RSB Performance Monitoring - Bug #2057
rsb-process-monitor crashes, probably when target binary has been built for a different architecture

10/13/2014 08:39 PM - J. Moringen

Status:	Resolved	**Start date:**	10/13/2014
Priority:	Low	**Due date:**	
Assignee:	J. Wienke	**% Done:**	100%
Category:		**Estimated time:**	0.00 hour
Target version:	rsb-0.11		

Description

What did I do?

```
gdb --args /vol/toolkit/nightly/x86_64/last/bin/rsb-process-monitor0.11 --pid 14854 -o /foo
```

In this case process 14854 is a Common Lisp logger for i686, i.e. a 32-bit ELF binary.

What happened?

```
Program received signal SIGSEGV, Segmentation fault.
rsbperfmon::getBuildId (execPath=...) at
/home/jenkins/workspace/rsb-performance-monitor-master-toolkit-nightly/label/ubuntu_precise_64bit_techfak/src/common.cpp:174 174    /
174
174
/home/jenkins/workspace/rsb-performance-monitor-master-toolkit-nightly/label/ubuntu_precise_64bit_techfak/src/common.cpp:
No such file or directory.
(gdb) bt
#0  rsbperfmon::getBuildId (execPath=...) at
/home/jenkins/workspace/rsb-performance-monitor-master-toolkit-nightly/label/ubuntu_precise_64bit_techfak/src/common.cpp:174 #1  0x0
174
#1  0x0000000000453d38 in rsbperfmon::MetaDataProvider::MetaDataProvider (this=0x6a8710, pid=@0x6bafe8: 14854) at
/home/jenkins/workspace/rsb-performance-monitor-master-toolkit-nightly/label/ubuntu_precise_64bit_techfak/src/MetaDataProvider.cpp:50
vider.cpp:50
#2  0x00000000004544d1 in rsbperfmon::MetaDataProviderFactory::create (this=<optimized out>, pid=@0x6bafe8: 14854) at
/home/jenkins/workspace/rsb-performance-monitor-master-toolkit-nightly/label/ubuntu_precise_64bit_techfak/src/MetaDataProvider.cpp:70
vider.cpp:70
#3  0x0000000000455b4a in rsbperfmon::MonitoringThread::addCueProvider (this=0x6baec0, factory=...) at
/home/jenkins/workspace/rsb-performance-monitor-master-toolkit-nightly/label/ubuntu_precise_64bit_techfak/src/MonitoringThread.cpp:70
read.cpp:70
#4  0x000000000042e546 in main (argc=<optimized out>, argv=<optimized out>) at
/home/jenkins/workspace/rsb-performance-monitor-master-toolkit-nightly/label/ubuntu_precise_64bit_techfak/src/process-monitor.cpp:244
tor.cpp:244
```

What did I expect?

The monitor should either display a proper error message, successfully monitor the binary or monitor the binary with a reduced set of cues.

Associated revisions

Revision 2619db7d - 10/22/2014 01:39 PM - J. Wienke

Read ELF build id for all bit architectures correctly

Fixes the extraction of build ids from the ELF format. So far, there was an implicit assumption that the executable under observation has the same bit architecture as the monitoring program itself. This assumption has been removed.

This code could be much easier if libelf was used instead of manually mangling around with the format. However, it seems that this dependency is often not available. So I do not use it for now.

fixes #2057

History

#1 - 10/13/2014 08:43 PM - J. Moringen

- Description updated

#2 - 10/22/2014 11:08 AM - J. Wienke

- Status changed from New to In Progress

#3 - 10/22/2014 11:19 AM - J. Wienke

Ok, currently there is the assumption that the ELF format of the executable to analyze matches the one of the architecture the monitor was compiled for. I need to find a way to read the ELF class first and then use the appropriate offsets in the ELF format depending on the class (32 / 64 bit).

This document gives some hints how to do this: http://sourceforge.net/projects/elftoolchain/files/Documentation/libelf-by-example/

#4 - 10/22/2014 01:41 PM - J. Wienke

- Status changed from In Progress to Resolved

- % Done changed from 0 to 100

Applied in changeset commit:rsb-performance-monitor|2619db7d9b604929f624872b9da4a85d8ad68bf8.

#5 - 10/22/2014 01:43 PM - J. Wienke

- Target version set to rsb-0.11