
Okapi3

Release 10/2021

Itk people

Oct 17, 2021

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Hi, this is an example notebook to test itk notebooks Content ——


```
[1]: import importlib
    from distutils.version import LooseVersion

    # check that all packages are installed (see requirements.txt file)
    required_packages = {'jupyter',
                        'numpy',
                        'matplotlib',
                        'ipywidgets',
                        'scipy',
                        'pandas',
                        'numba',
                        'multiprocess',
                        'SimpleITK'
                        }

    problem_packages = list()
    # Iterate over the required packages: If the package is not installed
    # ignore the exception.
    for package in required_packages:
        try:
            p = importlib.import_module(package)
        except ImportError:
            problem_packages.append(package)

    if len(problem_packages) == 0:
        print('All is well.')
    else:
        print('The following packages are required but not installed: ' \
              + ', '.join(problem_packages))
```

All is well.

```
[2]: import matplotlib.pyplot as plt
    import SimpleITK as sitk
```

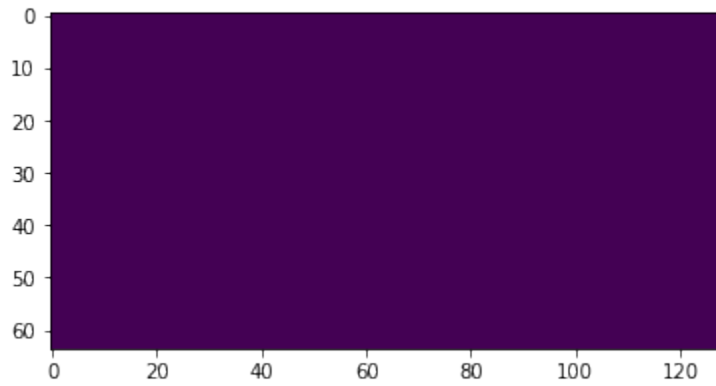
```
[3]: image = sitk.Image(256, 128, 64, sitk.sitkInt16)
    image_2D = sitk.Image(64, 64, sitk.sitkFloat32)
    image_2D = sitk.Image([32,32], sitk.sitkUInt32)
    image_RGB = sitk.Image([128,128], sitk.sitkVectorUInt8, 3)
    nda = sitk.GetArrayFromImage(image)
```

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```
plt.imshow(nda[:, :, 0])
```

```
[3]: <matplotlib.image.AxesImage at 0x7f6042bb3400>
```




```
[1]: import matplotlib.pyplot as plt
import SimpleITK as sitk
```

```
[2]: image = sitk.Image(256, 128, 64, sitk.sitkInt16)
image_2D = sitk.Image(64, 64, sitk.sitkFloat32)
image_2D = sitk.Image([32,32], sitk.sitkUInt32)
image_RGB = sitk.Image([128,128], sitk.sitkVectorUInt8, 3)
```

```
[3]: nda = sitk.GetArrayFromImage(image)
print(nda)
```

```
[[[0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  ...
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]]

[[[0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  ...
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]]

[[[0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  ...
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]
  [0 0 0 ... 0 0 0]]

...

[[[0 0 0 ... 0 0 0]
```

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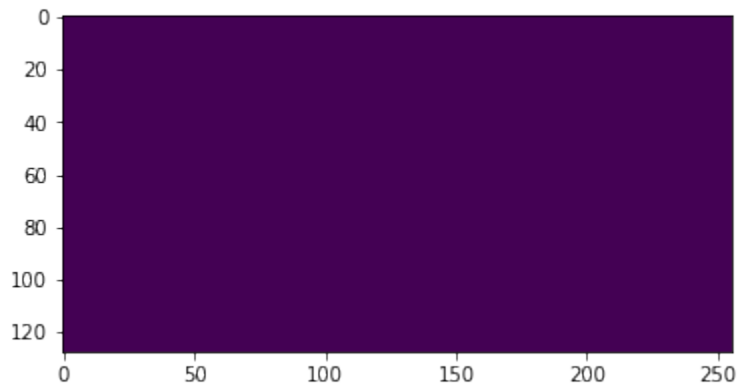
```
[0 0 0 ... 0 0 0]
[0 0 0 ... 0 0 0]
...
[0 0 0 ... 0 0 0]
[0 0 0 ... 0 0 0]
[0 0 0 ... 0 0 0]

[[0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 ...
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]]

[[0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 ...
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]]]
```

```
[4]: plt.imshow(nda[0,:,:])
```

```
[4]: <matplotlib.image.AxesImage at 0x7f21711fbcd0>
```



Repository on GitHub: <https://github.com/kolibril13/okapi3>