

Influence-based moving-load analysis first steps (SAP2000)

Tutorial

Name:	Influence-based moving-load analysis first steps
Description:	Procedure for initiating influence-based moving-load analysis.
Program:	SAP2000
Version:	12.1.0
Model ID:	na

Influence-based [moving-load](#) analysis is initiated through the following process:

- Define [Vehicle](#) type through Define > Bridge Loads > Vehicles.
- Define vehicle class through Define > Bridge Loads > Vehicle Classes.
- Define the [lane](#) through Define > Bridge Loads > Lanes.
- Define a moving-load [case](#) through Define > Load Cases > Add New Load Case. Set the load-case type to Moving Load, then specify the vehicles and lanes assigned to this moving load, as shown in Figure 1:

SAP2000 v14.1.0 Advanced - (Untitled)

Load Case Data - Moving Load

Load Case Name

Notes

Load Case Type

Stiffness to Use
☒ Zero Initial Conditions - Unstressed State
☐ Stiffness at End of Nonlinear Case

Important Note: Loads from the Nonlinear Case are NOT included in the current case

MultiLane Scale Factors

Number of Lanes Loaded	Reduction Scale Factor
1	1

Loads Applied

Assign Number	Vehicle Class	Scale Factor	Min Loaded Lanes	Max Loaded Lanes	Lanes Loaded
	VECL1	1	0	0	

Lane Definitions Loaded for Assignment

List of Lane Definitions

Selected Lane Definitions

Figure 1 - Load-case data

See Also

- [Influence-based moving-load analysis first steps \(CSiBridge\)](#)
- [CSI Analysis Reference Manual](#) , Chapter "Moving-Load Analysis"