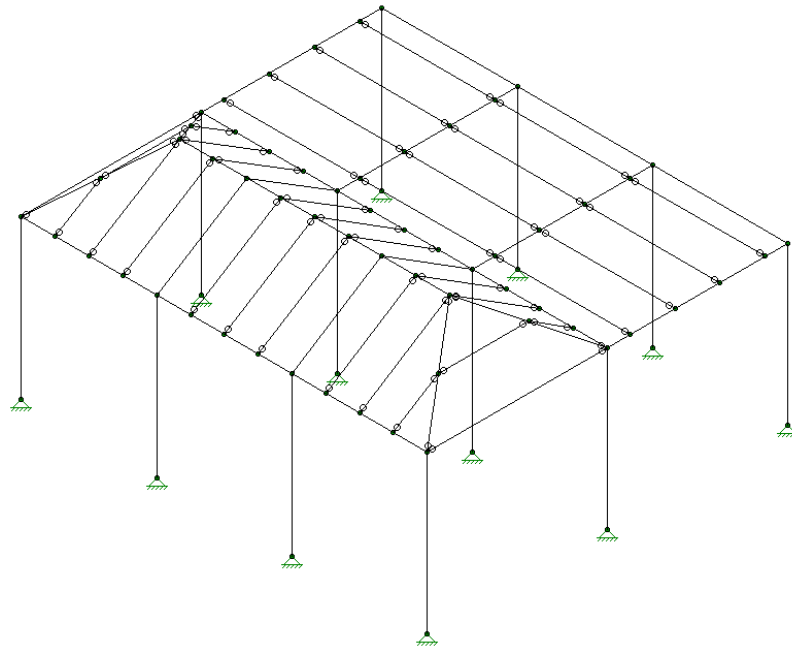


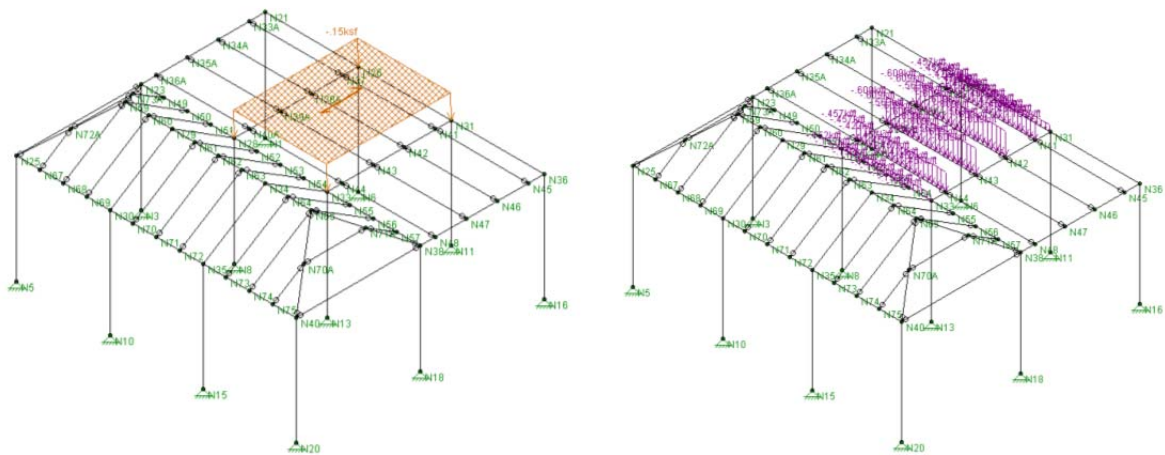
Member Area Loads

Member area loads allow you to apply blanket loading to your model for wind loading, floor loading, etc. When you apply member area loads, the program internally attributes the load applied to the members that are described the area of the load.

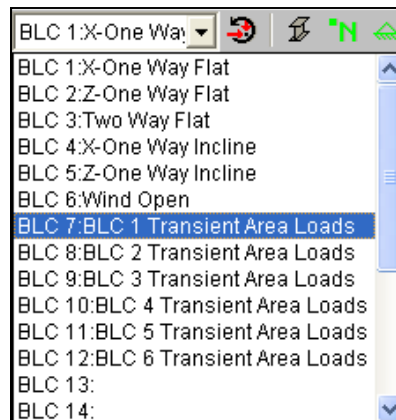
- Open **Area Load.r3d** and we will illustrate many of the main features, including the Two Way, One Way, and Open Structure load attribution methods.
- Solve a **Batch** solution.



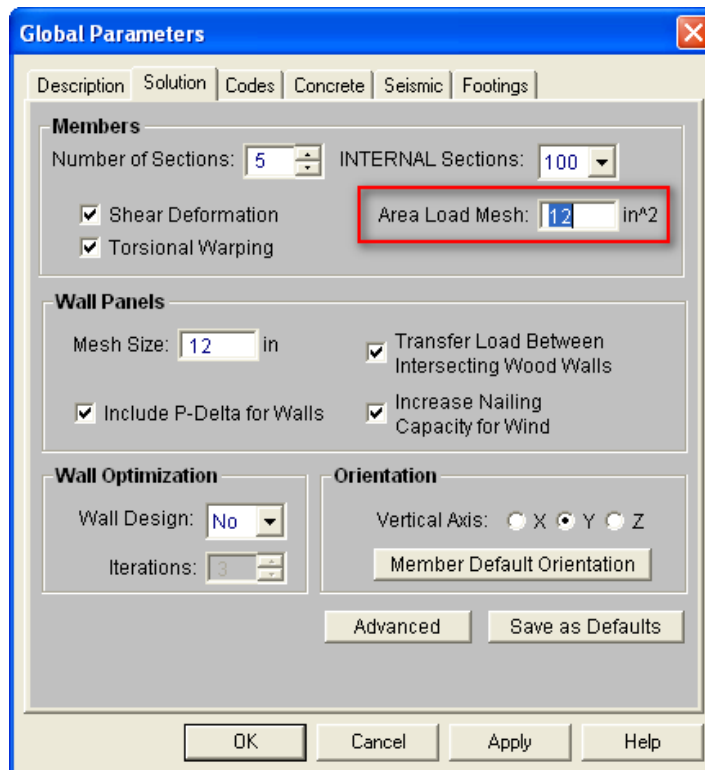
Let's walk through the loading applied to the structure by looking at the different BLCs. Notice how after a model is solved that there is a new *Transient* load case that is created that shows how the load is attributed.



- To see these transient loads, make sure the viewing **Loads** button  is flipped on and look in the drop-down list for BLCs that have **Transient Area Loads** in them:

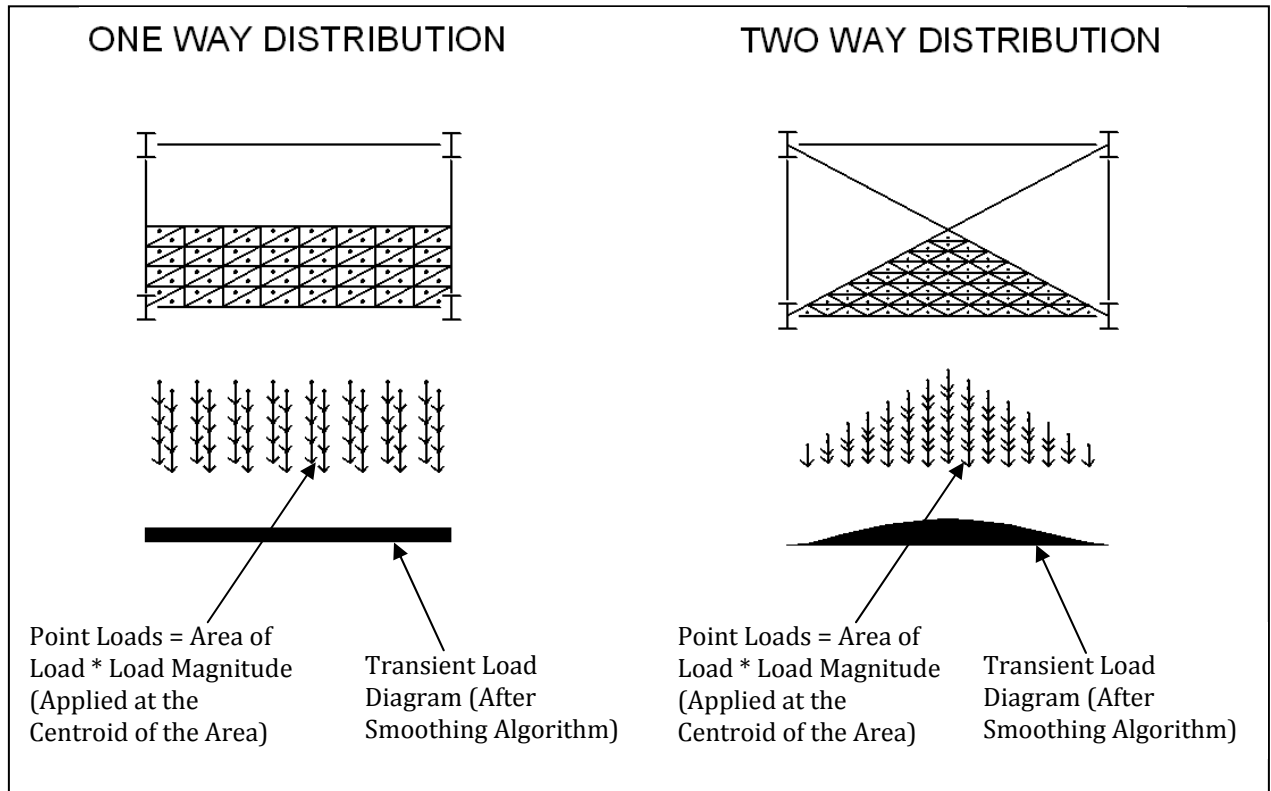


The load is attributed to the model according to the **Area Load Mesh**. This is set in the **Global Parameters** under the **Solution** tab.



Here is a graphical representation of how the load is broken down for both *One Way* and *Two Way* load distributions:

- Area loads are divided into meshes of smaller areas and each area is attributed to the nearest member in the direction specified.
- Once the area of each piece of the load mesh is smaller than the **Area Load Mesh** set in **Global Parameters**, the area of the triangular load is converted into a point load placed at the centroid of the individual mesh piece. This point load is then attributed onto the nearest member. The point loads are then converted back into distributed loads on the member by collecting the point loads within each of the 10 segments.



Notes: