# Ruby master - Bug #6576

**shared library references _environ macosx Lion**

06/11/2012 09:22 PM - djk (Daniel Kopetzky)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>kosaki (Motohiro KOSAKI)</td>
</tr>
<tr>
<td>Target version:</td>
<td>2.0.0</td>
</tr>
<tr>
<td>ruby -v:</td>
<td>ruby 2.0.0dev (2012-06-10) [x86_64-darwin11.4.0]</td>
</tr>
</tbody>
</table>

**Description**

The code in missing/setproctitle.c references the global variable environ. The environ global variable isn't allowed in mac dylib shared libraries. Code trying to use ruby-2 as a shared library will fail.

```bash
% nm libruby.dylib|grep _environ
U _environ
```

The code in hash.c has #ifdef APPLE sections that appear to access the environment using Apple's suggested _NSGetEnviron() routine.

**Associated revisions**

Revision 2741a598 - 06/20/2012 07:36 AM - nobu (Nobuyoshi Nakada)

setproctitle.c: _NSGetEnviron

- missing/setproctitle.c (environ): use (*_NSGetEnviron()) instead of environ on Darwin for namespace cleanness, same as [ruby-core:00537]. [ruby-core:45615] [Bug #6576]

git-svn-id: svn+ssh://ci.ruby-lang.org/ruby/trunk@36151 b2dd03c8-39d4-4d8f-98ff-823fe69b080e

Revision 36151 - 06/20/2012 07:36 AM - nobu (Nobuyoshi Nakada)

setproctitle.c: _NSGetEnviron

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Revision 4be94836 - 02/06/2013 05:13 AM - usa (Usaku NAKAMURA)

merge revision(s) 36151: [Backport #7746]

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History

#1 - 06/11/2012 09:26 PM - kosaki (Motohiro KOSAKI)
- Status changed from Open to Assigned
- Assignee set to kosaki (Motohiro KOSAKI)

#2 - 06/12/2012 02:47 PM - nobu (Nobuyoshi Nakada)
- Status changed from Assigned to Feedback

=begin
Actually it doesn't fail.

$ uname -sv
Darwin 11.4.0 Darwin Kernel Version 11.4.0: Mon Apr  9 19:32:15 PDT 2012; root:xnu-1699.26.8~1/RELEASE_X86_64

$ otool -L /usr/local/bin/ruby
/usr/local/bin/ruby:
@executable_path/../lib/libruby.2.0.0.dylib (compatibility version 2.0.0, current version 2.0.0)
/usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 159.1.0)
/usr/lib/libobjc.A.dylib (compatibility version 1.0.0, current version 228.0.0)

$ /usr/local/bin/ruby -e '$0 = "x"*100; system("ps", $$.to_s)'
PID TT STAT TIME COMMAND
77027 s002  S+  0:00.02 x

Or do you talking about future versions?
=end

#3 - 06/13/2012 11:25 AM - djk (Daniel Kopetzky)

I'll investigate further.
Had recently enabled ruby scripting in vim 7.3.548 and I got the following message

% /usr/local/bin/vim
dyld: Symbol not found: _environ
Referenced from: /usr/local/lib/libruby.2.0.0.dylib
Expected in: flat namespace
in /usr/local/lib/libruby.2.0.0.dylib
Trace/BPT trap

Thats when I went reading your code / reading apple documentation and saw how hash.c was avoiding direct reference to environ but missing/setproctitle.c wasn't doing anything special.

% otool -L /usr/local/bin/vim
src/vim:
/usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 159.1.0)
/usr/lib/libcurses.5.4.dylib (compatibility version 5.4.0, current version 5.4.0)
/usr/lib/libiconv.2.dylib (compatibility version 7.0.0, current version 7.0.0)
/usr/local/lib/libintl.8.dylib (compatibility version 10.1.0, current version 10.1.0)
/System/Library/Frameworks/Cocoa.framework/Versions/A/Cocoa (compatibility version 1.0.0, current version 1.0.0)
/System/Library/Frameworks/Foundation.framework/Versions/A/Foundation (compatibility version 1.0.0, current version 1.0.0)
/System/Library/Frameworks/AppKit.framework/Versions/C/AppKit (compatibility version 1.0.0, current version 1.0.0)
Does /usr/local/bin/ruby fail too?
What does otool -L /usr/local/bin/ruby show?

This issue was solved with changeset r36151.
Daniel, thank you for reporting this issue.
Your contribution to Ruby is greatly appreciated.
May Ruby be with you.

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