PTV Vissim & Viswalk 8
Release Notes

Last modified: 2016-09-07

PTV GROUP

the mind of movement

8.00-13   [62094]   2016-09-05

⊕ New Features and Changes

Lists

⊕ Cells with special controls, e.g. for a drop-down list or for file selection, react immediately on the first mouse click on the special control now. **(10869)**

✓ Fixed Bugs

ANM Import

✓ Networks generated by ANM import can be exported to Visum now (to be later imported adaptively or for an initial assignment in Visum) without causing error messages about invalid node numbers. **(11033)**

Dynamic Assignment

✓ Empty travel time values in the path file (for paths which haven't yet been used in the respective time interval) are not treated as a travel time of 0.01 seconds anymore. **(11110 ⊗)**

Evaluations

✓ The legend section of the header of direct evaluations (e.g. the vehicle record) don't have any line breaks anymore in attribute descriptions. **(10711)**

Graphics

✓ Speedup of the loading of background maps (when many tiles are required). **(11140)**

Network Editor

✓ Performance improvements for the visualization of a high number of selected objects. **(11173)**

✓ The context menu command "Recalculate Splines" (with or without "height only" or "X/Y only") works correctly now for a multi-selection of links and/or connectors. **(11079)**

Scenario Management

✓ Saving a scenario doesn't fail anymore because of an unexpectedly still existing backup of the extended model transfer file to be saved. (These backup files are meant to be only temporary.) **(11145)**

Signal Control

✓ Detailed error messages from a signal controller DLL are not disabled anymore during a multi-run. They are written to the controller's *.err file now. **(11059)**

✓ In VAP controllers using a controller frequency greater than 1, interstages cannot take one time step too long anymore. **(11047)**

✓ In the signal times table window, the time measurement tool and the scaling of the time axis are correct now for controllers with a frequency greater than 1, too. **(10910)**

✓ The optional trace file (*.trc) written by a VAP controller doesn't contain illegible junk anymore. (That problem had been introduced in Vissim 8.00-10.) **(11048)**

✓ VAP: The remaining intergreen time is calculated as integer (always rounded down) for the functions Remaining_intergreen() and Test_intergreen() even if the controller frequency is > 1. **(11163)**

Vehicle Simulation

- The simulation was not always reproducible (differences only after opening the network a second time) if certain network objects had different parameters assigned for overlapping vehicle classes: reduced speed areas, conflict areas, desired speed decisions, link behavior types, parking lots or stop signs. This problem has been fixed. **(11102 ❗)**

❗ Breaking Changes

Dynamic Assignment

- ❗ Empty travel time values in the path file (for paths which haven't yet been used in the respective time interval) are not treated as a travel time of 0.01 seconds anymore. **(11110 ✅)**

Known Bug in Vehicle Simulation

- ❗ The effect of the driving behavior parameter attribute "Amber Behavior" has been inverted since Vissim 6.00: "Continuous check" causes a single decision at the first time the amber signal is seen, and "One decision" causes a repeated decision in each time step while the signal is amber. This won't be fixed in Vissim 8. It will be fixed in Vissim 9. **(11053 ✅)**

Vehicle Simulation

- ❗ Simulation results can differ from previous versions if certain network objects had different parameters assigned for overlapping vehicle classes: reduced speed areas, conflict areas, desired speed decisions, link behavior types, parking lots or stop signs. **(11102 ✅)**

8.00-12 [61057] 2016-07-07

✅ Fixed Bugs

ANM Import

- ✅ Parking lots on Vissim-generated stub links for zone connectors leading onto multi-arm nodes do now carry a desired speed distribution that is consistent with the corresponding ANM-link speed. **(10899)**
- ✅ The adaptive import doesn't fail anymore if nodes have been deleted in the Vissim network which still exist in the ANM file. **(10982)**

DriverModel.DLL Interface

- ✅ No crash anymore at the end of a simulation run with vehicles still in the network of a vehicle type using an external driver model DLL. **(10891)**

Dynamic Assignment

- ✅ The options "Limit number of paths" and "Reject paths with too high costs" can now safely be used in meso simulations without compromising the reproducability of the results. **(10988)**
- ✅ Vehicle classes which need to be created by "Create Static Routing" for vehicle types used in dynamic assignment don't contain wrong vehicle types anymore. **(10873)**

File Handling

- ✅ The Visum Export writes all coordinates to the *.net file in Sphere Mercator projection now. (This projection needs to be set manually in Visum after the import because the currently used *.net file format doesn't contain a projection ID yet.) **(10907)**

Graphics

- ✅ Loading a sketchup model file without valid geometry doesn't cause a crash anymore. **(10833)**

Lists

- ✅ If the leftmost column in a list window is not fully visible (because of the position of the horizontal scrollbar), the simulation could hang. This problem has been fixed. **(9668)**
- ✅ New 2D/3D model distribution elements and colour distribution elements are now added always at the end of the list. **(10931)**

Meso Simulation

- Meso evaluation results, e.g. densities and queue lengths on meso lanes, don't show invalid values (arbitrary high numbers) anymore if the meso evaluation doesn't start at simulation time 0. **(10933)**

Network Editor

- Setting the scale of a non-rotable background image works correctly now. **(10783)**
- Splitting a link with a PT stop doesn't cause a crash under specific conditions anymore. **(11007)**

Presentation

- Stop lines / signal bars are now recorded in an *.avi file even if quick mode is active. **(10769)**

Signal Control

- PTV Balance:
  Balance did not properly respect the distance inside a main node. This problem has been fixed.
  The Balance information window did not scale properly. This problem has been fixed.
  In rare cases Balance provided stages to Epics with a duration of less than one second. This problem has been fixed. **(11012)**
- PTV Epics:
  In rare cases the simulation could not be terminated properly. This problem has been fixed. **(11015)**
- Problems with special characters in VAP supply file names have been fixed. **(10906)**
- RBC Controllers don't show multiple unnecessary follow-up error messages anymore when a simulation run must be canceled because of an error in the RBC data. **(10960)**
- Some VAP error messages contained unreadable strings. This problem has been fixed. **(11019)**

Vehicle Simulation

- A vehicles leaving the network doesn't block a parking space anymore which it has reserved but not managed to use. **(10468)**
- If multiple deadlocks at combinations of priority rules happened in the same time step, the simulation was not reproducible. This problem has been fixed. **(10276)**

Viswalk

- Boarding passengers don't disappear anymore sporadically from waiting areas for PT stops with multiple boarding volume groups for the current time. **(10978)**

8.00-11 [60383] 2016-05-27

⊕ New Features and Changes

COM Interface

- ⊕ New COM server names for Vissim 8: Vissim, Vissim-32, Vissim-64, Vissim.8, Vissim-32.8, Vissim-64.8, Vissim.80, Vissim-32.80, Vissim-64.80, Vissim.800, Vissim-32.800, Vissim-64.800. All these are available after the registration of Vissim 8 as COM server. **(10593)**

Installation

- ⊕ The Codemeter runtime has been updated to version 6.20. **(10728)**

Signal Control

- ⊕ PTV Epics:
  The detector synchronization from Vissim has been limited to the type "Epics/Balance-local".
  Handling of mininum red times for signal group has been improved. **(10819)**

✓ Fixed Bugs

Data Model

- ✅ The vehicle attribute "Public transport - course number" is now correctly set (according to the respective departure time of the PT line) over the full lifetime of the PT vehicle. **(10795)**

Dialogs

- ✅ Setting the maximum string length for concatenation of indirect attributes to "unlimited" (by emtpying the edit field) works correctly now in the dialog "Network Settings" (tab page "Attributes"). **(10830)**

Dynamic Assignment

- ✅ Changes in link attributes "cost per km" or "surcharge1" are now immediately reflected in path costs (previously, it was necessary to reload the network) **(10695)**
- ✅ If the option "Store paths (and volumes)" is switched off for a multi-run (e.g. with different random seeds), new path travel times and volumes are copied from "new" to "old" only before the first run, i.e. immediately after reading the path file. This causes the old path travel times and volumes from the existing path file to be used for all runs, so any run from such a multi-run series can be reproduced as single run with the same random seed. (This is relevant only if "Measured path travel times" respectively "Use old volumes" is selected.) **(10514)**

Lists

- ✅ Column titles longer than 64 characters don't cause an error upon export to a database anymore. **(10829)**
- ✅ If a different scenario is opened while a results list window is open, that results list does now immediately show existing results data. **(10732)**
- ✅ The database export doesn't ignore globally selected Imperial units from the network settings anymore for columns where "default" is selected as unit ("Format") in the list layout. **(10828)**

Meso Simulation

- ✅ The hybrid simulation doesn't crash anymore if a vehicle which is affected by a conflict area wants to move from a microscopic section onto a completely filled meso lane. **(10754)**

Network Editor

- ✅ Improved visibility of network objects belonging to a selected network object (e.g. conflict markers belonging to a selected priority rule, route destinations belonging to a selected routing decision). **(10160)**
- ✅ In rare cases a new network object (e.g. a reduced speed area) could not be created anywhere on a connector. The object was always placed at the end of the link, with length zero. This problem has been fixed. **(10862)**
- ✅ In rare cases a passive conflict area was not shown on a connector, so it could not be activated. This problem has been fixed. **(10863)**
- ✅ When a new connector with more than 2 spline points is created, the spline points are calculated correctly now so they don't change anymore upon "Recalculate Spline" directly after creating the connector. **(10700)**

Network Eeditor

- ✅ Intermediate points for routes and PT lines can be created on the start link and on the end link of a route. (This was not possible in version 8.00-10.) **(10784)**

Scenario Management

- ✅ Zooming in the network editor doesn't crash the program anymore under specific circumstances. **(10775)**

Signal Control

- ✅ Detectors on links used as pedestrian area (Viswalk) pass the "rear end times" (end of impulse, i.e. when the last pedestrian leaves the detector) correctly to the controller DLL now. (Before, the missing rear end caused an infinite detection in PCMOVA.) **(10832)**
- ✅ VAP controllers don't have spurious crashes anymore when a simulation run is stopped. **(10755)**

Vehicle Simulation

- ✅ For the dynamic combination of routes activated by the option "Consider subsequent static routing decisions" in the current driving behavior and the option "Combine static routing decisions" in a routing decision, this routing decision is now combined with routes ending upstream on its link (without any other static routing decision in between) even if the vehicle classes assigned to the two routing decisions are different, provided the flag "All vehicle types" is active for both decisions. (Previously, the assigned vehicle classes needed to be identical for the downstream decision to be combined, and an upstream decision without "Combine static routing decisions" was skipped, allowing a combination with routes of another routing decision ending further upstream on the same link.). **(10799)**

The Z coordinate of the vehicle attributes "Coordinate front" and "Coordinate rear" is now always calculated correctly even for links on levels with a non-zero height and for sloped links and even if no 3D view is active. **(10757)**

Viswalk

The results for total dwell time and total distance in the first time interval of an area measurement are now correct even if the start time for area measurements is not zero. **(10694)**

8.00-10 [59682]	2016-04-14

⊕ New Features and Changes

DriverModel.DLL Interface

⊕ Vissim passes the number of the priority rule and its state (1 = blocked, 3 = free) to the DriverModel.DLL if the priority rule stop line is closer to the current vehicle than the next signal head downstream. **(10627)**

Signal Control

⊕ PTV Balance:
The calculation of the share of the number of stops per signal group has been improved.
Memory usage of the genetic algorithm has been improved.
The default parameters have been improved.
The calculation of lengths when using projected coordinates has been corrected. **(10706)**

⊕ PTV Epics:
Error checks when using short maximum stage durations have been improved. **(10707)**

⊘ Fixed Bugs

Dynamic Assignment

Edge closures are not ignored anymore if "decide repeatedly" is selected as path selection type. **(10659)**

License Handling

The maximum number of simultaneously running Vissim instances is now checked for each user session ID separately. **(9397)**

Lists

The number of columns is not limited to 200 anymore. Opening a list with much more columns may take quite some time, however. **(10672)**

Meso Simulation

Loops inside meso nodes don't cause a crash anymore but a sensible error message. **(10603)**

Multiple meso turns inside a node with the same first two links/connectors but different subsequent meso edges don't cause a crash anymore. **(10610)**

Nodes containing several segments on the same link do not cause a crash anymore. To assist the user in detecting a malformed node a warning is issued if meso edges are shorter than 1 m. **(10562)**

The transition of a PT vehicle from a micro section to the meso area doesn't cause a crash in some rare situations anymore. **(10620)**

Vehicles on meso edges which no vehicle has left during the whole time interval are logged correctly to the corresponding link segment evaluation attributes now. **(10609)**

Network Editor

- In special situations it was not possible to add intermediate points for PT lines at some locations on the selected line. This problem has been fixed. **(10599)**
- Inserting a PT stop bay is now always possible for links with spline points. **(10612)**

Workspace

- Clicking the horizontal scrollbar in the SC/Detector Record window doesn't cause a crash anymore. **(10642)**

8.00-09 [59128]   2016-03-09

⊕ New Features and Changes

External Programs

- ⊕ The new version 4.5.5 of EnViVer is available. The free EnViVer Report Viewer is available as separate download ("Reporting"). **(10522)**

File Handling

- ⊕ New menu items "Create Model Transfer File..." and "Apply Model Transfer File..." in the submenu "File / Compare and Transfer Networks".
  Using "Create Model Transfer File...", the differences between two networks (one can be the currently loaded network) can be saved to a model transfer file (*.trax).
  If the first selected (base) network is loaded and if then this model transfer file is applied, the result is the second selected (target) network.
  This allows to put two existing network variants under scenario management: After creating the model transfer file from network A to network B, place network A under scenario management (resulting in scenario 1), then duplicate scenario 1 (resulting in scenario 2), load scenario 2 and apply the model transfer file to it. **(10193)**

Installation

- ⊕ During the installation of setups and updates, the firmware of the Codemeter dongle is updated automatically. **(10602)**

Signal Control

- ⊕ PTV Balance:
  The default parameters for a new stage-based signal program have been improved. **(10584)**
- ⊕ Vissig:
  Interstages that do not start with a signal change in second 0 are now marked with a warning. **(10583)**

⊘ Fixed Bugs

ANM Import

- An additional right turn lane at the first node inside the network can not cause a vehicle to be set into the network in reverse anymore at the vehicle input at the upstream link. **(10280)**

Dynamic Assignment

- Deleting a dynamic routing decision invalidates the dynamic assignment graph and the node evaluation graph now. This is mandatory since the paths starting at the respective routing decision cannot be used anymore. **(10252)**
- If the path selection method is "use old volumes", paths with zero volume are not deleted anymore. **(10437)**
- Initial occupancy in abstract parking lots is now respected correctly in all runs of a multirun. **(10364)**
- Paths read from the path file that were marked as detours are now correctly numbered. (Previously, the numbering scheme was inconsistent and could cause conflicts with already read paths.) **(10488)**
- The first run doesn't show always convergence anymore if only path travel times are checked. The path and edge attributes "converged" are now true only if convergence conditions have been met in all time intervals. If there is only an old travel time for a path (or an edge) but no new (unsmoothed) travel time, "converged" (respectively. "ConvTravTm") are not set to false anymore (but marked as irrelevant in the list). After an *.inpx has been read in with a referenced path file (*.weg), no values are shown anymore for the path attribute "PathTravTmRaw". **(10397)**

Evaluations

- If the lane attribute "BlockedVehClasses" is modified during a simulation run (e.g. from a COM script), all link segment evaluation data are not deleted immediately anymore, i.e. the link segment results list keeps its values. **(10524)**

Network Editor

- Even if the network is located at very big world coordinates, inserting a network object with a length (parking lot, PT stop, reduced speed area, detector) on a link can not cause a crash anymore. **(10532)**
- Opening the pedestrian area dialog cannot cause a crash at the start of a subsequent simulation run anymore. **(10360)**

Signal Control

- Data file names with paths can be used for RBC controllers now. **(10553)**

Simulation

- If a simulation run is started after changes with the mouse in the network editor but without saving the network and opening it again, the results are now in most cases identical with a simulation run after saving and opening the network. Due to floating point arithmetics it's still possible that there are very small differences which can aggregate to bigger differences due to the butterfly effect, so it is still recommended to always (save and) open the saved network directly before a simulation run if a reproducible result is required. **(10528)**

User-Defined Attributes

- The incorrect warning message "invalid character" doesn't appear anymore in the formula editor. **(10411)**

Vehicle Simulation

- No crash anymore if all parking lot decisions have "full occupancy behavior" set to "Wait" and if there are multiple parking spaces with the same attraction value. **(10520)**

8.00-08 [58523]   2016-02-11

✅ Fixed Bugs

Data Model

- The statistical aggregates of subattributes don't return incorrect empty values anymore. (This problem happened only in version 8.00-07.) **(10504)**

8.00-07 [58398]   2016-02-04

⊕ New Features and Changes

Demo Version

- If a demo installation is overwritten with a newer version (service pack), the 30 day runtime span starts again. **(10450)**

Dynamic Assignment

- After "Create Static Routing from Dynamic Assignment" is executed, warnings are issued for destination parking lots with downstream connectors from their links where vehicles could continue their trips inadvertently. **(10192)**

License Handling

- The options "Show errors and warnings" and "Check out automatically, if possible" are active by default now for new installations. **(10444)**

Presentation

- AVI recording in quick mode is now possible. (The quick mode is ignored while the video file is actually recorded.) **(10297)**

Signal Control

- PTV Balance:
  - The genetic algorithm has been improved when using large maximum or minimum green times.
  - It is now possible to optimise without defining a signal group number.
  - It is now possible to combine signalised and unsignalised turns.
  - It is now possible to define arbirtray interstage orders. **(10495)**
- PTV Epics:
  - Checks for invalid stage plans have been improved. **(10496)**
- Vissig:
  - Intergreen time violation checks, when editing signal group based signal programs, have been improved. **(10497)**

Simulation

- Error messages about inputs with 1 or 2 remaining vehicles/pedestrians are not written to the *.err file anymore. **(10208)**

Fixed Bugs

ANM Import

- Import of an ANM file containing detectors with positive offset works now even if there are multiple single-lane connectors starting from the incoming ANM link. **(10433)**
- Initial import of only routes (without a corresponding ANM network) for DTA works now again. **(10430)**
- The German warning message about inconsistent time intervals during adaptive import of an *.anmroutes file has been replaced by an error message which is translated into the current program language. The additional erroneous message about a syntax error has been removed. **(10409)**

COM Interface

- The HTML reference shows the meta attributes "Editable" and "SimulationBehavior" for all attributes now. (This replaces the combined meta attribute "Editable" in Vissim 7 which contained information about the existence and editability of the attribute during a simulation run, too.) **(10385)**

DrivingSimulator.DLL Interface

- The assignment of the simulator vehicle to one of multiple overlapping links (e.g. in an intersection) works more reliably now. **(10460)**

Evaluations

- The managed lanes evaluation shows travel time savings in the header correctly as in seconds now. **(10396)**

License Handling

- The license management dialog for VisVAP is translated to English now in non-German licenses. **(10422)**

Scenario Management

- A modification (or scenario) which contains a geometry change of a pedestrian link can be read in now without error message. **(10462)**
- A modification can be saved now even if a backup file already exists. **(10412)**
- The results database can be written correctly now even after a modification with changed evaluation time intervals has been applied. **(10490)**

Signal Control

- Fixed time and RBC controllers with a controller frequency >1 are not executed with the correct frequency if there are controllers of others types which have a least common multiple of their controller frequencies which is smaller than the LCM of the frequencies of all fixed time and RBC controller. **(10478)**

Synchro Import

- Detector positions are imported correctly now. **(10446)**

8.00-06 [57887]   2015-12-15

✅ Fixed Bugs

ANM Import

✅ Some problems with the geometry creation for roundabouts have been fixed. **(10077)**

Data Model

✅ Negative values for input volumes are not accepted anymore. (Previously, they caused a complete memory overrun and a subsequent crash.) **(10362)**

✅ Random seeds larger than 2147483647 are not possible anymore, because these values could not be written to the result database. **(10170)**

Dynamic Assignment

✅ Closing multiple edges simultaneously via edge list now works correctly (previously, edge closures were not applied). Undo also works correctly even if the graph was destroyed (it crashed previously in this case). **(10384)**

✅ Paths from parking lots and dynamic routing decisions are now displayed correctly in the respective child list. **(10314)**

File Handling

✅ Sketchup (*.skp) files with special characters in the filename can be used now for static 3D models. **(10349)**

Lists

✅ In an exported *.att file, the legend for an attribute of type "time" with "show unit" deselected shows always the correct unit now. (Previously, it showed always seconds, even if minutes or hours were actually selected.) **(10332)**

Signal Control

✅ If multiple controllers have different frequencies, the width of one simulation second in the signal time table windows of all controlls is identical now. (Previously, it could be very narrow for small frequencies.) **(8655)**

Vehicle Simulation

✅ If a vehicle is already on the lane of its destination parking space without an (almost) standing vehicle in between, the vehicle doesn't treat that parking space as blocked anymore because of a standing vehicle on the next lane. **(10387)**

Viswalk

✅ Activating the pedestrian network performance evaluation does not affect the pedestrian behavior anymore. **(10373)**

✅ Pedestrians now remember their chosen set of PT lines if they fail to board the PT vehicle, so they wait for the next vehicle of one of these lines and don't reselect a new set of PT lines upon arrival back at the waiting area. **(10091)**

✅ The BIM (*.ifc) import works again now even if the license has been updated from an old license (from before version 8). (That problem had been introduced in version 8.00-03.) **(10388)**

Workspace

✅ If only the "break at" value is changed in the simulation parameters dialog, Vissim doesn't ask anymore for saving the supposedly changed network at the start of a simulation run or when closing the program. **(10327)**

8.00-05 [57518]   2015-11-24

➕ New Features and Changes

Dynamic Assignment

⊕ Warning message (in the *.err file) if a vehicle cannot be assigned a parking space at an automatically created parking space decision for a destination parking lot with real parking spaces. **(10243)**

Vehicle Simulation

⊕ New warning message (in the *.err file) if a vehicle passes a decision and leaves the link of the decision in the same time step (so the decision cannot affect that vehicle). In addition, automatically generated parking space decisions for parking lots with real parking spaces used for dynamic assignment don't assign a parking space anymore in this situation, so this parking space doesn't stay empty for the remainder of the simulation run anymore. The warning messages at the start of a simulation run about decisions which are potentially too close to connectors have been removed. **(10305)**

✓ Fixed Bugs

Dynamic Assignment

⊘ No crash anymore if the destination parking lot selection fails to select a parking lot because all attraction values are below the logit lower limit. **(10175)**

Evaluations

⊘ In the network performance evaluation, latent demand can not be shown as 1 anymore if all vehicles have entered the network. **(10218)**

File Handling

⊘ Improved error message if a network cannot be loaded because it contains a PT line stop outside of the PT line route (which cannot be created in the Vissim GUI). **(10209)**

License Handling

⊘ Messages from Vissim are not shown behind the splash screen anymore. (If no dongle with the PTV base license 100321:900000000 is found at all, the message from the decryption system can still be shown behind the splash screen. This message can be made visible through a click on the second Vissim icon in the Windows taskbar.) **(10220)**

Network Editor

⊘ Routing destinations and conflict markers are now highlighted correctly immediately after the selection of the respective routing decision / priority rule. **(10196)**

Presentation

⊘ No crash anymore if a very big *.ani file (> 2 GB) is moved from the temporary directory to the final directory at the end of the recording. **(10241)**

⊘ Video (*.avi) recording from an animation file (*.ani) replay doesn't stop anymore with an exception message. **(10221)**

Scenario Management

⊘ Chart windows which refer to simulation runs are updated correctly now after a scenario has been loaded. **(10226)**

⊘ Loading a scenario or a modification doesn't crash anymore if a signal times table or a SC/detector record window is open. These windows are closed now before the modification is loaded. **(10250)**

Vehicle Simulation

⊘ The vehicle attribute "Public transport - passenger service time" shows correct values now for PT line stops without real pedestrians, too. **(10248)**

Viswalk

⊘ Pedestrians do not consider dynamic routing decisions anymore once they have arrived at their PT waiting area (even if they are bumped off that area before they reach their specific waiting point). **(10121)**

8.00-04 [56983]	**2015-10-21**

⊕ New Features and Changes

COM Interface

⊕ Basic functionality for the scenario management:
IVissim methods: ApplyModelTransferFile, GenerateModelTransferFile, GenerateModelTransferFileBetweenFiles, LoadProject, PlaceUnderScenarioManagement. (LoadNet now loads the base network if the passed *.inpx file is under scenario management. SaveNet saves the currently loaded base network / scenario / modification if a project is loaded.)
IVissim.ScenarioManagement methods (only available when a project is loaded): LoadModification, LoadScenario, SaveInMultipleScenarios, SaveModification, SaveScenario, SaveScenarioAs. **(9393)**

Dynamic Assignment

⊕ The path file (*.weg) is now read automatically (if not already read before) when a layout with open path list is loaded or when the path list is opened manually. This can be aborted in a progress dialog, however. **(9983)**

Graphics

⊕ 'Bus - EU Articulated' is now included in the list of standard 2D/3D-Models of the file 'defaults.inpx'.
For both standard 2D/3D vehicle models 'Bus - EU Standard' and 'Bus - EU Articulated' the door positions for boarding/alighting are defined. (The doors don't open in 3D view because they are not modeled as separate surfaces in these models.) **(10195)**

License Handling

⊕ The program starts much faster than before if multiple licenses are selected in the license management dialog and only a later one of these is currently available. **(10165)**

⊘ Fixed Bugs

COM Interface

⊘ In the COM HTML reference, attributes with subattributes are now listed again. (They had been missing since version 8.00-00.) **(10164)**

Demo Version

⊘ The demo version and the Vissim Viewer can now load Scenarios and simulate these (but not save any changes or write evaluation files, of course). **(10156)**

Dialogs

⊘ Drop down lists can now handle colon characters in network object names. **(10159)**
⊘ In the license management dialog, useless checkboxes don't appear anymore for add-on modules upon changing the width of the column "Use license". **(10134)**

Dynamic Assignment

⊘ The network graphs for dynamic assignment and meso simulation are created much faster now in a network under scenario management. **(9961)**

File Handling

⊘ Line breaks are back in the log file (they were missing in 8.00-03). **(10174)**

License Handling

⊘ The access to a network dongle uses only the IP address if only IP addresses but no server name (except "localhost") is listed in the Codemeter server search list. This can allow access to the Codemeter server even if there are problems with the DNS in the network. **(10198)**
⊘ The license data of all dongles doesn't need to be updated anymore upon program start if a license which is currently not available is selected to be used, as long as there is another selected license available. **(10051)**

Lists

- ✅ The synchronization of the conflict areas list upon click in the list window works correctly now even if passive conflict areas are filtered. **(10144)**
- ✅ The synchronization upon click in the list window works correctly now even if a list is not sorted by ID (number). **(10162)**
- ✅ The toolbar button "+" and the context menu item "Add" have been removed from the (main) list of 2D/3D model segments. (They are still available in the child list of the 2D/3D models list where they actually work.) **(10180)**

Network Editor

- ✅ Pavement markings can be inserted again. **(10183)**
- ✅ The end of a route can now be moved to a position on a previous link of that route downstream of the start of the connector leading the route from that link before. (Previously, the resulting route was broken.) **(9986)**

Scenario Management

- ✅ If a scenario or a modification cannot be loaded, Vissim unloads the complete network now after the error message. **(10116)**
- ✅ The evaluation output directory (for direct output and list exports) is now handled as follows: Upon "Place under scenario management", an existing reference to the data directory (with the *.inpx file, internally #data#) is replaced by a reference to the scenario directory (subdirectory Scenarios\S*, internally #scenario#). (Existing direct output files are not copied nor moved.) **(10140)**

Signal Control

- ✅ Exception errors in signal controller DLLs are caught by Vissim now, so the simulation can be stopped with a useful error message. **(10087)**

Test Function

- ✅ The test run doesn't crash anymore if the space bar is pressed continuously (repeating single step calls). **(10207)**

Vehicle Simulation

- ✅ The detector attribute "Vehicle number" does now contain the number of a vehicle currently on the detector as long as at least a part of this vehicle is on the detector. **(10031)**

Viswalk

- ✅ If LOS is displayed for grid cells, the values are color-coded correctly now if Imperial units are selected, too. **(10110)**
- ✅ If a CAD file is imported into an empty network, the location of the world coordinate origin is not changed anymore after the import, so the relative position of subsequently imported CAD files is correct. **(10154)**

8.00-03 [56689]   2015-10-02

⊕ New Features and Changes

COM Interface

- ⊕ Methods for adding a new object to a container (e.g. ILinkContainer.AddLink()) and for deleting an object from a container (e.g. ILinkContainer.RemoveLink()). Depending on the object type, some parameters are required for the initialization of mandatory attributes (e.g. the geometry or a link or area reference). Whenever possible, attributes are initialized by default values and can be modified later through (SetMulti)AttValue(s). **(7576)**

Data Model

- ⊕ In the attribute interface of Camera Position, the position is now accessible through "PosPt" instead of "Pos". **(10015)**

Dynamic Assignment

- ⊕ If all available real parking spaces of the destination parking lot(s) are blocked when the vehicle passes the parking space decision, the vehicle selects the most attractive blocked parking space now. (Previously, no parking space was selected in this situation, and the vehicle continued to travel through the network without path and route.) **(10105)**

Lists

➕ The number of columns is not limited to 200 anymore. Opening a list with much more columns may take quite some time, however. **(10033)**

Scenario Management

➕ A scenario can be opened through a double click on that scenario in the Project Explorer sidebar, too, now. **(9938)**
➕ Multiselection of scenarios is possible now in the Project Explorer sidebar. The "Save" button in the Project Explorer toolbar saves the latest changes directly in all selected scenarios, without showing the selection dialog first. **(7573)**

✅ Fixed Bugs

Dialogs

✅ The button for the attribute selection in the dialog for link bar or color scheme configuration is now visible under the Windows theme "Windows Classic", too. **(10101)**

Dynamic Assignment

✅ If the option "measured path travel times" is selected for cost calculation, generalized cost is now used correctly (instead of travel times only). The generalized cost is calculated as the path travel time times the travel time coefficient plus the path length times the distance coefficient plus the total of the edge cost values times the cost coefficient plus the total of the attribute "Surcharge2" of the links (without coefficient), exactly as in the cost calculation from edge travel times. **(10021)**
✅ The option "Use previous time interval" uses edge travel times of the previous time interval correctly now. (Previously, the edges were considered unused in the previous time interval.) **(10129)**

Evaluations

✅ The internal database (*.sdf) for storage of the result attributes of one simulation run is not limited to 256 MBytes anymore. **(10143)**

External Programs

✅ The Debug Mode in VisVAP works again. (It stopped working in "VisVAP 3.00", released with Vissim 8.00-00.) **(10145)**
✅ VisVAP 2.16-17 writes correct VAP files again. (After the previous update to "VisVAP 3.0", the VAP files could be corrupted.) **(10132)**
✅ VisVAP has now the version number 2.16-17 (not 3.0 anymore), and V3DM has version number 1.5.2.0 (not 2.0 anymore). There had been only minor fixes and the update to the new licensing method in these versions. **(10119)**

File Handling

✅ Every VISSIM instance uses its own log file (if multiple instances are running, in addition to vissim_msgs.txt vissim_msgs_0.txt, vissim_msgs_1.txt and so on). **(9689)**

Meso Simulation

✅ Hybrid simulations do not crash anymore when continuous routing is activated and meso zone connectors are congested. **(10060)**
✅ The total distance and average speed is now calculated correctly in the network evaluation. **(10084)**

Scenario Management

✅ Conflict areas are handled correctly now. **(10114)**
✅ The confirmation dialog after the change of a modification doesn't lose its OK button anymore. **(10112)**

Synchro Import

✅ Synchro files with parallel edges can be imported now. **(10053)**

Viswalk

✅ Improved error message in the the BIM Converter when accessing a write-protected temp directory. **(10088)**

⊕ New Features and Changes

Charts

⊕ Values with the type "percentage" are shown and labeled as percent values now (0..100 instead of 0..1). **(9368)**

Data Model

⊕ Pedestrian areas, ramps, obstacles and (network) sections have the new attribute "Size 2D" which contains the surface area of the 2D projection of the respective network object.
Pedestrian areas, ramps and (network) sections have the new attribute "Size 2D (obstacle-free)" which contains the surface area of the 2D projection of the respective network object excluding the surface area which is covered by obstacle objects or implicit obstacles (for ramps). **(9192)**

Signal Control

⊕ New version 1.4.1.4 of the add-on module Econolite ASC/3. **(10045)**

User-Defined Attributes

⊕ New button "For" in the dialog for inserting a TableLookup call. **(9608)**

Vehicle Simulation

⊕ New driving behavior attribute "reaction time distribution". If this is not empty, a time value is drawn from this distribution for each waiting vehicle at a red signal. This value is the delay between the signal change to green (or red/amber if behavior at red/amber is defined as "Go (same as green)") and the start of acceleration of the vehicle. If the attribute is empty, the delay is zero. **(9696)**

⊘ Fixed Bugs

COM Interface

⊘ Vehicles which have a speed set by COM (or the driving simulator API), with the attribute ExtContr = ExtControlEVC_COM, were treated by conflict areas as always driving with their initial desired speed. This caused them to affect conflict areas inside an intersection even when they are waiting at a red signal head. This problem has been fixed. **(10010)**

Dynamic Assignment

⊘ When a vehicle with the equipment "Route Guidance" (1 or 2) arrives at its destination parking lot, the uncalled-for error message "Simulationszeit w: Fahrzeug x (auf eigenem Zielführungsweg zum Parkplatz y) has left the network at the end of link z and not reached its destination parking lot." is not written anymore to the *.err file. **(9992)**

Graphics

⊘ Background images are not shown with a wrong color for the leftmost and bottom pixels anymore. **(10058)**

Meso Simulation

⊘ Meso nodes which contain cycles (e.g. roundabouts) don't cause an infinite loop anymore which fills the complete RAM and eventually causes a crash of Vissim when the meso graph is created. **(10035)**

⊘ The simulation run doesn't crash aynmore if a desired speed decision or a reduced speed area affects a vehicle with a vehicle type which is not part of any of the vehicle classes referenced by that network object. **(10032)**

⊘ Vehicles that changed their path due to continuous path search while in a micro section are now handled correctly when crossing into a meso section. Route guidance works now correctly for vehicles that find a new route in a micro section (before: vehicles on a route guidance path vanish when trying to cross into a meso section). Route guidance does still not occur while vehicles are in meso sections. **(10037)**

Viswalk

⊘ Animation replay with grid cell display for areas (which isn't yet available for animation replay) doesn't cause a crash anymore. **(9930)**

- The walkable ground of PT vehicles now connects all doors in a segment. This prevents alighting pedestrians from getting stuck. **(9948)**

8.00-01 [55888] — 2015-08-19

⊕ New Features and Changes

Data Model

⊕ User-defined attributes for the Network Performance Evaluation. **(9669)**

Dynamic Assignment

⊕ It is now possible to cancel the path search at simulation start. This can be useful in large networks where path search can take considerable time. **(9876)**

Lists

⊕ New toolbar button and context menu item "Create User-defined Attribute". **(9913)**

Meso Simulation

⊕ Sections have the new calculated attribute "MesoUseForMicrosim" which states whether a section will be simulated microscopically during a Meso simulation. **(9740)**

Network Editor

⊕ New context menu item "Copy to Level..." which allows to copy a multiselection of objects with a level reference to (a) different level(s). The offset to be added to the level of each object copy must be selected in a dialog. **(9517)**

Presentation

⊕ Upon editing the camera position of a keyframe, the keyframe name is set to the name of this camera position if the keyframe name was empty or was set to the name of the previously assigned camera position. If the name of a camera position is changed, the names of all keyframes associated with this camera position and holding the same name are changed, too. **(8666)**

Vehicle Simulation

⊕ The driving behavior parameter "smooth closeup behavior" is now true by default for all predefined driving behaviors in the defaults.inpx. **(9932)**

Workspace

⊕ In the levels sidebar and in the backgrounds sidebar, there is the new item "Show List" in the context menu, to open the list window where the levels / backgrounds can be added, deleted and edited. (The sidebar is still only for toggling the visibility.) **(8038)**

✅ Fixed Bugs

ANM Import

✅ Improved handling of roundabout geometry. **(9867)**

DriverModel.DLL Interface

✅ If the DLL prevents a new lane change which has been suggested by Vissim in the mode SIMPLE_LANE_CHANGE (i.e. if the DLL sets *long_value to zero in DriverModelGetValue(DRIVER_DATA_ACTIVE_LANE_CHANGE)), the Vissim vehicle can leave its link laterally because the destination lane is not reset to zero (current lane) and neither is the lane angle. **(9915)**

✅ If the DLL started a lane change to the left in the very first time step of a vehicle in the network while not in the mode SIMPLE_LANE_CHANGE, an error message could be shown about an inconsistent lane angle and the simulation run was stopped. This problem has been fixed. **(9929)**

Dynamic Assignment

- Continuous paths search occasionally crashed if the convergence evaluation was switched on. This problem has been fixed. **(9960)**
- Path search and path selection actually use the vehicle class specific edge travel times now. **(9877)**
- Queue detection on edges works now even if vehicle class specific edge travel times are used. **(9894)**
- Route Guidance uses the edge travel times correctly now. (Previously, only the default value of 0.1 seconds was used.) **(9967)**
- The Export to PTV Visum (Nodes/Edges) doesn't crash in specific cases anymore. **(9834)**
- The continuous path search does not reject the current path anymore if the decision is made right before the emergency stop position of the current path. **(9959)**
- The convergence options for edges (travel time or volumes) work now even if only one is selected. (Previously, both needed to be selected in order to work correctly.) **(9860)**
- The path file (*.weg) is not read automatically anymore if a layout with open path list is loaded or if the path list is opened manually. Through the context menu of the list, the path file can be read explicitly and this is done in a background thread, so Vissim stays reactive. **(9879)**

EmissionModel.DLL Interface

- Vissim doesn't ignore the selected file name for the DLL anymore. (Previously, "EmissionModel.DLL" was always loaded.) **(9767)**

Evaluations

- The value for stopped delay in the node evaluation and in the delay evaluation cannot be negative anymore. (Previously, this could happen due to rounding problems, and the value could not be read in again from the database.) **(9921)**

Graphics

- Pedestrian links are visible now even if links are colored by a color scheme using a link segment attribute. As pedestrian links don't have link segments, the "undefined value color" is used. **(9855)**
- The option "3D Anti-Aliasing" affects network editor screenshots in 3D mode, too. **(9917)**

Installation

- The /silent setup works correctly now even with a component selection different from the default. **(9893)**
- The setup with the option /verysilent doesn't exclude the 3D models anymore. **(9933)**

License Handling

- A background image which exceeds the network size limitation doesn't cause all vehicles to stand anymore in the academic version. **(9777)**

Meso Simulation

- Node evaluation is much faster now because only vehicles in the micro sections are included. **(9890)**

Presentation

- For AVI recording, the start time of the first keyframe is not ignored anymore. (In version 7.00-11 only, the recording stated always at simulation time 0.) **(9831)**

Scenario Management

- Deleting a loaded scenario or modification which has been modified but not saved yet doesn't cause a crash anymore. **(9923)**

Simulation

- The initialization of signal controllers stops after the first error message from a controller (as in Vissim 7). **(9896)**

Vehicle Simulation

- The default value for the look ahead distance for overtaking in the opposing lane is now 500 meters. **(9856)**
- Vehicles overtaking in the opposing lane don't assume the maximum overtaking speed for the whole overtaking duration anymore, so they are less optimistic now to finish before a collision with oncoming traffic. **(9882)**

⊕ New Features and Changes

ANM Import

⊕ The controller type Epics/Balance-local can be used. **(9305)**

COM Interface

⊕ New Method IDynamicAssignment.CreateGraph(<EdgeType>): Creates the abstract network graph for dynamic assignment (<EdgeType> = 1 (EdgeTypeDynamicAssignment)) or the node evaluation (<EdgeType> = 2 (EdgeTypeEvaluation)) or the meso simulation (<EdgeType> = 3 (EdgeTypeMesoSimulation)). **(9769)**

⊕ New Methods ISignalControllerContainer.OptimizeAll() and ISignalController.Optimize() to call the signal optimization for all stage based fixed time controllers respectively one such controller. **(8496)**

⊕ New option to keep an event-based script active during the whole simulation run and to call a user-defined function in that script whenever required by the run type (e.g. at the start of each time step). See "Vissim 8 - What's new.pdf" for details. **(9420)**

Charts

⊕ Zooming in a chart window is now possible using the mouse wheel to zoom in/out. The region of the chart which is currently displayed can now be dragged using the left mouse button. The new attribute "Automatic zoom" can be used to disable zooming. **(8442)**

Command Line Parameters

⊕ -s (-simulate) to start a simulation run and close Vissim after the run, -q (-quickmode) to activate the quickmode. **(9272)**

Data Model

⊕ New calculated signal group attribute "signal state run time" which contains the number of simulation seconds that the current signal state of the signal group has been active continuously. **(9358)**

⊕ New relation from a link to all PT lines using that link. **(9042)**

⊕ New relations from lanes to conflict markers, desired speed decisions, detectors, reduced speed areas, parking lots, priority rules, PT stops, signal heads, stop signs and vehicles. **(9263)**

⊕ New relations from links to conflict areas, parking lots, queue counters, routing decisions, travel time measurements and vehicle inputs. **(9052)**

⊕ New relations vehicle type -> vehicle classes, pedestrian type -> pedestrian classes, data collection point -> data collection measurements, vehicle travel time measurement -> delay measurements, section -> area measurements. **(7971)**

⊕ Relation from a node to the conflict areas inside that node. This relation can be shown in the coupled list Nodes / Conflict Areas. **(7333)**

⊕ Relations from vehicles to static routes, partial routes, managed lane routes, parking lot routes and partial PT routes. These are set if a vehicle is currently using such a route, else empty. **(9001)**

⊕ Rotating of backgrounds is possible for many file formats (*.emf, *.wmf, *.bmp, *.gif, *.jpeg, *.jpg, *.jpe, *.png, *.tiff, *.tif, *.icon, but not *.dwg, *.dxf, *.ecw, *.sid) through the new attribute "Angle". In the network editor, a selected background can be rotated by dragging the mouse pointer while the Alt key is pressed. The center of the rotation is the center of the surrounding rectangle of all selected objects. If the whole network is rotated through Edit / Rotate Network, all backgrounds of these formats are rotated, too. **(256)**

⊕ Sections have the new attribute "additional level". If this is not empty but different from the attribute "level", the section records only ramps between these two levels and connectors between links on these two levels, for animation recordings, vehicle and pedestrian record and for meso simulation. **(9335)**

⊕ The current driving state of a vehicle (which can be used for coloring in the network window through Ctrl-E) is shown in the new vehicle attribute "Driving state", too. This attribute is written to animation files, so it can be shown and used for coloring in animation replay as well. **(9126)**

⊕ The link attribute "Only overtake busses" ("OnlyOvtBus") has been renamed to "Overtake only public transport" ("OvtOnlyPT"). (The old attribute name can still be used by COM scripts.) **(9370)**

- Two new simulation attributes at vehicles: "Destination parking space" and "Parking state". Both are set if the vehicle has been assigned a real parking space on a parking lot. "Destination parking space" contains the index of the parking space in the parking lot (starting at 1, increasing downstream), and "Parking state" contains "Parking" if a parking space has been assigned for immediate usage and "Waiting" if there is still another vehicle in that parking space. **(9498)**
- User-defined attributes. See "Vissim 8 - What's new.pdf" for details. **(7899)**

Demo Version

- The demo version doesn't have a license file anmyore, so the expiration time is fixed to 31 days after the first start of the installed version (but not more than 180 days after the build of the version). The Vissim viewer still doesn't have any expiration date. **(8540)**

Dialogs

- If the item "Move Network" (previously "Translate Network") is called from the "Edit" menu, a dialog is shown with 4 options:
  - Keep network coordinates and move location on background map (default)
  - Adapt coordinates and keep location on background map
  - Set network coordinates to (0, 0) at the center of the nework and keep location on background map
  - Adapt network coordinates and move location on background map (Vissim 7 functionality).
  If the whole network is moved by more than 1000 meteres by dragging in the network editor with active live map, a message dialog asks is the network coordinates are to be kept or if they are to be adapted to the new location on the background. **(8923)**
- Sorting by a column is now possible in embedded lists in dialogs, too, through the context menu opened by a right-click on the column header. **(8880)**

Dynamic Assignment

- A new evaluation for OD zone pairs can be activated under "OD pairs" in the evaluation configuration, and the results are shown in the new OD pairs results list. See "Vissim 8 - what's new.pdf" for details. **(4122)**
- Cost and path files are not written between runs of a multi-run series unless "Create archive files" is active. This saves a lot of time, especially in meso simulation. **(9738)**
- During a simulation run, the parking space decisions created automatically for real parking spaces used by dynamic assignment are displayed in the network editor like normal parking space decisions. In the parking space decisions list, they can be distinguished by the attribute "generated by" which contains the value "Dynamic assignment" for automatic parking space decisions and "User" for static parking lot decisions. **(8057)**
- Edge travel times and volumes can be collected for user-specified vehicle classes in addition to the values for "all vehicles". See "Vissim 8 - What's new.pdf" for details. **(3605)**
- If the path file is read outside of a simulation run (e.g. manually initiated from the paths list), paths which would not be used in the simulation because of the parameter "Limit number of paths" are not yet skipped (but only later when the path file is read again at the start of the simulation run). **(9343)**
- Measured path travel times can be used for assignment (instead of the total of edge travel times). See "Vissim 8 - What's new.pdf" for details. **(2769)**
- New COM interface method Vissim.CalculateVisumAssignment() to start an assignment in the included Visum converter and import the result back into Vissim. **(9066)**
- New option for the selection of the reference time interval for edge travel times for the edge cost calculation: Instead of the same time interval from the previous run, the previous time interval of the current run can be used. See "Vissim 8 - What's new.pdf" for details. **(3604)**
- Path travel times and volumes can be collected for user-specified vehicle classes in addition to the values for "all vehicles". See "Vissim 8 - What's new.pdf" for details. **(4725)**
- Paths with too high total cost are not deleted anymore upon reading the path file but they are still not used by any vehicles. Such a path is removed from the paths collection before writing the path file if that path had a too high cost for all vehicle types in all time intervals. **(9528)**
- Speedup for the shortest path search. **(9715)**
- The new option "Decide repeatedly" for the attribute "Path selection type" can be selected to make all vehicles find their path dynamically during their trip through the network. This can be used as one-shot assignment without iterations. See "Vissim 8 - What's new.pdf" for details. **(9306)**
- The path file can now still be used much more often after changes in the network, such as splitting a link. **(3011)**
- The travel time convergence of an individual path is shown in the new path attribute "Converged". Edges have the two new attributes "Converged (travel time)" and "Converged (volume)". **(9084)**

File Handling

- If the new network attribute "translateStrings" is set to true in the *.inpx file (e.g. <network version="200" vissimVersion="8.00 - 00* []" translateStrings="true">), upon opening in Vissim the name attributes of objects are translated from English to the language currently selected in Vissim if these names also exist in the defaults.inpx delivered with Vissim. This prevents duplication of base objects which are identical except for the language of their name. This may happen easily upon reading additionally a template file (say, a standard intersection) which has been created in a language different from the current Vissim language.
  The attribute "translateStrings" is automatically removed as soon as the *.inpx file is saved from within Vissim. **(9509)**
- The Vissim version number (including service pack and build number) is written to the *.inpx file and to the *.layx file, e.g. <layout version="200" vissimVersion="8.00 - 00* [54905]">. **(9296)**
- While a network is read, a message box is shown only if this process needs to be aborted. Less critical messages are written to the messages window instead, and when the complete network has been read, there is only one message box referring to the messages window. **(8941)**

Graphics

- A compass showing the North direction can be displayed inside the network editor window. The North direction can be set under Base Data / Network settings / Display. See "Vissim 8 - what's new.pdf" for details. **(8599)**
- A digital simulation time clock can be displayed inside the network editor window. See "Vissim 8 - what's new.pdf" for details. **(2721)**
- A separate color scheme can be defined for labels. **(7901)**
- A user-defined logo from a graphics file can be optionally shown in a corner of the network editor window. Filename, location and horizontal and vertical offset from the window border can be set in the graphic parameters of the network window (colored wrench icon). **(7038)**
- Display types have the new attributes "Border Style", "Border Color" and "Fill Style". "Color" has been renamed to "Fill Color". If display types are selected to be used for the display, the respective graphic parameters have no effect. **(8498)**
- During a simulation run, the "Simple Network Display" state overrides the insert mode, so if the insert mode is active for one of the hatched lines in the Network Objects sidebar, these objects are invisible anyway. **(7625)**
- Each lane of a link can have optionally its own display type assigned. **(7617)**
- Lane markings are automatically hidden if 1 pixel is larger than 1 meter. **(9489)**
- Link bars can be optionally displayed, together with links or instead of links. See "Vissim 8 - What's new.pdf" for details. **(8845)**
- Link segments of a segment node are marked in the network editor if they are selected in a synchronized list (child list "Link segments" of the nodes list). **(9640)**
- New graphics parameter "Shape2D" for vehicles with the values "rounded" (default) and "rectangular" (new) for 2D visualization. **(9351)**
- Node movements are marked in the network editor if they are selected in a synchronized list (child list "Movements" of the nodes list). **(7938)**
- SketchUp files can be used for static 3D models now in the 64 bit edition, too. **(8927)**
- The 3D model file "Bike - Cycle Man 01.v3d" has been upgraded to 21 states, so the legs of the rider move now. Additionally there is "Bike - Cycle Man 02.v3d" which supports not only one but 4 color distributions and is used as the new default 3D model for vehicle type "Bike". **(7905)**
- The previously separate graphic parameters "Use display types" and "Use color schemes" can be set as values in the new attribute "Drawing Mode" now. The third possible value is "Use constant colors". **(8653)**
- The vehicle routing decision graphic parameter checkbox "Force showing from distance" has been removed. **(8951)**

License Handling

- There is no license file anymore. All details of the license are stored on the dongle. If multiple licenses are available on the network, one of them can be selected to be used. See "Vissim 8 - What's new.pdf" for details. **(8992)**

Lists

- A double click on a cell which is not editable (or outside of a checkbox) opens the edit dialog for the object if there is one (exactly as a double click on the row header). **(9127)**
- If a lane is selected in a synchronized lane list (coupled list links/lanes), that lane is marked in the network editor. **(9063)**
- New item in the context menu of the delay measurements list: "Generate all (1:1)". This creates one delay measurement per travel time measurement. **(9332)**
- New items in the context menu of the signal controller list: Show Signal Times Table, Show SC/Detector Record and Zoom (to the surrounding rectangle of all signal heads and detectors of that controller). **(7590)**
- The column title can show the long name or the short name of the attribute, to be selected in the user preferences. **(9032)**

- Toolbar buttons for Add, Edit, Delete and Duplicate (enabled when applicable). **(9586)**

Meso Simulation

- New add-on module "Mesoscopic Simulation" for much faster simulation. See "Vissim 8 - What's new.pdf" for details. **(8211)**

Network Editor

- A newly created link has the same attribute and lane attribute values as the most recently created link. If no link has been created since the network was loaded or if the most recently created link has been deleted in the meantime, default values are used. For a connector, only the number of spline points is used from the most recently created connector. (Other attribute values are copied from the destination link, as before.) **(6544)**
- New context menu item "Create Nodes per Level" for segment nodes. This creates one node per level used by the segments of the original node which is deleted. **(8954)**

Scenario Management

- Functionality for comfortable editing and managing of multiple variants (e.g. network, demand, signal control, ...) in one project. See "Vissim 8 - What's new.pdf" for details. **(8780)**

Signal Control

- Faster communication with the controller DLL by reducing the passed data to the required minimum. This is used only by Fixed Time / VISSIG so far. **(9765)**

Simulation

- The default value for "number of cores" is now "use all cores" for new networks (i.e. in defaults.inpx). **(9378)**

Vehicle Simulation

- If multiple available parking spaces have the same attraction value, one of them is selected randomly now. **(2915)**
- Overtaking in the opposing lane. See "Vissim 8 - What's new.pdf" for details. **(8779)**
- The attribute "Full occupancy behavior" of a parking lot route decision defines the behavior of a vehicle which passes the decision when all parking spaces are occupied. The default value "drive on" makes the vehicle ignore the decision (as in previous versions) but the value "wait" makes the vehicle wait close to the parking space which will become vacant next. **(2578)**
- The lower and upper limit of the specific power of HGV vehicles can be defined in the network settings. (HGV vehicles out of this range use the lower/upper limit of the maximum acceleration function.) **(2842)**

Viswalk

- 3D signal heads are treated as obstacles automatically. **(4259)**
- BIM Converter for creating an *.inpx file from an *.ifc file. See "Vissim 8 - What's new.pdf" for details. **(8760)**
- Grid based LOS display in 3D, too. **(5381)**
- If a public transport stop gets a waiting area or a platform edge assigned, a default entry in the boarding passenger list of the stop is created if that list was empty before. **(8918)**
- New relations from pedestrians to static routes and partial routes. If a pedestrian is currently using such a route, the relation is set, else empty (e.g. when boarding a PT vehicle). **(9218)**
- Pedestrian areas have direct attributes for PT usage and PT stops now, so these can be set in the area list, too. The indirect area attributes of a PT stop cannot be changed anymore at the PT stop itself. In the COM Interface, Area->PTStops has replaced PTStop->Areas. **(8505)**
- Pedestrians have the new attribute "Experienced Density" which uses only the number of other pedestrians in a certain distance from the subject pedestrian. The radius of this circle can be set in the network settings. "Experienced Density" is available in the area evaluation, measurement area evaluation and grid cell LOS display, too. **(9235)**
- The attribute "Speed" (average pedestrian speed) at areas, ramps, measurement areas and grid cells is calculated as harmonic mean now, exactly as for vehicles. This is defined as the total distance walked by the pedestrians on the subject object in the respective time interval divided by the total time spent by the pedestrians on the subject object in that time interval. The same objects have the new attribute "Velocity variance" which contains the variance of the vectorial pedestrian speeds from all time steps. Pedestrians have the new attribute "Experienced velocity variance" which is calculated from the differences of the vectorial speeds of all other pedestrians inside the radius of experience (can be set in the network settings) to the subject pedestrian speed. **(9365)**
- The link attribute "Vehicle record active" applies to pedestrian links for the pedestrian record as well now. **(7569)**

- The network setting parameter "Never walk backwards" has been removed. It is ignored if read from old network files. **(9083)**
- There are two new result attributes for area measurements which are the counterparts for the result attributes "Walk-out count" and "Destination count":
  "Walk-in count" counts the pedestrians who enter the section(s) of the area measurement from outside. Pedestrian who are created at a pedestrian input or alight from a PT vehicle are excluded.
  "Origin count" counts the pedestrian that are created at a pedestrian input or alight from a PT vehicle inside the section(s) of the area measurement. **(8205)**

Workspace

- "Camera" button in the network editor toolbar for writing a screenshot of the currently displayed part of the network to a graphics file. **(2777)**
- A fallback language can be defined in the user preferences. If a label in the GUI or a text in an ouput file doesn't have a translation in the selected main language yet, the fallback language is used instead. If there is no translation, the English translation is used. If there is no English translation either, the original phrase is used (usually German). **(9523)**
- Drop-down box in the main toolbar for quick access to all open windows (excluding sidebars). **(9796)**
- Global update interval for the display of dynamic data: Through a slider in the main toolbar, the update interval for all network windows and list windows can be set from "each time step" to "every 1000th time step". Fewer updates allow higher simulation speed. **(7414)**
- In quick mode, the simulation speed from the simulation parameters is ignored and the simulation runs always at maximum speed. **(9602)**
- In the Edit menu, there is a new submenu for Undo, allowing to undo several editing steps at once. **(8274)**
- Keyboard shortcut Ctrl-B ("Background") to toggle visibility on/off for all background images. This has the same effect as clicking on the "eye" icon in the row "All backgrounds" in the Backgrounds sidebar, so it has no immediately visible effect if visibility of backgrounds is switched off in the Network Objects sidebar. **(9434)**
- The COM help can now be opened from a separate menu item. There is a new menu item to open the Vissim manual as PDF document. Under "Examples" there is a new menu item to open the first steps tutorial as PDF document. **(9731)**
- The Vissim Help window and the COM Help window are independent from the Vissim main window now. They stay open if the Vissim main window is minimized or closed. **(9641)**