sphinxcontrib-programscreenshot Documentation

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ponty

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CONTENTS

sphinxcontrib-programscreenshot

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CHAPTER

ONE

ABOUT

This Sphinx 1.0 extension executes programs during the build step and includes their screenshot into the documentation. GUI version of the sphinxcontrib.programoutput extension.

home: https://github.com/ponty/sphinxcontrib-programscreenshot

documentation: http://ponty.github.com/sphinxcontrib-programscreenshot

CHAPTER

TWO

BASIC USAGE

```
.. program-screenshot:: xmessage hello
    :prompt:
```

CHAPTER

THREE

HOW IT WORKS

1. start Xvfb headless X server using pyvirtualdisplay
2. redirect program display to Xvfb server by setting $DISPLAY variable.
3. wait some seconds
4. take screenshot by pyscreenshot which needs scrot.
5. use `.. image::` directive to display image

CHAPTER

FOUR

INSTALLATION

4.1 General

- install Xvfb and Xephyr
- install PIL
- install scrot
- install setuptools or pip
- install the program:

if you have setuptools installed:

```
# as root
easy_install sphinxcontrib-programscreenshot
```

if you have pip installed:

```
# as root
pip install sphinxcontrib-programscreenshot
```

4.2 Ubuntu

```
sudo apt-get install python-setuptools
sudo apt-get install scrot
sudo apt-get install xvfb
sudo apt-get install xserver-xephyr
sudo apt-get install python-imaging
sudo easy_install sphinxcontrib-programscreenshot
```

4.3 Uninstall

```
# as root
pip uninstall sphinxcontrib-programscreenshot
```

CHAPTER

FIVE

USAGE

5.1 Configuration

Add `sphinxcontrib.programscreenshot` to `extensions` list in `conf.py`:

```
extensions = [
              'sphinxcontrib.programscreenshot',
              ]
```

5.2 Basic

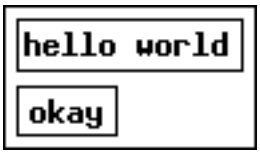
The main directive is *program-screenshot*:

```
.. directive:: program-screenshot
```

This directive accepts a single string as argument, which is the command to execute. By default, this command string is split using the `shlex` modules, which mostly works like common Unix shells like `bash` or `zsh`:

```
.. program-screenshot:: xmessage hello world
```

The above snippet would render like this:



5.3 shell extension

Special shell features like parameter expansion are not supported:

```
.. program-screenshot:: xmessage "$USER"
```

The above snippet would render like this:

5.4 waiting

The program is waiting until something is displayed (test window is displayed after 3 sec):

```
.. program-screenshot:: python tests/tkmsgbox.py 3
      :prompt:
      :stdout:
      :stderr:
```

The above snippet would render like this:

```
$ python tests/tkmsgbox.py 3
[stdout] before messagebox
[stderr] before messagebox
```

If nothing happens, after timeout (:timeout:) assertion is raised.

5.5 Options

5.5.1 timeout

If nothing happens, after timeout (default 12 sec) exception is raised, you can change it with this option:

```
.. program-screenshot:: xmessage timeout
      :timeout:  120
```

5.5.2 prompt

Using the option `prompt` you can include the command, that produced the output:

```
.. program-screenshot:: xmessage prompt
      :prompt:
```

The above snippet would render like this:

```
$ xmessage prompt
```

5.5.3 stdout

Use option `stdout` to include anything from the standard output stream of the invoked program:

```
.. program-screenshot:: python tests/tkmsgbox.py 0
      :stdout:
```

The above snippet would render like this:

```
[stdout] before messagebox
```

5.5.4 stderr

Use option `stderr` to include anything from the standard error stream of the invoked program:

```
.. program-screenshot:: python tests/tkmsgbox.py 0
      :stderr:
```

The above snippet would render like this:

```
[stderr] before messagebox
```

5.5.5 wait

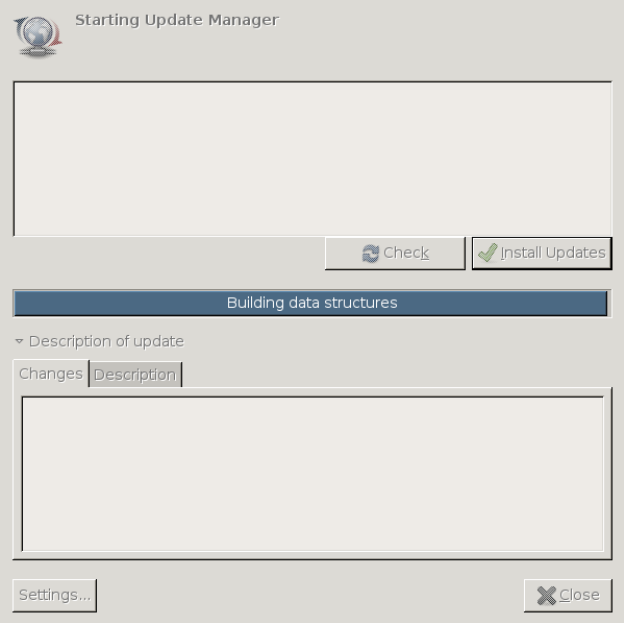
Use `wait` to wait at least N seconds after first window is displayed. This can be used to skip splash or loading screen.

`update-manager` is loading data by start (without `wait`):

```
.. program-screenshot:: update-manager
     :prompt:
     :scale: 50 %
```

The above snippet would render like this:

```
$ update-manager
```

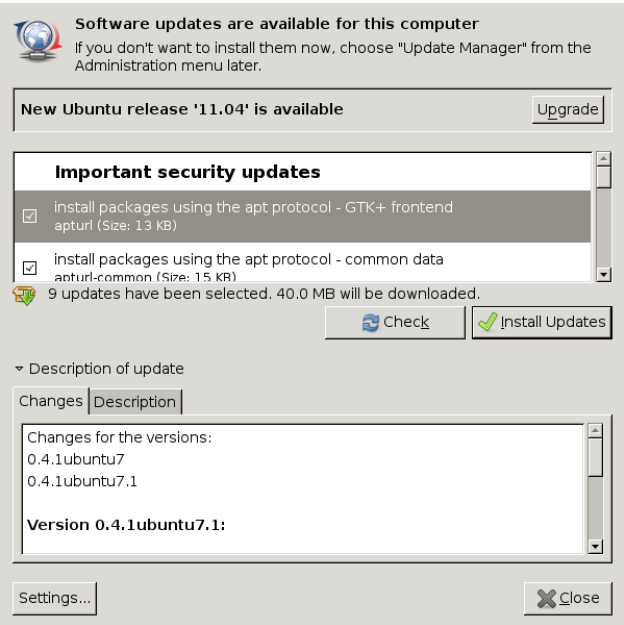


`update-manager` after loading data (with `wait`):

```
.. program-screenshot:: update-manager
     :prompt:
     :scale: 50 %
     :wait: 5
```

The above snippet would render like this:

```
$ update-manager
```

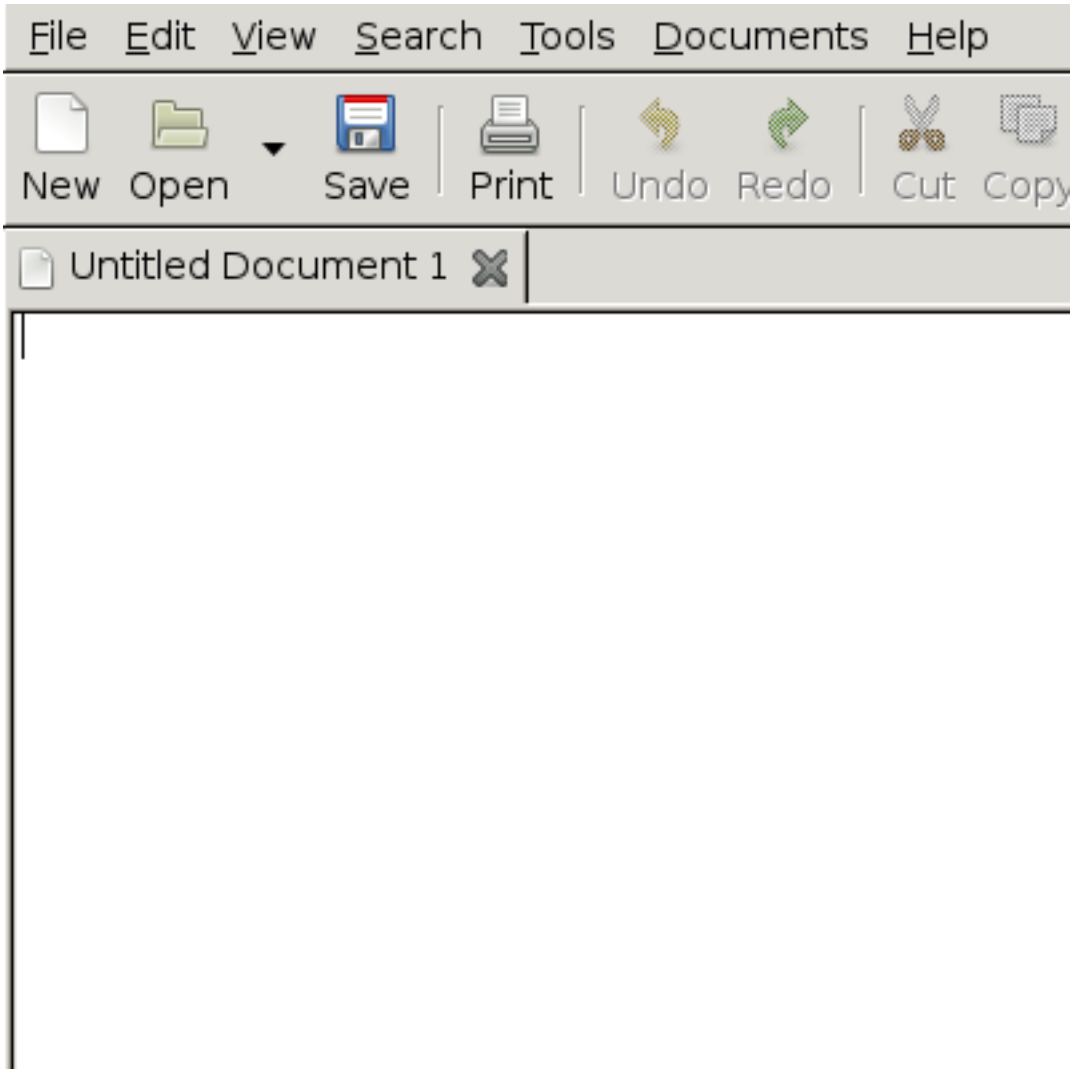


5.5.6 screen

Using the option `screen` you can set the screen size, default is 1024x768:

```
.. program-screenshot:: gedit
      :screen:   400x400
```

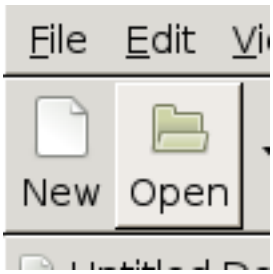
The above snippet would render like this:



Other resolution:

```
.. program-screenshot:: gedit
      :screen:   100x100
```

The above snippet would render like this:



5.6 Image options

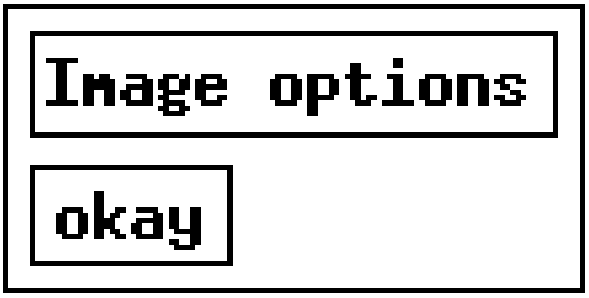
Same as in http://docutils.sourceforge.net/docs/ref/rst/directives.html#image

5.6.1 scale, alt

Example:

```
.. program-screenshot:: xmessage Image options
     :scale: 200 %
     :alt: alternate text
```

The above snippet would render like this:

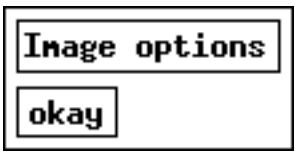


5.6.2 height, width

Example:

```
.. program-screenshot:: xmessage Image options
     :height: 100px
     :width:  100 px
```

The above snippet would render like this:



5.6.3 align

Example:

```
.. program-screenshot:: xmessage align
     :align: right
```

The above snippet would render like this:

CHAPTER

SIX

TODO

- option `shell` like in programoutput
- option `color-depth` (mono,8,16,24)
- option `ellipsis` like in programoutput
- configuration `programoutput_prompt_template` like in programoutput
- configuration `programoutput_use_ansi` like in programoutput

CHAPTER

SEVEN

DEVELOPMENT

7.1 Tools

1. setuptools
2. Paver
3. nose
4. ghp-import
5. pyflakes
6. pychecker
7. paved fork
8. Sphinx
9. sphinxcontrib-programscreenshot
10. sphinxcontrib-paverutils
11. `autorun` from sphinx-contrib (there is no simple method, you have to download/unpack/setup)

7.2 Install on ubuntu

```
sudo apt-get install python-setuptools
sudo apt-get install python-paver
sudo apt-get install python-nose
sudo easy_install ghp-import
sudo apt-get install pyflakes
sudo apt-get install pychecker
sudo easy_install https://github.com/ponty/paved/zipball/master
sudo apt-get install scrot
sudo apt-get install xvfb
sudo apt-get install xserver-xephyr
sudo apt-get install python-imaging
sudo apt-get install python-sphinx
sudo easy_install sphinxcontrib-programscreenshot
sudo easy_install sphinxcontrib-programoutput
sudo easy_install sphinxcontrib-paverutils
```

7.3 Tasks

Paver is used for task management, settings are saved in pavement.py. Sphinx is used to generate documentation.

print paver settings:

```
paver printoptions
```

clean generated files:

```
paver clean
```

generate documentation under *docs/_build/html*:

```
paver cog pdf html
```

upload documentation to github:

```
paver ghpages
```

run unit tests:

```
paver nose
#or
nosetests --verbose
```

check python code:

```
paver pyflakes
paver pychecker
```

generate python distribution:

```
paver sdist
```

upload python distribution to PyPI:

```
paver upload
```