

PTV Vissim & Viswalk 7

Release Notes

Last modified: 2015-10-29

http://vision-traffic.ptvgroup.com/en/support_vissim
http://vision-traffic.ptvgroup.com/en/support_viswalk

7.00-14 [57080] 2015-10-27

+ New Features and Changes

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)**

Signal Control

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

✓ Fixed Bugs

Dialogs

- ✓ Drop down lists can now handle colon characters in network object names. **(10159)**

Dynamic Assignment

- ✓ The Export to PTV Visum (Nodes/Edges) doesn't crash in specific cases anymore. **(9834)**

Evaluations

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

Network Editor

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

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)**

7.00-13 [56176] 2015-09-02

✓ 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)**

DriverModel.DLL Interface

- ✔ 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

- ✔ Route Guidance uses the edge travel times correctly now. (Previously, only the default value of 0.1 seconds was used.) **(9967)**
- ✔ 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)**

Licensing

- ✔ PTV Group has extended its contract with Microsoft to bring Bing maps as background map into PTV Vision software. Customers with active maintenance contract benefit another three years from the high resolution arials of Bing maps without additional charges. **(10040)**

Viswalk

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

7.00-12 [55690]

2015-08-10

+ New Features and Changes

COM Interface

- + New attribute "PID" for IVissim which contains the Windows process ID of the Vissim process. **(9652)**

✔ Fixed Bugs

Academic Version

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

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)**

Dynamic Assignment

- ✔ If the simulation period is exactly a multiple of the evaluation interval and if a vehicle passes a dynamic routing decision in the very last time step of a simulation run, the initialization of the next run of a multi-run series doesn't crash anymore now. **(9820)**

EmissionModel.DLL Interface

- ✔ Vissim doesn't ignore the selected file name 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)**

Presentation

- ✔ Animation replay ist much faster now in most cases. **(9892)**
- ✔ 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)**

Viswalk

- ✔ The two conflict areas between a pedestrian link (with opposite direction) and a vehicle link have always the same priority now. (Previously, in rare cases one pedestrian link could have priority while the other pedestrian link had to yield.) **(9806)**

7.00-11 [55099]

2015-07-09

+ New Features and Changes

File Handling

- + If a network is read additionally (or if network objects are copied and pasted), an object with a key conflict and active option "discard duplicates" is compared with all existing objects of the same type. That object is discarded if an objects exists with all attributes (except the key) identical. In this case all references to the discarded object are changed to a reference to the existing object. This can prevent unnecessary duplication of base objects, especially after multiple copy & paste from a different network. **(9139)**

Viswalk

- + It is now possible to assign a previous velocity to pedestrians that are inserted via the COM method AddPedestrianOnAreaAtCoordinate. Other pedestrians will react on this velocity in the next simulation time step. **(9605)**

✔ Fixed Bugs

ANM Import

- ✔ Link polygons with identical first and second points or last and second to last points don't cause a crash anymore. (Previously, there were some internal error messages about "trivial segments detected" before the crash.) **(9752)**

Data Model

- ✔ The relation from lanes to link evaluation segments contains only segments from the respective lane now (with link results per lane segment) instead of segments from all lanes. **(9723)**

Dynamic Assignment

- ✔ Opening the relation "route guidance vehicle" in the path list does not cause a crash anymore. **(9706)**

Evaluations

- ✔ In the vehicle travel time evaluation, the option "aggregation by time of passing the start section" works correctly now (and not identical as "passing the destination section" anymore). **(9718)**
- ✔ Writing of the evaluation attributes database (*.results*.sdf) doesn't fail anymore with the message "Cannot write dataset to database for type LINKEVALSEGMENT" if the link segment evaluation is active and if a vehicle from a vehicle input doesn't reach a positive link coordinate in its first time step in the network. **(9698)**

File Handling

- ✔ The safety copy of the *.inpx file (*.inp0) is now created by rename instead of file copy. Thus, the file cannot be destroyed anymore if there is insufficient free memory on the drive. **(9754)**

Graphics

- ✔ In some situations the preview window stored the last used location and dimension once and used these values for any new preview window. It was not possible to redefine the default location and dimension. This issue has been fixed. **(9663)**

Lists

- ✔ The directory selected for a list export to a database is used correctly now (instead of the *.inpx directory). **(9760)**
- ✔ The list export to a database doesn't fail anymore if multiple columns show the identical attribute. Now, the duplicate columns are not exported. **(8940)**

Network Editor

- ✔ A PT line stop keeps the state "active" now if the complete PT line is copied/pasted together with the respective PT stop. **(9726)**
- ✔ After copy & paste of a parking lot, the new parking lot now has the type of the original parking lot (not always "abstract parking lot"). **(9725)**
- ✔ If a link overlaps with itself, it can now be selected through a click on the overlapping part as well. **(9570)**
- ✔ Link cross sections (e.g. priority rules across all lanes) can be dragged again on the same link. (This didn't work in version 7.00-09 and 7.00-10.) **(9717)**
- ✔ Static 3D models cannot be selected anymore if their level is not visible. **(9519)**

Read Additionally

- ✔ For positioning the center of the read network at the click position, the camera positions of the read network are ignored. **(9549)**
- ✔ Reference points on the live background and in the network are ignored if the network read additionally is inserted at the mouse click position. **(9548)**

Vehicle Simulation

- ✔ The simulation doesn't crash anymore if a vehicle which has departed from a parking lot very close to or inside a reduced speed area approaches another reduced speed area later on. **(9753)**

Viswalk

- ✔ Alighting passengers have the correct z-coordinate now. **(9748)**
- ✔ The last time step of area measurements is correctly counted now even if the evaluation interval ends before the simulation. **(9773)**

Workspace

- ✔ Entering special characters in string attributes which could not be read in from an *.inpx file is not possible anymore in the GUI. **(9360)**

7.00-10 [54138]

2015-06-01

✔ Fixed Bugs

Dynamic Assignment

- ✔ Dynamic routing decisions don't check the capacity of zone connectors anymore when considering alternative parking lots. **(9639)**

Presentation

- ✔ If a link or area/ramp is missing where a vehicle/pedestrian is located, animation replay is stopped with an error message now instead of a crash. **(9677)**

Signal Control

- ✔ If the *.wtt file assigned to a controller contains an entry defined with "NUMMER 0 BIS 0" (number zero to zero), the respective type can now be added to the SC/Det. record or signal times table configuration through the "<<" button as well. (Previously, only a double click on the type did work.) **(9650)**
- ✔ If a signal controller has a frequency greater than 1 and equal to the simulation resolution, a PT telegram sent in the next to last time step of a full simulation second could be sent again to the controller in the last time step of that simulation second. This problem has been fixed. **(9657)**

Software Protection

- ✔ Special handling for access to a CodeMeter dongle with a floating license on a server in case of network problems. **(9703)**

Vehicle Simulation

- ✔ A simulation run could hang if a vehicle had a maximum acceleration of zero when approaching a reduced speed area which didn't yet cause the vehicle to brake but which would have been reached in less than 4 seconds. This problem has been fixed. **(9685)**
- ✔ A simulation run could hang in rare cases if a prioritized vehicle was very close to a conflict area which a yielding vehicle hadn't yet left completely. This problem has been fixed. **(9674)**

Viswalk

- ✔ Grid-based color scheme display works completely correctly now at overlaps with ramps. **(9656)**
- ✔ Boarding and alighting pedestrians are now correctly handled on measurement sections which are located on PT edges. In addition, the level attribute of these pedestrians is now correctly set to the level of the corresponding PT edge (before: undetermined) **(8924)**

7.00-09 [53711]

2015-05-04

+ New Features and Changes

Viswalk

- + Additional base data defaults for pedestrian types, classes, compositions, 3D models, 3D model distributions and speed distributions **(9547)**
- + The Pedestrian OD Matrix dialog allows pasting of a block of cells if only a single cell is selected as the upper left destination cell (the other values are automatically pasted into cells to the right and below). Pasting values into a block of cells is possible now even if non-writeable cells (e.g. from an area to the same area) belong to that block. These cells are simply skipped. **(9551)**

✔ Fixed Bugs

COM Interface

- ✔ The dialog "Codemeter Connection Lost" doesn't hang anymore after Vissim has been started from COM. **(9604)**
- ✔ The method "Vissim.Net.Vehicles.GetByLocation" returns a vehicle container now which doesn't change its content anymore upon each access. **(9512)**

Evaluations

- ✔ Link segment evaluation results are now correctly distributed over all link segments that the vehicle passed during one time step. **(9439)**

Graphics

- ✔ Geolocated *.skp models don't show the Google Maps graphics on the wrong side anymore. **(9537)**

Presentation

- ✔ Even in small networks, animation replay shouldn't be slower anymore than simulation. **(9567)**

Vissim Viewer

- ✔ Doesn't close upon start anymore because of a wrong expiration date. (This problem was introduced in version 7.00-07.) **(9565)**

Viswalk

- ✔ An area with a reference to a PT stop without boarding passengers can be deleted now without crash. **(9585)**
- ✔ The CAD import for pedestrian areas doesn't crash anymore if the *.dwg file contains unsupported objects (e.g. 3D data). **(9579)**

7.00-08 [53068]

2015-03-25

+ New Features and Changes

Evaluations

- + The attributes "simulation time (time of day)" and "start time (time of day)" are shown with two decimals in the vehicle record and pedestrian record. (This is required for emission calculation in EnViVer from a vehicle record file from a simulation resolution greater than 1.) **(9500)**

✔ Fixed Bugs

ANM Import

- ✔ Occasionally after an adaptive ANM import some network objects could not be selected in the network editor anymore. This problem has been fixed. **(9456)**

DriverModel.DLL Interface

- ✔ Additional error messages if the DriverModel.DLL cannot be loaded. **(9468)**
- ✔ Vissim doesn't crash anymore if the DriverModel.DLL doesn't exist. **(9454)**

Driving Simulator Interface

- ✔ Vehicles which have reached a connector are not passed twice anymore to the driving simulator in any case. Vehicles which have left the network are listed correctly in the list of deleted vehicles. **(9475)**

Dynamic Assignment

- ✔ A change of one of the attributes "emergency stop distance", "lane change distance" and "lane change distance is per lane" of a connector causes the network graph to be rebuilt now. This makes sure that the changed value is used in the next simulation run. (Previously, such a change did not affect the next simulation run if the network graph was already built, e.g. after a previous simulation run.) **(9496)**
- ✔ If the attribute "use for dynamic assignment" is removed from a node with edge closures, the next calculation of the network graph (e.g. after modifications on links inside that node) doesn't cause a crash anymore. **(9495)**
- ✔ The *.err file doesn't contain messages about used paths which include route closures anymore if these paths have not actually been used. Instead of the route number (usually 1) of the route closure, the decision number is now shown. **(9474)**
- ✔ The path attribute "converged" is now set correctly if the path satisfies the user-defined convergence criterion in all completed time intervals. **(9443)**

Evaluations

- ✔ Results of direct output evaluation to a database and results exported from a list to a database use the currently selected unit for speed, acceleration, density (vehicles and pedestrians), area and flow (pedestrians) now. **(9460)**

Network Editor

- ✔ Vissim doesn't crash anymore if no network editor is open at the start of a simulation run in quick mode. **(9465)**

Signal Control

- ✔ Deleting a signal group does now remove all references to this signal group from the configuration of the SC/detector record and the signal times table. **(9386)**

- ✔ If there is a detector with the type PT Calling Point assigned to a signal controller with a controller DLL (including fixed time), a simulation run is not canceled anymore with the message "Runtime Error: Data record IMPULSSPEICHER could not be read from the signal controller DLL ...". The message "Function ControllerGetValue: Unknown Detector Number x" in the error file of the controller has been removed, too. (This bug existed only in version 7.00-07.) **(9479)**

Vehicle Simulation

- ✔ If a PT vehicle needs to brake even harder because of another vehicle in a merging conflict area in the time step when the vehicle comes to a stop in a PT stop anyway, other vehicles don't expect this vehicle to depart immediately anymore during its dwell time. Thus, other vehicles are not blocked unnecessarily anymore by downstream conflict areas. **(9480)**

Viswalk

- ✔ If multiple vehicles stop in the same time step at PT stops with real pedestrians, the simulation does not crash anymore if multiple cores are used. **(9486)**
- ✔ Visibility selection for levels works correctly now in 3D. **(9511)**

Workspace

- ✔ Filters for formats of image files in the file selection dialog for background images now work as expected. **(9488)**

7.00-07 [52557]

2015-02-25

+ New Features and Changes

Charts

- + Improved generation of automatic data series name for the legend. **(8765)**

Evaluations

- + Three options for the handling of previous results in the evaluation configuration: Keep no results from previous simulation runs/ Keep results of current run only (for multi-run: all corresponding runs) / Keep all results from previous simulation runs. **(9285)**

Evaluations / Lists

- + In the vehicle record (*.fzp) and in the pedestrian record (*.pp) and in an exported list (*.att) there is an additional comment line with the short names of the attributes in the current language (directly above the line with the internal attribute codes). In the legend in the header, the short names are added, too, before the long names. (EnViVer version 4.5.4 or later is required to read the new vehicle record format.) **(9385)**

Read Additionally

- + The global reference points of both networks are considered correctly now, so the position fits automatically if both networks have been created on the same live maps background. **(9101)**

Viswalk

- + If both a pedestrian link and its opposite pedestrian link are selected, the command "Duplicate" doesn't create four new pedestrian links anymore but only two. **(8861)**

✔ Fixed Bugs

API

- ✔ DriverModel.DLL Interface: The simulation doesn't crash anymore if a vehicle doesn't see a real leading vehicle downstream of a connector. **(9432)**

Charts

- ✔ Occasionally the chart configuration dialog has crashed when a reference to an attribute or a network object reference has been deleted. This problem has been fixed. **(9345)**

Dynamic Assignment

- ✔ If a zone is used in the trip chain file but not assigned to any parking lot, the simulation run isn't terminated with an exception message anymore when the vehicle defined by the trip chain file tries to start this trip. **(9442)**

Evaluations

- ✔ Results are not deleted anymore without prompt for confirmation when a connector start/end point is moved. **(9430)**

Graphics

- ✔ The fill style doesn't affect nodes anymore if "color by function" is selected. **(9417)**
- ✔ The option "color by function" works for segment nodes, too, now. Node segments are drawn without fill color in wireframe mode. **(9418)**

Lists

- ✔ Lists which have a title containing a hyphen can now be exported to a database, too. **(9441)**

Presentation

- ✔ In animation replay, vehicles of a vehicle type with category "Pedestrian" are shown now. **(9304)**

Signal Control

- ✔ The (smoothed) occupancy rate of a detector is now calculated correctly even if the controller has a frequency higher than 1. **(9395)**

Vehicle Simulation

- ✔ PT vehicles can stop now in a PT stop which begins downstream of the start of another PT stop and ends upstream of the end of that other PT stop. (Previously, the "inner" stop could not be used even if it was located on a different lane.) **(9359)**
- ✔ The link attributes "emergency stop position", "lane change distance" and "lane change distance is per lane" cannot be edited during a simulation run anymore. (Previously, a change during a simulation run was possible but had no effect on this run.) **(9355)**
- ✔ A wrong lane change distance has been calculated for lanes to the left of a multi-lane connector if the attribute "lane change distance is per lane" was set for the connector. Vehicles on a route using that connector started trying to change lanes as if they needed to reach the rightmost lane of the connector on the origin link of the connector already. This problem has been fixed. **(9448)**

Viswalk

- ✔ Area measurements don't include pedestrians on ramps anymore. **(9409)**
- ✔ Conflict areas are now adapted correctly if the attribute "use as pedestrian area" of a link is set. **(9326)**
- ✔ Grid-based color scheme display works better now at overlaps with ramps. **(7751)**

Workspace

- ✔ In dialogs and some controls scrolling by using the mouse wheel doesn't work. This problem has been fixed. **(9329)**
- ✔ The top button in the background/level sidebar did not work as expected. Switching off all items did not switch the icon off and switching on all items via this button was not possible. This problem has been fixed. **(8828)**

7.00-06 [51749]

2015-01-09

+ New Features and Changes

Charts

- + Individual labels for data groups on the x-axis of the chart can now be specified using the chart configuration dialog. **(9023)**
- + Labels of data groups on the x-axis can now be hidden by specifying the label interval on the x-axis graphic parameters. **(8960)**

- + Labels of data series in the legend of a chart can now be customized by setting the name attribute in the data series graphic parameters. **(8761)**

Demo Version

- + The demo version is provided as self-extracting archive now which extracts the actual setup program and the license file (Init*.zip). During the setup process, the user still needs to select that license file in a file selection dialog. (This does not affect the Vissim Viewer.) **(9250)**

Error Handling

- + If Vissim loses the connection to the dongle and the user selects "Cancel" in the dialog waiting to reestablish the connection, there is now the additional option to save the network (if something has been changed, as upon "File/New") before closing Vissim after the confirmation message. **(8695)**

Evaluations

- + Vehicle, pedestrian and lane change protocol can be restricted to selected sections in their configuration dialogs. **(9113)**

Viswalk

- + Pedestrian routing decisions can be copied through Ctrl+Drag now in the network editor. Routes are not copied by this mouse gesture. **(8986)**

✓ Fixed Bugs

Charts

- ✓ If a named layout is applied in the chart configuration dialog all graphic parameters are applied to the chart preview correctly. **(9169)**

Dialogs

- ✓ Pressing cancel in the dialog to delete a named layout does not result in a crash anymore. **(9327)**

Dynamic Assignment

- ✓ Destination coordinates from a trip chain file work correctly now together with the coefficient for "distance from desired zone" in the parking lot selection attributes of a vehicle type. **(9286)**
- ✓ It is not possible anymore to manually write an empty path file. The corresponding menu entries are disabled if the path list is empty. **(9282)**

Evaluations

- ✓ Vissim no longer crashes in the dialog Evaluation Configuration when a value is changed in the line Pedestrian Network Performance. **(9338)**

Graphics

- ✓ The "type" attribute value "invisible" works correctly now for signal heads in 3D mode, i.e. such a signal head is not shown during a simulation run. **(9302)**
- ✓ Pedestrian areas which use a grid based color scheme are drawn during a simulation run now even if vehicles and pedestrians are not visible. **(9300)**

Script Files

- ✓ If an error occurs during the execution of a script file, the error message includes the file name of the script file now. This affects event-based scripts as well as scripts started from the main menu or context menu. **(9331)**

Vehicle Simulation

- ✓ If a vehicle sees a conflict area downstream of a reduced speed area, the calculation of the expected trajectory can cause an endless loop (hanging the program) if the acceleration of that vehicle from the reduced desired speed inside the reduced speed area back to the previous (current) desired speed is zero (because of the desired acceleration function or the maximum acceleration function including the gradient). **(9324)**

- ✔ The attribute "sleep probability" for temporary lack of attention takes effect according to its settings in the driving behavior dialog. **(9336)**

Viswalk

- ✔ If the attribut "use as pedestrian area" is activated for a link which has a conflict area with another link, the priority of that conflict area is not inverted anymore. Previously, this could happen in certain cases. **(9312)**

7.00-05 [51206]

2014-11-26

+ New Features and Changes

COM Interface

- + New methods `Vissim.SuspendUpdateGUI()` and `Vissim.ResumeUpdateGUI()` which stop respectively allow the updating of the complete Vissim workspace (network editor, list, chart and signal time table windows). Suspending the GUI update can save a lot of time during the execution of a COM script (if any windows are open) because otherwise each modification of an attribute of a static network object causes a complete redraw of the network and an update of these windows (even if the quick mode is active). **(8959)**
- + New read-only string value attributes of `IVissim`:
`WindowTitle` contains the full program name and version number as shown in the header of the Vissim window (e.g. "PTV Vissim (x64) 7.00-05").
`ApplicationName` contains only the program name (e.g. "PTV Viswalk"), without edition and version number.
`VersionNumber` contains a 6-digit version number, two digits each for main version, decimals and service pack number (e.g. "070005"). **(9167)**
- + The attribute `Vissim.Presentation.AttValue("RecordAVIs")` switches the AVI recording on and off. The attribute `Vissim.Graphics.AttValue("Quickmode")` switches the quick mode on and off.
(`Vissim.Graphics.CurrentNetworkWindow.AttValue("QuickMode")` is still available, so old scripts using it still work.) **(9180)**
- + The new method `Vissim.Net.Vehicles.GetByLocation(posX, posY, distDistr)` returns a `VehicleCollection` containing a subset of all vehicles inside a certain distance from the world coordinates (`posX / posY`). That distance is the maximum distance of the distance distribution `distDistr` which is passed as third parameter. A distance distribution is a new network object which specifies a probability depending on a distance, in this case the probability of the vehicle being *not* included in the collection. The probability is zero at distance zero (exactly at the passed world coordinates) and increases to 1 at the maximum distance of the distribution, with the detailed form of the distribution defined as curve in the distribution dialog. This method can be used to model lost Car2X messages sent from certain world coordinates, with the probability of a lost message increasing with the distance from that location. **(6552)**

Data Model

- + The attribute `DestinationPosition` of `IVehicleRouteManagedLanes` has been renamed to `DestPos` (as for the other route types). COM Scripts with the old name can still be used. **(9215)**

Dynamic Assignment

- + If a connector is closed for all vehicle types (not necessarily for all vehicle classes), it is not considered at all for edges of the network graph. (Previously, edges including this connector were created in the graph and shown in list windows but not used for paths.) **(9237)**

Graphics

- + The option "Automatic Level Transparency" (default: on) in the 2D graphic parameters of the network editor allows to turn on/off transparency for drawing network objects on different levels (using descending transparency). If this option is not activated, network objects on all levels are drawn identically. **(9098)**

Interfaces

- + The `EmissionModel.DLL` API is available again. For each vehicle type, an external DLL file can be assigned. Emissions calculated by this DLL (from the vehicle type, speed, acceleration and gradient passed from Vissim to the DLL) can be collected in the vehicle record, in the link segment evaluation and in the network performance evaluation. (There is no `EmissionModel.DLL` with a real emission model available from PTV. The DLL provided with the API module returns only test values.) **(6553)**

Program Start

- + Vissim/Viswalk can be started as a Windows service from session 0 now. This is necessary for running it on Windows HPC Server without a user session. **(9271)**

Vehicle Simulation

- + Parking lots with real parking spaces: A parking space is considered blocked only if there is a standing vehicle between the lane of the parking space and the next lane without parking spaces (or on that lane) in all directions where there is such a lane. This changes the behavior in situations with multiple lanes with parking spaces at the left side of the link in a network with right-side traffic respectively at the right side of the link in a network with left-side traffic and in situations with multiple adjacent lanes with parking spaces in the middle of a links, with a free lane without parking spaces each to the left and to the right side. **(9262)**

Viswalk

- + Pedestrian network performance evaluation: This new evaluation collects data in result attributes: number of active, departed and arrived pedestrians, average pedestrian density, speed, normalized speed and flow as well as travel time, average delay and number of stops. It can be activated in the evaluation configuration dialog. **(5549)**

Fixed Bugs

ANM Import

- ✓ The node import for left-side traffic has been improved for nodes with standard geometry (for which Vissim generates connectors and selects their destination lanes automatically) if the destination link of a left turn connector has more lanes than arriving connector lanes. **(9212)**

COM Interface

- ✓ The method AddNewVehicleToPTLine() treats the passed desired speed correctly now in the current unit for speed (instead of treating it as meters per second). **(9234)**

Dialogs

- ✓ The signal control dialog doesn't crash anymore after a WTT file has been deleted from a controller of the type Siemens VA. **(9240)**

Lists

- ✓ Attributes representing a percentage are now shown as percentage value with a % sign by default. In the attribute selection dialog, the percentage sign can be removed by switching off "ShowUnits", and the format can be set to a simple number (0..1 representing 0%..100%) by selecting "Default" or to scientific notation ("Scientific"). Other numerical values without unit can be shown as percentage, too, by selecting the format "Percent". **(9208)**

Signal Control

- ✓ The updated version of the RBC controller DLL doesn't crash anymore at the end of a simulation run (causing a memory dump to be written to the harddisk which could take more than a minute) nor at the start of a simulation run. Memory leaks in the RBC DLLs have been fixed, too, and the 64-bit edition is much faster than before. (The crashes were observed mainly on Windows 8.1.) **(8717)**

Simulation

- ✓ If the user selects the "Stop" button in an error or warning message dialog during a multi-run, the complete multi-run is stopped (instead of immediately starting the next simulation run). **(9183)**

Vehicle Simulation

- ✓ A bus on a PT line which is removed from the network after having waited for a lane change from its first time step in the network doesn't cause a crash anymore. **(9226)**
- ✓ In very rare cases, a PT vehicle could come to a stop at a PT stop but never begin the dwell time. This bug has been fixed. **(9276)**

+ New Features and Changes

Graphics

- + A color scheme can be used for the display of nodes. **(8925)**

Lists

- + If a list is exported manually to a database a dialog pops up which allows to change the database connection and table name. **(8856)**

Network Editor

- + When a new parking lot with real parking spaces is created, the default value for the zone number is "empty" (no zone). **(9152)**

✓ Fixed Bugs

COM Interface

- ✓ A possible crash in the method `vissim.Net.PriorityRules.SetMultiAttValues` has been fixed. **(9165)**
- ✓ After a call of `RunContinuous()`, Vissim doesn't return control to the calling script/program anymore when the simulation is switched to single step mode in the GUI but only after the simulation run has finished or the simulation time has reached the attribute `SimBreakAt` of the object `Simulation`. **(9142)**

Charts

- ✓ Filtering for simulation runs and vehicle/pedestrian classes is now the same as in evaluation lists. Simulation runs with no data and vehicle/pedestrian classes which are not selected in the evaluation configuration are not shown in a chart's attribute selection. **(9144)**
- ✓ Setting the option 'for all' and 'synchronized' in a chart layout for the network object selection did not correctly synchronize the chart with the current selection during simulation with some network object types (e.g. vehicles). This problem has been fixed. **(8948)**

Dynamic Assignment

- ✓ Reading the path file at the start of a simulation run or explicitly through the (context) menu doesn't cause a crash anymore with an open and synchronized path list. **(9147)**

Graphics

- ✓ Background images with an invalid file path to a DWG/DXF image file made Vissim crash after a while. This problem has been fixed. **(9158)**

Lists

- ✓ The decimal separator set in the "Numbers" section of the Windows "Region" settings is used now independently of the current Windows language. (Previously, this did not work for some languages, including English.) **(9178)**

Network Editor

- ✓ No crash anymore upon Ctrl-C when only one vehicle input is selected. **(9185)**
- ✓ Splitting a link doesn't cause a recalculation of spline points anymore, so the link position and/or length of objects on this link isn't changed incorrectly anymore. **(9197)**

Presentation

- ✓ The simulation parameter "simulation speed" is used for the replay of an animation file even if no simulation has been run since the start of the program. **(9188)**

Signal Control

- ✓ Simulation runs with RBC controllers don't cause unnecessary loss of RAM anymore. This prevents a crash with an error message like "System.OutOfMemoryException" in a multi-run simulation with multiple RBC controllers. **(9204)**
- ✓ For the green time optimization, the start and end time from the node evaluation are used. After the optimization, the simulation runs (and their result attributes) used for the optimization are deleted automatically. **(9111)**

Simulation

- ✔ Continued inputs are handled correctly now. (Previously, the start times were generated for each time interval separately.) **(9057)**

Vehicle Simulation

- ✔ A public transport vehicle on a line with a loop (which visits PT stops multiple times) stops at a line stop only if it is active (and not during each pass anymore). **(9195)**

Viswalk

- ✔ If a pedestrian cannot be assigned to a valid area or ramp, the simulation does not crash anymore. Instead, the pedestrian is deleted and the user is notified. **(9115)**
- ✔ The simulation run is canceled after the error message stating that an input area is too small to create a pedestrian. (Previously, this message was shown repeatedly in each time step.) **(8978)**

Window Handling

- ✔ Windows in auto hide mode are saved correctly now in the layout file (*.layx) and can be read in again. **(9109)**

7.00-03 [49944]

2014-10-08

+ New Features and Changes

COM Interface

- + New example for basic COM commands in several programming languages (VBA, C++, C#, Matlab, Python) in the directory "Examples Training\COM\Basic Commands". The introductory document "Vissim 7 - COM Intro.pdf" has been updated, too. **(9112)**

Data Model

- + Attributes of static 3D objects can be changed during a simulation run. **(9045)**

Dynamic Assignment

- + The assignment of vehicles to the existing paths can be specified by user-defined path volumes. For this purpose there is the new attribute "Path selection method" (in the dialog "Dynamic Assignment" on the tab page "Cost and path handling", in the COM interface `Vissim.Net.DynamicAssignment.AttValue("PathSelMethod")`). This attribute has the two possible values "Kirchhoff" (default value) and "Use old volumes". If "Kirchhoff" is selected, the assignment uses the Kirchhoff exponent and the expected general cost values of the paths (edge total). If "Use old volumes" is selected, the probability for a vehicle to select a specific path corresponds to the share of the value of the path attribute "Volume (old)" in the total "Volume (old)" of all paths of the same parking lot relation. These volumes (for all time intervals) are read from the path file only at the start of each simulation run and saved in the attribute "Volume (old)". (In the attribute "Volume (new)", the vehicles using the respective path are counted during the simulation run.) If the path selection for a time interval (which has not yet begun) is to be modified during (!) a simulation run, the attribute "Volume (old)" of the paths must be set. If the path selection is not to be specified before (!) a simulation run, first the path file must be read, then the attribute "Volume (new)" of the paths must be set, and finally the path file must be written again (because only the values of the attribute "Volume (new)" is saved there). For reading and writing of the path file, there are two new menu items in the menu Traffic / Dynamic Assignment and new methods in the COM interface (`Vissim.Net.Paths.ReadDynAssignPathFile` respectively `WriteDynAssignPathFile`). The format of the path file doesn't have any effect anymore on the usage of the path volumes. Even with a path file created by ANM import, the path volumes are only used if the path selection method is set to "Use old volumes". The ANM import sets the path selection to "Use old volumes" automatically, however, if ANM routes are imported as paths for dynamic assignment. **(8957)**

Interfaces

- + The driving simulator DLL interface is available again. The functionality is identical with the interface of Vissim 5.40, except the parameter `snapFileName` of the function `VISSIM_Connect()` which is ignored as long as Vissim doesn't have the snapshot functionality. In Vissim, the interface can be activated and the vehicle type for the driving simulator vehicle(s) can be selected on the tab page "Vehicle Behavior" of the Network Settings dialog. **(7389)**

Viswalk

- ➕ Pedestrian.PedestrianType can be changed during a simulation run, e.g. through the COM interface. **(7910)**

✔ Fixed Bugs

ANM Import

- ✔ Adaptive import doesn't cause all WTT file references of signal controllers to be duplicated anymore. **(9102)**

Charts

- ✔ Vissim does not crash anymore when a simulation run is deleted while a chart window with simulation run references is open. **(9108)**

Dynamic Assignment

- ✔ If the matrix file references zones which are not assigned to any parking lot and have non-zero demand, Vissim does not crash anymore. **(9106)**

Evaluations

- ✔ A signal head with the attribute "Discharge record active" set to true doesn't cause a crash anymore in a simulation run without activated discharge evaluation. **(9118)**

Graphics

- ✔ Storyboards: The camera speed of keyframe transitions with "Smooth start" or "Smooth end" does not change suddenly half way through the transition any more (the speed is now continuous). **(285)**

Lists

- ✔ Vissim does not crash anymore when a cell for color is currently selected in a list and the selection of the list is changed indirectly by duplicating, adding or through global selection. **(8930)**

Network Editor

- ✔ More specific wording in the message window regarding completion of routes and PT lines. **(9049)**
- ✔ Moving a link cannot cause the error message "Unexpected end of node x" anymore at the start of a simulation run. (Very short node segments at the start/end of a connector cannot be removed anymore, so the node/edge graph can still be created.) **(9056)**
- ✔ Signal heads are displayed during simulation according to their type as left or right pointing arrows. **(8564)**

Signal Control

- ✔ The updated SCATS controller DLL doesn't crash anymore at the start of a simulation run. **(9160)**

Vehicle Simulation

- ✔ If a vehicle determines that its selected parking space is blocked by a standing vehicle on the adjacent (drive-through) lane, the parking vehicle now cannot change its selection to a different (not blocked parking space) anymore as soon as the front end of the vehicle has arrived in the originally selected parking space. Previously, a permanent gridlock could be caused if the blocking vehicle could not pass the parking vehicle which had its rear end still on the other lane. **(9110)**

7.00-02 [49473]

2014-09-11

➕ New Features and Changes

ANM Import

- ➕ In multi-lane roundabouts, lane closures (attribute "blocked vehicle classes") are used now instead of lane change restrictions. **(8860)**

Data Model

- Managed lanes routing decisions have a new attribute "Managed lanes data" which combines the information about the current travel time savings, average speed on the managed lane route and current toll for single occupancy vehicles. (This can be displayed as label of the routing decision as in Vissim 5.40.) **(7917)**

Graphics

- The graphic parameter "Fill style" is used for areas and ramps even if a color scheme is active. **(9047)**

Network Editor

- The position of the mouse pointer is used correctly even if network objects are copied/pasted with Ctrl-C and Ctrl-V. **(9017)**

✔ Fixed Bugs

ANM Import

- ✔ Adaptive import works now for networks with roundabouts. **(8944)**
- ✔ Repeated adaptive import works correctly now even if there is a projection listed in the *.anm file. (Previously, the whole Vissim network was discarded because incorrectly changes were detected for all nodes.) **(8995)**

Dynamic Assignment

- ✔ Changes of link attribute values which cannot affect the node-edges graph don't cause the graph to be discarded anymore. **(9079)**
- ✔ If no cost file is defined in the dynamic assignment dialog, Vissim creates it anyway with a default file name as for the path file. **(8891)**
- ✔ PTV Visum Assignment can be called again. (This did not work in Vissim 7.00-00 and 01.) **(9028)**
- ✔ Running a dynamic assignment simulation while the path list is open does not cause a crash anymore. **(8839)**
- ✔ The convergence evaluation now yields correct values for edge travel times in each time interval. (Previously, values were aggregated over all previous time intervals.) **(9074)**

Evaluations

- ✔ In the lane changes record, negative vehicle numbers (of internal vehicles, e.g. signal heads, priority rules, conflict areas) are listed correctly (without adding 2^{32}). **(8996)**

Graphics

- ✔ The default class limits for the classified display of link segments depending on density have the correct order of magnitude now. When a color is changed which has the ARGB value (0, 0, 0, 0) (transparent black), the color picker dialog is initialized correctly now. The default colors for relative delay (20-30) and volume (1500-2000) have been changed. **(8886)**

Lists

- ✔ Cells with exact volumes are colored yellow now in the main vehicle/pedestrian input list as well. **(9018)**
- ✔ The layout of an open list window is restored correctly after reading a layout file even if this file contains a layout for a list window of that type. **(8907)**

Signal Control

- ✔ The *.wtt file name is set automatically to trend429.wtt and the program file name to trend429.exe for the controller type TRENDS when a new controller of such a type is created. **(8971)**

Simulation

- ✔ A simulation run with active 2D visualization was much slower than in Vissim 6. This bug has been fixed. **(9068)**

Test Mode

- ✔ PT telegrams are listed only once in macro files and are actually passed to all signal controllers. (Previously, they had been listed in each time step from their creation until the next signal controller time step but not passed to any controller when executing the macro.) **(8769)**

Vehicle Simulation

- ✔ Vehicles are not stopped permanently anymore by a stop sign directly downstream of a conflict area. **(8414)**
- ✔ The following bug has been fixed: If overtaking on the same lane is activated in the driving behavior, a vehicle following a vehicle of a type which may not be overtaken can move laterally during, trying to pass that slower vehicle, but aborts each single attempt. **(8997)**

Viswalk

- ✔ The walking behavior parameter lambda is limited correctly to the range 0 to 1 now. **(8981)**

7.00-01 [49106]

2014-08-19

+ New Features and Changes

Data Model

- + 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. **(8019)**

Dialogs

- + In the dialog "Connector", the option "Show aggregated values" on the tab page "Display" has been renamed to "Show classified values". (The functionality has not changed.) **(8890)**

Network Editor

- + When a public transport stop is moved to a lay-by stop (through the context menu), the created links are excluded from use by vehicles without a route or by dynamic assignment: The entry connector is closed for all vehicle classes and its desired direction is set to "right". **(8819)**

Signal Control

- + WTT files can be assigned to VS-PLUS controllers in the dialog "Signal Control" on the tab page "Controller (VSP)". **(202)**

Viswalk

- + If the license doesn't contain vehicle simulation, there are no vehicle related network objects anymore in the "empty" default network in the file defaults.inpx (which is now located in the subdirectory Viswalk 7 instead of Vissim 7). **(8168)**
- + The signal head attribute "compliance rate" affects pedestrians now as well, so they can ignore red traffic lights with a defined probability. **(8078)**

✔ Fixed Bugs

ANM Import

- ✔ A bug during the first adaptive import of a network with a projection caused subsequent adaptive imports to fail with the message "Projection settings of ANM files differ.". This bug has been fixed. **(8935)**
- ✔ Bypasses at roundabouts don't cause the import to fail anymore. **(8899)**
- ✔ The import doesn't fail anymore if the total of the length of a triangular island and the pocket length is almost the same as the length of a different pocket. (This could be caused by rounding imprecision in networks with Imperial units.) **(8351)**
- ✔ The import of a roundabout doesn't fail anymore with a message like "Link 15 cannot be inserted: there must be at least 1 items in the lanes container." (This could happen if there was a bypass with all entry lanes being pockets.) **(8929)**
- ✔ The import of networks with roundabouts doesn't fail anymore if the lane turns in the roundabout have no destination lane index. (Such networks are created by Visum if a standard geometry is exported and the option "Use lane definition" is activated in the node.) **(8895)**

Charts

- ✔ If a chart window displays a result attribute for a specific time interval when this time interval is deleted (because the interval length is changed in the evaluation configuration), there is no crash anymore. **(8990)**

Dynamic Assignment

- ✔ Changing the simulation or evaluation period now invalidates the dynamic assignment graph in order to avoid a crash. **(8952)**
- ✔ For the creation of static routing, vehicle composition elements with relative flow smaller than 0.001 out of a total of 1.0 (i.e. smaller than 0.1%) are ignored now. (Previously, the creation of static routing failed in this situation.) **(8804)**
- ✔ Vissim does not show a warning message anymore when the user opens the path list in an empty network. **(8892)**

Evaluations

- ✔ If the option "Overwrite all previous results" is selected in the evaluation configuration, the simulation run number is now reset to 1 again before the first run of a multi-run simulation. (This did not happen in version 6.00-18 and 7.00-00. Since 6.00-18, however, the results of each simulation run are deleted at the start of the next simulation run even during a multi-run.) **(8866)**
- ✔ Node evaluations include PT vehicles now (in result attributes and raw data) even if the distance from the start of the PT line to the node is smaller than the distance to the start of the delay measurement as defined in the evaluation configuration (default: 100 meters) and the node entry is on the start link of the PT line. **(8965)**

Graphics

- ✔ Color schemes work correctly now for vehicles and pedestrians even if Imperial units are selected. **(8988)**

Lists

- ✔ In certain situations with Auto-Pan/Auto-Zoom, list cells could be sporadically blacked out completely. This problem has been fixed. **(8882)**

Network Editor

- ✔ A node segment that spans not a complete link/connector is selected with priority over the link/connector when clicking on it. **(8821)**
- ✔ Labels of pedestrian inputs, routing decisions and travel time measurements as well as vehicle travel time measurements can be dragged without problems now. **(8791)**
- ✔ Occasional crashes after deleting lanes don't occur anymore. **(8983)**
- ✔ Inserting a background image from ECW files caused a crash on some ATI graphic cards (e.g. FirePro V3800) with the latest drivers. This problem has been fixed. **(8725)**
- ✔ Occasionally, a DWG/DXF file could not be loaded during manual insertion of a background image (but networks already containing this background image could be loaded correctly). This problem has been fixed. **(8580)**
- ✔ On some systems ECW background images could not be loaded anymore. This problem has been fixed. **(8614)**

Signal Control

- ✔ The *.wtt file name (corresponding to the program file name) is set automatically for the controller types VS-PLUS and TRENDS when an *.inp file (from Vissim 5.40) is read. **(8826)**
- ✔ The function "Optimize Signal Control" works again now. **(8841)**
- ✔ VISSIG (stage oriented fixed time control): If the first time in a daily signal program didn't start at 00:00:00 (but e.g. at 00:10:00), the simulation crashed at that first time (e.g. after 600 simulation seconds). This bug has been fixed. **(8849)**
- ✔ VISSIG (stage oriented fixed time control): The change of the number of an interstage doesn't cause an exception message anymore. **(8846)**

Simulation

- ✔ The option "Automatically add new columns in lists" doesn't cause a crash anymore when the simulation is started with "Number of runs" larger than 1. **(8900)**

Viswalk

- ✔ If a pedestrian approaching a PT vehicle doesn't reach the vehicle before the departure and thus must walk back to a waiting area but there is no way back (e.g. because of an escalator), the simulation doesn't crash anymore. **(8840)**

- ✔ Pedestrians can walk on a stopped escalator (speed zero) now even if the bottom step is mostly below ground. **(8869)**
- ✔ Pedestrians with very high desired speeds in queues who leave the walkable ground and are thus removed from the network don't cause the simulation to crash anymore. **(8962)**