

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			
<p>Actually, using all shared build (SO flag on main package) on linux has following caveats:</p> <ul style="list-style-type: none">- generated .so names don't have the 'lib' prefix, which should be there- generated .so files hard-encode their path. They can't be moved- generated .so files don't have the posix version naming schema.- generated .so files don't define a 'soname'- symbolic links should be generated along library file <p>So, a generated 'Package_SubPackage.so' file should be named 'libPackage_SubPackage.so.1.2.3', have the 'soname' internally defined as 'libPackage_SubPackage.so.1', and there should be 2 symbolic links named 'libPackage_SubPackage.so' and 'libPackage_SubPackage.so.1' pointing to the shared object.</p> <p>The object should also be moveable inside filesystem.</p> <p>I'm almost ready with a patch that fixes all that problems.</p> <p>Mirek, do you agree if I finish and post to svn ?</p>			

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:

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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 msec / file, duration = 26996 msec, 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++)
            build_order.Add(i);
    }
    else {
*/
        Index<int> remaining;
        for(int i = 1; i < wspc.GetCount(); i++)
            remaining.Add(i);
        while(!remaining.IsEmpty()) {
            int t;
            for(t = 0; t < remaining.GetCount(); t++) {
                const Package& pk = wspc.package[remaining[t]];
                bool delay = false;
                for(int u = 0; u < pk.uses.GetCount(); u++) {
                    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 prefer to fix the GetTargetMode().linkmode bad value ?

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

just a small precision : 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