

VISUM Release Notes

Version 12.0

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Add-In

- ▶ *Add-ins in general*: Invalid parameters return a message now (Cannot find matrix with the specified ID, for example). (10719)
- ▶ *Matrix convolution*: A new option is provided, now the Via zone matrix can be either input or output data. (9002)
- ▶ The method ReadBIMatrix works correctly again. (10717)

COM Interface

- ▶ The method IVisum.SaveAccessdatabase works correctly now even if a database is specified as layout file (.mdb, .accdb). (10648)

Data Model

- ▶ The program will no longer crash if for the calculation of length or area data a projection is used which cannot be converted to any of the 'usual' (i.e. provided with VISUM) projections. (9631)
- ▶ *Formula matrices*: The calculation of totals and diagonal sums works faster now. (10521)
- ▶ *Relations, reverse direction*: Also for attributes with complex indirections, the relation 'reverse direction' returns the correct attribute values now. In previous versions, values of the original direction used to be returned by mistake. (10760)
- ▶ *Relations*: The relations from link to vehicle journeys and from link to vehicle journey sections used to count the objects for each link passage per line route separately. Thus, too many objects used to be returned. This bug was fixed. (10762)

Dialogs

- ▶ *'HAFAS import' dialog, 'Transport systems' tab*: For sorting, any of the columns provided in the TSys list can be selected now. (10418)
- ▶ *'Parameters: Timetable-based assignment' dialog*: In previous versions, it was not possible to toggle between 'regular' and 'bi-criterion method' for the shortest path search. This bug could be fixed. (10744)
- ▶ *Various POI dialog windows*: In the numerous selection lists, the POI categories are no longer listed in lexicographical order, but numerically. (2378)
- ▶ *Connectors, length*: In all cases, automatic formatting works correctly now in this text field. (10747)
- ▶ *Min and max value for difference bars*: The min and max values were faulty calculated for difference bars if one of the two attributes returned an empty value. The values are shown in the dialog and used for auto scale. This bug was fixed. (10755)
- ▶ *Graphic parameters dialog, 'Chart' tab*: The 'Font' settings in the 'Pie' tab are now applied. Furthermore, minor dialog control improvements have been implemented. (10582)
- ▶ *'Save ESRI shapefile' dialog*: The attribute selection takes into consideration now whether metric or imperial units have been selected. (10778)

Timetable Editor

- ▶ *'Find vehicle journey' dialog in the timetable editor*: Toggling the 'Only selected vehicle journeys' option now directly affects the list of vehicle journeys. Additionally, the option has been renamed. (10630)
- ▶ *Partially visible columns*: VISUM does no longer crash if a column is clicked which is located at the right frame and is only partially visible. (10565)

Foreign Formats

- ▶ An import procedure for data in railml format (version 2.0 and 2.1) has been implemented. (9362)

Graphics

- ▶ *Network merge mode*: Drawing bars for graphical display of attributes in the 'not calculated' state in the network merge mode will no longer cause a program crash. (10613)

Graphical Operations

- ▶ *PrT flow bundle, main zones*: The PrT flow bundle is correctly calculated now with a main zone as the destination. (10758)

Matrix Editor

- ▶ *Matrix histogram, saving intervals:* Saving intervals for histograms with multiple matrices will no longer cause a program crash. (10757)

Network Editor

- ▶ *Aggregating zones:* Zone aggregation will no longer cause a program crash if skim matrices are allocated to demand segments with time series of matrices. (10732)

Network Comparisons

- ▶ *Vehicle journey items in the network merge mode:* In previous versions, for indirect attributes with reference to vehicle journey items, incorrect values might have been returned in the network merge mode. This bug was fixed. (10740)

Other Operations

- ▶ *Signal offset optimization:* Link values are also reset for links without PrT paths if these links carry values from a previous calculation. (10736)

Scenario Management

- ▶ *Scenario calculation:* With a project database stored on a network drive, the message "Database is used by a different process" used to appear after the calculation not regarding whether this was true. Now this message is only returned in well-founded cases. (10761)

PuT Line Blocking

- ▶ *Detailed line blocking:* The cause of the possible instability of the procedure (deviating results after repeated execution) could be discarded. The results of the procedure can now be reproduced steadily. (10768)

PuT Assignment

- ▶ *Headway-based assignment:* The calculation will no longer cause a program crash, if MPA is active and skims are calculated simultaneously and additionally the number of zones has been reduced in the procedure parameter settings. (10441)
- ▶ *Timetable-based assignment:* In previous versions, the assignment was cancelled if the vehicle journey impedance was used for the search impedance calculation and no vehicle journey could be found. This bug was fixed. (10783)

VISUM Files

- ▶ *Graphics parameters for link bars:* Reading is no longer terminated by the returned message 'Cannot find shortest path search parameters in file', but works correctly now. (10726)
- ▶ *Database export Access:* Now the export also works with the 64 bit version of Access. (10743)
- ▶ *Version files, procedure parameter file with binary data format:* Reading data from a file of either type used to fail, if no transport system (or a TSys missing in the network) was selected for the procedure step 'PuT interlining matrix'. This bug was fixed. (10756)
- ▶ *Uni version:* The program will no longer crash but loading will be cancelled, if a version file storing more than the maximum permitted number of zones is loaded with a VISUM Uni version. (10727)

TFlowFuzzy

- ▶ Error message "Missing matrix reference". Under certain circumstances, this error message was returned though no matrix had to be selected in this context. This bug was fixed. (10746)

12.01-03

Corrections, Bug Fixes and New Features (ID)

2012-01-30

Add-In

- ▶ *'Import Google Transit Feed' add-in:* For referencing via key columns, the error handling has been improved. Now, references can be found if the keys differ by blanks in the first and/or last position only. (10669)

COM Interface

- ▶ *'Init assignment' procedure:* Via IOperation, direct access to the 'Init assignment' procedure parameters is provided again, though these procedures have no specific parameters. (10680)
- ▶ *Setting colors:* In the graphics parameters via COM interface, AttValue now returns a string of the

AARRGGBB style for attributes of the 'Color' type. In previous versions, an integer-type value used to be returned, though the AARRGGBB style was expected for the input via '(Set)AttValue'. (10698)

Data Model

- ▶ *Formula attributes as undirected link values*: The cross-section logics for formula attributes of links is based on the definition of the user-defined attribute. In previous versions, always the directed 'upstream direction' value was used. This bug could be fixed. (10667)

Development Components

- ▶ *CalcMatrix*: Now, also matrices with dimension 0 can be processed correctly. (10675)

Dialogs

- ▶ *'User-defined attributes' window*: After changes to the window size the new 'Decimal places' input field is moved with the other input fields. (10666)
- ▶ For technical reasons, formula attributes are no longer displayed in the 'User-defined attributes' tabs of the network editor property sheets ('Edit link' or 'Edit zone' et al.). The values can still be displayed in lists. (10682)
- ▶ *Attribute selection for 'Save model transfer file'*: In previous versions, clicking the 'Uncheck all tables' button in this window used to switch off the 'Fade out empty tables' option simultaneously. This bug could be fixed. (10646)
- ▶ *'Graphic parameters' window, 'Chart' tabs*: With the 'Pie' option for a POI category, the correct 'Number of decimal places' entry is retained now when the dialog window is reopened after closing it via 'Apply'. (10714)

Timetable Editor

- ▶ *Line block display - system route in the tooltip*: For items of empty vehicle journeys, also data describing the used system route will be displayed, if applicable. (10624)

Installation

- ▶ Due to the advancement of the operating systems, the components TeeChart.ocx und CTYear.ocx became obsolete. These components have not no longer been registered which under certain circumstances could result in 'frozen' workstations during the program installation. This bug was fixed. (10710)

Listings

- ▶ *Deleting a multi-selection*: In those lists whose objects can be deleted, now multiple selected objects can be deleted at once via 'Delete' in the context menu. (10703)
- ▶ *Executing add-ins while a list is open*: The program will no longer crash if an add-in is executed under certain circumstances while a list is being open though the add-in will modify the listed data. (10678)

Demand Operations

- ▶ *EVA weighting by generalized cost*: The 'Generalized cost' option used to get lost when a version was saved or read from file, but the 'Generalized cost' definition settings did not. This bug was fixed. (10685)

Network Editor

- ▶ *Multi-Delete was sped up*: Multi-Deleting a number of network objects works much faster now. (10707)
- ▶ *Shortest path search and 'Hand' mode*: The program will no longer crash after opening the 'Shortest path search' dialog window and right-clicking in the network window then while being in the 'Hand' mode. (10652)
- ▶ *'Edit line route shape' from the timetable editor*: The 'Edit shape' button in the 'Edit line route' window is also provided if this dialog window is called from the timetable editor. In this case, the program automatically switches to the network window. This also applies if 'Edit line route shape' is called from the open list. After line route course editing, the program will automatically switch to the 'Edit line route' window again. (10672)

Network Comparisons

- ▶ *Vehicle journey volumes in the network merge mode*: Reading a filter file while being in the

network merge mode will no longer cause data loss of vehicle journey volumes. (10668)

Other Operations

- ▶ *Updating node impedances:* Too many 'faulty' nodes used to be recorded, when the Multi-edit special function 'Update impedances at node' was applied to nodes and/or main nodes. This bug was fixed. (10715)

Scenario Management

- ▶ *Value range for link IDs:* The link ID value range did not match the format used in the scenario management database. Thus, opening a project database used to return an error message. This bug was fixed. (10722)

PrT Assignment

- ▶ *Assignment procedure LUCE:* For one-leg nodes with open U-turn but no open PrT destination connector the LUCE procedure used to calculate as if the incoming link were blocked in previous versions. This bug was fixed. (10661)

PuT Assignment

- ▶ The program will no longer crash during the headway-based assignment, if the workstation runs out of memory during the route choice. (10711)

Procedure Sequence

- ▶ *'Del' key:* You can press 'Del' to delete the marked rows in the grid (=procedure steps). (10665)

12.01-02

Corrections, Bug Fixes and New Features (ID)

2012-01-16

Add-In

- ▶ *Add-In Generate PuT Zone Connectors:* Der Dialog konnte nicht geöffnet werden, wenn es im Netz Verkehrssysteme gab, deren Code Sonderzeichen enthielt. Dieser Fehler wurde behoben. (10628)

COM Interface

- ▶ *Script destroying the procedure sequence:* The program will no longer crash due to changes to a LinCombltem at IVISEMDGroupActivityDistributionPara within the procedure sequence if it is followed by another step in the procedure sequence. (10610)
- ▶ The IVisum.Autozoom functionality now also works for links. (10632)

Data Model

- ▶ In certain cases, the value '0' was not displayed for user-defined attributes of the 'formula' type. This bug could be fixed. (10619)
- ▶ *Creating analysis time intervals:* Version files could not be read after the definition of an analysis time interval with option 'Use for calculation results: PrT'. This bug has been fixed. (10623)
- ▶ *Fare levels with fare = 0:* Fare levels with fare = 0 are now permitted. In previous versions, this data could be entered, however, the output version file could not be read later. Now, even those versions can be read from file. (10631)

Dialogs

- ▶ *'Filter for ...' dialog window:* Even in the first row and the last row the 'Tab' key works correctly now. (9065)
- ▶ *Shortest path search PuT:* The program will no longer crash if no mode has been defined in the network and the 'Shortest path search PuT' dialog window is opened. (10653)

Timetable Editor

- ▶ *'Find vehicle journey' returns a message:* The user now can disable the current filter settings if the vehicle journey in question is not visible in the timetable editor due to the current filter settings. (10608)
- ▶ *Create coupled vehicle journey:* Now, the resulting coupled vehicle journey can be edited correctly when a vehicle journey is created for a coupled time profile though the coupling partner time profile is not listed in the timetable editor's line selection. (10557)
- ▶ *Non-served stops:* Now, served stops are only those where passengers may board or alight. (10640)

Filters

- ▶ *POI filter*: If the POI filter includes an indirect attribute and if this indirect attribute is edited, the filter will immediately respond to the modified settings for POI categories now. (10410)

Foreign Formats

- ▶ *Shapefile export to line routes*: In previous versions, the entire link course was exported if a line route started from (or terminated at) a stop point on a link. Now, only the link section which is traversed by the line route is exported. (10617)
- ▶ *SATURN import*: The import of SATURN data does not fail if the current VISUM language is neither English nor German. (10156)

Listings

- ▶ *Sorted list display*: If not only one, but another column is selected for sorting, the order of rows according to the first criterion is stable now, i.e. the given order of rows will be retained if the entries in the column which was selected later show identical values. (7054)
- ▶ *Display of Enums with concatenation*: If a sign other than the default sign (comma) is selected for the concatenation in the network parameters window, then the concatenated strings of attributes of the discrete value type will be displayed correctly now. (10609)
- ▶ *Read layout for 'GIS objects' list*: Reading layout settings for lists of a certain GIS category used to fail. If those lists were saved with the version file, even the version could not be read from file subsequently. This bug could be fixed. (10645)

Matrix Editor

- ▶ *Create matrices*: The 'Create matrix' dialog window has been extended. Now, several matrices with identical properties can be created at the same time. (5744)
- ▶ *Editing matrix values*: Now, data matrices can still be edited if formula matrices and data matrices are dealt with simultaneously. (10552)
- ▶ *Scrolling along diagonal in matrix editor*: Now the shortcuts Alt-PgDown and Alt-PgUp can be used to scroll into both directions simultaneously (i.e. diagonal scrolling). (5534)

Demand Operations

- ▶ *Trip generation (4 stages)*: A warning will appear if the sum is 0 on the side which is to be scaled. You can either cancel or continue. The latter means, that the other side is to be set to 0, too. (10642)
- ▶ *Trip distribution (4-stage model)*: The button 'Prior to the calculation, reset all result demand matrices to 0' is always provided now. In previous versions it used to be provided only if the number of active OD pairs or active zones had been restricted. The procedure will add the new results to the given values. (10263)

Miscellaneous

- ▶ *Automatic backup copy*: Errors will no longer occur if a version file is closed and reopened later while the 'Save automatically' option is active. In previous versions, VISUM sometimes did not respond in this case. (10636)

PrT Assignment

- ▶ *LUCE procedure, proportionality*: Calculations taking more than one transport system into account will no longer cause a program crash if a mesh cannot be balanced in common for all TSys which are concerned by the mesh. (10654)
- ▶ *Stochastic and dynamic-stochastic assignment*: The detour test will no longer ignore the parameter 'time factor'. Instead, factor 2 used to be regarded. The absolute offset, however, has always been regarded correctly. (10641)

PrT & PuT Assignment

- ▶ *OD pair filter*: The filter was not evaluated, if there was no active OD pair. Thus, the previous state used to be retained, i.e. another filter or no filter. This bug could be fixed. (10643)

VISUM Files

- ▶ *Cancelling 'Read network'*: The program will no longer crash if 'Read network' is cancelled. (10621)
- ▶ *Safety backup*: The file extension used to be added twice to the backup file, i.e. XXX.ver.ves.ves instead of XXX.ver.ves. This bug could be fixed. (10611)

- ▶ *'Read network' with line route completion*: The special link type for links being opened during the shortest path search is only assigned if the link has not been added by the search itself (for a previous line route, for example). (10554)
- ▶ *Model transfer files and stops*: The following use case works correctly now. Allocating stop area X of stop A to stop B first, deleting stop A then and creating a model transfer file. (10586)
- ▶ *Read network for fare models*: The allocation of ticket types to demand segments and fare systems works correctly now when network data is read from file. In previous versions, only one fare system used to be allocated per demand segment. (10638)
- ▶ *'Read network' for POI categories*: By means of the attribute 'MainCatNo', POI categories can refer to themselves. In previous versions, problems might have occurred due to the inappropriate order of data during network reading. Now, the order of data is no longer relevant, any self-reference can be resolved. (10614)

12.01-01

Corrections, Bug Fixes and New Features (ID)

2011-12-18

Add-In

- ▶ *Isoc2POI*: The grid has been redesigned. (10282)
- ▶ *Isoc2SHP*: The calculation runs much faster now. (10126)
- ▶ *EVA, German umlauts*: Umlauts used to cause errors in 'Flows - Distribution' with assessment type "competing walk time". This bug could be fixed. (10563)
- ▶ *EVA*: The program will no longer crash while EVA is being carried out, if option 'only active zones' has been checked in the 'Flows - Distribution' panel. (10595)

COM Interface

- ▶ *Line blocks*: Various methods in the Block range caused the interruption of running script files due to the appearing windows. As for other COM applications, these windows are no longer visible and cannot terminate running scripts therefore. (10543)
- ▶ *Aggregate zones*: This functionality is now provided via COM interface. (10532)

Dialogs

- ▶ *Several grids within dialogs*: Marking of several rows using shift works more reliable now. (10294)
- ▶ *Overview of the graphic parameters for bars*: Now, values can be pasted to the 'Filling classification attribute ID'. Moreover, the option 'Like scaling attribute' can be selected in the selection dialog. (3252)
- ▶ *'Estimate gravitation parameters' parameters, utility definition*: VISUM will no longer crash if there is no entry in the list and 'Delete' is pressed. (10577)
- ▶ *Graphics parameters for pie charts*: The 'Transparent' check box is subject to changes again. (7746)
- ▶ *Parameter dialogs for demand modeling procedures, EVA weighting*: The sub-window 'Define assessment types' now provides the option 'None'. (10599)
- ▶ *Edit line route*: Arrival and departure times are no longer calculated modulo 24 hours if this does not fit the selected column data format. Now, values >24:00 can be entered. (10549)
- ▶ *Edit bars, line bars*: The aggregation level entries (main line, operator ...) are no longer interchanged. (10550)

Timetable Editor

- ▶ *Shifting a vehicle journey to another PuT line*: Now, the option 'Show only active lines' is provided. (10551)
- ▶ *Shortcuts*: The shortcuts now work even if the line or line block selection tree has the focus. (10556)
- ▶ *Partially visible columns*: VISUM does no longer crash if a column is clicked which is located at the right frame and is only partially visible. (10565)
- ▶ *Line block view*: The line block view will no longer show a layover time fault if a short turning connects two vehicle journey sections of a vehicle journey for which a preparation time has been defined. (10578)

Filters

- ▶ *Filter for OD pairs*: The filter for OD pairs was not evaluated after changes to a matrix, if this matrix was used in the filter condition. This bug could be fixed. (10561)

Foreign Formats

- ▶ *SATURN*: The split logic for links and connectors has changed. Now splitting a link does no longer modify the geometries of adjacent SATURN nodes. (10082)
- ▶ *SATURN*: Lower case SPEED s parameters are now regarded. (10540)
- ▶ *Shape file import*: If polygons are normalized this will be logged to the trace file. (10555)
- ▶ *SATURN*: Also right-hand traffic networks can now be imported. (10539)

Graphics

- ▶ *SVG export*: In the SVG export SVG backgrounds are exported now as well. (10545)
- ▶ *Internet maps as backgrounds*: Internet maps can also be included for geographic projections, now. (10569)

Graphical Operations

- ▶ *Isochrones*: When using the "Find ..." dialog and closing it without selecting a network object, VISUM will no longer crash. (10547)

Junction Editor

- ▶ *Create signal controller*: A new SC used to be switched off by default, even if the 'Switched off' check box was not enabled in the dialog window. Now a new SC is not automatically switched off. (10516)
- ▶ The 'Switched off' check box in the 'Geometry' tab now appears as 'Unchecked' or 'Checked', as applicable. (10515)

Listings

- ▶ *Keyboard input*: Except for the use in the editing mode, keyboard entries are no longer regarded; processing by mistake will no longer occur. (10530)

Matrix Editor

- ▶ *Matrix tree context menu, common arithmetic operations*: In the matrix tree view, the context menu now provides access to various simple computation methods. These functions work similar to the usual function call via 'Open matrix' - 'Select function from the arithmetic operations bar'. (5137)

Demand Operations

- ▶ Procedure 'Trip distribution' (4-stage model): Now, the OD filter is evaluated sooner. Accordingly, zero values in the utility matrix are no longer returned as an error if these OD pairs are to be excluded from the computation due to the OD filter settings. (10580)

Network Editor

- ▶ *Page preview*: Shifting the view by mouse and scrollbar works correctly now. (10195)
- ▶ *Specifying the line route course*: The 'Edit shape' button now works correctly if the 'Edit line route' window is called from the 'Find line route' window. (10548)

PuT Operating Indicators

- ▶ *Deleting a territory*: VISUM no longer crashes after deleting a territory if you save a version file while calculation results are available for intervals. (10542)
- ▶ *Attribute End stops of vehicle journeys crossing the midnight flag*: Now, this attribute is correctly calculated if the vehicle journey crosses the 12 pm mark (these journeys used to be ignored (not counted) in previous versions). This bug only occurred if the vehicle journey had to stop just once after midnight. (10564)

Miscellaneous

- ▶ The ScriptMuuli library no longer fails when reading binary matrix files written with VISUM 12. (10531)

Scenario Management

- ▶ *Suggested vehicle journey number*: The proposal now regards all IDs which have already been allocated within the framework of the project. In previous versions, the proposal used to regard only the numbers of the currently loaded vehicle journeys. (10528)

PuT Line Blocking

- ▶ *Short turning within a vehicle journey and preparation time:* In previous versions, an unnecessary 'preparation' line block item used to be created within the vehicle journey for the shortened transition (time fault), if both pre- and post-preparation times had been set with a post-preparation time that was sufficient to cover the gap between the vehicle journey sections of the vehicle journey completely. This bug could be fixed. (10602)
- ▶ *Line block check:* Depot layovers are checked correctly now, even if the line block includes chains which consist of nothing else but layover items. (10526)

PrT Assignment

- ▶ *UserVDF:* The calculation of user-defined VD functions has been accelerated. (10469)
- ▶ *Node impedance calculation:* The program will no longer crash if ICU or Circular212 is used with complex green stages. (10568)
- ▶ *LUCE assignment procedure:* Bushes will no longer store incorrect paths and/or volumes if multiple demand segments of the same transport system are assigned simultaneously with some origin zones showing demand per demand segment = 0, though their demand per transport system (Dseg) values differ from 0. Accordingly, subsequent path analyses (flow bundles, or OD pair filter applications, for example) will return correct values. (10605)

VISUM Files

- ▶ *Read matrix from file:* Reading the matrix from file does no longer remove the demand segment allocations. (10498)
- ▶ *Read network, line block versions:* The test, whether the time interval lies inside of the calendar now also works for annual calendars. (10520)

12.01-00

Corrections, Bug Fixes and New Features (ID)

2011-11-29

Add-In

- ▶ *Script menu files:* Script menu files storing script menu configuration settings can now be read additively. In this case, the entries are added to the existing script menu. (10508)
- ▶ Additionally, the HTML Help files are available in PDF format now. (1944)
- ▶ *New add-in:* With the new add-in it is now possible to add the correct paths for the PythonModules folder to the paths stored in the sys.path file. (10158)
- ▶ *VISUMPy.Matrices, function readBIMatrix:* Reading binary mtx files did not work correctly with external matrices which had been created in VISUM and were saved as mtx without any changes to the matrix values. This bug could be fixed. (10477)

COM Interface

- ▶ *Classified line bars:* Now, also the COM interface supports the line bar classification. Furthermore, the classification settings can be adjusted via an 'Edit' button like any other settings. (10178)
- ▶ *IExecuteScriptPara:* An access method from Ioperation to IExecuteScriptPara has been added. In this way, access to the 'FileName' attribute is provided. (10284)
- ▶ *GetNearestLink:* The COM interface has been extended. Now, a cache can be activated for the execution of the method GetNearestLink. Using this cache will significantly accelerate the method execution if it is called repeatedly. (2346)

Data Model

- ▶ *System routes:* Even if either the start stop point or the end stop point is a directed stop point on a link, the opposite direction of a system route can now be created in the same way as the opposite direction of a line route. (9386)
- ▶ *Adjustment of coupled time profiles:* The time data of a coupled time profile is adjusted correctly now even if a time profile item's arrival time is edited and if later in the course of the time profile a coupled section starts with different dwell times of the coupled time profiles at the start of the coupled section. (10463)
- ▶ *Propagation:* The propagated link volumes without regard to count values can now be output. (10451)
- ▶ *User-defined attributes:* The values of user-defined attributes of the network could not be edited. Now they are subject to changes. (10485)

Dialogs

- ▶ *Procedure parameters windows*: The parameter windows for the demand modeling procedures (4 stage model, VisEVA and Tour-based model) were updated. Now, the data of all demand strata is displayed simultaneously. Aggregation in the list makes it possible to compare the settings by demand stratum easily. **(6202)**
- ▶ *Attribute selection in the 'Save network' window*: In the context menu, the commands "Check displayed attributes" and "Uncheck displayed attributes" work correctly now. **(10488)**
- ▶ *'PuT lines / Line routes' window*: The current selection is now reset if the 'Initialize' button is clicked in the 'PuT lines' mode. **(10490)**
- ▶ *Filter windows*: In some cases, the new value was not regarded if a criterion had been changed from '= attribute' to '= value'. Furthermore, the program might have crashed if a deleted user-defined attribute was used in the right-hand section of the filter criterion settings. Either bug could be fixed. **(10506)**
- ▶ *Procedure settings for skims (PrT and PuT)*: In the table, Copy&Paste works correctly now also for single cells. Though the value display used to be updated in previous versions, the pasted value was not stored with the data model. **(10450)**
- ▶ *Edit time profile*: The list of vehicle combinations is now sorted by number. **(10461)**
- ▶ *Comparison of run and dwell times*: Actions like "from dwell time for all" will no longer discard the 'cross' flags in the first column of the grid. **(10460)**
- ▶ *Dialog 'Edit time series'*: Weights and percentages are now shown including decimals. **(10445)**

Timetable Editor

- ▶ *Text size in the 'Regular services' mode*: In columns which have not been marked the standard font and text size is no longer used. Instead, the graphic parameter settings for active unclassified objects are used. **(10500)**
- ▶ *Sequence of stops*: With a new option in the timetable editor, stops which are not served (i.e. non-profile points of the selected time profiles) can be excluded from the sequence of stops view. **(9345)**
- ▶ *ITimetableEditor*: Via the COM interface, the new option 'Hide stops without stop event' in the timetable editor's sequence of stops is now available as method HideUnservedStops. **(10424)**

Foreign Formats

- ▶ *Read shape file as stop points*: The program will no longer crash if the shape file is read as stop points though the network does not include a node or stop point, respectively, with the given number. **(10462)**

Graphics

- ▶ *Graphics parameters for line bars*: The program will no longer crash, if operators are created or deleted after changes to the default order of line bar drawing. **(10044)**
- ▶ *Auto zoom in the page preview*: If 'Auto zoom' is called for an object which is located outside of the currently displayed area, the query 'Would you like to close the page preview for map section display?' will appear. **(10473)**
- ▶ *Bars, attribute 'Round to'*: Since VISUM 12, this attribute has not been stored with the graphics parameters or version file. That is why the settings used to get lost. This bug could be fixed. **(10480)**
- ▶ *Drawing POI connections*: Via a new option, drawing can be reduced. Only the connections of active POIs are drawn in this case. **(10464)**

Graphical Operations

- ▶ *PrT flow bundle*: The flow bundle evaluation will no longer ignore the first link of a PrT path. **(10492)**

Junction Editor

- ▶ The program will no longer crash if the transport system property of links is edited. **(10518)**

Matrix Editor

- ▶ *'Projection' in the matrix editor*: In the 'Parameters' window of the procedure, the table did not show all of the rows. This bug could be fixed. **(10478)**

Demand Operations

- ▶ *'Demand matrix calibration' procedure*: The variant 'Standard-Kali' used to calculate incorrect

values if there were more than one path per OD pair. This bug could be fixed. (10484)

Network Editor

- ▶ *List - network editor synchronization*: Strap courses which have been marked via the matrix toll list are now updated in the network display as soon as a link is closed in the toll system and the strap course has to be recalculated for that reason. (9835)
- ▶ *Model transfer file display*: POIs are displayed in separate tables by category. Hierarchical display shows the matrix entries not only via tooltip, but also in the tree. The whole tree can be copied to the clipboard. (9897)

PuT Operating Indicators

- ▶ *Include territory-based indicator calculation*: Optionally, the procedure can now return PuT-related indicators which had to be calculated by the territory-based indicator calculation procedure in previous versions. (10328)

Miscellaneous

- ▶ *Online Help*: Now, the context-sensitive help can also be called in the 'Transport systems/ modes / demand segments' window. (10493)

Scenario Management

- ▶ *Dependency of modifications*: If modification A depends on B, an exclusion between A and B cannot be defined now. (10491)

PuT Line Blocking

- ▶ *Layover time within a vehicle journey*: Optionally (via a line block version attribute), taking the minimum layover time (pre and post processing times) into account can be disabled for the transitions between the vehicle journey sections of a vehicle journey. (10509)

PrT Assignment

- ▶ *TRIBUT assignment and flow bundle*: The program will no longer crash during the PrT flow bundle calculation after the assignment procedure TRIBUT with area toll. (10512)

VISUM Files

- ▶ *Route import (*.RIM)*: The program will no longer crash if routes with volumes per time interval are imported. (10495)
- ▶ *Network file, table 'User-defined attributes'*: Definitions of UDAs can now be read from file in the 'Overwrite object' mode, even if both the minimum and maximum value columns are missing. (10519)
- ▶ *Extended route import (*.RIM)*: Now, routes via main nodes are correctly imported even if the entry cordon node differs from the exit cordon node. (10527)
- ▶ *Network file, table 'User-defined attributes'*: Definitions of UDAs with a standard value smaller than zero are now correctly read from file. (10510)

12.00-03

Corrections, Bug Fixes and New Features (ID)

2011-11-12

Add-In

- ▶ *RunVBA*: Warnings which might stop the procedure will no longer appear. (10360)
- ▶ *VisumPy.Matrices*: If the destination main zone number is zero for a zone, it will not be aggregated. (10436)
- ▶ *Calculate Matrix Aggr function*: The program will no longer crash if a zone cannot be allocated to a main zone. (10374)

COM Interface

- ▶ *Histogram, reading interval data*: Changes to the interval limits affect all matrices now, not just a single one. (6160)
- ▶ *IDemandTimeSeries*: Changes to the attribute 'TimeSeriesNo' now have an effect when the procedure is subsequently executed. (4075)
- ▶ *IPrTDemandSharePara, SetDemandShare*: In rare cases, using this function could have caused different behavior. (10392)
- ▶ Only for the attribute selection window display, VISUM is placed on top and gets the focus now. (10369)

- ▶ *SVG export*: VISUM will no longer crash if a path is specified for the SVG export which does not exist. (10355)
- ▶ *IOperation::Filename*: The attribute 'filename' returns the filename now instead of an empty string. However, the attribute remains obsolete. (10359)

Data Model

- ▶ *Line block response to forced chainings*: Less line blocks will now receive a forced chaining fault if forced chainings are defined. (7303)
- ▶ *Stop points*: The new attribute 'IsTerminalForVehicleJourneySection' indicates the final stop points in terms of line blocking. (10289)
- ▶ *Deleting main zones*: The program will no longer crash if one of the partial zones consists of an open polygon by mistake. This bug could be fixed. (4578)
- ▶ *Attribute 'Number of service trips proportional'*: This VISUM 11.5 attribute had been renamed for VISUM 12, but mapper settings had not been defined. Thus it could not be selected in lists or for graphical display, for example. Now, the required settings have been added. (10370)
- ▶ *Reading user-defined attributes*: The default value 1 (true) is no longer ignored for UDAs of the Boolean type. (10375)

Development Components

- ▶ *SATURN import*: In previous versions, freeflow daten in section 3 under Dutch format used to be ignored, if the entry in section 1 record 2B is empty apart from the link index. This bug could be fixed. (10223)

Dialogs

- ▶ *User-defined attributes*: The message 'Please enter an integer between 0 and 9' no longer appears when existing UDAs are edited. (10376)
- ▶ *Procedures matrix aggregation / disaggregation*: If the network does not include a main od matrix, the (empty) matrix selection window will not open but a message will be displayed. (10383)
- ▶ *Deleting an alias*: A warning message is no longer returned. (10402)
- ▶ *'Create vehicle journey' window*: The focus is now in the 'Name' entry field, when the window is opened. It used to be in the 'Number' field. (10459)
- ▶ *Alias management window*: Also indirect attributes are provided for the alias definition. Furthermore, only the preset entries can be selected in the list of attribute interfaces, editing is no longer possible. (10427)

Timetable Editor

- ▶ *Edit graphic parameters*: In some networks, opening this dialog caused a program crash. This bug could be fixed. (10387)
- ▶ *Sequence of stops*: With a new option in the timetable editor, stops which are not served (i.e. non-profile points of the selected time profiles) can be excluded from the sequence of stops view. (9345)
- ▶ *Line block view*: Forced chainings following block items which exceed one day are now correctly displayed. (10444)

Foreign Formats

- ▶ *SATURN*: Now, U-turns are closed by default. (10404)
- ▶ *SATURN, penalty logics*: Section 44444 does no longer edit the link attribute v0. The minimum of the penalties is saved as the user-defined attribute SATURN_TIMEPENALTY. (10430)
- ▶ *Access database format accdb*: In VISUM, also the accdb database format of Access 2007 is supported for data import and export. (9147)
- ▶ *SATURN, logging*: The message output during the import has been improved (only relevant messages are returned). (10429)
- ▶ *SATURN, attribute SATURN_V_CAP*: The attribute SATURN_V_CAP is now correctly read from section 33333. (10428)
- ▶ *SATURN, reading PuT line data*: Now, the import can also handle data with parameter EZBUS set to TRUE. (10405)
- ▶ *Open database*: Now also those tables can be read from file, whose names have been changed meanwhile in VISUM. (10394)
- ▶ *SATURN, coordinates multiplier XYUNIT*: In all cases, this value is read-out correctly now. (10412)
- ▶ *SATURN, signal groups*: Signal group data is now completely read from file. (10413)

- ▶ *SATURN, lines and line routes*: Lines and line routes of more than two public transport systems can now be read from file. **(10420)**

Graphics

- ▶ *Layer 'Lane allocation'*: The graphic parameters are correctly adjusted now after the deletion of a transport system, and the program will no longer crash in this case. **(10437)**
- ▶ *'Edit graphic parameters' window*: The program will no longer crash after mouse-click on 'Bars', if the settings included a volume bar and a non-visible flow bundle bar. **(4077)**

Listings

- ▶ *List cells of the 'File' type*: In cells showing an attribute of the 'File' type, the respective file can be opened from the list. This also applies, if relative paths are used. In this case, the project directory '**(10466)**
- ▶ *Update after changes to the procedures*: Network object lists are no longer automatically updated after changes to the procedure parameter settings. **(10400)**
- ▶ *Reading data from attribute file or pasting data from clipboard*: Either operation runs much faster now. This refers to object types with numerous sub-attributes. **(10388)**

Matrix Editor

- ▶ *Quick view / external matrices*: After removing an external matrix (by closing the editor) the matrix values were still shown in the quick view window. This could cause crashes. This bug could be fixed. **(10366)**

Network Editor

- ▶ *Connecting line routes*: For connected line routes with more than one time profile, too many of these used to be deleted. Now, time profiles with identical names are connected to each other and will no longer be deleted. **(3108)**
- ▶ *Editing the shape of coupled line routes*: In certain cases, either optional re-routing of the coupled line routes was not provided or the simultaneous re-routing of coupled line routes caused a program crash. This bug could be fixed. **(10389)**
- ▶ *Aggregate isolated nodes*: The program will no longer crash if one of the executed work steps is only permissible under certain conditions (i.e. demand required). **(10352)**

Network Comparisons

- ▶ *Selection of attributes for version comparisons*: Now, the mandatory attributes are included if attribute groups are selected. **(10367)**

Other Operations

- ▶ *Matrix aggregation / matrix disaggregation*: The program will no longer crash if a matrix is deleted to which either procedure refers. **(10419)**
- ▶ *Network check, option 'Viability for ICA'*: Warnings which refer to pure PuT lane turns will no longer appear, since these lane turns are not relevant to ICA calculations. **(4540)**

Scenario Management

- ▶ *Closing the 'Procedure sequence' view*: The window is closed before the scenario calculation is saved. Thus, the network window will appear immediately when the result version is loaded. **(10371)**
- ▶ *Skim aliases*: When aliases are defined for skims, the attribute name entry field is now automatically preset. **(10377)**
- ▶ *Base version modifications and check*: By mistake, the base version used to be overwritten even if the base version check returned an error after modifications, when 'Check and finish the modifications' was executed. This bug could be fixed. **(10409)**

PrT Assignment

- ▶ *LUCE procedure*: If for a mesh a user-defined VDF is used which does not calculate in [PCU], no longer TSys-comprehensive balancing will be performed to reach the proportionality. **(9830)**
- ▶ *'Goodness of PrT assignment' list*: The program will no longer crash if a PrT assignment with a filled list is available and the code of a demand segment is subsequently edited and another assignment is then calculated. **(10403)**
- ▶ *ICA, signalized nodes, HCM 2000*: For turns with volume = 0 on shared lanes, no longer the value 0 is automatically set for tCur and capacity. Now, appropriate values are set. **(10353)**

- ▶ *ICA, two-way stops*: If the turn types in the major flow are inconsistent, an error message will appear (instead of a warning in previous versions), and the calculation will not be executed. (10426)

PuT Assignment

- ▶ *Timetable-based*: For the shortest path search, the extension was added (as preceding time slot) to the assignment time interval by mistake. If start and end overlapped thereby, incorrect assignment results use to be returned. (10407)
- ▶ *Connection file including fare data*: The assignment takes the current setting of the option 'Distribute supplements to transport systems' into account now. (10408)

Procedure Sequence

- ▶ *Moving a group*: Now, moving is okay even if the group is moved downward and the subsequent group consists of just a single entry. (10349)
- ▶ *Read procedure parameters (XML) additively*: The program will no longer crash, if the 'Procedure sequence' window is open while the XML parameters are being read additively. (10431)
- ▶ *Closing the 'General procedure settings' window*: The program will no longer crash if the OK button is clicked while in the background the 'Procedure sequence' window is open with groups in the listed procedure sequence. (10361)

VISUM Files

- ▶ *PuT operating indicators for time profiles*: Compared to reading indicators from file, the indicators used to be written in a different order. Thus, the indicator values were not allocated to the appropriate time profiles. This bug could be fixed. (4615)
- ▶ *Read network data additionally*: Reading old network or demand data no longer creates a fare system and allocates it to the PuT lines automatically. (4624)
- ▶ *Saving version files*: The program will no longer crash, if the version is saved to file with separate Smart Map graphics parameters for line bar display. (10363)
- ▶ *Network reading for aliases*: In previous versions, aliases with relations that had been renamed meanwhile in the attribute IDs were ignored without comment. Now, the new names are allocated. (10364)
- ▶ *Reading network / model transfer file*: Warnings used to be recorded in the error.txt file and did not appear on the screen. Now, these warnings are stored in the trace.txt file. Thus, no irritating error messages will be displayed in the scenario management. (10368)
- ▶ *Network file, line routes and system routes*: The detour factor test will no longer apply the Euclidian length if a projection is used. Furthermore, projections are now regarded for the following: in PuT path lists, in the matrix toll list, for access node definition, in PuT interlining matrices, and for the direct distance calculation between two (main) zones. Thus, TRIBUT assignments might return deviating results if a projection is used and the particular procedure parameters are set in a way, that the value of time depends on the direct distance. (10432)
- ▶ *Couplings in model transfer files*: Modified couplings or coupled time profiles in model transfer files are handled correctly now. (10440)

12.00-02

Corrections, Bug Fixes and New Features (ID)

2011-10-16

Add-In

- ▶ *Add-ins*: In selection lists, the numbers of matrices are viewed as integers now. (10329)
- ▶ *'Calculate Matrix' add-in*: No error will be returned, if the text includes a reference which complies with the recent target matrix. (10287)

COM Interface

- ▶ *Various COM methods with parameters*: In previous versions, the check for the correctness of the VISUM objects that were committed as parameters to COM functions (for example, netReadRouteSearch and AddNetRead in IVisum.LoadNet) was not sufficient. (10331)

Data Model

- ▶ *Formula matrices*: Changing the data source type from 'formula' to 'data' will no longer cause matrix data loss. Instead, the data will be transferred. (10325)
- ▶ *Formula matrices*: The program will no longer crash and corrupt formulas will no longer be generated as a result of changes to the ID of a user-defined attribute or to a demand segment which is referenced in the formula matrix. (10337)

- ▶ *Formula matrices*: Now, the number (key) of a matrix is subject to changes even if a formula matrix contains a reference to this matrix. **(10346)**
- ▶ *Relations to POIs*: Parallel to the existing relations to POIs (from links, for example) additionally new relations to the POIs of a category are now provided. **(2339)**
- ▶ *Vehicle journey adjustment due to line route lengthening*: Optionally, the dimensions of the vehicle journeys can now be retained. In previous versions, a vehicle journey from the line route start and/or to the line route end used to be lengthened accordingly from the new line route start and/or to the new line route end automatically when the line route was lengthened. **(10122)**
- ▶ *User-defined attributes*: If the properties "minimum and maximum values" were missing in the network file, the message "Minimum value exceeds maximum value" used to be returned and the UDA was not imported. This bug could be fixed. **(9207)**

Dialogs

- ▶ *Trip distribution (4-stage model)*: If the procedure uses estimated parameters from Kalibri, then the Choice model window will now show the remaining editable parameters (alignment etc.) correctly. In previous versions, this did not work. **(10343)**
- ▶ *Overview dialog for Aliases*: In the Network menu, an Overview dialog is provided now for Alias Management in the network. **(8277)**

Installation

- ▶ *VISUMDbServer.exe*: In certain cases, the component VISUMDbServer.exe was not registered correctly. As a consequence, VISUM access to Access databases was not possible. This bug could be fixed. **(3254)**

Matrix Editor

- ▶ *Totals in formula matrices*: In the status bar, the sum is no longer displayed for formula matrices since the computation requires too much time. **(10341)**

Network Comparisons

- ▶ *Save model transfer file*: The button "All tables off" provided for this operation used to switch off only the visible tables, i.e. those which were not empty in the current network. Now, this button affects all tables. **(10334)**

PuT Operating Indicators

- ▶ *Automatically calculated territory indicators*: For run time reasons, these PuT-specific indicators which had been provided automatically since VISUM 12 are no longer automatically calculated. In future (starting with the next binary version) you will have the option to activate this functionality. **(10327)**

Other Operations

- ▶ *Territory-based indicators*: The procedure "Territory indicators" is much faster now. **(10326)**

PuT Assignment

- ▶ *Fare calculation*: From-to zone fares used to return incorrect values during the assignment due to the reverse order of path legs in this case. This bug could be fixed. **(3253)**
- ▶ *Headway-based assignment*: For the impedance calculation, the boarding, alighting and traversing fare points were sometimes read as seconds by mistake. This bug could be fixed, they are always read as minutes now. **(4507)**
- ▶ *Fare calculation*: The calculation was speeded-up in networks with numerous fare systems. **(1590)**

VISUM Files

- ▶ *Read network additionally*: The button "Create warnings for conflicts in the 'Ignore' mode" is also regarded for links and connectors. **(10316)**
- ▶ *Read network additionally*: The conflict handling 'Cancel' works correctly again for links, connectors, intermediate points and surface items. **(10342)**

12.00-01

Corrections, Bug Fixes and New Features (ID)

2011-09-29

Add-In

- ▶ *Add-ins in general*: German and English help items have been added to all add-ins. **(10021)**

COM Interface

- ▶ *Options.DecimalSeparator*: This function works correctly now. (3250)

Data Model

- ▶ *Attribute "Number of effective lanes"*: For turns and main turns, this attribute used to return incorrect values, if lane turns existed which connected one lane to several lanes of the same exit leg. This bug could be fixed. (10295)

Development Components

- ▶ *SATURN Import*: The SATURN importer can read the free SATURN-FORMAT in "Section 5555" and considers the parameter "XYUNIT". (10313)

Dialogs

- ▶ *'Vehicle units and combinations' window*: The 'Vehicle combinations' tab can also be opened if the network does not contain any vehicle unit. (10292)
- ▶ *'Read network' pop-up progress window*: The bar update continues even when tables or individual table rows are ignored. (9293)

Timetable Editor

- ▶ *Line block display*: The line block display will no longer crash if undefined attributes are displayed as labels, e.g. 'Length until next occurrence' for block items which have not been defined by the user. (10290)
- ▶ *Print output of the horizontal graphical timetable*: Even if there is a stop or stop point with a very long name, printing will no longer cut off the first hours in the "Entire image" mode. (2940)

Foreign Formats

- ▶ *HAFAS-Import*: Information about "main masts" in the file "Connections between stops" is now evaluated correctly. (3239)
- ▶ *HAFAS import*: Destination coaches are now included in the import. (9338)

Listings

- ▶ *Cross-section functions for indirect attributes*: The color of the column header and tooltip now indicates, that "cross-section" means the total sum calculated for indirect attributes. (7199)

Network Editor

- ▶ *'Edit line route' window*: The program will no longer crash if the timetable editor is called from the 'Edit line route' window of a line route without time profile. (2901)

Other Operations

- ▶ Impedance calculation at node (ICA): Pure public transport lanes are excluded by means of a filter. (10260)

Miscellaneous

- ▶ *Program start*: With any operating system, the projections are copied when VISUM is started. (3237)
- ▶ *Program start*: Even if the target folder does not contain projection files, the projections will be copied when VISUM is started. In this way, VISUM installations that have become defective due to #3237 are fixed. (3238)
- ▶ *Command line options*: There are new command line options for 'load version, execute procedures' and for 'load version, execute procedures, save version'. (9544)

Scenario Management

- ▶ *Modifications, procedure parameter sets*: Newly created modifications or procedure parameter sets cannot immediately be used in scenarios. (10307)

PuT Line Blocking

- ▶ Line blocking (with and without vehicle interchange): According to the setting of the task, line blocking could have ended up in an endless loop. This will no longer occur. (10275)

PrT Assignment

- ▶ Due to the accelerated impedance calculation, the equilibrium assignment is faster now. (9466)

- ▶ *Equilibrium assignment*: Now, even 0 outer iterations are permitted. Thus, only the route volumes have to be adjusted to the new matrix when starting from an initial solution. When not starting from an initial solution, the procedure works like an incremental assignment. **(10293)**
- ▶ *PrT functions*: The option for reproduction of results until VISUM version 11.02 with acceptance of an instable shortest path search is no longer available. Now, always the new and stable shortest path search is used. **(10296)**
- ▶ Impedance calculation at node (ICA): For the 'all-way' control type, the computation could be sped up. This also affects the assignment with ICA. **(9645)**

VISUM Files

- ▶ *Read network file*: The program will no longer crash if zones are read adaptively to the existing network while a 'Desire line' display is visible. **(10205)**