Adding Loads to Specific Load Case(s)

Occasionally, a job will require modifying one or more of the load cases that the MiTek Engineering software generates. A job might require adding loading from a steeple or a knee-brace into just the wind load cases or a tie-in truss with uplift reactions in a gravity load case that needs to be applied to the girder. For example, a truss that has the load bearing wall below near the girder supporting the truss at the very end, creating an uplift reaction that needs to be transferred from the supported trusses to the girder in a gravity load case.

Project specifications will determine which load case(s) will need to be modified. With steeples, multiple wind load cases will typically need to be modified. Girder trusses may actually have uplift reactions that will require modifying one or more of the "gravity" load cases. See Figure 1 for an example of a load case list.

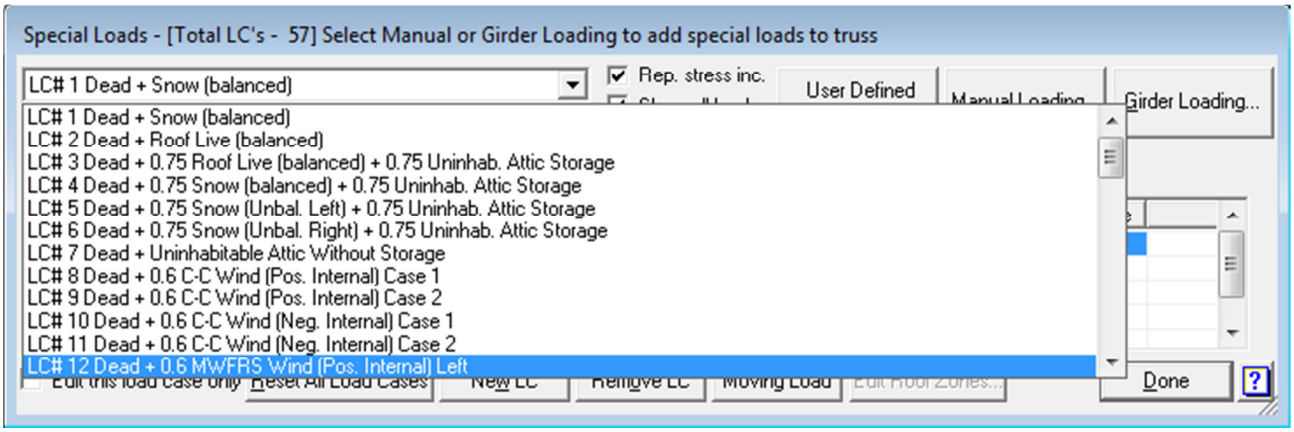

Figure 1 – Load Case List

The first step to modifying a specific load case is to duplicate the load case that needs to be modified. Start by opening Special Loads and choosing the desired load case in the upper left hand corner. When the desired load case is displayed, click the **New LC** button as shown in Figure 2.

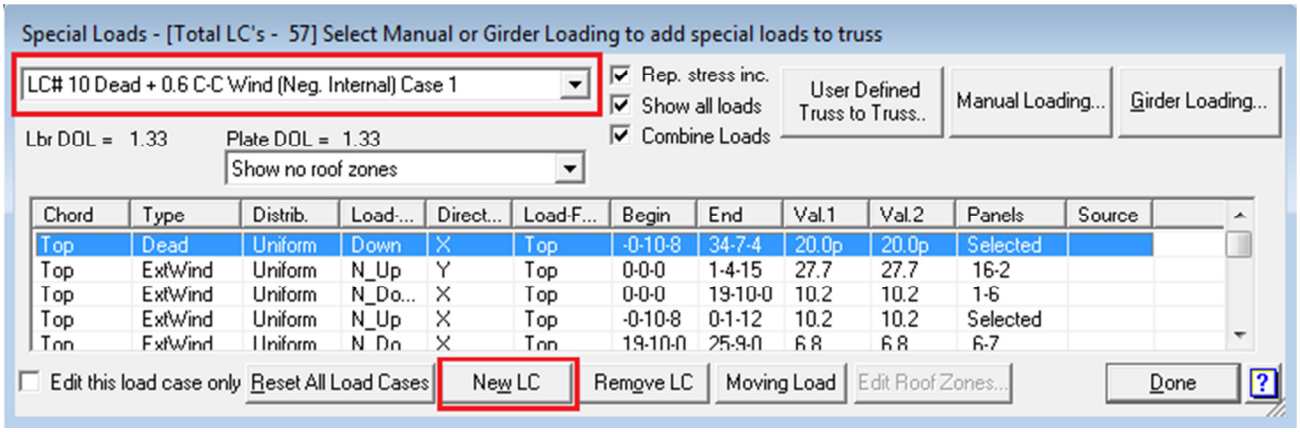

Figure 2 – New Load Case

By clicking **New LC** a duplicate of the displayed load case is added to the end of the list of load cases and will be called a "User Defined" load case. The program automatically switches to this new load case, as noted in the upper left hand corner, see Figure 3.

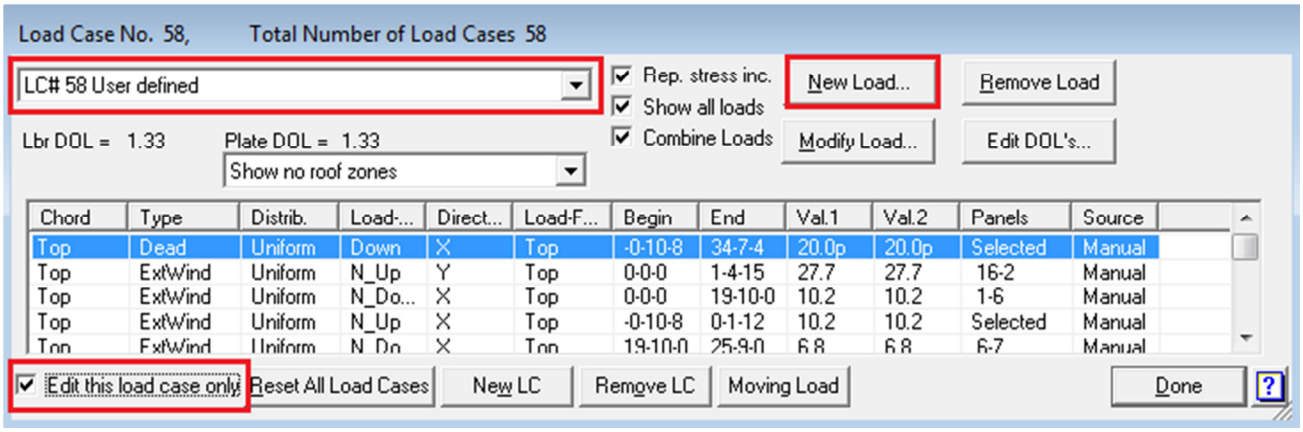

Figure 3 – User Defined Load Case

To modify only this "User Defined" load case, select **Edit this load case only** in the lower left hand corner, see Figure 3. The next step is to add the loading needed to this load case. Click on **New Load** in the upper right hand corner as shown in Figure 3. A dialogue box will open that allows you to enter and define this new load as required, see Figure 4. Once the new load information has been entered, click **OK**.

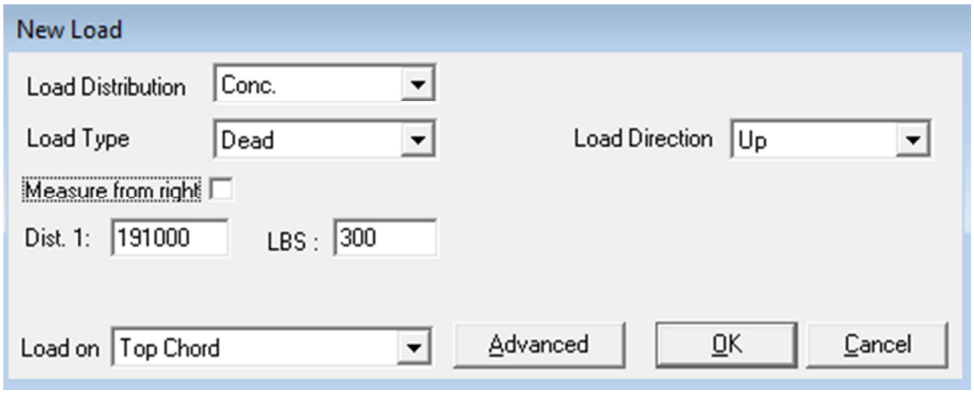

Figure 4 – New Load Dialogue Box

After you are finished adding all the loads, you can scroll up to a different load case and complete these steps again to add loads to a different load case. For example, if you were entering loads for a steeple in Wind Left load case, you would now need to go to the Wind Right load case and click **New LC** and add the appropriate loads. Once all the loads required for all of the affected load cases have been added, click **Done** to get out of Special Loads and then you can analyze the truss.

For further questions concerning adding manual loads to specific load cases, or if you have questions, please contact the MiTek Engineering department.