

Problem info

Problem type: Magnetostatics

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *Pickup.pbm*
- Geometry: *Pickup.mod*
- Material Data: *Pickup.dms*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

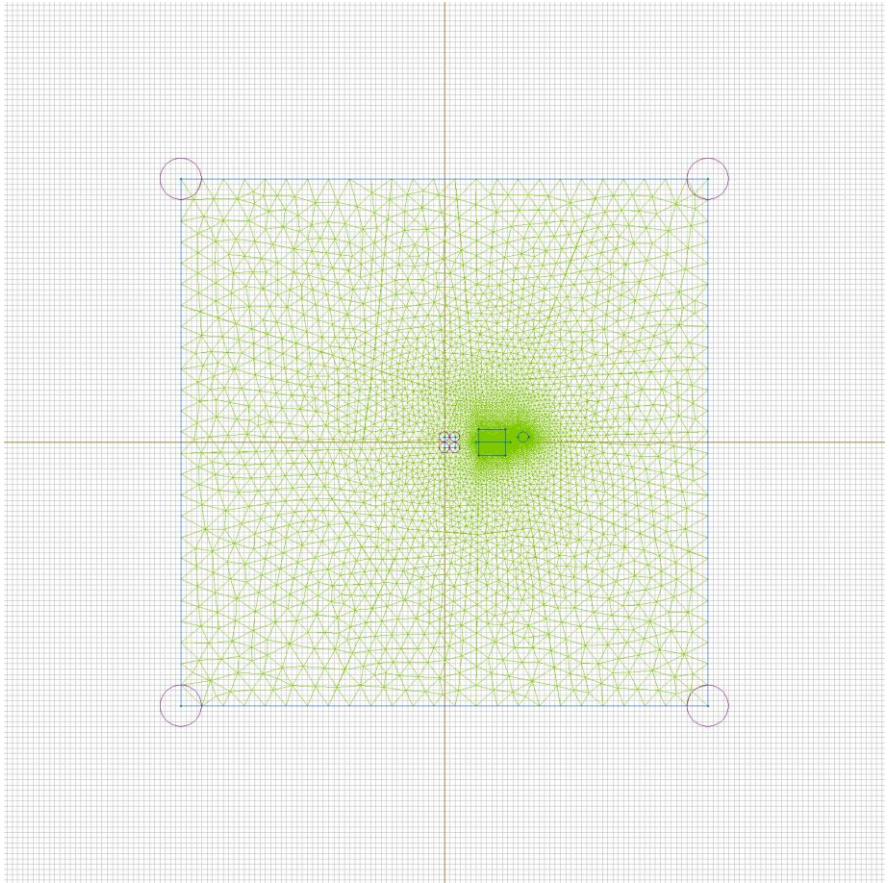


Table 1. Geometry model statistics

	With Label	Total
Blocks	4	5
Edges	2	19
Vertices	0	18

Number of nodes: 22583.

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:

- [Magnet](#)
- [Core](#)
- [Air](#)
- [String](#)
-

Edges:

- [contour](#)
- [Wall](#)
-

Vertices:

Detailed information about each label is listed below.

Labelled objects: block "Magnet"

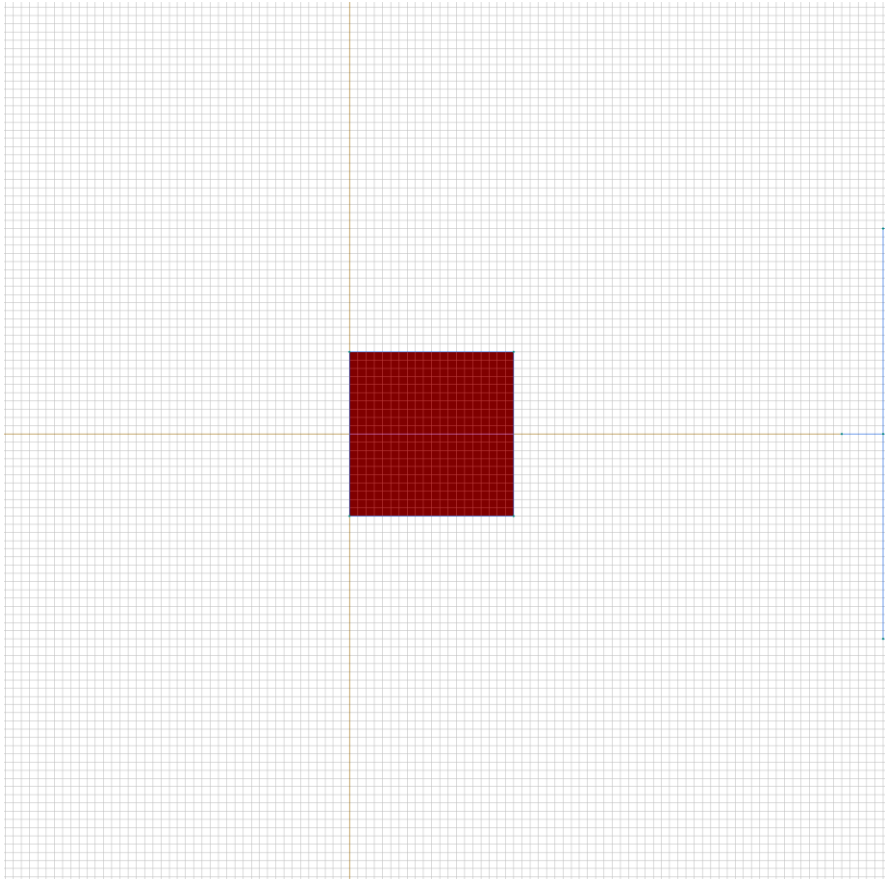
There are (1) objects with this label

Relative magnetic permeability: $\mu_x=1000$, $\mu_y=1000$

Coercive force: $H_c=1000000$ [A], direction: 0 [deg]

Current density: $j=0$ [A/m²]

Conductor's connection: in parallel



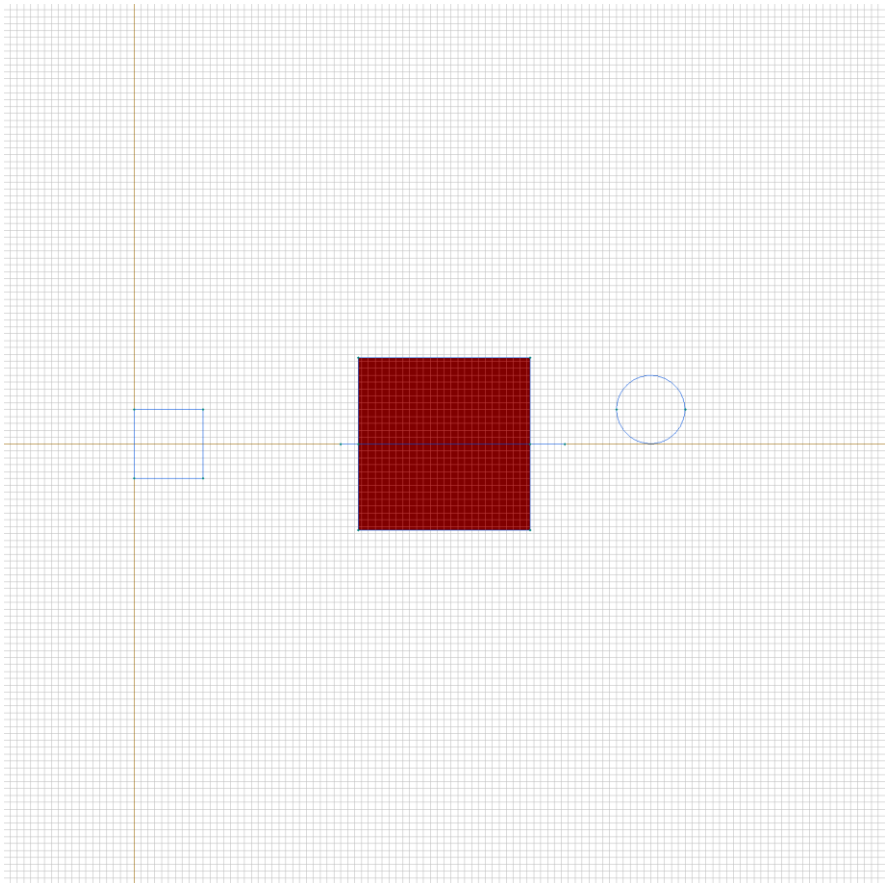
Labelled objects: block "Core"

There are (2) objects with this label

Relative magnetic permeability: $\mu_x=10000$,
 $\mu_y=10000$

Current density: $j=0$ [A/m²]

Conductor's connection: in parallel



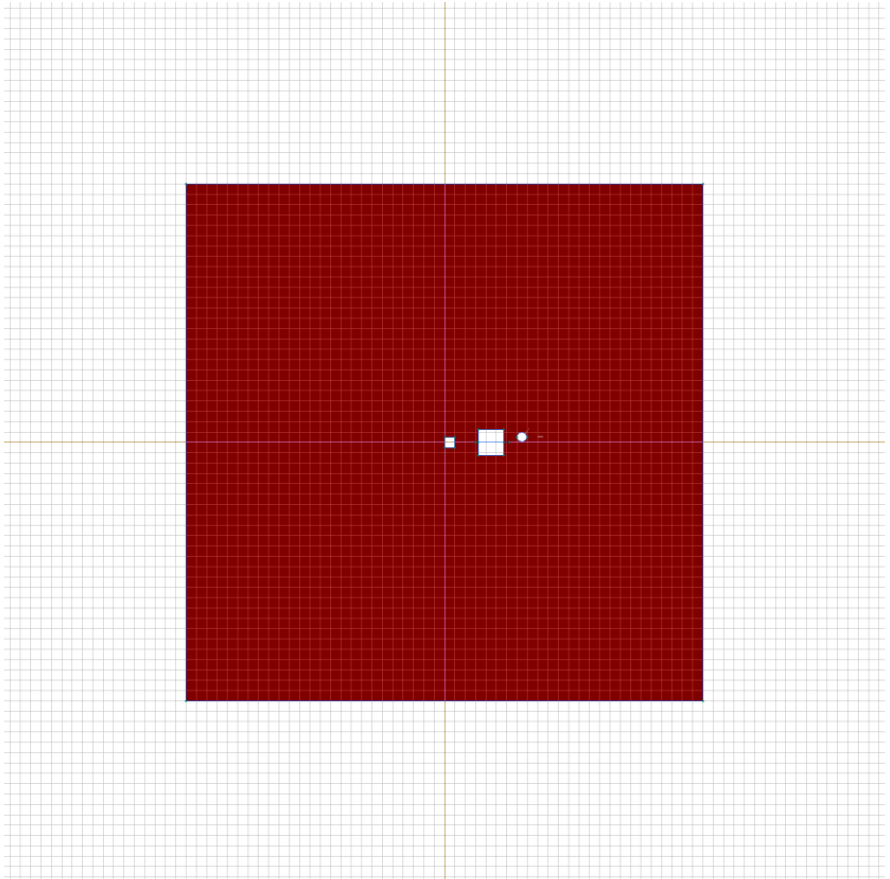
Labelled objects: block "Air"

There are (1) objects with this label

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

Current density: $j=0$ [A/m²]

Conductor's connection: in parallel



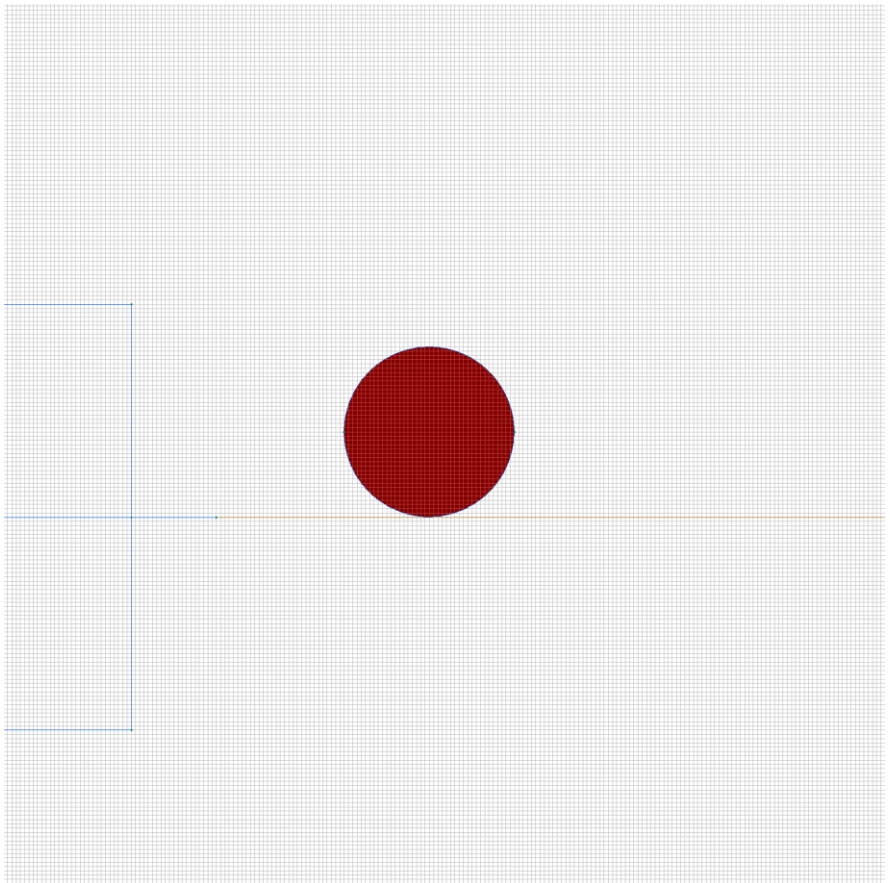
Labelled objects: block "String"

There are (1) objects with this label

Relative magnetic permeability: $\mu_x=10000$,
 $\mu_y=10000$

Current density: $j=0$ [A/m²]

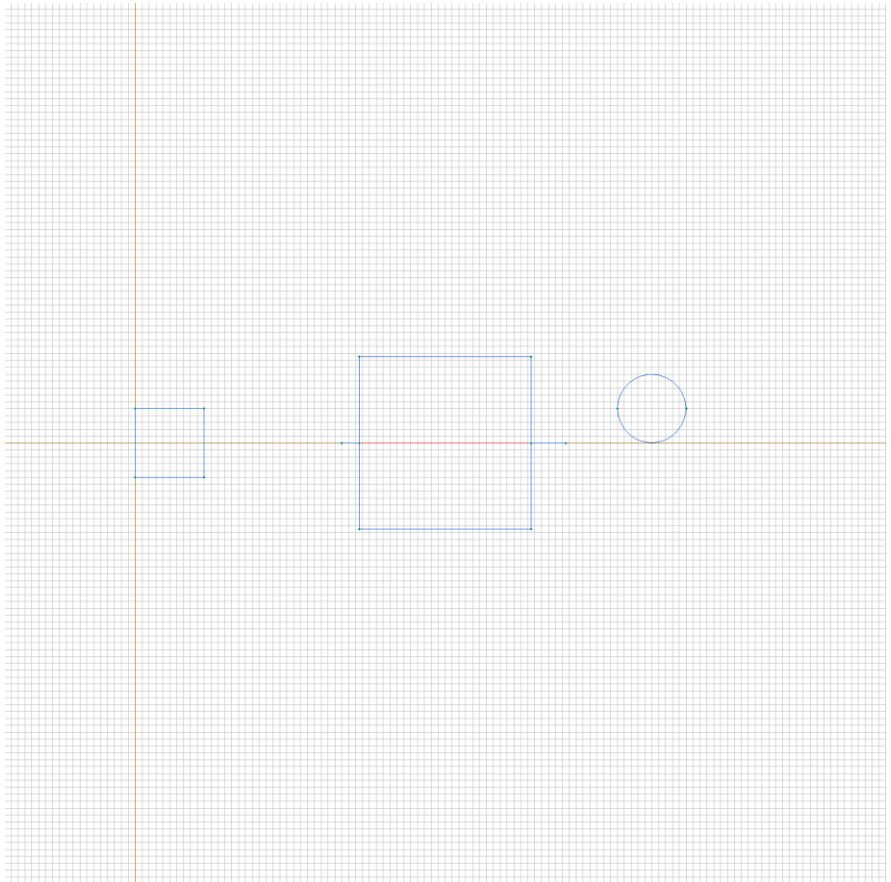
Conductor's connection: in parallel



Labelled objects: edge "contour"

There are (1) objects with this label

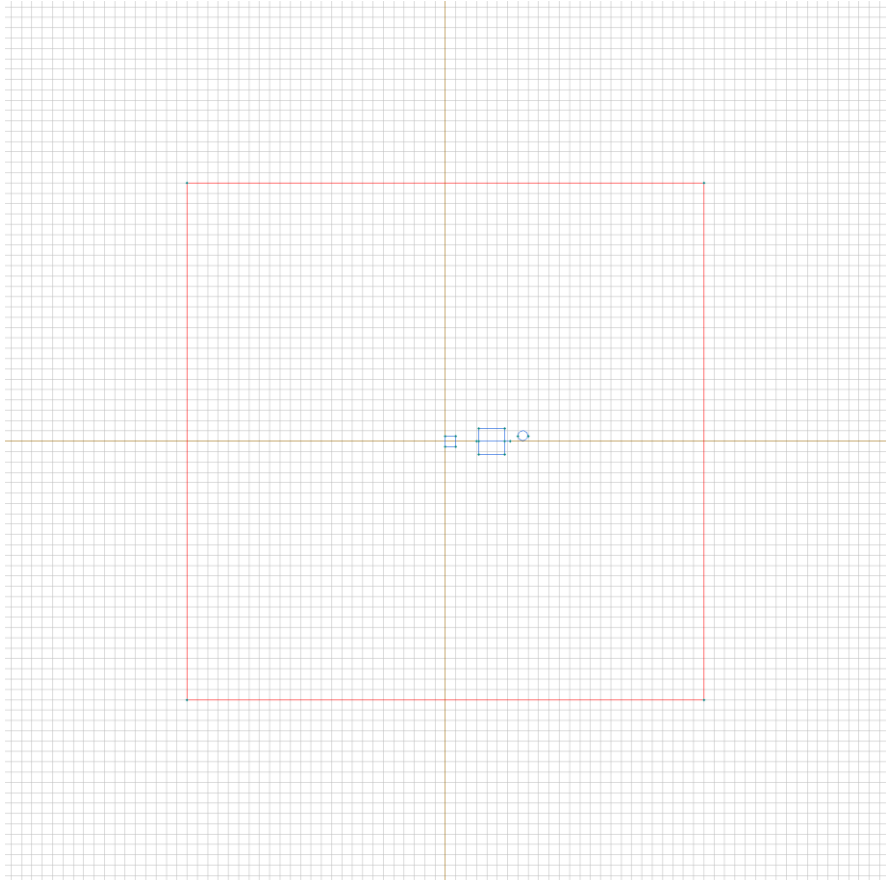
No material data (boundary conditions) are specified



Labelled objects: edge "Wall"

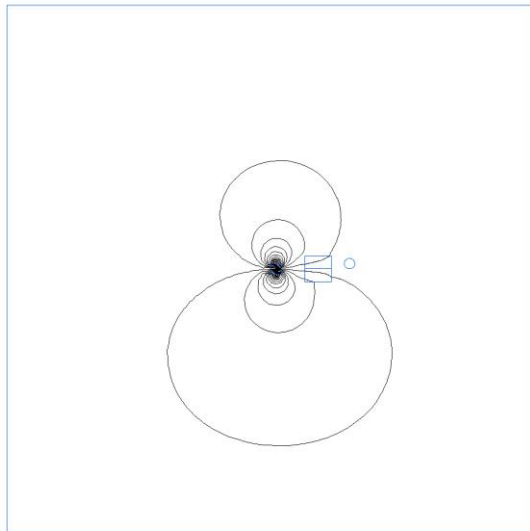
There are (4) objects with this label

Magnetic potential: $A=0$ [Wb/m]



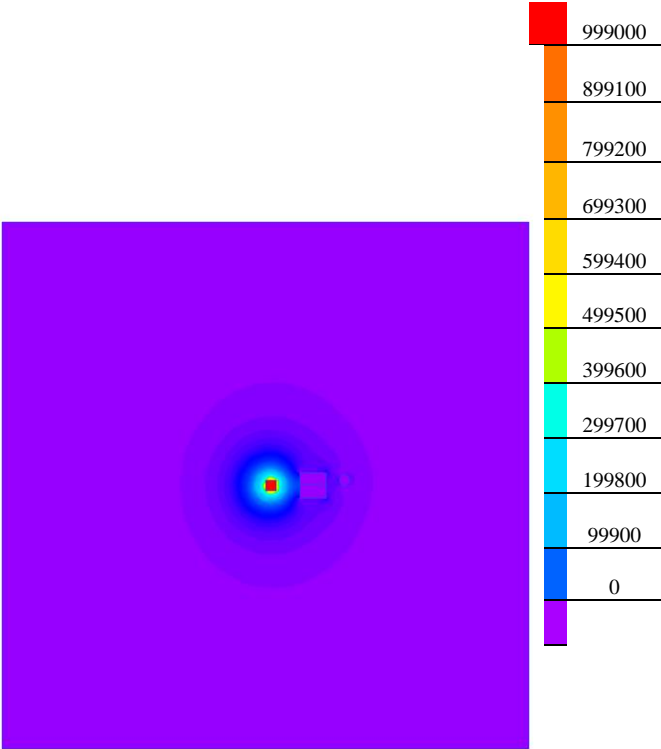
Results

Field lines



Results

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



Nonlinear dependencies

No non-linear dependencies are used in this problem data