VIRES Virtual Test Drive (VTD®) is a complete tool-chain for driving simulation applications.

VTD provides a modular tool-set for road generation, scenario definition, traffic and sound simulation, simulation control, image generation etc. It uses established standard file formats.

VTD provides open interfaces for 3rd party components and a plug-in concept with API for 3rd party modules.

VTD is an established software package which is in service at numerous installations in the automotive and railroad industry.

The Components in Detail:

**Road Designer ROD®**
- Interactive road network editor
- Road design for roads in Europe / USA / China etc.
- Extensive libraries of 3d objects, textures etc.
- Creation of tiled databases

**v-TRAFFIC**
- Traffic / scenario editor, monitor and simulation module
- Custom trigger options / simulation control
- Pedestrian simulation

**v-SCENARIO**
- High-end image generator
- Real-time shadows / sun-glare / weather effects
- Environment mapping
- Fish-eye distortion / warping / blending
- Real-time ray-tracing
- High-dynamic-range rendering
- Infrared module
- High quality headlight visualization
- On-the-fly video generation

**v-TaskControl**
- Core module
- Task and data management
- Simulation control
- Record/playback functionality
- Gateway for 3rd party modules

Add-on Modules:
- Sound
- OpenDRIVE Gateway
- Interfaces to Simulink®
- Interface to ADTF®
- Simplified GUI
- Data Recorder
- Sensor Plug-ins:
  - Perfect Sensor
  - Camera Sensor
  - Crash Sensor
  - Lidar Prototype
  - Radar Prototype
  - etc.

VTD is Linux-only.