Problem info

Problem type: Transient Heat Transfer (integration time: 5000 s.)
Geometry model class: Plane-Parallel
Problem database file names:

- Problem: *Heat_Diff_2.pbm*
- Geometry: *Heat_diff_2.mod*
- Material Data: *Heat_diff_2.dht*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

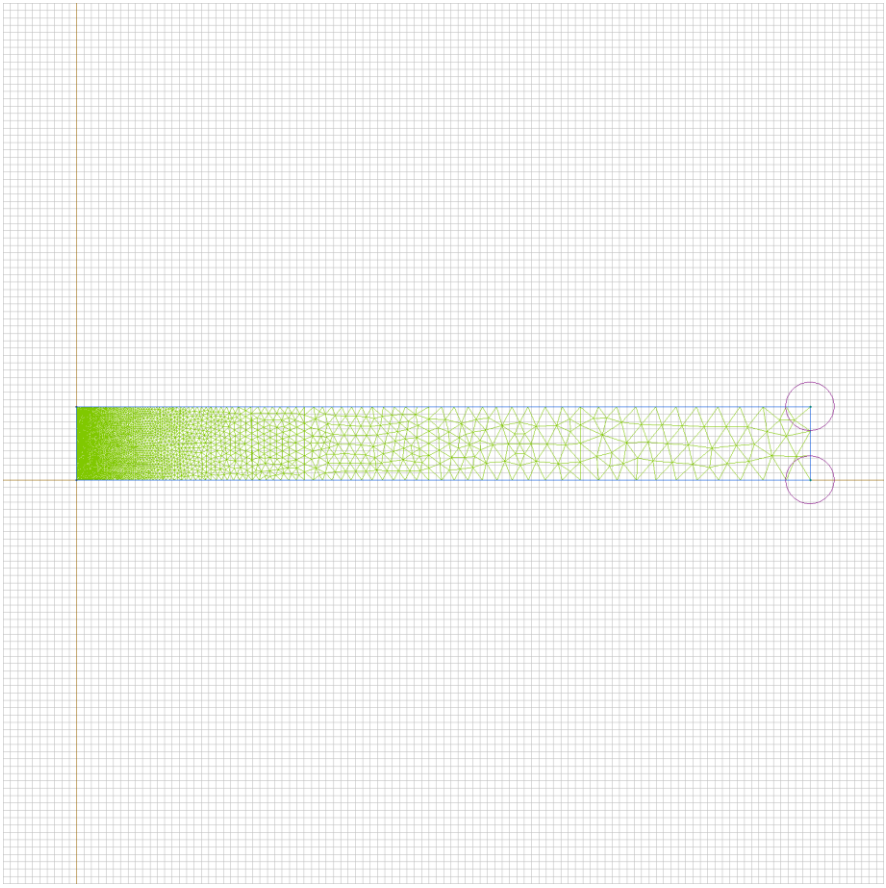


Table 1. Geometry model statistics

	With Label	Total
Blocks	1	1
Edges	4	4
Vertices	0	4

Number of nodes: 4103.

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)

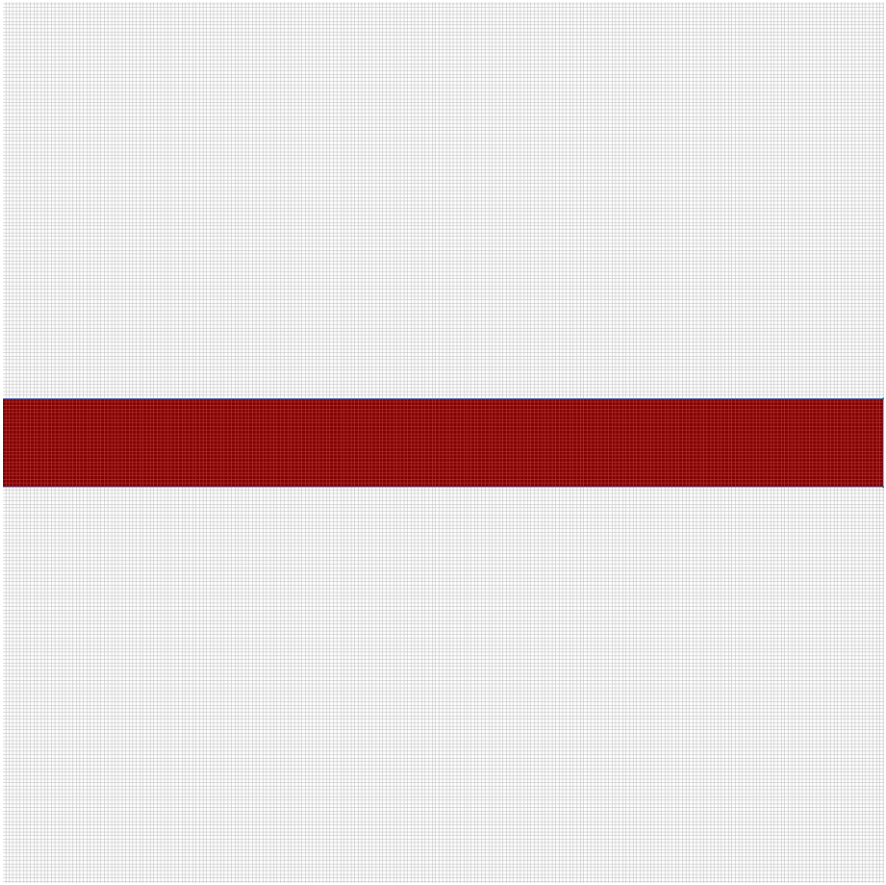
Blocks:	Edges:	Vertices:
• body •	• b1 • a1 • b2 • a2 •	

Detailed information about each label is listed below.

Labelled objects: block "body"

There are (1) objects with this label

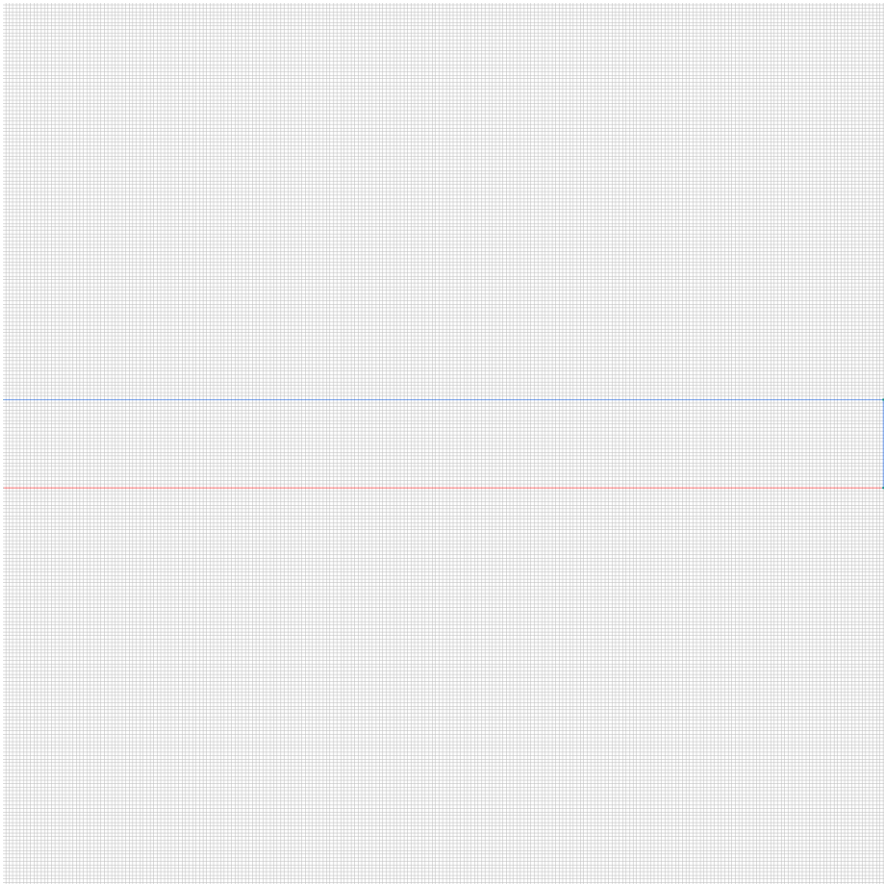
Thermal conductivity: lambda_x=600 [W/(K*m)], lambda_y=600 [W/(K*m)]
Specific heat: C=600 [J/(kg*K)]
Mass density: rho=2000 [kg/m3]



Labelled objects: edge "b1"

There are (1) objects with this label

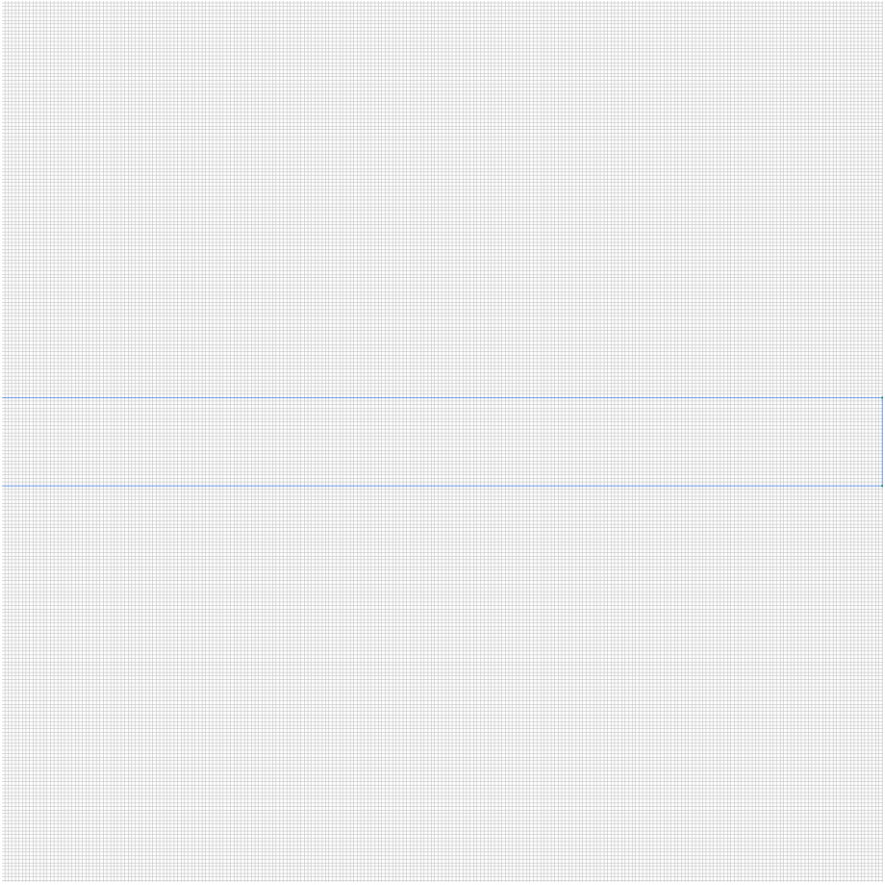
Heat flux: F=0 [W/m2]



Labelled objects: edge "a1"

There are (1) objects with this label

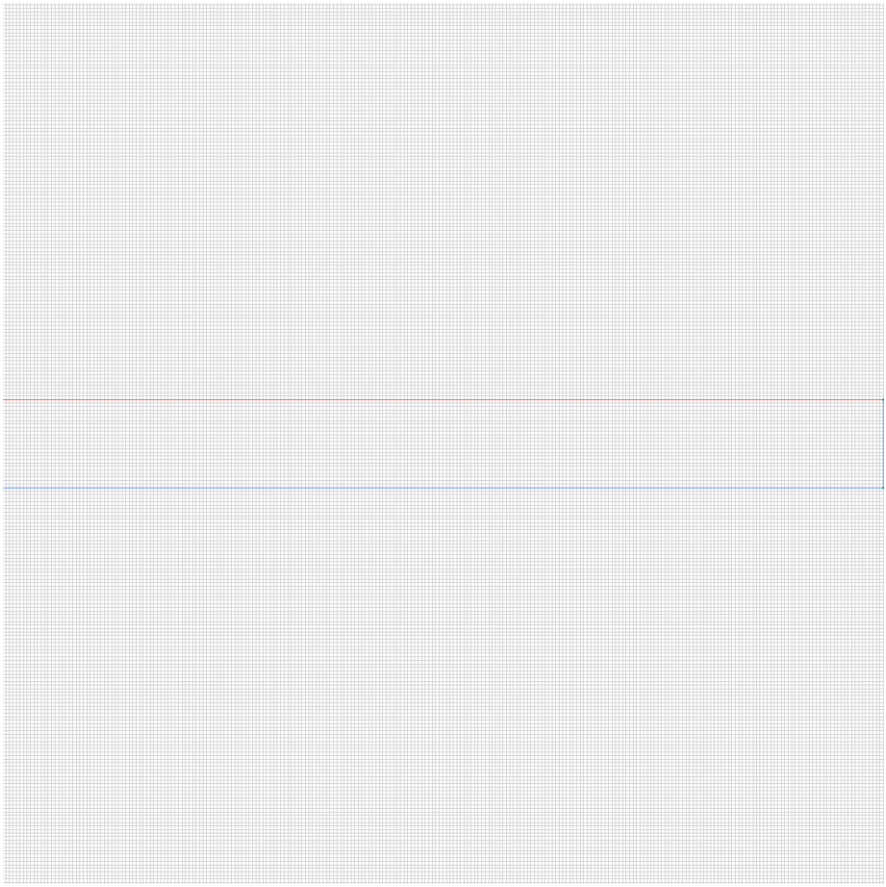
Temperature: T=-193.15 [K]



Labelled objects: edge "b2"

There are (1) objects with this label

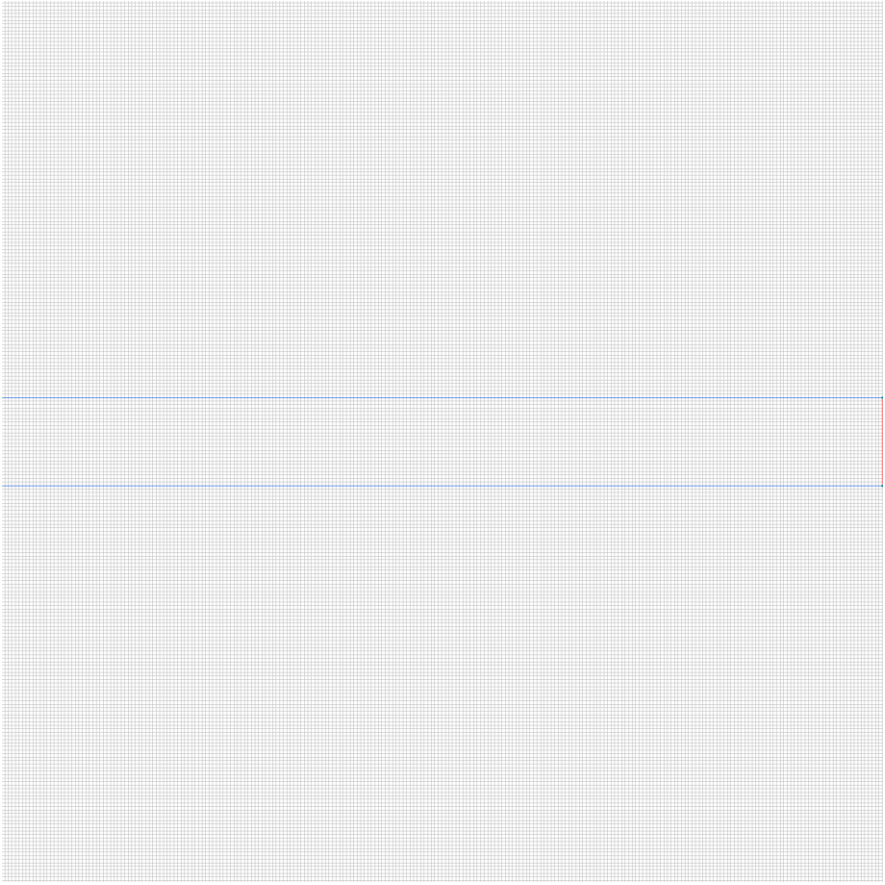
Heat flux: F=0 [W/m2]



Labelled objects: edge "a2"

There are (1) objects with this label

Temperature: T=-273.15 [K]

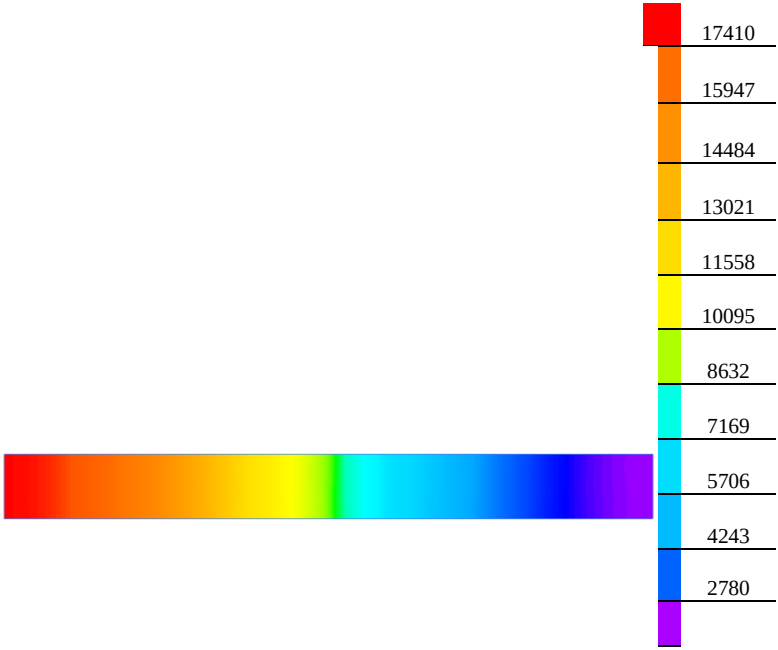


Results

Field lines

Results

Color map of Heat flux |F| [W/m2]



Nonlinear dependencies

No non-linear dependencies are used in this problem data