

ALL SOFTWARE

Using the Python API to automate the setup and analysis

Do you want to further increase your productivity? Learn how to use the Python API to optimize your process!

The time you spend creating your simulation projects and analyzing the results of your calculations is usually very substantial. The operations you perform are often redundant and sometimes very time-consuming.

Python scripts will allow you to create projects, run calculations and analyze results with maximum automation. Typically, you will be able to create your custom process, manage your objects, import and generate meshes, define all types of parameters, automatically generate calculation

variants, display only the results you need in the optimal configuration, export your results and much more. This new feature offers many advantages: time saving, automation, securing projects, interconnection with your other digital tools. Whether you want to automate all or part of your operations, define constant or dynamic data or call a third-party application from FORGE®, everything is possible and imaginable This training is made for you!

LEVEL

Intermediate

PREREQUISITES

- A first experience with FORGE® software is required.
- A first experience with NxT interface is required
- Python programming knowledge is required

GOALS

- Discovering what the Python API could bring in terms of automation
- Taking advantage of the new features of the interface to configure data and analyze results faster

OTHER RECOMMENDED COURSES

- Starting with FORGE®
- FORGE® - Die analysis

DURATION	DATES 2024			
1 Day	14 February	21 June	05 August	8 November
TRAINING	PRICE EXCL. TAX		PARTICIPANTS	
Inter-company	580 € per person		3 to 8 people	
In-company	1400 € per training		1 to 3 people	

DAY 1 > 8.30 a.m. to 12.00 p.m. & 1.30 p.m. to 5.00 p.m.

Introduction	<ul style="list-style-type: none"> • General presentation • Course goals
Why this API?	<ul style="list-style-type: none"> • Context • Existing tools (Macros / Customs Actions / Save Workspace) • Prerequisites • Current limitations • Perspectives
Scripts structure	<ul style="list-style-type: none"> • How the Python console works ? • Vocabulary (classes, functions, arguments) • Links between different objects, simulations, attributes, properties
Setup scripts	<ul style="list-style-type: none"> • Understand existing scripts • Work on a complete stage setup script • Coding your own setup script
Analysis scripts	<ul style="list-style-type: none"> • Understand existing scripts • How to adapt them to your needs • Code your own results analysis script
Documentation	<ul style="list-style-type: none"> • Explanation of the documentation provided to code your setup and analysis script
Perspectives	<ul style="list-style-type: none"> • What are the possibilities to go further and fully automate your setup and analysis tasks? Variable parameters, custom interfaces, execution in commands
Conclusions	<ul style="list-style-type: none"> • Questions and course assessment

