

pandoc-source-exec examples

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Preamble

Compile this document as follows:

```
pandoc --filter pandoc-source-exec \  
      --highlight-style tango \  
      -o example.pdf example.md
```

Usage

To execute code, add the class `exec` to your code:

```
```{ .python .exec }  
print('Hello World')
```
```

This results in:

```
print('Hello World')
```

Output:

```
Hello World
```

You can also supply the interpreter keys in the `runas` argument:

```
```{ .python .exec runas=python2 }  
print 'Hello World'
```
```

Or you can simply make up your own command:

```
```{ .exec cmd='/usr/bin/env python2 -c' }  
print 'Hello World'
```
```

Examples

No execution

```
a = 3 + 5
print(a)
```

Simple execution

Using: { .python .exec }

```
print('Hello World')
```

Output:

```
Hello World
```

Advanced execution

Known interpreter { .python .exec runas=python2 }:

```
print 'Hello World'
```

Output:

```
Hello World
```

Custom interpreter { .exec cmd='/usr/bin/env python2 -c' }:

```
print 'Hello World'
```

Output:

```
Hello World
```

Or ruby { .exec cmd='/usr/bin/env ruby -e' }:

```
puts 'Hello World!'
```

Output:

```
Hello World!
```

Errors

stderr is piped to stdout, so that errors can also be shown.

Using: { .python .exec }

```
print('Hello
```

Output:

```
File "<string>", line 1
  print('Hello
    ^
SyntaxError: EOL while scanning string literal
```

File execution

Using: { `.python .exec file='example.py' }`

File: example.py

```
import math

a = 3
b = 4
c = math.sqrt(a ** 2 + b ** 2)

print(c)
```

Output:

```
5.0
```

File without execution

Using: { `.python file='example.py' }`

File: example.py

```
import math

a = 3
b = 4
c = math.sqrt(a ** 2 + b ** 2)

print(c)
```

Interactive execution

Using: { `.python .exec .interactive }`

Interactive code will also be detected if the code block starts with `>>>`.

Note: This only works with python code so far, a custom command is not possible.

```
>>> a = 5 + 4
>>> 9 == a
True
>>> def h():
...     print('Hello World')
...
>>> h()
Hello World
```

API

The following keywords (classes denoted by a prefixed `.`, attributes with a following `=`) exist:

- cmd=** Allows to specify a custom interpreter command to execute the code. For example, to run ruby code one could use `cmd='ruby -e'`.
- .exec** Executes the following code cell according to the specified language. By default, it is only **echoed**.
- file=** Replaces the code cell with content from the specified file. This searches recursively for files matching the pattern, so if you use `file=code.py` but your code is in fact in `src/code.py` it will still be found. Specify the full path to avoid ambiguities.
- .interactive** Executes the code as if it was inserted into an interactive session, returns results inline into the original code block. Only works for python code so far.
- runas=** Executes code with the specified executor, e.g. `python2` to distinguish it from `python` which defaults to `python3`. Can be overwritten by specifying `cmd=`.
- .hideimports** Hides import statements in output. Currently only supported for Python.

Supported languages

To be used with `runas=`, if it does not already match the language identifier:

- default
- perl
- php
- python
- python2
- python3
- ruby

default

default

Output:

```
default
```

perl

```
print 'perl';
```

Output:

```
perl
```

php

```
echo 'php';
```

Output:

```
php
```

python

```
print('python')
```

Output:

```
python
```

python2

```
print 'runas=python2'
```

Output:

```
runas=python2
```

python3

```
print('runas=python3')
```

Output:

```
runas=python3
```

ruby

```
puts 'ruby'
```

Output:

```
ruby
```

Removing imports

Removing imports affects only the final code rendering, not the execution.

```
```{ .python .exec .hideimports }  
import statistics

print(statistics.mean([1, 2, 3]))
```
```

Results in

```
print(statistics.mean([1, 2, 3]))
```

Output:

```
2
```

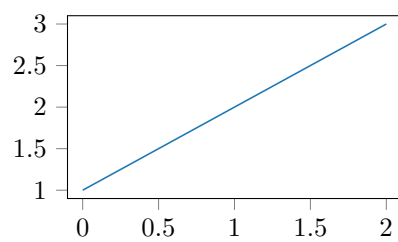
Plotting matplotlib

```
```{ .python .exec .plt }  
import matplotlib.pyplot as plt

plt.plot([1, 2, 3])
```
```

```
import matplotlib.pyplot as plt  
  
plt.plot([1, 2, 3])
```

Output:



Additionally `width=6cm` and `height=5cm` can be used. As a shortcut, one can instead use `plt=6cm,5cm`.