

# Lost accuracy

CSI Software performs computation with 16 digits of accuracy, some of which may be lost when analysis involves systems of significantly different stiffness, where lower-order values are truncated to suit operations with higher-order values. When **lost accuracy** occurs, a warning message reports the location of the occurrence such that users may edit the model if necessary.

Some situations where numerical instability may occur include:

- When [frame](#) objects of significantly different stiffness connect at a common [joint](#).
- When the rigid-diaphragm assumption is applied to a slab with flexible interconnecting objects.
- When multiple releases are assigned to a joint, causing joint DOF to become orphaned (without stiffness). In this instance, numerical instability warnings indicate a modeling problem which should be corrected.

Depending on the number of digits lost, actions which result include the following:

- **Less than 6** does not generate a response because the values and solution are sufficiently accurate.
- **Between 6 and 11** lost digits of accuracy may or may not create numerical problems, therefore a warning message is reported which reads: The results of the analysis may still be acceptable but the user should carefully check the results, especially the global sums of loads.
- **Over 11** digits lost causes analysis to terminate because results may not be sufficiently accurate. The location of the numerical problem is indicated, and a warning message is presented which prompts the user to check and revise the model.

## See Also

- [Numerical problems FAQ](#)