VIRTUAL TEST DRIVING 7.0 –
Release Features in a Nutshell
More than 90 new vehicles.
More than 170 new buildings.
A total of 427 new items.
All in one new release.
3-D Objects for CarMaker
Physical sensor compatible models

- Check model dimensions
- Close all gaps
- Check normal vectors

- Reduce number of polygons
- Separate wheels from body
- Assign material properties
New Ultrasonic Raw Signal Interface

Ultrasonic sensor array

- Wave propagation incorporates:
  - Detailed 3-D geometry
  - Material-dependent reflections and scattering

- Sound pressure amplitude includes:
  - Propagation loss
  - Atmospheric absorption
  - Sound lobe characteristics
  - Reflectivity
  - Coherent addition

Post-processing considers:
- Echo separability
- Time-dependent threshold
- Can be replaced by a user model

Real-time capable, physics-based sensor model!
Ultrasonic Raw Signal Interface

Included effects

- Direct echo
- Indirect echo
- Repeated echo
- False positives (road clutter)
- False negatives
- Cross echo
LIVE DEMO ULTRASONIC RSI
SCENARIO EDITOR
New Path and Route Concept
Easy and versatile route definition

- Intrinsic path generation
- Placement of traffic on lanes
- Dynamic traffic path planning
- Maneuver-based lane switching
- Intuitive interface
LIVE DEMO  SCENARIO EDITOR
Hardware Facts
HPC demo system setup

- 2 Intel Xeon E5-2640v4 processors
  - A total of 20 cores and 40 threads
  - 2.4 GHz base frequency
  - 3.4 GHz turbo frequency
- 64 GB RAM
- NVIDIA 1070 GTX graphic card
- 1 TB SSD and 4 TB HDD
- One 10 Gb/s Ethernet connection
- Two 1 Gb/s Ethernet connections
- Running on openSUSE 42.3 or Ubuntu 16.04 Linux
IPGCONTROL 2.0
IPGControl 2.0

- New data sources panel
- New quantity browser panel
- New cursor panel
- New preset manager panel
IPGControl 2.0

New data sources panel
- Online monitoring
- Snapshot
- Offline
- Multiple data sources

New quantity browser panel
- Flat view
- Tree view

New cursor panel
- Synchronization cursor
- Analyze cursor

New preset manager panel
- Save full sessions
- Save data sources
- Save diagrams
- Save quantities
LIVE DEMO IPGCONTROL 2.0