Allow a catch-all approach to capture throws and rethrow them in a separate context

Currently there's a bug in Devise/Rails when streaming is enabled through ActionController::Live module. This module works by spawning a new thread to process the action. Devise uses a Rack middleware from Warden which works by a catch(:warden) block. The problem is that when you ask Devise to authenticate in a before_action filter it will throw :warden when the authentication fails. Basically this is what happens:

```ruby
catch(:warden) do
  thread = Thread.new {
    begin
      #...
      throw :warden
      #...
      rescue => e
      error = e
    end
  }
  thread.join
  raise error if error
end
```

This is just to illustrate. You can see the real code here:

- [https://github.com/hassox/warden/blob/74162f2bf896b377472b6621ed1f6b40046525f4/lib/warden/manager.rb#L34](https://github.com/hassox/warden/blob/74162f2bf896b377472b6621ed1f6b40046525f4/lib/warden/manager.rb#L34)

And the issues here:

- [https://github.com/plataformatec/devise/issues/2332](https://github.com/plataformatec/devise/issues/2332)
- [https://github.com/rails/rails/issues/13873](https://github.com/rails/rails/issues/13873)

So, what happens is that throw is being called in a separate thread, outside the scope of the catch. Since it's not caught it raises an ArgumentError: "uncaught throw :warden".

There's currently no way to get the thrown symbol and the throw value from a generic handler as far as I know. Would it be possible to allow some kind of catch-all construction or at least to extract the throw params from the ArgumentError error? Or maybe use some new exception like UncaughtThrowException from which we would have access to the arguments?

Associated revisions

Revision 558b9191 - 11/15/2014 07:28 AM - nobu (Nobuyoshi Nakada)

vm_eval.c: UncaughtThrowError

- vm_eval.c (rb.throw_obj): throw UncaughtThrowError instead of ArgumentError.  [Feature #10480]

Revision 48433 - 11/15/2014 07:28 AM - nobu (Nobuyoshi Nakada)

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History

#1 - 11/06/2014 02:03 AM - nobu (Nobuyoshi Nakada)
- Description updated
- Status changed from Open to Assigned

"Catch-all construction doesn't feel nice to me. I think the new exception's name should be UncaughtThrowError, like others.

#2 - 11/06/2014 02:45 PM - rosenfeld (Rodrigo Rosenfeld Rosas)
That would be perfect as long as it includes the arguments passed to throw.

#3 - 11/09/2014 12:10 PM - nobu (Nobuyoshi Nakada)
https://github.com/nobu/ruby/compare/Feature%2310480-UncaughtThrowError

#4 - 11/10/2014 12:20 PM - rosenfeld (Rodrigo Rosenfeld Rosas)
I don't understand the code changes but looking at the tests this implementation looks pretty good to me. Could you please update the title for this issue so that it reflects the taken approach? Maybe "add an specialized UncaughtThrowError exception containing the throw arguments rather than raising a generic ArgumentError".

#5 - 11/15/2014 07:28 AM - nobu (Nobuyoshi Nakada)
- Status changed from Assigned to Closed
- % Done changed from 0 to 100

Applied in changeset r48433.

vm_eval.c: UncaughtThrowError
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#6 - 11/15/2014 02:23 PM - rosenfeld (Rodrigo Rosenfeld Rosas)
Thank you, Nobu!