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Ruby master - Feature #18008
`keyword_init?` method for Struct
06/27/2021 01:56 AM - hkdnet (Ko Sato)

Status: Closed
Priority: Normal
Assignee:
Target version:

Description
I'd like to know whether my struct was initialized with keyword_init: true or not.
This information is useful when writing a deserializer (attached an example below).

```ruby
S1 = Struct.new(:a, :b, keyword_init: true)
S2 = Struct.new(:a, :b)

# Specialized for Struct
def serialize(d)
  d.to_h.merge(__class_name: d.class.name)
end

def deserialize(h)
  klass = Object.const_get(h.delete(__class_name))
  if keyword_init?(klass)
    # If the class is created with keyword_init: true, the parameter should be passed as keywords
    klass.new(**h)
  else
    # Otherwise, each values are passed in the order of members.
    klass.new(*klass.members.map{|sym| h[sym]})
  end
end

def keyword_init?(klass)
  # I don't want to do this...
  # klass.keyword_init? looks cool.
  klass.inspect.end_with?('keyword_init: true')
end

s1 = S1.new(a: 1, b: 2)
p s1
p s1_ = deserialize(serialize(s1))
p s1 == s1_

s2 = S2.new(1, 2)
p s2
p s2_ = deserialize(serialize(s2))
p s2 == s2_
```

Associated revisions
Revision 1a637544 - 07/15/2021 09:14 AM - hkdnet (Ko Sato)
struct.c: Add keyword_init? singleton method for StructClass (#4609)

Fixes [Feature #18008]

Revision 835c63cd - 07/15/2021 09:21 AM - naruse (Yui NARUSE)
Add tests and NEWS [Feature #18008]

Revision 3e7a7fb2 - 07/15/2021 01:24 PM - nobu (Nobuyoshi Nakada)
Make Struct#keyword_init? return nil by default [Feature #18008]

03/24/2022
+1. While we aim to obviate keyword\_init in [Feature #16806], unless we also intend to deprecate the option (for now we don't), we'd need to have the check to correctly write a deserializer of Structs.

**#2 - 07/15/2021 09:11 AM - matz (Yukihiro Matsumoto)**

Accepted.

Matz.

**#3 - 07/15/2021 09:11 AM - naruse (Yui NARUSE)**

hkdnets patch is https://github.com/ruby/ruby/pull/4609

**#4 - 07/15/2021 09:15 AM - hkdnet (Ko Sato)**

- Status changed from Open to Closed

Applied in changeset 8511a637544166eca6b917fb6f32baeb771f4914b7a.

struct.c: Add keyword\_init? singleton method for StructClass (#4609)

Fixes [Feature #18008]