

Target force FAQ



This page is devoted to **frequently asked questions** (FAQ) related to [target force](#).

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- [Why does the load case not converge when target-force loading is specified?](#)

Is it possible to obtain the deformation load which achieves the specified target force?

Answer: The value of the deformation load which achieves the desired target force may be obtained through post-processing as follows:

1. For frame objects:
 - Calculate the undeformed length of the [frame](#) object before applying the target force from initial joint coordinates and initial axial force.
 - Calculate the undeformed length of the frame object after applying the target force from final joint coordinates and final axial force.
 - The difference between these two values represents the deformation load, in terms of undeformed object length, which must be applied to achieve the desired target force.
2. For catenary [cable](#) objects:
 - The procedure is similar except that the catenary profile of the deformed cable must be considered while calculating undeformed length. For example, draw the cable in its initial and final configurations according to the end [joint](#) coordinates obtained from [SAP2000](#) analysis. Undeformed length is then obtained once cable tension is specified on the Cable Geometry form.

Why does the load case not converge when target-force loading is specified?

Answer: Violation of equilibrium is the most common reason an object would not achieve the specified target force. Target forces should be checked to ensure that they are realistic. Further, the [nonlinear](#) solution parameters could be adjusted if target forces are not achieved.