Ruby master - Feature #10328

[PATCH] make OPT_SUPPORT_JOKE a proper VM option

10/05/2014 09:14 PM - normalperson (Eric Wong)

Status:	Open
Priority:	Normal
Assignee:	normalperson (Eric Wong)
Target version:	

Description

This is not a joke :)

I worry about executable size with things like [Feature #10326],
and I noticed unused instructions are emitted even with jokes disabled

This reduces executable size slightly on x86-64-linux:

text	data	bss	dec	hex	filename
2782156	22400	71880	2876436	2be414	ruby.before
2781420	22400	71880	2875700	2be134	ruby.after

Pretty trivial so I'll commit in a day or two.

```
compile.c            | 4 ++--
eval.c               | 2 +-
iseq.h               | 2 +-
tool/instruction.rb  | 9 ++++++---
vm_opts.h            | 2 +-
5 files changed, 11 insertions(+), 8 deletions(-)
```

History

#1 - 10/06/2014 02:11 AM - ko1 (Koichi Sasada)

or remove them?

#2 - 10/06/2014 02:22 AM - normalperson (Eric Wong)

ko1@atdot.net wrote:

> or remove them?

Sure, even better.
Anybody have objections to removing joke VM options?
Ruby 2.2 can officially become a SERIOUS VM :)

#3 - 10/07/2014 03:25 AM - ko1 (Koichi Sasada)

BTW, we provide "bitblt" and "answer" insturctions as a official (joke) instructions without enabling SUPPORT_JOKE flag.
People can use them by assembling YARV codes (with some tricks) manually.

With your measurement, we paid 736 bytes for this kind of humor.
Personally, I hope that Ruby can understand humor.
736 byte is not expensive *for me*.

However, I also agree Ruby is now a serious language.

#4 - 10/07/2014 03:49 AM - nobu (Nobuyoshi Nakada)

- Description updated

#5 - 11/14/2017 07:11 PM - normalperson (Eric Wong)

> BTW, we provide "bitblt" and "answer" insturctions as a official (joke) instructions without enabling SUPPORT_JOKE flag.
> People can use them by assembling YARV codes (with some tricks) manually.

OK, since we remove "trace" instruction which breaks ISeq
compatibility anyways; I think we can remove "bitblt" and
"answer" to make the VM smaller.

> With your measurement, we paid 736 bytes for this kind of humor.
> Personally, I hope that Ruby can understand humor.
> 736 byte is not expensive *for me*.

> However, I also agree Ruby is now a serious language.

Every byte counts to me; that's 12 cache lines on most CPUs.

#6 - 11/15/2017 07:31 AM - normalperson (Eric Wong)

patch to do full joke removal:
https://80x24.org/spew/20171115070108.3264-1-e@80x24.org/raw

#7 - 11/28/2017 05:25 AM - mame (Yusuke Endoh)

A patch to remove joke instructions when SUPPORT_JOKE is false:

```
diff --git a/tool/instruction.rb b/tool/instruction.rb
index 3354933da9..e917826ffe 100755
--- a/tool/instruction.rb
+++ b/tool/instruction.rb
@@ -885,6 +885,7 @@ def make_footer_undefs insn

     def make_header insn
       label = insn.trace ? '' : "start_of_#{insn.name}:;"
+      commit "#ifdef SUPPORT_JOKE" if insn.comm[:c] == "joke"
       commit "INSN_ENTRY(#{insn.name}){#{label}"
       make_header_prepare_stack insn
       commit "{"
@@ -911,6 +912,7 @@ def make_footer insn
         make_footer_undefs insn
       end
       commit "  END_INSN(#{insn.name});}}}"
+      commit "#endif /* SUPPORT_JOKE */" if insn.comm[:c] == "joke"
     end

     def make_insn_def insn
```

I'm neutral to the SUPPORT_JOKE feature. I don't care 736 bytes if the feature is funny enough. But I'm unsure if the feature is funny enough.

#8 - 11/28/2017 05:51 AM - normalperson (Eric Wong)

I prefer we remove the code from the VM to make it easier-to-read
(I have a short attention span)

My most recent patch
https://80x24.org/spew/20171115070108.3264-1-e@80x24.org/raw
removes 120 lines. Many of those lines are inside #if blocks,
and I find having #if/#ifdefs inside function bodies to be confusing.

#9 - 01/05/2018 09:01 PM - naruse (Yui NARUSE)

- Target version deleted (2.2.0)

Files

0001-make-OPT_SUPPORT_JOKE-a-proper-VM-option.patch	3.18 KB	10/05/2014	normalperson (Eric Wong)