
Introduction to the Python Interface to OrcaFlex Standard Training Course Syllabus

The course requires experience of using OrcaFlex, but no experience of Python is required. It is organised as a series of lectures and practical sessions typically held over one day (in-person) or two half-days (remote).

The course is intended to be 'hands on' with attendees writing Python code and then applying it with pre- and post-processing of OrcaFlex analyses.

Session 1 – Introduction

Introduction to automation, the OrcaFlex API, and why we use Python with OrcaFlex

Session 2 – Post-processing

- Accessing and post-processing of results
- Comparison with OrcaFlex GUI

Session 3 – Pre-processing

- Python data access
- Building of models
- Batch processing to create load cases
- Types of load case output files
- Comparison with OrcaFlex GUI

Session 4 – Practical exercises

- Putting into practice sessions 2 and 3

Session 5 – External functions

- Basics of external functions
- How they can be applied

Session 6 – Post-calculation actions and user defined results

- Using embedded Python to perform scripted actions within OrcaFlex
- Creation of custom results accessible in the GUI