# Ruby master - Feature #12913

## A way to configure the default maximum width of pp

11/09/2016 03:04 PM - mame (Yusuke Endoh)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>nobu (Nobuyoshi Nakada)</td>
</tr>
<tr>
<td>Target version:</td>
<td></td>
</tr>
</tbody>
</table>

### Description

How about having an easy way to configure the maximum width of a line of pp output? Currently, pp accepts the maximum width as an optional argument:

```ruby
pp(big_array, $>, 120)
```

However, this is obviously too long for a useful debugging-purpose method like pp. Even worse, we must add the fragment ", $>, 120" to all calls to pp. I don't feel this is reasonable.

The patch attached provides PP.default_maxwidth= and PP.default_maxwidth, which can be used to configure the default setting of the maxwidth.

```ruby
PP.default_maxwidth = 1
pp([1, 2, 3])
#=> [1,
#    2,
#    3]
```

Akr-san, what do you think?

### Associated revisions

- **Revision eac347fd - 11/30/2021 02:43 AM - mame (Yusuke Endoh)**
  
  lib/pp.rb (PP.pp): Use io/console's winsize by default
  
  [Feature #12913]

- **Revision dfd9728c - 12/07/2021 03:07 AM - mame (Yusuke Endoh)**
  
  NEWS.md: Describe the change of the default width of pp
  
  [Feature #12913]

- **Revision c6cf1934 - 12/23/2021 09:00 AM - nobu (Nobuyoshi Nakada)**
  
  [ruby/pp] [DOC] Update for PP.width_for [Feature #12913]
  
  https://github.com/ruby/pp/commit/cad3cc762c

### History

**#1 - 11/09/2016 04:10 PM - akr (Akira Tanaka)**

I think the columns obtained by IO#winsize of io/console is better default now.

I'm not sure you are satisfied with it, though.

**#2 - 11/09/2016 10:52 PM - mame (Yusuke Endoh)**

Akr-san, thank you for your reply.

I agree that it is a better default than the fixed 79.

However, I'd still like to have PP.default_maxwidth= too. My motivation is to show abstract syntax tree (in my article).

In such a case, I think that "break as far as possible" would be useful.

Thank you for your consideration,
Yusuke Endoh wrote:

In such a case, I think that "break as far as possible" would be useful.

"break as far as possible" is opposite to pp.rb's intent:
"don't break as far as possible (in screen width limitation)".

I think a global configuration to choose different intent for single API is not a good idea.

pp (including pretty_inspect and PP.pp) method is used in many gems.
I think the intent of most of them is "don't break as far as possible".
PP.default_maxwidth = 1 breaks the intent.

I recommend that you define a method to call PP.pp with width = 1.

Akira Tanaka wrote:

pp (including pretty_inspect and PP.pp) method is used in many gems.

Note that my proposal is only for PP; the scope does not include pretty_inspect.

PP is a debugging-purpose API, so it is rarely used in a released code. So, we don't have to consider the case where PP is used in multiple modules simultaneously, I think. Also, because of debugging-purpose, it would be good to prioritize usability than safety.

I think pp is not only for debug.
I guess someone use it for logging, for example.

So, I think global configuration is dangerous.

Okay, I respect your decision. Thank you for your time.

What about this?

- affects PP.pp and Kernel#pp only
- try console window size, COLUMNs environment variable, then old good 80
#8 - 02/06/2018 05:30 AM - akr (Akira Tanaka)
nobu (Nobuyoshi Nakada) wrote:

What about this?

- affects PP.pp and Kernel#pp only
- try console window size, COLUMNS environment variable, then old good 80

It seems fine.

#9 - 05/25/2021 04:44 AM - mame (Yusuke Endoh)
- Assignee changed from akr (Akira Tanaka) to nobu (Nobuyoshi Nakada)
- Status changed from Rejected to Assigned

akr (Akira Tanaka) wrote in #note-8:

nobu (Nobuyoshi Nakada) wrote:

What about this?

- affects PP.pp and Kernel#pp only
- try console window size, COLUMNS environment variable, then old good 80

It seems fine.

I prefer nobu (Nobuyoshi Nakada)'s patch to mine. Since it was fine to akr (Akira Tanaka), how about committing it?

#10 - 05/26/2021 01:00 PM - nobu (Nobuyoshi Nakada)

https://github.com/nobu/ruby/runs/2672425246?check_suite_focus=true#step:15:239
A test in rbs passes keyword arguments to pp.
Also ko1 (Koichi Sasada) says he uses keywords arguments with pp very often.

#11 - 06/07/2021 07:16 AM - mame (Yusuke Endoh)
So, some people (including ko1 (Koichi Sasada)) have a custom to pass keyword arguments to Kernel#pp:

```ruby
foo = 42
bar = 43
pp(foo: foo, bar: bar) #=> {foo=>42, :bar=>43}
```

Unfortunately, introducing keyword arguments to Kernel#pp breaks their custom.

How about introducing pp_out and pp_width keywords? It is a bit dirty, but good enoguh.
+++ b/lib/pp.rb
@@ -91,6 +91,15 @@ def PP.singleline_pp(obj, out=$>)
     mod.instance_method(meth).bind_call(obj, *args, &block)
 end
 +
+ def PP.width_for(out)
+   begin
+     require 'io/console'
+     _, width = out.winsize
+   rescue LoadError, NoMethodError, Errno::ENOTTY
+   end
+   + (width || ENV['COLUMNS']&.to_i&.nonzero? || 80) - 1
+ end

# :startdoc:
if defined? ::Ractor
@@ -596,12 +605,21 @@
def pretty_inspect
   PP.pp(self, ''.dup)
 end
-
-# prints arguments in pretty form.
-+ # prints arguments in pretty form.
-+ # pp returns argument(s).
- def pp(*objs)
- +
- + # It prints to $> by default. A keyword argument +pp_out+ is given,
- + # it is used as the output target.
- +
- + # The output is fitted to the width of the console by default.
- + # A keyword +pp_width+ is used if given.
- + def pp(*objs, **kw)
- +   out = kw.delete(:pp_out)
- +   width = kw.delete(:pp_width) || $>
- +   objs << kw unless kw.empty?
- +   objs.each{|obj|
- +     PP.pp(obj, out, width)
- +   }
- +   objs.size <= 1 ? objs.first : objs
 end
endif

diff --git a/prelude.rb b/prelude.rb
index b1e477a3ea..b8c564e84e 100644
--- a/prelude.rb
+++ b/prelude.rb
@@ -10,9 +10,9 @@ def irb
end

module Kernel
- def pp(*objs)
-   require 'pp'
-   pp(*objs)
+ def pp(...) require 'pp'
+   pp(*objs)
+   pp(...) end
end

# suppress redefinition warning

#12 - 06/17/2021 09:25 AM - mame (Yusuke Endoh)
We discussed this issue in today's dev-meeting. akr (Akira Tanaka) suggested that

1. To make the default size to be io/console's winsize (width)
2. Instead of changing Kernel#pp, extend PP.pp to accept keywords out and width
3. If we want width=1, define another new method like PP.fully_expanded_pp(obj) or something (Note that there is already PP.singleline_pp(obj))

and we agreed with them. I'll commit a change for 1 later.

I am happy to create another patch for 2 and 3. Anyone have an idea about the name of fully_expanded_pp?

#13 - 06/17/2021 02:51 PM - jeremyevans0 (Jeremy Evans)

mame (Yusuke Endoh) wrote in #note-12:
We discussed this issue in today's dev-meeting. akr (Akira Tanaka) suggested that

1. To make the default size to be io/console's winsize (width)
2. Instead of changing Kernel#pp, extend PP.pp to accept keywords out and width
3. If we want width=1, define another new method like PP.fully_expanded_pp(obj) or something (Note that there is already PP.singleline_pp(obj))

and we agreed with them. I'll commit a change for 1 later.

I am happy to create another patch for 2 and 3. Anyone have an idea about the name of fully_expanded_pp?

In keeping with the spirit that Kernel#pp is more expanded than Kernel#p, I suggest PP.ppp. :)

#14 - 11/30/2021 02:44 AM - mame (Yusuke Endoh)
- Status changed from Assigned to Closed

Applied in changeset git@eac347db04023e1a365d84a8c163263cc7a6904.

lib/pp.rb (PP.pp): Use io/console's winsize by default

[Feature #12913]

#15 - 11/30/2021 04:14 AM - mame (Yusuke Endoh)
- Status changed from Closed to Open

I have committed the change for 1.

#16 - 12/07/2021 03:08 AM - mame (Yusuke Endoh)
- Status changed from Open to Closed

Applied in changeset git@d9728c87640d9699b1e7c63a6f6f6b2797fbc.

NEWS.md: Describe the change of the default width of pp

[Feature #12913]

#17 - 12/07/2021 07:44 AM - mame (Yusuke Endoh)
- Status changed from Closed to Open

#18 - 12/23/2021 09:03 AM - nobu (Nobuyoshi Nakada)
- Status changed from Open to Closed

Applied in changeset git@e6c19340a116f21d71ecc218a2e8c31fe2f1d95.

[ruby/pp] [DOC] Update for PP.width_for [Feature #12913]

https://github.com/ruby/pp/commit/cad3cc762c

Files

<table>
<thead>
<tr>
<th>File</th>
<th>Size</th>
<th>Date</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>pp-default-maxwidth.patch</td>
<td>1.05 KB</td>
<td>11/09/2016</td>
<td>mame (Yusuke Endoh)</td>
</tr>
</tbody>
</table>