Mechanical Simulation
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VehicleSim System Requirements & Software Compatibility

VehicleSim Products

- CarSim, TruckSim, and BikeSim

Operating Systems

- Windows 7 (32-bit and 64-bit), 8 (32-bit and 64-bit), and 10 (32-bit and 64-bit)

Minimum Hardware Specifications

- Hard Drive: 3 GB free disk space
- Memory: 1 GB RAM
- CPU: 1 GHz Intel® Pentium or equivalent
- Graphic processing unit (GPU): OpenGL 2.1 hardware support with 128 MB video memory (NVIDIA, AMD, or similar)

Recommended Hardware Specifications (Required for DS)

- Hard Drive: 10 GB free disk space
- Memory: 4 GB RAM
- CPU: 2.2 GHz Intel® i5 or equivalent for laptop; 3.0 GHz for desktop
- GPU: OpenGL 3.0 hardware support, 1 GB video memory (NVIDIA, AMD, or similar)
- For a driving simulator, consider a high-end gaming computer

External Software Compatibility

Notes Both 32-bit and 64-bit[1] versions are supported unless indicated otherwise.

For products and versions not listed, please contact Mechanical Simulation for more information.

- MATLAB: releases 2009b and newer
- LabVIEW: tested with versions 2011 and 2012. No known issues for LabVIEW versions back to 8.5 (32-bit only)
- ASCET 5.2 (32-bit only)
- TNO MF-Tyre 6.1 (32-bit only), 6.1.2 and 6.2.0.2
- TNO MF-Swift 6.1 (32-bit only), 6.1.2 and 6.2.0.2 (optional license required from TNO/TASS)

1 Running VS Models with 64-bit versions of MATLAB requires a compatible C compiler. See http://www.mathworks.com/support/compilers/R2014b/index.html for more information.

- TASS MF-Tyre/MF-Swift 7.0 and 7.1 (32-bit only) for CarSim (optional license required from TASS)
- TASS MF-Tyre/MF-Swift 7.0 and 7.1 (DS1006 only) for CarSim RT dSPACE (optional license required from TASS)
- COSIN FTire: tested versions 2011-1 through 2013-1, 2013-4, 2014-4, 2015-4, and 2016-1 through 2016-4 (optional license required from COSIN)
- AVL Cruise for CarSim starting with Version 2010.1 (optional licenses required from AVL and Mechanical Simulation). Tested versions 2010.1 through 2015.
- AVL Cruise for TruckSim starting with Version 2011.1 (optional licenses required from AVL and Mechanical Simulation). Tested versions 2011.1 through 2015.

Real-Time System Compatibility (Optional Licenses Required)

Note Mechanical Simulation has tested CarSim, TruckSim, and BikeSim on some versions of each supported RT systems, but not all combinations. For more details about specific combinations, please contact us at tech@carsim.com or 734-668-2930.

Following are the minimum hardware requirements for each supported RT system.

dSPACE

We support dSPACE 5.2 and newer; we have tested releases 6.6, 7.4. and 2015B. Support for dSPACE 5.2 to 6.5 will be discontinued in 2018.

	CarSim	TruckSim	BikeSim
DS1005	1.0 GHz	1.0 GHz	1.0 GHz
DS1006	2.0 GHz	2.0 GHz	2.0 GHz
DS1103	1.0 GHz	1.0 GHz	1.0 GHz
SCALEXIO (7.1 – 2016A)	2.2 GHz	2.2 GHz	2.2 GHz

*DS1401 (MicroAutobox II) is not supported.

RT-Lab

We support RT-Lab 7.x and newer; we have tested releases 10.4.x on QNX 6.3.2 and Linux. Support for RT-Lab 7.x – 8.x will be discontinued in 2018.

CarSim	TruckSim	BikeSim
2.0 GHz Dual Core	2.4 GHz Dual Core	2.0 GHz Dual Core

ETAS LabCar

We support LabCar 5 and newer; we have tested release 5.31 and 5.40.

CarSim	TruckSim	BikeSim
2.0 GHz Dual Core	2.4 GHz Dual Core	2.0 GHz Dual Core

National Instruments

For NI ETS Real-Time system, we support LabVIEW 8.5 and newer; we have tested LabVIEW 2012 & VeriStand 2012.

	CarSim	TruckSim	BikeSim
LabVIEW-RT	2.0 GHz Dual Core	2.4 GHz Dual Core	2.0 GHz Dual Core
VeriStand	2.0 GHz Dual Core	2.4 GHz Dual Core	2.0 GHz Dual Core

For NI Linux Real-Time system, we support LabVIEW 2015 and newer; we have tested LabVIEW 2015 & VeriStand 2015. TruckSim does not support cRIO/cDAQ Real-Time target.

	CarSim	BikeSim
LabVIEW-RT	cRIO/cDAQ 1.9 GHz CPU	cRIO/cDAQ 1.9 GHz CPU
VeriStand	cRIO 1.9 GHz CPU	cRIO/cDAQ 1.9 GHz CPU

NI cRIO with 1.9 GHz CPU is either cRIO-9034 (4 slots) or cRIO-9039 (8 slots). NI cDAQ with 1.9 GHz CPU is either cDAQ-9136 (4 slots) or cDAQ-9137 (8 slots).

Concurrent Redhawk with SImulation Workbench (SimWB)

We support Concurrent Redhawk 32bit/64bit Real-Time system, Linux Real-Time system, with SImulation Workbench (SimWB). For 32bit Linux from Redhawk 5.4 with SimWB 6.0 or newer. For 64bit Linux from Redhawk 6.3 with SimWB 7.2 or newer.

CarSim	TruckSim	BikeSim
2.4 GHz Dual Core	2.4 GHz Dual Core	2.0 GHz Dual Core

AVL ARTE.Lab

CarSim is supported and was tested on ARTE.Lab 3.1.