

Robotics Service Bus - Bug #2155

find_package(RSB) changes boost cmake configuration in downstream projects

01/13/2015 02:18 PM - C. Emmerich

Status:	Rejected	Start date:	01/13/2015
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Build System	Estimated time:	0.00 hour
Target version:			

Description

In my rsb downstream project I have the following cmake configuration for including some boost components and rsb in my library:
CMakeLists.txt:

```
...

set(Boost_USE_MULTITHREADED ON)
find_package(Boost COMPONENTS program_options system serialization REQUIRED)
message(STATUS "****BOOST: Boost_LIBRARY_DIRS=${Boost_LIBRARY_DIRS} ,
Boost_LIBRARIES=${Boost_LIBRARIES}")
link_directories(${Boost_LIBRARY_DIRS})

find_package(RSB 0.9 REQUIRED)
message(STATUS "RSB version: ${RSB_VERSION}")
include_directories(BEFORE SYSTEM ${RSB_INCLUDE_DIRS})
add_definitions(${RSB_DEFINITIONS})
message(STATUS "****BOOST: Boost_LIBRARY_DIRS=${Boost_LIBRARY_DIRS} ,
Boost_LIBRARIES=${Boost_LIBRARIES}")

...
```

As the cmake output indicates:

```
...
Boost version: 1.54.0
-- Found the following Boost libraries:
-- program_options
-- system
-- serialization
-- ****BOOST: Boost_LIBRARY_DIRS=/usr/lib/x86_64-linux-gnu ,
Boost_LIBRARIES=/usr/lib/x86_64-linux-gnu/libboost_program_options.so;/usr/lib/x86_64-linux-gnu/libboost_system.so;/usr/lib/x86_64-linux-
/x86_64-linux-gnu/libboost_serialization.so
-- Boost version: 1.54.0
-- Found the following Boost libraries:
-- regex
-- date_time
-- program_options
-- system
-- signals
-- RSB version: 0.12.0
-- ****BOOST: Boost_LIBRARY_DIRS=/usr/lib/x86_64-linux-gnu ,
Boost_LIBRARIES=/usr/lib/x86_64-linux-gnu/libboost_regex.so;/usr/lib/x86_64-linux-gnu/libboost_date_time.so;/usr/lib/x86_64-linux-gnu/li
```

```
-linux-gnu/libboost_program_options.so;/usr/lib/x86_64-linux-gnu/libboost_system.so;/usr/lib/x86_64-linux-gnu/libboost_signals.so...  
.so  
...
```

the `find_package(RSB)` command changes the `Boost_LIBRARIES` to forget my desired boost components (such as e.g. `boost::serialization`).

So, to wrap it up: including `rsb` into my project partly deletes/changes my `cmake` configuration which should not be...

BTW: the workaround to first include `rsb` and then include my additional boost components works.

History

#1 - 01/13/2015 02:32 PM - J. Wienke

- *Status changed from New to Rejected*

There is no mechanism to handle this correctly in CMake. Only the workaround you described can be used, i.e. deferring the `find_package` call to the moment you need it. See e.g.: <https://stackoverflow.com/questions/19720639/handling-multiple-find-package-calls-in-cmake>. So we basically can't do anything. :/ If we remove the `find_package` call for boost from the CMake config file, others will start to complain because they have to search for boost then on their own and a lot of existing build systems will probably break.

#2 - 01/13/2015 02:32 PM - J. Wienke

- *Category set to Build System*