

## Webinar Questions and Answers

1. **Q: Does the time history file have to be defined as time vs. acceleration/gravity and multiplied by “g” with the load case scale factor?**

A: In this example the history file values were in terms of acceleration/gravity, but that is not mandatory. You just need to make sure an appropriate scale factor is used based on the input file.

2. **Q: What is the difference between absolute and relative acceleration?**

A: Relative acceleration is within the reference frame local to the structure. Absolute acceleration is within a universal reference frame and is given as the sum of relative acceleration and ground acceleration.

3. **Q: Can we perform time-history analysis in 2 directions in one analysis?**

A: Yes, you can define as many time history functions and cases as you wish and analyze them all at once.

4. **Q: Can the time history results be plotted for diaphragms of different floors?**

A: Yes, you can select any joint that is a part of a diaphragm and view the using the plot functions tool under the Display menu.

5. **Q: What value should be defined for the output step size for time history analysis?**

A: Output time step output size should be small enough to capture any significant behavior. Try a larger time step size first and keep decreasing the step size value until time history output values are no longer changing.

6. **Q: What forces are included in the reaction from time history analysis?**

A: Reactions include only the effects of elastic, and possibly inelastic, forces, unless links are connected to joint locations, in which case the damping forces within link objects are included during computation of joint reactions.

7. **Q: What does “Default Uniform” mean in the time history function definition?**

A: Default Uniform is a time history function that has constant acceleration. This is located in the Time History Load Case form under Function and is the same as the UniformTH function.

8. **Q: How are time history results displayed at each time step?**

A: Time history results may be displayed at each time step by selecting the appropriate response quantity through Display>Show Tables, then selecting Modify/Show Options. In this menu, you change the Direct History Results from Envelopes to Step by Step.

