

SimNIBS 2.0.0 Tutorials

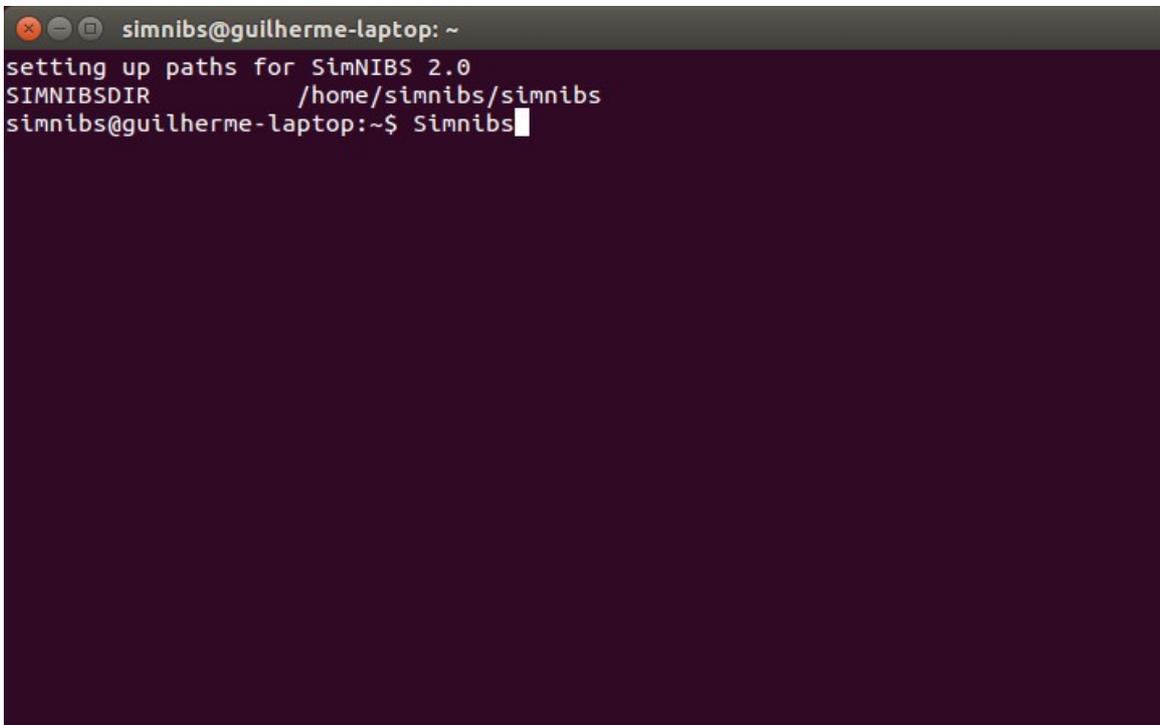
tDCS Simulation

Once SimNIBS is properly installed you should get the message:

```
setting up paths for SimNIBS 2.0.0
```

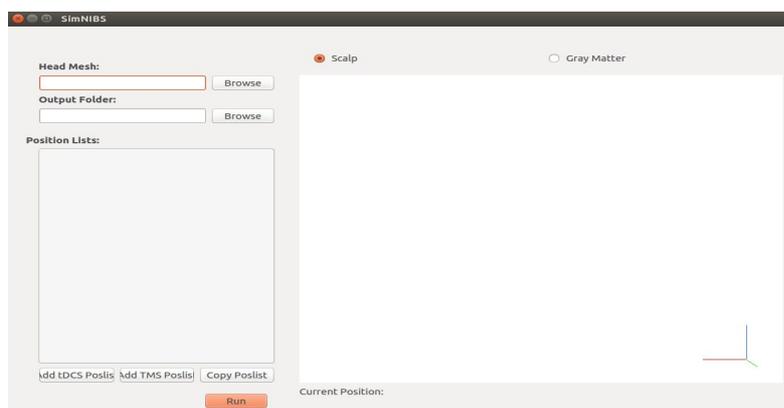
```
SIMNIBSDIR      /path/to/simnibs/folder
```

Start the SimNIBS Graphical User Interface by typing `simnibs_gui` in the terminal.



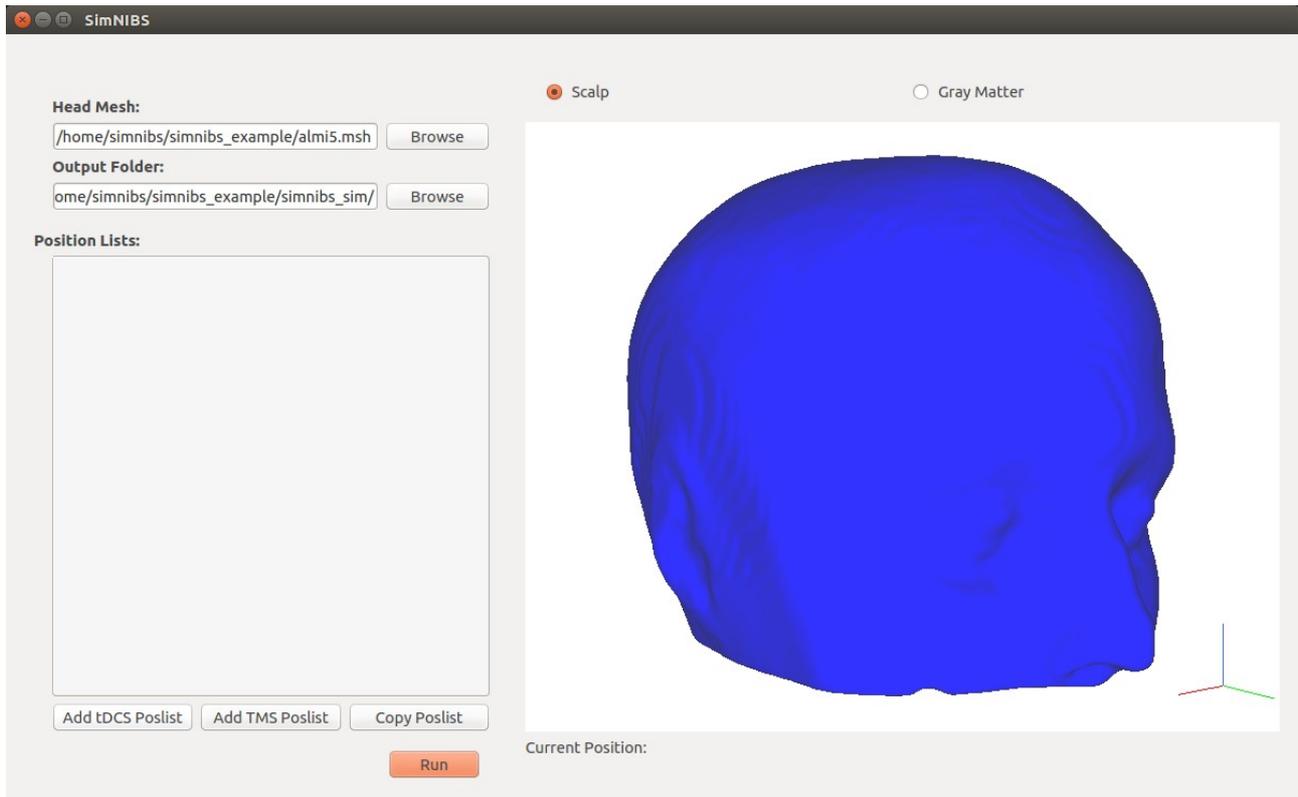
```
simnibs@guilherme-laptop: ~  
setting up paths for SimNIBS 2.0  
SIMNIBSDIR      /home/simnibs/simnibs  
simnibs@guilherme-laptop:~$ Simnibs
```

The following window should appear:

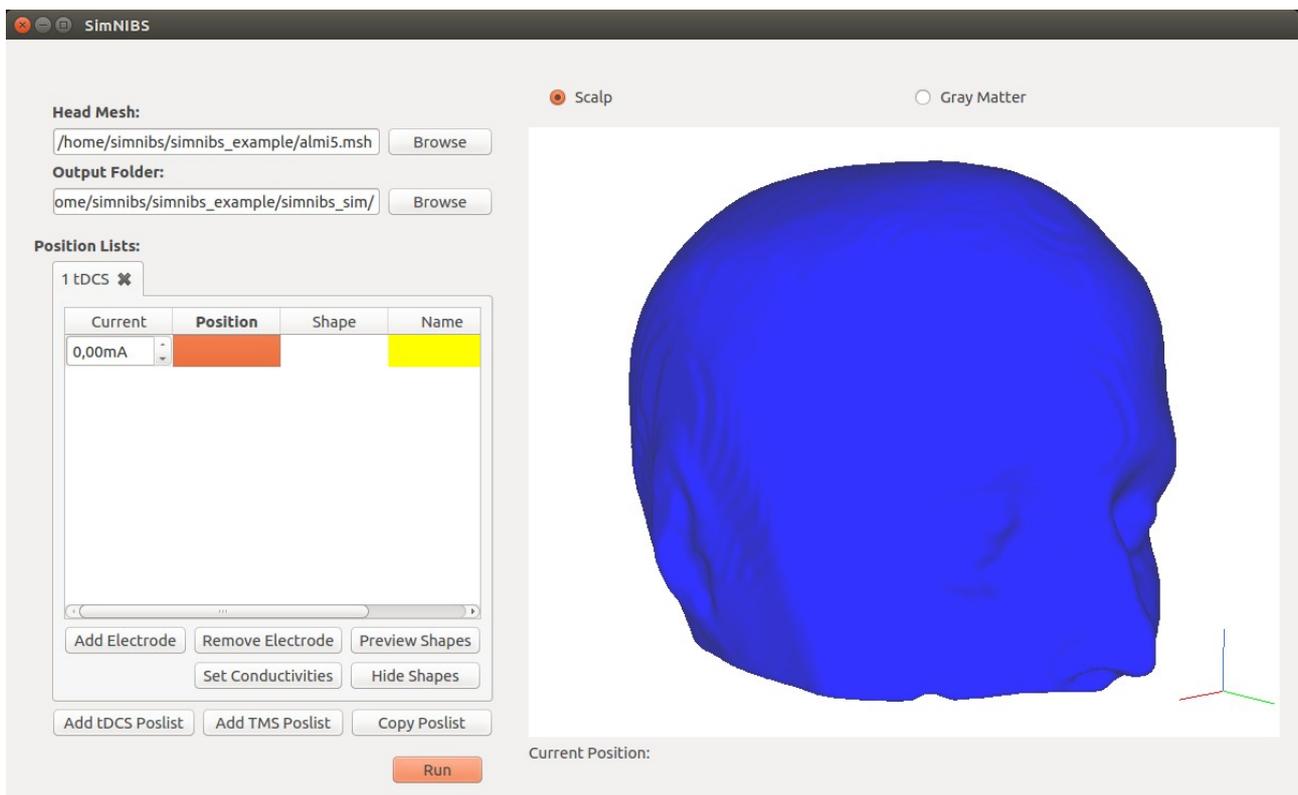


Click on “Browse” next to the highlighted area in order to select a head model “.msh” file

When selected, the model will appear in the right-hand side

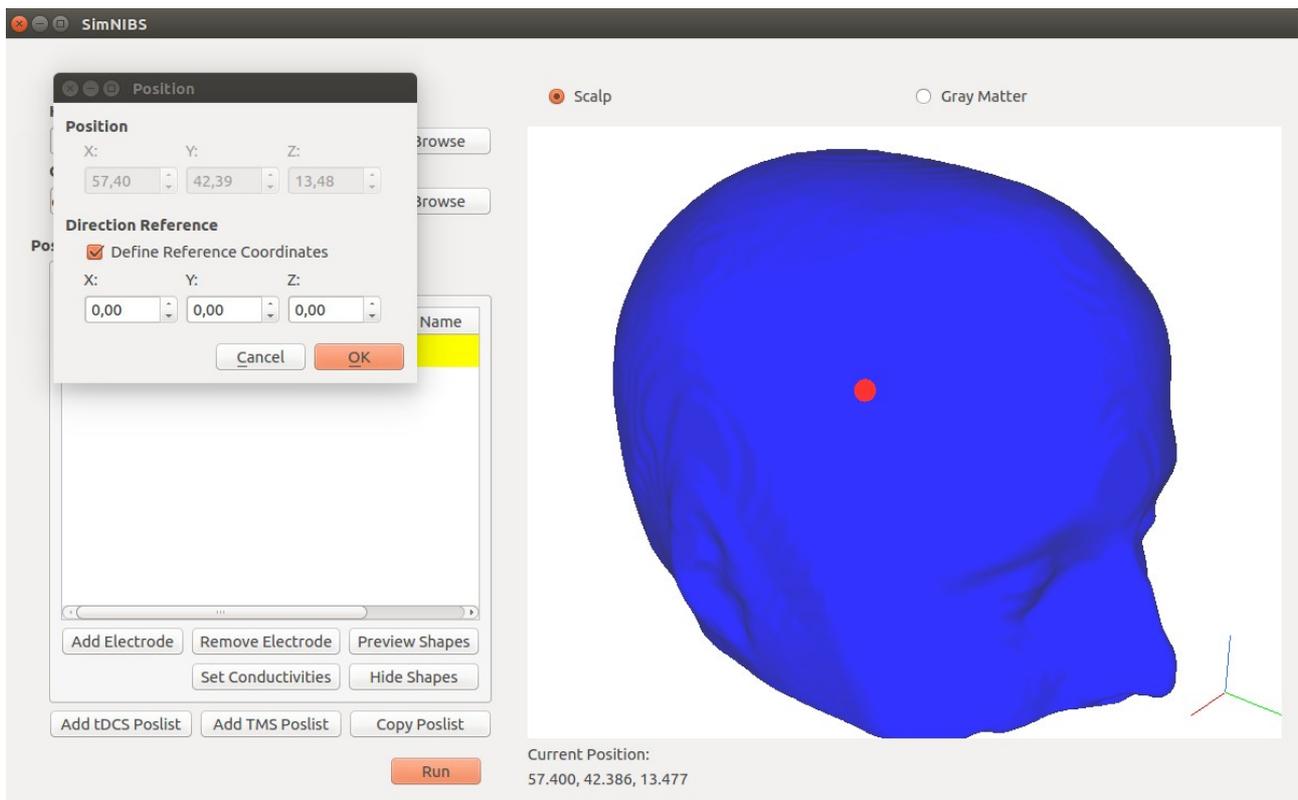


For setting up a tDCS simulation, click on “Add tDCS Poslist”



Now, define an electrode position and direction, by clicking twice in the “Position” cell.

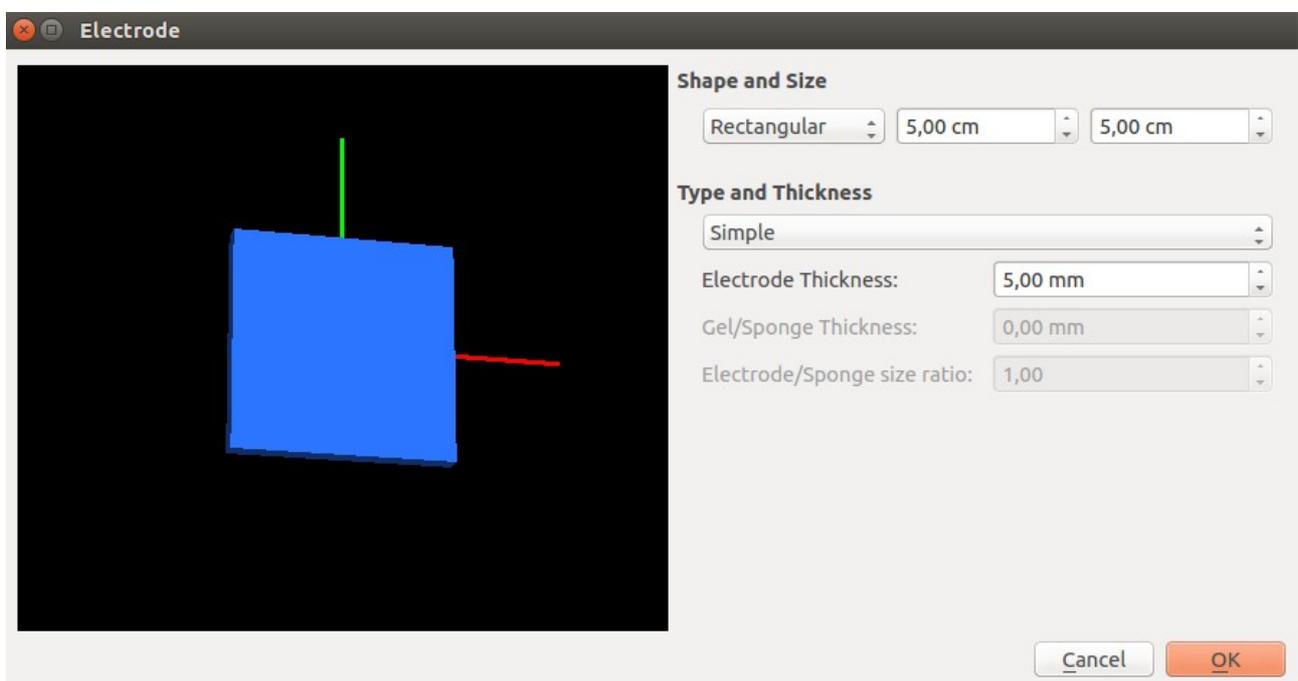
Click twice in the head model for defining the electrode center



And twice again in a nearby point for defining the y-axis direction. The y-axis will go from the center to the defined point.

After defining the 2 points, a sphere will appear indicating the electrode center, and 3 axis indicating the x (red) ,y (green) and z (blue) axis.

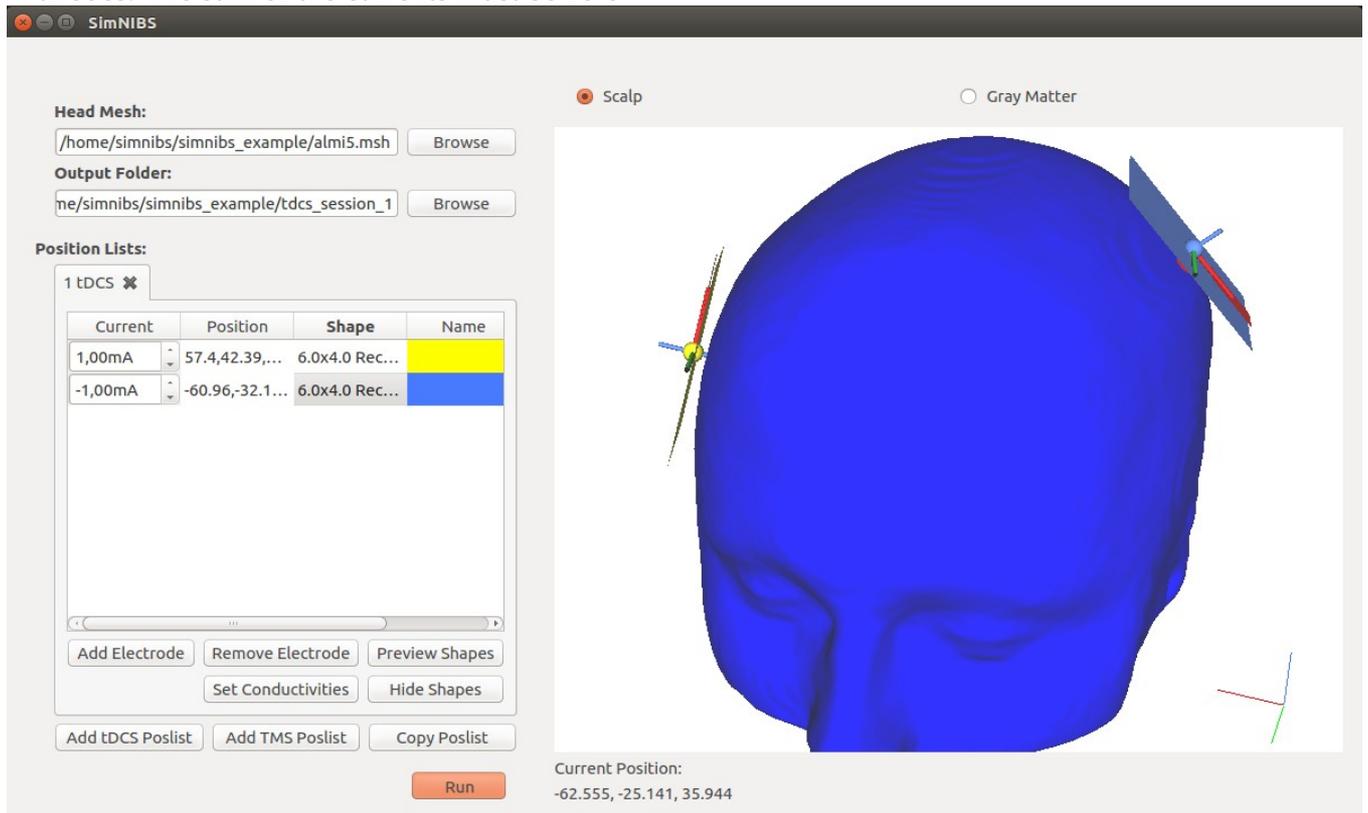
For defining the electrode shape and sizes, click twice in the “Shape” cell. The following screen will appear



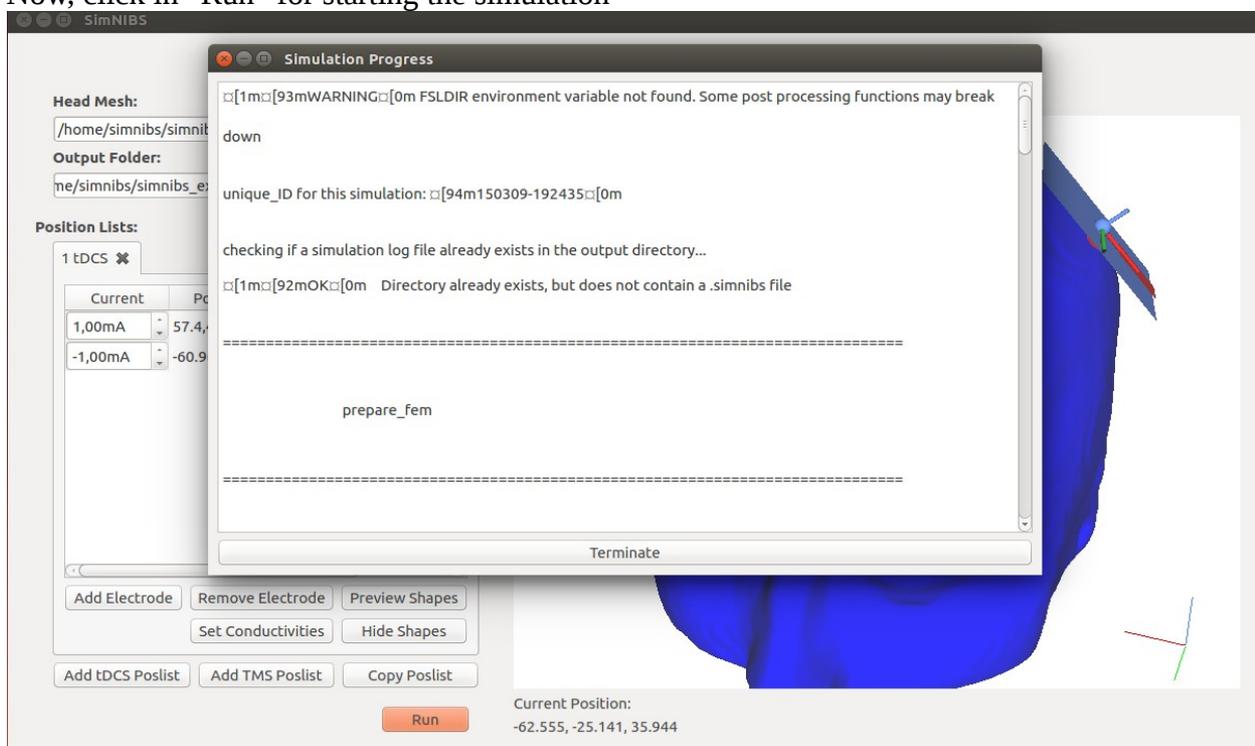
After defining the electrode and clicking “OK”, you can click on “Preview Shapes” for visualizing the electrode in the head model. The preview size may seem bigger than the intended size.

Now, define a second electrode. You may define as many as you wish.

Set the currents flowing through each electrode. Positive currents for cathodes, negative for anodes. The sum of the currents must be zero



Now, click in “Run” for starting the simulation



When the simulation is finished a message with the final file names will appear.

You can open the final results using Gmsh. Type

```
gmsh <file_name>
```

In the Terminal.

In the Left-hand side of the screen, the user can select which field to visualize

In Tools->Visibility, the user can select the tissue you want to see: 1: WM, 2:GM, 3:CSF, 4:Bone, 5:Scalp

In Tools->Options->Mesh, the user can select to turn the mesh surfaces and volumes visualization on and off. We recommend turning both off for better visualizing the fields

In Tools->Options->View, the user can change the field display properties

In Tools->Clipping, the user can clip the model

