN3Upp6GtkIntEP10_GtkWidgetPKc+0x16): undefined reference to
`gtk_widget_style_get'
/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::ChGtkColor(int, _GtkWidget*)':
ChGtk0.cpp:(.text._ZN3Upp10ChGtkColorEP10_GtkWidget+0xe): undefined reference to
`gtk_widget_get_style'
/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::GtkStyleInt(char const*)':
ChGtk0.cpp:(.text._ZN3Upp11GtkStyleIntEPKc+0x11): undefined reference to
`gtk_settings_get_default'
ChGtk0.cpp:(.text._ZN3Upp11GtkStyleIntEPKc+0x25): undefined reference to `g_object_get'
/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `
There were errors. (0:02.09)

```

Subject: Re: Running a CtrlLib application "headless"

Posted by [mirek](#) on Mon, 22 Oct 2012 07:23:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

nixnix wrote on Mon, 22 October 2012 00:16Hi,

I managed to get it to build under Windows but under Linux I can compile but not link. I have copied the uppbbox files to /home/nick/upp/uppbbox/ but I suspect I need to do something to tell the IDE to use them

I get the following link errors:

----- plugin/bz2 (MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON GCC

SHARED LINUX POSIX) (22 / 23)

----- OpenWind (MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON MAIN
GCC SHARED LINUX POSIX) (23 / 23)

Linking...

/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::gtk__parent()':

ChGtk0.cpp:(.text._ZN3Upp11gtk__parentEv+0x11): undefined reference to `gtk_window_new'

ChGtk0.cpp:(.text._ZN3Upp11gtk__parentEv+0x20): undefined reference to `gtk_widget_realize'

/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::Setup(_GtkWidget*)':

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x12): undefined reference to
`gtk_fixed_new'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x21): undefined reference to
`gtk_container_get_type'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x34): undefined reference to
`g_type_check_instance_cast'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x3f): undefined reference to
`gtk_container_add'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x4b): undefined reference to
`gtk_widget_realize'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x50): undefined reference to
`gtk_fixed_get_type'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x5f): undefined reference to
`g_type_check_instance_cast'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x6e): undefined reference to
`gtk_fixed_put'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x76): undefined reference to
`gtk_widget_realize'

ChGtk0.cpp:(.text._ZN3Upp5SetupEP10_GtkWidget+0x7e): undefined reference to
`gtk_widget_show'

/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::GtkInt(_GtkWidget*, char const*)':

ChGtk0.cpp:(.text._ZN3Upp6GtkIntEP10_GtkWidgetPKc+0x16): undefined reference to
`gtk_widget_style_get'

/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::ChGtkColor(int, _GtkWidget*)':

ChGtk0.cpp:(.text._ZN3Upp10ChGtkColorEiP10_GtkWidget+0xe): undefined reference to
`gtk_widget_get_style'

/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `Upp::GtkStyleInt(char const*)':

ChGtk0.cpp:(.text._ZN3Upp11GtkStyleIntEPKc+0x11): undefined reference to
`gtk_settings_get_default'

ChGtk0.cpp:(.text._ZN3Upp11GtkStyleIntEPKc+0x25): undefined reference to `g_object_get'

/home/nick/.upp/_out/trunk/CtrlLib/GCC4.Ac.Client_Mit.Headless.Mt.Ocoe.Pro.Rainbow.Shared.S
keleton/CtrlLib.a(ChGtk0.o): In function `

There were errors. (0:02.09)

Ty adding NOGTK flag.

(Although, in fact, it should not be needed... - I am pretty sure that uppbbox/uppweb compiles without it in linux)

Subject: Re: Running a CtrlLib application "headless"
Posted by [nixnixnix](#) on Sun, 23 Dec 2012 01:07:29 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi Mirek,

When I try I get the following or similar error:

```
----- CtrlLib ( MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON GCC  
SHARED LINUX POSIX ) ( 1 / 26)
```

```
LabelBase.cpp
```

```
Button.cpp
```

```
Switch.cpp
```

```
EditField.cpp
```

```
Text.cpp
```

```
LineEdit.cpp
```

```
DocEdit.cpp
```

```
ScrollBar.cpp
```

```
HeaderCtrl.cpp
```

```
In file included from /home/nick/upp/uppsrc/CtrlCore/CtrlCore.h:20:0,
```

```
from /home/nick/upp/uppsrc/CtrlLib/CtrlLib.h:4,
```

```
from /home/nick/upp/uppsrc/CtrlLib/LineEdit.cpp:1:
```

```
/home/nick/upp/rainbow/Skeleton/Skeleton.h:75:14: error: cannot declare field
```

```
/home/nick/upp/rainbow/Skeleton/Skeleton.h:5:7: note: because the following virtual functions
```

```
/home/nick/upp/uppsrc/Draw/Draw.h:445:15: note: virtual void Upp::Draw::DrawImageOp(int, int,  
int, int, const Upp::Image&, const Rect&, Upp::Color)
```

```
/home/nick/upp/rainbow/Skeleton/Skeleton.h:74:7: note: because the following virtual functions
```

```
/home/nick/upp/uppsrc/Draw/Draw.h:445:15: note: virtual void Upp::Draw::DrawImageOp(int, int,  
int, int, const Upp::Image&, const Rect&, Upp::Color)
```

```
ArrayCtrl.cpp
```

repeated many times. Are my flags wrong? I have copied code across from upp/rainbow so that I

now have upp/uppsrc, upp/bazaar and upp/rainbow. Are there more packages that I need please?

Nick

Subject: Re: Running a CtrlLib application "headless"

Posted by [mirek](#) on Sun, 23 Dec 2012 08:52:19 GMT

[View Forum Message](#) <> [Reply to Message](#)

nixnix wrote on Sat, 22 December 2012 20:07Hi Mirek,

When I try I get the following or similar error:

```
----- CtrlLib ( MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON GCC  
SHARED LINUX POSIX ) (1 / 26)
```

```
LabelBase.cpp
```

```
Button.cpp
```

```
Switch.cpp
```

```
EditField.cpp
```

```
Text.cpp
```

```
LineEdit.cpp
```

```
DocEdit.cpp
```

```
ScrollBar.cpp
```

```
HeaderCtrl.cpp
```

```
In file included from /home/nick/upp/uppsrc/CtrlCore/CtrlCore.h:20:0,
```

```
from /home/nick/upp/uppsrc/CtrlLib/CtrlLib.h:4,
```

```
from /home/nick/upp/uppsrc/CtrlLib/LineEdit.cpp:1:
```

```
/home/nick/upp/rainbow/Skeleton/Skeleton.h:75:14: error: cannot declare field
```

```
/home/nick/upp/rainbow/Skeleton/Skeleton.h:5:7: note: because the following virtual functions
```

```
/home/nick/upp/uppsrc/Draw/Draw.h:445:15: note: virtual void Upp::Draw::DrawImageOp(int, int,  
int, int, const Upp::Image&, const Rect&, Upp::Color)
```

```
/home/nick/upp/rainbow/Skeleton/Skeleton.h:74:7: note: because the following virtual functions
```

```
/home/nick/upp/uppsrc/Draw/Draw.h:445:15: note: virtual void Upp::Draw::DrawImageOp(int, int,  
int, int, const Upp::Image&, const Rect&, Upp::Color)
```

```
ArrayCtrl.cpp
```

repeated many times. Are my flags wrong? I have copied code across from upp/rainbow so that I now have upp/uppsrc, upp/bazaar and upp/rainbow. Are there more packages that I need please?

Nick

Now this rather looks like you have hit a period of instability - I am now working on new rainbow backends, adding or changing stuff here and there. Just yesterday I have found that skeleton was broken - upweb did not compile. Today, it should be fixed in svn again.

Mirek

Subject: Re: Running a CtrlLib application "headless"
Posted by [nixnixnix](#) on Thu, 27 Dec 2012 04:25:01 GMT
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Hi Mirek,

Sorry for the delay in getting back to you but I broke my Linux VM and had to set everything up again.

I am back to being able to build and run all variants of my software in the Ubuntu 64 based version of Mint Linux apart from the headless build which gives me the following link errors

```
----- OpenWind ( MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON NOGTK  
MAIN GCC SHARED LINUX POSIX ) ( 26 / 26 )  
Linking...  
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh  
ared.Skeleton/CtrlCore.a(DrawX11.o): In function `Upp::BackDraw::Destroy()':  
DrawX11.cpp:(.text._ZN3Upp8BackDraw7DestroyEv+0x1b): undefined reference to  
`XftDrawDestroy'  
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh  
ared.Skeleton/CtrlCore.a(DrawX11.o): In function `Upp::SetClip(_XGC*, _XftDraw*,  
Upp::Vector<Upp::Rect, int> > const&):  
DrawX11.cpp:(.text._ZN3Upp7SetClipEP4_XGCP8_XftDrawRKNS_6VectorINS_5Rect_IiEEEE+0  
x96): undefined reference to `XftDrawSetClipRectangles'  
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh  
ared.Skeleton/CtrlCore.a(DrawX11.o): In function `Upp::BackDraw::Create(Upp::SystemDraw&,  
int, int)':  
DrawX11.cpp:(.text._ZN3Upp8BackDraw6CreateERNS_10SystemDrawEii+0x9d): undefined  
reference to `XftDrawCreate'  
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh  
ared.Skeleton/CtrlCore.a(DrawTextX11.o): In function `Upp::CreateXftFont(Upp::Font, int)':  
DrawTextX11.cpp:(.text._ZN3Upp13CreateXftFontENS_4FontEi+0x15b): undefined reference to  
`XftFontMatch'  
DrawTextX11.cpp:(.text._ZN3Upp13CreateXftFontENS_4FontEi+0x27a): undefined reference to  
`XftFontOpenPattern'  
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh  
ared.Skeleton/CtrlCore.a(DrawTextX11.o): In function `Upp::GetXftFont(Upp::XftEntry*,
```



```

Upp::Font, int)':
DrawTextX11.cpp:(.text._ZN3Upp10GetXftFontEPNS_8XftEntryENS_4FontEi+0x1c2): undefined
reference to `XftFontClose'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(DrawTextX11.o): In function `Upp::SystemDraw::DrawTextOp(int, int,
int, unsigned short const*, U
pp::Font, Upp::Color, int, int const*)':
DrawTextX11.cpp:(.text._ZN3Upp10SystemDraw10DrawTextOpEiiiPKtNS_4FontENS_5ColorEiP
Ki+0x391): undefined reference to `XftDrawString16'
DrawTextX11.cpp:(.text._ZN3Upp10SystemDraw10DrawTextOpEiiiPKtNS_4FontENS_5ColorEiP
Ki+0x564): undefined reference to `XftDrawCharSpec'
DrawTextX11.cpp:(.text._ZN3Upp10SystemDraw10DrawTextOpEiiiPKtNS_4FontENS_5ColorEiP
Ki+0x5a2): undefined reference to `XftDrawString16'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(DrawTextX11.o): In function `Upp::XftGetGlyphInfoSys(Upp::Font, int)':
DrawTextX11.cpp:(.text._ZN3Upp18XftGetGlyphInfoSysENS_4FontEi+0x2a): undefined
reference to `XftTextExtents16'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(ImageX11.o): In function `Upp::SetSurface(Upp::SystemDraw&, int, int,
int, int, Upp::RGBA const*
)':
ImageX11.cpp:(.text._ZN3Upp10SetSurfaceERNS_10SystemDrawEiiiiPKNS_4RGBAE+0x55):
undefined reference to `XRenderFindStandardFormat'
ImageX11.cpp:(.text._ZN3Upp10SetSurfaceERNS_10SystemDrawEiiiiPKNS_4RGBAE+0x6c):
undefined reference to `XRenderCreatePicture'
ImageX11.cpp:(.text._ZN3Upp10SetSurfaceERNS_10SystemDrawEiiiiPKNS_4RGBAE+0x160):
undefined reference to `XftDrawPicture'
ImageX11.cpp:(.text._ZN3Upp10SetSurfaceERNS_10SystemDrawEiiiiPKNS_4RGBAE+0x1aa):
undefined reference to `XRenderComposite'
ImageX11.cpp:(.text._ZN3Upp10SetSurfaceERNS_10SystemDrawEiiiiPKNS_4RGBAE+0x1bb):
undefined reference to `XRenderFreePicture'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(ImageX11.o): In function `Upp::ImageSysData::~~ImageSysData()':
ImageX11.cpp:(.text._ZN3Upp12ImageSysDataD2Ev+0x48): undefined reference to
`XRenderFreePicture'
ImageX11.cpp:(.text._ZN3Upp12ImageSysDataD2Ev+0x56): undefined reference to
`XRenderFreePicture'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(ImageX11.o): In function `Upp::SystemDraw::CursorX11(Upp::Image
const&)':
ImageX11.cpp:(.text._ZN3Upp10SystemDraw9CursorX11ERKNS_5ImageE+0x7d): undefined
reference to `XRenderFindStandardFormat'
ImageX11.cpp:(.text._ZN3Upp10SystemDraw9CursorX11ERKNS_5ImageE+0x94): undefined
reference to `XRenderCreatePicture'
ImageX11.cpp:(.text._ZN3Upp10SystemDraw9CursorX11ERKNS_5ImageE+0x1dc): undefined
reference to `XRenderCreateCursor'
ImageX11.cpp:(.text._ZN3Upp10SystemDraw9CursorX11ERKNS_5ImageE+0x1ee): undefined
reference to `XRenderFreePicture'

```

```

/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(ImageX11.o): In function
`Upp::ImageSysData::Paint(Upp::SystemDraw&, int, int, Upp::Rect_<int> c
onst&, Upp::Color)':
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x1e5): undefined reference to `XRenderFindStandardFormat'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x1fc): undefined reference to `XRenderCreatePicture'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x342): undefined reference to `XftDrawPicture'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x392): undefined reference to `XRenderComposite'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x3df): undefined reference to `XRenderFindStandardFormat'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x3f8): undefined reference to `XRenderCreatePicture'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x558): undefined reference to `XftDrawPicture'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x5ac): undefined reference to `XRenderFreePicture'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x5f5): undefined reference to `XRenderFindStandardFormat'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x625): undefined reference to `XRenderCreatePicture'
ImageX11.cpp:(.text._ZN3Upp12ImageSysData5PaintERNS_10SystemDrawEiiRKNS_5Rect_liE
ENS_5ColorE+0x6ca): undefined reference to `XRenderFillRectangle'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(ImageX11.o): In function `Upp::ImageDraw::~~ImageDraw()':
ImageX11.cpp:(.text._ZN3Upp9ImageDrawD2Ev+0x17): undefined reference to `XftDrawDestroy'
ImageX11.cpp:(.text._ZN3Upp9ImageDrawD2Ev+0x43): undefined reference to `XftDrawDestroy'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(ImageX11.o): In function `Upp::ImageDraw::Init()':
ImageX11.cpp:(.text._ZN3Upp9ImageDraw4InitEv+0x8e): undefined reference to `XftDrawCreate'
ImageX11.cpp:(.text._ZN3Upp9ImageDraw4InitEv+0x120): undefined reference to
`XftDrawCreate'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(X11Wnd.o): In function
`Upp::Ctrl::DoPaint(Upp::Vector<Upp::Rect_<int> > const&)':
X11Wnd.cpp:(.text._ZN3Upp4Ctrl7DoPaintERKNS_6VectorINS_5Rect_liEEEE+0x75): undefined
reference to `XftDrawCreate'
X11Wnd.cpp:(.text._ZN3Upp4Ctrl7DoPaintERKNS_6VectorINS_5Rect_liEEEE+0xc9): undefined
reference to `XftDrawDestroy'
/home/nick/.upp/_out/trunk/CtrlCore/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh
ared.Skeleton/CtrlCore.a(X11Wnd.o): In function `Upp::ViewDraw::ViewDraw(Upp::Ctrl*)':
X11Wnd.cpp:(.text._ZN3Upp8ViewDrawC2EPNS_4CtrlE+0xff): undefined reference to
`XftDrawCreate'
collect2: error: ld returned 1 exit status

```

There were errors. (0:02.49)

It's entirely possible that I don't really understand what Skeleton is designed to do. I am trying to use it to take a GUI app and enable it to run in batch mode on cloud nodes which do not have video cards merely by replacing GUI_APP_MAIN with CONSOLE_APP_MAIN.

Can I still call TopWindow constructors and member functions in the code? Does Skeleton make these harmless or do I need to do more to make my code Skeleton friendly?

I took a look at uppweb but I don't really get what it is doing. It is very different to my starting point.

Cheers,

Nick

Subject: Re: Running a CtrlLib application "headless"
Posted by [mirek](#) on Thu, 27 Dec 2012 09:24:05 GMT
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To make it work:

Make sure you have rainbow nest before uppsrc in assembly.

Add "SKELETON" to the main package config.

Add Skeleton package to the project.

"rainbow" is compile time 'interface' that makes possible to replace CtrlCore host platform specific code with something else. Skeleton is this 'something else' that is empty.

'rainbow' works by simple hack: CtrlCore includes "<platform.h>" file. In uppsrc, this file is empty, but in rainbow nest, it contains some defines that change CtrlCore (see rainbow/platform.h and CtrlCore for details).

Mirek

Subject: Re: Running a CtrlLib application "headless"
Posted by [nixnixnix](#) on Fri, 28 Dec 2012 22:36:53 GMT
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Thanks Mirek,

Much closer now. Is it possible that this function doesn't get intercepted by Skeleton?

```
----- OpenWind ( MT OCOE PRO AC CLIENT_MIT HEADLESS RAINBOW SKELETON NOGTK  
MAIN GCC SHARED LINUX POSIX ) (26 / 26)
```

Linking...

```
/home/nick/.upp/_out/trunk/GridCtrl/GCC.Ac.Client_Mit.Headless.Mt.Nogtk.Ocoe.Pro.Rainbow.Sh  
ared.Skeleton/GridCtrl.a(GridCtrl.o): In function `Upp::GridCtrl::SyncPopup()':
```

```
GridCtrl.cpp:(.text._ZN3Upp8GridCtrl9SyncPopupEv+0x2cd): undefined reference to  
`Upp::GetScreenSize()'
```

```
collect2: error: ld returned 1 exit status
```

There were errors. (0:02.25)

I think we're close - exciting!

Nick