Here is a small example of a minimal ASCII MSH4.1 file, with a mesh consisting of two quadrangles

and an associated nodal scalar dataset (the comments are not part of the actual file):

$MeshFormat

4.1 0 8 MSH4.1, ASCII

$EndMeshFormat

$Nodes

1 6 1 6 1 entity bloc, 6 nodes total, min/max node tags: 1 and 6

2 1 0 6 2D entity (surface) 1, no parametric coordinates, 6 nodes

1 node tag #1

2 node tag #2

3 etc.

4

5

6

0. 0. 0. node #1 coordinates (0., 0., 0.)

1. 0. 0. node #2 coordinates (1., 0., 0.)

1. 1. 0. etc.

0. 1. 0.

2. 0. 0.

2. 1. 0.

$EndNodes

$Elements

1 2 1 2 1 entity bloc, 2 elements total, min/max element tags: 1 and 2

2 1 3 2 2D entity (surface) 1, element type 3 (4-node quad), 2 elements

1 1 2 3 4 quad tag #1, nodes 1 2 3 4

2 2 5 6 3 quad tag #2, nodes 2 5 6 3

$EndElements

$NodeData

1 1 string tag:

"A scalar view" the name of the view ("A scalar view")

1 1 real tag:

0.0 the time value (0.0)

3 3 integer tags:

0 the time step (0; time steps always start at 0)

1 1-component (scalar) field

6 6 associated nodal values

1 0.0 value associated with node #1 (0.0)

2 0.1 value associated with node #2 (0.1)

3 0.2 etc.

4 0.0

5 0.2

6 0.4

$EndNodeData

Below is a small example (a mesh consisting of two quadrangles with an associated nodal scalar

dataset; the comments are not part of the actual file!):

$MeshFormat

2.2 0 8

$EndMeshFormat

$Nodes

6 six mesh nodes:

1 0.0 0.0 0.0 node #1: coordinates (0.0, 0.0, 0.0)

2 1.0 0.0 0.0 node #2: coordinates (1.0, 0.0, 0.0)

3 1.0 1.0 0.0 etc.

4 0.0 1.0 0.0

5 2.0 0.0 0.0

6 2.0 1.0 0.0

$EndNodes

$Elements

2 two elements:

1 3 2 99 2 1 2 3 4 quad #1: type 3, physical 99, elementary 2, nodes 1 2 3 4

2 3 2 99 2 2 5 6 3 quad #2: type 3, physical 99, elementary 2, nodes 2 5 6 3

$EndElements

$NodeData

1 one string tag:

"A scalar view" the name of the view ("A scalar view")

1 one real tag:

0.0 the time value (0.0)

3 three integer tags:

0 the time step (0; time steps always start at 0)

1 1-component (scalar) field

6 six associated nodal values

1 0.0 value associated with node #1 (0.0)

2 0.1 value associated with node #2 (0.1)

3 0.2 etc.

4 0.0

5 0.2

6 0.4

$EndNodeData

The binary file format is similar to the ASCII format described above:

$MeshFormat

version-number file-type data-size

one-binary

$EndMeshFormat

$Nodes

number-of-nodes

nodes-binary

$EndNodes

$Elements

number-of-elements

element-header-binary

elements-binary

element-header-binary

elements-binary

...

$EndElements

[ All other sections are identical to ASCII, except that

node-number, elm-number, number-of-nodes-per-element

and values are written in binary format. Beware that all the

$End tags must start on a new line. ]