



# M100WSK STISIM Drive® Software

STISIM Drive® is a programmable and fully interactive virtual reality driving simulator engineered to take advantage of cutting edge computer technology. Results from more than four decades of independently validated driving simulation research are incorporated into STISIM Drive® software and systems. More than 500 universities, government agencies, medical facilities, training centers, and corporations have used STISIM Drive® to conduct research, perform patient assessment and treatment, and provide driver training.



## M100WSK STISIM Drive® Software Description:

STISIM Drive® software is an open, programmable, and expandable virtual reality driving simulation software engine. The STISIM Drive® M100WSK software is engineered to deliver superior simulation performance at a cost effective price. STISIM Drive® M100WSK Software comes with over fifty ready to run driving scenarios for diverse driving situations, customizable roadway environments, and an extensive library of roadway objects. The system also allows for user definable data collection. All STISIM Drive® systems come with an extensive user base supported by hundreds of peer reviewed publications. The STISIM Drive® M100WSK software will enable the end user to eliminate the risks of on-road driving, safely evaluate high risk drivers, and achieve objective, accurate and repeatable performance measurements in a cost effective environment.

STISIM Drive Scenario Definition Language (SDL), software that allows for custom designed roadway environments and situations, is included. The key features of SDL are:

- Allows definition of the visual data base (intersections, vehicles, pedestrians, traffic control devices, buildings, flora and fauna, miscellaneous elements).
- Traffic and pedestrians are intelligent and can be programmed to present hazards.
- Roadway profile is defined in terms of highway engineering specifications (horizontal and vertical curvature and transitions, cross section slopes).
- Built in Tasks: Car following, divided attention, simple pedal reaction times.

## Applications

- Driver Training
- Driver Assessment
- Rehabilitation
- Research and Development

**Features:**

- More than 80 pre-designed scenarios
- STISIM Drive® Scenario Definition Language (SDL)
  
- Module programming feature
- Interactive and programmable roadway events
  
- Detailed help files, documentation, user resources
  
- Scenario playback
- Transmission options
- Supports 135<sup>0</sup> to 180<sup>0</sup> driver field of view

**Benefits:**

- Realistic roadway environments
- Ready to drive, test, and evaluate
- Interactive and programmable roadway environments
- Modify existing or create custom scenarios
- Control events, signal lights, pedestrians, vehicle traffic
- user definable data collection
- Programming experience not required
- Advanced scenario and configuration design
- Operator initiated events
- Cue scenario events dynamically
- Ease of operation and maintenance
- More time driving and less time reading
- Visual replay of previous sessions
- Automatic or manual

**Performance measures**

Accident Counts:	Vehicle, pedestrian, obstacles, off-road
Brake and Accelerator:	Speeding behavior, reaction time, time to collision, tailgating
Steering and Handling:	Lane position and deviation, centerline and edge crossings
Driver Compliance/Attention:	Signal lights, signs, turning, divided attention
User selectable data:	Programmable via Scenario Definition Language (SDL)

**Optional expansion modules:**

## DUI Module

- Adds realistic time delays to the driver's inputs to simulate driver responses when drunk.
- User can specify a BAC or have the software compute BAC based on driver's gender, age range, body size, number of drinks and drinking time.
- Simulates tunnel vision effect that occurs at higher BAC levels.
- Can be used with any existing driving scenario.

## Advanced Dynamics Module, VDANL Drive

- Comprehensive vehicle dynamics simulation with a composite slip tire model.
- Simulates virtually all driver induced maneuvering up through limit performance conditions defined by tire saturation characteristics (spin-outs and rollovers).
- Simulates performance of passenger cars, light trucks, SUVs, buses and articulated vehicles.

## Programmable Plug-in Module, Open Module

- Allows users to write custom source code modules that can be plugged into the STISIM Drive® simulation loop, using standard languages such as C, C++, VB, and other Windows COM compliant languages.
- Provides the user with a means of creating custom and proprietary enhancements that expand the capabilities of the basic STISIM Drive® software.

For more information visit us at [www.stisimdrive.com](http://www.stisimdrive.com), or call us at 310-679-2281

