



PYTHON: FROM PROGRAMMER TO TAMER

Alessandro Pisa - 2013/07/03 - EuroPython 2013

ALESSANDRO PISA

SOFTWARE INTEGRATOR



REDTURTLE

agile.open.connected

alessandro.pisa@redturtle.it

<http://blog.redturtle.it>

@ale_pisa



HOW I MET PYTHON



IT WAS NICE TO PLAY FOOTBALL





BUT RAIN HAPPENS!

GIMME MORE FOOTBALL!



C64

COMMODORE 64

THE PERSONAL COMPUTER
WITH PROFESSIONAL POWER!

NEW

FROM COMMODORE

Advanced Color Graphics
Professional Sound and Music
64K Memory Plus* CPM Option
for your Business, Education
and Personal use!

64K
memory



 **commodore**
COMPUTER

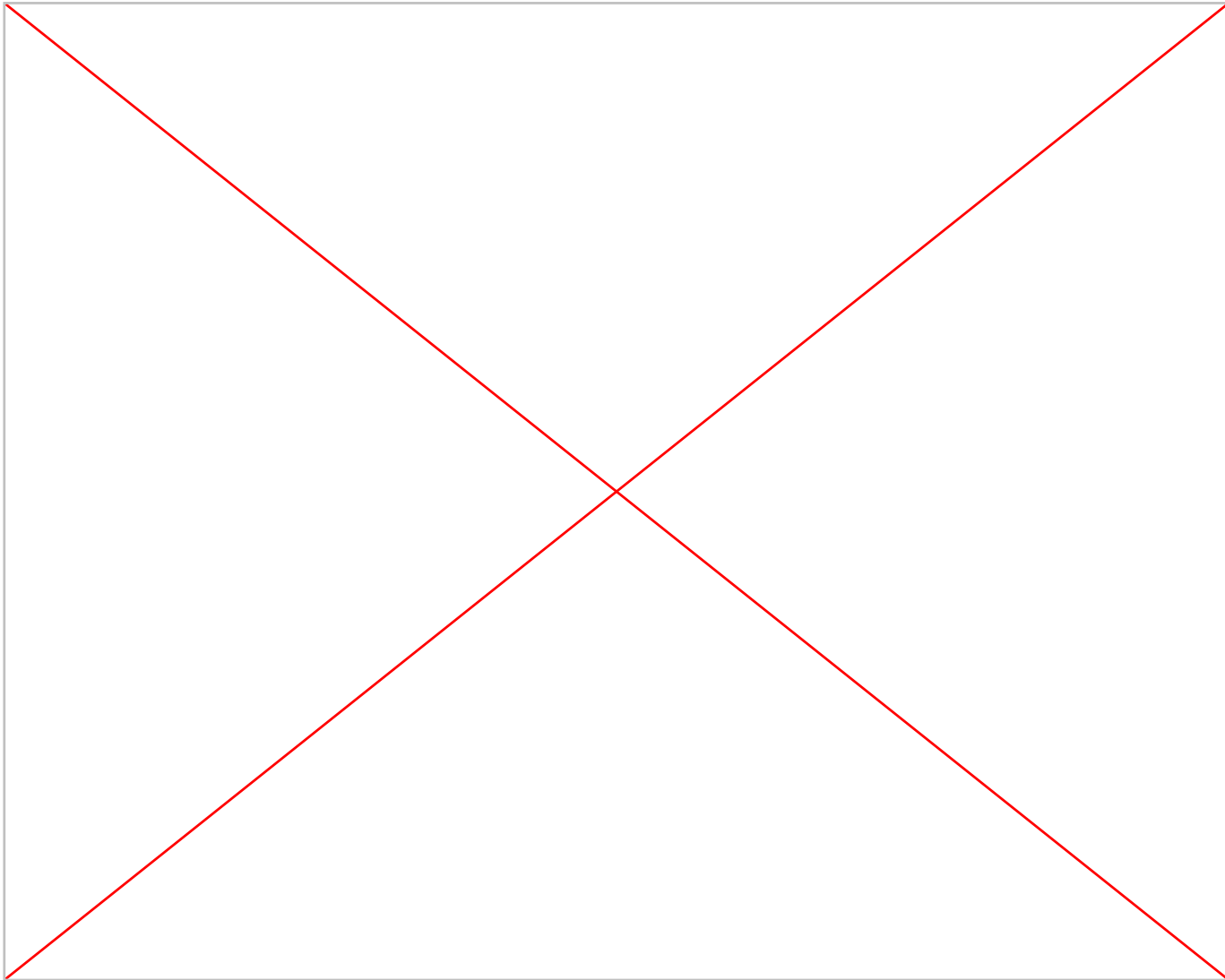
SOMETHING WENT WRONG WITH SANTA...



MSX2



***LET THE CHILDREN PLAY
(OTHERWISE BAD THINGS HAPPEN!)***



BLUE SCREEN OF DEATH...



...ALL THE TIME!

READY TO BECOME A NERD



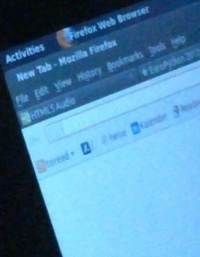
HARDWARE FAILURES



DON'T D

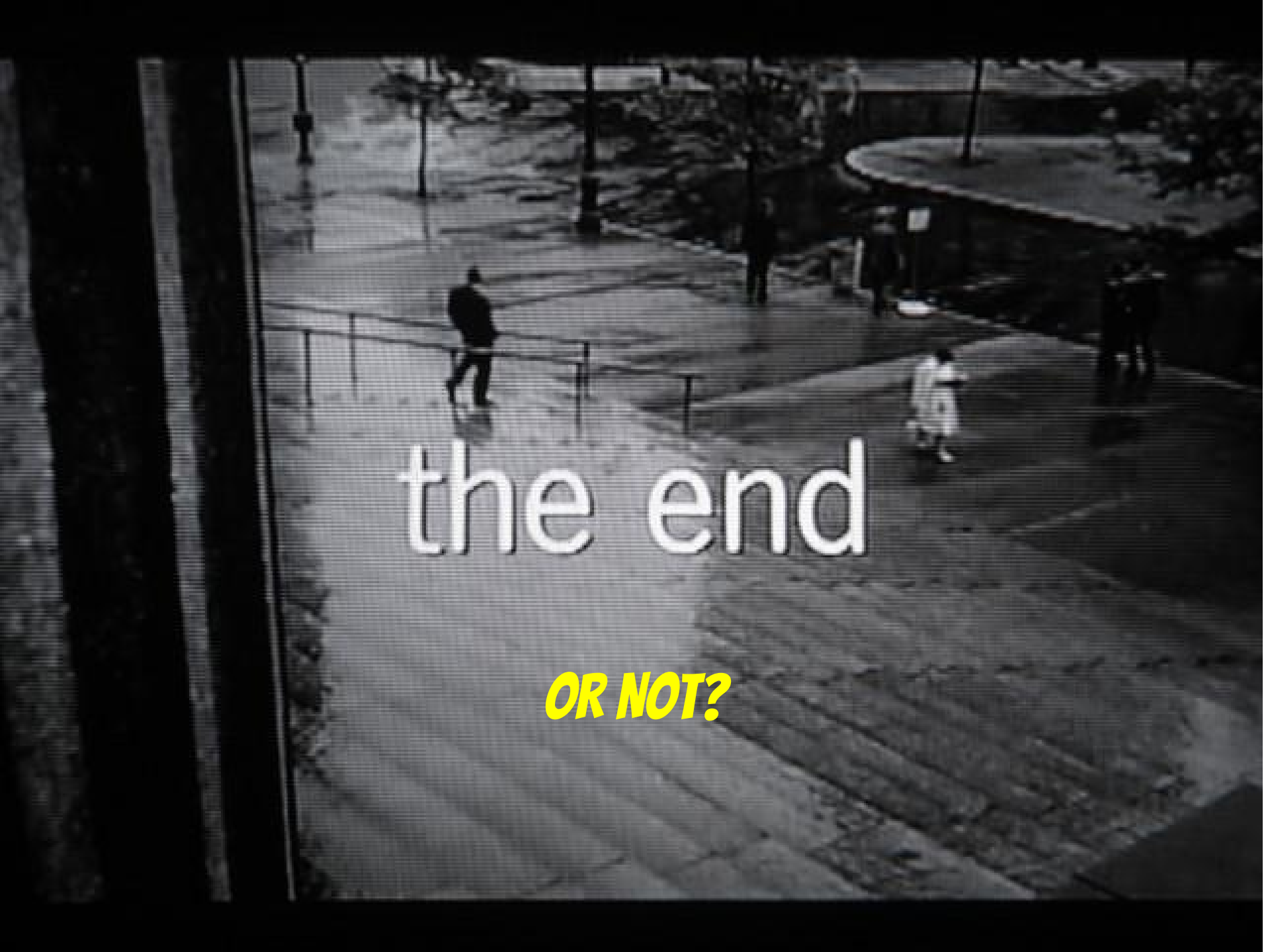
A LUCKY AFTERNOON!

*"It was nice to learn Python;
a nice afternoon"
(D. Knuth, Trento, 2012)*



READY TO GOOOOO!





the end

OR NOT?

QUESTION TIME





IT'S A HARD LIFE

ONLY THE STRONGEST WILL SURVIVE





RTFM!

BUT...

DOCUMENTATION IS SEARCHABLE AND BROWSABLE

<http://www.python.org/doc/>

	<i>Стр.</i>
Мужья актрисъ	3.
Басъ	7
Лѣтній теноръ	16
За кулисами	22
Мужъ царицы	34
Искусство сдѣлаться въ одинъ годъ знаменитымъ теноромъ	45
Гаснуція звѣзды	56
А. А. Разказовъ	66
Шалѣпинъ въ „Scala“	75
Послѣднее слово реализма	79
Оперетка	97
Лѣтній театръ	112
Судьи	125
Сальвини въ роли Отелло	141
Вій. Петербургское преданіе	153
„Монна Ванна“. Меттерлинка	162
Зеркало жизни	167

KAIZEN

DAILY HOMEWORK

<http://planet.python.org/>

<http://twitter.com>

<http://plus.google.com>

...

DON'T BE AFRAID OF ASKING HELP

Any pythonista around

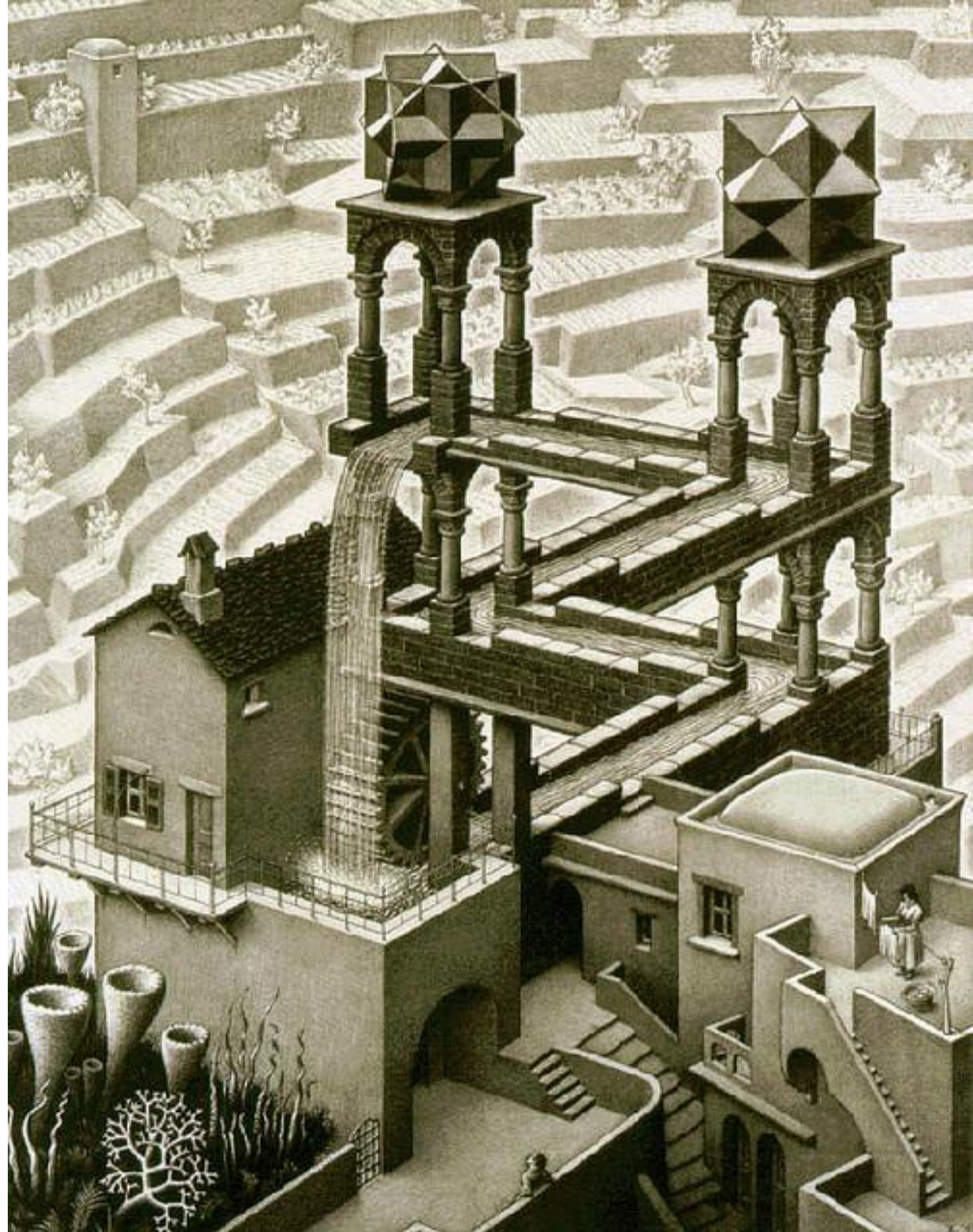
Mailing list

IRC

<http://stackoverflow.com>

<http://www.python.org/community>

**YOU ARE HERE, AND THIS IS
NICE!**



YOUR FRIEND PDB



GET IN TOUCH WITH YOUR GEARS

DEBUGGING

A nice writeup to start playing with PDB:

<http://pymotw.com/2/pdb/>

Search for PDB in PyPI: <https://pypi.python.org/pypi?%3Aaction=search&term=pdb+debugger&submit=search>

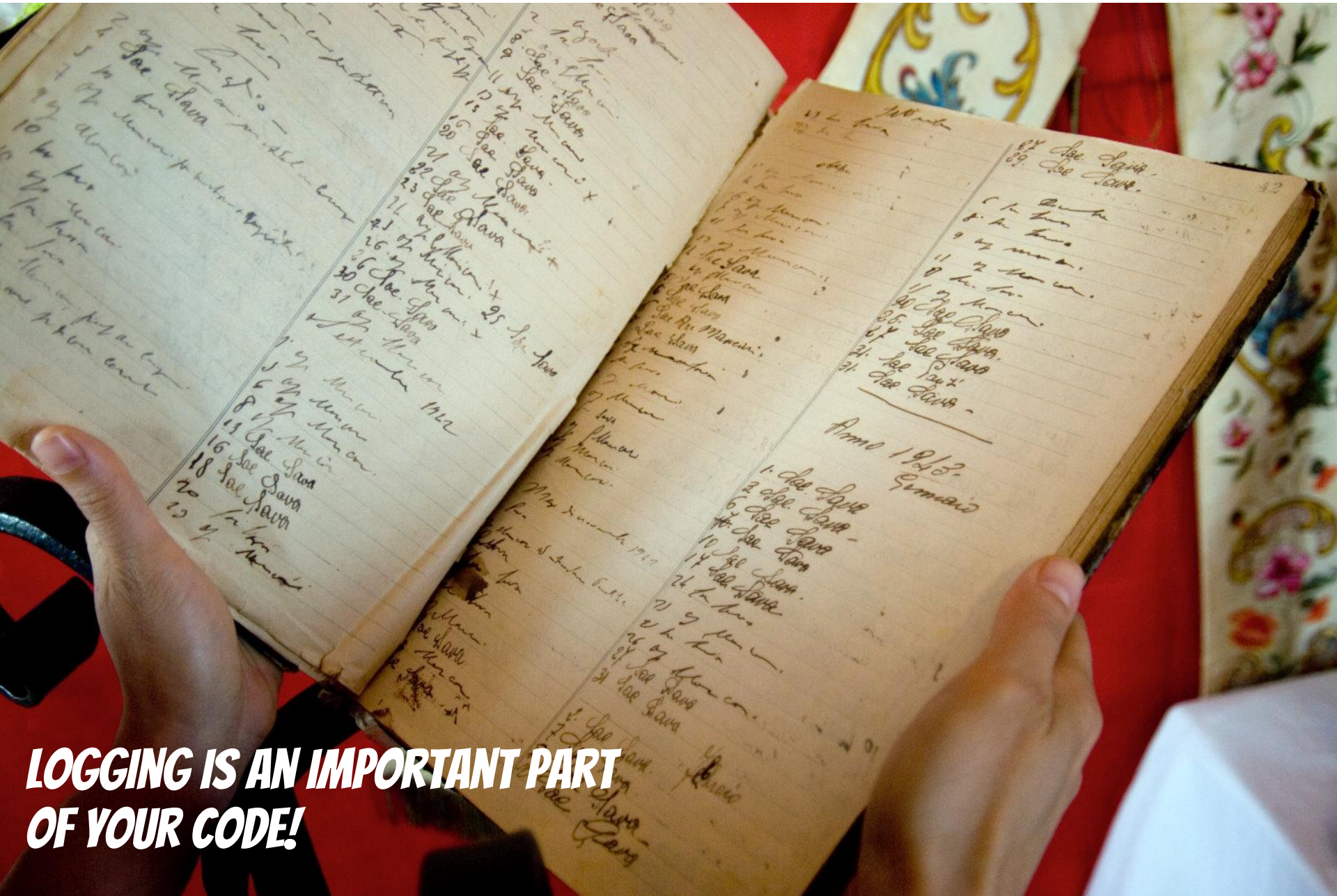
Search debugging tools for your app on PyPI!

NO MORE PRINT

BIG BROTHER IS WATCHING YOU

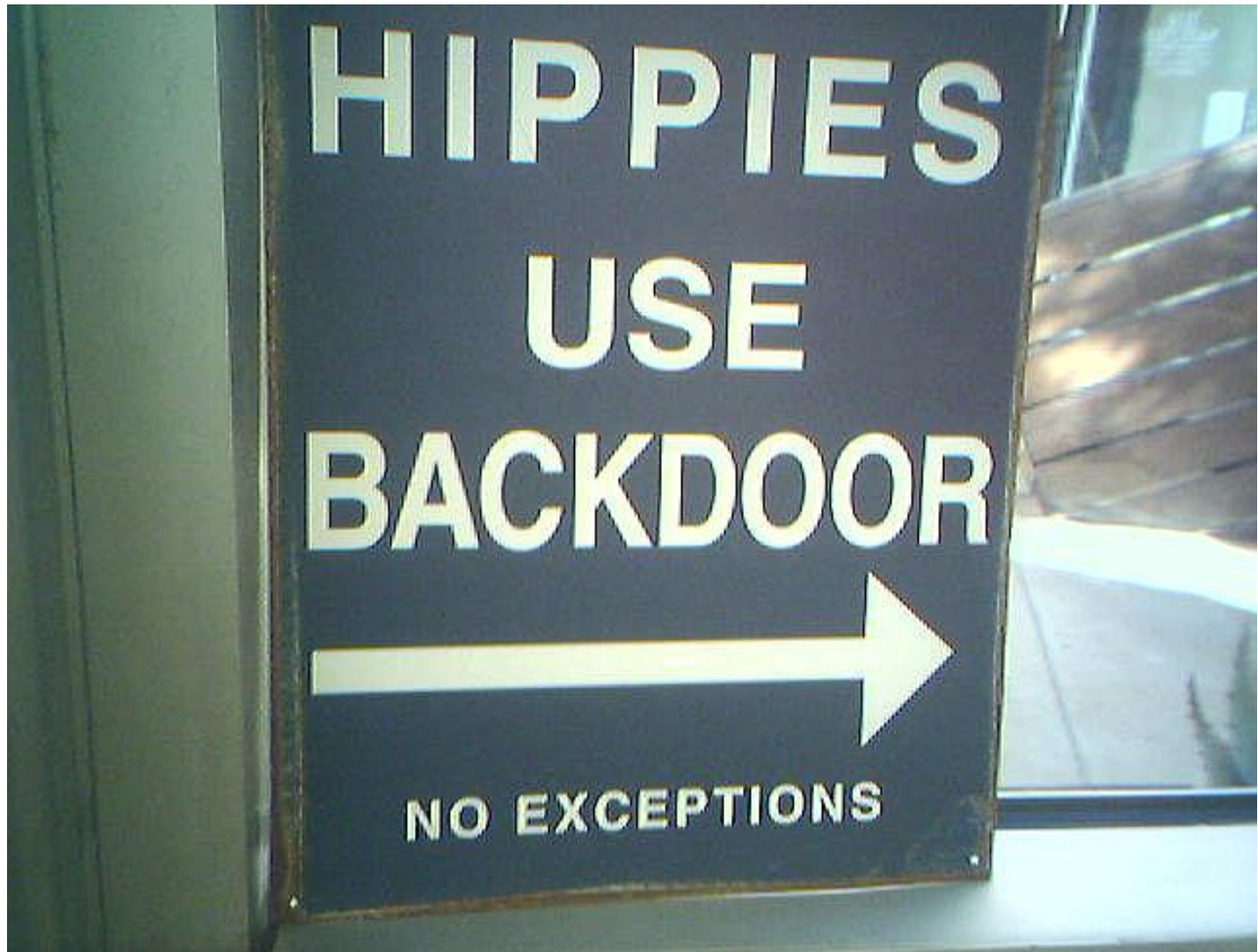


LOGGING



LOGGING IS AN IMPORTANT PART OF YOUR CODE!

EXCEPTIONS



EXCEPTIONS ARE AN IMPORTANT PART OF YOUR CODE!

HOW GOOD IS YOUR CODE?

```
class MyClass:  
    """A simple example class"""  
  
    def f(self):  
        return 'hello world'  
~  
~  
~  
~  
~  
  
1, 1      All
```

<https://pypi.python.org/pypi/pep8>

<https://pypi.python.org/pypi/pyflakes>

<https://pypi.python.org/pypi/PyChecker>

<https://pypi.python.org/pypi/pylint>

USE PYPI - THE CHEESESHOP

<https://pypi.python.org/pypi>

<https://testpypi.python.org/pypi>



VIRTUALENV



EARTH IS A MEMORY WORTH FIGHTING FOR

<https://pypi.python.org/pypi/virtualenv>

<http://docs.python-guide.org/en/latest/dev/virtualenvs.html>

<http://www.buildout.org/>

FORGET BACKUP COPIES



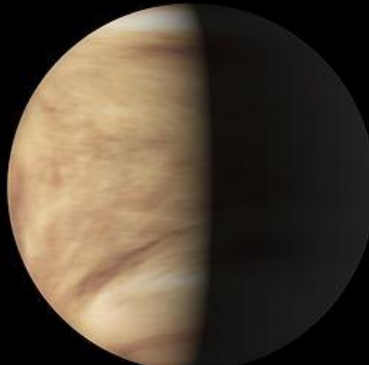
- bazaar (bzt)
- git (git)
- mercurial (hg)
- subversion (svn)

YOU CAN CHOOSE YOUR PLACE

Kepler-20e



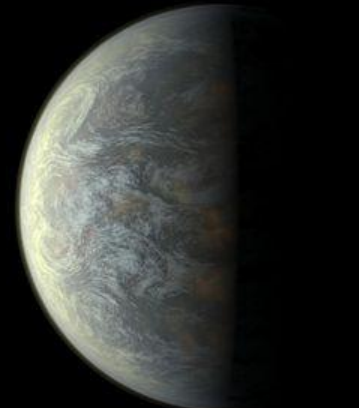
Venus



Earth



Kepler-20f



- - <http://bitbucket.org> (git, hg)
- - <http://code.google.com> (git, hg, svn)
- - <http://github.org> (git, svn)
- - <http://launchpad.net> (bzd)

NO WARRANTY ABOUT QUALITY OF LIFE...

PINK FLOYD

WEDNESDAY 30th MARCH 1977

at 7.30 pm Doors open 6.45 pm

Tickets £ 3.50 inc. VAT

New Bingley Hall, Stafford

No re-admission
for conditions see reverse
to be retained and produced
on demand.

No 6374

CITY HALL, HULL,
THURSDAY, 7th JANUARY, 1971
at 8 p.m.

**BLACK SABBATH
IN CONCERT**

NUMBER

D 17

PRICE

15/-

TICKETS!

ODEON THEATRE

BIRMINGHAM

KENNEDY STREET ENTERPRISES present
URIAH HEEP in Concert

EVENING 7-30 p.m.

THURSDAY
NOVEMBER

24

FRONT STALLS

£2.50

K26

NO TICKET EXCHANGED NOR MONEY REFUNDED
THIS PORTION TO BE RETAINED [P.T.O.]

Harvey Goldsmith by arrangement with
Sun Artistes present

In Concert

on **THURSDAY**
3rd NOVEMBER
1977 at 7.30 pm



plus Special Guest

DONOVAN

NEW BINGLEY
HALL
STAFFORD

TICKETS £3.50 including V.A.T.

No re-admission

A QUITE COMPREHENSIVE LIST

http://en.wikipedia.org/wiki/Comparison_of_issue-tracking_systems



A TICKET AGGREGATOR

<https://pypi.python.org/pypi/bugwarrior>

TESTS

System12 TestProgram
Loaded Software:TET2/VER.C

▲DISPLAY TEST

SWITCH TEST

SOUND TEST

JVS CABINET OPTIONS

GAME OPTIONS

COIN OPTIONS

A. D. S.

DATA CLEAR

EXIT & SAVE

BE AGILE!

To Do

USE
KANBAN

SUBSCRIBE
TO
KanbanTool

In Progress

LEARN
ABOUT
KANBAN

Done

GET SOME
STICKY
NOTES

MEASURE TWICE, CUT ONCE!

OHMS



BATT.

AC V

dB

0dB:1mW600Ω

AC V RANGE	ADD dB
250	14
500	20

2KΩ/VDC. AC
**FUSE & DIODE
PROTECTION**

4

+

SCALABILITY

WILL YOUR APPLICATION HANDLE...



***... MORE DATA?
... MORE USERS?
... MORE REQUEST?***

FAIL FAST!





THE TIMES I WAS BITTEN BY PYTHON!



degradation
scars benchmark scalability
virtualenv kanban
tests community defaults
failhg library kaizen
penelope penguin editor tips
videogame redmine pypi svn
THANKS
fabric agile coverage metrics
vim pep8 git games
Python buildout IDE trac
physics profiling bzip pip success
issuetracking football standard
logging exceptions
childhood

alessandro.pisa@redturtle.it
<http://blog.redturtle.it>
@ale_pisa



REDTURTLE
agile.open.connected

NERD WARS



- Use the **Source**, Luke
- The **Source** will be with you, always
- The **Source** is strong with this one
- May the **Source** be with you

<https://pypi.python.org/pypi/jedi>

SOME RANDOM TIPS

Use builtins!

all, any, filter, map, sum, zip, ...

<http://docs.python.org/3/library/functions.html>

Code like a Pythonista!

<http://python.net/~goodger/projects/pycon/2007/idiomatic/handout.html>

Context managers!

<http://www.python.org/dev/peps/pep-0343/>

USE COMPREHENSIONS

```
[ale@padme presentations]$python3
>>> [x for x in range(10)]
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
>>> (x for x in range(10))
<generator object <genexpr> at 0xb7187234>
>>> {x for x in range(10)}
{0, 1, 2, 3, 4, 5, 6, 7, 8, 9}
>>> {x:x for x in range(10)}
{0: 0, 1: 1, 2: 2, 3: 3, 4: 4, ..., 9: 9}
```

LOGGING

```
from logging import getLogger
logger = getLogger('Test logger')

def abs_ratio(x, y):
    try:
        return abs(x / y)
    except:
        logger.exception('Error abs_ratio: %r, %r' % (x, y))
    return -1
```

```
abs_ratio(1, None)
```

```
abs_ratio(1, 0)
```


LOGGING

```
Error abs_ratio: 1, None
```

```
Traceback (most recent call last):
```

```
File "logexample.py", line 6, in abs_ratio
```

```
    return abs(x / y)
```

```
TypeError: unsupported operand type(s) for /: 'int'  
and 'NoneType'
```

```
Error abs_ratio: 1, 0
```

```
Traceback (most recent call last):
```

```
File "logexample.py", line 6, in abs_ratio
```

```
    return abs(x / y)
```

```
ZeroDivisionError: division by zero
```

<http://pymotw.com/2/logging/>
<http://pymotw.com/2/exceptions/>