Vibrating-machinery steel skid on piles

Tutorial

Name:	Vibrating-machinery steel skid on piles
Description:	This tutorial demonstrates the modeling of vibrating machinery and its connection to a steel-skid structural system.
Program:	SAP2000
Version:	
Model ID:	na

This tutorial demonstrates the modeling of vibrating machinery and its connection to a steel-skid structural system mounted to foundation piles. Modeling includes the implementation of soil damping and soil-structure interaction.

Tutorial content describes application of the following:

- Constraints which link machinery to structure
- Analytical-model meshing
- Mass sources and periodic time-history load cases
- Pile sections and connections
- Soil damping and springs

Upon conclusion of analysis, performance may be evaluated through deflection amplitudes, velocities, and accelerations, output plot function traces, and hysteretic behavior of multi-linear plastic links which correlate with dynamic-nonlinear P-Y and T-Z soil data. The tutorial PDF file, shown below, is also attached in the Attachments section.

Attachments

- Vibrating-machinery steel skid on piles (PDF)