Ruby master - Feature #16290
Add Ruby C API to acquire aligned memory
11/04/2019 09:16 AM - watson1978 (Shizuo Fujita)

Status: Closed
Priority: Normal
Assignee:
Target version:

Description
Related to https://github.com/ruby/ruby/pull/2614

I have required to acquire aligned memory in Ruby C-extension library (https://github.com/rmagick/rmagick/pull/832).
I want an API that notifies acquired size to Ruby GC.

Of course, I know that we can implement a similar function in extension library using rb_gc_adjust_memory_usage(). However, if Ruby have the API, we can easily use it in some extension libraries.

History
#1 - 11/05/2019 01:41 AM - shyouhei (Shyouhei Urabe)
I'm not in favor of this. There are many ways to allocate a memory region, like mmap(2). Do we have to provide ruby counterparts for every and all of them?

#2 - 11/05/2019 07:26 AM - naruse (Yui NARUSE)

shyouhei (Shyouhei Urabe) wrote:

I'm not in favor of this. There are many ways to allocate a memory region, like mmap(2). Do we have to provide ruby counterparts for every and all of them?

rb_aligned_malloc uses 5 underlying implementations.
It's hard to make C-extension developer to re-develop this.
It sounds reasonable to make public this implementation.
https://github.com/ruby/blob/853d91a04a4d133fc90b35c90570dc1c656a7922/gc.c#L9736-L9761

We don't have mmap(2) wrapper.

#3 - 11/05/2019 07:46 AM - shyouhei (Shyouhei Urabe)

naruse (Yui NARUSE) wrote:

shyouhei (Shyouhei Urabe) wrote:

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In case of this request, ImageMagick already does have aligned allocator. If we provide one we would use any of 5 backends but that is not required at all. They already have it. What is wanted is a way to notify ruby about their memory usage.

#4 - 12/26/2019 09:06 AM - watson1978 (Shizuo Fujita)
- Status changed from Open to Closed

11/28/2020