

Robotics Service Bus - Feature #1766

More informative exceptions for misconfigurations

02/12/2014 10:57 PM - R. Yaghoubzadeh

Status:	Resolved	Start date:	02/12/2014
Priority:	Low	Due date:	
Assignee:	J. Moringen	% Done:	100%
Category:	C++	Estimated time:	0.00 hour
Target version:	rsb-0.11		
Description			
<p>When providing a malformed configuration string (as either env var or config file line), such as - in my case - an unescaped Windows path (RSC_PLUGINS_CPP_PATH=C:\Users\myuser\path\rsbplugins), RSB applications currently crash with a raw boost exception from the tokenizer, which is not very informative to the end user (at least to me it was not :-).</p> <p>For user-friendliness, maybe those configuration exceptions could be caught and wrapped in a more informative Exception (along the lines of "Tokenizer failure - malformed configuration string: <MYVARIABLE>=<myvalue>" or similar)?</p>			
Related issues:			
Related to Robotics Service Bus - Tasks # 1768: Evaluate Boost.Exception for ...		New	02/14/2014

History

#1 - 02/13/2014 10:40 AM - J. Wienke

Could you please provide the exception output and if possible backtrace that you were experiencing?

#2 - 02/13/2014 04:23 PM - R. Yaghoubzadeh

It is a boost::escaped_list_error, and can easily be provoked by using unescaped backslashes in config strings (as a Windows user might easily do with path names). With "C:\plugins" the exception gets the argument "unknown escape sequence", with "C:", "cannot end with escape". Of course it is nice to have escapeable strings as properties (and use double backslashes for Windows paths), but it would be nice to get a proper warning that it was a config string that caused a program abort ... I was quite puzzled at first.

One backtrace below (sorry, I just needed some time to recompile rsb here myself to get the debug symbols):

```
rsc0.10.dll!boost::escaped_list_separator<char,std::char_traits<char>
>::_do_escape<std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> >
>(std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char> > & next,
std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char> > end,
std::basic_string<char,std::char_traits<char>,std::allocator<char> > & tok) Line 146 + 0x34 bytes
```

```
rsc0.10.dll!boost::escaped_list_separator<char,std::char_traits<char>
>::_operator()<std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> >
>(std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char> > & next,
std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char> > end,
std::basic_string<char,std::char_traits<char>,std::allocator<char> > & tok) Line 176 + 0x24 bytes
```

```
rsc0.10.dll!boost::token_iterator<boost::escaped_list_separator<char,std::char_traits<char>
>,std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> > >::_increment() Line 52 + 0x31 bytes
```



```
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> > > _Last,  
std::back_inserter_iterator<std::vector<std::basic_string<char,std::char_traits<char>,std::allocator<char>  
>,std::allocator<std::basic_string<char,std::char_traits<char>,std::allocator<char> > > > > _Dest, std::input_iterator_tag __formal,  
std::input_iterator_tag __formal) Line 2186 + 0x4f bytes
```

```
rsc0.10.dll!std::_Copy_impl<boost::token_iterator<boost::escaped_list_separator<char,std::char_traits<char>  
>,std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>  
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> >  
>,std::back_inserter_iterator<std::vector<std::basic_string<char,std::char_traits<char>,std::allocator<char>  
>,std::allocator<std::basic_string<char,std::char_traits<char>,std::allocator<char> > > > >  
>(boost::token_iterator<boost::escaped_list_separator<char,std::char_traits<char>  
>,std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>  
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> > > _First,  
boost::token_iterator<boost::escaped_list_separator<char,std::char_traits<char>  
>,std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>  
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> > > _Last,  
std::back_inserter_iterator<std::vector<std::basic_string<char,std::char_traits<char>,std::allocator<char>  
>,std::allocator<std::basic_string<char,std::char_traits<char>,std::allocator<char> > > > > _Dest, std::tr1::integral_constant<bool,1> __formal)  
Line 2206 + 0x7b bytes
```

```
rsc0.10.dll!std::copy<boost::token_iterator<boost::escaped_list_separator<char,std::char_traits<char>  
>,std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>  
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> >  
>,std::back_inserter_iterator<std::vector<std::basic_string<char,std::char_traits<char>,std::allocator<char>  
>,std::allocator<std::basic_string<char,std::char_traits<char>,std::allocator<char> > > > >  
>(boost::token_iterator<boost::escaped_list_separator<char,std::char_traits<char>  
>,std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>  
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> > > _First,  
boost::token_iterator<boost::escaped_list_separator<char,std::char_traits<char>  
>,std::_String_const_iterator<char,std::char_traits<char>,std::allocator<char>  
>,std::basic_string<char,std::char_traits<char>,std::allocator<char> > > _Last,  
std::back_inserter_iterator<std::vector<std::basic_string<char,std::char_traits<char>,std::allocator<char>  
>,std::allocator<std::basic_string<char,std::char_traits<char>,std::allocator<char> > > > > _Dest) Line 2227 + 0xa1 bytes
```

```
rsc0.10.dll!rsc::plugins::Configurator::splitValue(const std::basic_string<char,std::char_traits<char>,std::allocator<char> > & value) Line 153 +  
0x76 bytes
```

```
rsc0.10.dll!rsc::plugins::Configurator::handleOption(const std::vector<std::basic_string<char,std::char_traits<char>,std::allocator<char>  
>,std::allocator<std::basic_string<char,std::char_traits<char>,std::allocator<char> > > > & key, const  
std::basic_string<char,std::char_traits<char>,std::allocator<char> > & value) Line 111 + 0x13 bytes
```

```
rsc0.10.dll!rsc::config::ConfigFileSource::provideOptions(rsc::config::OptionHandler & handler) Line 88 + 0x24 bytes
```

```
rsc0.10.dll!rsc::config::configure(rsc::config::OptionHandler & handler, const std::basic_string<char,std::char_traits<char>,std::allocator<char>  
> & configFileName, const std::basic_string<char,std::char_traits<char>,std::allocator<char> > & environmentVariablePrefix, int argc, const  
char * * argv, bool stripEnvironmentVariablePrefix, const boost::filesystem::path & prefix) Line 108
```

```
rsb.dll!rsb::Factory::Factory() Line 210 + 0x77 bytes
```

```
rsb.dll!rsc::patterns::Singleton<rsb::Factory>::getInstance() Line 106 + 0x22 bytes
```

```
rsb.dll!rsb::Factory::getInstanceBase() Line 169
```

rsb.dll!rsb::getFactory() Line 165

#3 - 02/14/2014 07:26 AM - J. Moringen

- Status changed from *New* to *In Progress*
- Assignee set to *J. Moringen*
- Target version set to *rsb-0.11*

#4 - 02/17/2014 03:56 AM - J. Moringen

- Status changed from *In Progress* to *Resolved*
- % Done changed from *0* to *100*

Fixed by rsc:commit:1ed34190.

New exception message should look like this:

```
$ RSB_PLUGINS_CPP_PATH='c:\foo' rsb-infocpp0.11
terminate called after throwing an instance of 'std::invalid_argument'
  what(): Invalid plugin load path (option plugins.cpp.path) value `c:\foo': unknown escape sequence
Aborted
```