FLUENT - Supersonic Flow Over a Wedge- Step 3

Step 3: Specify Boundary Types in GAMBIT

We'll label the boundary ABCDE as *farfield*, EF as *wedge* and AF as *symmetry*. Recall that these will be the names that show up under boundary zones when the mesh is read into FLUENT.

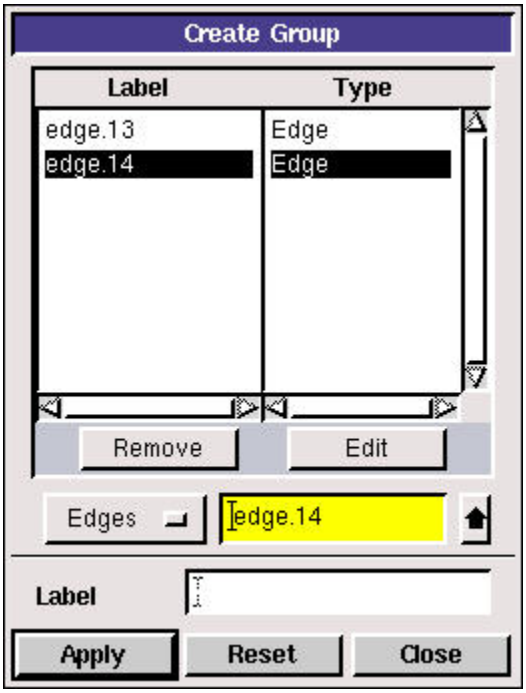
Group Edges

We'll create groups of edges and then create boundary entities from these groups.
First, we will group AB, BC, CD and DE together.

Operation Toolpad > Geometry Command Button > Group Command Button > Create Group

Select ***Edges*** and enter *farfield* for ***Label***, which is the name of the group. Select the edges AB, BC, CD and DE.

Note that GAMBIT adds the edge to the list as it is selected in the GUI.



Click ***Apply***.

In the transcript window, you will see the message "Created group: farfield".

```
Command> group create "farfield" edge "edge.6" "edge.5" "edge.4" "edge.3"
Created group: farfield
```

Similarly, create the other two groups. You should have created a total of three groups:

Group Name	Edges in Group
farfield	AB,BC,CD,DE
wedge	EF
symmetry	EF

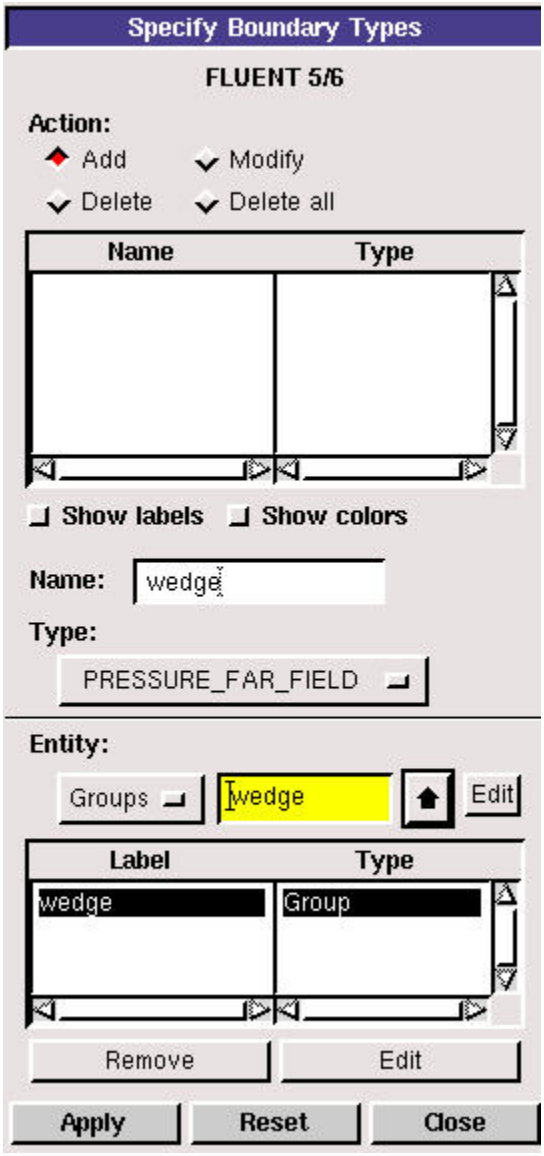
Define Boundary Types

Now that we have grouped each of the edges into the desired groups, we can assign appropriate boundary types to these groups.

Operation Toolpad > Zones Command Button  **> Specify Boundary Types** 

Under ***Entity***, select ***Groups***.

Click on the wedge surface. Next to ***Name***:, enter `wedge`. Leave the ***Type*** as ***WALL***.



Click ***Apply***.

In the *Transcript Window*, you will see a message saying "Created Boundary entity: wedge".

Similarly, create boundary entities corresponding to *farfield* and *symmetry* groups. Set ***Type*** the to ***Pressure Farfield*** and ***symmetry*** in each case.

Save Your Work

Main Menu > File > Save

Export Mesh

Main Menu > File > Export > Mesh...

Save the file as `wedge.msh`.

Make sure that the ***Export 2d Mesh*** option is selected.

Check to make sure that the file is created.

Go to Step 4: Setup (Physics)

See and rate the complete Learning Module

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