pyscreenshot Documentation

Release 0.2.2

ponty

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pyscreenshot

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> **PDF** pyscreenshot.pdf

Contents:

The `pyscreenshot` module can be used to copy the contents of the screen to a PIL image memory or file. Replacement for the ImageGrab Module, which works on Windows only.

Links:

- home: https://github.com/ponty/pyscreenshot

- documentation: http://ponty.github.com/pyscreenshot

Features:

- Crossplatform wrapper

- Capturing the whole desktop

- Capturing an area

- saving to file or PIL image memory

- some backends are based on this discussion: http://stackoverflow.com/questions/69645/take-a-screenshot-via-a-python-script-linux

- **Plugin based, it has wrappers for various backends:**

    - scrot

    - ImageMagick

    - PyGTK

    - PIL (only on windows)

    - PyQt4

    - wxPython

Known problems:

- not implemented: Capturing an active window

- different backends generate slightly different images from the same desktop, this should be investigated

- ImageMagick creates blackbox on some systems

- PyGTK backend does not check $DISPLAY -> not working with Xvfb

- slow: 0.2s - 0.7s

Similar projects:

- http://sourceforge.net/projects/gtkshots/

- http://pypi.python.org/pypi/autopy

USAGE

Example:

```python
import pyscreenshot as ImageGrab

# fullscreen
im=ImageGrab.grab()
im.show()

# part of the screen
im=ImageGrab.grab(bbox=(10,10,500,500))
im.show()

# to file
ImageGrab.grab_to_file('im.png')
```

INSTALLATION

2.1 General

- install pip
- install PIL
- install at least one backend
- install the program:

```
# as root
pip install pyscreenshot
```

2.2 Ubuntu

```
# one or more
sudo apt-get install scrot
sudo apt-get install imagemagick
sudo apt-get install python-gtk2
sudo apt-get install python-qt4
sudo apt-get install python-wxversion

# Python Imaging Library (required)
sudo apt-get install python-imaging

sudo apt-get install python-pip
sudo pip install pyscreenshot
```

2.3 Uninstall

```
# as root
pip uninstall pyscreenshot
```

EXAMPLES

pyscreenshot/examples/show.py:

```python
from entrypoint2 import entrypoint
from pyscreenshot import grab
from pyscreenshot.backendloader import BackendLoader


@entrypoint
def show(backend='auto'):
    if backend!='auto':
        BackendLoader().force(backend)
    im = grab(bbox=(100, 200, 300, 400))
    im.show()
```

to start:

```
python -m pyscreenshot.examples.show
```

pyscreenshot/examples/showall.py:

```python
from pyscreenshot.backendloader import BackendLoader
from pyscreenshot.loader import PluginLoaderError
import pyscreenshot as ImageGrab
import time
from entrypoint2 import entrypoint


@entrypoint
def show():
    im=[]

    backends = BackendLoader().all_names
    for x in backends:
        BackendLoader().force(x)
        try:
            print 'grabbing by '+x
            im.append(ImageGrab.grab(bbox=(100,200,300,400)))
        except PluginLoaderError as e:
            print e
    print im
    for x in im:
        x.show()
        time.sleep(1)
```

to start:

```
python -m pyscreenshot.examples.showall
```

BACKEND PERFORMANCE

```
$ python -m pyscreenshot.check.speedtest

n=10 , to_file: True , bounding box: None
------------------------------------------------------
imagemagick             6.5 sec
pygtk                   2.8 sec
pil                     Forced backend not found, or cannot be loaded:pil
pyqt                    2.6 sec
wx                      2.3 sec
scrot                   2.2 sec

n=10 , to_file: False , bounding box: None
------------------------------------------------------
imagemagick             6.5 sec
pygtk                   2.3 sec
pil                     Forced backend not found, or cannot be loaded:pil
pyqt                    2.1 sec
wx                      0.4 sec
scrot                   2.0 sec

n=10 , to_file: False , bounding box: (10, 10, 20, 20)
------------------------------------------------------
imagemagick             2.3 sec
pygtk                   2.8 sec
pil                     Forced backend not found, or cannot be loaded:pil
pyqt                    2.6 sec
wx                      0.5 sec
scrot                   2.6 sec
```

Test system versions:

```
$ python -m pyscreenshot.check.versions
pyscreenshot            0.2.2
imagemagick             6.6.0
pygtk                   2.28.6
pil                     missing
pyqt                    not implemented
wx                      2.8.11.0
scrot                   0.8
```

COMMAND LINE HELP

```
$ python -m pyscreenshot.examples.show --help
usage: show.py [-h] [-b BACKEND] [--debug]

optional arguments:
  -h, --help            show this help message and exit
  -b BACKEND, --backend BACKEND
  --debug               set logging level to DEBUG

$ python -m pyscreenshot.examples.showall --help
usage: showall.py [-h] [--debug]

optional arguments:
  -h, --help  show this help message and exit
  --debug     set logging level to DEBUG

$ python -m pyscreenshot.check.speedtest --help
usage: speedtest.py [-h] [--debug]

optional arguments:
  -h, --help  show this help message and exit
  --debug     set logging level to DEBUG

$ python -m pyscreenshot.check.versions --help
usage: versions.py [-h] [--debug]

optional arguments:
  -h, --help  show this help message and exit
  --debug     set logging level to DEBUG
```

API

pyscreenshot.**grab**(*bbox=None*)
Copy the contents of the screen to PIL image memory.

>**Parameters** **bbox** – optional bounding box

pyscreenshot.**grab_to_file**(*filename*)
Copy the contents of the screen to a file.

>**Parameters** **filename** – file for saving

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