GETTING STARTED WITH FLAC2D/FLAC3D

Duration	7 Hours
Location	Online – Microsoft Teams Platform
Instructor	Mr. Etienne Lavoine
Audience	Engineers with experience in numerical modeling
Pre-requirements	Pass the entrance test with 70% correct answers. Questions are related to basics of geomechanics.
Teaching Methods	The topics covered during the training are approached in an evolutionary way, from simple to more complex. All our training courses are based on: • Concrete cases: examples of applications made by Itasca to illustrate and apply key concepts. • Sharing practices and experiences: Sharing practices and experiences enhances and enriches the training experience. • Theoretical contributions: the instructors review theoretical background essential to the understanding of the key numerical modelling concepts that are taught during the training. Our instructors have a wealth of knowledge gained from the consulting studies they conduct for our clients. We value this knowledge by stimulating exchanges between professionals and promoting learning sharing within the group.
Training Materials	• Practical cases and scenarios directly in the software • Powerpoint presentation • Free exchanges with the group • Theoretical contributions
Assessment Methods	The course ends with an individual test to validate the knowledge acquired, consisting of a quiz of a few questions on the concepts covered during the course.
Objectives	• Understand the FLAC2D/ FLAC3D numerical approach and the types of problems it can solve • Know how to manipulate the FLAC2D/ FLAC3D user interface to access and interpret results • Follow the recommended solution procedure to simulate a simple case

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Program:

1. Introduction to Itasca software and FLAC2D/3D
   - Overview of Itasca code applications
   - Discover the graphical user interface
   - Description of fundamental principles

2. Building a geometric model
   - Introduction
   - Discover the "Sketch" tool

3. Modeling steps
   - Constitutive models
   - Initial and boundary conditions
   - Structural elements

4. Application
   - 2D tunnel excavation model
   - Extension to 3D case

5. Introduction to advanced tools
   - Scripting capabilities (FISH / Python)
   - Complex meshing tools
   - Complex physical processes (creep / thermal / dynamic / fluid)

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