

# Introducing Templates

*Templates is a new functionality in Qlucore Omics Explorer version 3.5, **which enables you to create scripts to control the software.***

*This fundamental addition of flexibility opens a **whole** new world of possibilities:*

Imagine that you could take one or several data sets and a your required (preferred) analysis steps and create a script which will perform exactly those steps in Qlucore Omics Explorer.

This is now a reality. Qlucore proudly presents the concept of Templates, which is part of the Qlucore Omics Explorer 3.5 release, which lets you do all of that, and more. This fundamental addition to the Qlucore Omics Explorer software suite opens up a whole new world of possibilities:

## NEW POSSIBILITIES

- Configure the preferred work-flows for easy access and cross organizational consistency
- Run the same analysis many times with only one key-press.
- Integrate Qlucore Omics Explorer (QOE) in existing work-flows and expand them.
- Write Templates to enable users in your organization to fetch data from internal databases.
- Generate data sets and variable lists from external sources and open them in Qlucore Omics Explorer without any need for the user to go through several import and configuration steps.
- Configure your favorite analysis setup for a quick start. After execution of a template the user can select to continue the analysis in Qlucore exactly as if all steps had been done through the normal user interface up to this point,

## THE BASICS

- Templates are written in Python. Anyone with basic programming skills can write new Templates.
- Templates are executed in Python and commands are communicated to QOE,
- Unexperienced users can start and execute Templates with one mouse click.
- The program is shipped with several example Templates for demonstration purposes.
- A Template can have a user interface, meaning that the Template can ask the user for input. A typical example is to ask the user for which annotation to use for a statistical test or which q-value cut-off to use.

## PRODUCTIVITY

- For new users: Get started with pre-configured templates for standard analysis,
- For learning: Use templates to explore the program and get to know all functionality.

- Save time by applying a suite of plots to a data set with only one key-press.
- Build your own “macros” with Templates. No more repetitive clicking to perform a series of tasks!

### **THE TECHNOLOGY**

- Python is automatically installed when QOE is installed. Version 3.5 of QluCore Omics Explorer ships with version 3.7.1 of Python.
- It is possible to redirect QOE to use a different Python installation, if needed.
- It is required that the pyzmq, the Python binding for ZeroMQ, is available in Python.
- Python and QluCore Omics Explorer communicate via TCP port 33369. The port can be changed.
- Functionality covered in this first version is all basic functionality for data processing, statistics, plot configuration, import and export (typically all functionality in the Sample tab, Variable tab, Data tab, Method tab and View tab, with the limitation that all settings in more plot settings are not yet available)

### **MORE INFORMATION**

More template documentation is available on [www.glucore.com/documentation](http://www.glucore.com/documentation) and as part of the Documentation and Help system in QOE.