

Computational dynamics

Computer Laboratory 3: Gmsh

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INTRODUCTION



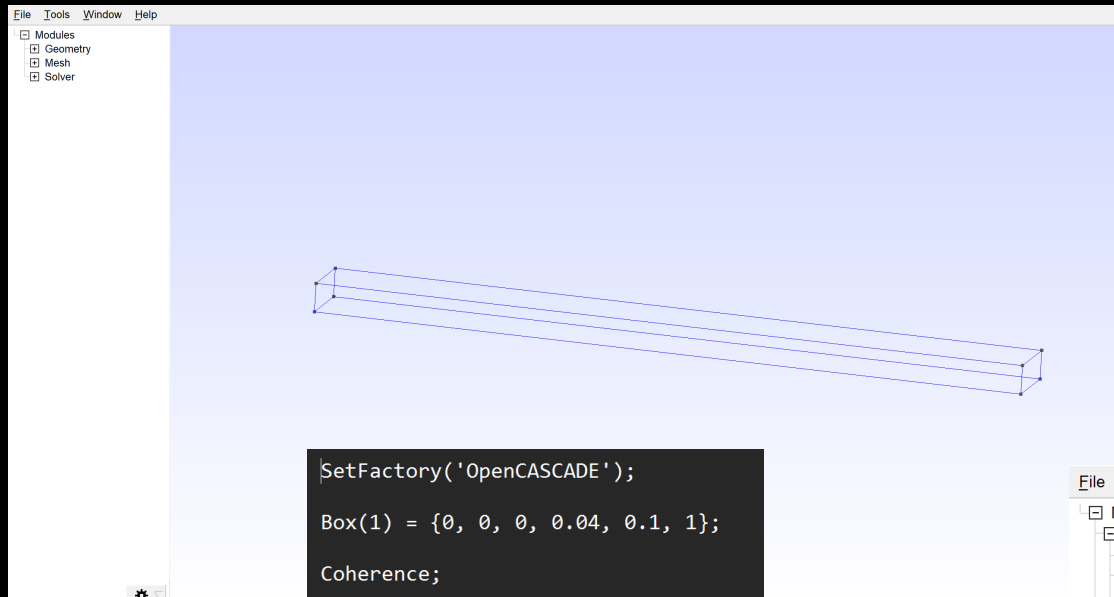
- Gmsh is a free finite-element mesh generator (developed by C. Geuzaine and JF Remacle)
- Download: <https://gmsh.info>
- Tutorial: <https://gmsh.info/doc/texinfo/gmsh.html>

INTRODUCTION

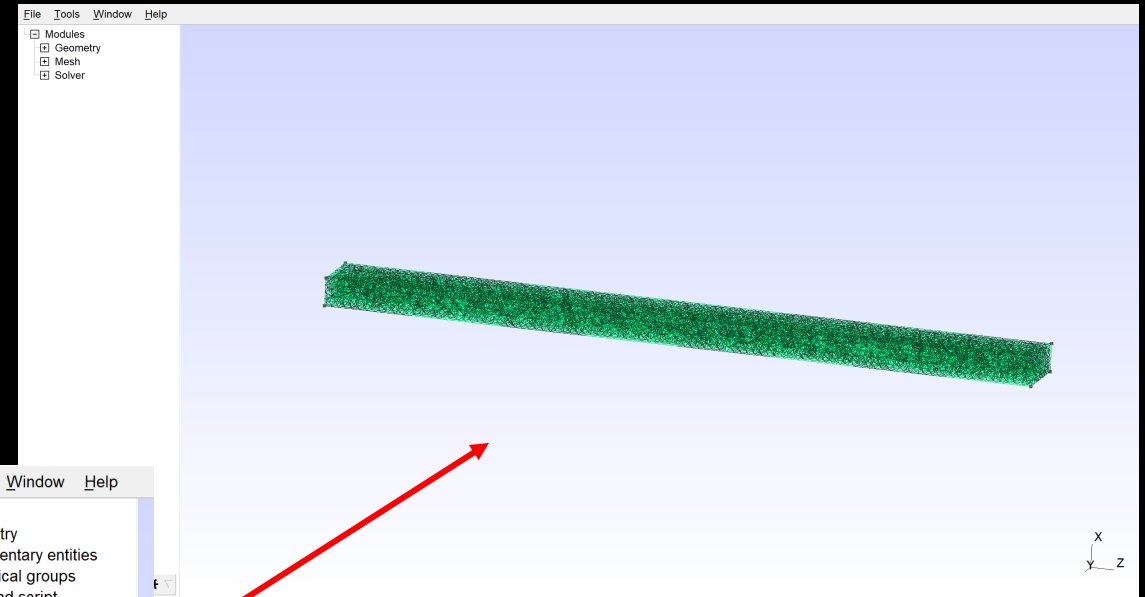
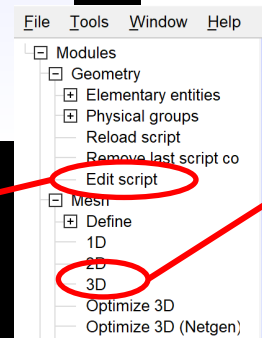
.geo file



.msh file



```
SetFactory('OpenCASCADE');  
  
Box(1) = {0, 0, 0, 0.04, 0.1, 1};  
  
Coherence;  
  
Field[1] = Box;  
Field[1].VIN = 0.02;  
Field[1].VOut = 1;  
Field[1].XMax = 0.04;  
Field[1].YMax = 0.1;  
Field[1].ZMax = 1;  
Background Field = 1;  
  
Physical Volume("1") = {1};  
//Physical Volume("2") = {2};
```



TASKS

1. Install Gmsh and open the .geo file
2. Modify dimensions of the mesh and generate a new .msh file

Free choice of geometrical modification.

Call the instructor for doubts and after successful completion of each task and report it. Enjoy!