



Introduction to the GC3Pie training

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S3IT: Services and Support for Science IT

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Welcome!

What is GC3Pie?

GC3Pie is . . .

1. An *opinionated* Python framework for defining and running computational workflows;
2. A *rapid development toolkit* for running user applications on clusters and IaaS cloud resources;
3. The worst name ever given to a middleware piece. . .

As developers, you're mostly interested in this part.

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Who am I?

Systems administrator and programmer.

At UZH since 2010, first at GC3 then at S3IT.

Developer of GC3Pie since 2010.

and what about you?

Name ■ Affiliation ■ Interest in GC3Pie? ■ Programming languages? ■ Experience with command-line or terminal commands?

Prerequisites

This course assumes:

- ▶ some experience with the Python programming language, and especially with its object-oriented constructs.
- ▶ familiarity with the Linux command-line shell.

Some prior exposure to GC3Pie (e.g., by running scripts or attending other courses) is not required but definitely *helps*.

This is an *interactive* course!

We'd like the training to be
as interactive and informal as possible.

If you have a question, just ask – don't wait.

After the course is over,
you're very welcome to keep asking questions:

on the mailing-list:

gc3pie@googlegroups.com

or through the forum web interface:

<https://groups.google.com/d/forum/gc3pie>

Where to find the course material

These slides and all the example files can be downloaded from the course web page at:

<http://tinyurl.com/gc3pie-workflows-tutorial>

A step-by-step guide to setting up your workstation for the course is at:

<http://tinyurl.com/sciencecloud-course-setup>

Typographical conventions, I

The orange color is used for **clickable links**; this should make it easy to download sample files, etc.

Other **colors** and **backgrounds** are used for highlighting text in slides.

Typographical conventions, II

```
# This is how Python  
# code looks like
```

```
def hello(name):  
    print ("Hello, " + name)
```

Commentary text appears
on the right.

Typographical conventions, III

```
$ echo hello  
hello
```

```
>>> print 'hello'  
hello
```

Commands to type in the terminal shell are signalled by the '\$' prompt

Commands to type in the Python shell are signalled by the '>>>' prompt

GC3Pie documentation

The full GC3Pie documentation can be found at <http://gc3pie.readthedocs.io/>

This tutorial assumes you're running GC3Pie version 2.5 (i.e., currently the *master* branch on GitHub).