Ruby master - Feature #7435

Exceptions should have backtrace_locations

11/26/2012 07:02 AM - sam.saffron (Sam Saffron)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Rejected</th>
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<tr>
<td>Priority:</td>
<td>Normal</td>
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<tr>
<td>Assignee:</td>
<td>ko1 (Koichi Sasada)</td>
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<td>Target version:</td>
<td>2.6</td>
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**Description**

Further to [http://bugs.ruby-lang.org/issues/7051](http://bugs.ruby-lang.org/issues/7051)

```ruby
def boom
  raise "boom"
end

begin
  boom
rescue => e
  p e.backtrace
end

['t.rb:2:in boom''', 't.rb:6:in''']
```

It seems exceptions still store backtraces in strings, shouldn't the backtrace be stored in RubyVM::Backtrace::Location objects and then optionally grabbed using backtrace_locations or backtrace depending on how you feel?

This means exceptions could be more efficient as filenames could easily be pinned in memory leading to significantly reduced allocation for exceptions.

**History**

#1 - 11/26/2012 07:07 AM - sam.saffron (Sam Saffron)
ouch, this was meant to be a feature req not a bug ... cant figure out how to change

#2 - 11/26/2012 07:48 AM - zzak (Zachary Scott)
- Tracker changed from Bug to Feature
- Category set to core
- Status changed from Open to Assigned
- Assignee set to ko1 (Koichi Sasada)
- Target version set to 2.0.0

#3 - 11/26/2012 07:54 AM - zzak (Zachary Scott)
- Target version changed from 2.0.0 to 2.6

Sorry, meant next minor, as [#7051](http://bugs.ruby-lang.org/issues/7051)

#4 - 11/26/2012 08:53 AM - ko1 (Koichi Sasada)
(2012/11/26 7:02), sam.saffron (Sam Saffron) wrote:

This means exceptions could be more efficient as filenames could easily be pinned in memory leading to significantly reduced allocation for exceptions.

Current implementation does not make String array.

Please run the following code:

```ruby
def foo
  raise
end
```

03/17/2022
begin
foo
rescue => e
# e.backtrace # (X)
ObjectSpace.each_object(Array){|ary|
  if ary.find{|obj| obj.is_a?(String) and /foo/ =~ obj}
    p ary
  end
} end
end

If you run (X), then the code prints out backtrace object.

--
// SASADA Koichi at atdot dot net

#5 - 11/26/2012 08:56 AM - ko1 (Koichi Sasada)
- Status changed from Assigned to Rejected

#6 - 12/03/2012 08:56 PM - ko1 (Koichi Sasada)
One more comment.

Exception class has Exception#set_backtrace method, which set backtrace using string array. It conflicts with locations.

We need to solve this issue to support Exception#backtrace_locations.

#7 - 02/21/2013 05:56 AM - headius (Charles Nutter)
I wish I had seen this before 2.0.0!

Perhaps set_backtrace should just cause backtrace_locations to return an empty array?

I really, really wish backtrace_locations had gotten into 2.0.0, so let's try to make this happen for 2.1.

#8 - 08/13/2013 05:08 PM - sawa (Tsuyoshi Sawada)
Why is this issue closed? Is this problem solved? I think it is a very important feature that is missing.