

Ruby master - Feature #9590

introduce `st_foreach_update` and `st_foreach_update_check` for performance.

03/04/2014 12:15 PM - tarui (Masaya Tarui)

Status:	Open
Priority:	Normal
Assignee:	tarui (Masaya Tarui)
Target version:	
Description	
Hello,	
I think I'll introduce <code>st_foreach_update</code> and <code>st_foreach_update_check</code> for performance.	
For example, it is effective at Hash's <code>rehash</code> , <code>dup</code> and <code>clone</code> . (included in patch)	
Are there any problem?	
Patch is at https://gist.github.com/tarui/9345180 and attached here.	
Some benchmarks are shown below.	
<pre>\$cat test.rb require 'benchmark' N=10**6 a={} Benchmark.bm(8) do x x.report("create") { N.times{ i a[i] = i} } x.report("rehash") { a.rehash } x.report("dup") { a.dup } x.report("clone") { a.clone } end</pre>	
<pre>\$ original_ruby test.rb user system total real create 0.730000 0.050000 0.780000 (0.788674) rehash 1.030000 0.080000 1.110000 (1.113006) dup 1.120000 0.050000 1.170000 (1.175618) clone 1.300000 0.010000 1.310000 (1.312528)</pre>	
<pre>\$ proposed_ruby test.rb user system total real create 0.710000 0.050000 0.760000 (0.758993) rehash 0.020000 0.000000 0.020000 (0.018409) dup 0.130000 0.050000 0.180000 (0.182608) clone 0.500000 0.000000 0.500000 (0.509430)</pre>	
<pre>\$ make gcbench-rdoc tail -n8 head -n2</pre>	
original_ruby:	
<pre>user system total real 159.630000 2.870000 162.500000 (163.414495)</pre>	
proposed_ruby:	
<pre>user system total real 152.920000 2.730000 155.650000 (156.040741)</pre>	

History

#1 - 03/04/2014 12:19 PM - tarui (Masaya Tarui)

- Tracker changed from Bug to Feature

#2 - 03/05/2014 05:07 AM - nobu (Nobuyoshi Nakada)

It is equivalent to calling `st_update()` on all elements?

update_direct() should be static, IMO.

#3 - 03/05/2014 04:44 PM - tarui (Masaya Tarui)

It is nearly equivalent to calling st_update() on all elements.
Additionally, it updates internal hash values if it has to do that.

#4 - 03/05/2014 06:59 PM - tarui (Masaya Tarui)

I found that this patch lacks the measure to callcc.
Please wait for a while.

#5 - 01/05/2018 09:00 PM - naruse (Yui NARUSE)

- Target version deleted (2.2.0)

Files

0001-introduce-st_foreach_update-st_foreach_update_check.patch	7.58 KB	03/04/2014	tarui (Masaya Tarui)
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