U++ - Bug #661 Fix 'all shared' build on Posix

01/22/2014 01:41 PM - Massimo Del Fedele

Status:	Approved	Start date:	01/22/2014	
Priority:	Normal	Due date:		
Assignee:	Massimo Del Fedele	% Done:	100%	
Category:	IDE	Estimated time:	0.00 hour	
Target version:		Spent time:	0.00 hour	
Description				
Actually, using al	l shared build (SO flag on main package) on linux has following caveats:		
- generated .so n	ames don't have the 'lib' prefix, which sh	ould be there		
- generated .so fil	les hard-encode their path. Thay can't be	e moved		
- generated .so fil	les don't have the posix version naming s	schema.		
- generated .so fil	les don't define a 'soname'			
- symbolic links s	hould be generated along library file			
So, a generated '	Package_SubPackage.so' file should be	e named 'libPackage_SubPackag	e.so.1.2.3', have the	
'soname' internal	ly defined as 'libPackage_SubPackage.s	so.1', and there should be 2 symb	olic links named	
'libPackage_Sub	Package.so' and 'libPackage_SubPacka	age.so.1' pointing to the shared ob	ject.	
The object should	d also be moveable inside filesystem.			
I'm almost ready	with a patch that fixes all that problems.			

History

#1 - 01/22/2014 04:11 PM - Miroslav Fidler

- Status changed from New to In Progress

- Assignee changed from Miroslav Fidler to Massimo Del Fedele

Proposed changes are correct, please go on fixing it (post a patch here and switch the task to me as Patch Ready afterwards please).

#2 - 01/24/2014 02:38 PM - Massimo Del Fedele

- Status changed from In Progress to Ready for CR
- Assignee changed from Massimo Del Fedele to Miroslav Fidler
- % Done changed from 0 to 100

#3 - 01/27/2014 02:06 PM - Miroslav Fidler

- Status changed from Ready for CR to Ready for QA
- Assignee changed from Miroslav Fidler to Massimo Del Fedele

Not sure how have you tested, but it was impossible to build any U++ project (mostly because of problems in legacy U++ code).

Fixed: now I am able to build theide in SO mode.

However, there is one problem: support for .icpp stays weird, as those have to be linked as .o files, outside .so....

#4 - 01/27/2014 06:58 PM - Massimo Del Fedele

- Status changed from Ready for QA to In Progress

- Assignee changed from Massimo Del Fedele to Miroslav Fidler

Tested with UWord, it works BUT it requires manual build of all packages in correct order, otherwise it gives error on linking. I've no idea on how to correct this, as I don't know the exact mechanics or your builders. I think that your build system first compile stuffs in random order and then links the whole stuff. In .so mode a package using another one need its .so present in order to build, so the order is mandatory.

A little OT... I don't get notifications from Redmine. I double checked e-mail and settings, but still no emails.

#5 - 01/27/2014 08:29 PM - Miroslav Fidler

- Status changed from In Progress to Ready for QA
- Assignee changed from Miroslav Fidler to Massimo Del Fedele

Massimo Del Fedele wrote:

Tested with UWord, it works BUT it requires manual build of all packages in correct order, otherwise it gives error on linking. I've no idea on how to correct this, as I don't know the exact mechanics or your builders. I think that your build system first compile stuffs in random order and then links the whole stuff. In .so mode a package using another one need its .so present in order to build, so the order is mandatory.

A little OT... I don't get notifications from Redmine. I double checked e-mail and settings, but still no emails.

As I said, I have fixed all that.. :)

Actually, the mechanism was always there, but there was stupid problem with unix/win slashes that lead to missidentification of packages during sorting the compilation order.

Another problem was that WHEN flag in uses was ignored, causing problems with plugin/z.

But all is fine now. Except that .icpp are linked as .o, but that is beyond this task IMO...

Please check, test and then, if all OK, approve the task.

#6 - 01/27/2014 08:36 PM - Massimo Del Fedele

- Status changed from Ready for QA to In Progress

- Assignee changed from Massimo Del Fedele to Miroslav Fidler

Nope, it doesn't work; doing a "rebuild all" on UWord, the result is :

CtrlLib: 56 file(s) built in (0:00.67), 11 msecs / file, duration = 26996 msecs, parallelization 100%

Creating library...

g++: error: /home/massimo/sources/upp-svn/out/examples/GCC.Debug.Debug_Full.Gui.Noblitz.Shared.So/libCtrlCore.so.1.0: File o directory non esistente g++: error: /home/massimo/sources/upp-svn/out/examples/GCC.Debug.Debug_Full.Gui.Noblitz.Shared.So/libPdfDraw.so.1.0: File o directory non esistente

g++: error: /home/massimo/sources/upp-svn/out/examples/GCC.Debug_Debug_Full.Gui.Noblitz.Shared.So/libDraw.so.1.0: File o directory non esistente

g++: error: /home/massimo/sources/upp-svn/out/examples/GCC.Debug.Debug_Full.Gui.Noblitz.Shared.So/libplugin_bmp.so.1.0: File o directory non esistente

g++: error: /home/massimo/sources/upp-svn/out/examples/GCC.Debug.Debug_Full.Gui.Noblitz.Shared.So/libRichText.so.1.0: File o directory non esistente

g++: error: /home/massimo/sources/upp-svn/out/examples/GCC.Debug.Debug_Full.Gui.Noblitz.Shared.So/libCore.so.1.0: File o directory non esistente g++: error: /home/massimo/sources/upp-svn/out/examples/GCC.Debug.Debug_Full.Gui.Noblitz.Shared.So/libplugin_png.so.1.0: File o directory non esistente

I can build it, but I've got to select manually each package. Maybe did you forget to upload latest changes ?

#7 - 01/29/2014 08:01 PM - Massimo Del Fedele

I've seen that package order is selected by this code in Builder.cpp, line 422, on which I forced here the dependency-order :

```
/*
    if(GetTargetMode().linkmode != 2) {
       for(int i = 1; i < wspc.GetCount(); i++)</pre>
         build_order.Add(i);
    }
     else {
*/
       Index<int> remaining;
       for(int i = 1; i < wspc.GetCount(); i++)</pre>
         remaining.Add(i);
       while(!remaining.lsEmpty()) {
         int t;
         for(t = 0; t < remaining.GetCount(); t++) {</pre>
            const Package& pk = wspc.package[remaining[t]];
            bool delay = false;
            for(int u = 0; u < pk.uses.GetCount(); u++) {</pre>
              if(remaining.Find(wspc.package.Find(UnixPath(pk.uses[u].text))) >= 0) {
                 delay = true;
                 break;
              }
            }
            if(!delay)
              break;
         }
         if(t >= remaining.GetCount()) // Progress even if circular references present
            t = 0;
         build_order.Add(remaining[t]);
         remaining.Remove(t);
       }
/*
    }
*/
```

Doing so, it works, uncommenting the commented code it doesn't.

I suppose that GetTargetMode().linkmode should return 2 for SO build, but it returns 1, don't know why, I didn't dig too much inside code. Anyways, I guess that forcing correct build order always (as commenting code above do...) has a quite small time footprint. It's ok for you to apply this workaround, or do you prefere to fix the GetTargetMode().linkmode bad value ?

#8 - 01/29/2014 08:08 PM - Massimo Del Fedele

just a small precisation : I'm using the SO flag in main package configuration, NOT the 'all shared' mode in builder. Maybe the GetTargetMode().linkmode fetches just the builder mode and not the SO flag in main package.....

#9 - 02/05/2014 07:14 PM - Miroslav Fidler

- Status changed from In Progress to Ready for QA
- Assignee changed from Miroslav Fidler to Massimo Del Fedele

Ah, yeah, that is it. Fixed

#10 - 02/16/2014 03:41 PM - Miroslav Fidler

Can you check&close, please?

#11 - 03/10/2014 01:17 PM - Miroslav Fidler

- Status changed from Ready for QA to Approved