

VISUM Release Notes

Version 9.4

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9.44-13

Corrections, Bug Fixes and New Features (ID)

2007-10-17

Dialogs

- ▶ *Vehicles dialog box*: The program will no longer crash, if the dialog window is opened again after closing it by clicking the Close button x in the top right corner of the dialog title bar. (6472)

Junction Editor

- ▶ *SCJ optimization*: During green-time optimization of stage-based signal controllers, lane volumes are in all cases determined precisely for the decisive saturation per stage now. (6482)

Other Operations

- ▶ *Standardized assessment*: Now, the induced transport demand is calculated correctly, even in case of rising PuT impedance. (6484)
- ▶ *Modal Split (Standardized assessment)*: Procedure parameters (e.g. G1 and G2) are correctly saved to protocol file now. (6483)

PuT Assignment

- ▶ *Skim matrix calculation*: If the demand segment selected for skims is deleted from the network, the assignment parameters are adapted such that the first remaining demand segment takes its place. Thus it can no longer happen that skim matrices with an empty demand segment reference are created. (6487)
- ▶ *Headway-based assignment*: If the headways are calculated from the timetable, vehicle journeys with a departure time beyond 24:00 used to be ignored. This error has been fixed. (6486)

9.44-12

Corrections, Bug Fixes and New Features (ID)

2007-09-03

COM Interface

- ▶ *Shortest path search*: VISUM no longer displays the marked shortest path twice if the autozoom is called after searching a shortest path via COM. The original marking is now deleted correctly. (6098)
- ▶ *Accessing LineRouteItem.NodeNo and SysRouteItem.NodeNo* no longer leads to a crash if the respective objects do not refer to a node. (6133)

Dialogs

- ▶ *Dialog box Print area*: VISUM now checks the value ranges of all input data. As a result, the program no longer issues numerous warning messages in a row which prevent the user from cancelling the action. (6175)
- ▶ *Dialog box Edit graphic parameters*: When accessing a tab with classified drawing mode on, the first class is now marked in the grid on the left. It is thus a lot more obvious that the parameters displayed on the right are set for this class. (5540)

Network Editor

- ▶ *Link symmetry*: By mistake, this feature used to regard all links as symmetrically attributed if the first considered link pair was symmetrical. The error has been fixed. (6197)
- ▶ *Delete link*: References to speed limits are now also deleted on the opposite direction of the deleted link. Corrupt version files (that cannot be read in again) may thus no longer result. (6101)

Other Operations

- ▶ *Intersect*: The operation no longer terminates if a link polygon contains two identical points. (6120)
- ▶ *NCHRP255*: The occurrence of active, isolated nodes in the network no longer causes a crash in the procedure. (6195)
- ▶ *Flow bundle*: Trips from one main zone to another main zone can now be filtered via flow bundles. (2286)

PrT Assignment

- ▶ *Calculate skim matrices*: The global min/max settings now also apply to matrices that are kept in RAM. (6125)
- ▶ *Dynamic PrT assignment*: The program no longer crashes when opening listing *Path* if a dynamic assignment has been run and paths were saved as connections, yet without analysis time intervals. (6108)

PuT Assignment

- ▶ *PuT connection import / Use file for search*: If the read in connection file contains a PuTWalk link which is no longer possible in the current network (e.g. due to deleted connectors), a detailed warning is issued and the import is cancelled. (6211)
- ▶ *PuT assignment statistics*: VISUM used to allocate unrealistic, way too low values to factor "PTripsUnlinked" which is issued in the zone and total statistics. (2038)

9.44-11

Corrections, Bug Fixes and Extended Functionality (ID)

June 21, 2007

Discarded Program Crashes

- ▶ *Reading procedure parameters*: VISUM no longer crashes when reading in PAR files if a PrTSys is not contained in the network. (6037)
- ▶ *Shortest Path Search*: Calculating an interactive PuT Shortest path search with PuT additional path leg(s) and then
 - deleting a time profile or splitting a link (5748) or
 - calculating a timetable-based PuT assignment with search option "Shortest Path Search" (5749) no longer causes a crash.

Procedures

- ▶ *PrT assignment - stochastic*: Instabilities in the sequence of transport systems/demand segments no longer lead to modified assignment results. (6022)
- ▶ *Connection import*: VISUM now also provides the zone and overall statistics of the PuT assignment during a connection import. (6055)

Other Procedures

Route import (old format): If, in the procedure parameters, decimal places > 0 are set for the PuT volume, the respective demand matrices are not projected by the specified factor anymore. (6021)

Network Editor

Junction editor: When editing the number of lanes of a link, VISUM no longer creates legs with an incorrect number of lanes at adjacent node topologies. However, the error only occurred in case of split legs. (6083)

Network Graphics

ECW/JPEG2000: Backgrounds of type ECW / JPEG2000 are localised correctly again when using the zoom. (6077)

COM Interface

Shortest path search: VISUM no longer displays the marked shortest path twice if the autozoom is called after searching a shortest path via COM. The original marking is now deleted correctly. (6098)

9.44-10

Corrections, Bug Fixes and Extended Functionality (ID)

May 11, 2007

Discarded Program Crashes

- ▶ VISUM no longer crashes if, for a relation, no shortest path is found in a PuT assignment with MPA. (6002)
- ▶ *Deleting time profiles*: Crashes no longer occur following the deletion of time profiles with couplings. (6000)

Other Procedures

- ▶ *Assignment analysis*: Option *Only active network objects* now also has an effect on *R2* and *Correlation Coefficient*. (5969)
- ▶ *Connection import*: (error occurred as of 9.52-13/9.44-08) When importing connection files, paths with path legs that are located past the end of the analysis period (often: 24:00) are now evaluated correctly again. (5994)
- ▶ Menu CALCULATE - PROCEDURES - *PrT Functions - Blocking-back model*: (6005)
 - The scaling factor is no longer limited to two decimal places.
 - Filters are now updated immediately following the recalculation or initialization of the blocking-back model.

Network Editor

- ▶ *Coordination groups*: When exiting dialog box *PuT Coordination groups* with "Cancel", VISUM used to produce coordination group items without cross-references to a group. Saved network files that included such coordination groups could not be read in again afterwards. The error has been fixed. (5974)

9.44-10

Corrections, Bug Fixes and Extended Functionality (ID)

May 11, 2007

Miscellaneous

- ▶ *Filters*: In the case of hierarchical filters, using INITIALIZE and subsequently CANCEL now also results in the restoration of the settings that were effective when opening the dialog. (5936)
- ▶ *Reading version files*: When reading a TSys-based assignment result calculated with a previous version of VISUM (before this service pack), the related paths are now always deleted as they may contain invalid references to network objects. The network volumes are preserved. A corresponding warning is displayed. You may have to recalculate the assignment. (5975)
- ▶ *Reading network files additively*:
 - When reading links in mode "Overwrite object", all type-dependent attributes (*Cap*, *t0*) are now reset to default values. (5987)
 - Mode "Overwrite attributes" and mode "Overwrite object" now also function in case of specific transfer walk times and transfer wait times at stops. (5997)
 - Reading leg templates additively now works correctly. (6003)
- ▶ *Search dialog box*: The dialog can now also be called with F3 if a shortcut like CTRL+S was used beforehand. (5995)

9.44-09

Corrections, Bug Fixes and Extended Functionality (ID)

April 24, 2007

Discarded Program Crashes

- ▶ VISUM no longer crashes when editing the shape of line routes. Crashes only occurred in special cases. (5954)
- ▶ The deletion of time profiles sometimes led to a crash. The error has been fixed. (5959)

Network Graphics

The graphic parameters for the print area can be read in individually again via selective GPA file import. (5958)

COM Interface

- ▶ The *GetMultiAttValues* functionality now also works correctly for valid days (*IValidDaysCont*). (5584)

Import Interfaces

- ▶ *Synchro*: The calculation of the storage for turning bays that are greater than half the distance between links has been updated. Furthermore, the offset reference value for signal timing has been adjusted based on the Synchro sign values. (5941)

9.44-08

Corrections, Bug Fixes and Extended Functionality (ID)

April 16, 2007

Discarded Program Crashes

- ▶ *Reading a DMD file*: Crashes sometimes occurred if a version file contained demand strata yet no demand procedures when reading a DMD file non-additively. The error has been fixed. (5925)
- ▶ *MPA*: VISUM no longer crashes following the evaluation of PuT paths if MPA has been activated and several PuT demand segments are assigned. (5931)

Procedures

- ▶ *PuT assignment*: When reading a connection file or restarting the calculation based on the paths of an assigned DSeg instead of running a new search, the program no longer aborts issuing message "Invalid PuTWalk link", if a single PuT path leg plus the transfer walk link is longer in terms of time than the total analysis period. (5932)

Network Editor

- ▶ *Splitting a link*: When splitting polyline links (also in the context of the aggregation of nodes), the lengths of the two newly created links are now calculated correctly from the former total length of the link. Link stop points thus no longer "shift". (5913)

COM Interface

- ▶ *InitLegend*: This COM functionality works correctly again. (5918)

Add-Ons

- ▶ *Line costing*: Attribute *NumberServiceTrips* is now only calculated for vehicle journey items if the line costing results are to be saved explicitly on the level of vehicle journeys. (5928)

9.44-08

Corrections, Bug Fixes and Extended Functionality (ID)

April 16, 2007

Miscellaneous

- ▶ *Storage optimization*: Less memory is used when reading version files with detailed procedure results (like assignments or PuT Operational Indicators). (5930)

9.44-07

Corrections, Bug Fixes and Extended Functionality (ID)

Apr. 05, 2007

Discarded Program Crashes

- ▶ *Read network from file*: VISUM no longer crashes when reading in the table \$STOPPOINT in case of empty cells for stop areas. (5827)
- ▶ *Read in version files*: When reading in VISUM 9.3 version files, incorrect link orientations are now rejected immediately at any rate. VISUM thus no longer crashes upon reading such version files. (5874)
- ▶ *Edit line route course*: VISUM no longer crashes upon editing a line route course when a section from A to B is rerouted first, thereby changing B's predecessor, and the section from B to C is then rerouted as well. (5862)
- ▶ *Matrix-Editor*: Editing zones in dialog box *Aggregate* no longer causes a crash if the loaded code file contains zones which are not contained in the matrix. (5892)
- ▶ *Reading networks*: VISUM no longer crashes when reading line route items if option *Create stop point* is active and a course item refers to an invalid stop point yet not to a node. (5906)

Other Procedures

- ▶ *Set run and dwell times*: The procedure *Set run and dwell times* no longer stops with warnings when deleting dependent data. The interactive use of this function remains unchanged. (5330)

Network Editor

- ▶ SINGLESELECT - *Edit line route* - [PROFILES] – SET TIMES: All parameter settings in the dialog *Set times for time profile ...* are stored when closing with OK. (5764)
- ▶ Menu CALCULATE - CHECK NETWORK: In case of couplings consisting of just two consecutive stop events, the check network function *Inconsistent couplings* ignored vehicle journeys starting at the beginning of the coupling section. The error has been fixed. Longer coupling sections are not regarded. (5652)

Network Graphics

- ▶ *Reading text files*: Texts are now also read in correctly if they are positioned within the legend. (5911)

Attribute Interface

- ▶ *Read attribute file*: When reading an attribute file for links which contains orientations, VISUM now always checks if the read in orientations are valid. (5850)

Listings

- ▶ *PuT OD pairs list*: the PuT OD pairs list now also contains the attribute *RideDist* (5831)
- ▶ Procedure *Calculate (PrT) skim matrix* no longer causes the deletion of entries in the assignment quality list. (5903)

Export Interfaces

- ▶ *VISSIM*: If a signal control is assigned to several nodes, the signal head numbers generated during the export no longer overlap. (5905)

Miscellaneous

- ▶ *Reading version files*: Following the deletion of a PuT TSystem, in rare cases, subsequently saved versions were no longer readable. The error has been fixed. (5895)

Discarded Program Crashes

- ▶ VISUM no longer crashes when drawing if attributes with a time reference are to be displayed, yet the corresponding time intervals were deleted in the meantime. (5689)
- ▶ NETWORK - NETWORK PARAMETERS - [CALENDAR]: Switching to another calendar option will no longer cause a program crash if so-called system valid days are available (from line blocking) and output of an activity protocol has been checked (cf. EXTRAS - OPTIONS - [PROTOCOL]). (5686)
- ▶ *LineCosting*: Crashes no longer occur when projecting user-defined attributes in the context of PuT operating indicators if these attributes take values which lie outside of the value range predefined for the attributes by aggregating them on higher levels of the line hierarchy. (5696)
- ▶ *PuT assignment*: The PuT Walk path legs required for PuT paths are now build up automatically while reading version files and not just at the first access to the paths. Due to this modification, VISUM no longer crashes when, right after reading in a version file with a PuT Aux TSys assignment, modifying the network in such a way that the assignment is discarded. (5775)
- ▶ *Connect Personal Geodatabase*: When connecting to Personal Geo Databases, VISUM now supports different ARCGIS versions (9.0, 9.1, 9.2). As a result, VISUM no longer crashes upon connecting. (5805)

Procedures

- ▶ *PrT assignment - TributEquilibrium_Lohse*: The calculation of the assignment is much faster now. (5679)
- ▶ *PuT assignment*:
 - *timetable-based*: Cardinalities of fare zones are now always correctly considered in the fare calculation. So far, too few fare zones were counted if cardinalities > 1 were assigned. (5680)
 - *headway-based*: VISUM now issues a warning at the beginning of the procedure if transport systems of type PuTAux are to be assigned. So far, this is only possible in the context of the timetable-based assignment. (2280)
- ▶ *Matrix correction (TFlowFuzzy)*: The procedure has been accelerated by about 50%. (5692)

Other Procedures

- ▶ *Isochrones PrT*: are now recalculated automatically after editing the TSys or path choice criteria in the dialog. (1770)
- ▶ *Isochrones PuT*: After modifying parameters in the dialog, a click on EXECUTE now reliably initiates a recalculation. (5664)
- ▶ MULTISELECT - EDIT - INTERSECT: During the intersection, option *Round* now also applies to integer target attributes, as expected. So far, the values were cut after the comma in this mode. (5673)

Network Editor

- ▶ MULTISELECT - *deletion of stops*: When answering NO to the question whether related vehicle journeys should be deleted as well, the entire operation is now cancelled and no longer produces an inconsistent network status. (5796)
- ▶ *Setting route points*: Setting route points in the MULTISELECT mode no longer causes rounding errors when distributing the line route item lengths. The total length of the line route remains constant with this operation. (5807)

Network Graphics

- ▶ *Count locations*: Tables at count locations are now also positioned correctly if the link is positioned at an angle of slightly more than 90 degrees relative to the horizontal. So far, the table frame and text were not adjusted correctly in this case. (5682)
- ▶ *Scaling of backgrounds*: VISUM now automatically adopts the internal scaling of backgrounds of type ECW and JPG2000 when inserting the backgrounds. (5791)
- ▶ *Line bar objects*: The distance between a line object and the outer line object bars is calculated correctly even if neither mode *Draw 'classified'* is active for the innermost bar nor option *Draw* is active on the corresponding fill style page. (5806)

Matrix Editor

- ▶ *Muuli*: When splitting a zone in such a way that one of the two new zone's demand resulted in zero, VISUM sometimes used to produce invalid matrix values for this zone. The error has been fixed. (5755)

Listings

- ▶ *Vehicle journey items lists and filter*: If two vehicle journey items lists are open at the same time in mode "only active service trips" while a filter is set, and if all vehicle journeys are then displayed at the same time, the lists no longer "flash". (5627)
- ▶ *Shortest path search PuT*: In this list, the program used to issue the wrong time for path legs of type PuTAux. The error has been fixed. (5743)

9.44-06

Corrections, Bug Fixes and Extended Functionality (ID)

Mar. 01, 2007

Import Interfaces

- ▶ *Emme/2 import*: The warning saying that a line route already exists can now be ignored by clicking "Next" or "No warning". In recent versions, the import procedure terminated in this case. (5539)
- ▶ *HAFAS import*: The procedure will no longer terminate in case of *Z rows with alphanumeric characters in the columns 17-21. Due to the HAFAS raw data format specification, these columns are always empty. (5711)

Add-Ons

- ▶ *LineCosting*: Indicators *Number VehicleJourneys* or *Number VehicleJourneysTSys* for a stop point/stop are now counted correctly in case of a stop event that exceeds midnight. In the past, multiple counts occurred. (5712)

Miscellaneous

- ▶ *Read DMD file*: If VISUM cannot restore the procedure parameters that were valid before the import of a DMD file, the program now issues a detailed warning message (or COM error). (5669)
- ▶ *Read a network file additionally*: Since extra lanes are no longer ignored when reading network data from file, network objects referring to those lanes can be read from file additionally later. (5697)
- ▶ *Read version file*:
 - Version files are now read in faster when a filter is active. This is particularly noticeable if the line filter or the stop filter is active. (2287)
 - If invalid system route items are found when reading in a version file, VISUM automatically deletes those objects and logs the regarded system routes to the trace file. A warning is displayed at the end of the reading process. (5793)
- ▶ Menu CALCULATE - CHECK NETWORK: The functionality "Network consistency PrT" no longer produces wrong results after editing the network topology. (5747)

9.44-05

Corrections, Bug Fixes and Extended Functionality (ID)

Jan. 19, 2007

Discarded Program Crashes

- ▶ *Shortening a line route*: Crashes no longer occur when shortening a line route at the end while the last as well as the last but one item of the former course is a node stop point or a directed link stop point and not just a node. (5547)
- ▶ *COM*: VISUM no longer crashes when executing a script with limited access rights. Standard user and administrator rights did not cause any problems in the past either. (5558)
- ▶ *PAR files*: Reading empty files or files which are too new via button OPEN in the *Procedures* dialog box no longer leads to a crash. (5611)

Procedures

- ▶ Assignments are no longer discarded when inserting a new demand segment. (5638)

Other Procedures

- ▶ *PuT Isochrones*: If the connection with the minimum arrival time to the destination produced by the isochrone calculation lies completely outside of the specified interval, the isochrone time to this destination is now correctly determined as delta of the arrival of the connection and the end of the interval. So far, the distance to the start of the interval was calculated. The situation only occurs if not a single departure lies within the specified time interval. (5235)

Network Graphics

- ▶ *Legend*: The interaction between Legend Wizard and preview mode now always operates correctly, even when exiting the Wizard with CANCEL. (5633)
- ▶ Menu GRAPHIC - PARAMETERS - *Links* - [LINK BARS] - SET - dialog box *Automatic class definition*: Whether the default values of the minimum value and the maximum value of the value range are based on individual link values or on undirected values depends on link bar option "Undirected values" again. (5608)

Timetable Editor

- ▶ *Shortening a line route at the start*: If a time profile is adjusted in such a way that a new start profile point is generated in a position which is occupied by a route point already, the run time on the first section is now calculated correctly from the former value on a pro rata basis. (5139)
- ▶ *Editing a time profile*: The time profile of a vehicle journey can now also be subsequently edited in dialog box *Edit vehicle journey* which was previously possible in the table of vehicle journeys only. (5589)

Matrix Editor

- ▶ *Log display*: All columns are now initially visible in the log display of the matrix editor. (5591)

COM Interface

- ▶ When trying to import an invalid filter file (e.g. one that is too new), VISUM now reports a COM error. (5618)

Listings

- ▶ *Shortest path search PuT*: The list now also issues the toll of the path. (5629)

Import Interfaces

- ▶ *GIS objects*: are no longer read in incorrectly if the first imported surface is negative. (5548)
- ▶ *Shapefile import*: When reading in shapefiles, attributes following fields of type *Date* are now read in correctly. (5605)

Export Interfaces

- ▶ *VISSIM*: The VISSIM connector attribute *Desired direction* generated on export changed to "all" (instead of "right"). (5510)

Add-Ons

- ▶ *Traffic*: Result files can now also be activated if the file name of the VISUM network or version file contains more than one '.'. (5549)
- ▶ *TFlowFuzzy*: The specified tolerance range may now deviate from the counted value by 100% or more. (5550)

Line costing:

- ▶ *PersKm_DSeg* and *PersH_DSeg* are calculated correctly again when picking ...*x VehicleCombination*. (5475)
- ▶ *PTripsUnlinked*: If passengers board the same line several times within one path, each boarding is now considered a *PTripUnlinked*. Furthermore, the calculation of *PTripsUnlinked* by territory used to be incorrect if passengers left and re-entered a territory. The error no longer occurs. (5511)
- ▶ *PersKm time interval-based by territory*: The calculation of territory-based demand indicators has been modified. This was necessary as the time interval-based calculation of *PersKm/PersH/PersKm-NSeg/PersH-DSeg* used to contain errors under certain circumstances.

So far, these indicators were determined from the volumes at time profile items. However, an error used to occur if a time interval began at a node which was neither stop point nor route point so that no time profile item was available for that node. The current time profile item produced a volume of 0 for the interval though. For that time interval no volume could thus be determined in an assignment and the corresponding indicator was set to 0 for the link starting at the node. (5440)

Therefore, the indicators are now calculated by iterating all paths and by distributing the path volume to the traversed links which are then calculated by territory, as before. Please note, however, that in order to execute the calculation, the paths need to be stored as connections. Adjust under CALCULATE - PROCEDURES - FUNCTIONS - PuT-FUNCTIONS - [VOLUME]: *Save path as connections*. If the paths are not saved as connections, the indicators for time intervals are not calculated correctly.

The following applies when calculating the time intervals:

- The results are always summed up in the time interval that is start at the start of the path.
- The revised calculation of the indicators only requires longer computing times if time intervals have been defined.

Miscellaneous

- ▶ *Calculating skim matrices*: File names of PrT and PuT skim matrices may now include further full stops before the file extension dot (.).(5607)
- ▶ *Project directories*: When reading an extension for a file type from a PFD file for which several extensions existed previously, VISUM now overrides the first entered file extension and no longer the second one. The previous behaviour caused confusion, especially in the case of file type "OD matrices". (5642)
- ▶ *Read network file additionally*:
 - now also works in mode *Overwrite attribute* in case of signal groups and dependent tables. (5662)
 - When opening a file with option *First off, determine tables in file*, VISUM now identifies POI tables correctly again and initiates their import. (5581)