For the users who want to run this meshing tool without external tool, the following section expands on the format of Varai2D raw data – txt file.

Example 1:

A purple triangle with a circle and numbers

Description automatically generated

In-order to create the surface above, we need the following inputs

######################################################

####### Samson Mano's Varai2D Raw Data ###############

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[+] End Points, 6

0, -657.82177734375, -250.38616943359375

1, -657.82177734375, 249.61383056640625

2, 142.17822265625, 249.61383056640625

3, 142.17822265625, -0.38616943359375

4, -531.089111328125, 55.554443359375

5, -331.089111328125, 55.554443359375

[+] Lines, 4

0, 0, 1

1, 1, 2

2, 2, 3

3, 0, 3

[+] Arcs, 2

4, 4, 5

c0, -431.089111328125, 60.027915954589844

c1, -431.089111328125, 160.1279296875

5, 4, 5

c0, -431.089111328125, 51.08096694946289

c1, -431.089111328125, -49.019046783447266

[+] Surfaces, 2

0, {1, 2, 3, 0}, n@1

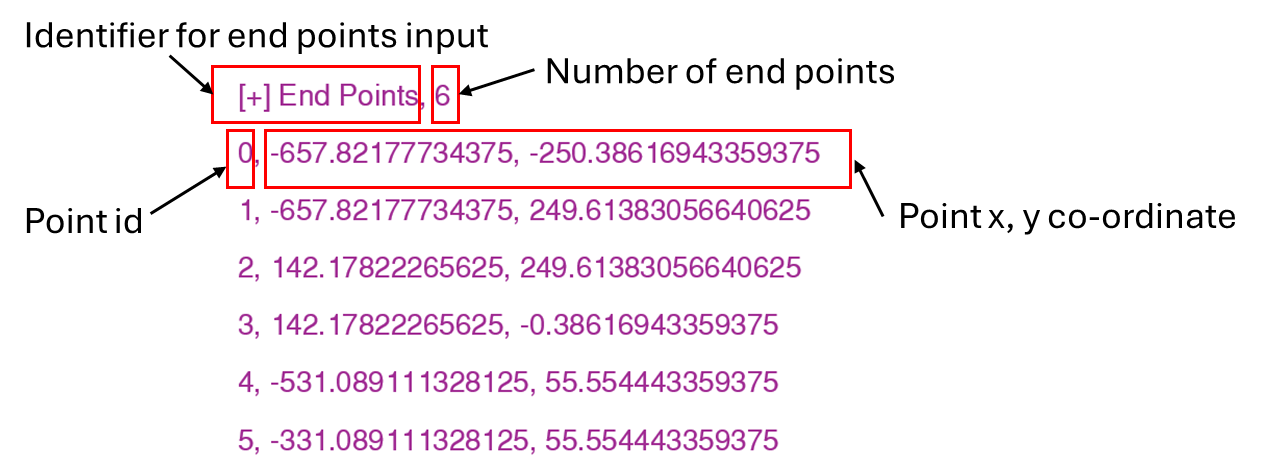
n0[5, 4]

1, {5, 4}, n@0

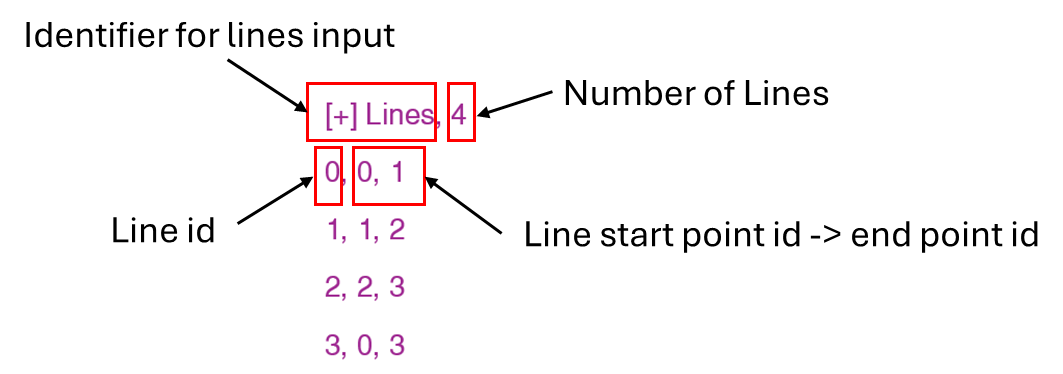
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Input: End points

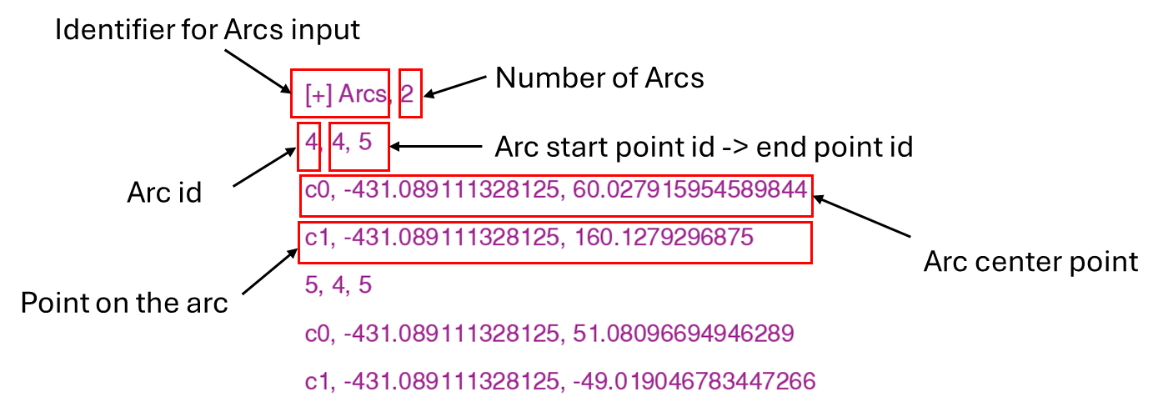


Input: Lines



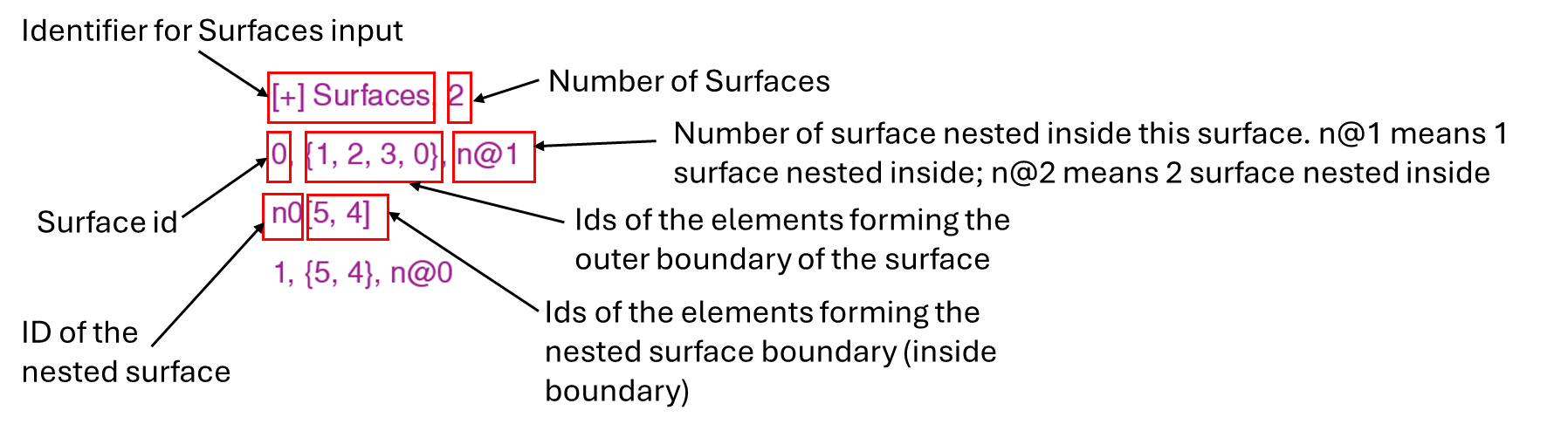
Input: Arcs

To create a circular arc, we need four points. The end points are already given. The points co is the arc center point and c1 is the point on the circular arc.



Input: Surface

The most important input to run the mesher is the surface input. Without the surface input the file will not be read by the mesher. Surface input covers the nesting data.

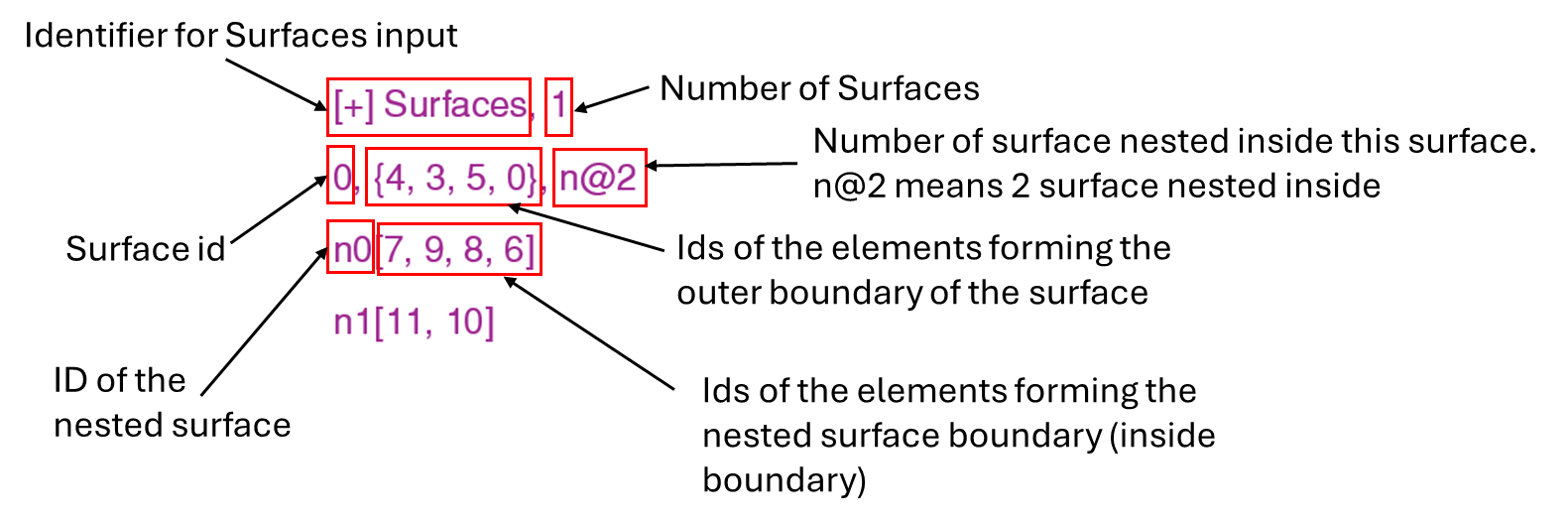


Example 2:

The surface input to form the below surface is shown below. This surface has two nested boundaries inside.

A purple envelope with a white circle and a hole in the middle

Description automatically generated



Result from the mesher:

A purple rectangular object with a hole and a circle

Description automatically generated