

AUSTIN PYTHON MEETUP

AUGUST 2018

A group of people in formal attire, including a man in a tuxedo and a woman in a floral dress, smiling and laughing.

HIMDUSTIN

PEP 572

PYTHON GOVERNANCE

BDFL
BENEVOLENT DICTATOR
FOR LIFE



PEP

PYTHON ENHANCEMENT PROPOSAL

PEP 8

STYLE GUIDE FOR PYTHON CODE

PEP 8

STYLE GUIDE FOR PYTHON CODE

AUTHOR: GUIDO VAN ROSSUM

PEP 20

THE ZEN OF PYTHON

PEP 20

THE ZEN OF PYTHON

AUTHOR: TIM PETERS

PEP 566

METADATA FOR PYTHON SOFTWARE PACKAGES 2.1

PEP 566

METADATA FOR PYTHON SOFTWARE PACKAGES 2.1

AUTHOR: DUSTIN INGRAM

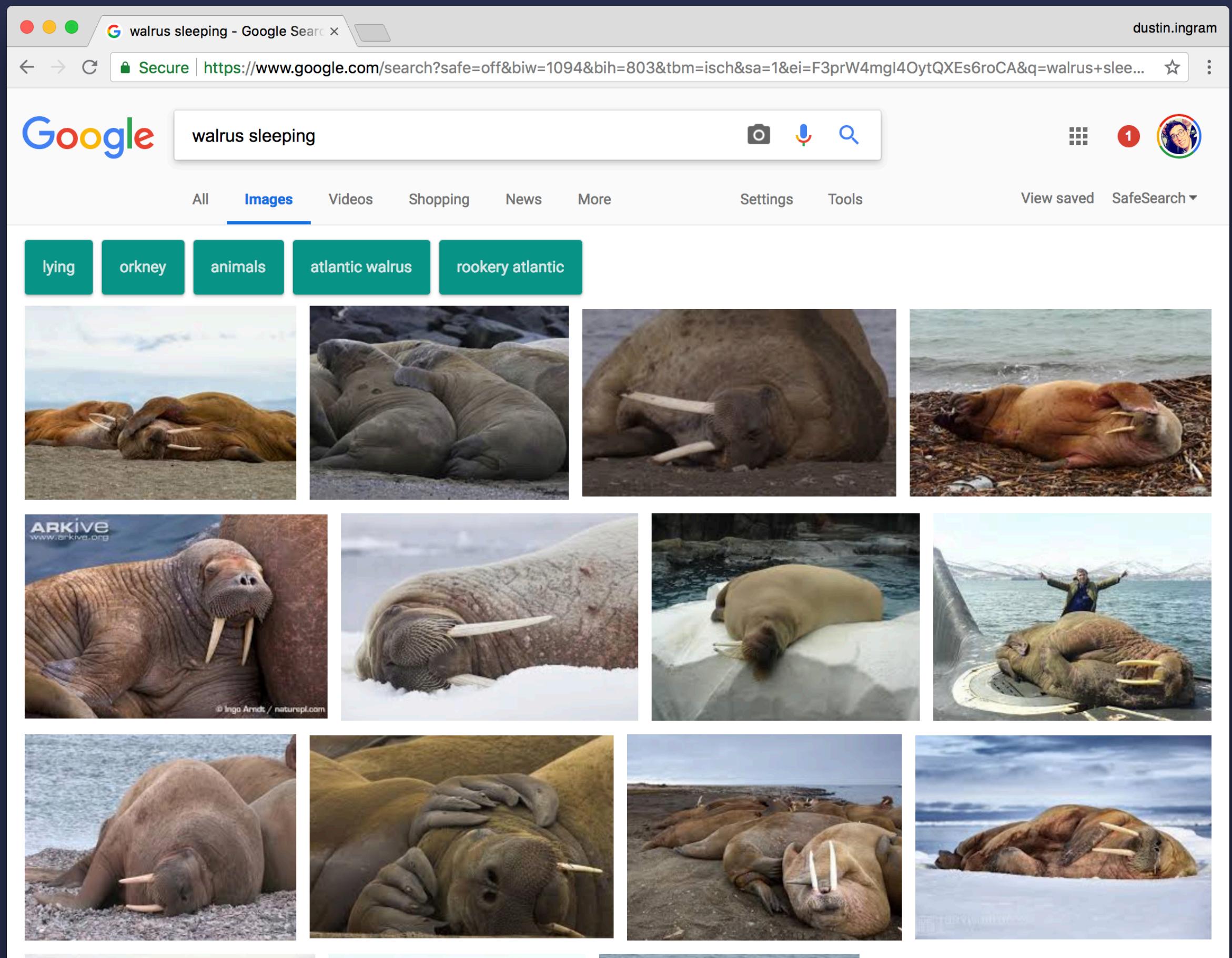
BDFL
DELEGATES

- 1) DRAFT
- 2) ACCEPTANCE
- 3) IMPLEMENTATION

PEP 572







PROBLEMS

```
match = pattern.search(data)
if match is not None:
    do_something(match)
```

```
chunk = file.read(8192)
while chunk:
    process(chunk)
    chunk = file.read(8192)
```

```
foo = [f(x), f(x)**2, f(x)**3]
```

$y = f(x)$

$\text{foo} = [y, y^{**2}, y^{**3}]$

```
results = []
for x in data:
    result = f(x)
    if result is not None:
        results.append(result)
```

```
filtered_data = [  
    f(x) for x in data  
    if f(x) is not None  
]
```

SOLUTIONS

```
match = pattern.search(data)
if match is not None:
    do_something(match)
```

```
if (match := pattern.search(data)) is not None:  
    do_something(match)
```

```
chunk = file.read(8192)
while chunk:
    process(chunk)
    chunk = file.read(8192)
```

```
while chunk := file.read(8192):  
    process(chunk)
```

```
foo = [f(x), f(x)**2, f(x)**3]
```

```
foo = [y := f(x), y**2, y**3]
```

```
results = []
for x in data:
    result = f(x)
    if result is not None:
        results.append(result)
```

```
filtered_data = [  
    f(x) for x in data  
    if f(x) is not None  
]
```

```
filtered_data = [  
    y for x in data  
    if (y := f(x)) is not None  
]
```

WHY?

**LESS LINES
ARE BETTER**

```
foo = [y := f(x), y**2, y**3]
```

$y = f(x)$

$\text{foo} = [y, y^{**2}, y^{**3}]$

**LESS LINES
ARE MORE EFFICIENT?**

```
match = re.match(data)
group = match.group(1) if match else None
```

```
group = re.match(data).group(1) if re.match(data) else None
```

```
group = match.group(1) if (match := re.match(data)) else None
```

SCOPE

```
foo = 'foo'  
if (foo := 'bar') is not None:  
    do_something(...)  
print(foo)
```

EXCEPTIONS!

```
if any((comment := line).startswith('#') for line in lines):
    print("First comment:", comment)
else:
    print("There are no comments")
```

```
if all((nonblank := line).strip() == '' for line in lines):
    print("All lines are blank")
else:
    print("First non-blank line:", nonblank)
```

```
total = 0
partial_sums = [total := total + v for v in values]
print("Total:", total)
```



```
x = y = z = 0          # Yes
(z := (y := (x := 0)))) # No
```

```
a[i] = x          # Yes
a[i] := x         # No
self.rest = []    # Yes
self.rest := []   # No
```

```
x = 1, 2      # Sets x to (1, 2)
(x := 1, 2)  # Sets x to 1
```

```
total += tax    # Yes  
total +:= tax  # No
```

= VS. =

PEP 572

RECEPTION

**BACKWARDS
COMPATIBILITY**
"WHERE WILL THIS WORK?"

TEACHABILITY
"WHAT DO WE CALL THIS?"

ATTRACTIVENESS
"IT'S JUST UGLY!"

The python-committers May 2018

dustin.ingram

Secure | https://mail.python.org/pipermail/python-committers/2018-May/

May 2018 Archives by thread

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Starting: *Wed May 2 05:49:36 EDT 2018*
Ending: *Thu May 31 00:32:14 EDT 2018*
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- [python-committers] Poll: Do you like the PEP 572 Assignment Expressions? *Stefan Krah*
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Yury Selivanov on Twitter: "Ser x

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Twitter, Inc. [US] | https://twitter.com/1st1/status/989527282493677568

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 **Yury Selivanov**
@1st1 [Follow](#)

Serious question: do you like PEP 572—Assignment Expressions: new ':=' operator in Python 3.8?

Please read the PEP before voting.

36% Yes

64% No

323 votes • Final results

8:31 AM - 26 Apr 2018

18 Retweets 13 Likes

 **Jared Mackey** @MackeyTech · Apr 28
Replying to @1st1
Why can't the "as" expr be used instead?

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1 13 1

[python-committers] Results o x

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[python-committers] Results of the poll: Do you like the PEP 572 Assignment Expressions?

Victor Stinner [vstinner at redhat.com](mailto:vstinner@redhat.com)

Wed May 9 12:10:55 EDT 2018

- Previous message (by thread): [\[python-committers\] PEP 572 at the Language Summit next week](#)
 - Next message (by thread): [\[python-committers\] Orphaned backports](#)
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-

Hi,

As announced last week, I publish the result of the poll I started on the *current* Chris Angelico's PEP 572 "Assignment Expressions":

<https://www.python.org/dev/peps/pep-0572/>

Results:

- * Like (+1): 3 (8%)
- * Dislike (-1): 29 (76%)
- * No opinion (0): 6 (16%)

Percents if you ignore no opinion:

- * Like (+1): 3 (9%)
- * Dislike (-1): 29 (91%)

Two people voted on a variant of the PEP, so I excluded from my results:

**TIM PETERS:
"THE CURRENT PROPOSAL WOULD
HAVE ALLOWED A MODEST BUT
CLEAR IMPROVEMENT IN QUITE A
FEW BITS OF CODE."**

BARRY WARSAW.

"SINCE IT CHANGES THE SYNTAX OF
THE LANGUAGE, PEOPLE TEND TO
FOCUS ON THAT WITHOUT
UNDERSTANDING THE DEEPER
SEMANTIC ISSUES."

**ŁUKASZ LANGA:
"DICTATORS SHOULD DICTATE"**

**GUIDO VAN ROSSUM:
HAD TO STOP READING THE THREADS
SO HE WOULDN'T "GO INSANE"**

PEP 572: Acceptance by gvanr x

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GitHub, Inc. [US] | https://github.com/python-peps/pull/735/files

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PEP 572: Acceptance #735

Merged gvanrossum merged 3 commits into master from pep-572-acceptance 28 days ago

Conversation 8 Commits 3 Checks 0 Files changed 1

Changes from all commits ▾ Jump to... ▾ +5 -11

Diff settings Review changes

16 pep-0572.rst

		@@ -2,13 +2,14 @@ PEP: 572
2	2	Title: Assignment Expressions
3	3	Author: Chris Angelico <rosuav@gmail.com>, Tim Peters <tim.peters@gmail.com>, Guido van Rossum <guido@python.org>
5	5	- Status: Draft
5	5	+ Status: Accepted
6	6	Type: Standards Track
7	7	Content-Type: text/x-rst
8	8	Created: 28-Feb-2018
9	9	Python-Version: 3.8
10	10	Post-History: 28-Feb-2018, 02-Mar-2018, 23-Mar-2018, 04-Apr-2018, 17-Apr-2018,
11	11	25-Apr-2018, 09-Jul-2018
12	12	+ Resolution: https://mail.python.org/pipermail/python-dev/2018-July/154601.html
12	13	

[python-committers] Transfer of power

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[python-committers] Transfer of power

Guido van Rossum [guido at python.org](mailto:guido@python.org)

Thu Jul 12 10:57:35 EDT 2018

- Previous message (by thread): [\[python-committers\] A different way to focus discussions](#)
- Next message (by thread): [\[python-committers\] Transfer of power](#)
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Now that PEP 572 is done, I don't ever want to have to fight so hard for a PEP and find that so many people despise my decisions.

I would like to remove myself entirely from the decision process. I'll still be there for a while as an ordinary core dev, and I'll still be available to mentor people -- possibly more available. But I'm basically giving myself a permanent vacation from being BDFL, and you all will be on your own.

After all that's eventually going to happen regardless -- there's still that bus lurking around the corner, and I'm not getting younger... (I'll spare you the list of medical issues.)

I am not going to appoint a successor.

So what are you all going to do? Create a democracy? Anarchy? A dictatorship? A federation?

QUESTIONS

**WHAT DOES THIS
MEAN FOR PYTHON?**

**IT'S GOING
TO BE OK**

**WILL THIS BECOME
PART OF PYTHON?**

**PROBABLY
(IN 3.8)**

BUT I DON'T LIKE IT!

**THEN DON'T
WRITE IT!**

**IS GUIDO
COMING BACK?**

PROBABLY NOT

**WILL THIS
HAPPEN AGAIN?**

PROBABLY NOT



THANKS!