VISUM Release Notes

Version 11.0

Version 11.03-02
Last modified: 2010-03-30

COM Interface

▶ *Command line parameters:* Just like to VISSIM, VISUM can now be registered with "-regserver" and deregistered with "-unregserver". (**8786**)
▶ Calling the COM method IDemandSegment.GetPathNodes no longer triggers a crash. (**8803**)

Data Model

▶ Stages are now generated when using the list to convert signal group-based controls into stage-based controls. (**8775**)
▶ The adjustment of coupling sections is now also correct if a coupling section is lengthened at the beginning while a different coupling section already exists in this place. (**589**)

Dialogs

▶ Dialog "Multi-Edit": The dialog remained empty if the "DirectFolders" program was installed. (**8781**)
▶ *Dialog Parameters PrT skim matrices: File names could no longer be selected once you clicked "Save to file:* All ON". This bug has been fixed. (**8764**)
▶ *"Edit link" dialog:* In the "Environment" tab, all labels are displayed again. (**8773**)

Filters

▶ VISUM does not crash anymore when evaluating the OD pair filter if more than one computation module is used. (**8779**)

Graphics

▶ *Link bars:* In certain cases, the bars of adjacent links did not match. This bug has been fixed. (**8802**)

Installation

▶ *Starting VISUM:* VISUM no longer issues an error message stating that the VISUMDBServer.exe could not be found. (**8673**)

Junction Editor

▶ A crash no longer occurs when setting the cycle time in the SC dialog to a high value which is not displayed by VISSIG and then lowering it again while the Signal Timing Editor is open. (**8455**)
▶ *Junction Editor:* From now on, closed turns will be displayed in grey to make them visible for colour-blind persons. (**8774**)
▶ A more detailed message is issued when importing faulty VISSIG files or files that are too new. (**8782**)

Network Editor

▶ *Drawing turn volumes:* VISUM used to crash when drawing turn volumes if link bars and turn volumes were visible. This bug has been fixed. (**8787**)
▶ *Multi-Delete:* Deleting at least 10 network items and then saving the network could lead to a crash. This has been fixed. (**8788**)

Other Operations

▶ *Aggregating line routes:* The aggregation of two line routes A and B now works correctly, if line route A has no time profile but B does while A is longer than B. (**8790**)
▶ VISUM no longer crashes when calculating a PrT flow bundle while a floating dialog is open. (**8778**)

PuT Assignment

▶ If PuT skim matrices were calculated with the headway-based procedure while an OD pair filter was set, the resulting values were displayed in the wrong row. This has been fixed. (**8772**)
▶ *Connection import and MPA:* Paths were sometimes transferred more than once. This lead to increased network volumes. The error has been removed. (**7367**)

COM Interface

- ► The methods SetTimeIntervalStart and SetTimeIntervalEnd at ItimetableBasedBasePara now set the correct calendar day. (**8765**)
- ► You can use COM again to set the attributes "Active" and "IsExpanded" of IOperation. (**8762**)

Data Model

- ► *Turn types:* Automatic adjustments no longer occur when determining turn types by angle, if you modify the transport systems of turns or links. (**8746**)
- ► *Fleet compositions:* A fleet composition could not be inserted with a specific number, if this number had been used before. (**8769**)
- ► Just as for links, turns, and main turns, volume attributes (except for Volume DSeg TSys) are now provided at connectors. (**959**)
- ► *Allocation of signal controls:* By mistake, signal controls could be allocated to nodes and main nodes with more than eight legs. This has been fixed. (**8752**)
- ► *Deleting a line:* The operation occasionally led to a crash, if the lines to be deleted contained couplings. This has been fixed. (**8713**)
- ► *Coupling:* When creating new couplings or when extending existing couplings, the time synchronization of vehicle journeys is now also correct, if all vehicle journey sections of an existing vehicle journey start or end in the coupled section and therefore need to be removed. (**195**)

Dialogs

- ► *Parameters dialog, Line Blocking:* VISUM no longer crashes during start-up, if the standard empty trip TSys of a vehicle combination is not defined. (**8770**)
- ► *Aggregating line routes:* Undoing the operation led to a crash in certain cases. This bug has been fixed. (**8736**)

PuT Passenger Survey

- ► *Direct assignment:* The skim calculation works correctly again in the context of the direct assignment. (**8754**)

Filters

- ► *Filters:* The evaluation of the OD pair filter could lead to a crash in certain cases. This bug has been fixed. (**8753**)
- ► In line filters, the set marking of items can be removed again with the CTRL key. (**8303**)

Foreign Formats

- ► *HAFAS import:* The HAFAS import does not produce corrupt coupling groups any more. (**8122**)

Graphics

- ► *Link bars:* Too many bars were hidden when selecting option "Hide short bars". This error has been fixed. (**8734**)
- ► *Layer Desire Line:* The preview now works correctly when changing the number of displayed OD pairs. (**8729**)
- ► *Desire line layer:* Switching off the layer led to long calculation times. These have been reduced considerably. (**8728**)
- ► *PuT Flow Bundle:* A flow bundle of transfers via all operators now reliably yields the same result as an analog flow bundle via "all Tsys" when selecting option "Also Walk-Tsys". If you do not activate the option, deviations might still occur, as the filter also takes effect at a stop point that is connected through a transfer walk link, yet the set of operators offered in the dialog refers to the selected stop point. This detail will be consolidated with VISUM 11.5. (**8744**)
- ► Background files in format TIFF CCITT can be read into VISUM. (**8757**)
- ► You can scroll and shift DWG and DXF backgrounds correctly again. (**8758**)

Graphical Operations

- ► *Intersect:* The operation did not work correctly for individual POI categories. (**8743**)
- ► *Intersect:* The operation works correctly again when using a POI category as type for the target objects. (**8738**)

Subnetwork Generator

- ► *Zones:* Mobility rates and structural properties are now transferred to the subnetwork, if the "Store

the complete demand model with the subnetwork" option is selected. (**8718**)

PuT Line Blocking

▶ Running a block check no longer causes a crash, if the block contains just one single block item which is an empty trip. (**8755**)

PrT Assignment

▶ *Shortest path search:* The search was infrequently instable. This led to deviations in PrT assignments (except for Tribut and LUCE). A new flag under PrT functions allows you to toggle between the former (instable) and the new search logic. This can be of use if you wish to replicate old assignment results. (**8652**)

PuT Assignment

▶ *Saving version files:* The operation is no longer canceled if it involves a PuT assignment whose transfers are saved between vehicle journeys, however, whose network volumes are saved only up to the level of time profiles. (**8742**)

TFlowFuzzy

▶ *The procedure is no longer canceled in error with a message "Flow matrix:* Row sum <= 0". (**8750**)

11.03-00	Corrections, Bug Fixes and New Features (ID)	2010-03-05

COM Interface

▶ The Google Transit Feed importer now correctly handles calendar periods starting in the future. (**8646**)
▶ *ILineRoute:* A new method SetItemLengthsFromNetwork is provided for setting the lengths of line routes based on the lengths of the links. (**1924**)
▶ The add-in "Google Transit Feed Import" now correctly imports timetable data referring entirely to a future time period. (**3326**)
▶ *ItimeProfileItem:* VISUM now returns an error message if you try to edit attributes which cannot be edited. (**8692**)

Data Model

▶ *ICA calculation:* VISUM provides two new ICA output attributes for queue lengths at turns and main turns. (**7952**)
▶ The signal control type NEMA no longer exists. (**7796**)
▶ *Relation Main nodes -> Path items:* The iterator which counts the path items at main nodes will no longer crash. (**8716**)

Dialogs

▶ *Column charts for nodes:* The subordinated parameters dialog was allocated incorrectly if opened with a double-click while using multiple charts. This bug has been fixed. (**7856**)

PuT Passenger Survey

▶ The volume of the directly assigned demand segment is always stored with this DSeg. Furthermore it will be regarded for skim matrix calculation, if option 'Calculated diagonal' was chosen in the procedure settings. (**8498**)
▶ The export from the timetable editor to the Windows clipboard now supports Unicode. (**8688**)

Graphics

▶ *Backgrounds Mouse Mode Dialog:* Dialog appers now in the center of Visum and can be moved then to the desired position. (**8722**)
▶ When using SVG files as backgrounds, polygon boundaries are now drawn correctly (no longer much too thick). (**6943**)
▶ When using SVG files as backgrounds, pattern fillings are now displayed correctly, polygons are closed correctly, the positions of symbols are correct, and line widths of symbols and polygons of pie charts are correct. (**6945**)

Junction Editor

▶ *Delete SC:* VISUM no longer crashes if an SC is deleted while the signal timing view is active and

the undo stack is disabled. (**8724**)

Listings

▶ *OD Pairs list:* The program sometimes crashed after using the OD Pairs list (simultaneous changes in multiple columns). This has been fixed. (**8690**)

Network Editor

▶ *Attribute selection dialog:* VISUM no longer crashes when trying to allocate an alias to a special entry (like "1.0"). (**572**)

Other Operations

▶ *HBEFA based emission calculation:* Added new procedure including required data structures (network object fleet composition, new attributes at link type, link, zone and territory). (**44**)

Miscellaneous

▶ *Add-Ins:* VISUM now provides an Add-In which allows to visually analyze (in MS Excel) the distribution of a skim matrix with respect to one or several trip matrices (**8727**)
▶ The provided example KA_DUE.ver requires considerably less memory for the execution of the PrT assignment. (**8615**)

Subnetwork Generator

▶ Crashes no longer occur when including the demand model in the subnetwork while using certain file names. (**8705**)
▶ *Subnetwork generator:* Zones and connectors at isolated nodes are now also transferred to the subnetwork. (**8682**)

PrT Assignment

▶ Implicitly stored paths (->LUCE) are now available for most of the paths and are stored in the version file. (**8014**)
▶ *ICA, signalized nodes:* In case of permitted left turns, the opposing flow was wrongly classified as single opposing lanes in certain configurations. (**8654**)

VISUM Files

▶ ANM-Networks are readable if filename is not XML-conform (e.g. contains '&'). (**8715**)
▶ Matrices can be read again in format E. (**8691**)
▶ VISUM no longer runs out of memory when saving version files with large matrices. (**8708**)
▶ *Reading a network file:* The completion of line routes now also succeeds, if two consecutive line route items consist of stop points which are located on opposite sides of the same link. (**530**)
▶ VISUM no longer crashes if the network does not contain demand strata (used to crash in the subnetwork generator for example, if the demand model was not copied completely). (**8719**)

11.02-12	Corrections, Bug Fixes and New Features (ID)	2010-02-11

COM Interface

▶ *Filter.AddCondition:* The value "val" is now also treated correctly at text attributes, if the text is transferred as variable. (**8675**)

Filters

▶ *Reading a filter file:* VISUM does not crash any more when opening a filter file with a filter for main OD pairs, if a flow bundle is specified for main zones. (**8668**)
▶ *Read filter dialog:* In the dialog, the displayed object types did not correspond with the filters contained in the file. (**8666**)

Foreign Formats

▶ The simultaneous use of the database export by multiple VISUMs could lead to a crash because of a lack of memory. The memory consumption could be reduced considerably. (**8667**)

Graphics

▶ The display of link bars at links with an edited shape has been improved once more. Flashes and other artifacts at intermediate polygon points no longer occur. (**8647**)

Junction Editor

▶ In the Geometry view of the junction editor, you can now also switch the type by clicking the text next to the buttons ("Legs", "Lane turns", …). (**8246**)

Listings

▶ The deletion of an assignment result could lead to a crash if a path list was open at the same time. (**8655**)

Matrix Editor

▶ *Opening a matrix:* VISUM used to crash if the network contained no zones. This has been fixed. (**8661**)

Network Editor

▶ *Path items relation:* Some objects were missing in the relation path > path items. (**8640**)

Other Operations

▶ The intersection of a polyline (e.g. a link) with a polygon (e.g. the surface of a territory) now also yields a correct result, if the starting point is located on the border of the target polygon and the rest outside of it, or if the target polygon touches the polyline only once, however without intersecting it. (**8670**)

PrT Assignment

▶ *ICA, signalized nodes:* In case of permitted left turns, the opposing flow was wrongly classified as single opposing lanes in certain configurations. (**8654**)
▶ The ICA calculation according to HCM now correctly detects conflicting flows at roundabouts when driving on the right. (**8653**)

VISUM Files

▶ The list of most recently used files now contains filter files that are opened via menu Filters > Open Filter File. (**8632**)
▶ *Opening a matrix:* Matrices could not be opened if the network contained no matrix. This error has been fixed. (**8660**)
▶ *Reading a network file:* Conflict handling has been corrected when additively reading the tables Transfer Walk Time TP and Transfer Walk Time Tsys. (**8680**)
▶ *Reading a network file:* An unnecessary warning is no longer issued if the file contains vehicle journey sections or transfer walk times that already exist in the network while the conflict handling is set to "ignore". (**8681**)

11.02-11	Corrections, Bug Fixes and New Features (ID)	2010-01-26

COM Interface

▶ The Google Transit Feed importer now handles feeds with multiple agencies correctly. (**8646**)
▶ *Python scripts:* Python scripts starting with a "U" or located in a directory that starts with a "U" can be run again. (**8641**)

Timetable Editor

▶ *Regular services display:* When editing the headway start, the new value no longer falsely relates to the origin stop of the time profile but to the origin stop of the edited vehicle journeys. This makes a difference in case of vehicle journeys that are shortened at the beginning. (**8636**)

Listings

▶ *Stages list:* The deletion of SCs would sometimes lead to a crash if the stages list or the stage display of the junction editor was open. This has been fixed. (**8637**)
▶ Pressing <Enter> in a list even moves the focus to the cell below, if you have just pasted the cell content from the clipboard via Ctrl+V. (**7532**)

Matrix Editor

▶ The Matrix Editor crashed when opening a file failed. This bug has been fixed. (**8658**)

▶ VISUM crashed when exiting the Matrix Editor. This has been fixed. (**8657**)

Network Editor

▶ *Editing the shape of PrT paths:* Running multiple assignments and subsequently editing paths could trigger a crash when changing the shape of the paths. (**8656**)
▶ *Editing the shape of PrT paths:* VISUM no longer crashes if the network does not contain any PrT Sys or if the most recently used TSys does not exist in the current network. (**8651**)

VISUM Files

▶ *Reading a network:* The additive reading of lane information now works correctly, even if pockets are added. (**8635**)
▶ *Reading a network:* Misleading error messages are no longer issued when reading in lane information at main nodes. (**8634**)

11.02-10	Corrections, Bug Fixes and New Features (ID)	2010-01-19

COM Interface

▶ The add-ins for getting/setting matrix diagonals now also run under 64-bit. (**8590**)
▶ The Google Transit Feed importer ignores leading blanks in all data fields. These are now apparently allowed in feeds. (**8628**)
▶ *GetNearestLink:* The method did not find the nearest link if the point was exactly on the link. (**8608**)
▶ *Filter.AddCondition:* Numeric values in "Range" are now interpreted based on the unit of the attribute. A link length is thus expressed in kilometers or miles, depending on the system of units. The values are set automatically when reading older XML filter files. Existing COM scripts, however, might have to be be adjusted. (**8601**)
▶ Add-Ins can now be run under 64bit versions. (**8586**)

Data Model

▶ *Path items:* Indirect attributes of main nodes are now treated correctly. (**8617**)
▶ The deletion of a demand model now involves the reliable deletion of all dependent objects. (**8574**)
▶ *Creating a path:* Crossing a main node now also works if multiple partial nodes of a main node are traversed. (**8625**)
▶ The EVA weighting matrices are inserted or deleted accordingly when changing the mode set of an EVA demand model. This also prevents the generation of corrupt version files. (**8577**)

Dialogs

▶ The characteristics of the numeric cells are now also shifted when inserting new rows in filter dialogs. (**8618**)
▶ The "Combine line routes" dialog is now resizable. (**7632**)
▶ *Setting up the print page:* The dialog did not open correctly and could not be closed. This has been fixed. (**8602**)

PuT Passenger Survey

▶ *Reading a database:* VISUM now displays a warning if the type of a database field is invalid (e.g. single instead of double for floating-point numbers). (**8612**)

Timetable Editor

▶ *Regular service display:* New vehicle journeys are generated when increasing the headway end. So far, wrong departure times were assigned to them, if existing vehicle journeys were shortened at the beginning. This bug has been fixed. (**8598**)

Foreign Formats

▶ *Importing shapefiles:* VISUM no longer crashes when trying to import corrupt shapefiles. A warning will be issued. (**8536**)
▶ *Writing data into a database:* Data can now also be exported to a database when running multiple VISUM instances at the same time. (**8435**)

Graphics

▶ *Parameters for links:* If active and passive links existed in the network, the "Draw until scale"

- setting did not take effect on active links. Instead the value for passive links was used. This has been corrected. (**8599**)
- ▶ *Column and pie charts:* Charts can now also be displayed without restrictions in networks in which the coordinates of the network objects lie within a very small numeric interval. (**8621**)

Graphical Operations

- ▶ *Flow bundle:* Red text and a tooltip are now displayed if the saved set of active objects (links or time profiles) deviates from the current state in the network. A warning is issued in this case. As an option, the saved set can be adjusted to the currently active objects. (**8543**)

Listings

- ▶ Lists now provide analysis rows for attribtues of the value type Bool ("Yes / No"). (**8561**)

Matrix Editor

- ▶ VISUM used to crash when editing a matrix in the matrix editor, switching to the network window and opening a version file. This has been fixed. (**8578**)

Network Editor

- ▶ No program crash occurs, if an assignment including a PuT-Aux-TSys has been calculated and a link is either created or split. (**8588**)
- ▶ Sporadic crashes no longer occur when closing VISUM, if a floating dialog for flow bundles, isochrones etc. is open at that time. (**8575**)

Other Operations

- ▶ *Disaggregate matrix:* In case of weights = constantly 0 for the distribution of a source matrix value, a uniform distribution will be performed. This way, no demand will get lost. At the end, an appropriate warning will appear. (**8591**)
- ▶ *MSA for attributes:* Weight settings are stored now when the procedure parameters window is closed. (**8580**)
- ▶ *Signal offset optimization:* In certain cases, the procedure could crash if multiple coordination groups existed. (**8600**)

Miscellaneous

- ▶ *Options:* A change of the setting "Suppress output of warnings during procedures" now takes immediate effect and not just when starting the program the next time. (**8593**)
- ▶ *User-defined VDFs:* Error messages on problems with user-defined VDFs were also displayed on the interface when starting VISUM via COM. This error has been removed. (**8605**)
- ▶ The provided example KA_DUE.ver requires considerably less memory for the execution of the PrT assignment. (**8615**)

PuT Line Blocking

- ▶ *Line blocking with vehicle exchange:* The procedure used to crash if the initial solution contained blocks without service trips. This has been corrected. (**8597**)

PrT Assignment

- ▶ VISUM 64-bit now distinguishes correctly between 32-bit and 64-bit DLLs for user-defined volume-delay functions. (**8581**)
- ▶ *Excel report for signalized nodes:* The value "Peak 15 Volume" in section "Volume and Adjustments by Movement" is now also issued correctly, if a turn has a value "ICA Peak hour factor volume adjustment" unequal to 1. (**8616**)
- ▶ VISUM does not crash anymore when running a PrT assignment, if a PrT assignment quality list is open at the same time. (**8620**)

VISUM Files

- ▶ *Attribute files of main OD pairs:* These files can now be read. (**8568**)

11.02-09	**Corrections, Bug Fixes and New Features (ID)**	2009-12-15

Data Model

- ▶ *Demand model:* Attribute "ModeCodes" now contains the codes of all allocated modes even if this means all modes of the network. So far, this was encoded as an empty string and thus not clear.

(**8545**)

- ► Demand strata in 4 step models no longer need to refer to person groups or activity pairs. Both references have a descriptive character only and are not mandatory for modeling. (**8562**)
- ► *Demand models and modes:* Demand models do not necessarily have to refer to modes any more. This implies that you can now delete modes without automatically deleting demand models. (**8554**)
- ► *Demand model: VISUM used to crash in certain situations (example:* deletion of a standard time series) in the case of activity pairs which did not refer to activities. (**8569**)
- ► The standard width of crosswalks has been halved. (**8426**)
- ► Version files can now also be read, if they contain aliases for attributes which have become obsolete in the meantime. (**415**)
- ► Signal groups with a green time of 0 were not considered when converting signal group-based SCs to stage-based SCs, which led to incorrect data. This might lead to modified results during signal timing optimization. (**8541**)

Timetable Editor

- ► *"Expand selection tree" functionality:* The tree now always opens entirely to the lowest level (time profiles). (**8501**)

Graphics

- ► *Network Editor:* On certain computers the use of the scrollbar in the network window caused a crash in case of smaller networks. (**8565**)
- ► Inserting a node: Zooming in the network window could lead to a crash if the node number suggested during the insertion had previously been edited. This has been fixed. (**8563**)

Listings

- ► *Lists:* Checkboxes embedded in lists can now be switched with the spacebar. (**8553**)
- ► User-defined attributes of type File can now also be selected in lists (and Quick View, Junction Editor etc.) via an icon and via entries in the context menu. (**8445**)

Demand Operations

- ► Zone attributes can now also be used in the utility definition for mode choice, nested mode choice and time-of-day choice, both regarding the origin zone and regarding the destination zone. The origin and the destination zone were exchanged internally in those utility terms. This bug has been fixed. The correction might lead to changes in the procedure results, if you use the corresponding terms in the utility of the procedures. (**8557**)

Network Editor

- ► Shift view mode ("hand"): The marking in the network is no longer discarded when switching to the "hand" mode. (**7599**)
- ► Corrupt data will no longer be generated if an isochrone display is specified in the graphic parameters and the underlying mode is deleted. (**8546**)

Miscellaneous

- ► Short Tutorial "How to model Park + Ride in VISUM" has been added to the Examples of the installation. (**8559**)

PuT Line Blocking

- ► Crashes no longer occur during operation PuT line blocking with vehicle exchange, when exchanging vehicles for entire chains. (**8542**)

PrT Assignment

- ► The link attribute "ICA Upstream Adjustment" is now considered during the ICA calculation. The incremental wait time and the average back of queue are now correct for input values other than 1. (**8551**)
- ► VISUM only loads DLLs found in the project directory for user-defined VD functions, if the platform (win32 or x64) is identical to the one of the loading VISUM. This way DLLs can coexist for both platforms in the same directory. (**2456**)
- ► In case of very high volumes, the procedure did not converge at times when selecting the control type "all Way Stop". As a result, the ICA report was unreadable due to very high numbers. This has been fixed. (**8548**)

PuT Assignment

▶ *PuT assignments:* The aggregation of paths now consumes less memory. (**8552**)

VISUM Files

▶ *Demand distribution parameters:* The attribute "transformation" for terms of the utility definition is now also preserved when reading PAR or VER files. (**8544**)
▶ *XML procedure parameters file:* The program no longer crashes when exporting the parameters of the Line Blocking operation. (**8555**)

11.02-08	Corrections, Bug Fixes and New Features (ID)	2009-11-30

Data Model

▶ *Major flows:* In individual cases, automatic major flows with just one orientation used to be determined in case of one-way roads in opposite directions at a node or main node. This has been corrected. (**8532**)
▶ *Memory consumption after reading version files:* The program requires considerably less memory for turns when reading version files saved with VISUM 10. This only affects networks with a very large number of turns (several millions). (**8531**)
▶ The attribute Volume-PrT [Veh] is now also provided at connectors. (**8527**)

Dialogs

▶ When creating/deleting/shifting operations or groups, the Go To address is now automatically adjusted so that is refers to the same operation as before. If the operation at the Go To address is deleted, it refers to the following procedure. If it cannot be referenced, it refers to the first procedure. (**8473**)

Foreign Formats

▶ *ANM export:* A warning is now issued if the network contains dynamic network volumes (i.e. per time interval) yet no dynamic route volumes. (**8028**)

Graphical Operations

▶ *Reading a version file:* Flow bundles are no longer calculated twice when reading a version, if the version file contains an OD pair filter. (**8521**)
▶ *Flow bundle bars:* A matching flow bundle bar can now be created automatically when executing a flow bundle. (**8416**)

Listings

▶ Lists for zones and OD pairs now automatically respond to changes in matrix values. (**7221**)

Network Editor

▶ *Aggregating lines:* The run times on newly created time profiles are now also correct if the lengths on the underlying line routes have a constant value of zero. (**8533**)
▶ *Editing IDs:* When editing IDs (e.g. node numbers), after certain operations (e.g. deleting nodes and connecting links) network objects were still displayed even though they had been deleted. This has been fixed. (**8507**)
▶ *Network check:* When checking for links that are traversed more than once by the same line route, aside from the line routes affected links can now also be set active in order to analyze them more easily afterwards. (**8480**)

Other Operations

▶ Setting operations to "active" during the execution that were initially passive no longer causes an infinite loop. (**8530**)
▶ Operation "Run script": The operation is no longer initiated twice. (**8529**)

Miscellaneous

▶ Sporadic crashes no longer occur at the end of the program, when using a CodeMeter dongle. (**8534**)

11.02-07	Corrections, Bug Fixes and New Features (ID)	2009-11-24

COM Interface

▶ *IProcedures.Open:* The parameters 'readOperations' and 'readFunctions' are now interpreted correctly. (**8524**)

▶ The VISUM interface language can no longer be transcribed as a side effect of a ScriptMuuli call (from a script run within VISUM). (**7470**)

▶ *Closing VISUM:* VISUM could not be closed while a script was still running. This has been fixed. (**7364**)

▶ Add-In "Standard timetable": The Add-In now also works if the network does not contain any vehicles journeys yet. (**8518**)

Dialogs

▶ *Graphic parameters dialog, Classification:* The number of decimal places for the class limits now always complies with the specified classification attribute. It is now adjusted immediately when changing the attribute. (**7409**)

▶ *Creating a valid day:* The specification of the preselection for calendar days works correctly again, if the "Week" option has been selected under "Weekdays". (**8222**)

▶ *Flow bundle bars:* All parameters of the reference bar (= bar with matching network volume) can now be copied when specifying a flow bundle bar. (**8415**)

Foreign Formats

▶ *Emme import:* Invalid link walk times no longer emerge if the From Node and the To Node of imported links are located on the same coordinate. (**7489**)

Graphics

▶ Under certain circumstances, the display was distorted when drawing turn volumes at links with an edited shape. This has been corrected. (**8503**)

▶ *Flow bundle bars:* The specific flow bundle color is now also used as bar color if the bar does not have a reference bar. (**8470**)

Junction Editor

▶ The program no longer crashes when switching several times between the network editor and the junction editor. (**8505**)

Listings

▶ *Fares in PuT path lists:* If no ticket has been allocated to a demand segment, 0 is now always output as fare. (**8500**)

Network Editor

▶ *Inserting a node:* The control types "two-way stop" and "two-way yield" are now saved correctly when inserting a node. (**8516**)

▶ *Standard values for (main) turns:* Closed turns are now ignored when determining the through turn. (**8523**)

Other Operations

▶ Operation "Open matrix": The operation now only *adds* the read matrix to the target matrix, if this has been specified in the parameters. (**8488**)

PuT Assignment

▶ *Connection import:* An error by the factor of 10^n (n being the number of set decimal places for network volumes) no longer occurs during the import of older connection files with volumes that were saved as integers when converting them to real-valued volumes. (**8525**)

▶ *Timetable-based assignment:* Parallel data access used to cause sporadic crashes when calculating the procedure with several cores. This has been fixed. (**8283**)

VISUM Files

▶ *Reading in ASCII files:* The last row of an ASCII file (e.g. of a matrix in ASCII format) is now also read if it does not end with a line break. (**8497**)

▶ *Reading ATT files:* VISUM no longer crashes when reading attributes of vehicle journey sections with unknown IDs. (**8519**)

▶ *Reading networks:* A crash no longer occurs when completing system route items. (**8520**)

▶ *Reading networks:* A crash no longer occurs if table "Signal group to lane turns" refers to a non-

existent leg. (**8522**)

▶ *Reading networks:* During a network import error messages are no longer issued, if the block attribute "unaudited" is set to 0. (**8502**)

11.02-06	Corrections, Bug Fixes and New Features (ID)	2009-11-17

COM Interface

▶ *Registration: The last registered VISUM now always registers for all possible variants. Example:* Visum 11.01 registers for the keys Visum.Visum, Visum.Visum.11, Visum.Visum.110, Visum.Visum.1101. (**8484**)
▶ The Visum.NumNetObjReferences method now also considers IAttributes objects. (**8481**)
▶ *Add-ins:* VISUM now provides an Add-in which, in accordance with a given headway pattern, creates service trips on all active time profiles. (**8295**)

Data Model

▶ *Inserting line routes:* When inserting line routes, incorrect messages stating that transport systems could not be blocked were issued. This also affected additive network reading. The error has been fixed. (**8492**)
▶ *Editing a node number:* In certain cases, undoing the change of a node number led to a crash. This error has been fixed. (**8483**)
▶ *Links:* A new attribute "Number of touching Line Routes" is provided that specifies the number of lines routes that touch a link. In contrast to the attribute "Number of Lines", the middle of the link does not have to be crossed for this. (**8305**)
▶ A new relation has been created from link type to VD function. (**6683**)
▶ *Crosswalks:* Setting the width or length of a channelized turn or a central island to zero no longer results in invalid crosswalks. (**8476**)

Demand Operations

▶ *VISEVA distribution and mode choice:* In case of a prognosis, the procedure now converges much faster. Moreover, consistent balance factors are now saved when building on an analysis case that did not fully converge. (**8489**)

Network Editor

▶ *Editing zones:* EVA weighting matrices are no longer automatically discarded when editing zones. This now only occurs when inserting or deleting zones. (**8491**)
▶ *Line routes, setting lengths:* In certain cases, VISUM crashed when running this operation. This has been fixed. (**8486**)

PuT Operating Indicators

▶ *Distribution of the fixed penalty:* In case of multiple highest-ranking transport systems with a maximum fixed penalty on a path, the fixed penalty is now distributed to all transport systems in the context of the distribution of revenues. So far, it was randomly allocated to the first highest-ranking transport system. (**8490**)

Miscellaneous

▶ *Python:* Running certain Python scripts under 64bit no longer leads to a crash. (**8493**)

VISUM Files

▶ *Writing versions:* The writing of non-readable version files is now cancelled with a warning. This only happens if the data model contains an error. (**295**)
▶ *Additive reading, Links table:* In certain cases VISUM crashed, if a link had been inserted at a node with a non-standard geometry. (**8471**)

11.02-05	Corrections, Bug Fixes and New Features (ID)	2009-11-11

COM Interface

▶ With VISUM 11.02 the Add-in GIS line buffers can be executed again. (**8456**)
▶ *Add-ins:* A new add-in has been added, which splits a demand matrix for Park & Ride into two parts - the part for the PrT path leg and the part for the PuT path leg. (**8407**)

Dialogs

► To avoid confusion, signal programs can only be saved directly in the directory specified via the project directories. (**8379**)

Timetable Editor

► *Setting the printed page:* The position flags in the "Set up page" dialog were not considered when printing the graphical timetable. This error has been fixed. (**8478**)

Graphics

► The graphics format ECW now works in combination with the 64-bit version of VISUM. (**8336**)
► The graphics format Mr. SID now also works in combination with the 64-bit version of VISUM. (**8337**)

Listings

► The list layout is saved per category and restored when switching between categories. (**8454**)
► A crash no longer occurs when initializing the assignment while a PrT path list on link level is open. (**8449**)
► *PuT path leg list:* The "only PuT path legs" button which hides walk path legs is now available without the add-on module "PuT survey data completion". (**8400**)

Demand Operations

► EVA distribution/mode choice: In case of a prognosis, the modal split before the constraint balancing is used as an additional constraint after constraint balancing (like VISEVA). Moreover, saved balance factors are also reused for mode choice when building on existing results. (**8438**)

Network Editor

► *Marking connectors:* When clicking a zone or a node with just one connector, this connector will now be marked right away without the purple "in-between marking". (**7260**)
► Nodes and zone centroids are highlighted if - depending on the current mouse position - they qualify as endpoints when inserting a connection. (**6192**)
► *Status bar:* The names of the tool bar buttons were not translated in the status bar. This has been fixed. (**8479**)
► VISUM no longer crashes when aggregating lines while the floating dialog is open during the procedure and the VISUM window is minimized and subsequently restored. (**8439**)
► In a few cases, the splitting of zones led to a crash. This has been fixed. (**8466**)
► *Splitting/aggregating zones:* has been accelerated considerably. (**8392**)
► *Editing the shape of PrT paths:* The shape of paths from dynamic assignments or the TRIBUT assignment cannot be edited later. A detailed warning is now issued when calling the operation. (**8427**)

PuT Line Blocking

► *Vehicle exchange:* 1) The evaluation has been changed in such a way that the summary coverage of the demand suffices. 2) If permissible, the small line blocking solution is now forced to enter the large solution. 3) The dialog control for the initial solution parameters has been improved. (**8469**)

PrT Assignment

► In the PrT assignment procedure Equilibrium LUCE, normal turns where not closed at nodes that were part of a main node. For this reason turns between cordon links of a main node could influence the impedance of the node and thus falsify the assignment result. This is no longer possible. (**8437**)
► *ICA test:* A warning is no longer issued if the lane turns of a lane that is not signalized lead past the outside of a channelized turn. (**8442**)

VISUM Files

► *Reading networks, completing line routes:* If the "Create in any case" option is set in the parameters for the shortest path search, links that are opened for this reason will be written in the trace file. (**8436**)
► Standard geometries were generated unnecessarily during ANM exports. This has been fixed. (**8448**)
► *Saving versions:* An incorrect warning was issued when writing versions larger than 5GB. When executing the "Save version" operation, the sequence of operations was cancelled in error in case

of versions >5GB. This error has been fixed. (**8452**)
- *Reading version files:* VISUM could not read version files that contained invalid crosswalks. This has been fixed. The files can now be read, the invalid crosswalks, however, are not contained any more. (**8472**)

11.02-04	Corrections, Bug Fixes and New Features (ID)	2009-10-27

COM Interface

- The Messages object is now restricted in size in order to prevent a memory overflow due to a large number of warnings (e.g. when reading networks). (**8410**)
- Scripts and Add-Ins can now also be executed as operations in Calculate procedures, if a script is already active. (**4164**)

Data Model

- *Reading procedure parameters XML files:* As of the last service pack, all parameters of a procedure were overwritten when trying to replace only some of them by additively reading them. This has been corrected. (**8351**)

Dialogs

- *Graphic parameters dialog, Classifications:* You can now set polygon fill styles when specifying classes. (**7394**)

Foreign Formats

- *DXF export:* Non-ASCII characters are now automatically converted during an export. (**8383**)

Junction Editor

- The status bar now indicates the correct information if the mouse pointer is located on the buttons of the toolbar. (**8421**)

Demand Operations

- Modes of Four Step Demand Models can now be altered afterwards. (**7712**)

Network Editor

- *Editing the shape of PrT paths:* The shape of paths from dynamic assignments or the TRIBUT assignment cannot be edited later. A detailed warning is now issued when calling the operation. (**8427**)

PuT Operating Indicators

- The calculation of the network performance no longer causes a crash, if lines routes traverse the same link multiple times in a zigzag. (**7062**)

Other Operations

- EWS can now also be started if a list is displayed in the foreground. (**7551**)

PuT Line Blocking

- Solving the flow problem could lead to a crash in special cases. The error has been fixed by the manufacturer. (**8417**)

PrT Assignment

- PrT assignment "DUE": Volumes by time interval are no longer discarded at the end of the procedure when using connector shares. (**8431**)
- *PrT skim matrices: Weighted skim matrices for the attributes v0 and vCur included a small calculation error:* The weighted lengths of the paths per OD pair used to be divided by t0 and tCur of the last path instead of by the weighted t0 and tCur. This error has been fixed. (**8409**)

VISUM Files

- *Reading PFD files:* You can now read files which contain non-ASCII characters in comment lines (* at the beginning of the row). (**8413**)

11.02-03	Corrections, Bug Fixes and New Features (ID)	2009-10-16

COM Interface

▶ The Multi-Edit Attribute add-in now correctly handles errors during the expression evaluation and no longer hangs. (**8357**)

▶ *Edit key:* Via COM interface, attributes which are part of a multi-part key (e.g. LineRoute.Name) can no longer be edited in a way that the same key is used twice. (**8235**)

▶ The SetModule functionality which enables/disables selected add-ons for program start works correctly again. (**8370**)

▶ The add-ins for the display and creation of fare subzones are correctly localized in English now. (**8385**)

Data Model

▶ *Aliases:* Deleting a user-defined attribute for which an alias has been defined no longer triggers a crash. (**8345**)

▶ *XML file for procedure parameters:* The attribute "OperationType" is mandatory now, since only from this attribute VISUM can extract the information which of the procedures has to be created. (**8360**)

▶ *Nodes / Main nodes:* The value "Cycle time" of the attribute "ICA SC Optimization Method" has been renamed to "Cycle time and greentime". (**8326**)

▶ The data model of demand objects was re-engineered in many respects and thus been corrected. 1) Demand models of the 4-Step type use only activity pairs now, demand models of the EVA type now also use activities. Activity chains are regarded by models of the VISEM type only. Accordingly, demand strata refer to either an activity pair or an activity chain. 2) When a DMD file is read, consistency is checked completely and data is refused in case of consistency vialoations (appropriate message output). 3) A new dialog window allows for comfortable definition of activity chains. (**3212**)

Dialogs

▶ *"User" property page:* Two separate buttons are provided for UDAs of the "File" type - one for editing the path and one for loading the file. (**8346**)

▶ *"Completing line routes" window:* Now, the option "Accept for all TSys" regards all of the parameters provided in this dialog window. (**8374**)

Filters

▶ *OD pair filter:* VISUM will no longer crash after selection of an indirect attribute. (**8363**)

▶ *Reading a filter parameters XML file:* Reading filter data from file could cause a program crash in certain cases, if indirect attributes had been set. (**264**)

Graphics

▶ The memory leak could be abolished which used to occur when complex polygons (especially those with holes) were drawn. (**8365**)

▶ In certain cases, no flow bundles could be calculated after conversion of PrT paths into paths resulting from assignment. This bug could be fixed. (**8380**)

▶ *Bars for flow bundle attributes: Bar labeling has been modified in a way that the relation between the flow bundle bar on top and the volume bar underneath appears more clearly. Example:* 42 (60). (**7335**)

▶ *Lanes on links:* At main nodes, drawing the main turns whose links lead to different partial nodes within the main node has been improved. (**8391**)

▶ Under certain circumstances (and engine-dependent) reading a version from file could lead to a termination and the message "Cannot create bitmap" appeared. This bug was fixed. (**8398**)

Graphical Operations

▶ PuT flow bundle "active links": In this special mode of PuT flow bundle calculation a computation error occured which caused, that too many paths were classified as flow bundle paths. Thus, also outstanding flow bundle volumes were calculated. This bug could be fixed. Please note, that "normal" link usage calculation was not concerned. (**8382**)

Installation

▶ *Python:* The pyproj library that is now automatically installed with the Python package for VISUM is a set of Python routines which can convert from geographic (longitude,latitude) to native map projection (x,y) coordinates and vice versa. (**8350**)

Junction Editor

▶ *VISSIG:* VISUM can now handle and store external control data with the VISSIG module. (**8130**)
▶ Clicking the "Test ICA calculation" button now also provides the information whether the ICA calculation method has been selected for the selected node. (**7907**)
▶ In the signal timing view, the height of multiple data rows can now be changed simultaneoulsy. (**7767**)
▶ In the signal timing view, deleting a signal group via right-click called an error message in certain cases. This behaviour could be corrected. (**8164**)
▶ Clicking the "Test ICA calculation" button will no longer call warnings on different signalization settings for channelized turns. (**8376**)

Network Editor

▶ The network window used to lose the focus when buttons were clicked in the layer panel. This undesirable behaviour has been corrected. (**8168**)
▶ *Specifying a polygon:* Not regarding the graphic parameter settings, both the polygon and the rubber band are always visible during specification. (**7224**)
▶ *Multi-Edit:* It does not make sense to provide the time profile items attributes "Departure" and "Arrival" for multi-editing. They have been removed from the list of attributes in the multi-edit window. (**7182**)

Other Operations

▶ *Signal timing optimization:* The procedure has been re-engineered essentially. Now the output greentimes are rounded to 1/10 seconds. (**7924**)

Subnetwork Generator

▶ The sub-network file generated from a network version with the property "Matrix data to be retained in version" will no longer include corrupt data. (**8389**)

PrT Assignment

▶ *PrT assignment with warm start:* VISUM used to calculate faulty impedance values after warm start in combination with proportional connector shares and demand values that had been changed from 0 to >0 when the assignment result was adjusted to the new demand data. (**8375**)
▶ VISUM will no longer crash when a PrT assignment is started after changes to a node number in the Junction editor. (**8387**)
▶ *PrT assignment with warm start:* VISUM used to crash when a PrT assignment was executed which was based on an initial solution while the PrT assignment quality list was open simultaneously. This bug could be fixed. (**8368**)

PuT Assignment

▶ *Timetable-based assignment:* Assignment results on service trip items level can now also be obtained in the "Regard connectors with percentages" mode. In VISUM 11, this also applies to trip-related passenger transfers. (**8264**)
▶ *Fix supplements for fare calculation:* If a path includes multiple top-ranking TSys, the fix supplement now is the maximum of all fix supplements of all top-ranking TSys. In previous versions, the fix supplement of any of the top-ranking TSys was used instead. (**7094**)

VISUM Files

▶ *Import from ATT file or clipboard:* The target attribute is recognized automatically, if length-based attributes as for example "CostEmptyKm" are imported. In previous versions, VISUM used to search for a miles-related attribute ("CostEmptyMi" in this case). (**8373**)
▶ *Reading a procedure parameters XML file:* The "active" attribute at "operation" is no longer obligatory, "True" is assumed as the default. An additive reading process of such files is thus no longer aborted if the attribute is missing. (**8338**)
▶ *Reading a network file:* While reading signal-group data with stage-based control strategies the faulty message 'Greentimes are not subject to changes' used to appear. The signal groups were not created by mistake. This bug could be fixed. (**8362**)
▶ *Matrix window:* :Matrices with a : character in the filename could not be saved to file. The : is replaced by a dash now. (**8366**)

COM Interface

▶ Scripts and Add-Ins can now also be executed as operations in Calculate procedures, if a script is already active. (**4164**)
▶ The Multi-Edit Attribute add-in now correctly handles errors during the expression evaluation and no longer hangs. (**8357**)
▶ A new add-in displays the currently marked (main) node as a Google Maps aerial view in the browser. This lets you quickly check the junction geometry. (**8355**)
▶ *Running scripts:* Graphic output commands like "Screenshot" now also work run from a script integrated in the sequence of procedures. (**8339**)
▶ *StopDrawing:* The StopDrawing mode has been accelerated once more. Always turn on the StopDrawing mode, if your script contains individual commands which alter data in VISUM. (**8349**)

Dialogs

▶ *Graphic parameters dialog, Chart page:* The "Enter a number" message is now only issued if there is really no value specified under Label – Size. (**8324**)
▶ *Procedures dialog:* A crash no longer occurs if you switch from procedure type "Group" to another value while the group is folded in. (**8321**)
▶ *Stop dialog:* Different small inconsistencies in the operating logic of the "specific transition times" grids have been eliminated. (**8327**)
▶ *Filter dialog:* A meaningless yet harmless error message used to be issued when entering numerical values <= 0. It has been removed. (**8342**)

Timetable Editor

▶ *Inserting a vehicle journey:* After the insertion of the *first* vehicle journey on a line route, in the "hierarchical" mode the stop sequence is now recalculated automatically. The item data of the new vehicle journey (at the bottom right) are thus immediately visible. (**8270**)

Filters

▶ Filters are reevaluated automatically if you use an attribute with subattribute "Current analysis time interval" and switch the interval. (**8201**)

Graphics

▶ *2D isochrones:* You can also set transparency for the classification colours of the 2D display. (**8182**)
▶ Screenshot in preview mode and SVG export procedure in preview mode clips correctly and includes background. (**8275**)

Installation

▶ *Python:* The pyproj library that is now automatically installed with the Python package for VISUM is a set of Python routines which can convert from geographic (longitude,latitude) to native map projection (x,y) coordinates and vice versa. (**8350**)

Junction Editor

▶ *Signal times editor:* Amber times are now displayed correctly, if a stage contains both pedestrian groups as well as vehicle signal groups. (**8285**)

Listings

▶ List views providing 2 toolbars (e.g. time profile items): Toolbars are positioned within one row if possible. (**8356**)

Network Editor

▶ *Editing the shape of line routes:* When dragging a VER file or similar to VISUM using drag & drop while editing the shape of a line route, the Edit Shape Mode is terminated properly. (**7940**)
▶ *Inserting surfaces:* Polygon points of adjacent surfaces can now be "caught" immediately when inserting the new polygon of a zone, territory, etc. and not just when subsequently editing the shape. (**6989**)

PuT Operating Indicators

▶ Coupled trips that exceed midnight no longer trigger a crash. (**8288**)

Other Operations

► *Successive averages for attributes:* The calculation is now cancelled with an error message if you try to assign invalid values to an attribute. (**8312**)
► Within edit attribute, the "cut instaed of round" option now works correctly if the source attribute has type Precise Duration and target attribute has type Time Period. (**8236**)
► *"Edit attribute" procedure:* The procedure can now also be run for signal controls. (**8320**)

Subnetwork Generator

► *Isolated nodes:* Isolated nodes which are exported because they belong to a stop are now considered "inside the subnetwork" if and only if they are active. As a result, in the subnetwork less cordon zones will be generated. (**8322**)

PrT Assignment

► *ICA report:* Some stage names of lane groups were incorrect. This has been fixed. (**8298**)

VISUM Files

► *Reading a version:* The OD pair filter is now only re-evaluated if it is set and not empty. (**8133**)

TFlowFuzzy

► At the end of the calculation memory freeing has been clearly accelerated. (**8314**)

11.02-01	Corrections, Bug Fixes and New Features (ID)	2009-09-07

COM Interface

► *POI filter via COM:* You may now specify filter criteria for user-defined attributes of POI categories. (**8011**)
► *AddAlias, RemoveAlias:* These COM functions now work with both upper and lower case for table and attribute ID. (**8173**)

Dialogs

► *Dialog "File Properties":* The value of the "Lagged matrix data loading on demand" property is displayed correctly when opening the dialog. (**8281**)
► *PrT Assignment parameters:* The grids for the number of balancing iterations handle user input correctly again. (**8313**)
► *Filter dialog:* Copy and paste now works in this dialog without restrictions. (**8290**)
► *Stop dialog, grids for walk times:* Several small bugs in the input functionality could be fixed. (**8268**)

Filters

► *Attribute "In Desire Line":* The zone filter and the main zone filter are now updated automatically if the allocation of this attribute changes. (**8151**)

Junction Editor

► After selecting lanes in the upper view, misleading warnings no longer interfere with editing the associated signal groups. (**8292**)
► *ICA report:* Under 64bit operating systems, the report partially contained "NaN" instead of numbers. This error has been fixed. (**8291**)

Listings

► *PuT paths list:* In the paths list, the display of the fare is now also correct if a column with an indirect attribute "PuT Relation" is contained in the layout. (**8239**)

Network Editor

► Crashes no longer occur if the network is deleted while the floating dialog for line routes or similar is open. (**8293**)

PrT Assignment

► In ICA node impedance calculations VISUM now computes ICA Final Cap für U-turns correctly. Only one special case was incorrect. (**8272**)

PuT Assignment

▶ *Timetable-based assignment:* Assignment results on service trip items level can now also be obtained in the "Regard connectors with percentages" mode. In VISUM 11, this also applies to trip-related passenger transfers. (**8264**)

VISUM Files

▶ *Opening a version from Windows Explorer:* VISUM no longer freezes when displaying the splash screen if a warning is issued while loading the version. (**8286**)
▶ *ANM export:* Even if more than one connectors end in the same main node, the generated files are readable in VISSIM. (**8284**)

TFlowFuzzy

▶ The operation has been accelerated tremendously. (**8296**)
▶ The memory requirements for the matrix correction procedure TFlowFuzzy have been reduced once more. (**8307**)

11.02-00	Corrections, Bug Fixes and New Features (ID)	2009-08-27

COM Interface

▶ Besides GetAll, a new method GetAllActive is provided. This variant is required because Python cannot interpret the Boolean default parameter "onlyActive" of GetAll. (**7987**)
▶ *Backgrounds via COM:* The position and the file name of backgrounds can now be read via COM. (**8150**)
▶ *Network window:* A new COM functionality offers access to the handle of the network window. A corresponding functionality already exists for the VISUM main window. (**7894**)
▶ *Windows:* New COM functionalities allow the arrangement of all open windows and the display of the entire network. (**8241**)

Data Model

▶ *Matrices:* A new property of the version file permits to keep matrices in the version file until they are needed instead of loading them into the memory straight away. This saves time especially if you read versions with extensive matrix data and can only access a few or no matrices at all. (**7837**)
▶ *Matrices:* The handling of matrices with rows of zeros is much faster. (**8221**)
▶ *Network objects of geometry and signal control:* Those network objects can now have user-defined attributes. (**8116**)
▶ *Delete TSys:* Node topologies are not discarded if the TSysSet of a neighbouring link is cleared completely due to the deletion. (**8237**)

Dialogs

▶ *EVA Weighting, parameters dialog:* 1. An empty entry is now permitted as "Max" value. 2. You can mark any section of the grid to use functionalities such as "Copy". (**3183**)
▶ *Dialogs of the EVA procedure:* A new context-menu entry permits to quickly transfer data from one demand stratum or person group to all others. (**3185**)
▶ *Grid context-menu functionality "Paste cell"*: Invalid values are now rejected with a detailed warning. (**3187**)
▶ *Link bar parameters:* Changes to the fill style in the dialog are now also applied correctly if the fill colour remains the same. (**228**)
▶ *License dialog:* The description texts of several Add-On Modules have been modified to be consistent with the price list and the shipping order. (**8131**)

PuT Passenger Survey

▶ You can now define maximum transfer times for pre-/succeeding path legs. These are independent of the existing tolerances for the deviation between departure times determined by a search and predefined departure times. (**126**)

Filters

▶ *Screenlines filter:* The settings of this filter are now saved with the version file. (**8056**)

Foreign Formats

▶ Improved error message in shape file import, if inconsistent multi-polygons are read. (**8251**)
▶ *Reading an mdb:* A warning is now issued if the reading of POIs fails because the referenced POI category is unknown. (**7624**)

Graphics

▶ An automatic redraw now also takes place when executing the Multi-Edit functionality "Create Add Value data" for links. (**8227**)
▶ *Link bars with undirected values:* In case of undirected values, link bar labels are now displayed in uniform order at all links. (**8248**)
▶ *Legend for line bars:* In the "Regard only active line routes" mode, only those lines, main lines, or TSys are displayed that have at least one active line route. (**8266**)

Junction Editor

▶ The export of the ICA report now has a correct title in Chinese. (**8253**)

Listings

▶ *POI lists:* Layout files of POI lists now include the specified POI category. (**7576**)
▶ *Lists, analysis rows:* The program no longer freezes when allocating the statistics rows, if the list contains attributes whose calculation requires the generation of node topologies. (**8258**)

Network Editor

▶ *Line routes:* The "Create opposite direction" functionality now also works if the two directions of a link differ in the number of link stop points. (**207**)
▶ VISUM no longer crashes when opening a new network if the network editor is in the state "Turns", "Main Turns", or "Turn Volumes". (**8259**)

PuT Line Blocking

▶ *Interlining:* A new option permits a restriction to active system routes. (**8065**)

PrT Assignment

▶ *ICA:* VISUM no longer crashes in the event of invalid major flows. (**198**)
▶ When calculating Node impedances using ICA, turns with zero volumes now receive a capacity (in 'ICAFinalCap') calculated the same way as for turns with volume. Previously, their capacity was set to '1' (**8260**)

VISUM Files

▶ *Block versions:* The IDs of block versions are now retained when saving a version and reading it back in. So far consecutive numbers from 1 to N were assigned when read in and the original IDs could get lost. (**8091**)

11.01-08	Corrections, Bug Fixes and New Features (ID)	2009-08-13

COM Interface

▶ If an insert of a matrix object via COM fails, VISUM no longer shows a message box with an error. Instead VISUM throws an exception. (**8242**)

Data Model

▶ If you set a WKT geometry attribute to a new value, VISUM will now safely ignore line breaks in the new data, because they are not significant. (**8153**)

Dialogs

▶ *Edit line route dialog:* Both the From Line Route Item and the To Line Route Item are now highlighted on the left, if a shifted attribute is marked on the right (e.g. Coupled Time Profiles). (**7741**)
▶ *Edit line route dialog:* The times are now also displayed correctly when deleting a profile point above a fixed departure time on a time profile with dwell times. (**7366**)

Listings

▶ The OD pairs listing now consumes less memory and scrolls much more rapidly. (**8224**)

Network Editor

▶ *Reset icons:* The functionality arranges the toolbars side by side again. (**8243**)
▶ *Creating a main zone:* VISUM no longer crashes if a filter is set for Main OD Pairs while creating a main zone. (**8240**)
▶ *Line Route:* You can insert an opposite direction if there are at most only as many link stop points with a stop event for the opposite direction as for the original direction. (**207**)

Other Operations

▶ The calculation of skim matrix diagonal values from the smallest n values in the same row / column runs much faster now. (**8244**)

PuT Line Blocking

▶ When deleting a stop point, all block items (including empty trips and layover items) that start or end at this stop point will be deleted. (**8254**)
▶ Depot feeds in opposite directions could lead to empty blocks that were free in the procedure in case of simultaneous arrival and departure times. These are now suppressed, i.e. they are not transferred to the data model. (**226**)
▶ *Block check:* A location error no longer occurs in case of closed blocks with exactly one vehicle journey, if empty trips are permitted. (**199**)

PrT Assignment

▶ *Reading versions:* When reading PrT assignment paths with variants (Tribut and DUE), the variant information is now read correctly. Several variants can thus be displayed per path tree and per OD. (**8247**)

VISUM Files

▶ *ANM export:* You can now specify which stop points shall be displayed as lay-bys in VISSIM and set the length of each stop point. (**7793**)

TFlowFuzzy

▶ The memory requirements for the matrix correction procedure TFlowFuzzy have been reduced. (**7302**)

Known bug alert: In the current release (11.01-08) VISUM may crash, if you have computed line blocks and then delete a network object which is referenced by the line blocks. In such a case you should first manually delete the line blocks. A future service pack will safely adapt line blocks to any network changes

11.01-07	Corrections, Bug Fixes and New Features (ID)	2009-08-03

COM Interface

▶ *Marking:* The Marking interface works also for PrT paths now. (**8074**)

Data Model

▶ Editing mode choice procedure parameter can longer lead to inconsistent data and corrupt version files. (**8212**)
▶ *Geometry and signal control:* The node filter and the main node filter are now also used on objects of the geometry and the signal control: The lists now provide a "Show Only Active Objects" button and the "Save only active network objects" option takes effect when writing network files. (**8169**)
▶ *Indirect attributes:* Zone and main zone relations now have a reference to the opposite direction. (**8214**)
▶ *Delete TSys:* Node topologies are only discarded if the TSysSet of a neighbouring link is cleared completely due to the deletion. (**8237**)
▶ *Specific stop transition times:* Deleting time profiles and the associated Undo functionality used to require extensive memory in networks with numerous specific stop transition times. This problem could be discarded. (**7129**)

Dialogs

▶ *Dialog page "User-defined attributes":* A previous attribute selection is now retained when closing and reopening this dialog. The malfunction occurred since Service Pack 11.01-06. (**8196**)
▶ *Zones and Main zones:* The property dialogs are resizeable now. (**7673**)
▶ *Graphic parameters dialog, "Basis" page:* VISUM no longer crashes when clicking the "Use for all markings" button. (**8213**)
▶ *Graphic parameters dialog:* The Fill Style attribute is now also recorded in the bar tabs. (**7713**)
▶ *License dialog:* The description texts of several Add-On Modules have been modified to be consistent with the price list and the shipping order. (**8131**)
▶ *Save network:* In this window, also quick checking and unchecking of attributes via space bar affects the number of exported columns now. (**8167**)

Difference Network

▶ VISUM no longer crashes if the automatic generation of backup copies is activated. (**6720**)

Foreign Formats

▶ *Hafas import:* The import was terminated in individual cases, because the decimal separator was not recognized correctly. The error has been fixed. (**8124**)

Graphics

▶ *Line bars:* The display order of line bars in the legend now corresponds to the order of the bars in the network. (**8219**)

Graphical Operations

▶ *Main zone flow bundle:* In certain cases, not all paths could be found. This bug has been fixed. (**8233**)
▶ *Flow bundle:* A crash no longer occurs when exiting VISUM while the "Flow bundle" dialog is open. (**8204**)

Demand Operations

▶ *EVA weighting:* With the new function type "None" matrices can be used without transformation of their values. (**3186**)

Network Editor

▶ *Nodes Multi-Delete:* Link attribute "Number of lanes" serves as additional criterion for option Connect links. (**7977**)
▶ *Line route selection dialog:* VISUM no longer crashes when clicking a stop in the network and subsequently double-clicking a cell of the selection dialog. (**8181**)
▶ *Shortest path search for main turns:* The length of the shortest path can now be stored in an attribute, if main turn data is created from shortest paths (**8108**)
▶ The context menu entry for column charts was missing sometimes. This bug has been fixed. (**8225**)

PuT Operating Indicators

▶ *PuT operating indicators:* Time costs/distance costs for territory and PuT detail are now calculated in the same way as for objects of the line hierarchy:
1) Dwell times at the end of a vehicle journey section are not considered in the calculation.
2) If the start stop point of a vehicle journey is a link stop point, the partial run time and length from the link stop point is considered provided that more than 50% of the link is traversed (**8127**)

Other Operations

▶ *Procedure "Edit attribute"*: If option "Constant" is active, the input value is now interpreted according to the current unit settings (metric/imperial). (**7495**)

Subnetwork Generator

▶ The IDs of vehicle journeys in the subnetwork now always correspond to the IDs of the original vehicle journeys in the original network. (**176**)
▶ VISUM no longer aborts if the number of decimal places for attributes is set to values > 6 in the network parameters. (**8191**)
▶ A crash no longer occurs if a PrT route exits the active network exactly where it entered it. (**8211**)

PrT & PuT Assignment

▶ Calculating a PuT assignment as well as a PrT assignment considering connectors with percentages no longer leads to corrupt data. (**8193**)

PuT Assignment

▶ The memory consumption could be reduced significantly when using MPA. (**8183**)

VISUM Files

▶ *ANM export:* VISUM now exports nodes with pockets that are located between through lanes in such a way that they can be imported in VISSIM. In the process these pockets can be shifted to the margin. (**7785**)
▶ *XML file for procedure parameters and filters:* In XML format, certain characters must not be within quotation marks: ", ', <, >, and &. During an export, such characters are now transformed in such a way that they can be read again without any data loss. (**8186**)
▶ *Read DMD file:* The options "Show warnings on screen" and "Show error messages on screen" now also affect the DMD import. (**8216**)

11.01-06	Corrections, Bug Fixes and New Features (ID)	2009-07-14

Data Model

▶ A faulty calculation of the angle of lane turns at main nodes prevented the insertion of further lane turns even though it was permitted. (**8083**)

Dialogs

▶ *Graphic parameters dialog, "Link Bars" page:* Under certain circumstances instead of a proper layer name an "Error" entry was displayed in the "layer order" grid. This error has been fixed. (**8082**)

Timetable Editor

▶ *Graphic parameters for item bars:* The set bar attribute is no longer lost when saving and reopening a timetable editor GPT file. (**7853**)
▶ Closing VISUM the program used to crash when selecting a line route via the line route dialog while the timetable editor was open. (**8155**)
▶ Scrolling in the timetable editor could produce a state where the rows in the lower views were shifted against each other by one. (**8154**)

Foreign Formats

▶ *SVG export:* The export of SVG files is fully Unicode-enabled again, so that problems with Russian characters in particular can no longer arise. (**7512**)
▶ *SVG export:* Backgrounds in SVG format are now also exported during an SVG export. (**7092**)

Graphics

▶ *Link bar labels at digitized links:* When selecting the text position "in the middle", labels are now also drawn if the middle section of the link polygon is too short. The text box will not be displayed any more only if it is larger than the distance between the From-Node and To-Node of the link. (**8128**)
▶ In the network window the print frame can also be displayed with a dashed margin. (**8015**)
▶ *Screenshot:* Screenshots of texts no longer contain the arrows at the edges of the text box which are used to rotate the texts. (**8171**)

Junction Editor

▶ The sorting of the lane turns in the list view has been improved. (**8160**)
▶ A click on a "Switch to node…" selector used to cause a crash if the "Show also closed turns" option was not selected in the "Turns" view. This error has been fixed. (**8162**)
▶ (**8166**)
▶ Standard geometries at main nodes used to contain intersecting lane turns if the angles of the cordon links were unfavourable. The error has been fixed. (**8163**)

Network Editor

▶ *Line route, inserting the opposite direction:* The creation of the opposite direction was cancelled

with a warning in certain cases in connection with link stop points. This error has now been fixed. (**8177**)
- ▶ *Editing the shape of line routes:* A crash no longer occurs if a filter is set for Main OD Pairs while editing the shape of a line route. (**8180**)
- ▶ *Aggregation of zones according to main zones:* The operation has been accelerated considerably. (**6892**)
- ▶ *Dialogs for SVG and DXF export:* When shifting or enlarging these dialogs, the network window in the background was not updated properly. This resulted in „stripes". This bug has been fixed. (**8172**)

PuT Operating Indicators

- ▶ *All skims which take couplings into account:* Couplings were not completely accounted for if a vehicle journey had coupling sections, one of which started after midnight (departure time > 24:00) and the coupled vehicle journey had a standardized departure time (0 to 24 o'clock). (The error occurred since 10.03.27 and 11.00.09 only.) (**8175**)

Other Operations

- ▶ *Signal coordination:* The procedure now takes into account main nodes. (**8158**)
- ▶ *Signal coordination:* The procedure no longer freezes if a path leads via the same SC twice in succession. (**8159**)

Miscellaneous

- ▶ The supplied python script for displaying vehicle positions in the network no longer aborts when regarding a time in which a vehicle journey reaches its final stop. (**8129**)
- ▶ Under "Documentation", the Manual, the Online Help and the Quickstart Tutorial for VISUM 11 can now be downloaded as separate documents. (**8055**)
- ▶ *Menu:* Russian names are now displayed correctly in the script menu. (**8101**)

Subnetwork Generator

- ▶ *PuT model in general:* The treatment of objects of the PuT model has been improved in several ways.
  A) Analogous to PrT paths, PuT transfer walk legs now obtain cordon zones right where they enter or exit the active subnetwork. Demand can no longer be lost.
  B) Entire stops are now transferred to the subnetwork if at least one of the assigned stop areas is part of the subnetwork. The transfer times matrix is no longer lost.
  C) The part of a line route lying within the active subnetwork is now determined directly from the active status of the links. (**7950**)

VISUM Files

- ▶ *Reading a version file:* Program crashes no longer occur if the version file contains open lists of type "Assignment Analysis" or "PrT Assignment Quality". The error occurred since Service Pack 11.01-04. (**8174**)
- ▶ *Reading version files:* Warnings concerning missing background files can now be suppressed (**8156**)
- ▶ *Reading signal groups from a network file:* The attributes Yellow, Amber and ICA Loss Time Adj are no longer lost. (**8041**)
- ▶ *ANM export:* VISUM no longer saves warnings to the error file regarding inconsistent transport systems at lanes if those transport systems are not exported. (**8165**)
- ▶ *PuT functions, Fares parameter:* The "Fixed supplements = Apply to path leg" setting is no longer lost when writing and re-reading a VER or PAR file. (**8184**)

11.01-05	Corrections, Bug Fixes and New Features (ID)	2009-07-01

COM Interface

- ▶ *Add-Ins:* The "Buffers around PuT lines" Add-In no longer aborts with an error caused by an overflow, if the generated buffers are very large. (**141**)

Data Model

- ▶ *Lane turns:* You can now define multiple lane turns from a lane to the same target leg. This e.g. serves to model trams in central position. (**7414**)

Filters

▶ *Main node filter:* The filter status for main nodes is now correct immediately after reading a version file. (**174**)
▶ *Reading filters:* When reading in filter files, you can now choose to initialize the filters which are not contained in the file. (**7572**)

Graphics

▶ *SVG export:* The dialog for specifying the output page has been completely revised and enhanced. (**8145**)
▶ *SVG export:* Rotated backgrounds and images at POIs are now positioned correctly when exporting to SVG. (**8144**)
▶ *SVG export:* When clicking on a network object the output of the ID now works in any common browser. (**8143**)
▶ *SVG export:* VISUM does not write original coordinates as a standard any more. The header of the file now includes export settings and used transformation parameters as VISUM attributes. (**8139**)
▶ *Bar labels:* Line bar labels work again with constant texts as an alternative to network object names. (**8019**)
▶ *Graphic parameters, 2D display:* You can now enter the v-access value both in km/h and in mph. So far, VISUM interpreted the entry in km/h. (**2699**)

Junction Editor

▶ In the node dialog, all control types are now available when creating a node. (**8120**)
▶ *Geometry view:* In some situations, the radio button for stages was selected even though a different network object type was active. The error has been fixed. (**8126**)
▶ *Junction Editor:* The widths of columns that were adjusted are now retained when editing network objects. (**8099**)

Listings

▶ *Sorted lists:* Editing a cell in the "show only active objects" mode no longer discards the sorting. (**7858**)

Demand Operations

▶ *Reading a VHD file:* Since service pack 11.01-04 activity chains could no longer be read in. The error has been fixed. (**8119**)

Network Editor

▶ *Network Editor, Multi-Delete Nodes:* The conversion of node stop points to link stop points did not work in case of links of length 0 when deleting multiple nodes. (**8132**)

PuT Operating Indicators

▶ PassKmTrav, ServiceKm etc.: Calculation errors could occur if the end of a vehicle journey section lay before the end of the vehicle journey, if the stop time > 0 at the last stop of the vehicle journey section, or if the run time between the last but one and the last stop of the vehicle journey section = 0. This has been fixed. (**7972**)

PrT Assignment

▶ *LUCE:* Paths through the link network are no longer calculated if origin and target connector nodes of different zones lie within the same main node. (**8137**)
▶ Calculating DUE with a lot of time intervals no longer produces a memory error. (**8121**)
▶ *LUCE:* The gap indicated in the PrT assignment quality list is now correct for LUCE assignments even if the car units of the assigned TSys were unequal to 1. (**8147**)

11.01-04	Corrections, Bug Fixes and New Features (ID)	2009-06-22

COM Interface

▶ *SaveToAccessDatabase:* The database is now closed again once the command is executed. (**8114**)

Data Model

▶ *Demand models:* The existence of a demand model is no longer required. (**3206**)
▶ *EVA weighting matrices:* Corrupt networks could sometimes emerge if the network contained EVA weighting matrices when inserting or deleting zones. The error has been fixed; the weighting matrices are now deleted in this case. (**8085**)
▶ *EVA weighting matrices:* Deleting weighting matrices produced a memory leak. This has been fixed. (**7896**)
▶ The matrix attribute "Content" has been renamed "File name". As before, the file name saved therein is the path used when saving or opening the file last. The matrix data, however, *live* in the main memory. (**7733**)
▶ *PuT link run time:* Attribute values outside of the valid value range can no longer occur if you create new links or link types. (**8096**)

Dialogs

▶ *Backgrounds, shape layer dialog:* Changes to the drawing order now take immediate effect, not just when clicking OK in the network window. (**7887**)
▶ Graphic parameters, page "Charts": Analogous to the "Bars" page, the calculation of the min and max values of the set attribute is now optional. In large networks, the build-up of the dialog can be accelerated considerably when deactivating this calculation. (**7905**)
▶ *Demand model dialog:* A detailed error message is now issued when entering an invalid sequence of activities. (**3200**)
▶ *Demand model dialog, creating a sequence of operations:* It is now ensured that each matrix is summed up only once, when aggregating the mode choice matrices to a DSeg. Summands could exist twice if multiple strata or groups shared a mode choice matrix. (**3216**)

PuT Passenger Survey

▶ *Plausibilization:* The parameter "Max. perm. departure time deviation" now only affects the explicitly stated departure times. (**8102**)

Junction Editor

▶ In the Geometry view, main nodes are now also displayed correctly if they contain only one node. (**8092**)
▶ In the standard layout for turns and main turns attribute "t0 PrTSys" has been replaced by "t0 PrT". (**8088**)

Listings

▶ *Link list:* Crashes no longer occur when selecting the undirected value view in the link list after importing a link shape file. (**8036**)

Network Editor

▶ Objects can be shifted again without being marked beforehand. (**8081**)

PuT Operating Indicators

▶ The calculation of demand values from paths has been accelerated once more. (**7994**)

PuT Line Blocking

▶ The block check and the adjustment of each block to vehicle journeys shifted in time now also retain a stay in depot if, using empty trips, it takes place at a stop point other than the arrival stop point. (**8063**)
▶ *Blocks:* You can now address blocks via COM. (**4523**)

PrT Assignment

▶ Lane turns of the same lane group can now also be allocated to different signal groups, provided that these signal groups have the same green time. (**8042**)
▶ By mistake a negative progression factor was determined at signalized nodes with lane groups with a long green time and a positive loss time adjustment. The error has been fixed. (**8090**)
▶ *ICA report:* By mistake, for yield-controlled nodes, the report contained data on non-shared lanes. These are no longer issued. (**8113**)

VISUM Files

▶ *Reading par files:* Reading in par files which contain references to modes that do not exist in the

target network no longer leads to a crash. (**8098**)

- ▶ *Reading a par file:* Warnings are now issued if a par file contains references to demand strata, person groups, or activities that do not exist in the target network. (**3223**)
- ▶ *Reading a dmd file:* In VISUM 11, dmd files written with VISUM 10 could only be read in incompletely so far. The two matrix tables were not accepted due to modified IDs. The problem has been solved. (**8093**)
- ▶ *Reading a dmd file:* The uniqueness of the home activity within a demand model is now guaranteed when reading in a dmd file. (**3213**)
- ▶ *Reading a dmd file:* Reading in activity chains now also succeeds if the demand model column comes after the activity codes column. (**3201**)

11.01-03	Corrections, Bug Fixes and New Features (ID)	2009-06-08

Data Model

- ▶ *POIs with surfaces:* Describing POI surfaces with attribute WKT Surface now also works with the keyword MULTILINESTRING. (**8073**)

Dialogs

- ▶ *Demand model dialog, generating demand matrices:* A new dialog enables you to control the type and dimension of the matrix generation. This helps to avoid an unnecessarily high number of matrices in the model and thus memory requirements that are too high. (**3209**)
- ▶ *Demand model dialog, creating a sequence of operations:* Demand matrices are now only generated and allocated if you exit the dialog via OK. (**3215**)
- ▶ *Stop dialog:* The Delete button in the "Spec. Walk Times" and "Wait Times" tabs is not invariably passive any more. (**7998**)
- ▶ *Demand model dialog:* You can now exit the dialog by pressing ESC in tab "Demand segments" if a single cell is focused. (**6065**)

PuT Passenger Survey

- ▶ Data sets are now also read in if the departure time is greater or equal to the end of the analysis period. (**8072**)

Timetable Editor

- ▶ *Regular Services Mode:* VISUM no longer crashes if you activate the regular services mode and then switch to the graphical timetable (**8080**)

Junction Editor

- ▶ *Signal Timing View:* VISUM sometimes crashed when using the Undo/Redo functionality in the signal timing view. (**8076**)
- ▶ *Junction Editor:* Editing the auto link orientation at a node sometimes caused a crash in combination with undo/redo. This error has been fixed. (**8044**)
- ▶ VISUM no longer crashes when editing signalized nodes, if you switch to the Signal groups view after marking an item in the Turns view and marking columns in the list view. (**8057**)
- ▶ *Allocating lane turns to signal groups:* In case of certain topologies, the allocation of lane turns to signal groups used to be grayed out. This error has been fixed. (**8058**)

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**)
- ▶ If you mark the first item in a sorted synchronized list, the correct object is now marked in the network editor. (**8079**)

Demand Operations

- ▶ *VISEM distribution/mode choice:* The run time of the procedure has been reduced even more. (**7897**)

PuT Line Blocking

- ▶ When editing pre- and post-preparation times, block items are now also adjusted correctly, if the time is set from 0s to a positive value or from a positive value to 0s. In those cases, new layover

time block items are generated/existing layover time block items are deleted. (**8062**)

▶ During line blocking, empty trips with a duration of 0s are no longer deleted, if they still contain a change of location and are thus relevant to the correctness of the block. (**8064**)

▶ A vehicle error is no longer issued, if a checked block and the vehicle journey sections used in it as well as their respective time profiles and lines have "no vehicle combination" as vehicle combination. In addition, both vehicle combinations checked against each other are output in case of an error. (**8066**)

▶ The block check now also detects time faults that are generated during the check caused by the creation of long empty trips. (**8035**)

PrT Assignment

▶ *All PrT assignments:* The memory requirements have been reduced considerably while the run time is unchanged. (**8038**)

PuT Assignment

▶ *Timetable-based assignment:* As of service pack 11.01-00, the procedure used to run a lot more slowly in networks with a large number of transfers. The error has been fixed. (**8051**)

11.01-02	Corrections, Bug Fixes and New Features (ID)	2009-05-27

COM Interface

▶ *COM:* Improved type check. Especially interfaces expecting a string do no longer accept COM objects. (**8032**)

▶ *Script menu:* User-defined add-ins are now retained beyond a VISUM session. (**8045**)

▶ *GIS Add-In:* The program does no longer crash if one of the network object attributes is to be used as radius (variable radius). (**8039**)

Data Model

▶ For attributes with the sub-attribute combination Demand stratum x Person group, only meaningful combinations are permitted. (**7991**)

Dialogs

▶ *Demand model dialog:* VISUM no longer crashes when switching to another demand model if you edit the column widths on tab "Demand strata" by hand. (**8046**)

▶ *Stage templates dialog:* Stage template sets are now listed in ID order. (**8043**)

▶ *Node editor:* In some node topology windows, the column headers could not handle Unicode and thus "???" appeared e.g. for Russian entries. This bug could be fixed. (**8027**)

▶ *Demand model dialog:* The grid is now always refreshed, even when deleting all objects in a tab. (**7622**)

▶ *Improved handling of user-defined attributes of the file type:* The Open button is now displyed correctly. (**7672**)

▶ The Allocation of signal groups to lane turns window now stores its position. (**7873**)

▶ *Main zone dialog:* You can now scroll the list of zones. (**5998**)

▶ *Options dialog:* Editing the "Save warnings to error file" option now takes immediate effect and not only when restarting VISUM. (**8024**)

▶ The Line routes window stores its active tabs even if it is closed via the Cancel button. (**7878**)

Listings

▶ The program no longer crashes after specifying the polygon of a main node and deleting one of its corners if the user switches into the list display and uses Ctrl+T to toggle back. (**8025**)

▶ *Undirected value display in (main) turn lists:* The undirected value mode now works correctly. U-turns have no opposite direction and are displayed individually. All other turns are combined with the respective object of the opposite direction. (**8047**)

Matrix Editor

▶ When saving matrices in ASCII formats from Muuli, the matrix values are no longer rounded in storage. (**8031**)

Demand Operations

▶ When structural properties are read from file ($Zones / $ZonalData), absolute values are calculated from the number of inhabitants and the person group´s attribute value as percentage.

(**8040**)

PuT Line Blocking

▶ Under certain circumstances, line blocking could not find a solution though there was no reason for that. This bug could be fixed. (**7999**)

PrT Assignment

▶ A PrT assignment is no longer executed with MPA or with Blocking back during the assignment, if the network contains further PrT demand segments that have already been assigned and are not to be assigned during this PrT assignment. (**7975**)
▶ *All PrT assignments:* The memory requirements have been reduced considerably while the run time is unchanged. (**8038**)

VISUM Files

▶ Version files which include SC stages that refer to non-existing signal groups can now be read in anyway. (**8054**)

11.01-01	Corrections, Bug Fixes and New Features (ID)	2009-05-15

Data Model

▶ The relation from POI category to Points of Interest now works correctly. (**8020**)
▶ If the standard speed of a PuTSys on a link type is 0km/h, newly inserted links of this type now obtain a very high run time for this TSys instead of 0s. (**7838**)

Dialogs

▶ *Several demand dialogs:* As of service pack 11.01-00 the data transfer from dropdown input fields did not work anymore. The error has been fixed. (**8021**)
▶ *Demand model dialog, creating an activity chain:* The chain is now always inserted in the currently selected demand model and no longer in the first one. (**7978**)
▶ *Warnings and error messages:* Messages are now also issued correctly in Russian, Chinese, and Japanese. (**8022**)
▶ *Valid days dialog:* In Russian, Chinese, and Japanese, the embedded calendar element now displays English month names. A translation of the names into languages with non-ASCII characters is not possible. (**8008**)
▶ Dialog "Save matrix to file": A warning is longer issued if the matrix has more than three decimal places. (**7917**)

PuT Operating Indicators

▶ *PassengerKm-flow bundle by territory:* A calculation now also takes place when combining the assignment options "Save paths as routes" and "Save volumes additionally for service trips". (**8017**)

Other Operations

▶ The signal coordination analysis used to miscalculate the link attributes SC Coord Wait Time and SC Coord Vehicles On Green [%], if several cycle times were specified in the corresponding signal coordination group. (**8016**)

PrT Assignment

▶ Cancelling a PrT assignment with MPA could sometimes lead to errors during the next assignment, since MPA was not entirely undone before the actual assignment. The error has been fixed. (**26**)

VISUM Files

▶ *Writing dmd files:* Matrices with a reference to external files are now only written during a dmd export if the "Matrix single list item" table has been selected. (**8004**)

11.01-00	Corrections, Bug Fixes and New Features (ID)	2009-05-13

COM Interface

▶ A new COM function "UpdateImpedance" is provided for the update of impedances at nodes and

main nodes. (**7938**)

- ▶ The new COM method IProcedures.IsExecuting returns true, if a procedure is in process. Scripts can thus react to the different situation of the command via the menu or out of the procedure. (**7635**)
- ▶ The new COM methods IVisum.WritoTraceFile and WriteToErrorFile can be used to write texts to the respective files. (**7636**)
- ▶ There is a new method that specifies a color for backgrounds via COM that is displayed transparently. (**6724**)
- ▶ New COM objects are provided for OD Pairs and Main OD Pairs including container objects and access methods. The corresponding COM list classes were renamed accordingly. (**7692**)
- ▶ New COM methods provide access to the VISUM main window (Handle) and to the network window. (**7918**)
- ▶ *Filter.AddCondition:* The operators OP_AND and OP_OR were interchanged. This has been fixed. (**71**)
- ▶ You can now open and address the Junction Editor via COM. (**7656**)

Data Model

- ▶ Stage templates have been enhanced in such a way that stages can have multiple signal groups. (**7923**)
- ▶ Lanes can now have user-defined attributes. (**7735**)
- ▶ A new control type "two-way yield" is provided for nodes/main nodes in contrast to "two-way stop", especially for the export to VISSIM via ANM. (**6489**)
- ▶ A new attribute AutoMajorFlow will be provided at nodes and main nodes indicating whether a major flow is automatic or has been set manually. (**7151**)
- ▶ The attribute name "radius" at node legs has been changed to "stop line position". (**7948**)
- ▶ The already obsolete attribute "AutomaticGreenTimeOptimization" has been removed. (**7764**)

Dialogs

- ▶ Opening the line route dialog using the context menu of the timetable editor no longer leads to a crash. (**7989**)
- ▶ *Line routes dialog:* If multiple rows are marked in the right grid, for better orientation a matching grey marking is displayed automatically in the left grid. (**7956**)
- ▶ *Tabular re-routing of line routes:* Also in the "Re-routing" mode, the filter on "ToSP" in the dialog now affects the end stop of the current system route selection. (**7985**)
- ▶ *Comparing run and dwell times:* The specified column widths are now retained when clicking "Set run times". (**7986**)
- ▶ *Comparing run and dwell times*: Editing run and dwell times in the dialog Comparison of stop and run times of parallel lines now considers the fixation of departure times, just like when editing them directly in the line routes dialog. (**7983**)
- ▶ Options dialog, "Reset dialog positions": The action now immediately discards all dialog positions and not just when exiting the program. (**7947**)
- ▶ *HAFAS import dialog:* If you access a file name field and exit it without making any changes, the file will no longer be loaded anew. This way, dependent entries are retained, e.g. on the "Calendar" tab. (**7875**)
- ▶ The sorting in dialog Log and error files by the date columns is now done by the point in time and not just alphanumerically. (**7794**)

PuT Passenger Survey

- ▶ You can now also specify origin and destination zone instead of origin and destination stop at survey data records. The connection search is then conducted from/to the zone and takes into account all stops connected to it. (**7662**)
- ▶ *Plausibilization of multi-row data sets:*
  1. By mistake, the "Input Stop Departure Time" always applied to the start of the line route instead of the input stop. This would sometimes lead to a failure of the plausibilization. The error has been fixed. Moreover, a detailed warning is issued if the program detects inconsistent time specifications.
  2.The program now objects to missing time specifications in data sets and no longer automatically replaces them with 00:00:00. (**7993**)

Timetable Editor

- ▶ In the timetable editor, crashes related to UNDO and REDO no longer occur. (**7997**)

Filters

▶ *Filter on service trip items:* After reading a version file, the filter status of service trip items was set only after explicitly evaluating the filter. The error has been fixed. (**7934**)

Foreign Formats

▶ *Database export:* If attribute names exceed 64 characters, they cannot be used as database field name. In that case VISUM now automatically abbreviates the identifier. (**8007**)
▶ *Database export:* The functionality no longer depends on VISUM being registered as a COM server. (**7891**)
▶ The database export has been accelerated, particularly under 64bit operation systems. (**7971**)

Listings

▶ Path listings:
  1. The synchronization mode is saved to list layout files.
  2. You can now mark rows via COM. This is necessary as in the network, the objects cannot be marked via IMarking. (**7331**)

Demand Operations

▶ *VISEM:* Distribution matrices per destination activity and mode choice are only calculated as an option. (**7951**)

Network Editor

▶ When deleting multiple nodes with two legs and connecting their links, allocations of signal controls will no longer be discarded at adjacent nodes. (**7522**)
▶ Inserting PrT paths via main nodes no longer triggers a crash. (**8003**)
▶ *Set link run times from line run times:* The operation now evaluates the "only active links" option correctly. (**8005**)
▶ *Network editor:* For links, a new special function has been added which interpolates the Z coordinates of polygon intermediate points. (**7446**)

PuT Operating Indicators

▶ The attribute FlowBundlePassKm is now also offered by territory, analogous to PassKm, considering only paths which comply with the flow bundle condition. (**4699**)

PrT Assignment

▶ *ICA:* The length of the pockets is taken into account when calculating the ideal saturation flow rate. (**6947**)
▶ The node attribute "Loss Time" is now used correctly for ICA. (**7625**)
▶ You can now define the saturation flow rate by lane. (**7760**)
▶ The Gq value is now always calculated correctly at signalized nodes. (**8001**)
▶ At signalized nodes, the types of the lane groups are now always determined correctly in the report (so far sometimes "Split" instead of "Protected"). (**8002**)
▶ *Signal time optimization:* The procedure now shows a progress bar. (**7766**)
▶ The number of the links issued in detail during the PrT assignment Equilibrium_Lohse can now be specified (so far set to 50). (**6866**)

PuT Assignment

▶ *Headway-based assignment, choice model:* A new choice model is provided that assumes a medium depth of information of the passengers that wait at a stop: the passengers do not know the precise departure times, but estimate whether it is worth boarding a line or not based on the elapsed wait time. The manual will give you further details. (**7649**)
▶ *Passenger transfers:* Timetable-based PuT assignments can now also determine transfers for pairs (From Vehicle Journey, To Vehicle Journey). The Passenger Transfers list provides corresponding new attributes. (**6506**)

VISUM Files

▶ Roundabout data is now exported during ANM exports. (**7291**)
▶ *Reading a version:* 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**)
▶ *Reading demand data:* In the "overwrite" mode the program no longer issues unnecessary warnings concerning ID conflicts (for skim matrices only). (**7821**)

- ► You can now access the PrT basic page of the functions in the procedure dialog via XML and COM. (**3849**)
- ► *VHD files*: Time series from a VISEM VHD file can now also be read in VISUM. Please keep the order of the tables within the VHD file in mind: activities and behavior patterns must be read in first. (**7961**)

11.00-10	Corrections, Bug Fixes and New Features (ID)	2009-05-05

COM Interface

- ► *SkimMatrices, ODMatrices:* Both containers now only contain the matrices of the respective type and not longer all matrices of the network. (**7667**)

Data Model

- ► *Aliases:* Aliases on indirect attributes with aggregate function "Num" or "NumActive" now also work correctly after reading networks additively or versions. (**7984**)

Timetable Editor

- ► *Undo/Redo:* The program would sometimes crash when undoing and later redoing modifications to vehicle journeys in the timetable editor. The error has been fixed. (**7990**)

Graphics

- ► *Scale in legend:* The scale is now labeled with imperial units, if an imperial system of units is used. (**7919**)

Junction Editor

- ► *Junction editor, signal timing view:* 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**)

Listings

- ► *PrT path list:* The insertion of specific indirect attributes no longer leads to a crash. (**7981**)

Demand Operations

- ► *VISEM distribution/mode choice:* The matrix multiplication within the procedure has been accelerated considerably. (**7936**)

Network Editor

- ► *Network editor:* For links, a new special function has been added which interpolates the Z coordinates of polygon intermediate points. (**7446**)
- ► *Backgrounds:* The horizontal and the vertical factors were interchanged when editing backgrounds. (**7969**)
- ► *Line routes dialog:* Switching to the line routes mode no longer causes a crash, if the dialog has already been used with a different version file. (**7974**)

Other Operations

- ► *Converting paths:* VISUM no longer crashes when converting paths that were digitized beforehand. (**7992**)

PuT Line Blocking

- ► *Empty trip-TSys:* You can now enter "no operator" as empty trip-TSys as the operator is optional at vehicle journeys. (**1195**)

VISUM Files

- ► *Reading a network:* Completing line routes using function Create links has been accelerated. (**7959**)
- ► *Reading a network:* Reading in line route and time profile items has been accelerated. (**7982**)
- ► *Reading demand data:* In the "overwrite" mode the program no longer issues unnecessary warnings concerning ID conflicts (for skim matrices only). (**7821**)
- ► *Reading a version:* 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**)
- ► *"Texts" files:* Files for background texts can be read in again. (**7973**)

COM Interface

▶ *SetTraceFile:* 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 b e 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**)

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**)