

# Problem info

Problem type: AC Magnetics , frequency: 50 Hz,

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *copper\_shield.pbm*
- Geometry: *Copper\_shield.mod*
- Material Data: *Copper\_shield.dhe*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

# Geometry model

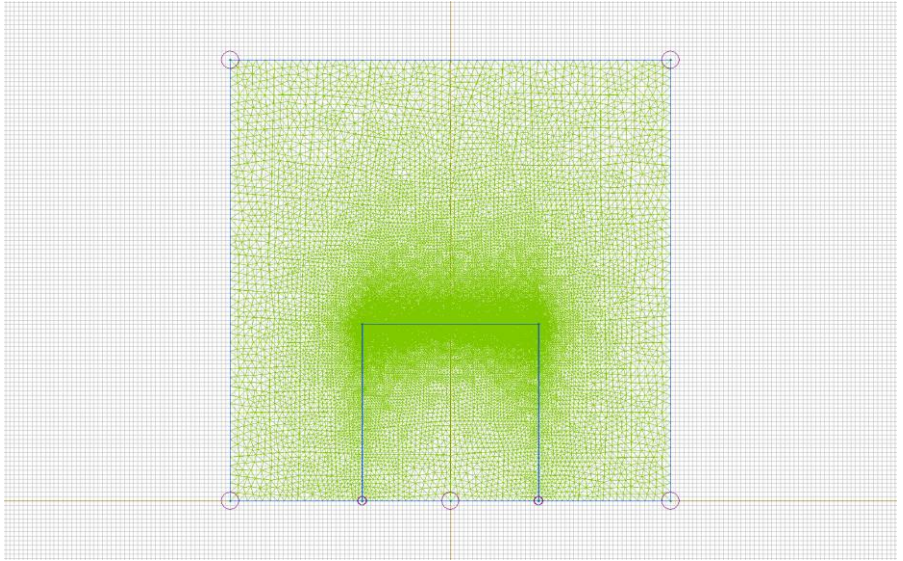


Table 1. Geometry model statistics

	With Label	Total
Blocks	2	3
Edges	3	15
Vertices	1	13

Number of nodes: 34141.

# Labelled objects

There are following labelled objects in the geometry model (Material Data file could contain more labels, but only those labels that assigned to geometric objects are listed)

Blocks:

- [air](#)
- [copper](#)
- 

Edges:

- [side](#)
- [bottom](#)
- [top](#)
- 

Vertices:

- [testpt](#)
- 

Detailed information about each label is listed below.

Labelled objects: block "air"

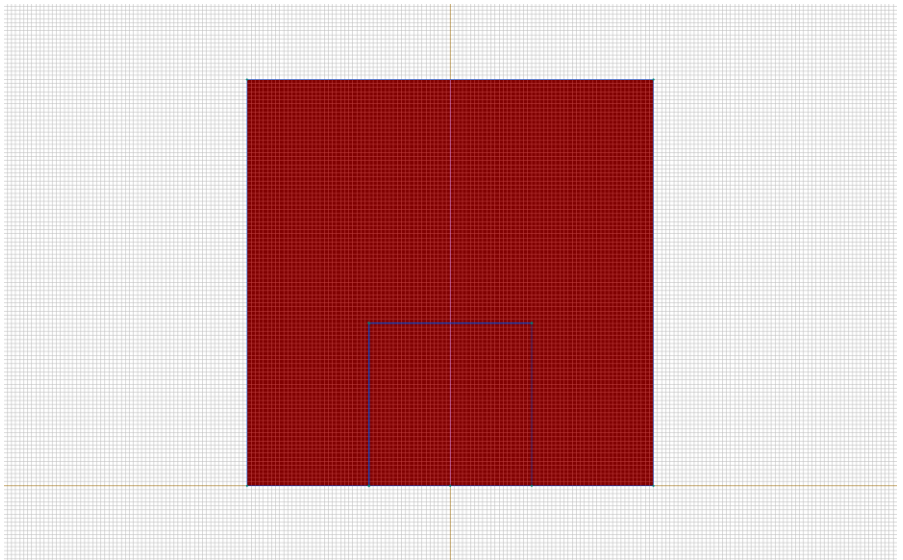
There are (2) objects with this label

Relative magnetic permeability:  $\mu_x=1$ ,  $\mu_y=1$

Electric conductivity:  $\sigma=0$  [S/m]

Current density:  $j=0$  [A/m<sup>2</sup>], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "copper"

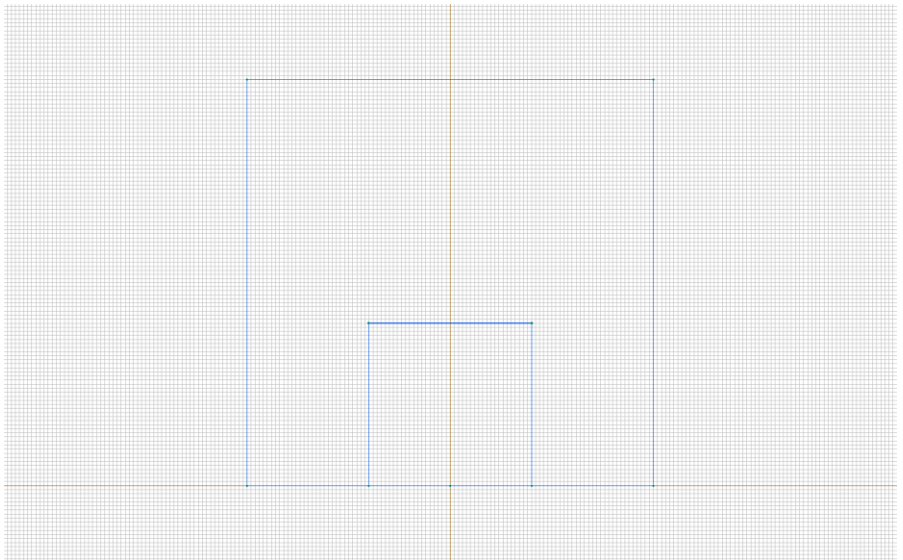
There are (1) objects with this label

Relative magnetic permeability:  $\mu_x=1$ ,  $\mu_y=1$

Electric conductivity:  $\sigma=100000000$  [S/m]

Current density:  $j=0$  [A/m<sup>2</sup>], phase 0 [deg]

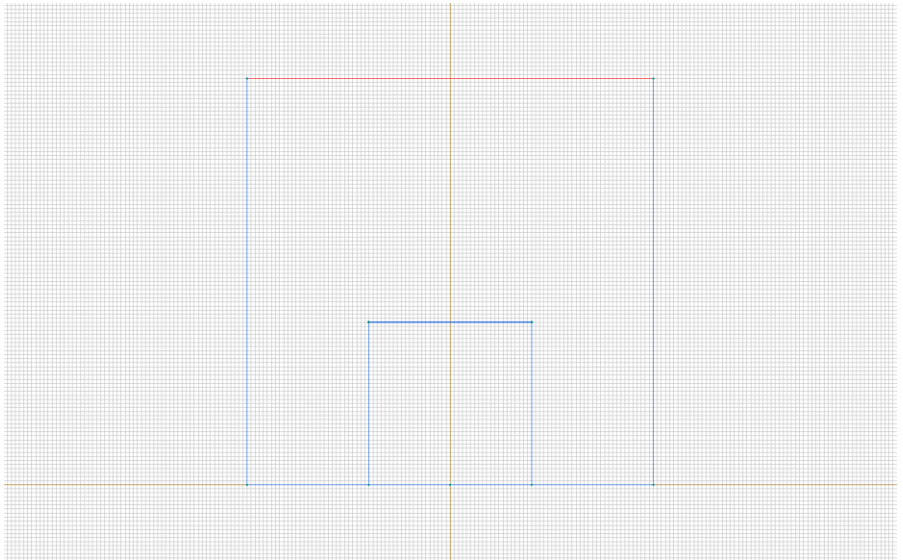
Conductor's connection: in parallel



Labelled objects: edge "side"

There are (1) objects with this label

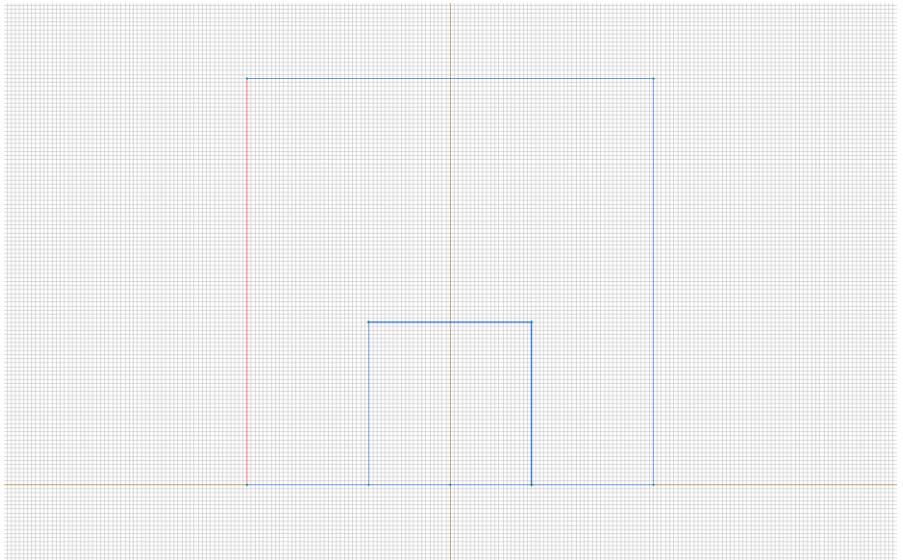
Magnetic potential:  $A=0.000001$  [Wb/m], phase 0 [deg]



Labelled objects: edge "bottom"

There are (1) objects with this label

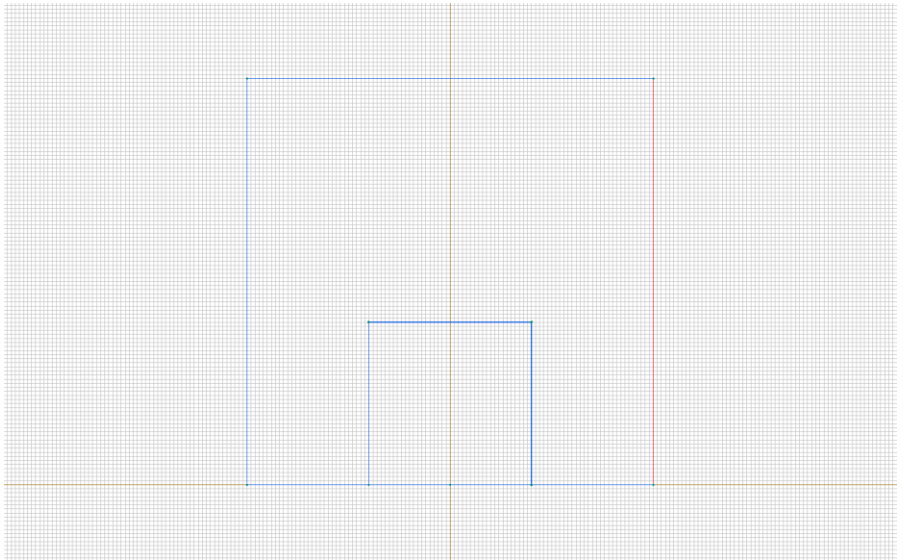
Tangential field:  $H_t=0$  [A/m], phase 0 [deg]



Labelled objects: edge "top"

There are (1) objects with this label

Tangential field:  $H_t=0$  [A/m], phase 0 [deg]

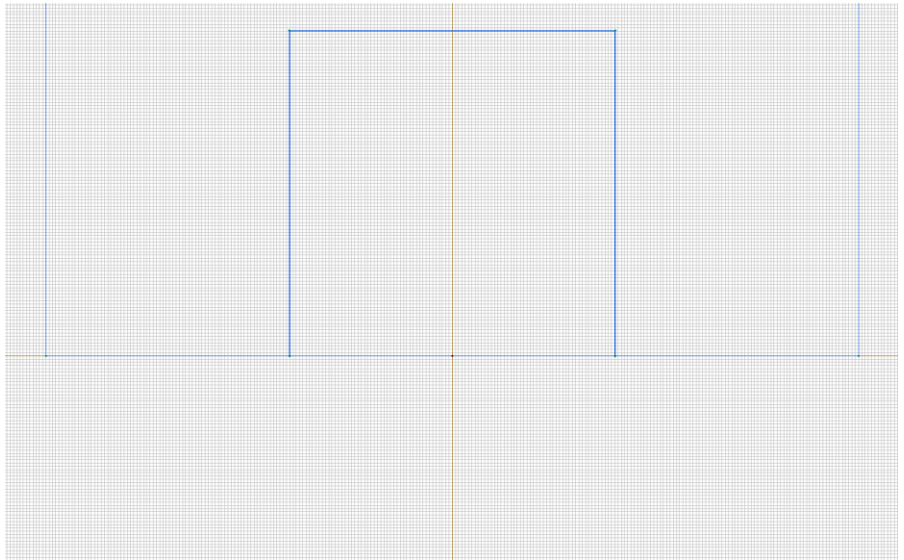




Labelled objects: vertex "testpt"

There are (1) objects with this label

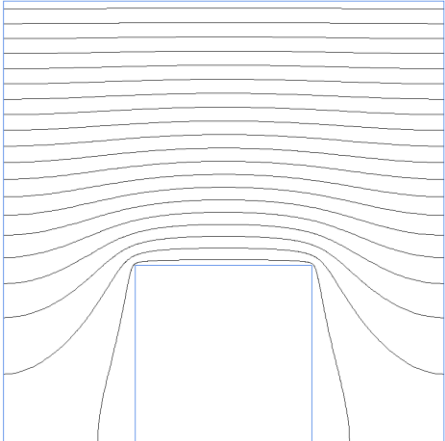
No material data (boundary conditions) are specified





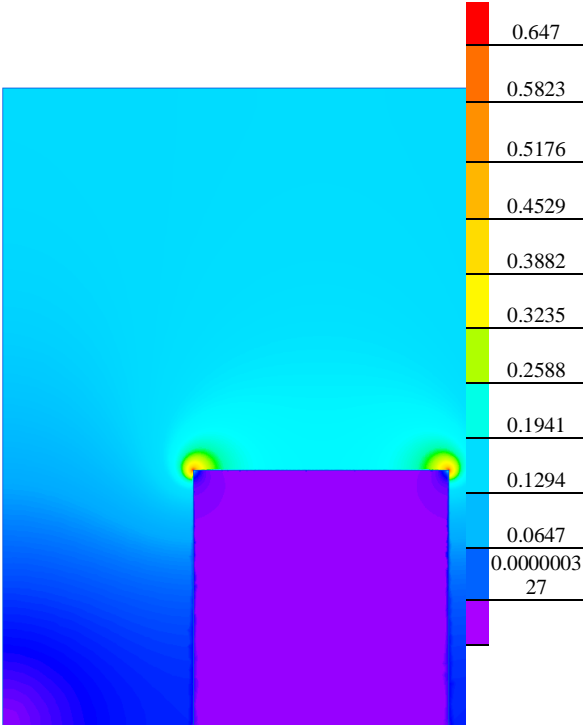
# Results

Field lines



# Results

Color map of Strength  $|H|$  [A/m]



# Nonlinear dependencies

No non-linear dependencies are used in this problem data

