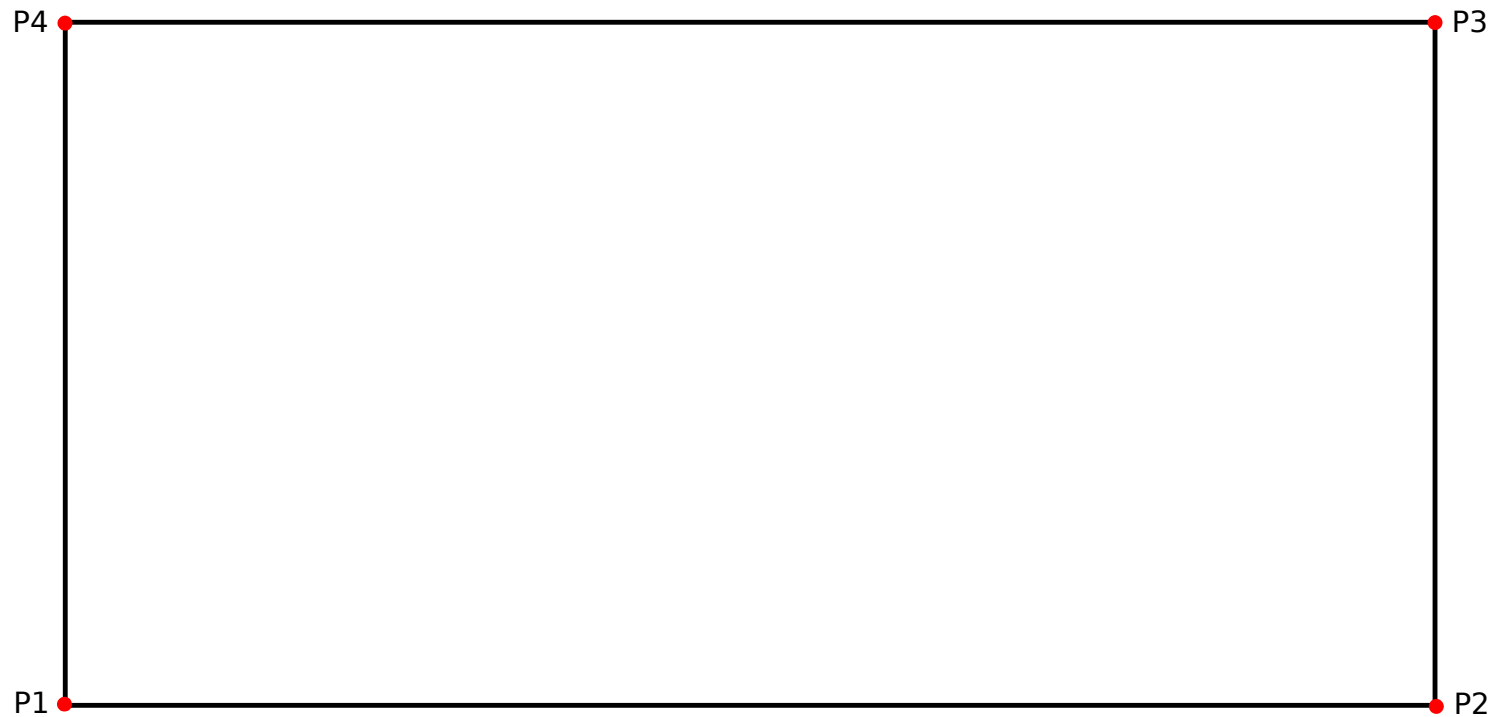


# Electrostatics 2D

*El proyecto CloudPYME (id: 0682\_CLOUDPYME2\_1\_E) está cofinanciado por la Comisión Europea a través de el Fondo Europeo de Desarrollo Regional (FEDER), dentro de la tercera convocatoria de proyectos del Programa Operativo de Cooperación Transfronteriza España-Portugal 2007-2013 (POCTEP).*

# Electrostatics 2D: Geometry



$P1 = (0,0)$   
 $P2 = (0.01, 0)$   
 $P3 = (0.01, 0.02)$   
 $P4 = (0, 0.02)$

# Electrostatics 2D: Geometry

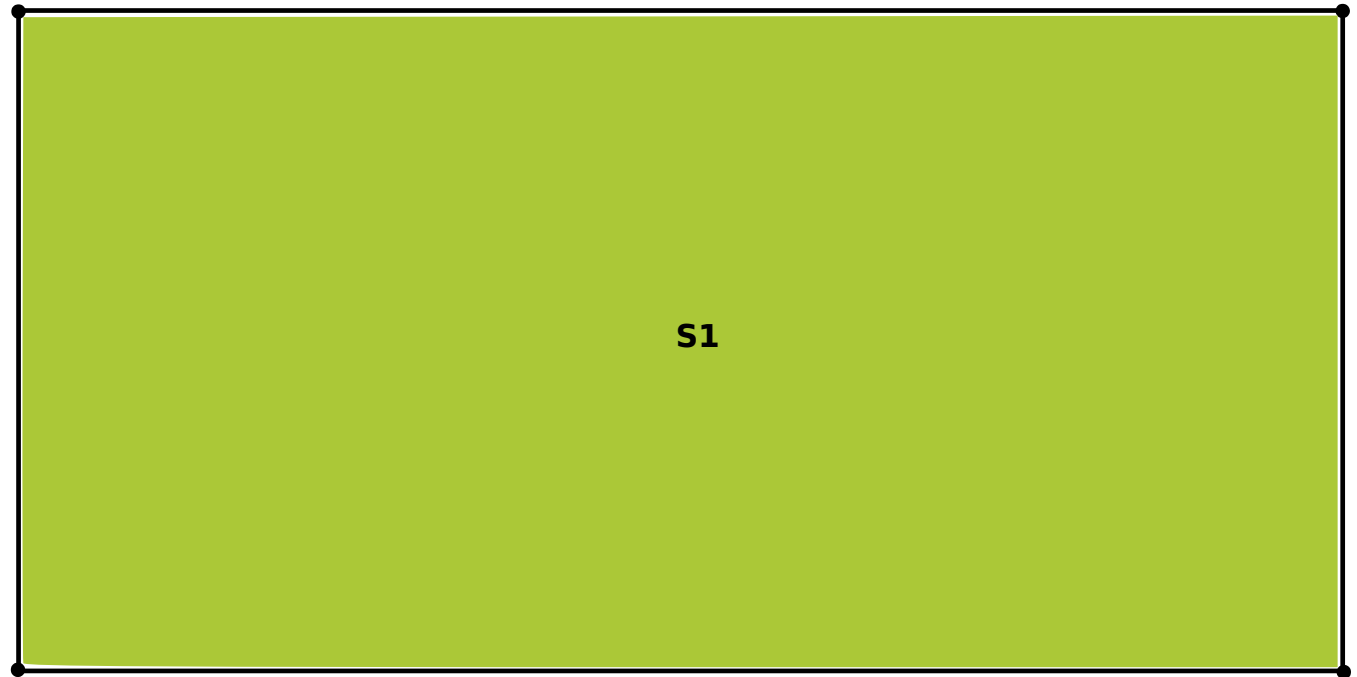
E1 = LINE(P1 , P2)  
E2 = LINE(P2 , P3)  
E3 = LINE(P3 , P4)  
E4 = LINE(P4 , P1)



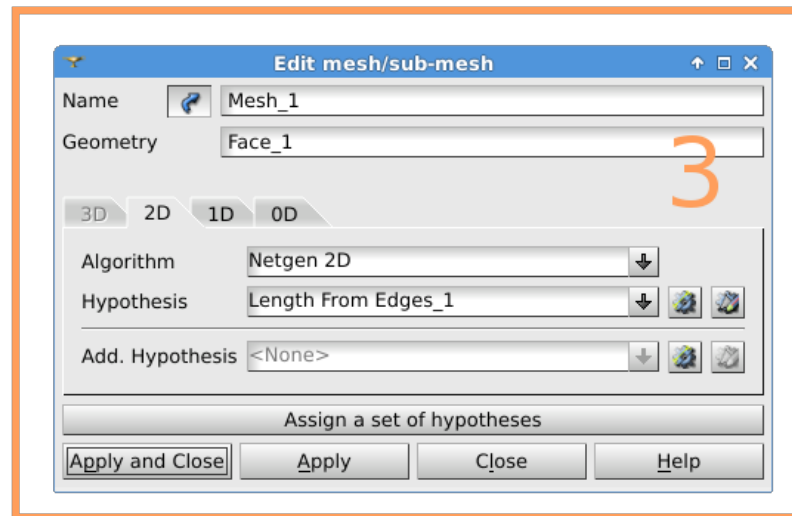
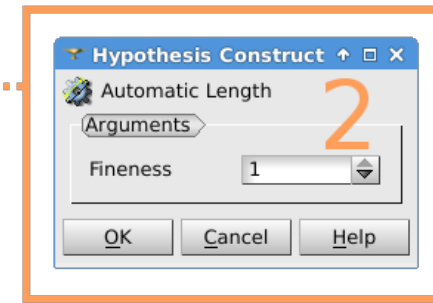
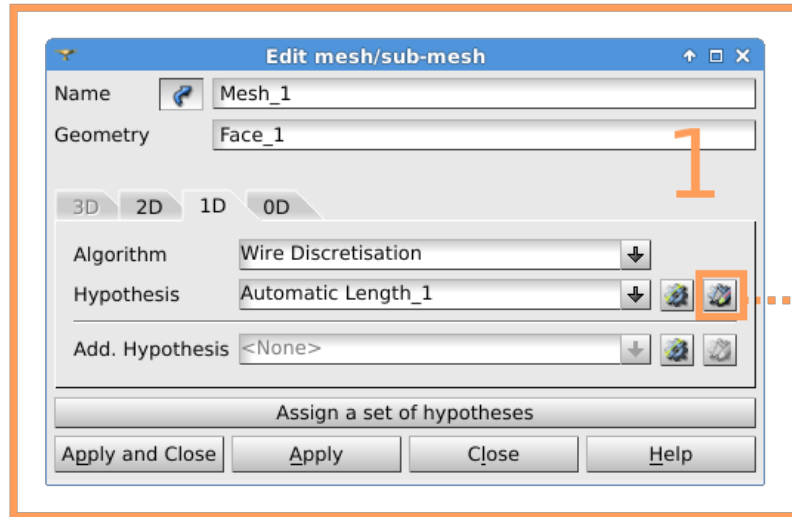
# Electrostatics 2D: Geometry

S1 = FACE(E1 , E2 , E3 , E4)

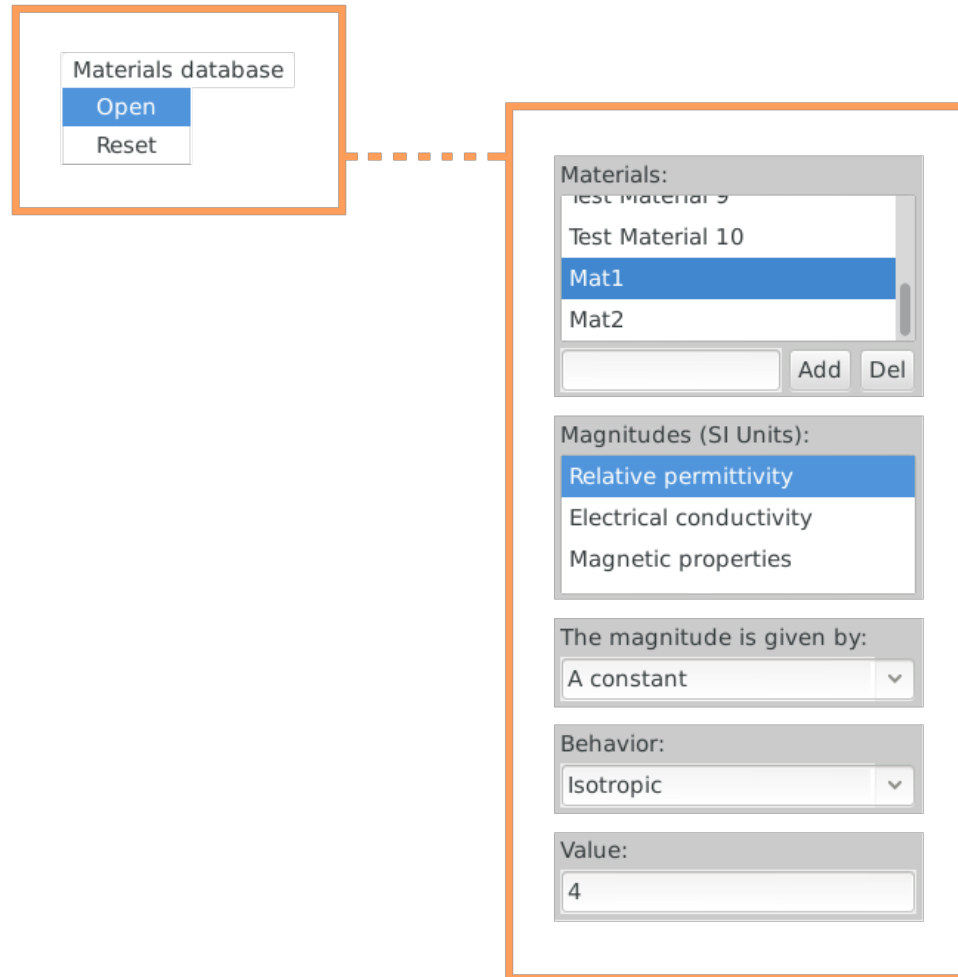
Material	Relative permittivity
Mat1	4



# Electrostatics 2D: Mesh

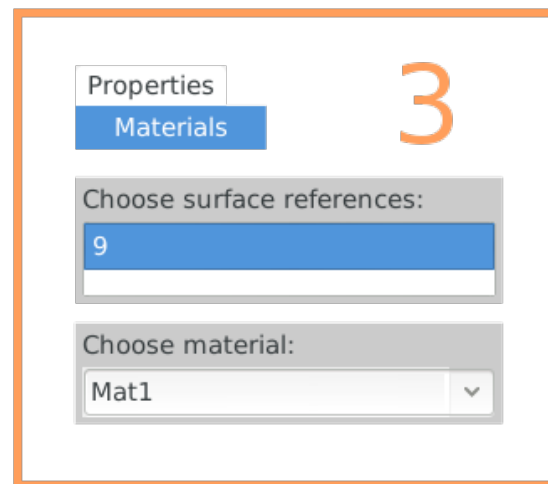
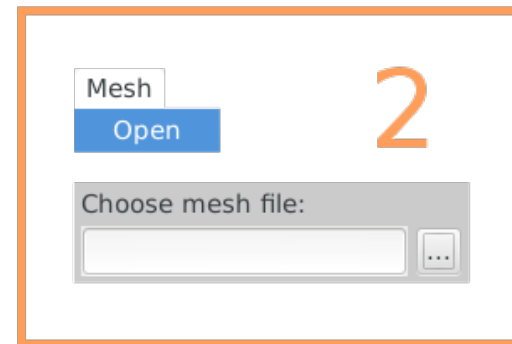
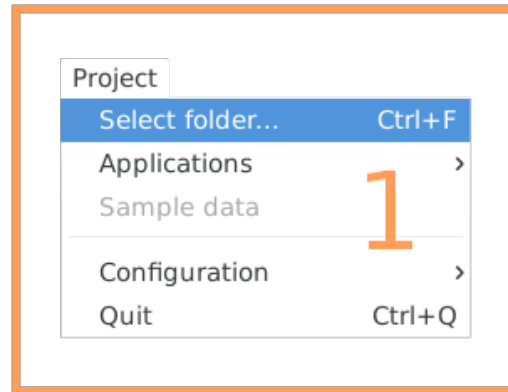


# Electrostatics 2D: MaxFEM

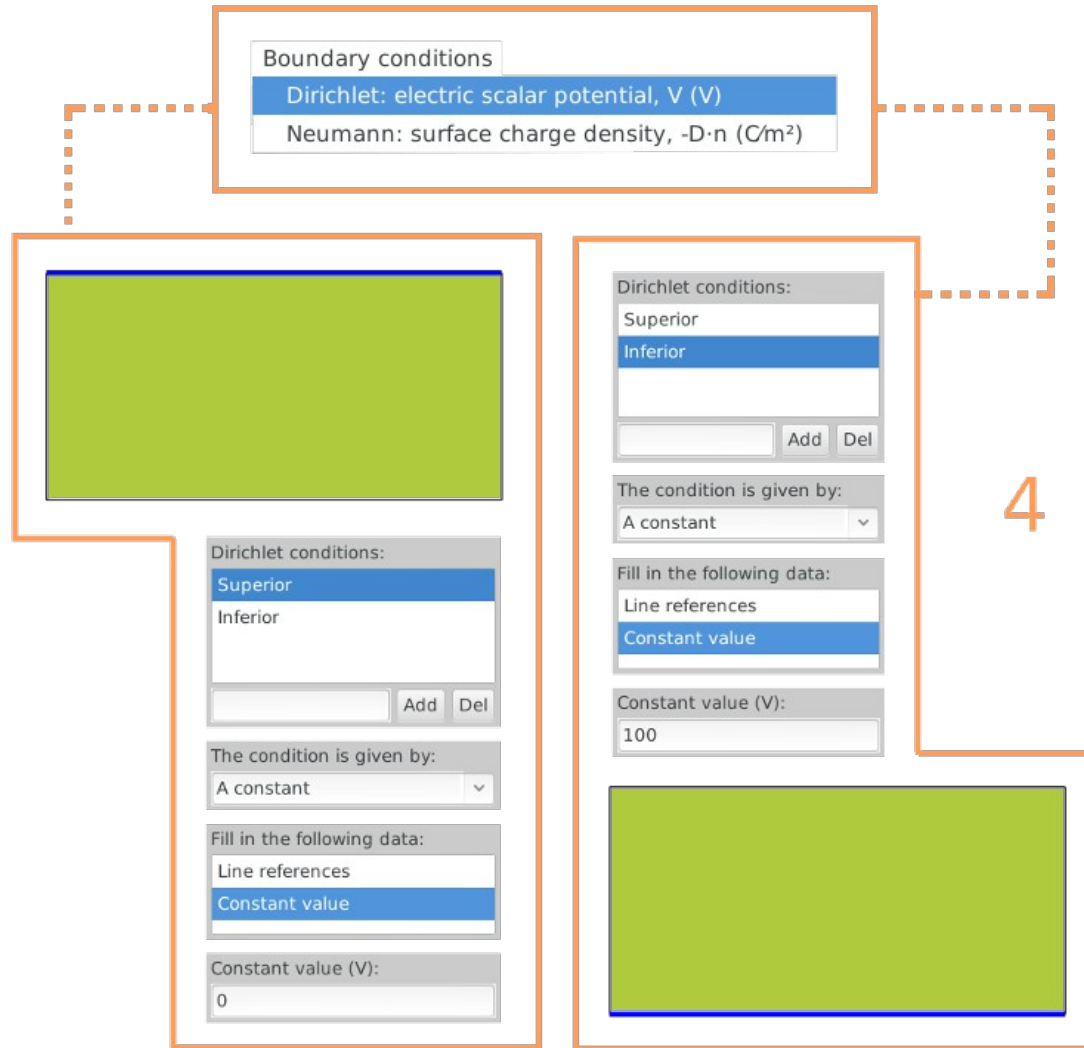


The screenshot displays the software's material configuration interface. On the left, a 'Materials database' panel contains 'Open' and 'Reset' buttons. A dashed line connects this panel to the main configuration area on the right. The main area is divided into several sections: 'Materials:' with a list containing 'Test Material 9', 'Test Material 10', 'Mat1' (highlighted), and 'Mat2', along with 'Add' and 'Del' buttons; 'Magnitudes (SI Units):' with a list containing 'Relative permittivity' (highlighted), 'Electrical conductivity', and 'Magnetic properties'; 'The magnitude is given by:' with a dropdown menu set to 'A constant'; 'Behavior:' with a dropdown menu set to 'Isotropic'; and 'Value:' with a text input field containing the number '4'.

# Electrostatics 2D: MaxFEM



# Electrostatics 2D: MaxFEM





# Electrostatics 2D: MaxFEM

Sources

- Volumetric charge density,  $\rho_v$  (C/m<sup>3</sup>)
- Surface charge density,  $\rho_s$  (C/m<sup>2</sup>)
- Line charge density,  $\rho_l$  (C/m)

Volumetric sources:

Source 1

Add Del

Fill in the following data:

Volumetric references

Constant value

Constant value (C/m<sup>3</sup>):

5