

I have two packages, A & B.

A is a catkin package with the following structure:

```
├── CMakeLists.txt
├── include
│   └── A
│       ├── C1.hpp
│       ├── C2.hpp
│       └── C3.hpp
├── msg
├── package.xml
└── src
    ├── C1.cpp
    ├── C2.cpp
    └── C2.cpp
```

Some header files H1, H2, H3 with class declarations with their corresponding implementations in src/ directory.

In CMakeLists I have

```
catkin_package(
  INCLUDE_DIRS include
  LIBRARIES C1 C2 C3 ${catkin_LIBRARIES}
)
```

```
add_library(C1 src/C1.cpp)
add_library(C2 src/C2.cpp)
add_library(C3 src/C3.cpp)
```

```
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```

B is an orocos component with the following structure

```
├── CMakeLists.txt
├── package.xml
└── src
    ├── CMakeLists.txt
    ├── COMP.cpp
    └── COMP.hpp
```

In CMakeLists I have:

```
find_package(catkin REQUIRED COMPONENTS A)
include_directories(${catkin_INCLUDE_DIRS})
```

and in src/CMakeLists :

```
orocos_component(COMP COMP.hpp COMP.cpp)
target_link_libraries(COMP ${catkin_LIBRARIES}
${USE_OROCOS_LIBRARIES})
orocos_install_headers(COMP.hpp)
```

```
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```

So everything compiles nicely here.

However, when I run `deployer-gnulinux` and `import("COMP")` I get an error with the library.

```
Could not load library
'/devel/lib/orocos/gnulinux/COMP/libCOMP-gnulinux.so':
6.619 [ ERROR ][ComponentLoader::import(path_list)]
/devel/lib/libC1.so: undefined symbol: _ZN3Ev...
```

Note that after the compilation inside `devel/lib/` directory I have all the compiled libraries including `libC1.so libC2.so libC3.so`

I looked this up and it's apparently linking problem. So I noticed that if inside package A if I

- remove `add_library(C1 src/C1.cpp)` statement,
- Then `catkin_make`
- Run `deployer-gnulinux` and then I am able to `import("COMP")` without any error.

If I manually remove the `lib???.so` files, without `add_library` statement in package A, I cannot compile....

So what is the solution here? What am I doing wrong?