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](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](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/ruby/blob/853d91a04a4d133fc90b35c90570dc1c656a7922/gc.c#L9736-L9761](https://github.com/ruby/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