

# DEVELOPMENT ON QGIS WITH PYTHON

## ADVANCED PROFILE

### PEDAGOGICAL OBJECTIVES

Discover the world of QGIS development.

At the end of the course, participants will be able to :

- Launching PyQGIS base commands
- Running PYQGIS scripts in standalone mode
- Create geoprocessing and GUI plugins
- Create plugins with dynamic interfaces and optimized resource management



#### TARGET AUDIENCE

Geomaticians/Administrators



#### PREREQUISITES

Basic knowledge of the Python language  
Knowledge of QGIS



#### TEACHING RESOURCES

Digital training aids given to trainees



**DURATION** > 2 days (14h training)



**RATES** > On quotation



#### TERMS AND CONDITIONS

Face-to-face training only  
Dates to be defined



#### REGISTRATIONS

Email > [formation@arxit.com](mailto:formation@arxit.com)

Tel. > + 33 (0)5 46 34 07 71

For disabled access, please contact us

### CONTENTS

#### Day 1 :

- Introduction to PyQGIS, use of basic commands
- Building interfaces with Qt
- Links to useful documentation

#### Day 2 :

- Creation of plug-ins "geoprocessing" with GUI
- Using PyQGIS scripts in standalone mode
- Introduction to more advanced concepts :
  - Qt event management
  - Task/threading management (Qgs Task)

#### DAY 1

##### INTRODUCTION PYQGIS AND QT

A quick overview of Python syntax, concepts and development

Introducing Python in QGIS

PyQGIS documentation and use of basic commands

Introducing Qt Designer

Overview of useful plugins for developing with QGIS

#### DAY 2

##### PLUGIN DEVELOPMENT WITH PYQGIS

Organizing plugin files

Creation of a geoprocessing plugin

Standalone script execution

Introduction to Tasks and Threading for PyQGIS commands

Understanding and using events in Qt to build dynamic interfaces

Plugin creation, customization and execution with an advanced graphical interface

#### QUESTIONS AND ANSWERS

