Interpolation constraint

An interpolation constraint is applied to a series of joints such that the displacement of one joint is interpolated from that of two or more others. Interpolation follows a weighted approach which is a function of proximity to the constrained joint. This process prevents the need to create an internal master joint to govern the behavior of joints associated with the constraint. Automatic master joints are described in greater detail in the CSI Analysis Reference Manual (Automatic Master Joints, page 66).

An interpolation constraint may be applied, for example, at the end of a tendon which is anchored in the center of a solid object. Joint displacement at the tendon end may then be interpolated from the eight joints of the solid object. Similarly for frames and shells, the eight corners of a bounding box may correlate with the displacement of a joint assigned an interpolation constraint.