

## Robotics Systems Types - Bug #1424

### rst-convertersConfig.cmake needs to expose library dependencies for all dependencies

02/19/2013 03:30 PM - Anonymous

<b>Status:</b>	Resolved	<b>Start date:</b>	02/19/2013
<b>Priority:</b>	High	<b>Due date:</b>	
<b>Assignee:</b>	J. Wienke	<b>% Done:</b>	100%
<b>Category:</b>	Build System	<b>Estimated time:</b>	1.00 hour
<b>Target version:</b>	rsb-0.9		
<b>Description</b>			
rst-convertersConfig.cmake needs to expose library dependencies for all dependencies (e.g. OpenCV) as it it now only done for RCI.			
<b>Related issues:</b>			
Related to RSB OpenCV [Deprecated] - Tasks # 816: Add build job and package u...		<b>Resolved</b>	<b>01/20/2012</b>
Blocks RSB OpenCV [Deprecated] - Tasks # 1309: Separate CMakeFile for Packaging		<b>Closed</b>	<b>12/18/2012</b>
Blocks RSB OpenCV [Deprecated] - Bug # 1531: Does not build on Ubuntu {Precis...		<b>Resolved</b>	<b>06/06/2013</b>

#### Associated revisions

##### Revision 271837c3 - 07/10/2013 01:36 PM - J. Wienke

fixes #1424: reduce public link interface

- Remove external dependencies from converter headers (as they are not required there anyways) to reduce the public link interface of the library.
- In CMake, explicitly state the reduced link interface.

##### Revision c1d00ccf - 07/10/2013 01:36 PM - J. Wienke

fixes #1424: reduce public link interface

- Remove external dependencies from converter headers (as they are not required there anyways) to reduce the public link interface of the library.
- In CMake, explicitly state the reduced link interface.

##### Revision 0b78112f - 07/26/2016 01:16 PM - J. Wienke

fixes #1424: reduce public link interface

- Remove external dependencies from converter headers (as they are not required there anyways) to reduce the public link interface of the library.
- In CMake, explicitly state the reduced link interface.

#### History

##### #1 - 02/19/2013 03:32 PM - J. Wienke

Actually this is probably only necessary for include paths, as libraries are already exposed in the depends files:

```
SET(CMAKE_IMPORT_FILE_VERSION 1)
```

```

# Create imported target rstconverters
ADD_LIBRARY(rstconverters SHARED IMPORTED)

# Import target "rstconverters" for configuration "debug"
SET_PROPERTY(TARGET rstconverters APPEND PROPERTY IMPORTED_CONFIGURATIONS DEBUG)
SET_TARGET_PROPERTIES(rstconverters PROPERTIES
  IMPORTED_LINK_INTERFACE_LIBRARIES_DEBUG
"rsb;rst;rstsandbox;opencv_gpu;opencv_contrib;opencv_legacy;opencv_objdetect;opencv_calib3d;opencv_features2d;opencv_video;opencv_highgui;opencv_
ighgui;opencv_ml;opencv_imgproc;opencv_flann;opencv_core"
  IMPORTED_LOCATION_DEBUG "/homes/jwienke/workspace/git/rst-converters/cpp/build-master/build/librstconverters.so.0.9"
  IMPORTED_SONAME_DEBUG "librstconverters.so.0.9"
)

```

## #2 - 02/19/2013 03:40 PM - Anonymous

In a dependeing project this leads to

```

/usr/bin/ld: warning: libcv.so.2.1, needed by [...]lib/librstconverters.so.0.9, not found (try using -rpath or -rpath-link)
/usr/bin/ld: warning: libml.so.2.1, needed by [...]lib/librstconverters.so.0.9, not found (try using -rpath or -rpath-link)
[...]

```

So it seems that library dirs for e.g. opencv libraries are not properly exposed.

## #3 - 04/11/2013 06:12 PM - Anonymous

Feedback by Alexandre Tuleu:

```

I have a file /usr/share/rst-converters0.9/rst-converters-depends-relWithDebInfo.cmake that contains linking flags to opencv
I have looked up upon /usr/include/rst-converters0.9 and there is no include to any OpenCV files.
So it seems that OpenCV is an implicit hidden dependency of rst-converters. User of rst-converters does not have to use any symbol of opencv.
But the depends file make this explicit, by exporting the linking flags (but it should be removable, as dependencies on rst-converters does not need
any opencv symbols).
But the config file of rst-converters allow the build configuration to pass even if opencv header are not installed on the system,
To fix the sityuation, either : - fix rst-converters-depends file to strip all opencv stuff (Recommended, less dependcencies. Do not forget to add
OpenCV as binary deps of the debian packages)
OR
- add find_package(OpenCV REQUIRED) in rst-convertersConfig.cmake

```

Johannes, what do you think?

## #4 - 04/11/2013 07:27 PM - J. Wienke

I don't really understand the feedback and what is happening here. We only build the opencv-converters if opencv is generated and the depends file is generated by cmake. So I suspect a cmake bug.

With respect to grepping for opencv through the header files: With the generic converter interface of RSB it is quite likely that such a dependency is not visible in the header, as the converters do not have any specific data types in their interfaces.

**#5 - 06/10/2013 05:58 PM - J. Moringen**

- Assignee set to J. Wienke
- Priority changed from Normal to High

**#6 - 06/17/2013 11:05 AM - J. Wienke**

I have no idea how to fix this.

**#7 - 06/21/2013 10:40 AM - J. Wienke**

- File 0001-fixes-1424-reduce-public-link-interface.patch added

I thought about this a bit more. Most of the issues can probably be resolved if the converters do not expose the dependencies at all and hence no dependencies need to be visible in the link interfaces. The attached patch should do this. I could not test it with RCI enabled. So I don't know whether the changes in these converters compile correctly.

**#8 - 06/21/2013 02:44 PM - J. Wienke**

- % Done changed from 0 to 30

**#9 - 07/10/2013 03:35 PM - J. Wienke**

- Status changed from New to Resolved
- % Done changed from 30 to 100

Applied in changeset rst-converters|commit:271837c326641d6d54597810b27f4b36aceaf650.

**Files**

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0001-fixes-1424-reduce-public-link-interface.patch	17.9 KB	06/21/2013	J. Wienke
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