This is a 3D OpenSEES nonlinear finite element model of a 52-story building in downtown Los Angeles, California.

The FEM model is created using the original structural drawings, and is calibrated based on recorded data during a number of earthquakes.

The FEM model has the following modules:

1. Gravity load analysis
2. Eigen analysis
3. Nonlinear pushover analysis
4. Nonlinear response history analysis

An example ground motion set is provided under "GMs" folder.

To run the FEM model, call "main.tcl" using the opensees.exe file provided, other tcl files are supplementary. The model may not run properly if different exe file is used.

This FEM correspond to the following publications:

Kalkan, E., Chopra, A.K. (2012). "Evaluation of Modal Pushover-based Scaling of one Component of Ground Motion: Tall Buildings", *Earthquake Spectra*: 28(4): 1469-1493. http://erolkalkan.com/Pubs/84.pdf

Kalkan, E. and Chopra, A.K. (2010). Practical Guidelines to Select and Scale Earthquake Records for Nonlinear Response History Analysis of Structures, USGS Open-File Report No: 2010-1068, 126 p. http://erolkalkan.com/Pubs/66.pdf

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