Ruby master - Feature #6847
Hash#extract
08/10/2012 02:01 AM - citizen428 (Michael Kohl)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>matz (Yukihiro Matsumoto)</td>
</tr>
<tr>
<td>Target version:</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Description
I often need a method to extract "subhashes" from hashes. I often monkey-patched this into hash and found "extract" to be a good name for the method. Afterwards I found out that there actually is a mutating method called "extract!" in ActiveSupport, so I guess the name is kinda established. Here's the Ruby version from my private extension library, if there's any interest in this I would try to re-implement it in C:

```ruby
class Hash
def extract(*ks)
  existing = keys & ks
  Hash[existing.zip(values_at(*existing))]
end
end
```

History
#1 - 08/10/2012 02:53 AM - claytrump (Clay Trump)
Isn't that like the method slice in ActiveSupport?

On Thu, Aug 9, 2012 at 1:01 PM, citizen428 (Michael Kohl) <citizen428@gmail.com> wrote:

```
Issue #6847 has been reported by citizen428 (Michael Kohl).
```

Feature #6847: Hash#extract
https://bugs.ruby-lang.org/issues/6847

Author: citizen428 (Michael Kohl)
Status: Open
Priority: Normal
Assignee:
Category: core
Target version:

I often need a method to extract "subhashes" from hashes. I often monkey-patched this into hash and found "extract" to be a good name for the method. Afterwards I found out that there actually is a mutating method called "extract!" in ActiveSupport, so I guess the name is kinda established. Here's the Ruby version from my private extension library, if there's any interest in this I would try to re-implement it in C:

```ruby
class Hash
def extract(*ks)
  existing = keys & ks
  Hash[existing.zip(values_at(*existing))]
end
end
```

#2 - 08/11/2012 06:42 PM - citizen428 (Michael Kohl)
claytrump (Clay Trump) wrote:

```
```

3/11/2022
Isn't that like the method slice in ActiveSupport?

It's definitely like extract! in ActiveSupport, just non-destructive. I still think this is useful enough to be in core though. I needed it repeatedly, I know other people who regularly monkey-patch it into Hash and not everyone wants to drag ActiveSupport into their non-Rails projects. I don't insist on it of course, but it wouldn't be the first thing to make it from an extensions library into core, think of Symbol#to_proc for example.

#3 - 08/11/2012 11:55 PM - trans (Thomas Sawyer)
Ruby Facets has Hash#slice as well.
http://rdoc.info:8080/github/rubyworks/facets/master/Hash#slice-instance_method
+1 for its addition of Hash.

#4 - 08/13/2012 01:23 AM - claytrump (Clay Trump)

It's definitely like extract! in ActiveSupport, just non-destructive.

There is no "extract!" in ActiveSupport, its "slice!" you mean.

So yeah, I've used that before, and would be nice in core. I think it should be called 'slice' instead of 'extract'. It's a better name and it already exists like that in ActiveSupport and in Facets...

#5 - 08/13/2012 06:52 AM - citizen428 (Michael Kohl)
claytrump (Clay Trump) wrote:

There is no "extract!" in ActiveSupport, its "slice!" you mean.

http://apidock.com/rails/Hash/extract%21

File activesupport/lib/active_support/core_ext/hash/slice.rb, line 35

def extract!(*keys)
  result = {}
  keys.each{|key| result[key] = delete(key) }
  result
end

#6 - 08/13/2012 08:06 AM - trans (Thomas Sawyer)

It important to understand the differences and to determine the best definition. ActiveSupport's #slice returns the same type of class, which I think is important, where as #extract! always returns a Hash. Also, #slice and #slice! are provided, where as there is only #extract! in ActiveSupport. Certainly we want both. ActiveSupport's #slice also has a special feature for #convert_key, which I think that would be nice for Ruby to have too, but it is not part of Ruby at this time. So that would obviously be omitted.

I concur with Clay that #slice is the better name b/c Array[] and Array#slice are pretty much the same, and though it might be a little bit more different that general relationship should also hold for Hash.

#7 - 08/13/2012 12:53 PM - claytrump (Clay Trump)

Oh my, what a disaster. I wonder who made the crazy decision that hash slice would returned a slice of the hash and slice! would return... the receiver and not the slice of the hash. Especially since Array slice and slice! return the same values...

So, sorry Michael, I was confused. Anyways, I think the most important is slice and that's the correct name too, and it might be nice to have a mutating version too. I'd name it slice! and too bad for ActiveRecord, but that might not be the best way to go.

#8 - 11/20/2012 11:23 PM - mame (Yusuke Endoh)
- Status changed from Open to Assigned
- Assignee set to matz (Yukihiro Matsumoto)
- Target version set to 2.6

#9 - 11/20/2012 11:30 PM - matz (Yukihiro Matsumoto)
- Status changed from Assigned to Rejected

Use Hash#select which now returns an hash.

Matz.