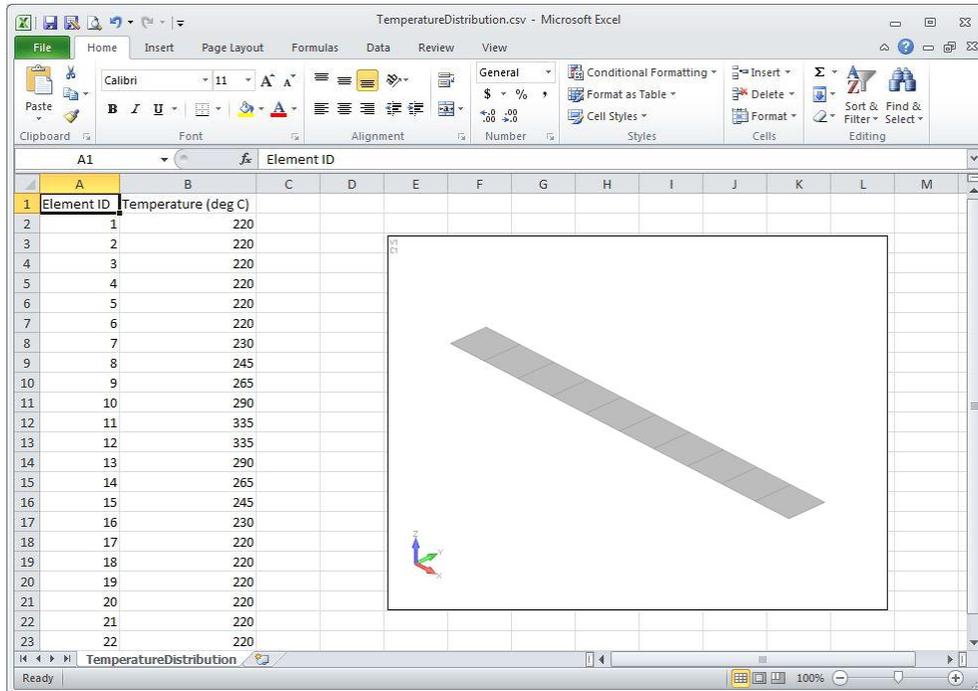


## Femap Tips and Tricks: Temperature Loading Import from Excel

Sometimes element or nodal temperature distributions that are created by thermal solvers are only available in the form of a spreadsheet. We would like to take these values and turn them into a load case for subsequent analysis, so let's see how to do this in Femap.

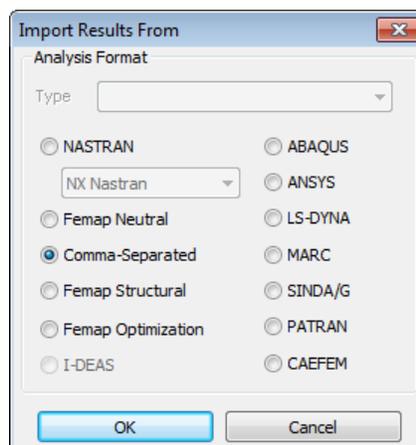
The demonstration model for this is a very simple strip of ten quad elements, and we also have a temperature distribution in the form of a spreadsheet, which has actually been saved in a comma delimited format.



Element ID	Temperature (deg C)
1	220
2	220
3	220
4	220
5	220
6	220
7	220
8	230
9	245
10	265
11	290
12	335
13	335
14	290
15	265
16	245
17	230
18	220
19	220
20	220
21	220
22	220
23	220

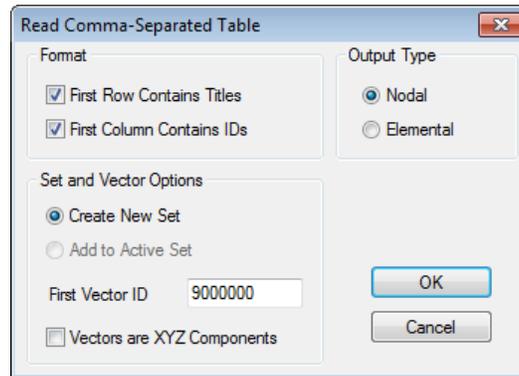
These temperatures can be imported into Femap in the form of a results vector.

In the menu select **File / Import / Analysis Results...** and in the resulting *Import Results From* dialog, select **Comma-Separated**.



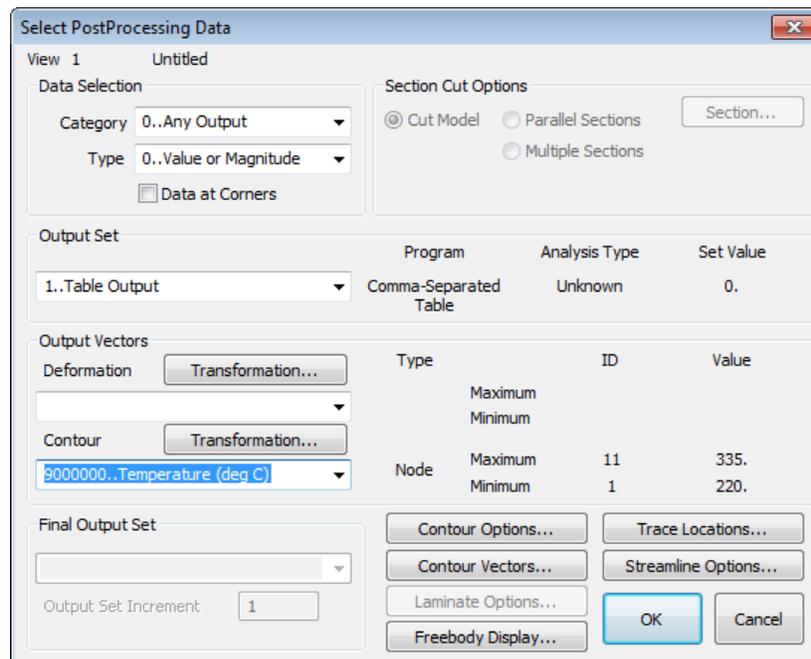
Click **OK** and browse to select the spreadsheet csv file that contains the temperature distribution data.

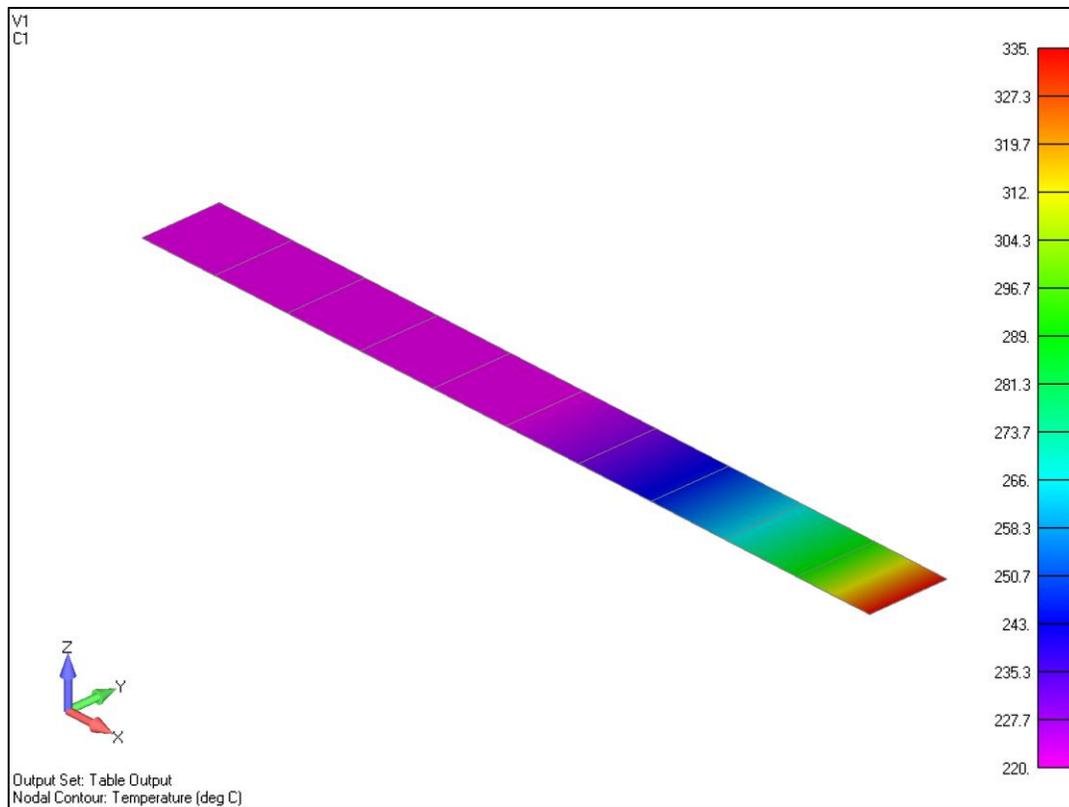
In the Read Comma-Separated Table dialog ensure that the format settings match the spreadsheet layout. For this example we are reading in nodal data, and we'll create a new output set with an ID of 9000000. Click **OK**.



We can check the temperature values by plotting them out as if they were results vector values.

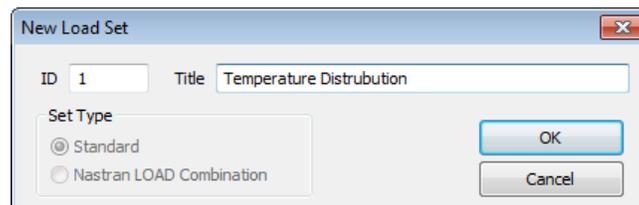
Click the **Post Data** icon  on the *Post* toolbar then select the vector **9000000. Temperature (deg C)** in the *Output Set Contour* box.



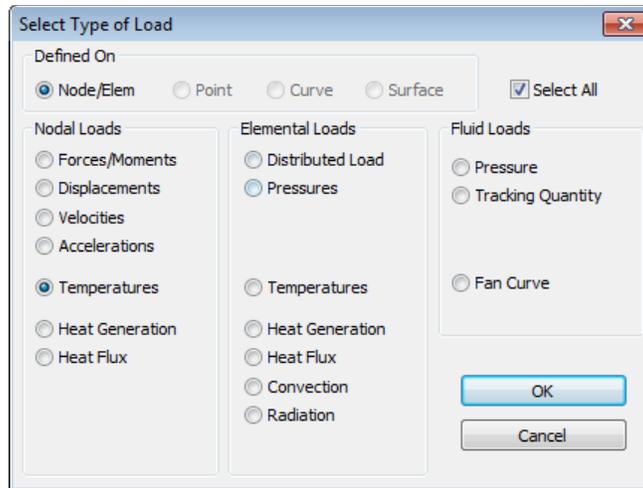


The next step is to convert this results vector into a load case.

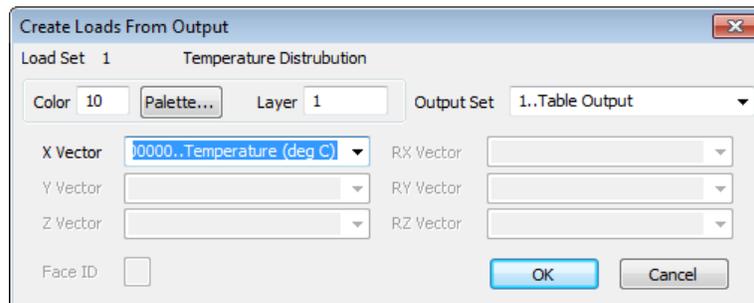
In the menu, select **Model / Load / From Output...** and enter a title in the following dialog, and click **OK**.



As this is nodal temperature data, in the *Select Type of Load* dialog, select **Temperatures** in the *Nodal Loads* column and click **OK**.



In the subsequent *Create Loads From Output* dialog, pick up the temperature vector in the **X Vector** box, and click **OK**.



The temperature load definition has now been created.

You can watch the video of this Femap tip on [YouTube](#).