Ruby - Feature #2837

Compile-time constant for HEAP_GROWTH_FACTOR (patch attached)

03/05/2010 05:20 AM - adgar (Michael Edgar)

Status:	Closed	
Priority:	Normal	
Assignee:	authorNari (Narihiro Nakamura)	
Target version:	2.6	

Description

=begin
The GC currently increases the size at which newly-created heaps by a factor of 1.8 for each heap. Some find it appropriate to modify this value (REE uses a value of 1 instead of 1.8, for example). In the trunk version of this code, that value is hard-coded in as a constant at 1.8 in gc.c:980.

I've included a patch to expose this as a compile-time constant (HEAP_GROW_FACTOR), and also included getters and setters in the style of the patch I submitted in Issue 1047: http://redmine.ruby-lang.org/issues/show/1047 .
=end

Related issues:

Related to Ruby - Feature #8015: [patch] tuneable HEAP_GROWTH_FACTOR	**Closed**	**03/05/2013**

History

#1 - 03/05/2010 01:51 PM - nobu (Nobuyoshi Nakada)

=begin
Hi,

At Fri, 5 Mar 2010 05:20:36 +0900,
Michael Edgar wrote in [ruby-core:28487]:

> I've included a patch to expose this as a compile-time
> constant (HEAP_GROW_FACTOR), and also included getters and
> setters in the style of the patch I submitted in Issue 1047:
> http://redmine.ruby-lang.org/issues/show/1047 .

At least, they must be members of rb_objspace_t, and the
argument ranges should be checked.

--
Nobu Nakada

=end

#2 - 03/05/2010 06:34 PM - adgar (Michael Edgar)

=begin

> At least, they must be members of rb_objspace_t, and the
> argument ranges should be checked.

I considered this, though they are compile-time constants that are being replaced. Pre-patch, they aren't currently in the rb_objspace_t. The malloc_limit accessor affects the currently rb_objspace_t as appropriate, but the HEAP_MIN_SLOTS accessors don't since that value doesn't directly affect existing structures. I can certainly put a heap_min_slots member into rb_objspace_t.

Also, which argument ranges are considered valid? Perhaps a malloc_limit of at least 10K? I don't know how small of a footprint Ruby could fit into that people would like. While most people increase these values beyond their initial defaults, I wouldn't want to set the limit too low.

Thanks!
=end

#3 - 04/02/2010 08:52 AM - znz (Kazuhiro NISHIYAMA)

- Target version set to 2.0.0

=begin

=end

#4 - 03/18/2012 03:30 PM - nahi (Hiroshi Nakamura)

- Description updated

- Assignee set to authorNari (Narihiro Nakamura)

#5 - 03/18/2012 06:46 PM - shyouhei (Shyouhei Urabe)

- Status changed from Open to Assigned   *2/2*

#6 - 10/27/2012 11:26 AM - authorNari (Narihiro Nakamura)

- Target version changed from 2.0.0 to 2.6

#7 - 03/05/2013 11:02 AM - nobu (Nobuyoshi Nakada)

This patch contains not only the subject but also the accessors.
It isn't acceptable and you should separate them, I think.

#8 - 03/18/2013 12:04 PM - authorNari (Narihiro Nakamura)

- Status changed from Assigned to Closed

I commited r39746.
We can change HEAP_GROWTH_FACTOR via an enviroment variable now.
So I close this ticket.

Thanks.

Files

grow_factor.patch	2 KB	03/05/2010	adgar (Michael Edgar)

=end