

# **VISUM Release Notes**

**Version 9.4**

**Version 9.43-10**

**Last modified: 2006-07-27**



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**9.43-10                      Corrections, Bug Fixes and Extended Functionality (ID)                      July 27, 2006****Discarded Program Crashes**

- ▶ VISUM no longer crashes when trying to assign invalid strings to an attribute of type *TSysSet* via MULTISELECT - EDIT. (5108)
- ▶ *Subnetwork generator*: Crashes no longer occur if there are zones located within the reduced network that refer to surfaces that only include blank polygon faces. (5126)

**Procedures**

- ▶ *PuT Assignment - Quantile-Skim matrices*: Quantile skim matrices for the journey time and ride time are now calculated correctly. So far, the program issued the sums of the quantiles of the individual components (run time, walk time, ...) instead of the quantile of the distribution of the sum. (5105)

**Other Procedures**

- ▶ *Assignment analysis*: Editing the parameters of one instance of this procedure no longer has side effects on other instances. (5111)

**Network Graphics**

- ▶ *System routes*: If several system routes are selected by clicking on a stop point, VISUM now always draws the complete course of all routes. (5100)
- ▶ *Connector bars*: Just like link bars, connector bars are now drawn at active objects only. (5088)

**Listings**

- ▶ *Importing from the clipboard*: The import into a list now also works correctly if data had previously been edited in Excel. (5107)

**Import Interfaces**

- ▶ *Personal Geo Database*: When connecting to a PGD, all errors indicating a wrong configuration are now intercepted and a corresponding warning is issued. (5123)

**9.40-09                      Corrections, Bug Fixes and Extended Functionality (ID)                      July 21, 2006****Discarded Program Crashes**

- ▶ *POI List*: VISUM no longer crashes when selecting a row in the *Find POI* window called via button ? in a List of POIs which is reduced to *active objects only*. (5085)

**Procedures**

- ▶ *PrT Assignment - Traffix*: Sometimes, attribute *TraffixFinalSat* had a negative value. This bug was fixed, also for *Reading a version file* containing this attribute. (5065)

**Network Editor**

- ▶ *Line run times*: The link run time is now set correctly if a time profile at a link stop point on a link ends before the middle of the link. A rounding error which used to occur when distributing the line run time to the links has been fixed. Therefore, different results might now be produced during line costing calculations with proportional time shares. (5034)
- ▶ MULTISELECT - EDIT - FORMULA: The value entered in the last entry field of the *Formula* window was sometimes scaled by 1.609 by mistake for target attributes of *Length* or *Speed* type. This bug could be fixed. (5069)
- ▶ MULTISELECT - LINE ROUTES: Multi-Setting/Deleting of route points could be accelerated. (5067)

**Timetable Editor**

- ▶ *Sequence of stops*: When option STOP-related is active, the borders of the range being traversed by most of the vehicle journeys (middle) are no longer calculated according to option STOP POINT-related. Now, all of the required data are taken into consideration. (5048)

**COM Interface**

- ▶ *Selection*: The selection did not work properly since the wrong item was accessed. The error has been fixed. (5044)

**Listings**

- ▶ *Evaluation of columns*: Now, the Sum, Minimum and Maximum values are always calculated correctly regarding the entire column, even if the column contains empty cells. In previous versions, calculation was cancelled as soon as the first empty cell was reached. (5055)

**Import Interfaces**

- ▶ *HAFAS Import*: VISUM now rejects string-type attributes containing one of the 3 special characters ; \$ or ". Those characters are reserved for network file formatting and may not be entered in VISUM GUI. (5078)

**9.40-09                      Corrections, Bug Fixes and Extended Functionality (ID)                      July 21, 2006****Export Interfaces**

- ▶ *VISSIM Export*: A negative time gap will no longer occur when priority rules are exported. (5038)

**Add-Ons**

- ▶ *Timetable Network Graph*: Even if a time profile of a stop with several stop points does not stop at the first and last traversed stop point, VISUM now displays the correct times. (4744)
- ▶ *Backgrounds*: Now the background shape is displayed in correct dimensions if it is shifted while the layer is unchecked. (4438)

**Miscellaneous**

- ▶ *EXTRAS - PROGRAM STATUS*: Now, the correct number is displayed for POI and GIS objects "*selected*". In previous versions, it was always = *Total* number of objects, even in case of existing unselected objects. (5084)
- ▶ *Read network from file*:
  - A POI may be allocated to only **one** object per network object type. If the allocation data set occurs multiple times only the first data block is accepted, others will be rejected. Of course, a POI can be allocated to any number of network objects of different network object type. (5081)
  - No errors will occur, if a TSys code serving as sub-attribute contains special characters. (5082)
  - *Read network additionally*: An invalid network state was produced by reading additionally a network file containing table "LEG" with activated option "Overwrite attribute". Afterwards, VISUM could not save this version file and used to crash when a network file was saved. This bug could be fixed. (5076)
- ▶ *Graphics Parameters*:
  - *Read from file*: The *text alignment* of table columns is now always read correctly. (5042)
  - *Read selected parameters*: Now, the list of origins of isochrones is also initialized when 2D graphics parameters are read via selective reading. (5066)

**9.43-08                      Corrections, Bug Fixes and Extended Functionality (ID)                      July 06, 2006****Discarded Program Crashes**

- ▶ *Drawing links*: The use of complex line styles sometimes caused a crash. The error has been fixed. (4935)

**Other Procedures**

- ▶ *Line Blocking*: For trips that depart past midnight, VISUM now inserts a dwell time of the correct length. The length used to be 24 hours too long. (4982)

**Network Editor**

- ▶ *SINGLESELECT - NODES*: The SCJ selection under *Control* now also shows the last set value when activating the dialog box anew or when switching tags. (5007)

**Network Graphics**

- ▶ *Printout*: VISUM prints all links displayed on screen. (5000)
- ▶ *Turns*: Turns which are blocked for all transport systems are now also marked thinly if the opposite direction is not blocked. (4990)
- ▶ *Refresh*: The graphical display is now consistently refreshed when drawn. (5027)
- ▶ *SINGLESELECT - LINKS - EDIT SHAPE*: A rubber band is now always drawn when editing the shape of links. (5026)

**Export Interfaces**

- ▶ *Export to database*: All STAGEITEM keys are now set correctly (including SIGNALGROUPNUMBER) and accurate error messages are issued. (5028)

**Miscellaneous**

- ▶ *Coordinates of count locations & detectors*: Count location coordinates are no longer mandatory when reading in network files or databases since their location is automatically determined by the position on the link. However, coordinates of detectors are now mandatory during an import. Since detectors are positioned individually in the network, a coordinate default would not make sense. (5015)
- ▶ *Difference network*: Attribute *TypeNo* is now treated as a numerical attribute. (5013)
- ▶ *Error & trace files*: VISUM no longer generates empty error and trace files during the start-up. (5010)

**9.43-07                      Corrections, Bug Fixes and Extended Functionality (ID)                      June 23, 2006****Discarded Program Crashes**

- ▶ *Profile points*: VISUM no longer crashes when setting or deleting profile points of a time profile if vehicle journeys exist on this time profile which do not traverse the specific point yet possess vehicle journey items at that time. (4991)
- ▶ Menu CALCULATE - PROCEDURES - *Trip generation*: Deleting or inserting a row in dialog box *Trip generation parameters* sometimes caused a crash. The error has been fixed since version 9.43-06. (4964)

**Network Editor**

- ▶ *Speed limits*: The program now issues a warning when creating a speed limit with a description that is already used for another object. (3531)
- ▶ *Difference network*: The *current time interval* used to switch the display of time interval-dependent data now also works in the difference network mode. (5004)

**Network Graphics**

- ▶ *Flow bundle*:
  - After the subsequent modification of a demand segment of an individual row of the dialog, VISUM now always stores the new setting for the correct row. (4995)
  - If the flow bundle volume of a link is so low that the flow bundle link bar would result in a width of zero in consideration of the current scale, VISUM now still draws/prints a bar in the minimum width that can be shown. (5003)

**Attribute Interface**

- ▶ Menu NETWORK - TEMPORARY ATTRIBUTES: A time limit can now also be set for link attribute *Toll*. (5005)

**Import Interfaces**

- ▶ *EMME/2*: During the import, VISUM now creates default link TSys times based on the TSys speed and link lengths. Users no longer need to manually allocate them after the import. (4988)

**Miscellaneous**

- ▶ *Filters*: Rows that contain an empty selection for an Enum attribute are no longer instantly deleted when opening the dialog box. However, such rows are pointless anyway since they define a criterion that cannot be fulfilled. (4996)

**9.43-06                      Corrections, Bug Fixes and Extended Functionality (ID)                      June 19, 2006**

- ▶ The VISUM User Manual has been updated; version 9.4 is now available for download.
- ▶ The *Documents* folder contains an essay on multi-face surfaces (*Multi-face surfaces.pfd*). For details, please see ID (4918) below.

**Discarded Program Crashes**

- ▶ VISUM no longer crashes when marking a new object (like a node or a line route) while refreshing or reading in a network. (4980)

**Procedures**

- ▶ Menu CALCULATE - PROCEDURES: Reading in a .PAR file no longer leads to the deletion of filter file names in the currently selected row. (4975)
- ▶ *PrT assignment*:
  - Even after the cancellation of an MPA assignment which results in the deletion of the assignment, all internally effected zone splits are now undone so that a valid network status is available. (4976)
  - *VolCapRatio*: The calculation of the link attribute is now based on the OD pair filter (like all volume attributes). (4977)

**Network Editor**

- ▶ Menu EXTRAS - OPTIONS: Users can now initialize the positions of all dialog boxes along with the positions of the symbol bars. This is useful if, due to the use of different screen sizes, particular dialog boxes have been shifted in such a way that they are no longer visible in the current (minimized) display. (2694)

**COM Interface**

- ▶ COM methods *ISelection::Count* and *ISelection::ObjectType* now also produce correct values if the selection is modified interactively in the meantime. (4848)

<b>9.43-06</b>	<b>Corrections, Bug Fixes and Extended Functionality (ID)</b>	<b>June 19, 2006</b>
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**Listings**

- ▶ *Separator*: Open lists are now automatically filled when changing the setting of the global decimal point (full stop or comma), so that the modification takes immediate effect. (4517)

**Add-Ons**

- ▶ *Python*: A new installer for the VisumPy Python library is available. It contains new functions for reading and writing CSV files and for balancing three-dimensional matrices using the Furness / IPF method.
- ▶ *LineCosting*: Creating user-defined result attributes for "extended projections" in the context of PuT Operating Indicators no longer fails if the specified origin attribute is indirect. In this case, VISUM uses the name (not the path) of the attribute as target attribute name. (4967)

**Miscellaneous**

- ▶ VISUM now initializes the window header when activating NETWORK - NEW in the difference network mode. (4972)
- ▶ When exiting the program, VISUM now also prompts the user to save the version file if a script has been run during the session (which might have changed data). (4983)

<b>9.43-05</b>	<b>Corrections, Bug Fixes and Extended Functionality (ID)</b>	<b>June 2, 2006</b>
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**Discarded Program Crashes**

- *TModel*: VISUM no longer crashes during the import if the input file contains nodes with invalid type numbers. (4955)

**Procedures**

- *PrT assignment*: When optimizing green times of stage-based SCJs, VISUM no longer produces ambiguous results due to numerical instabilities. (4948)

**Network Editor**

- MULTISELECT - LINE ROUTES - "Set lengths": The calculation is now much faster. (4952)
- *Creating a main zone*: When inserting a main zone, all zones included in the polygon now automatically become partial zones of the main zone. (4954)
- NETWORK - PuT VALID DAYS - "Edit":
  - When editing a valid day, the use of a template (vacation day or valid day) now also works correctly if the validity of the time period of the day is restricted in the right section of the dialog box. (4938)
  - Applying and deleting days via the respective button in the right section of the dialog box now also works properly for Sundays. In cases like that VISUM mistakenly manipulated just weekday Monday to Saturday so far. (4950)

**Network Graphics**

- *Enum labels*: If objects in the network display are labeled with Enums (e.g. FromNode/ToNode orientation at links), VISUM now no longer shows the internal numerical value but the more significant short name. (4894)
- *Saving the network display*: If a different window than the network is displayed in full in the foreground, VISUM now saves the correct section of the network. (4419)

**COM Interface**

- COM functionality *Visum.SaveNet* can again be called up as second parameter even without a layout file. By mistake, this parameter used to be mandatory as of version 9.43-00. (4551)

**Add-Ons**

- *TModel*: Invalid node type entries are now immediately intercepted on tag "Node Type Definition" of the import parameters dialog box. (4958)
- *PuT line costing - Stop event/Start stop events*: If a vehicle journey starts at the end stop of a coupled section, the stop event at this stop is now counted fully (and not proportionately). The same applies to vehicle journeys which end at the start of a coupling section. (4951)

<b>Miscellaneous</b>		
<ul style="list-style-type: none"> <li>• <i>Filters</i>: If several filters interdepend (e.g. directly by using attributes like "OnActiveLink" or indirectly by using relations with "MaxActive"), all filters are now evaluated in the right order. If a cyclical dependence exists, VISUM issues a warning. <b>(4909)</b></li> </ul>		
<b>9.43-04</b>	<b>Corrections, Bug Fixes and Extended Functionality (ID)</b>	<b>May 29, 2006</b>
<b>Discarded Program Crashes</b>		
<ul style="list-style-type: none"> <li>• <i>Reading networks</i>: When reading table <i>Time profile items</i>, VISUM now ensures that attribute "LRItemIndex" is strictly ascending. The violation of this condition sometimes led to the generation of invalid time profiles which triggered subsequent crashes. <b>(4930)</b></li> </ul>		
<b>Procedures</b>		
<ul style="list-style-type: none"> <li>• <i>PuT assignment</i>: The calculation of the impedance of PuT paths with PuTAux yet missing any PuT line TSys used to contain errors: DeltaT always equals 0 for such paths since they are available at all times. For the impedance calculation so far, DeltaT used to be determined as if such paths were located at the start of the assignment interval. <b>(4942)</b></li> </ul>		
<b>Network Editor</b>		
<ul style="list-style-type: none"> <li>• <i>SINGLESELECT - Line route - Create opposite direction</i>: VISUM now only inserts missing link stop points if explicitly specified by the user. <b>(4891)</b></li> </ul>		
<b>Timetable Editor</b>		
<ul style="list-style-type: none"> <li>• <i>Edit stop point sequence</i>: After shifting a stop in the stop sequence dialog box, the same stop can now be shifted further by repeatedly clicking up/down. The row does not have to be selected anew. <b>(4940)</b></li> </ul>		
<b>Listings</b>		
<ul style="list-style-type: none"> <li>• <i>PuT OD pairs</i>: The list is now updated as soon as a new assignment is calculated or the DSeg selection is modified. <b>(4937)</b></li> </ul>		
<b>Miscellaneous</b>		
<ul style="list-style-type: none"> <li>• <i>Reading networks additionally</i>: Table <i>POI</i> can now only be selected in mode "First off, determine tables in file" if it actually exists in the network file. <b>(4370)</b></li> <li>• <i>Saving networks</i>: The time-consuming check for attributes with constant default values is only relevant in connection with option "Only attributes with att. values different from default values" and is thus only performed if the option is selected. This way, the <i>Save network</i> dialog box can be displayed a lot faster. <b>(4757)</b></li> <li>• <i>Normalizing surfaces</i>: When reading in network files or older version files, polygons are now "normalized" correctly in any case, i.e. transformed into a shape that is consistent with the data model of VISUM 9.4. For one thing this means that all faces of a surface possess boundaries that are not intersected, for another thing that faces of the same orientation do not overlap. <b>(4918)</b></li> </ul>		
<b>9.43-03</b>	<b>Corrections, Bug Fixes and Extended Functionality (ID)</b>	<b>May 19, 2006</b>
<b>Discarded Program Crashes</b>		
<ul style="list-style-type: none"> <li>• <i>POI listing</i>: VISUM no longer crashes after accessing EDIT POI in the context-sensitive menu of the list. <b>(4910)</b></li> <li>• <i>Reading in Procedure parameter files</i>: <ul style="list-style-type: none"> <li>• VISUM no longer crashes if the file contains procedure "Nested mode choice" yet the network does not contain all modes it refers to. <b>(4923)</b></li> <li>• Crashes no longer occur if some of the transport systems referred to by the PrT impedance functions do not exist in the target network. <b>(4924)</b></li> </ul> </li> </ul>		
<b>Network Editor</b>		
<ul style="list-style-type: none"> <li>• <i>MULTISELECT-EDIT-Formula</i>: In case of attributes of type <i>Time period</i>, VISUM now also correctly interprets the value of the last input field if the global time format is "Minutes". <b>(4915)</b></li> <li>• <i>Intersect</i>: Polygons with boundaries that do not intersect but touch in one spot can also now be intersected. <b>(4927)</b></li> <li>• <i>Error message</i>: The program sometimes displayed message "One of the resources required is not available" after lengthy editing in the network. The error has been fixed. <b>(4880)</b></li> </ul>		

**Timetable Editor**

- *Graphical Timetable*: The display of vehicle journeys is now also possible if all involved line route items have a length of zero. (4913)
- *Broken lines between doubled stops*: The program no longer displays solid instead of broken vertical or horizontal lines between doubled stops. (4746)
- *Stop point sequence*: The calculation of the stop point sequence has been improved in such a way that it does not produce redundant doublings any more. Please note, however, that in order to obtain well defined broken lines between doubled stops, the stops that mark the boundaries need to be route points and possess profile points. (4767/4555)

**COM Interface**

- *Skim matrices*: Skim matrices that are already kept in storage are now automatically loaded/unloaded in the event of a COM access. (4925)

**Miscellaneous**

- *Reading networks*: The completion of line paths now also functions correctly in the particular case that several undirected link stop points are located on the same link. (4914)

9.43-02

Corrections, Bug Fixes and Extended Functionality (ID)

May 12, 2006

**Discarded Program Crashes**

- VISUM no longer crashes when activating the *Parameters* dialog box of the headway-based assignment under Windows XP with Service Pack 2. (4902)
- Crashes no longer occur when drawing lane allocations if invalid link orientations exist in the network. (4901)

**Procedures**

- *PrT assignment*: In the Stochastic assignment, the default value of the scaling factor has been changed from 1 to 60 (tag "Choice"). (4792)
- *Line Blocking*: The time slot which can be set since VISUM 9.4 is now defined by a start day and an end day and no longer by specific times. This is essential in order to allocate vehicle journeys with a departure time of 24 to 48 o'clock clearly to a particular day. (4618)

**Network Editor**

- *Zones*: Making subsequent changes to the number of a zone no longer leads to unintended alterations of the destination traffic of the first zone in the network. (4554)
- *Signalized junctions*: Standard intergreen is now considered correctly when using templates, i.e. the stages do not succeed one another directly anymore. (4609)
- Menu EDIT - CONNECTORS: VISUM now always correctly hides/shows characteristic *Share PrT* for each respective zone. (4906)

**Network Graphics**

- Menu GRAPHIC - PARAMETERS - *Links - Link bars - Display*: Deactivated line bars are no longer displayed in the legend. (4826)
- *Shortest Path Search PuT*: PuT shortest paths in the network now display arrow heads at the end of each PuT path leg which indicate transfer stops. (4799)
- Catchment areas of stops are now only drawn at active stops. (4636)

**Timetable Editor**

- The selection controls for stop points in the timetable tableau now also show the name of the stop point besides the number if the code is not allocated. (4770)

**Import Interfaces**

- *Synchro Import*: Link orientations are now allocated automatically on the basis of Synchro data. (4895)

**Add-Ons**

- VISUM now always allocates stop attribute *NumServiceTrips* (AP, AH) during "PuT operational indicators" calculations and not just when calculating infrastructure costs of stops as well. (4911)

**Miscellaneous**

- Menu ? - INFO: A click on "Contact" activates a form which already contains all necessary system information. It facilitates the information exchange between users and the VISUM hotline and speeds up the processing of the request. (4903)

9.43-01	Corrections, Bug Fixes and Extended Functionality (ID)	May 05, 2006
<p><b>Discarded Program Crashes</b></p> <ul style="list-style-type: none"> <li>VISUM no longer crashes if the number of lanes of a link is reduced in such a way that a detector refers to one of the deleted lanes. <b>(4886)</b></li> <li>Crashes no longer occur when activating tab <i>Link orientations</i> in dialog box <i>Edit node</i>. <b>(4887)</b></li> </ul>		
<p><b>Network Editor</b></p> <ul style="list-style-type: none"> <li><i>Find...</i> dialog boxes: When entering a number, the automatic selection of the corresponding row now also works correctly in case of a number greater than 10<sup>9</sup>. <b>(3145)</b></li> <li>When navigating within the turn/connector dialog boxes, the marking in the network is now also set correctly if a list is open at the same time. <b>(4652)</b></li> </ul>		
<p><b>Network Graphics</b></p> <ul style="list-style-type: none"> <li>If a file of type DXF, DWG or SVG is inserted as a new background, the display now always matches the specified rectangle. <b>(4529)</b></li> <li>Node markings are visible again in the display of the path resulting a PuT-Sys Shortest Path Search. <b>(4678)</b></li> <li>Bars of a "minimal width" are now also displayed if the bar polygon contains points with partly identical coordinates, e.g. in case of a vertical link. <b>(4890)</b></li> <li>Marked line routes are now all displayed in color <i>Marking1</i> - independent of the graphic parameters set for marked links. <b>(4761)</b></li> </ul>		
<p><b>COM Interface</b></p> <ul style="list-style-type: none"> <li>When calling up method <i>WriteVSFFlowMatrix</i>, the saving process of the flow matrix is not cancelled anymore if one of the active links has an assigned volume of 0. <b>(4883)</b></li> </ul>		
<p><b>Add-Ons</b></p> <ul style="list-style-type: none"> <li>A new installer for the VisumPy Python library is available. It fixes a bug in <i>excelplot</i> which could abort the display of an Excel chart., and a bug in module <i>Tk</i> affecting <i>messageBox</i> and <i>askForFile</i>.</li> </ul>		
9.43-00	Corrections, Bug Fixes and Extended Functionality (ID)	Apr. 28, 2006
<p><b>Discarded Program Crashes</b></p> <ul style="list-style-type: none"> <li>Option "Set objects in territory to active state" no longer causes a crash, if a territory possesses more than 4096 digitalisation points. Even in combination with multipart surfaces, "Set objects in territory to active state" is now carried out correctly. <b>(4581)</b></li> </ul>		
<p><b>Procedures</b></p> <ul style="list-style-type: none"> <li><i>PuT Assignment</i>: <ul style="list-style-type: none"> <li>The storage usage is no longer unnecessarily high when calculating a PuT assignment or skim matrices with search option "Shortest Path Search - Find connection with minimum Search impedance" and an NT factor greater than zero. <b>(4876)</b></li> <li>When cancelling an assignment, missing matrix rows are now completed by zeros in any case. <b>(4875)</b></li> <li>The definition of the service frequency in the timetable-based assignment has been modified in such a way that it is consistent with other PuT skim matrices. Connections which depart in the "succeeding" time period past the end of the assignment interval yet previous to a possible second occurrence of the start of the assignment interval are now also included in the service frequency. This modification takes no effect, if no calendar and a time interval from 0 to midnight is used for the assignment. <b>(4879)</b></li> </ul> </li> </ul>		
<p><b>Network Editor</b></p> <ul style="list-style-type: none"> <li>VISUM no longer rejects adjoining points with identical X or Y coordinates after reshaping a face. <b>(4870)</b></li> <li>VISUM now calculates correctly when intersecting links and polygons, if a link exits and reenters the polygon. <b>(4585)</b></li> </ul>		
<p><b>Network Graphics</b></p> <ul style="list-style-type: none"> <li><i>Turn Volumes</i>: The line width of turn volumes has been reduced to 0.3 mm. <b>(4874)</b></li> <li>When scrolling or zooming causes a refresh of the display while VISUM has not completed a prior drawing process, the display is now refreshed correctly anyway. <b>(4877)</b></li> </ul>		
<p><b>Attribute Interface</b></p> <p>When annulling a MULTISELECT EDIT command for an attribute of type <i>TSysSet</i> or <i>DSegSet</i> via UNDO, all objects and not just the first one now keep their original values. <b>(4857)</b></p>		



<b>Timetable Editor</b>		
<ul style="list-style-type: none"> <li>• <i>Graphical timetable</i>: In the classified display, the "Draw" flags of the arrival and departure minutes now function correctly. So far, the program displayed all values. <b>(4864)</b></li> <li>• <i>Timetable tableau</i>: Bringing forward the start of a vehicle journey does not lead to a negative arrival time any more. <b>(4804)</b></li> </ul>		
<b>COM Interface</b>		
<ul style="list-style-type: none"> <li>• Two new COM functionalities have been added which permit exiting the timetable editor and saving a timetable editor layout file. For further details, please refer to the COM documentation. <b>(4553)</b></li> <li>• <i>SaveNet</i>: A warning is issued if an indicated layout file does not exist. <b>(4559)</b></li> </ul>		
<b>Listings</b>		
Opening the column selection dialog box in lists now also works correctly if several time intervals and demand segments exist in the network allowing a great many subattribute combinations. <b>(4865)</b>		
<b>Import Interfaces</b>		
During a shapefile import, the enclave characteristic of a face is now always set correctly. Importing multipart polygons sometimes caused errors in the past. <b>(4866)</b>		
<b>Miscellaneous</b>		
<ul style="list-style-type: none"> <li>• The contents of listings <i>Coupling sections</i> and <i>Coupling time profiles</i> is no longer altered when reading in a demand file or an attribute file. <b>(4773)</b></li> <li>• Offsets (<i>conflict avoidance</i>) for screenlines now operate as expected when reading table <i>Screenlinepoly</i> additionally. <b>(4759)</b></li> </ul>		
<b>9.42-04</b>	<b>Corrections, Bug fixes and Extended Functionality (ID)</b>	<b>Apr. 21, 2006</b>
<b>Discarded Program Crashes</b>		
<ul style="list-style-type: none"> <li>• VISUM no longer crashes when generating new analysis time intervals, if the network contains PuT detail objects that are territory-based at that point. <b>(4557)</b></li> <li>• Crashes no longer occur during the calculation of PrT assignments, when assigning several DSegs with identical TSys simultaneously which are later on assigned once again in the context of a feedback loop. <b>(4558)</b></li> <li>• The program no longer crashes when closing the dialog box which is used to search for stops. The error only occurred since the last ServicePack. <b>(4837)</b></li> <li>• The program no longer crashes when deleting stop areas in the MULTISELECT mode. <b>(4571)</b></li> </ul>		
<b>Procedures</b>		
<ul style="list-style-type: none"> <li>• <i>PuT assignment</i>: The calculation of an indicator matrix in the context of a headway-based assignment now also renders a correct resulting matrix when specifying a relative path for the indicator matrix. <b>(4827)</b></li> </ul>		
<b>Attribute Interface</b>		
<ul style="list-style-type: none"> <li>• VISUM now also generates vehicle journey items automatically in case of an access via indirect attributes (via vehicle journeys or time profile items). <b>(4772)</b></li> </ul>		
<b>Timetable Editor</b>		
<ul style="list-style-type: none"> <li>• The right lower quadrant of the timetable editor is now also displayed correctly for vehicle journeys with more than one vehicle journey section and when showing several attributes (<i>Arrival, Departure</i> etc.). <b>(4769)</b></li> </ul>		
<b>COM Interface</b>		
<ul style="list-style-type: none"> <li>• Assigning double values to an integer attribute via <i>SetMultiAttValues</i> no longer causes a COM error. <b>(4828)</b></li> <li>• Clearly less run time is required for COM method <i>Visum.LoadNet</i> now, if a large number of line route items is read in additionally and no parameter block is delivered for the completion of line routes when calling up the command. <b>(4572)</b></li> <li>• The VisumPy library of useful Python functions for VISUM automation is available in a new release 1.2. Numerous functions for matrix manipulation, simplified data access, and GUI construction were added. The functionality of the library is now documented in Appendix C of the COM documentation. Download the new installer separately from our web site using the login ID for VISUM add-ons.</li> </ul>		
<b>Listings</b>		
<ul style="list-style-type: none"> <li>• VISUM now also correctly preallocates attributes with units in column <i>Units</i> of the column selection dialog box. <b>(4781)</b></li> </ul>		

<b>Import Interfaces</b>		
<ul style="list-style-type: none"> <li>Database and network imports are now also done accurately in any language other than English, if they contain attributes that have been renamed in VISUM in the meantime. <b>(4854)</b></li> </ul>		
<b>Export Interfaces</b>		
<ul style="list-style-type: none"> <li><i>Shapefiles</i>: In the occurrence of an attribute name with more than ten characters, the resulting abbreviation now contains its initial letters, e.g. NumConne~01. <b>(4756)</b></li> </ul>		
<b>Add-Ons</b>		
<ul style="list-style-type: none"> <li><i>Timetable Network Graph</i>: For departure and arrival time labels at vertical segments, VISUM used to mix up symbols &lt; and &gt;. The error has been fixed. <b>(4844)</b></li> <li><i>TFlowFuzzy</i>: The calculation of flow matrices and result matrices has been accelerated. <b>(4665)</b></li> </ul>		
<b>Miscellaneous</b>		
<ul style="list-style-type: none"> <li><i>Print/Preview</i>: The print frame now always indicates the right network scale. <b>(4820)</b></li> <li><i>Reading GPA files</i>: After the selective reading of a graphic parameter file, VISUM now only recalculates the 2D display if new 2D parameters were added. <b>(1866)</b></li> <li>On Japanese operating systems, dialog boxes <i>VISSIM Export</i>, <i>Edit graphic parameters</i>, <i>Multiselect edit</i> are now also large enough to show all controls. <b>(4798)</b></li> <li><i>Reading networks</i>: When reading in undirected link stop points from a network file, distances too short are now rejected (as in the network editor). Distance means the discrepancy of the RelPos values. Distances up to one one-thousandth are always accepted. <b>(4579)</b></li> </ul>		
<b>9.42-03</b>	<b>Corrections, Bug fixes and Extended Functionality (ID)</b>	<b>Apr. 07, 2006</b>
<b>Discarded Program Crashes</b>		
<ul style="list-style-type: none"> <li><i>Timetable Editor</i>: VISUM no longer crashes when activating the graphical timetable after editing the start of a vehicle journey section. <b>(4786)</b></li> <li><i>Reading networks</i>: When reading a network, clicking <i>Cancel</i> just as the program harmonizes the data structures no longer causes a crash. <b>(4809)</b></li> <li>Menu NETWORK - PUT FARE ZONES: The program no longer crashes when exiting dialog box "Fare zones and fare subzones". <b>(4810)</b></li> <li><i>Printing</i>: VISUM no longer crashes when printing in the preview mode after printing the regular display. <b>(4552)</b></li> </ul>		
<b>Procedures</b>		
<ul style="list-style-type: none"> <li><i>PrT assignment</i>: The calculation of <i>tCur</i> with volume-delay function Akcelic contained a unit-related error. VISUM now returns different PrT assignment results when calculating with this function. <b>(4816)</b></li> </ul>		
<b>Network Editor</b>		
<ul style="list-style-type: none"> <li>SINGLESELECT mode - EDIT TURNS - <i>Basis</i>: Value <i>tCur</i> box is now rounded correctly. <b>(4797)</b></li> </ul>		
<b>Network Graphics</b>		
<ul style="list-style-type: none"> <li>Users can now set the individual text sizes for column and pie charts. <b>(4806)</b></li> </ul>		
<b>Timetable Editor</b>		
<ul style="list-style-type: none"> <li><i>Graphical timetable</i>: <ul style="list-style-type: none"> <li>In case of multiple doublings in the stop point sequence, broken lines are now always drawn from the first to the last doubled stop. Possible intermediate doublings are thus skipped. <b>(4747)</b></li> <li>Vehicle journey trajectories of vehicle journeys that start at a time profile item with a dwell time &gt; 0 are no longer positioned incorrectly. <b>(4546)</b></li> <li><i>Vehicle journey items text</i>: a) The vehicle journey items text is no longer missing, if texts are displayed in groups. <b>(4763)</b> b) If the last stop of a vehicle journey is hidden, the vehicle journey items text of the last but one stop is now displayed correctly and no longer rotated 90 degrees. <b>(4768)</b></li> </ul> </li> </ul>		
<b>COM Interface</b>		
<ul style="list-style-type: none"> <li>A COM error is returned when opening timetable editor graphic parameters/layout files, if the indicated file does not exist. <b>(4547)</b></li> <li>All line routes of the selected direction, not just one, are now switched on/off, when running COM command <i>TimeTable.ShowDirections</i>. <b>(4550)</b></li> </ul>		
<b>Listings</b>		
<ul style="list-style-type: none"> <li><i>Passenger transfers list</i>: Button "All" for the selection of stops functions correctly again. <b>(4789)</b></li> </ul>		

**Import Interfaces**

- *TModel*: File names can now be edited directly in the grid of the import dialog box. (4782)

**Export Interfaces**

- *VISSIM*: Parking lot numbers are no longer utilised twice when exporting dynamic routes. This way, the export file can be read into VISSIM. (4683)

**Add-Ons**

- *Calendar*: Even without the *Calendar* add-on, users can now access the attributes of the default valid day "daily", in particular its projection factors. (4801)
- *LineCosting*: Stops that exceed midnight are now considered correctly in the case of territory-based dwell times per time interval and thus distributed to the respective time intervals. In the case of vehicle journeys with overlapping journey sections and deviating vehicle combinations, the dwell time is also distributed. (4737)

**Miscellaneous**

- *Filters*: In the dialog boxes of hierarchical filters, users can now also select **single** rows. (4745)
- *Connector weights*: The default value of the connector weights is no longer zero. This way, the unintentional blocking of all connectors is avoided at zones which are prorated by shares. (4548)

9.42-02

**Corrections, Bug fixes and Extended Functionality (ID)****Apr. 03, 2006****Discarded Program Crashes**

- The program no longer crashes when opening dialog box *Assignment statistics*, if a great number of demand segments exists in the network. (4794)
- VISUM no longer crashes when reading an oversize version which violates the size restrictions of the Uni version (30 zones). (4795)

**Procedures**

- *PrT assignment*: In the parameters dialog box of the Equilibrium assignment, specific settings for the blocking-back model are now disabled if they are irrelevant because the model is not calculated during the assignment. (4758)

**Network Editor**

- *Edit shapes of polygons*:
  - The fixed intermediate points are now also visible when scrolling or zooming while editing a polygon's shape. (570)
  - Once more polygons (e.g. at zones, territories etc.) can be initialized with the F2 key. (4604)
- NETWORK menu - PUT TICKET TYPES: The program now generates TSys supplements by default again when creating a ticket type. (4778)

**Timetable Editor**

- The editor no longer shows the attribute ID instead of the code. (4784)
- The stop sequence and the departure times are now always scrolled together. (4709)
- The lower right quadrant of the timetable editor is now also displayed correctly when showing vehicle journeys with more than one section and several attributes (*departure, arrival, etc.*). (4769)

**COM Interface**

- When opening a matrix from a script its file name is now correctly imported into VISUM, and thus e.g. displayed correctly in the demand data dialog box. (4777)

**Import Interfaces**

- *TModel*: VISUM now always imports all links, if option "Loading links as VISUM connectors. Centroids as VISUM zones" on tag *Parameters* is checked. (4775)
- *EMME/2*: TTF=0 at line route items is now automatically interpreted as constant speed of the line (speed is item no. 5 in the header of the line). (4776)

**Add-Ons**

- *LineCosting*: Stop events are now counted proportionately in the case of overlapping vehicle journey sections. (4755)

<b>Miscellaneous</b>		
<ul style="list-style-type: none"> <li>• <i>Saving a network</i>: Table <i>CoupleTimeProfile</i> in the network file is now sorted when saved. (4740)</li> <li>• <i>Reading a network</i>: The time consuming calculation of the link orientations at the end of the reading process has been accelerated. (4760)</li> <li>• <i>Reading a version</i>: Saved versions of networks that contained speed limits in which links were split or merged could not be read in afterwards. The error has been fixed. (4790)</li> </ul>		
9.42-01	<b>Corrections, Bug fixes and Extended Functionality (ID)</b>	<b>Mar. 23, 2006</b>
<b>Procedures</b>		
<ul style="list-style-type: none"> <li>• <i>PrT assignment</i>: The program no longer produces incorrect network volumes when calculating a stochastic assignment with several DSegs with the same TSys at the same time. (4762)</li> </ul>		
<b>Timetable Editor</b>		
<ul style="list-style-type: none"> <li>• When reading in timetable editor layout files, the import no longer aborts if a file contains rows with more than 255 characters. (4766)</li> </ul>		
<b>COM Interface</b>		
<ul style="list-style-type: none"> <li>• <i>Exporting the graphical timetable</i>: The SVG Add-On is no longer needed for an SVG export. (4764)</li> </ul>		
9.42-00	<b>Corrections, Bug fixes and Extended Functionality (ID)</b>	<b>Mar. 17, 2006</b>
<b>Discarded Program Crashes</b>		
<ul style="list-style-type: none"> <li>• VISUM no longer crashes when importing polygon shapefiles (zone, territory etc.), if a shape object refers to an invalid polygon. (4751)</li> </ul>		
<b>Other Procedures</b>		
<ul style="list-style-type: none"> <li>• Procedure "Territory indicators" has been accelerated. (4750)</li> </ul>		
<b>Network Graphics</b>		
<ul style="list-style-type: none"> <li>• <i>Backgrounds</i>: The exact line widths specified in the file are now applied when reading in HGR backgrounds. So far, lines were always 1mm in width. (4743)</li> <li>• Labelling option "Color=Bar color" of links and other bars now also works, if "Show value" is not checked. (4675)</li> </ul>		
<b>Attribute Interface</b>		
<ul style="list-style-type: none"> <li>• Vehicle journeys and Vehicle journey sections now provide attribute <i>Duration</i>. Vehicle journey sections also provide attributes <i>Departure</i> and <i>Arrival</i>. (4322)</li> </ul>		
<b>Timetable Editor</b>		
<ul style="list-style-type: none"> <li>• The "Apply" button of the graphic parameters dialog box works properly again. (4754)</li> </ul>		
<b>COM Interface</b>		
<ul style="list-style-type: none"> <li>• The graphical timetable can now also be exported to an SVG file via COM. (4528)</li> </ul>		
<b>Add-Ons</b>		
<ul style="list-style-type: none"> <li>• <i>Line costing</i>: <ul style="list-style-type: none"> <li>• Start and end stop events in the AP are no longer counted twice, if the stop of a vehicle journey exceeds midnight. (4735)</li> <li>• VISUM now also projects the correct number of stop values for attributes "StopEvents" and "Start/End stop events", if couplings exist. The AP values were not affected by this error. (4752)</li> </ul> </li> </ul>		
<b>Miscellaneous</b>		
<ul style="list-style-type: none"> <li>• <i>Procedure parameters (XML)</i>: In the procedure numbers, unnecessary gaps no longer occur when reading in this file. If a file e.g. contains procedures 1, 2, and 4, procedure number 4 is now inserted in position 3. So far, procedure "Assignment" used to be inserted in position 3. (4431)</li> <li>• Menu CALCULATE - CALCULATION STATUS: The assignment statistics now include an entry for the projection of user-defined attributes within the context of procedure "PuT operation indicators". (4502)</li> <li>• Columns that refer to user-defined attributes are no longer rejected when reading in POI filters. (4677)</li> </ul>		

9.41-02	Corrections, Bug fixes and Extended Functionality (ID)	Mar. 10, 2006
<p><b>Discarded Program Crashes</b></p> <ul style="list-style-type: none"> <li>• VISUM no longer crashes when accessing tag <i>PrT-Sys</i> of the link dialog box, if a PrT assignment has been calculated and attributes of a TSys were edited afterwards. (4713)</li> <li>• The program no longer crashes when loading particular version files which include couplings. (4723)</li> </ul>		
<p><b>Procedures</b></p> <ul style="list-style-type: none"> <li>• <i>PrT assignment</i>: <i>TCur</i> is now updated right away when a PrT assignment is deleted - not just once a new assignment is calculated. (4703)</li> </ul>		
<p><b>Network Editor</b></p> <ul style="list-style-type: none"> <li>• <i>Find node</i> dialog box: The <i>AutoZoom</i> button no longer disappears. (4712)</li> <li>• <i>Edit node...</i> dialog box - <i>Lanes - Legs and lanes...</i> dialog box: The selection of legs and links in the grid now always corresponds to the object marked in the network, even when using the arrow keys to navigate the grid. (4711)</li> <li>• Detectors can once more be deleted in mode <i>MULTISELECT</i>. (4733)</li> <li>• Screenlines can now also be used in the network editor operation "Intersect". (4738)</li> </ul>		
<p><b>Timetable Editor</b></p> <ul style="list-style-type: none"> <li>• If the language is set to <i>Russian</i>, the timetable editor now shows the correct translations, too. (4725)</li> <li>• <i>Hierarchical stop point calculation</i>: Stops are now also included in the "trunk", if they are not route points on some of the line routes. In the tabular display, such items are now also marked as traversed stops by vertical lines. (4697)</li> <li>• <i>Graphical timetable</i>: <ul style="list-style-type: none"> <li>• If the item labels are arranged in groups and located "in the middle of the group", labels of coupled vehicle journeys now also lie exactly on top of each other, if one of the vehicle journeys concerned has a longer dwell time than the other one at the beginning of the coupling section. (4687)</li> <li>• Bars and bar labels at vehicle journeys are now displayed consistently for both directions below the vehicle journey trajectory. This way, an overlap with the regular item text is generally avoided. (4700)</li> </ul> </li> </ul>		
<p><b>Add-Ons</b></p> <ul style="list-style-type: none"> <li>• <i>Subnetwork Generator</i>: The calculation of the subnetwork is no longer cancelled, if the network contains surfaces that do not feature any faces. (4704)</li> <li>• Users can now also set relative paths for background files. This makes it easier to transfer networks from one computer to another. (4281)</li> <li>• <i>Line Costing</i>: a) Stop events in the analysis period are no longer counted twice, if some of the vehicle journey stops exceed midnight. b) When calculating time interval based, stop events are now always assigned to the interval in which they begin. (4638)</li> </ul>		
<p><b>Miscellaneous</b></p> <ul style="list-style-type: none"> <li>• <i>Shapefiles</i>: <ul style="list-style-type: none"> <li>• Shapefiles which contain numerical data with decimal places written with VISUM now comply with the global shapefile format and can thus also be read by ArcView etc. (4701)</li> <li>• Version files saved after reading in link shape files can now be read in again. (4718)</li> </ul> </li> <li>• <i>OD pair filter</i>: In procedure <i>Trip distribution</i>, this filter now also affects internal trips, i.e. relations from X to X. (4710)</li> <li>• When reading in versions with invalid link orientations, corresponding messages are now written to the trace file and no longer to the error file. (4722)</li> <li>• <i>Printing</i>: <ul style="list-style-type: none"> <li>• <i>via Adobe Acrobat PDF-Writer</i>: Closing dialog box <i>save under</i> via <i>cancel</i> led to a reboot of the system when performing a new operation in VISUM. The error has been corrected. (4702)</li> <li>• The printer output is now also correct, if the output area is too large for the page to be printed and option "Cut off at margin" has been selected. (4715)</li> <li>• The text enlargement factor of the screen no longer influences the labels of the turn volumes when printing. (4716)</li> <li>• Graphical background objects that are located in the legend are now printed correctly. (4720)</li> <li>• VISUM now saves all settings when exiting the print settings dialog box via <i>Close</i>. (4728)</li> </ul> </li> </ul>		

9.41-01	Corrections, Bug fixes and Extended Functionality (ID)	Mar. 2, 2006
<p><b>Discarded Program Crashes</b></p> <ul style="list-style-type: none"> <li>• LINKS - SINGLESELECT mode: VISUM no longer crashes when clicking tag <i>PrT-Sys</i> of the link dialog box, if invalid PrT impedances are set. <b>(4686)</b></li> <li>• Zooming into a polygon with an enclave used to lead to an enormous use of storage that sometimes even caused a crash. <b>(4685)</b></li> </ul>		
<p><b>Procedures</b></p> <ul style="list-style-type: none"> <li>• <i>PuT assignment</i>: The program now issues a warning when calculating PuT indicators, if no paths whatsoever are found and a weighting is thus impossible. <b>(4693)</b></li> </ul>		
<p><b>Network Graphics</b></p> <ul style="list-style-type: none"> <li>• <i>Shortest Path Search</i>: The Search parameters dialog box is now once more accessible via a button on tag <i>PuT</i> of the TSys-based Shortest Path Search. <b>(4684)</b></li> </ul>		
<p><b>Timetable Editor</b></p> <ul style="list-style-type: none"> <li>• The stop point sequence in the timetable editor calculated by VISUM can now be edited interactively via menu EDIT - EDIT STOP POINT SEQUENCE. <b>(3754)</b></li> <li>• When activating the timetable editor in mode LINKS - MULTISELECT, <ul style="list-style-type: none"> <li>• the stop point sequence is now automatically reduced to the selected range again. <b>(4674)</b></li> <li>• VISUM now also takes link stop points into account. <b>(4682)</b></li> </ul> </li> </ul>		
<p><b>Miscellaneous</b></p> <ul style="list-style-type: none"> <li>• <i>Filters</i>: <ul style="list-style-type: none"> <li>• When reading filter or version files with active filters that have been saved with versions prior to 9.4, activated features like "applies to <input checked="" type="checkbox"/> line route" are now automatically transferred to the associated items ("applies to <input checked="" type="checkbox"/> line route item"). As of 9.4, these can be filtered independently. <b>(4676)</b></li> <li>• A new button now enables users to simultaneously activate or deactivate all checkboxes. <b>(4694)</b></li> </ul> </li> <li>• <i>Reading networks</i>: <ul style="list-style-type: none"> <li>• Network files that are "more recent" than the used VISUM version can now also be read into "older" VISUM versions (as of version 9.3). In this case, VISUM issues a warning at the start of the read operation that indicates the possible loss of data. However, most data (especially basic network data) never changes its format so that conflicts generally do not occur even when reading in more recent networks. VISUM merely issues warnings in the occurrence of attributes that were added in the meantime. <b>(4648)</b></li> <li>• Table <i>link type</i> of network files used to be read in independently of the user settings, thus disregarding options <i>ignore</i> and <i>cancel</i>. The error has been fixed. <b>(4681)</b></li> </ul> </li> <li>• Menu FILE - OPEN: The dialog box for the file type selection now always suggests the folder specified under project directories. Under Windows XP, the most recently used folder mistakenly appeared. <b>(4121)</b></li> </ul>		