

Robotics Service Bus - Bug #617

Check CMake Boost Find Macro for MacOS Compatibility

10/07/2011 08:13 PM - S. Wrede

Status:	Resolved	Start date:	10/07/2011
Priority:	Low	Due date:	
Assignee:		% Done:	100%
Category:	Configuration	Estimated time:	0.00 hour
Target version:	0.5		

Description

If multiple types of the same boost library are installed (e.g. -d + -mt) it happens that RSB links under Snow Leopard against both boot libraries, resulting in undefined behavior at program startup.

If only a single boost variant is installed, everything works flawlessly except the linker still warning that it links against duplicate library entries.

Associated revisions

Revision 9f14ac04 - 10/12/2011 05:20 PM - J. Wienke

try to prevent double linking.

Does this work?

fixes #617

History

#1 - 10/07/2011 08:32 PM - J. Wienke

- Status changed from New to Feedback

This is probay an upstream bug in cmake as they provide the macro. the only thing i could imagine is that you compiled rsc with a different build type than rsb. under windows this causes troubles because cmake tries to find the boost version that matches the cmake build type and hence rsc would belinked against a different boost type than rsb itself.

#2 - 10/09/2011 01:43 PM - S. Wrede

I just started reinstalling both library types (mt + d) to check if I can reproduce the problem. What I already get (probably independent of the other problem) at the level of RSC are warnings about duplicate library entries:

```
Linking CXX executable ../build/TypeStringTools
ld: warning: duplicate dylib /opt/local/lib/libboost_thread-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_filesystem-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_signals-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_program_options-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_system-mt-d.dylib
[ 70%] Built target TypeStringTools
```

#3 - 10/09/2011 03:50 PM - J. Wienke

Can you post the linker command line (make VERBOSE=1)? and can you have a look at what BOOST_LIBRARIES e.g. in the cmake cache? If there are no duplicates this is most likely an upstream bug.

#4 - 10/09/2011 05:13 PM - S. Wrede

Linker command:

```
cd /Users/swrede/Workspace/RSC/build/examples && /opt/local/bin/cmake -E cmake_link_script CMakeFiles/TypeStringTools.dir/link.txt
--verbose=1
/opt/local/bin/c++ -g -Wl,-search_paths_first -Wl,-headerpad_max_install_names CMakeFiles/TypeStringTools.dir/TypeStringTools.cpp.o -o
../build/TypeStringTools -L/opt/local/lib /opt/local/lib/libboost_thread-mt-d.dylib /opt/local/lib/libboost_filesystem-mt-d.dylib
/opt/local/lib/libboost_signals-mt-d.dylib /opt/local/lib/libboost_program_options-mt-d.dylib /opt/local/lib/libboost_system-mt-d.dylib
../build/librsc.0.5.0.dylib /opt/local/lib/libboost_thread-mt-d.dylib /opt/local/lib/libboost_filesystem-mt-d.dylib
/opt/local/lib/libboost_signals-mt-d.dylib /opt/local/lib/libboost_program_options-mt-d.dylib /opt/local/lib/libboost_system-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_thread-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_filesystem-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_signals-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_program_options-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_system-mt-d.dylib
/opt/local/bin/cmake -E cmake_progress_report /Users/swrede/Workspace/RSC/build/CMakeFiles 4
[100%] Built target TypeStringTools
/opt/local/bin/cmake -E cmake_progress_start /Users/swrede/Workspace/RSC/build/CMakeFiles 0
```

In build/CMakeCache.txt, I couldn't find the BOOST_LIBRARIES variable. However, there is a variable rsc_dependencies which looks as follows:

```
//Dependencies for the target
rsc_LIB_DEPENDS:STATIC=optimized;/opt/local/lib/libboost_thread-mt.dylib;debug;/opt/local/lib/libboost_thread-mt-d.dylib;optimized;/opt/local/lib/libboost_
/lib/libboost_filesystem-mt.dylib;debug;/opt/local/lib/libboost_filesystem-mt-d.dylib;optimized;/opt/local/lib/libboost_signals-mt.dylib;debug;/opt/local/lib/libbo
ocal/lib/libboost_signals-mt-d.dylib;optimized;/opt/local/lib/libboost_program_options-mt.dylib;debug;/opt/local/lib/libboost_program_options-mt-d.dylib;optimi
d.dylib;optimized;/opt/local/lib/libboost_system-mt.dylib;debug;/opt/local/lib/libboost_system-mt-d.dylib;
```

#5 - 10/12/2011 05:00 PM - J. Wienke

Ok, the same double linking also happens on linux, but GCC here is not that picky about it.

#6 - 10/12/2011 05:01 PM - J. Wienke

Eh, but the linker command line you showed is from RSC... So there must be the same issue?

#7 - 10/12/2011 05:30 PM - J. Wienke

- Status changed from Feedback to Resolved

- % Done changed from 0 to 100

Applied in changeset r2829.

#8 - 10/14/2011 01:12 AM - S. Wrede

Yes, the same issue applied to RSC. Compiling RSB, I still got for instance the following warning:

```
[ 81%] Building CXX object test/CMakeFiles/rsbtest.dir/rsb/InformerTask.cpp.o
[ 81%] Building CXX object test/CMakeFiles/rsbtest_core.dir/rsb/EventIdTest.cpp.o
Linking CXX executable ../build/rsbtest
ld: warning: duplicate dylib /opt/local/lib/libboost_regex-mt-d.dylib
ld: warning: duplicate dylib /opt/local/lib/libboost_date_time-mt-d.dylib
```

#9 - 10/27/2011 08:09 PM - J. Moringen

- *Target version changed from rsb-0.10 to 0.5*