Problem info

Problem type: AC Magnetics , frequency: 45 Hz,
Geometry model class: Plane-Parallel
Problem database file names:

- Problem: *HMagn1.pbm*
- Geometry: *Hmagn1.mod*
- Material Data: *Hmagn1.dhe*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

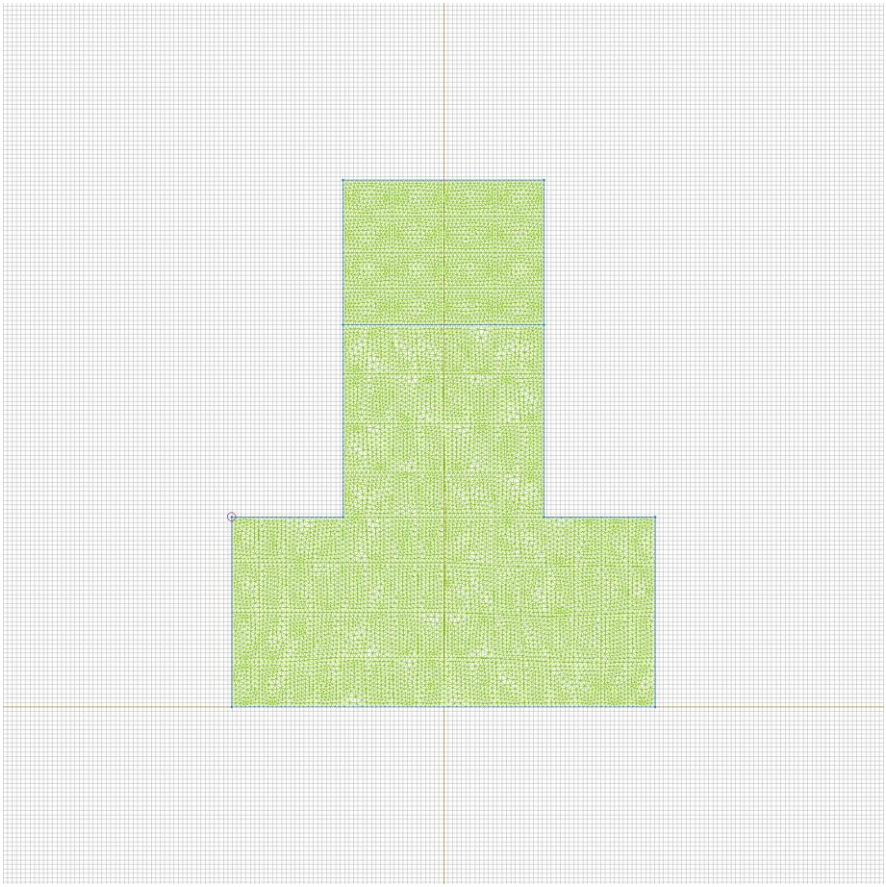


Table 1. Geometry model statistics

	With Label	Total
Blocks	2	2
Edges	2	11
Vertices	0	10

Number of nodes: 9508.

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)

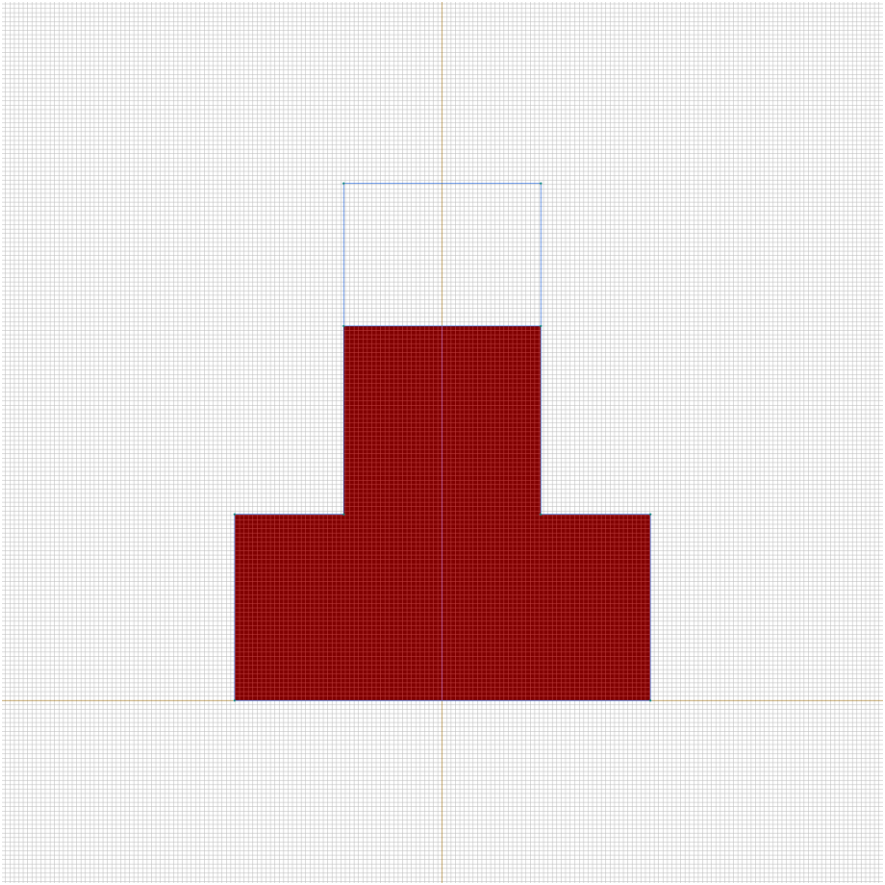
Blocks:	Edges:	Vertices:
• Copper Bar • Air •	• Steel • A=0 •	

Detailed information about each label is listed below.

Labelled objects: block "Copper Bar"

There are (1) objects with this label

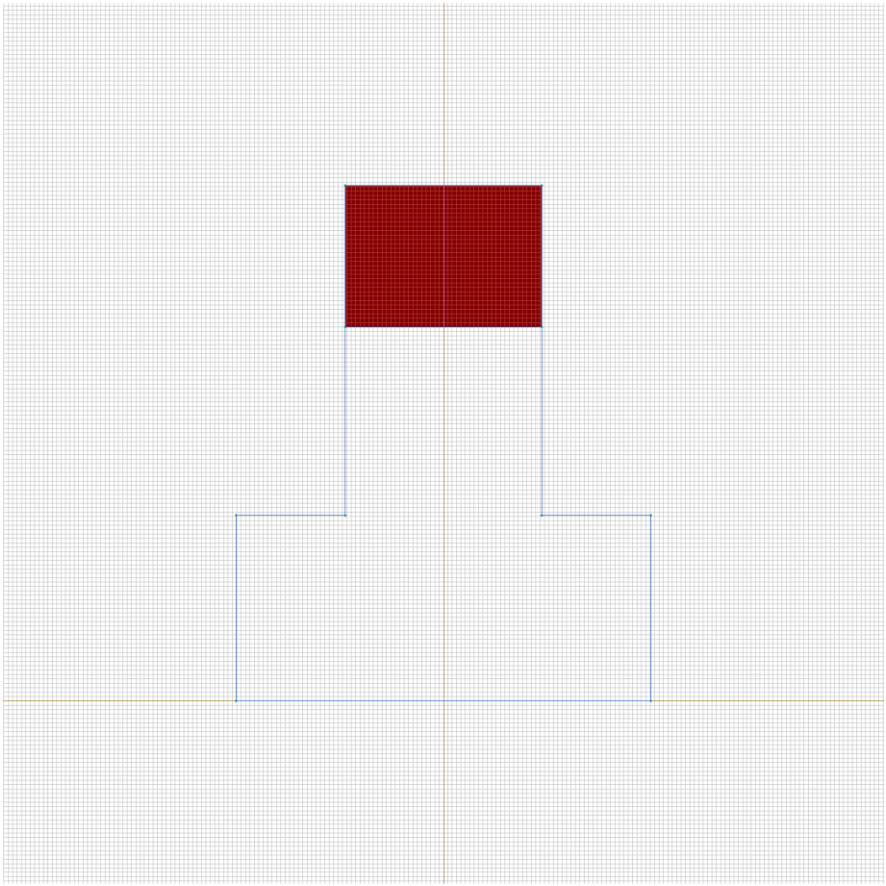
Relative magnetic permeability: mu_x=1, mu_y=1
Electric conductivity: sigma=58000000 [S/m]
Total current: I=1 [A], phase 0 [deg]
Conductor's connection: in parallel



Labelled objects: block "Air"

There are (1) objects with this label

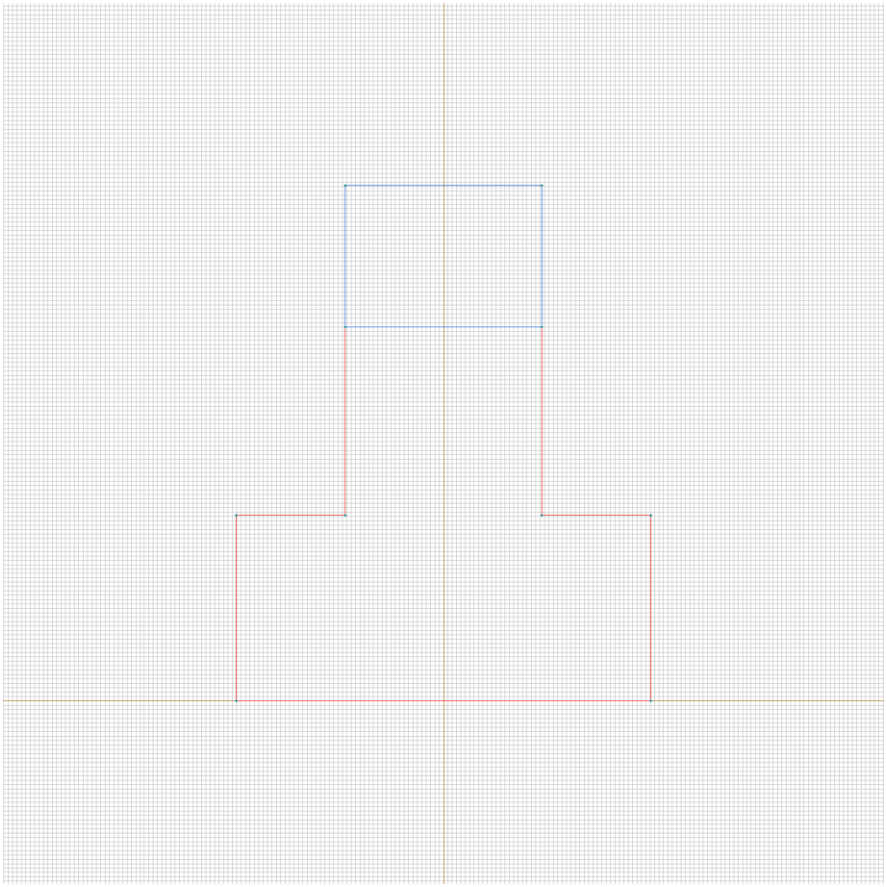
Relative magnetic permeability: mu_x=1, mu_y=1
Electric conductivity: sigma=0 [S/m]
Current density: j=0 [A/m2], phase 0 [deg]
Conductor's connection: in parallel



Labelled objects: edge "Steel"

There are (7) objects with this label

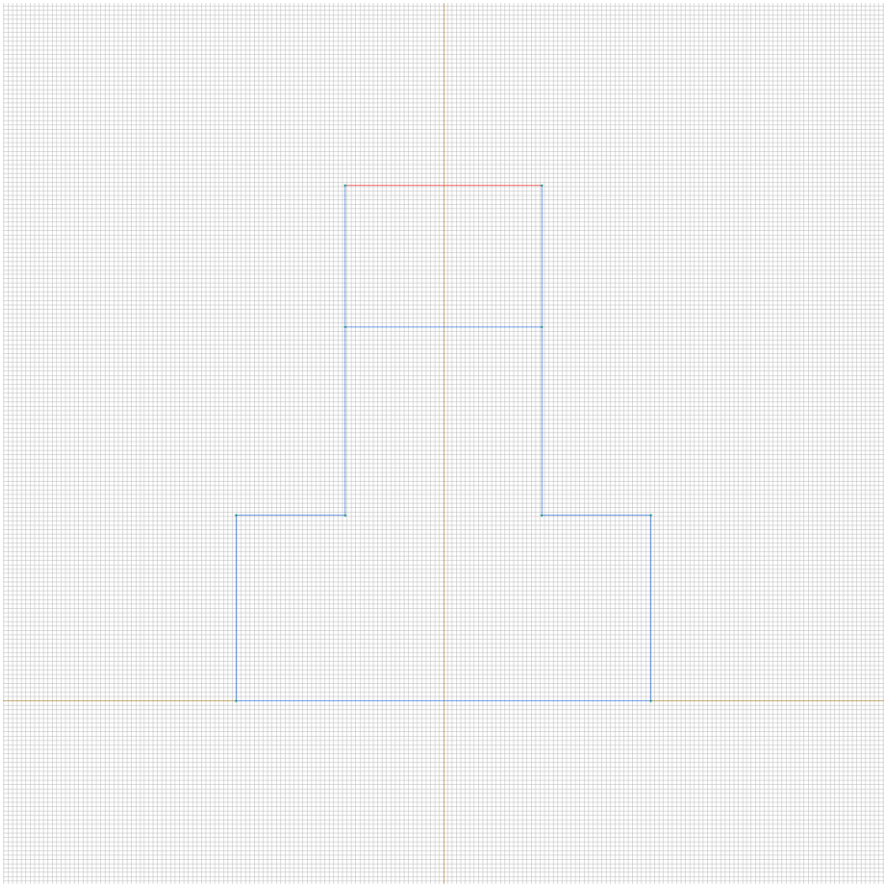
Tangential field: Ht=0 [A/m], phase 0 [deg]



Labelled objects: edge "A=0"

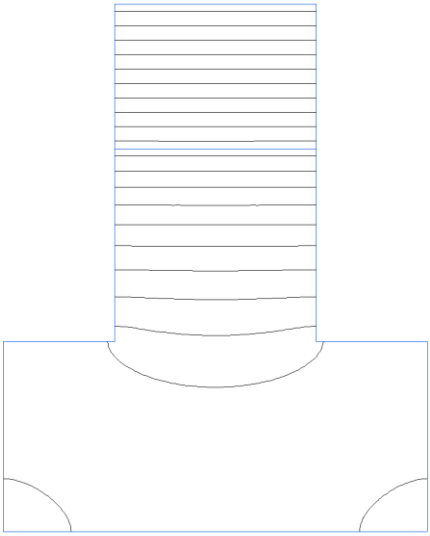
There are (1) objects with this label

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



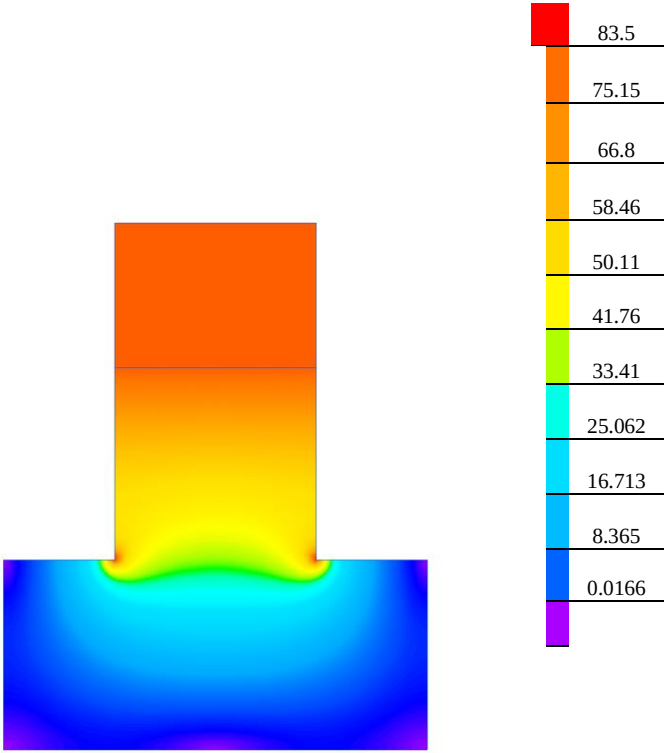
Results

Field lines



Results

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



Nonlinear dependencies

No non-linear dependencies are used in this problem data