# Robotics Service Bus - Bug #785
# Parsing of rsb.conf depends on OS-specific line ends

01/04/2012 04:10 PM - J. Wienke

| | | | | |
|---|---|---|---|---|
| **Status:** | Resolved | | **Start date:** | 01/04/2012 |
| **Priority:** | Low | | **Due date:** | |
| **Assignee:** | J. Wienke | | **% Done:** | 100% |
| **Category:** | Configuration | | **Estimated time:** | 0.00 hour |
| **Target version:** | 0.6 | | | |

**Description**

Original comment:

I set up rsb on Linux as well as Windoze (in that order) and once the rsb_informer/rsb_listener example worked, went on and just copied the Lunix-style rsb.conf file over to Windoze.

However, it seems the configuration file is not parsed at all with "unexpected" line ends and indeed no error message is provided. IMHO this should be changed to be OS-independent or - lacking the former - at least point out an invalid configuration file to the user.

**Related issues:**

| | | |
|---|---|---|
| Blocked by Robotics Systems Commons - Bug # 784: Parsing of config files depe... | **Resolved** | **01/04/2012** |
| Blocked by Robotics Systems Commons - Bug # 801: ConfigFileSource does not ra... | **Resolved** | **01/13/2012** |

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**History**

**#1 - 01/04/2012 06:58 PM - J. Wienke**

*- Description updated*

**#2 - 01/04/2012 06:59 PM - J. Wienke**

Ok, now that it is clear that the parsing in RSC is not the cause for this, we need to find a different reason.

Robert, where exactly did you place the config file, how did you launch the programs and what was the error message you received?

**#3 - 01/05/2012 12:04 AM - Anonymous**

I placed rsb.conf in my user directory as C:/Dokumente und Einstellungen/rabel/.config/rsb.conf (This should be %HOMEDRIVE%/%HOMEPATH%/.config/rsb.conf IIRC; had to look in the RSC source code for that one, too).

The spaces did not seem to cause any problems, as I saw that my program actually read the file completely (i.e. all bytes of it, whereas it aborted the read when the file was not present) using ProcessMonitor.

I launched rsb_informer and rsb_listener from the command line, there were no errors whatsoever. Do your questions suggest you cannot reproduce or you cannot find where the line ends are treated OS-specific? Because I'm pretty sure the problem is

    277      boost::filesystem::ifstream stream(path);

in ParticipantConfig.hpp. Supposedly, this will use the default openmode, which is text-mode, which will use OS-specific line endings. However, this begs the question why RSB doesn't choke on one big line of text it cannot parse...

**#4 - 01/05/2012 09:07 AM - J. Wienke**

*- Priority changed from Normal to Low*

I see your point, however I don't understand why, if this is the problem, the unit tests of RSC work without problems on Windows:

Have a look at: https://code.cor-lab.org/projects/rsc/repository/entry/trunk/rsc/test/rsc/config/ConfigFileSourceTest.cpp line 65. This is the test I enabled yesterday. It reads a config file with windows and one with unix line endings also using an ifstream and checks that several values contained in there are actually found.  The test is executed on windows and linux and works on both operating systems. Please note that boost::filesystem::ifstream is only a very tiny wrapper around std::ifstream to enable the use of filesystem::paths. No other behavioral modifications are done in that wrapper. To my mind we are exactly testing your case there when the unit test is executed on windows. When I am in my office I will try to find some time to really test the RSB programs.

**#5 - 01/05/2012 03:45 PM - J. Moringen**

Further suggestion: Please to run RSC's unit tests and check whether the ConfigFileSourceEncodingTest succeeds (see description in previous comment).

Also: which Windows version and compiler did you use?

Does converting the newline encoding in the rsb.conf to windows-eols fix the problem or does it occur for any eol-style?

**#6 - 01/05/2012 06:52 PM - Anonymous**

*- File LastTest_Unix.log added*
*- File LastTest_Macintosh.log added*
*- File rsb_informer_output_MAC.txt added*
*- File rsb_version_verbose.txt added*
*- File rsb.conf added*

Okay, I ran the tests. I now see my mistake when reporting this... I have no idea how it happend, but between my copy-pasting the file contents from one Linux machine to my Windows machine (possibly using NxClient, I don't remember anymore), the line endings were actually changed from Unix style to **Macintosh** style.

I attached the test results for Unix and Macintosh style line ends (I edited smoke-unix.conf between test runs accordingly). As suspected, Unix-style passes, while Macintosh-style fails. When I re-ran rsb_informer and rsb_listener with my rsb.conf in Macintosh-style line ends, they don't work, but still no error whatsoever.

I attached the logs, my config and sample outputs (without errors) below for your convenience.

**#7 - 01/05/2012 08:43 PM - J. Moringen**

I think there are two errors in the LastTest_Macintosh.log file:

First:

    CMake Error: The source directory "c:/Users/languitar/workspace/RSC/build/Doxyfile" does not exist.
    Specify --help for usage, or press the help button on the CMake GUI.

Not sure where this comes from.

Second:

```
[ RUN      ] ValidFiles/ConfigFileSourceEncodingTest.testSmoke/0
1325784828812 rsc.config.ConfigFileSource [TRACE]: Option #(global) -> <int>5
string = string
[section1]
option = <double>1.5
unknown file: error: C++ exception with description "bad lexical cast: source type value could not be interpreted as target" thrown in the test
body.
[  FAILED  ] ValidFiles/ConfigFileSourceEncodingTest.testSmoke/0, where GetParam() = "smoke-unix.conf" (0 ms)
```

This could be related to line endings.

**#8 - 01/06/2012 06:11 PM - J. Wienke**

Jan Moringen wrote:

> *I think there are two errors in the LastTest_Macintosh.log file:*
>
> *First:*
> *[...]*
> *Not sure where this comes from.*

This shouldn't be a problem.

> *Second:*
> *[...]*
> *This could be related to line endings.*

That is probably the problem. However, I strongly vote against support the old mac line endings. No current system uses them anymore and treating them is cumbersome because there seems to be no library for this purpose and we would have to implement this manually.

Would it be ok to ignore this case?

**#9 - 01/06/2012 07:37 PM - Anonymous**

Johannes Wienke wrote:

> *That is probably the problem. However, I strongly vote against support the old mac line endings. No current system uses them anymore and treating them is cumbersome because there seems to be no library for this purpose and we would have to implement this manually.*
>
> *Would it be ok to ignore this case?*

If I may add my 2□ to this:

- This EOL limitation should be mentioned explicitly in the configuration documentation.
  - I had originally thought that config files from two supported platforms were not interchangeable, which is why I raised the bug in the first place
- I still do not understand how the parser can actually not raise an error once it encounters this very long line of text of virtually no impact to it. This

might actually be another bug, or maybe parsing errors are ignored. I would expect an error message to the user if the configuration file a) did exist, but b) could not be parsed. This doesn't seem to happen.

**#10 - 01/13/2012 01:51 PM - J. Wienke**

*- Status changed from New to In Progress*

*- Assignee set to J. Wienke*

*- % Done changed from 0 to 30*

I have updated the wiki page to mention this restriction and commented the respective parsing code in RSC.

**#11 - 01/13/2012 04:05 PM - J. Wienke**

*- % Done changed from 30 to 60*

I have added a fix to the RSC parser in #801. There should generally be an exception now for old MAC-style EOL. Can you update your RSC installation to this version and see if it now generates an exception in your test case?

**#12 - 01/16/2012 10:03 AM - J. Wienke**

*- Status changed from In Progress to Feedback*

**#13 - 01/17/2012 07:37 PM - Anonymous**

```
[----------] 2 tests from ValidFiles/ConfigFileSourceEncodingTest
[ RUN      ] ValidFiles/ConfigFileSourceEncodingTest.testSmoke/0
unknown file: error: C++ exception with description "Old Mac EOL style '\r' is not supported." thrown in the test body.
[  FAILED  ] ValidFiles/ConfigFileSourceEncodingTest.testSmoke/0, where GetParam() = "smoke-unix.conf" (0 ms)
[ RUN      ] ValidFiles/ConfigFileSourceEncodingTest.testSmoke/1
1326821745343 rsc.config.ConfigFileSource [TRACE]: Option #(global) -> <int>5
1326821745343 rsc.config.ConfigFileSource [TRACE]: Option #(string) -> string
1326821745343 rsc.config.ConfigFileSource [TRACE]: Option #(section1, option) -> <double>1.5
[       OK ] ValidFiles/ConfigFileSourceEncodingTest.testSmoke/1 (0 ms)
[----------] 2 tests from ValidFiles/ConfigFileSourceEncodingTest (0 ms total)
```

Seems to be expected. However, the whole test suite is now marked as failing, which would mean RSC behaves incorrectly. I think it should actually behave like DebugToolsTest.testExceptionInfo, i. e. only pass when the exception occurs and not pass if it doesn't and not the other way around. So the test suite should pass when the exception is thrown and fail if it isn't, like so:

```
[----------] 3 tests from DebugToolsTest
[ RUN      ] DebugToolsTest.testNewInstance
[       OK ] DebugToolsTest.testNewInstance (0 ms)
[ RUN      ] DebugToolsTest.testCreateBacktrace
[       OK ] DebugToolsTest.testCreateBacktrace (0 ms)
[ RUN      ] DebugToolsTest.testExceptionInfo
Exception of type: class std::invalid_argument
Backtrace:
[       OK ] DebugToolsTest.testExceptionInfo (47 ms)
[----------] 3 tests from DebugToolsTest (47 ms total)
```

**#14 - 01/17/2012 07:57 PM - J. Wienke**

This is weird. Did you really update to latest trunk?

Because on our CI server no job shows this behavior:

https://ci.cor-lab.de/view/RSC/job/rsc-trunk/

https://ci.cor-lab.de/view/RSC/job/rsc-trunk-windows/

Also, the respective test code in trunk is:

```
TEST(ConfigFileSourceTest, testEolError) {
    CollectingHandler handler;
    ifstream stream(str(format("%1%/smoke-mac.conf") % TEST_ROOT).c_str());
    ConfigFileSource source(stream);
    EXPECT_THROW(source.provideOptions(handler), invalid_argument);
}
```

**#15 - 01/19/2012 03:12 PM - Anonymous**

Johannes Wienke wrote:

> *This is weird. Did you really update to latest trunk?*

I'm quite positive on that one... I just redownloaded trunk and svn says I'm at revision 463. It works now. But I'm sure it said the same thing when I tested it... So anyway, it seems to work now :?

Also, the doxygen issue with your profile path is still in there...

```
[----------] 1 test from WindowsSubprocessTest
[ RUN      ] WindowsSubprocessTest.testSubprocess
CMake Error: The source directory "c:/Users/languitar/workspace/RSC/build/Doxyfile" does not exist.
Specify --help for usage, or press the help button on the CMake GUI.
[      OK ] WindowsSubprocessTest.testSubprocess (5219 ms)
[----------] 1 test from WindowsSubprocessTest (5219 ms total)
```

**#16 - 01/19/2012 03:35 PM - J. Wienke**

For doxygen please open a new bug in RSC. However, it's only a minor warning. so low priority should be ok.

Can we close this one now?

**#17 - 01/20/2012 12:30 PM - Anonymous**

Yep, this one is resolved for me. Thanks.

**#18 - 01/20/2012 12:39 PM - J. Wienke**

*- Status changed from Feedback to Resolved*

*- % Done changed from 60 to 100*

**Files**

| | | | |
|---|---|---|---|
| LastTest_Unix.log | 18.3 KB | 01/05/2012 | Anonymous |
| LastTest_Macintosh.log | 18.6 KB | 01/05/2012 | Anonymous |
| rsb_informer_output_MAC.txt | 117 Bytes | 01/05/2012 | Anonymous |
| rsb_version_verbose.txt | 2.41 KB | 01/05/2012 | Anonymous |
| rsb.conf | 168 Bytes | 01/05/2012 | Anonymous |