

# **VISUM Release Notes**

**Version 11.0**

**Version 11.00-10**  
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<b>11.00-10</b>	<b>Corrections, Bug Fixes and New Features (ID)</b>	<b>2009-05-05</b>
<b>COM Interface</b>		
▶ <i>SkimMatrices, ODMatrices</i> : Both containers now only contain the matrices of the respective type and not longer all matrices of the network. (7667)		
<b>Data Model</b>		
▶ <i>Aliases</i> : Aliases on indirect attributes with aggregate function "Num" or "NumActive" now also work correctly after reading networks additively or versions. (7984)		
<b>Timetable Editor</b>		
▶ <i>Undo/Redo</i> : The program would sometimes crash when undoing and later redoing modifications to vehicle journeys in the timetable editor. The error has been fixed. (7990)		
<b>Graphics</b>		
▶ <i>Scale in legend</i> : The scale is now labeled with imperial units, if an imperial system of units is used. (7919)		
<b>Junction Editor</b>		
▶ <i>Junction editor, signal timing view</i> : Marking a node with a stage-based control in the network editor and then switching to the junction editor no longer triggers a crash, if the signal timing view is active in the junction editor. (7965)		
<b>Listings</b>		
▶ <i>PrT path list</i> : The insertion of specific indirect attributes no longer leads to a crash. (7981)		
<b>Demand Operations</b>		
▶ <i>VISEM distribution/mode choice</i> : The matrix multiplication within the procedure has been accelerated considerably. (7936)		
<b>Network Editor</b>		
▶ <i>Network editor</i> : For links, a new special function has been added which interpolates the Z coordinates of polygon intermediate points. (7446)		
▶ <i>Backgrounds</i> : The horizontal and the vertical factors were interchanged when editing backgrounds. (7969)		
▶ <i>Line routes dialog</i> : Switching to the line routes mode no longer causes a crash, if the dialog has already been used with a different version file. (7974)		
<b>Other Operations</b>		
▶ <i>Converting paths</i> : VISUM no longer crashes when converting paths that were digitized beforehand. (7992)		
<b>PuT Line Blocking</b>		
▶ <i>Empty trip-TSys</i> : You can now enter "no operator" as empty trip-TSys as the operator is optional at vehicle journeys. (1195)		
<b>VISUM Files</b>		
▶ <i>Reading a network</i> : Completing line routes using function Create links has been accelerated. (7959)		
▶ <i>Reading a network</i> : Reading in line route and time profile items has been accelerated. (7982)		
▶ <i>Reading demand data</i> : In the "overwrite" mode the program no longer issues unnecessary warnings concerning ID conflicts (for skim matrices only). (7821)		
▶ <i>Reading a version</i> : Some versions from VISUM 10 which contained the procedure "Combination of matrices and vectors" could no longer be read in. The error has been fixed. (7980)		
▶ <i>"Texts" files</i> : Files for background texts can be read in again. (7973)		
<b>11.00-09</b>	<b>Corrections, Bug Fixes and New Features (ID)</b>	<b>2009-04-28</b>
<b>COM Interface</b>		
▶ <i>SetTraceFile</i> : The command no longer accidentally affects the error file. (7902)		

- ▶ *Screenshots*: If the current window itself does not offer a screenshot functionality (like lists for example), the content of the network window is now exported when calling up the functionality. (7929)

#### Data Model

- ▶ *Setting line route lengths*: This operation used to be very slow if the network contained blocks. It has been accelerated considerably. (7901)

#### Dialogs

- ▶ *Line route dialog*: Opening the dialog no longer causes a crash if the registry contains an attribute selection for the tab "Items and profiles" but no corresponding format settings. (7893)
- ▶ *Russian*: The display of Russian texts is now correct in the input line of the attribute selection dialog and in the header of the options dialog. (7912)
- ▶ To avoid accidental operations, you cannot select type VISEM or EVA-P for a demand model without the respective license. (7913)

#### PuT Passenger Survey

- ▶ *Plausibilization*: In a connection search, a TSys entered by the user for the preceding/succeeding section is now only required for the path legs that directly precede/succeed the survey path leg. Further path legs of the found connection may also use other TSys. (7944)
- ▶ *Reading passenger survey data*: VISUM no longer crashes if the file contains nothing but comment lines. (7926)

#### Timetable Editor

- ▶ *Graphical timetable*: As an option, bars can now be displayed at active vehicle journey items only. (7906)

#### Graphics

- ▶ Node flows are also displayed for u-turns. (7932)
- ▶ *Reading and writing world files*: VISUM sometimes determined the wrong path. The path is now determined explicitly from the position of the graphics file. (7895)
- ▶ *Tables*: Tables are now also displayed correctly if the left side of the table shows values of indirect attributes which can contain blank values. (7900)
- ▶ *Turn bars*: Even if the set "Distance between bars" is larger than 0, arrows at turn volumes are now positioned correctly. Moreover, the turn "line" is shifted in this case. (7904)
- ▶ The network display is now refreshed, if the Smart Map is docked when opening a list and switching back to the network editor. (7946)

#### Listings

- ▶ *PuT path leg list*: 1. The TSys-based distribution of supplements is now also taken into account in the fare of the individual path legs. 2. The global settings for the revenue calculation (fixed revenue, revenue by fare point) now have an immediate effect on the fare displayed in the list. (6220)
- ▶ The initialization of the assignment no longer leads to a crash if the PrT path list is open. (7935)

#### Demand Operations

- ▶ *Reading VISEM VHD files*: The import is no longer canceled if structure data (\$ZONE) are provided as real values. (7960)
- ▶ *VISEM distribution/mode choice*: The matrix multiplication within the procedure has been accelerated considerably. (7936)

#### Network Editor

- ▶ *Editing the shapes of line routes*: A warning is now issued when digitizing several line routes at the same time, if you shift a point which is traversed more than once by the involved line routes. (7892)
- ▶ *Splitting a link*: The Z coordinates of the link polygons are no longer discarded when splitting links. (7910)
- ▶ *Creating main nodes*: The initial values of the main turns are calculated correctly again from the shortest paths when creating main nodes. (7916)

## PuT Operating Indicators

- ▶ The calculation status of the PassKmTrav-flow bundle attribute now depends on the calculation of a flow bundle. If no flow bundle has been calculated, the attribute is not determined. (7911)
- ▶ *Determining coupled vehicle journeys*: VISUM no longer crashes when accessing coupled vehicle journeys under certain conditions. (7884)

## Other Operations

- ▶ *Signal time optimization*: Crashes no longer occur when optimizing the cycle time. (7939)
- ▶ *Special functions of links*: The Z coordinates are now correctly adjusted when deleting collinear points of link polygons. (7909)
- ▶ *Special functions of links*: Nodes are no longer transferred to the link polygon when deleting collinear points. VISUM used to generate polygons with two points at links with courses that had not been edited. (7908)
- ▶ The signal time optimization is now also carried out for main nodes. (7927)

## Subnetwork Generator

- ▶ VISUM no longer crashes if the subnetwork is specified in such a way that some nodes of a main node lie outside of the subnetwork and some within. (7954)

## PrT Assignment

- ▶ *PrT assignment DUE*: Calculations without blocking-back no longer produce an error. Congestions were not treated correctly in this case. (7931)
- ▶ *ICA*: The final capacity of a turn now depends on the number of lanes in its lanegroup, from which this turn is possible. (7775)
- ▶ The "PrT assignment quality" list is now also updated during the assignment. (7527)

## VISUM Files

- ▶ *Reading graphic parameters*: In case of a missing image file, the error message now states the network object type using the image file. (7942)
- ▶ *Additive network reading*: In mode "First off, determine tables in file", the "POI" entry is now only listed if the file actually contains POIs. (7933)

11.00-08

Corrections, Bug Fixes and New Features (ID)

2009-04-07

## COM Interface

- ▶ *SetObjects*: In the list for path items, a DSeg as well as a path set can now be committed in SetObjects. (7888)
- ▶ *SetErrorFile, SetTraceFile*: A COM error is now thrown, if the specified file is already in use. (7839)

## Dialogs

- ▶ *Matrix dialog*: The rows are now updated correctly when deleting matrices in the dialog. (7861)

## Foreign Formats

- ▶ *Database access*: The subprocess for a database access now has the same priority as the main process of VISUM. (7705)
- ▶ *Exporting an Access database*: A detailed error message is issued, if a table cannot be written because it has more than 255 fields. (7863)

## Graphics

- ▶ *Scale in legend*: The space for the scale is now determined by the width required by the other icons displayed in the legend. (7860)
- ▶ *Backgrounds*: Zooming quickly in a network in which an EMF file has been loaded no longer causes a crash. (7874)
- ▶ *Roundabout icon*: A new point object icon to illustrate roundabouts has been added. (7877)
- ▶ *Bar scaling in the legend*: The scaling is now also correct for bars with a network-wide minimum according to amount that is greater than the maximum. (7880)

## Junction Editor

- ▶ The graphic display in the views Node, Links, and Turns of the Junction Editor is now also neatly

arranged when using adverse coordinate systems. (7881)

### Listings

- ▶ *Path list*: Infrequent crashes no longer occur, if a path list is open and you edit attributes in a different list. (7859)
- ▶ *PuT path leg list*: The program no longer crashes if a path is marked in the list and the assignment is calculated anew. (7801)

### Matrix Editor

- ▶ In the list view, matrix values can be inserted again. (7857)

### Network Editor

- ▶ *Editing the course of line routes*: If couplings need to be separated when starting to edit the course, VISUM now lists such items in the trace file. (7848)
- ▶ The reading or deleting of line routes and PrT paths has been accelerated. (7885)

### Other Operations

- ▶ *Normalizing vehicle journey sections*: the operation is now much faster. (7862)
- ▶ *SC coordination*: The resolution of platoons has been improved. (7866)

### Miscellaneous

- ▶ VISUM sometimes crashed when being closed. The error has been fixed. (7855)
- ▶ Add-In parameters are saved beyond a VISUM session. (7882)

### Subnetwork Generator

- ▶ *Main nodes in subnetworks*: The program no longer crashes if paths pass through a main node when generating the subnetwork with option "cordon links". (6697)

### PuT Line Blocking

- ▶ Line blocking now also finds a solution if the number of required blocks becomes very high. (7886)

### PrT Assignment

- ▶ *ICA at yield-controlled junctions*: When calculating the move-up time, the link attribute "Share HGV" is now correctly evaluated. (7890)

### VISUM Files

- ▶ *Deleting layout files*: You no longer need to close VISUM to delete layout files. (7869)
- ▶ *Project directory for GPA*: The project directory for graphic parameters is transferred correctly again from the PFD file. (7889)
- ▶ *Difference network*: The difference network can now also be opened, if any lists are open in the versions to be compared. (7868)

11.00-07

Corrections, Bug Fixes and New Features (ID)

2009-03-25

### COM Interface

- ▶ *COM*: A defined COM error is now returned when canceling COM command "LoadVersion" interactively. (7714)

### Data Model

- ▶ Setting surfaces with a lot of faces via WKT has been accelerated considerably. (7826)

### Dialogs

- ▶ Opening the attribute selection window no longer leads to a crash if aliases have been specified for attributes with subattributes. (7816)
- ▶ *Graphic parameters dialog*: When classifying by a text attribute, numbers are no longer requested as class limits when opening the dialog. (7836)

### Difference Network

- ▶ *Valid days*: Reading and comparing valid days in networks with annual calendars is now much faster. Furthermore, the difference network now also identifies valid day objects with identical numbers, if they differ in the "day vector" attribute. (7436)

## Filters

- ▶ Filters are evaluated correctly again, if you specify a criterion via indirect attributes and, for an object, the relation refers to an empty set. *Example:* Even isolated nodes will now be active, if you filter nodes by Sum:Out links\Capacity PrT = 0. (7842)
- ▶ *Line filter:* Filters on time profile items mistakenly always resulted in "passive", if the time profile had no vehicle journeys. The error has been fixed. (7824)

## Graphics

- ▶ *Bar labels:* In case of a bar label with a "specific class value" or "class limit", the wrong class used to be applied. The error has been fixed. (7817)
- ▶ Backgrounds can now also be displayed in format GeoTIFF. (4943)
- ▶ The stroke width of PrT isochrone links is now defined by the graphic parameters of marked links. (7813)
- ▶ *Graphics, bar labels:* The text display used to be too wide in case of vertical bar labels with no title, so that fewer texts were displayed. (7804)
- ▶ *Graphics, line bars:* Only the last bar used to be displayed, if several line bars were specified in the graphic parameters. (7805)
- ▶ If you delete an entry in the Scripts menu, the entry will not re-emerge when restarting VISUM (only if it is not an Add-In). (7841)
- ▶ BMP backgrounds are now displayed without any problems when using a strong zoom. (7245)
- ▶ The display of EMF files as backgrounds has been accelerated. (7232)

## Junction Editor

- ▶ The upper and the lower view of the Junction Editor is also refreshed, if the "Auto link orientation" option on the "Links" page has been deactivated and this is reversed using Undo. (7777)

## Listings

- ▶ *Zone list:* When opening the list, specific demand layouts are now only generated, if the respective option has been set under Extras – Options. In case of very large demand models, the layout build-up takes such a long time that users do not always want to complete it. (7843)

## Demand Operations

- ▶ *VISEM distribution/mode choice:* The procedure has been accelerated considerably. (7806)

## Network Editor

- ▶ The network view is now also refreshed when executing Multi-Edit for marked network objects. (7750)
- ▶ The window sizes are no longer reset when clicking the headers of the network objects tool bar, the quick view, or the smart map. (7558)
- ▶ *Deleting connectors:* VISUM no longer issues multiple queries when deleting several connectors. (6023)
- ▶ *Network check:* The option to set active "hits" of network object functionalities had been disabled and is now available again. (7847)
- ▶ After deleting a stop point, system route, line route, or path set, the attributes of the deleted objects are no longer displayed in the Quick View. (7830)
- ▶ Even if the network objects tool bar is set to auto hide, any clicks on its icons are now interpreted correctly. (7702)
- ▶ VISUM does not crash anymore, if, in the Junction Editor, you mark a new node with the mouse, which changes the marking in such a way, that a dialog opens. (7829)
- ▶ The result of the shortest path search includes all paths and connectors, even when editing the network. So far, single links or connectors of the shortest path were not marked in rare constellations, when recalculating the shortest path or when editing the network. (7828)
- ▶ *Marking line routes:* VISUM no longer crashes, if the "only active" option has been selected and the user marks a further stop point while the line route selection is empty. (7823)

## PuT Line Blocking

- ▶ *Parameters dialog:* A detailed warning is now issued outside of the dialog, if no block version exists. (7789)
- ▶ *Parameters dialog:* In certain cases, the "Transport systems" tab was very slow. This problem has been fixed. (7798)
- ▶ *Line blocking:* Optionally, only active service trip sections can be checked. This also applies

during line blocking calculations if the "only active vehicle journeys" option has been selected. (7803)

- ▶ *Line Blocking*: VISUM no longer crashes when using the data of a system route with a link stop point for the interlining trips in a line blocking calculation. (7668)
- ▶ *Trace file*: The trace file now includes details on the running time behaviour of line blocking operations. (7715)

### PrT Assignment

- ▶ In the handling of the shortest path queue in the LUCE procedure, a rare error has been fixed. (7831)
- ▶ *PrT assignment quality list*: For the LUCE procedure, the Relative Gap is now also correct, if several demand segments are assigned simultaneously for a transport system. The shared Gap is then issued at the first demand segment of each transport system. (7835)

### PuT Assignment

- ▶ *Service frequency for headway-based assignments*: This assignment variant now also provides this skim when using choice models without passenger information. (7650)
- ▶ *Service frequency for headway-based assignments*: The value of this skim used to be too high under certain conditions. This e.g. happened, if several origin connectors existed for stops of the same line and no further routes with other lines were possible. The error has now been fixed. (7822)
- ▶ *Run time of headway-based assignment*: run time-intensive skims such as the fare or number of fare zones are now only calculated if they have actually been selected. (7820)

### VISUM Files

- ▶ *DMD files*: Reading and writing DMD files is now faster if the network contains numerous matrices which are saved in separate files or consist of zeros only. (7815)
- ▶ Writing zero matrices while saving a version has been accelerated considerably. (7811)
- ▶ *List layouts*: Just like for any other VISUM file types, you can now open LLA files via drag & drop in VISUM. (7671)

11.00-06

Corrections, Bug Fixes and New Features (ID)

2009-03-06

### COM Interface

- ▶ *AddLink*: The length of the created link complies with the length of the direct distance even if imperial units are used in this network. (7758)
- ▶ A COM error message will no longer be generated if VISUM cannot find the file *std.par* at program start. (7172)
- ▶ *Autozoom for POIs*: This function works correctly even if POIs do not possess a surface. (7792)

### Data Model

- ▶ *Line blocks*: If a depot becomes a normal stop point, the stand items of the former depot now lose their "in depot" flag. (7756)
- ▶ *Manual major flows*: VISUM no longer discards manually defined major flows if links are closed that do not belong to the major flow. (7769)

### Dialogs

- ▶ *Emme import dialog*: After clicking the [...] buttons, you can pick files with any extension. (7674)
- ▶ *Bars tab*: For Maximum "n.def." will be displayed, if the program cannot calculate the value. (7773)
- ▶ *Turn volumes*: The position of the floating window of turn volumes is retained when exiting the program. (7404)

### Timetable Editor

- ▶ *Graphical timetable - Stop points on links*: When the timetable editor was called via marked links, all vehicle journeys were missing (completely or partially) that - with regard to the marked links - start from a link stop point or terminate at a link stop point. This error has been fixed (7732)

### Timetable Network Graph

- ▶ *Base headway*: The restriction of 4 hours has been lifted. (7759)

## Foreign Formats

- ▶ *Shapefile Import*: Again, this functionality is provided even if the "Shapefile Converter" add-on is not included in the licence. (5537)
- ▶ *SVG Export*: If a list is open when the export is started the content of the network window is exported. In previous versions, no export file was generated under these circumstances. (7779)

## Graphics

- ▶ *Smart Map*: Clicking the Update icon in the network window tool bar will automatically refresh the Smart Map display. For performance reasons, network editing will not cause a general Smart Map update. (7630)
- ▶ *Legend*: The program no longer crashes if the graphics layer Stop catchment areas is added subsequently and the legend is modified. (7748)

## Junction Editor

- ▶ *Signal timing view*: If the node editor has been opened in a maximized window, marking a node in the node list will no longer reduce the height of lines in the signal timing view. (7761)
- ▶ *Signal timing view*: No system error messages will appear when green times of signal groups are edited in the grid. (7771)

## Listings

- ▶ *Path lists*: All of the PrT and PuT path lists now also provide synchronization with the network editor. Thus you may autozoom paths marked in the list or shift the network section display automatically. (6442)
- ▶ VISUM will no longer crash if a timetable-based assignment is started while a PuT path leg list is open. (7786)

## Network Editor

- ▶ *Network check*: The check function for links with zero PuT run time did not produce a log of the affected links. This error has been fixed. (7790)
- ▶ *Couplings*: When reading a network from file, profile points without stop point in the coupling section will no longer generate inconsistent couplings. In case of inconsistencies, the entire coupling section is discarded. (7226)

## Miscellaneous

- ▶ The new release 1.7 adds to module helpers new methods GetMatrix and SetMatrix which get / set matrices of any type (skim and OD). (7762)

## Subnetwork Generator

- ▶ The demand of paths which cross a passive link directly after the source (or directly before the destination) connector is no longer lost on the respective connector. A cordon zone will be created on the connected node. (6458)

## PuT Assignment

- ▶ *Timetable-based assignment*: Connections not using any PuT line (i.e. those consisting of PuT-Aux path legs) can no longer be dominated by connections using PuT lines. Since connections without PuT lines are not bound to a temporal position, dominance for connection search is not a general property, but applies only for certain time intervals. Due to this modification, more connections using PuT-Aux than before will be found and loaded. (7657)
- ▶ *Headway-based assignment*: Now the procedure terminates with a warning if the network contains run times in the range of thousands of hours between two stops in a line route. Such run times, the assignment procedure cannot handle appropriately. (7781)

11.00-05

Corrections, Bug Fixes and New Features (ID)

2009-02-23

## Dialogs

- ▶ *Opening a matrix*: If you start the Matrix Editor from the Matrix or the Demand dialog, VISUM returns to the respective dialog when closing the Editor. (7534)
- ▶ *Graphic parameters dialog, Bars tab*: A dynamic tooltip indicates the exact functionality of the minimum width feature. (7032)
- ▶ *Matrix dialog*: Matrices can now also be opened with a double-click. (7675)



## Foreign Formats

- ▶ During a HAFAS import, less memory is required than before, especially when importing lots of specific transfer walk times. (7745)

## Graphics

- ▶ *Smart map*: VISUM no longer issues error messages when double-clicking the header of the smart map. (7619)
- ▶ *Graphic parameters*: In the graphic parameters, some numeric values are now rounded to avoid numbers with a lot of decimal places. (6809)
- ▶ *Turn volumes*: Invalid values are no longer saved to the turn volumes dialog when editing a turn volume radius with the mouse while the turn volume dialog is open. (7606)
- ▶ *Legend*: When using font size zero for text boxes in the network window, the corresponding texts are no longer displayed in the legend either. (7651)
- ▶ *Smart Map*: The Smart Map is now only drawn if the Smart map window is actually open. (7711)
- ▶ *Inserting a polygon*: The rubber band display works correctly again when inserting polygons. (7743)
- ▶ *Shortest path search*: Paths are now drawn with separate graphic parameters and no longer incorrectly in the 'Marked' color. (7574)

## Junction Editor

- ▶ *Junction Editor, link mode*: The display is now also correct in case of a large network scaling factor. (7621)

## Listings

- ▶ *Matrix list*: You can now search matrix lists. (7679)

## PrT Assignment

- ▶ *DUE with blocking-back*: Correction of the prioritization of links compared to connectors when calculating blocking back. A spillback now rather occurs on connectors. This leads to changed assignment results. (7372)

## VISUM Files

- ▶ *Reading a network*: Error messages are now issued if vehicle journeys which are inconsistent with couplings have to be discarded at the end of the reading process. Error messages are also issued in case of couplings which are inconsistent with themselves. (7005)
- ▶ *Reading matrices*: Reading matrices with a lot of zones which do not exist in the network has been accelerated. (7738)
- ▶ *VISUM files*: For the "Read matrix" operation, the number of the result matrix is now written to the XML procedure parameters file. (7740)