

Ruby - Bug #17015

RubyVM::AbstractSyntaxTree.parse has the same result on `proc { |a| }` and `proc { |a,| }`

07/07/2020 03:29 PM - osyo (manga osyo)

|                 |                                                                       |                                                   |
|-----------------|-----------------------------------------------------------------------|---------------------------------------------------|
| Status:         | Closed                                                                |                                                   |
| Priority:       | Normal                                                                |                                                   |
| Assignee:       |                                                                       |                                                   |
| Target version: |                                                                       |                                                   |
| ruby -v:        | ruby 2.8.0dev (2020-07-05T16:15:47Z master efe851a0df) [x86_64-linux] | Backport: 2.5: DONTNEED, 2.6: REQUIRED, 2.7: DONE |

Description

Summary

RubyVM::AbstractSyntaxTree.parse("proc { |a| }") and RubyVM::AbstractSyntaxTree.parse("proc { |a,| }") have the same result. Since proc { |a| } and proc { |a,| } have different meanings, I think we need a way to distinguish them.

```
node1 = RubyVM::AbstractSyntaxTree.parse("proc { |a| }")
body1 = node1.children.last
pp body1
# => (ITER@1:0-1:12 (FCALL@1:0-1:4 :proc nil)
#      (SCOPE@1:5-1:12
#      tbl: [:a]
#      args:
#      (ARGS@1:8-1:9
#      pre_num: 1
#      pre_init: nil
#      opt: nil
#      first_post: nil
#      post_num: 0
#      post_init: nil
#      rest: nil
#      kw: nil
#      kwrest: nil
#      block: nil)
#      body: (BEGIN@1:10-1:10 nil)))

# returns the same result as proc { |a| }
node2 = RubyVM::AbstractSyntaxTree.parse("proc { |a,| }")
body2 = node2.children.last
pp body2
# => (ITER@1:0-1:13 (FCALL@1:0-1:4 :proc nil)
#      (SCOPE@1:5-1:13
#      tbl: [:a]
#      args:
#      (ARGS@1:8-1:10
#      pre_num: 1
#      pre_init: nil
#      opt: nil
#      first_post: nil
#      post_num: 0
#      post_init: nil
#      rest: nil
#      kw: nil
#      kwrest: nil
#      block: nil)
#      body: (BEGIN@1:11-1:11 nil)))
```

Proposal

In case of proc { |a,| }, rest: :NODE\_SPECIAL\_EXCESSIVE\_COMMA is added.

```

# no change
node1 = RubyVM::AbstractSyntaxTree.parse("proc { |a| }")
body1 = node1.children.last
pp body1
# => (ITER@1:0-1:12 (FCALL@1:0-1:4 :proc nil)
#      (SCOPE@1:5-1:12
#      tbl: [:a]
#      args:
#      (ARGS@1:8-1:9
#      pre_num: 1
#      pre_init: nil
#      opt: nil
#      first_post: nil
#      post_num: 0
#      post_init: nil
#      rest: nil
#      kw: nil
#      kwrest: nil
#      block: nil)
#      body: (BEGIN@1:10-1:10 nil)))

# rest: :NODE_SPECIAL_EXCESSIVE_COMMA is added
node2 = RubyVM::AbstractSyntaxTree.parse("proc { |a,| }")
body2 = node2.children.last
pp body2
# => (ITER@1:0-1:13 (FCALL@1:0-1:4 :proc nil)
#      (SCOPE@1:5-1:13
#      tbl: [:a]
#      args:
#      (ARGS@1:8-1:10
#      pre_num: 1
#      pre_init: nil
#      opt: nil
#      first_post: nil
#      post_num: 0
#      post_init: nil
#      rest: :NODE_SPECIAL_EXCESSIVE_COMMA
#      kw: nil
#      kwrest: nil
#      block: nil)
#      body: (BEGIN@1:11-1:11 nil)))

```

This correspondence is similar to `:NODE_SPECIAL_NO_NAME_REST` for `MASGN`.

```

node = RubyVM::AbstractSyntaxTree.parse("*a = foo")
body = node.children.last
pp body
# => (MASGN@1:0-1:8 (VCALL@1:5-1:8 :foo) nil (LASGN@1:1-1:2 :a nil))

# :NODE_SPECIAL_NO_NAME_REST is added if the variable name is not defined
node = RubyVM::AbstractSyntaxTree.parse("* = foo")
body = node.children.last
pp body
# => (MASGN@1:0-1:7 (VCALL@1:4-1:7 :foo) nil :NODE_SPECIAL_NO_NAME_REST)

```

## NOTE

`NODE_SPECIAL_EXCESSIVE_COMMA` was implemented in [0872ea5](#) and renamed in [f258137](#). So backport to 2.6 can be difficult.

## Versions

- ruby 2.6.6p146 (2020-03-31 revision 67876) [x86\_64-linux]
- ruby 2.7.1p83 (2020-03-31 revision a0c7c23c9c) [x86\_64-linux]
- ruby 2.8.0dev (2020-07-05T16:15:47Z master efe851a0df) [x86\_64-linux]

## Patch

- PR: <https://github.com/ruby/ruby/pull/3298>

### Associated revisions

Revision **dd4e51d84e01d9c60458dfe19a0b4d4e05b55140** - 09/06/2020 02:16 AM - nagachika (Tomoyuki Chikanaga)

merge revision(s) ff5e66034006a875125581114cce19d46843b32a: [Backport #17015]

```
Added `NODE_SPECIAL_EXCESSIVE_COMMA` info to `ARGS` of
`RubyVM::AbstractSyntaxTree`.
```

Revision **dd4e51d84e01d9c60458dfe19a0b4d4e05b55140** - 09/06/2020 02:16 AM - nagachika (Tomoyuki Chikanaga)

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```
Added `NODE_SPECIAL_EXCESSIVE_COMMA` info to `ARGS` of
`RubyVM::AbstractSyntaxTree`.
```

Revision **dd4e51d8** - 09/06/2020 02:16 AM - nagachika (Tomoyuki Chikanaga)

merge revision(s) ff5e66034006a875125581114cce19d46843b32a: [Backport #17015]

```
Added `NODE_SPECIAL_EXCESSIVE_COMMA` info to `ARGS` of
`RubyVM::AbstractSyntaxTree`.
```

### History

**#1 - 07/07/2020 10:17 PM - nobu (Nobuyoshi Nakada)**

- Description updated

- Backport changed from 2.5: UNKNOWN, 2.6: UNKNOWN, 2.7: UNKNOWN to 2.5: DONTNEED, 2.6: REQUIRED, 2.7: REQUIRED

**#2 - 08/28/2020 07:56 PM - jeremyevans0 (Jeremy Evans)**

- Status changed from Open to Closed

The pull request was merged at [ff5e66034006a875125581114cce19d46843b32a](https://github.com/ruby/ruby/pull/3298)

**#3 - 09/06/2020 02:16 AM - nagachika (Tomoyuki Chikanaga)**

- Backport changed from 2.5: DONTNEED, 2.6: REQUIRED, 2.7: REQUIRED to 2.5: DONTNEED, 2.6: REQUIRED, 2.7: DONE

ruby\_2\_7 dd4e51d84e01d9c60458dfe19a0b4d4e05b55140 merged revision(s) ff5e66034006a875125581114cce19d46843b32a.