



# Python & GUI

Hepo @2015



WeReader

一个地方，更少时间，更多阅读。



PinCap

收集亦是灵感的来源，好的工具才如此需要。



UnImage

版权不受限的好图，大屏使用者悦目之作（即将推出...）



ImageFork

风景、美食，令人惊艳的自动图形优化（即将推出...）



WiFile

通过WiFi传数据，需要更轻盈的体验（开发中...）

# evolution of the desk



1980



Photography by doughomen.hr  
Engineering by Anton Georgiev

user  
GUI  
interface

通过设计的手段，提高信息控制过程的操作密度（高效、用户体验）

QRSTox 同步配置

AccessKey:

SecretKey:

同步源目录:

空间名(Bucket):

确认(O) 取消(C)

继续(O) 后退(C)

QRSTox - 七牛云存储

```
2013/10/10 17:33:16 [INFO][qbox.us/qrsbox] sync.go:95: confDir: C:\Documents and Settings\mohuaifeng/.qrsbox
2013/10/10 17:33:17 [INFO][qbox.us/qrsync/v1] qrsync.go:194: Syncing C:\Documents and Settings\mohuaifeng\My Documents\Downloads => wolfgang ...
2013/10/10 17:33:17 [INFO][qbox.us/qrsync/v1] qrsync.go:202: Progress file: C:\Documents and Settings\mohuaifeng/.qrsbox\C1bTzJs0TFGN4e912uVYw==.log
2013/10/10 17:33:17 [INFO][qbox.us/qrsync/v1] qrsync.go:173: Sync done!
```

Cross Platform ?

# No Silver Bullet

cross platform  $\approx$  `print( 'hello world' )` in GUI way

# Platforms

different icons, different events, different systems, different ways to package app.



# Platforms



# Cross Platform is Not Important

set webkit as an example: MacGap & nw.js

# Why Python ?

have a frame first, but you need more packages.



powered by python



# My Solutions and Reasons

长.话.短.说

# Frame

Qt & PyQt. and why?

UI

Qt Creator, pyuic5. why not Qt Quick?



find\_replace\_dialog.ui [master] - Qt Creator

find\_replace\_dialog.ui

Filter

- Layouts
  - Vertical Layout
  - Horizontal Layout
  - Grid Layout
  - Form Layout
- Spacers
  - Horizontal Spacer
  - Vertical Spacer
- Buttons
  - Push Button
  - Tool Button
  - Radio Button
  - Check Box
  - Command... Button
  - Dialog Button Box
  - Button Box
- Item Views...del-Based)
  - List View
  - Tree View
  - Table View
  - Column View
- Item Widg...em-Based)
  - List Widget
  - Tree Widget
  - Table Widget
- Containers
  - Group Box
  - Scroll Area
  - Tool Box
  - Tab Widget

Find:

Replace with:

Info...

Options

- Case sensitive
- Whole words only
- Regular Expression

Next

Previous

Replace

Replace All

Object Class

Object	Class
FindReplace	QDialog
verticalLayout_5	QVBoxLayout
verticalLayout_2	QVBoxLayout
gridLayout_3	QGridLayout
label	QLabel
replaceLabel	QLabel
text_to_find	QLineEdit
text_to_replace	QLineEdit
horizontalLayout	HBoxLayout
groupBox_2	QGroupBox
case_checkbox	QCheckBox
regex_checkbox	QCheckBox
whole_checkbox	QCheckBox
error_lab	QLabel
verticalLayout	QVBoxLayout
find_button	QPushButton
pre_find_button	QPushButton
replace_all_button	QPushButton
replace_button	QPushButton

Filter

error\_lab : QLabel

Property	Value
QObject	
objectName	error_lab
QWidget	
enabled	<input checked="" type="checkbox"/>
geometry	[(1, 67), 475 x 32]
sizePolicy	[Preferred, Preferred, ...]
minimumSize	0 x 0
Width	0
Height	0
maximumSize	16777215 x 16777215
Width	16777215
Height	16777215
sizeIncrement	0 x 0
baseSize	0 x 0
palette	Inherited
font	A [Helvetica Neue ...]

Sender Signal Receiver Slot

Action Editor Signals & Slots Editor

Type to locate (⌘K) 1 Issues 2 Search Results 3 Application Output 4 Compile Output 5 QML/JS Console

# Package App

py2app

py2exe + Inno Setup

pyinstaller

# Patches & Utils

auto compiler, single instance limit, cross-platforms utils .etc

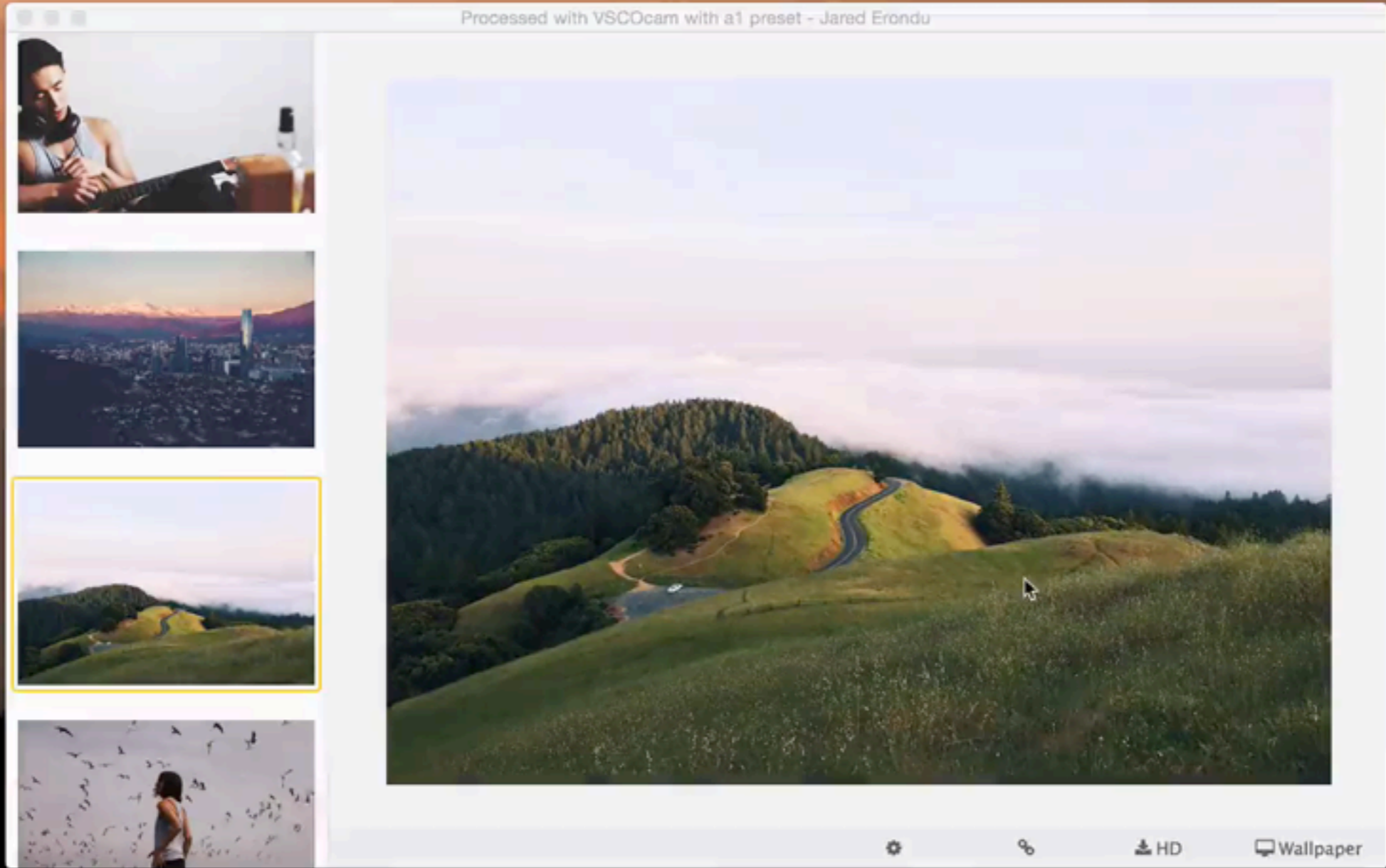
放 弃



Thinking in GUI way

# Events / Signals / Async

connected



1, downloading 2, tell process bar 3, when finished



# Layout & Style

---

date: 2015-01-10 19:55

status: public

title: title

---

## title 1

```python

from settings import \*

```

## hello

修改。

[TOC]

# 我们遇到的问题

几天前，FarBox.com的页面，已经取消了神奇的登录入口(<http://www.farbox.com/service/kuaipan/auth?offset=8>)，但仍保留

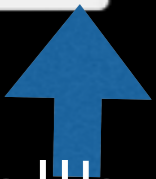
```
--  
date: 2015-01-10 19:55  
status: public  
title: title  
--  
# title 1  
python  
from settings import *  
...  
修改。  
[TOC]  
  
# 我们遇到的问题
```

```
styles = ""  
*{outline: none;}  
QTabWidget{border:none;}  
QTabWidget::tab-bar{  
    alignment: left;  
  
}  
QTabBar::tab{  
    background: transparent;  
    color: #666;  
    border-bottom: none;  
    padding: 6px 10px 4px 5px;  
    margin: 0 10px 0 5px;  
}  
  
QTabBar::tab:hover{  
    color: #333;  
}  
QTabBar::tab:selected{  
    color: #4296DB;  
    border-bottom: 1px solid #4296DB;  
}  
}
```

context  
resize  
scroll



scrollbar



Some Tech Details

packages to package

源码保护

- packages to zip
- merge zip into a .py file & auto imported
- convert the .py file into .c file by Cython
- .c file > python package by Cython.Distutils
- remove related pyc/pyo files in site-package.zip
- run in your GUI app: `import `package``

```
sys.mzip = {tmp_name: zip_content}

sys.path.insert(0, tmp_name)

sys.path_hooks.insert(0, mzipimport.zipimporter)

pks = import_all_from_zip(zip_f, run=True)

# clear

sys.mzip = {}

try:
    sys.path.remove(tmp_name)
except:
    pass

try:
    sys.path_hooks.remove(mzipimport.zipimporter)
except:
    pass
```

it works

on others' Macs



```
def fix_paths():
    pre(ROOT)

    # fix frameworks first

    framework_names = os.listdir('%s.app/Contents/Frameworks/'%APP_NAME)

    for framework_name in framework_names:
        if not framework_name.endswith('.framework'):
            continue

        name = framework_name[:-10]

        f_name = '%s.app/Contents/Frameworks/%s.framework/Versions/5/%s' % (APP_NAME, name, name)

        run_commands('install_name_tool -add_rpath @executable_path/../Frameworks %s' % f_name)

    # fix plugins

    for p in glob.glob('%s.app/Contents/Resources/plugins/**/*.dylib'%APP_NAME):
        run_commands('install_name_tool -add_rpath @executable_path/../Frameworks %s' % p)

    # fix pyqt

    for p in glob.glob('%s.app/Contents/Resources/lib/python2.7/lib-dynload/PyQt5/*.so'%APP_NAME):
        run_commands('install_name_tool -add_rpath @executable_path/../Frameworks %s' % p)
```

```
ssl_filepath = "%(app)s.app/Contents/Resources/lib/python2.7/lib-dynload/_ssl.so" % dvars
ssl_pyfile = '%(root)s/zrey/other/mac/ssl/ssl.pyod' % dvars
zip_path = '%s.app/Contents/Resources/lib/python2.7/site-packages.zip' % APP_NAME
if os.path.exists(ssl_filepath) and os.path.exists(ssl_pyfile) and getattr(settings, 'use_ssl', False):
    with open(ssl_pyfile, 'rb') as f:
        py_content = f.read()
        replace_file_in_zip(zip_path, 'ssl.pyo', py_content)
        replace_file_in_zip(zip_path, 'ssl.pyd', py_content)

    ssl_commands = """
    rm %(app)s.app/Contents/Resources/lib/python2.7/lib-dynload/_ssl.so
    cp %(root)s/zrey/other/mac/ssl/* %(app)s.app/Contents/Resources/lib/python2.7/lib-dynload
    """ % dvars
    run_commands(ssl_commands)|
```



请保持想象

think more . . .

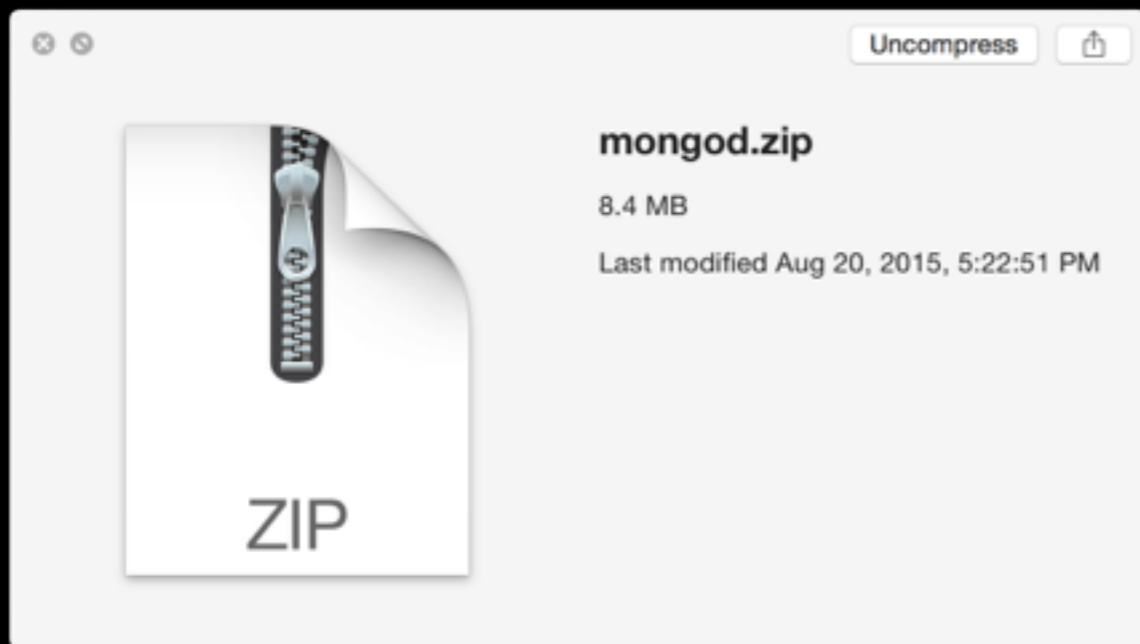
# Run Flask in GUI App

```
```python
def async_start_web_app(port_start=9981, gui_app=None, more_configs=None):
    if not port_start: # 未设置port的情况下
        port_start = 9981

    job = Thread(target=start_web_app, args=(port_start, gui_app, more_configs))
    job.start()

if start_web_server:
    self.web_app = web_app

    web_app.static_folder = join(resources_dir, 'static')
    web_app.template_folder = join(resources_dir, 'web_templates')
    async_start_web_app(default_web_server_port, gui_app=self.app)
...
```
```



Why not MongoDB?

Why not filesystem?

webp





Marketing



制作产品视频



WeReader

用更聪明的方式，获取资讯？

ScreenFlow + 单反 + 三脚架

# 关于版权

买授权、买素材、尊重但别用GPL的...

# App主页 & 销售平台

靠山吃山 FarBox ...

# WeReader v1.0.3.1

一个地方，更少时间，更多阅读。

公众号订阅仅是一个子功能，依赖于搜狗搜索。如异常，请及时升级新版 (除非没有办法情况下会宣布不可用)。

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VC版 ¥ 160





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# 关于客服

与你的用户保持一定的距离



Review

GUI, 更高效、体验更好

大家都能跨，那么跨平台就已经不重要了

一个成熟、持续维护的框架，以及自己积累的utils

GUI的思考方式：异步、关联、Layout .etc



GUI是一种设计边界的解放，要放肆想象

保护源码

Market: 需求产生利润，设计产生品牌

时间最宝贵

相信自己

相信Python