VISUM 11.5 Release Notes

Last modified: 2012-05-07

11.52-21 [67335]	2012-04-01

⊕ New Features and Changes

Dialogs:

⊕ Dialog Line blocking parameters, Transport systems. The dialog is noticeably faster and the memory usage much lower. **(9579)**

Passenger surveys:

⊕ Plausibilization: During plausibilization, specific walk times are now also taken into account when switching from one path leg to the next. So far, they were only effective within the connection search. **(10808)**

✓ Fixed Bugs

Add-In:

✓ 'Calculate Matrix' add-in: The parameters can be read from file even if an external matrix has been specified in the term. **(10862)**

✓ The add-in "Import Google Transit Feed" without the "Calendar / valid days" module now work correctly when considering the parameters "Use filter date" and "Filter date". **(11040)**

COM Interface:

✓ Mehod 'AddUserDefinedAttribute': Creating a UDA of the 'String' type used to fail if a standard value was set. This bug was fixed. **(10886)**

Demand calculation procedures:

✓ Due to an instable computation method, the results differed slighty sometimes. This bug was fixed. **(11051)**

Dialogs:

✓ 'Set up print page' window: The 'Preview' button works correctly again. Whether the 'Page preview' has been displayed before makes no difference. **(10194)**

Junction Editor:

✓ Data editing in lists will no longer cause a program crash, when switching to the geometry view via the layer panel in the edit mode. **(10837)**

Miscellaneous:

✓ The sqlite library, which is part of the Python 2.5 installation was updated to fix a bug which prevented use of sqlite within VISUM. **(11012)**

Other operations:

✓ VISUM does not crash any more when editing the shape of line routes, if a line route has more than 1000 items. **(11031)**

PrT assignment:

✓ When generating sequences of nodes based on bushes, incorrect node sequences were generated for paths where the origin or destination zone is connected to a main node but, at the same time, the connector node is not the cordon node of the first or last link of the path. This could lead to false paths in the subnetwork generator or in PrT path lists. **(11000)**

- ✅ Convert paths: In networks containing main nodes, the Convert paths: In networks containing main nodes, the conversion of PrT paths into a demand segment used to load the volumes to the turns instead of the main turns, if both cordon links of the main node struck the same node. Now, the volumes are loaded to the main turns in proper style. **(9590)**

PuT Operating Indicators:

- ✅ Projection of user-defined attributes: The projection used to be performed repeatedly for vehicle journey section services crossing the midnight hour if either calendar day was included in the analysis period. This bug was fixed. **(4204)**

PuT Passenger Survey:

- ✅ Walk times between stop areas: The 'from stop area' and the 'to stop area' of any transition used to be inverted, when this time data was regarded in the framework of plausibilization. Furthermore, for blocked transitions a walk time of 0s was assumed for the calculation and they used to be regarded as open transitions. Either bug was fixed. **(10809)**

Subnetwork generator:

- ✅ Jointly assigned PuT demand segments: If you assigned several demand segments in a PuT assignment and generated a subnetwork from this network, the network would sometimes lack paths. Traffic flows in particular were too small. **(11007)**

VISUM files:

- ✅ Model transfer file: Now, also objects of the 'intergreen' type can be deleted via entry in the MINUS table ('Delete') of the model transfer file. **(10919)**

- ✅ The reading of .mdb files now also works correctly, if the set language contains unicode characters (Russian, Spanish, Hungarian, Portuguese, Greek, Japanese, Chinese). **(11025)**

- ✅ EWS values: 'Read version file' now corrects out-dated EWS values which exceed the today's value range. **(10795)**

- ✅ Geometries in model transfer files: Now, also model transfer files storing changes to (main) nodes and node geometries can be read. In previous versions, this was not possible due to the fact that changes to a node's position could change the orientations and thus modify the keys of the geometry objects. **(10859)**

- ✅ Model transfer files with node geometry data: Incorrect model transfer files could result from the geometry objects' sort key 'angles of links'. This bug was fixed. **(10804)**

11.52-20 [66312]   2012-02-22

➕ New Features and Changes

Add-In:

- ➕ Add-ins in general: Invalid parameters return a message now (Cannot find matrix with the specified ID, for example). **(10719)**

Foreign Formats:

- ➕ SATURN: The split logic for links and connectors has changed. Now splitting a link dows no longer modify the geometries of adjacent SATURN nodes. **(10082)**

Listings:

- ➕ 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)**

✅ Fixed Bugs

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)**

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

- ✅ 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:
- ✅ 'Init assignment' procedure: Via IOperation, direct access to the 'Init assignment' procedure parameters is provided again, though these procedures have no specific parameters. **(10680)**
- ✅ PrT paths list / COM: The program will no longer crash if the PrT paths list is open when the COM method Visum.ImportExtRouteFile is executed. **(10739)**
- ✅ The IVisum.Autozoom functionality now also works for links. **(10632)**
- ✅ The method IVisum.SaveAccessdatabase works correctly now if a layout file (.net) has been specified. **(10647)**

Data Model:
- ✅ 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)**
- ✅ 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)**

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)**
- ✅ 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)**

Dialogs:
- ✅ 'Estimate gravitation parameters' parameters, utility definition: VISUM will no longer crash if there is no entry in the list and 'Delete' is pressed. **(10577)**
- ✅ 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)**
- ✅ 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)**

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

Foreign Formats:
- ✅ SATURN import: The import of SATURN data does not fail if the current VISUM language is neither English nor German. **(10156)**

Graphics:
- ✅ Matrix bar labels for turn volumes: Now, the bar labels appear in the correct order for turn volumes with several bars and matrix labels. **(10581)**

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 'freeze' the installation process. This bug was fixed. **(10710)**

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

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)**

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)**

- Page preview: Shifting the view by mouse and scrollbar works correctly now. **(10195)**

- 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)**

Other Operations:

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

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)**

PrT Assignment:

- 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)**

- Node impedance calculation: The program will no longer crash if ICU or Circular212 is used with complex green stages. **(10568)**

- 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)**

PuT Assignment:

- 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)**

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)**

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)**

VISUM Files:

- 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 matrix from file: Reading the matrix from file does no longer remove the demand segment allocations. **(10498)**

- 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)**

11.52-19 [64597]   2011-12-06

⊕ **New Features and Changes**

Data Model:

➕ Propagation: The propagated link volumes without regard to count values can now be output. **(10451)**

Foreign Formats:

➕ SATURN: Also right-hand traffic networks can now be imported. **(10539)**

✅ **Fixed Bugs**

Data Model:

✅ 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)**

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)**

Dialogs:

✅ 'User' tab: In various dialogs, the 'User' tab used to show incorrect information. This bug could be fixed. **(10529)**

✅ Attribute selection in the 'Save network' window: In the context menu, the commands "Check displayed attributes" and "Uncheck displayed attributes" work correctly now. **(10488)**

Foreign Formats:

✅ SATURN: Lower case SPEED s parameters are now regarded. **(10540)**

Graphical Operations:

✅ Isochrones: When using the "Find u'…';" dialog and closing it without selecting a network object, VISUM will no longer crash. **(10547)**

Graphics:

✅ SVG export: In the SVG export SVG backgrounds are exported now as well. **(10545)**

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)**

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:

✅ 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 can now be read from file in the 'Overwrite attribute' mode, even if both the minimum and maximum value columns are missing. **(10496)**

✅ Read network, line block versions: The test, whether the time interval lies inside of the calendar now also works for annual calendars. **(10520)**

✅ Route import (*.RIM): The program will no longer crash if routes with volumes per time interval are imported. **(10495)**

11.52-18 [64058] 2011-11-17

➕ **New Features and Changes**

Add-In:

➕ VisumPy.Matrices: If the destination main zone number is zero for a zone, it will not be aggregated. **(10436)**

Foreign Formats:

⊕ SATURN, reading PuT line data: Now, the import can also handle data with parameter EZBUS set to TRUE. **(10405)**

⊕ SATURN: Now, U-turns are closed by default. **(10404)**

Listings:

⊕ 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)**

✓ Fixed Bugs

Add-In:

✓ 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:

✓ 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)**

Foreign Formats:

✓ Read from database: Databases generated with VISUM 12 can now be read. **(10390)**

✓ 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)**

✓ SATURN, attribute SATURN_V_CAP: The attribute SATURN_V_CAP is now correctly read from section 33333. **(10428)**

✓ SATURN, coordinates multiplicator XYUNIT: In all cases, this value is read-out correctly now. **(10412)**

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

✓ SATURN, logging: The message output during the import has been improved (only relevant messages are returned). **(10429)**

✓ 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)**

✓ SATURN, signal groups: Signal group data is now completely read from file. **(10413)**

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)**

Other Operations:

✓ Matrix aggregation / matrix disaggregation: The program will no longer crash if a matrix is deleted to which either procedure refers. **(10419)**

PrT Assignment:

✓ '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)**

PuT Assignment:

✓ Connection file including fare data: The assignment takes the current setting of the option 'Distribute supplements to transport systems' into account now. **(10408)**

VISUM Files:

✓ Couplings in model transfer files: Modified couplings or coupled time profiles in model transfer files are handled correctly now. **(10440)**

⊕ **New Features and Changes**

Foreign Formats:

⊕ HAFAS-Import: Information about "main masts" in the file "Connections between stops" is now evaluated correctly. **(3239)**

VISUM Files:

⊕ 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)**

✓ **Fixed Bugs**

Add-In:

✓ 'Calculate Matrix' add-in: No error will be returned, if the text includes a reference which complies with the recent target matrix. **(10287)**

✓ Add-ins: In selection lists, the numbers of matrices are viewed as integers now. **(10329)**

✓ Calculate Matrix Aggr function: The program will no longer crash if a zone cannot be allocated to a main zone. **(10374)**

✓ RunVBA: Warnings which might stop the procedure will no longer appear. **(10360)**

COM Interface:

✓ IOperation::Filename: The attribute 'filename' returns the filename now instead of an empty string. However, the attribute remains obsolete. **(10359)**

✓ 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)**

✓ 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:

✓ 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)**

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)**

Foreign Formats:

✓ 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)**

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 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)**

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

Network Editor:

- ✅ 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)**

PrT Assignment:

- ✅ PrT skim matrix calculation: Using several computation cores will no longer cause a program crash. **(10351)**

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 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)**

11.52-16 [62881]   2011-09-30

⊕ New Features and Changes

Foreign Formats:

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

PrT Assignment:

- ⊕ 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)**

✅ Fixed Bugs

Add-In:

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

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)**

Dialogs:

- ✅ 'Read network' pop-up progress window: The bar update continues even when tables or individual table rows are ignored. **(9293)**

Miscellaneous:

- ✅ 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)**

- ✅ Program start: With any operating system, the projections are copied when VISUM is started. **(3237)**

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)**

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 occurance' 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)**

VISUM Files:

- Network file: Line breaks are replaced by blanks when networks are saved to file. In the VISUM network file, the line break belongs to the meta data. **(10285)**
- 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)**

11.52-15 [62379]   2011-09-09

⊕ New Features and Changes

Dialogs:
- ⊕ The symbol for user-defined attributes in the attribute selection tree is now black instead of brown to be better distinguishable from other colors used. **(9994)**

Filters:
- ⊕ Flow bundles used to be recomputed too often while an OD pair filter was set. This bug has been fixed. **(10261)**

Network Editor:
- ⊕ Uncoupling: Uncoupling time profiles is much faster now, particularly in the context of a muliple line deletion. **(2536)**

⊘ Fixed Bugs

Add-In:
- ⊘ Add-In "Create Regular Timetable": The column "VehComb" has been removed, since the validity of a VehComb for a vehicle journey depends on the individual TSys. **(10144)**

COM Interface:
- ⊘ Python script runtime: Python scripts executed inside the procedure sequence now run as fast as manually started scripts again. **(10251)**
- ⊘ The characters '$' and ';' are now permitted inside Add-In parameters. **(10252)**

Dialog windows:
- ⊘ 'Edit line route': The program will no longer crash if the profile point property is unchecked for more than one time profile item simultaneously by marking the check boxes and pressing the space bar. **(10265)**

Dialogs:
- ⊘ Line route dialog: VISUM no longer crashes when the creation of a new time profile is canceled by the user. **(10254)**

Filters:
- ⊘ POI filter: Filter conditions on the level of all POIs (not by individual category) no longer get lost when saving and reimporting a version file. **(2814)**

Foreign Formats:
- ⊘ SATURN import: The import now supports larger node IDs according to the specification in SATURN manual 10.8. **(10246)**
- ⊘ Shapefile export: VISUM no longer crashes when opening the attribute selection dialog during the shapefile export if a user-defined attributes for (all) POIs is missing for the selected POI category. **(2796)**

Graphics:
- ⊘ Bar labels: The labels of multiple bars are now in correct order even if the direction of traffic in the network is left-hand. **(10267)**
- ⊘ Double drawing: In rare cases, turn volumes were drawn twice in VISUM after a version file was opened. This bug could be fixed. **(2684)**

Junction Editor:
- ⊘ Nodes are now drawn correctly for network scales > 250 as well. **(10227)**

Listings:

- Numerical inputs for integer attributes outside of the integer domain are now rejected with an error message. **(10255)**

VISUM Files:
- Network file import: Time-varying attributes for main turns can be imported again. **(10273)**
- Version file created with VISUM 8 can be read again even if they contain multiple fare stages for the same fare. **(2797)**

11.52-14 [61984]   2011-08-23

⊕ New Features and Changes

Dialogs:
- Follow-up inquiry window: The query 'Continue?' will no longer appear if only the buttons 'OK' and 'OK for all' are visible whereas 'Cancel' and 'No' are not. **(9731)**

Matrix Editor:
- Highlighting marked intervals in the histogram: The bars representing the currently selected grid intervals are now highlighted in the histogram view. **(9849)**
- Linear combination in the matrix editor: The context-sensitive matrix editor menu now provides quick access to the linear combination functionality. **(10146)**

⊘ Fixed Bugs

Add-In:
- 'CalcMatrix' add-in and MultiEdit SetDefaultStyle: The 'View' mode's correct font New Courier is used now when the text entry is edited. **(10137)**

COM Interface:
- Changing the demand time series via COM interface: Though another demand time series has been selected via COM, the assignment used to regard the data of the previously selected demand time series. This bug could be fixed. **(10219)**

Filters:
- 'Save filter file': With sub-attributes including the & sign an XML filter file could be saved but not be read subsequently. This bug could be fixed. **(10196)**

Listings:
- List of main zone OD pairs: Incorrect attribute values used to be listed for the opposite directions of the OD pairs connecting main zones. This bug could be fixed. **(10216)**

Matrix Editor:
- Operand selection: In foreign languages, the zone attributes 'origin' and 'destination' sometimes were changed in the pull-down box. **(10235)**

Other Operations:
- Signal cycle optimization for internal controls: Minimum green times of signal controls to which only crosswalks have been assigned will no longer be discarded if the optimization result is not better than the current signal timing plan. **(2610)**
- Signal cycle optimization for internal controls: The procedure used to crash in certain cases. This bug could be fixed. **(2611)**

PrT Assignment:
- Converting paths: During the conversion of paths into a demand segment (Overwrite/Sum up mode), the test for the identity of paths did not work correctly. As a consequence of this, duplicates could have been created. This bug could be fixed. **(10225)**
- PrT assignment DUE: With DUE time intervals that differ from the analysis time intervals, the final aggregation of the DUE time intervals to analysis time intervals used to be wrong for queue length and impedance data. Now, correct attribute values are returned. With identical DUE and analysis time intervals, this bug did not occur. **(10204)**

Subnetwork Generator:

- Lanes: User-defined attributes of lanes are stored with the subnetwork now. **(2653)**

Timetable Editor:

- 'Create vehicle journey(s)' window: The 'User-defined attributes' tab now shows also the names of the attributes in the list. **(9767)**

VISUM Files:

- Line costing data in old version files: The accidental inversion of the stored line costing computation results among the PuT line routes will no longer occur when an old version is read from file. **(10214)**

- Read network additively with activated filters: The main OD pair filters are no longer evaluated after each network data row. This might significantly speed up the read operation. **(10185)**

11.52-13 [61527]   2011-08-03

⊕ New Features and Changes

Add-In:

- Matrix XLS: Excel data which is provided in string data format can now be read. **(10168)**

Graphics:

- Line bars: The fill colour of line bars may now be classified by an attribute. **(6894)**

Matrix Editor:

- For deactivated control elements hints are displayed now which state the reason for the current non-availability of an operation. **(5789)**

PuT Assignment:

- 'Procedure parameters' window, skim matrix calculation (PuT): When skim matrices are saved to file, a default file name is displayed now. This is especially helpful if multiple demand segments are processed simultaneously. **(9556)**

Timetable Editor:

- Copy line blocks: Now, the line blocks can be propagated to all calendar days of the target block version's line blocking time interval, when line blocks of a block version are copied to a different block version. **(10147)**

VISUM Files:

- Detectors in ANM: During the ANM export, POIs with specific preset user-defined attributes are regarded as detectors for the export to VISSIM. **(10088)**

- List export to database: Similar to the export to clipboard or file, also the alias of an attribute is exported to the database. **(7681)**

✅ Fixed Bugs

Add-In:

- 'Isoc2POI' add-in: This add-in can be called via the 'Procedures' window now. **(10155)**

- Zone catchment areas: The calculation can now be performed for all zones at the same time. **(10162)**

Data Model:

- Line route, WKT polygon: Even if a line route is completely located within one link, the WKTPoly attribute value is computed correctly now. **(2105)**

- The main zone attributes origin demand, destination demand and internal traffic regard the OD pair filter correctly now. Only the active OD pairs add up to the particular totals. **(2167)**

Dialogs:

- 'Fare' window for 'Short-distance fare': Copy & Paste works correctly now. **(10160)**

- Fare zones: 'Cancel' works correctly now. **(2110)**

- ✅ Page preview, zoom level: The entries in the selection list appear in the selected language now after switch-over to a different language. **(10108)**

Graphics:
- ✅ Cross-section bars on blocked links: Even if the option 'Draw bars also on blocked links' is active, cross-section bars are correctly displayed on blocked links. **(10148)**

- ✅ Printing of sophisticated line styles: Print output to printer or PDF file will no longer be cancelled, if polygon lines are to be depicted by a non-trivial line style (more than 10 dashes). In this case, the line style is now simplified for printing. For the display on screen, the user-defined line style will still be used. **(10123)**

Junction Editor:
- ✅ Crosswalks and channelized turns are drawn correctly again. **(10170)**

- ✅ Network scale: With larger scales, the node appeared very small in the geometry view. When zooming in on the node the node leg selectors used to disappear. This bug could be fixed. **(10161)**

- ✅ Procedure execution: The program will no longer crash if the junction editor is still open while the procedure 'Updating node impedances' is running. **(10149)**

- ✅ Signal timing: VISUM crashed if there was an RBC template that could not be applied. This issue was fixed. **(10184)**

Listings:
- ✅ Delete line routes: In certain cases the program used to crash if the assignment result had to be deleted as a result of deleting a line route. This bug could be fixed. **(2117)**

- ✅ SCJ: User-defined attributes of external control strategies could not be edited in the SCJ list. This bug could be fixed. **(10159)**

Matrix Editor:
- ✅ Matrix comparison: VISUM no longer crashes when a new network is opened, the matrix comparison view is open and the window configuration is supposed to be retained. **(10145)**

Network Comparisons:
- ✅ Restoring of views during network merging: In the network merge mode, those views (lists, matrix editor) will no longer be restored which are stored in the version file but cannot be used in the network merge mode anyway. **(10141)**

Other Operations:
- ✅ Matrix disaggregation: The value 0 is now also disaggregated. Values in the zone matrix that belong to no pair of main zones are initialized with 0. **(7297)**

PuT Assignment:
- ✅ Calculation of skim matrices: in special cases 64 bit VISUM would crash. This issue was fixed. **(2187)**

Timetable Editor:
- ✅ Copy line blocks: The program will no longer crash if no target block version was selected for 'Copy line blocks'. **(10151)**

VISUM Files:
- ✅ Path file aktdrv.pdf: When starting the program, this path file will be copied to the user directory only if this folder does not contain another version of the aktdrv.pdf file. In this way, your changes to the settings stored in this file will no longer get lost. **(2081)**

- ✅ Read schedule data addtively from network file: Due to a lack of memory VISUM could crash when large files were read. This issue was fixed. **(10182)**

11.52-12 [60897]   2011-07-14

➕ **New Features and Changes**

Add-In:
- ➕ 'Isoc2POI' add-in: This add-in runs much faster now. **(10125)**

⊕ Add-in: A detailed message will appear, if an add-in cannot run with a 64 bit edition. **(10109)**

Dialogs:

⊕ Line route window: When this dialog window is opened, the focus will no longer be on the 'Line' combobox. **(1873)**

Foreign Formats:

⊕ HAFAS import, combined runnings file: If coupling is not successful for all variants of the time profile pairs to be coupled which are stored in this file, then the coupling flag is now attached to those pairs of time profiles which can be coupled. In previous versions, none of the involved time profiles used to be coupled in this case. **(848)**

Listings:

⊕ Matrices list: To both the toolbar and the context-sensitive menu functions have been added which provide direct access to the matrix editor. **(5381)**

⊕ Various lists: The 'Del' key will no longer delete objects in lists, as it is used for data editing in the cells. In previous versions, listed objects such as demand segments or matrices, for example, used to be deleted. **(10083)**

PrT Assignment:

⊕ ICA, HCM 2010: VISUM now supports also roundabouts with more than two entry lanes per leg. **(10100)**

⊕ ICA, roundabout: If the attribute "NumConflLanesForICA" has been defined for the node legs, then this attribute will be used for the number of lanes in the node instead of the attribute Node::NumberLanes. **(10086)**

Timetable Editor:

⊕ PuT line selection: The computation of the classical sequence of stop events could be accelerated. **(10128)**

✓ Fixed Bugs

Add-In:

✓ 'Matrix Convolution' add-in: The external matrix multiplication works correctly now during matrix convolution. The via matrix is correctly exported. **(10098)**

Filters:

✓ OD pair filter & PuT statistics list: The statistics will be updated automatically as soon as the OD pair filter is activated or deactivated respectively. **(10102)**

Foreign Formats:

✓ HAFAS import: The import will no longer cause a program crash if the license's permitted number of time profiles is exceeded and then "No" is confirmed in response to the "Continue?" query. **(2009)**

Graphics:

✓ Flow bundle bars: Under certain circumstances, drawing flow bundle bars used to cause a program crash if there was no reference bar available. **(10114)**

Listings:

✓ (Main) OD pair list: In both lists, the 'Find' functionality works correctly now. **(8592)**

✓ Paste from clipboard: The 'Read attributes' window appears again. **(10101)**

Matrix Editor:

✓ Arithmetic operations: Even external matrices with asymmetrical dimensions show correct calculation results in the matrix diagonal now and will no longer cause a program crash. **(10121)**

Miscellaneous:

✓ Script menu: Script menu commands for scripts with incomplete data in the registry will no longer get lost when the VISUM session is started. **(1765)**

PrT Assignment:

✅ Assignment TRIBUT- Equilibrium_Lohse with matrix toll: Sometimes, the (main) turns in the matrix toll area or at the cordon of it used to have insufficient volumes. Thus bug could be fixed. **(10119)**

PuT Assignment:

✅ Timetable-based assignment: Even if vehicle journeys overlap, the assignment with option 'Shortest path search' works correctly now. **(1860)**

Subnetwork Generator:

✅ Stage-based signal control: Due to a data error, VISUM used to crash if a signal group had been allocated to the same stage several times. This bug was fixed. **(10120)**

Timetable Editor:

✅ Copy line blocks: If the start day of the line blocking time interval of the source line block version differs from the start day of the target line block version, the start day index of the line block items will be adjusted accordingly. In previous versions this was not handled correctly. **(10139)**

✅ VISUM will no longer end up in an endless loop if a new time profile is added while the timetable editor is open and if the line selection is changed subsequently. **(10006)**

VISUM Files:

✅ Subnetwork generator: VISUM will no longer crash if the network includes main nodes with geometry data which are not exported to the subnetwork. **(10099)**

11.52-11 [60193]   2011-06-09

➕ **New Features and Changes**

Add-In:

➕ A new add-in takes specific critera into account for the creation of PuT connectors. **(9687)**

Dialogs:

➕ Procedure settings dialog "PuT operating indicators": On the "Infrastructure cost" page, copy and paste is now enabled using ctrl+c resp. ctrl+v key as well as using context menu entries. **(8685)**

Junction editor:

➕ VISSIM preview: The VISSIM preview has been updated for VISSIM 5.30-06. **(10066)**

PuT Operating Indicators:

➕ Vehicle journey section service time: If a vehicle journey section ends before the end of the vehicle journey and if there is another vehicle journey section which starts at the same time profile item, the dwell time at this stop point is now included in the service time of the ending vehicle journey section independent of the used vehicle combination. **(9537)**

Timetable Editor:

➕ Line block view: Even if the time axis is displayed below, you can scroll down right to the bottom. **(1399)**

VISUM Files:

➕ Read procedure parameters from file: If matrix number 0 is read, a 'missing matrix reference' is queried now. In previous versions, an 'unknown or incompatible' matrix reference was queried. **(10079)**

✅ **Fixed Bugs**

Data Model:

✅ EVA demand models: The program will no longer crash if structural properties are deleted. **(1804)**

Demand Operations:

✅ Multi-Delete matrices: The program will no longer crash if matrix data is accessed during 'Multi-step mode choice' or 'Estimate gravitation parameters' or 'Time-of-day choice' subsequently to the simultaneous deletion of multiple matrices. **(10078)**

✅ VISEVA trip distribution / mode choice: Balancing will work correctly even if the the balancing demand stratum has hard constraints. **(659)**

Dialogs:

- EVA demand model: The program will no longer crash if to only one side of an activity pair an activity is allocated. **(10080)**
- Floating dialog box "line routes": The program will no more crash after a line route is deleted, restored via "Undo", then marked and then deleted again usind "Redo". **(1847)**

Foreign Formats:
- SATURN import: The identification of the major flows during the import procedure has been improved. **(10012)**
- Shape file import for POIs: 1. Shape file import via COM interface: If no POI category has been set (POIKey) and if the shape file does not include the attribute "MainCatNo", VISUM now returns an appropriate error message. 2. Attributes from the shape file can now be mapped to the POI attribute "MainCatNo". 3. In the import dialog window, the combo box now provides the entry "from shape file" instead of an empty entry. **(9793)**

Graphics:
- Background texts: Text files storing background text data are unicode-capable now. Even data including non-Latin characters is correctly read from file. **(1842)**

Matrix Editor:
- Matrix editor: Optionally, external matrixes are extended during binary arithmetic operations in the case of different sets of operand keys. With asymmetric key sets, the row and column keys were inverted by mistake. This bug could be fixed. **(10075)**

Network comparisons:
- Network merge mode: The program will no longer crash if 'Cancel' is pressed while the second version file is being read from file. **(9198)**

Network Editor:
- Specify line route course: If the run times are generated from the link network, now also the coupled vehicle journeys of other line routes are adjusted to the possibly changed departure times. **(10025)**

Other Operations:
- Calculate PrT skim matrices: Using more than oneCPU core could lead to instable results. This issue has been fixed. **(10081)**

PrT Assignment:
- PrT paths: The program will no longer crash if the following sequence of steps is performed: a) PrT assignment calculation while the list 'PrT paths on link level' is open, b) stuctural change to the network, e.g. 'Split link', c) another PrT assignment calculation. **(10085)**

PuT Assignment:
- Zone statistics and overall statistics: The OD pair filter bears on the attribute data of either statistics as desired now. In previous versions, these attributes used to return value 0 as long as the OD pair filter was active. **(9200)**

VISUM files:
- Using model transfer files: Added demand descriptions (i.e. newly created demand segments) are not read correctly from file when the model transfer file is used. **(10058)**

11.52-09 [59784] 2011-05-27

⊕ New Features and Changes

Add-In:
- 'Google Transit Import' add-in: This import can be performed additively to an existing network now. Especially, several data packages can be imported one by one into the same network. **(9481)**
- Add-ins: A new add-in is provided which allows for commuting isochrones into POI polygons. These polygons can be used for subsequent operations, for example for 'Intersect' operations. **(9923)**
- Add-ins: After closing a Python script via ALT + F4, the script used to continue running internally. Thus, no other script could be started subsequently. This bug could be fixed. **(9736)**

- ⊕ Python library VISUMPy: The library has been adapted in several VISUM versions (11.0 and 11.5). Thus, add-in problems previously resulting from parallel installations of various program versions on the same personal computer will no longer occur. **(9999)**

- ⊕ VisumPy.helpers.Set/GetMatrix: In the GetMatrix functions Get/SetMatrix(Raw), the matrix to be read will be determined by its CODE attribute, if the argument 'which' is a string. **(9836)**

COM Interface:

- ⊕ The execution of scripts could be accelerated. **(9993)**

Data Model:

- ⊕ Signalization: Now, RBC controllers can be selected for external control in VISUM. **(9470)**

Graphics:

- ⊕ Centered labels: Also the centered label of a linear object (links, connectors, screenlines) will be highlighted if the edge is marked. **(4408)**

Installation:

- ⊕ Codemeter: If VISUM temporarily loses its licence (due to a computer network failure, for instance) running assignments will be frozen until the license is available again. VISUM will continue without a query automatically as soon as the licence is available again. **(8269)**

Network Editor:

- ⊕ Rotate background text: The click area around the text has been enlarged to make the text selection easier. **(9810)**

PrT Assignment:

- ⊕ ICA, HCM 2010: Now, VISUM can calculate the node impedances according to HCM 2010 for nodes of the control type 'signalized' (pre-timed), 'two-way stop' and 'two-way yield', 'all-way stop' and 'roundabout'. **(884)**

✓ **Fixed Bugs**

Add-In:

- ✓ 'Calculate Matrix' add-in: The arithmetic function '/' is now provided in the list. **(10010)**

- ✓ 'Procedures' window: The program will no longer crash if an add-in is opened and then removed from the list of operations. **(9963)**

- ✓ 'Zone Catchment' add-in: The program will no longer crash if the add-in is started without marking a zone. **(10033)**

- ✓ Multi-edit attributes: This dialog window opens faster now. **(9954)**

- ✓ Now, reading Google files works correctly again. **(10042)**

- ✓ SetMatrixRaw: The method accesses the original matrix now and returns the correct order of columns of the transposed matrix. **(10040)**

Data Model:

- ✓ Create vehicle journey: The program will no longer crash if the 'Cancel' button is used to close the open "Create vehicle journey(s)" dialog window. **(10001)**

- ✓ Node geometries: After adding a link to a main node or node with 0 legs the geometry was not adjusted correctly and incorrect geometry data used to be stored. This bug could be fixed. **(10027)**

Dialogs:

- ✓ Assignment analysis: In the assignment analysis diagram, the parameter settings always refer to the recently calculated analysis now. **(9933)**

Foreign Formats:

- ✓ SATURN import: Error messages with regard to ICA will appear only if the buffer link connects to a signalized node. **(9950)**

- ✓ SATURN import: For the 'Split link' operation, the connector logic has been corrected. **(9965)**

Graphical Operations:

- ✅ Selection provided for flow bundle configuration: With 'Link' conditions, if 'Supply' shall be selected, VISUM now on any level of the line hierarchy provides all objects traversing the link. Previous VISUM versions used to provide all line and line route objects, but only those time profile and vehicle journey objects which stopped at (link/node) stop points along the link. **(10000)**

- ✅ Shortest path search: The program will no longer crash after initialization of the shortest path search and subsequent editing of the number of transfers. **(10053)**

Graphics:

- ✅ Graphic parameters for PuT line bars: If graphic parameters including line bars are read from file in the user-defined order of lines and line routes etc., all network objects will remain visible nevertheless. In former VISUM versions, other network objects in the network no longer appeared in the list. **(10019)**

- ✅ Legend wizard: If isochrones are selected for display in the legend (2D display) and if a value less than 2 mm is set for option 'Symbol vertical' in the 'Spacing between' section, the legend will be dispayed completely. The bottom used to be cut in this case. **(10007)**

- ✅ Timetable - graphics parameters: Classes set up for alphanumerical classification (e.g. for line name) are now retained. Under certain circumstances, they could have been deleted when the data was read from file. **(9898)**

Junction Editor:

- ✅ Network scale: The node editor's geometrical view now takes the network scale into account. In former VISUM versions it might have happened that the link width was not displayed correctly at main nodes. **(10028)**

Listings:

- ✅ Matrix toll: The program will no longer crash during straps recalculation in a network without zones and links. **(5891)**

Matrix Editor:

- ✅ Header: a) The 'Matrix' header will be in the correct position if two matrices are opened initially for matrix processing. b) The program will no longer crash if the pointer is placed on one of the empty fields in this header. **(10054)**

- ✅ Histogram: The program will no longer crash if multiple rows or columns are marked by left-clicks in the grid of intervals while the 'Shift' key is being pressed. **(10020)**

- ✅ Special matrix operation 'Projection': Doubly-bound projection (multi-procedure) did not standardize the matrix sum by the displayed type, but by the type currently being listed on top of this one in the dialog window. This bug could be fixed. **(10011)**

Miscellaneous:

- ✅ Options, list of most recently used files: VISUM no longer crashes if the value 0 has been entered. **(1598)**

- ✅ Using the (out-dated) hardlock dongle with Vista could have caused a program crash if the dongle was not attached when the program was started. This bug could be fixed. **(8707)**

Network Editor:

- ✅ Multi-edit: If multi-edit cannot be applied to all selected objects but fails for several objects due to min value or max value violations, for example, then a message will appear again as known from former VISUM versions. **(10002)**

Other Operations:

- ✅ Intersect: When the 'Procedure parameters' window is opened, the program will no longer crash though invalid network object types have been selected for intersect operations. **(10037)**

PrT & PuT Assignment:

- ✅ In the case of repeated calculations of the headway-based assignment, for example in the framework of a demand model using feedback, the memory requirements used to increase heavily with each iteration. This behavior could be improved. **(1439)**

PrT Assignment:

- ICA for signalized nodes: ICA can no longer be calculated, if the turn types of a leg are not sorted correctly (left turns being placed to the right-hand side of through turns, for example), since this would produce incorrect results. **(9955)**
- TRIBUT_Equilibrium: This operation will no longer regard the area toll. Only the link toll is taken into account now. **(10023)**

PuT Passenger Survey:
- Plausibilization of partial sets: With version files that had been created with an elder VISUM version (binary leap in path format) the program will no longer crash if not all of the OD pairs are subject to plausibilization. **(9737)**

Subnetwork Generator:
- Subnetwork generator: 1) Even if a vehicle combination's attribute 'Vehicle combination set' includes the vehicle combination itself, a subnetwork can now be generated. 2) Even with a crosswalk whose link is not within the partial network, a subnetwork can now be generated. **(9981)**

Timetable Editor:
- Marking in the line block 'block view': Now, the marking responds correctly to the deletion of line block items. Under certain circumstances it might have happened in previous versions, that different block items were marked randomly if marked line bock items were deleted. **(9969)**
- Sequence of stops: With a new VISUM installation, the setting for the sequence of stops calculation (classical/hierarchical) was not read from the registry. This bug was fixed. **(10043)**

VISUM Files:
- Read network additively: Additive reading of network data including PuT line routes could have caused a program crash due to undirected stop points on links, if the line route was to be routed in loops multiple times between stop points on the same link and on adjacent nodes. **(9997)**
- Read procedure parameters: Invalid code data of POI objects and GIS objects used to be registered as invalid demand segment codes. This bug was fixed. **(10038)**

11.52-08 [59012]   2011-04-19

⊕ New Features and Changes

Data Model:
- Display of sub-attribute values: If a network object type (matrix or demand segment, for example) is used as sub-attribute and if there are objects without name, then the object's number and code will be displayed instead of the object's number and name. **(1591)**
- Main turns Multi-edit: For editing, public transport systems that are not permitted on main turns are no longer provided. **(1423)**

Dialogs:
- 'TFlowFuzzy' parameters window: It can more clearly be seen now, that turn count data regard turns and main turns as well. **(9684)**

Graphics:
- Backgrounds DWG/DXF: Backgrounds in either AutoCAD format DWG or DXF can now be displayed in 64 bit editions, too, though the display quality does not yet reach the 32 bit quality. **(9941)**

Network Editor:
- Marking line routes by mouse-clicks on stop points or nodes: Now, a message appears in the status bar, if previous clicks are discarded because the number of hits has became zero. **(9463)**
- Network check: The 'Viability for ICA' check now also verifies, whether a signal controller has been assigned to a signalized node or main node. **(9959)**

Other Operations:
- 'Signal offset analysis' procedure: Instead of 0s as it used to be, an overloaded signal group's wait time is 100000h now. **(9904)**

PuT Assignment:

⊕ Timetable-based assignment, 'Calculate paths from': Now, all demand segments are provided for source selection. The suitability is not checked until the procedure is executed. **(1678)**

✓ Fixed Bugs

Add-In:

✓ 'Calculate Matrix' add-in: Any overflow is recorded now during the calculation. **(9942)**

✓ 'Calculate Matrix' add-in: If the matrix code contains special characters such as ä or ß, for example, and if the add-in is saved to file ('Procedures' window), the program will no longer crash when this matrix is opened later. **(9940)**

✓ 'Create Regular Timetable' add-in: Running this add-in will no longer cause a program crash, if the option has been checked in the 'Attribute?' column and if the attribute 'coupled' has been selected in the 'Headway1' column. **(9813)**

✓ 'Create Regular Timetable' add-in: The 'Cancel' button provided with the progress bar works correctly now. **(9814)**

✓ Executing add-ins in the procedure flow: If an add-in is run via 'Procedures' without previous parameter selection, then the completeness is qu eried now. **(9727)**

Demand Operations:

✓ 'EVA trip generation' procedure: Versions which were saved to file after the deletion of an allocation of person groups and/or structural properties to demand strata in the demand model could not be read from file later. This bug could be fixed. **(9951)**

Dialogs:

✓ Copy line route: The length of the "Name" input field is no longer limited. **(9826)**

Foreign Formats:

✓ SATURN: Closed links will no longer be opened for transport systems when the PuT lines table is read from the network file. **(9948)**

✓ SATURN: Without PuT, the ',' mark will no longer appear at the end of the character string when reading TSYS data from file. **(9966)**

Graphical Operations:

✓ PuT flow bundle: Executing the flow bundle calculation if only a TSys-based assignment is available will no longer cause a program crash. **(9763)**

✓ Shortest path search PuT-Sys: The search will no longer cause a program crash if the network contains connectors that are not open for any transport system. **(9949)**

✓ Shortest path search: After selection of a different mode, the original mode was regarded for the search by mistake. Thus transport systems which did not correspond to the currently selected mode could be used. This bug could be fixed. **(9970)**

Graphics:

✓ Transparent colors for backgrounds: Transparent colors in backgrounds are drawn correctly now. **(9961)**

Matrix Editor:

✓ Copy the diagonal to clipboard: This functionality is provided again. Both decimal separator settings under 'Options' and the maximum number of decimal places specified for the clipboard are no longer ignored. **(1377)**

✓ Undo and Redo: Even if the focus is not on the network window, these buttons and also the corresponding shortcuts are provided. **(9817)**

Network Editor:

✓ Path set selection: In certain cases, clicking the OK button caused a program crash. This bug could be fixed. **(9945)**

PrT Assignment:

✓ Assignment with ICA: If the option "Use the turn capacity for the blocking back model" is not checked whereas the option "Set the global blocking back model parameters u'…';" is active, then the blocking back parameters are set correctly now at ICA nodes. **(9956)**

- ✅ DUE with calendar and usage of time intervals as analysis time intervals: Now, the analysis period is automatically enlarged to such an extent so that all DUE time intervals can be taken over. **(9944)**

PuT Passenger Survey:

- ✅ Plausibilization: If not only the specified line but also other lines are permitted for the survey path leg and/or the preceding or succeeding path legs, then the search for fitting lines will verify whether the transport system is permitted for the demand segment's mode. **(9971)**

VISUM Files:

- ✅ Open network, read line route data additively: In the 'Ignore' mode, line routes will no longer be deleted if the file contains invalid line route items. **(9908)**

11.52-07 [58675] 2011-04-06

⊕ New Features and Changes

Data Model:

- ⊕ Signal controllers (SCJ): By default, always 'Intergreen matrix' is set for option 'Use intergreen method' for VISSIG controls. **(9861)**

Dialogs:

- ⊕ Shapefile import: Checking option "Read additively" will no longer reset the current "Read as" and "Imperial units" options. **(9922)**

Foreign Formats:

- ⊕ Shapefile export: Now the right type is assigned to numerical attributes. Example: If attributes of the "Time" type are displayed in the "hh:mm:ss" format, they are now assigned the "Text" type. **(1318)**

Junction Editor:

- ⊕ External controllers: With .\ as the project directory, the conversion to an external control used to return the inapplicable message "Changing to another directory is not permitted". This bug could be fixed. **(9896)**

- ⊕ Turn volumes: The "Junction editor" menu has a new option where the user can specify whether the angles of the link polygons or link orientations should be used for the display. **(9895)**

Matrix Editor:

- ⊕ Matrix comparison: Similar to the network window handling, the 'Set window section mode' is provided with the matrix comparison (via 'hand' icon or space bar). **(9807)**

- ⊕ Splitting: The matrix editor now comprises a special matrix operation for splitting external matrices. **(5270)**

PrT Assignment:

- ⊕ ICA: During ICA computations, warnings are marked accordingly now and will no longer be stored with the error file, but recorded in the trace file instead. **(9913)**

PuT Operating Indicators:

- ⊕ Operation "Init PuT operating indicators": Now by default all options are enabled. **(9637)**

Subnetwork Generator:

- ⊕ Subnetwork generator: Also for nodes and main nodes which are located in a peripheral position both geometry and signalization data is stored with the subnetwork. **(9824)**

VISUM Files:

- ⊕ ANM export: Also the link names are included now. **(9936)**

- ⊕ Open filter file: Reading filter settings will return detailed warnings, if the file contains a selection of unknown line names. **(9851)**

✅ Fixed Bugs

Data Model:

✅ PrT paths: In previous versions, the program might have crashed, since PrT paths could manually be added for demand segments that had been assigned by means of one of the TRIBUT methods. Now, PrT paths can no longer be added. **(9919)**

Dialogs:

✅ Matrix overview: The arrow keys of the keyboard work correctly now, the marking no longer returns to the "All matrices" entry. **(9888)**

Filters:

✅ Filter file, paths: Objects that have been selected are now also written into the filter file for paths. **(1465)**

Foreign Formats:

✅ Database export: Now, the data export skips the same data as the 'Save network' operation does, for example certain vehicle journey items and certain node geometries. **(9928)**

✅ Shape export of links, undirected: To attributes that refer to the retour direction ("R_u'…';") the correct number of decimal places is applied in the DBF file now. **(9868)**

Graphical Operations:

✅ Shortest path search PuT-Sys: Link run times of 100,000 h will no longer cause a pogram crash. **(9906)**

Graphics:

✅ If a node is clicked while the network is being drawn, POIs will be displayed correctly. **(127)**

Listings:

✅ 'Toll matrices' list: Under certain circumstances, maximizing or other changes to the size of the list window caused a program crash. This bug could be fixed. **(9899)**

✅ Deleting a vehicle journey which is visible in the arrivals/departures list of a stop point will no longer cause a program crash. **(9894)**

Network Comparisons:

✅ After changes to one direction of the line route course, some model transfer files used to store both directions by mistake. **(9901)**

Network Editor:

✅ Edit demand strata: If several demand strata were marked in the 'Demand strata' tab of the 'Edit zone' window, the entered value used to be stored with the most recently marked demand stratum only. This bug could be fixed. **(1572)**

✅ Edit line route shape: The parameter 'For the re-routed section, generate the run time from the link network' is only displayed during re-routing. **(1492)**

✅ Line route shape editing: In the "Generate run time data from link network data" mode the summing up of values sometimes caused an overflow and, as a consequence, negative time profiles. This error has been corrected. **(9852)**

✅ Special function "Set polygon allocation": If the user clicks "Attribute to be set", now a correct set of selectable attributes is displayed. **(9883)**

Other Operations:

✅ Parallelization: In certain cases, running various parallelized operations by turns caused a program crash. This bug could be fixed. **(9927)**

✅ Signal offset optimization: Now, this operation excludes the OD pairs connecting signal groups of the same signal controller, since their offsets are not subject to changes. This case is only relevant if a signal controller has been allocated to several (main) nodes. **(9917)**

PrT Assignment:

✅ ICA, signalized nodes: ICA caused an endless loop if a signalized node had more than eight orientations. This bug could be fixed. **(9939)**

✅ ICA, two-way nodes: Inapplicable messages on faulty turn types for split node legs used to be returned though the node legs had been modeled correctly. This bug could be fixed. **(9937)**

PuT Assignment:

- ✅ Transport system-based assignment: Recalculating this procedure after changes to the filter settings did not return different results, since the search graph used to be retained. This bug could be fixed. **(9910)**

PuT Operating Indicators:
- ✅ Earliest departure / latest arrival: For these attributes, correct values are returned now per analysis time interval. **(9920)**
- ✅ Number of departures from stop points or stops: For vehicle journeys with a stop event crossing the midnight mark the correct value is returned now for the attribute 'Number of departures' per stop and stop point, respectively. **(9916)**
- ✅ Number of departures of line route loops: The correct number of arrivals/departures is returned now for stop points at which line route loops start and end. **(9892)**

Timetable Editor:
- ✅ Create vehicle journey: In some cases the system crashed when an user clicked "Cancel". This error has been corrected. **(9819)**

VISUM Files:
- ✅ ANM export: The 'from time' and 'to time' data of matrices was not exported correctly if the start times of their demand segments differed from 0, because the time series validity period exceeded the export time period in this case. This bug could be fixed. **(9925)**
- ✅ During the additively reading in some cases the offset was summed up twice. Therefore, in certain circumstances error messages were displayed saying that network objects already existed. These error messages were wrong. (As a consequence, objects were not inserted which was also wrong.) **(9809)**
- ✅ Read network for PuT lines and main lines: Now the allocation of lines to main lines is correct after additive reading of main lines from a network file in the 'Overwrite object' mode. **(9926)**

11.52-06 [58281]   2011-03-21

➕ New Features and Changes

Add-In:
- ➕ 'Load Matrix' add-in: This new add-in makes it possible to transfer data from an Excel workbook into a VISUM matrix. **(9582)**

Data Model:
- ➕ Signal offset optimization: Also for external controllers, the time offset is determined correctly now (no rounding errors). **(9864)**

Dialogs:
- ➕ Edit line route: Now, closing the dialog window via Esc always cancels the operation. **(9569)**

Foreign Formats:
- ➕ SATURN: The SATURN Importer now stores the data required for ICA. To leftmost (or rightmost, if applicable) turn movements without allocation to any signal group, a signal group with permanent green is assigned. **(9825)**

Matrix Editor:
- ➕ Matrix editor, Binary functions: Optionally widen target matrix if it's an external matrix and the source is a matrix with not matching key set. **(5562)**
- ➕ Matrix selection: If the target matrix of an arithmetic operation is a VISUM zone matrix, then no main zone matrices will be offered as operands. **(9698)**

✅ Fixed Bugs

COM Interface:
- ✅ ISignalControl: Under certain circumstances, the method ApplyTemplateOnNode/MainNode did not work correctly, but returned an insufficient number of allocations (signal groups and lane turns) by mistake. This bug could be fixed. **(9842)**

Data Model:

- ✅ Relation 'Turn - Turn standard': The relationship of turns and turn standards is now based on the actual type of the turn. Previously, a computed value was regarded by mistake. **(9860)**

Dialogs:
- ✅ Classification settings, edit colors: VISUM will no longer crash if either "Redefine" or "Edit colors" is chosen. **(9840)**
- ✅ Signal time-space diagram, edit classification, redefine: The stroke layer control is preset correctly by default and changes to the settings will not cause problems. **(9841)**

Filters:
- ✅ POI-filter: Files with filters on POIs are read without error. **(9812)**

Foreign Formats:
- ✅ EDF export: The EDF export works correctly now. **(1369)**

Junction Editor:
- ✅ Execute procedure: In certain cases, the program used to crash if a procedure was executed while the junction editor was open. **(9854)**

Listings:
- ✅ 'PuT paths' lists: If a version is read from file which contains PuT path lists (or path legs or OD pair lists), the DSeg will be restored that was selected when the data was saved to file. **(9818)**
- ✅ Copy to clipboard: This action will no longer discard the associated units and never again imperial units will be converted into metric units. **(9829)**
- ✅ Length data without units: Length data entered without unit will be stored correctly even if either [m] or [ft] is the displayed unit. **(9850)**

Matrix Editor:
- ✅ Format $B: Matrices in $B format are correctly read from file. **(9822)**

Other Operations:
- ✅ Signal offset optimization: Now, the optimization works with the assignment procedure LUCE, too. **(9866)**

PrT Assignment:
- ✅ TRIBUT-Learning procedure, matrix toll: Some bugs could be fixed in this context, e.g. the direct Strap-Strap transfer within a toll system is no longer permitted now. **(9855)**

PuT Assignment:
- ✅ Assignment regarding connector shares: If MPA is used, the OD pair filter will always be taken into account correctly. **(9828)**
- ✅ Timetable-based assignment without MPA: In certain cases, the connector node per route was not set correctly if paths were saved as routes. This bug could be fixed. **(9827)**

Signal time-space diagram:
- ✅ The 'Draw' button provided with the graphics parameters for signal time-space diagrams is no longer ignored. Closing the path selection dialog via 'Cancel' now discards the current selection. **(9848)**

TFlowFuzzy:
- ✅ Open/Save version: The indirect attributes selected in the 'Count data PuT' tab of the TFlowFuzzy parameters dialog are stored now when the the version file is saved and re-opened. **(1466)**

Timetable Editor:
- ✅ Line block display: Now, the pre-preparation times are displayed correctly in the upper view section, even if the service trip starts precisely at the date limit. **(9821)**
- ✅ Vehicle journey section view: Moving the focus cell via Arrow key works correctly now. **(9539)**

11.52-05 [57950]   2011-03-02

➕ **New Features and Changes**

Add-In:

➕ 'Split P+R Matrices' add-in: This add-in runs significantly faster now. **(9782)**

Dialogs:

➕ 'Edit block item' dialog box: For empty trips which are based on a system route, the name of the used system route is displayed now with the line block items of the empty trip. **(9779)**

➕ Filter dialog box: Similar to the button labels with simple operators, the operators in the drop down box show mathematical signs (like ">") now instead of text ("greater than"). **(9780)**

Junction Editor:

➕ List in the junction editor: This list which sometimes is empty has a context-sensitive menu now. Via this menu, you can visualize the blocked turns, for example. **(9238)**

Listings:

➕ Copying user-defined list sections: Also marked sections which are out of square can be copied to the clipboard now. For the 'Paste' operation in Excel, for example, a surrounding overall-rectangle is used then. **(7725)**

➕ Synchronization of list and network editor: The synchronization of lists with the network editor is intercepted as soon as more than 100 objects are marked. **(6539)**

Matrix Editor:

➕ Histogram labels: 1) The new option 'Number of decimal places' is provided now for interval boundaries 2) The x-axis label is wrapped now and remains completely visible even if there are many columns. **(5801)**

➕ Markings: Row and column headers are marked now when matrix data is marked or edited. **(9508)**

➕ Matrix comparison: An improved procedure is used for the determination of the levels of gray. Thus, the clearness of the graphical display has improved. **(9618)**

➕ Number of decimal places: When a new matrix editor window is opened, the number of decimal places is in accordance with the 'Extras - Options - Matrix editor' settings. **(9335)**

Timetable Editor:

➕ Line block display: As known from the network view, you can temporarily switch to the "Set window section" mode (mouse pointer = hand) via the space bar in the line block display. **(9328)**

➕ Line block display: The blocks representing the service trip and the respective layover block items are no longer displayed separately. **(971)**

✅ **Fixed Bugs**

Demand Operations:

✅ Tour-based model - Combined trip distribution/mode choice: The 'exp' operation is performed only as often as required now when the distribution is calculated with log sum over all mode utilities. **(9804)**

Dialogs:

✅ 'Create trip from empty trip' dialog box: The program will no longer crash if the line block has no vehicle combination. **(1641)**

✅ Delete time profiles: Deleting multiple time profiles of a line route turned out in time delays for the GUI update. This problem could be solved. **(9798)**

✅ Graphic parameters, classification: The classes used to be interchanged if the user switched to the "Uniform drawing mode" while the first line in the grid was not selected and if the option "Classified drawing mode" was selected again subsequently. This bug could be fixed. **(1340)**

✅ Link dialog box: The displayed vCur and tCur-PrTSys values always depend on the current basic volume regardless of the attribute chosen for basic volume values. **(9109)**

Filters:

✅ Hierarchical filter: The program will no longer crash if the 'Preview' button is clicked after adding a filter condition without value entry or attribute selection. **(1202)**

Listings:

- ✅ 'PuT paths' list, fares: The fare is displayed correctly now, if a column listing an indirect 'PuT relation' attribute is displayed simultaneously. **(9808)**
- ✅ Legs list: In a list sorted by a column the sort sequence could not be retained if the data was edited in a marked section. Thus, the new value was allocated to the wrong objects. **(9805)**

Matrix Editor:
- ✅ Aggregation: VISUM used to crash (1) if the conditions included row numbers which were missing in the matrix, or (2) if the matrix was not square. These bugs could be fixed. **(9790)**
- ✅ Markings: If a row header is marked, the entire row will be highlighted. **(9751)**
- ✅ Overflow: If an arithmetic operation causes an overflow in any cell, the operation will be terminated and an error message will appear. **(9789)**
- ✅ Read external matrices from file: Since VISUM version 11.52-03, zone numbers which were not stored in the 'double' format in external matrices could not be read from file. This bug could be fixed. **(9806)**
- ✅ Split-based matrix update: Now, matrices being displayed in the matrix editor will be updated immediately if a zone is split in the network window. **(8806)**

Other Operations:
- ✅ 'Edit matrix' procedure: If a MUULI log file is used, the procedure will no longer terminate with an incorrect error message mentioning improper zone numbers. **(9778)**

PuT Assignment:
- ✅ Skim 'adaptation time': An incorrect skim value used to be returned if option "Consider connections with DeltaT > 0, if connections with DeltaT = 0 exist" was unchecked and the last demand interval included both connections with DeltaT = 0 and those with DeltaT > 0. This bug could be fixed. **(9787)**

Timetable Editor:
- ✅ Add attributes to tabular timetable: An indirect vehicle journey section attribute ("Valid day\Name") used to be placed in the wrong position if a direct vehicle journey attribute with the same ID ("Name") was displayed simultaneously. This bug could be fixed. **(9739)**

VISUM Files:
- ✅ Read version from file: In certain cases, the process used to terminate when reading the assignment parameters from a version file. This bug could be fixed. **(9802)**
- ✅ Read version from file: Though there was sufficient memory available, VISUM used to cancel the reading process of version files including extensive matrices and returned "Out of memory". This bug could be fixed. **(9801)**

11.52-04 [57683]   2011-02-17

➕ **New Features and Changes**

Matrix Editor:
- ➕ Matrices can be dragged from matrix browser to an already opened matrix editor or matrix histogram window. **(5131)**
- ➕ Matrix editor, 'Set values conditionally': The functionality has been extended. **(5717)**

Network Editor:
- ➕ Matrix adjustments after 'Split/Aggregate zones': Now, VISUM provides improved skim matrix adjustment after (main) zone splitting or aggregation. **(5596)**

PuT Assignment:
- ➕ Skim calulation by TSys: The procedure is performed correctly now even if there is no demand available. **(9752)**

PuT Line Blocking:
- ➕ Line blocks: A new calculated attribute is provided which includes any activity except for layovers in depots. Thus the "Time outside of depot" attribute sums up all manpower requirement times. **(1061)**

✅ **Fixed Bugs**

COM Interface:

- File names: To file names entered without file extension, no file extension is added now. **(9764)**

Data Model:

- Split link: The UNDO action after splitting a link could cause a program crash if the active filter refered to lane turns. This bug could be fixed. **(9766)**

Demand Operations:

- Gravitation parameter estimation (Kalibri): Now, the parameter c has the correct leading sign, the previous sign was incorrect. **(9774)**

Dialogs:

- Demand data export (DMD), storage location for matrices: This dialog box supports Copy&Paste for the file name entry when demand data is saved to DMD file. **(9776)**

- Dialog box for the 'Edit attribute' procedure: The program will no longer crash after changing the target attribute from an alphanumerical attribute to a numerical one, if another source attribute is selected subsequently. **(6092)**

Graphics:

- When exporting a screenshot, sizes (in mm) will now be scaled correctly. **(1193)**

Listings:

- Split link: If the assignment result was reset after splitting a link, a program crash occured under certain circumstances. This bug could be fixed. **(9753)**

Matrix Editor:

- Matrices, format $O: Now, negative values are regarded when the matrix is saved to file. **(1179)**

- Matrix editor, 'Projection': With XML files, correct zone data is stored. **(9760)**

Network Editor:

- Junction editor: If invalid link orientations had been defined at nodes or main nodes, the message "Invalid attribute value" appeared in rare cases and the program session was closed. This bug could be fixed. **(9773)**

PrT Assignment:

- Skim calculation: Even if paths exist for an OD pair, though the matrix does not fit, the calculation works correctly now. **(9754)**

PuT Assignment:

- Connection export: Only the fares of the demand segment that has been selected in the dialog box are saved to file now. For paths of other demand segments, fare = 0 is stored. **(9759)**

- Headway-based and Timetable-based PuT assignment: The program will no longer crash if more than one computation cernel is used for the assignment and fares are calculated during assignment. **(9765)**

PuT Passenger Survey:

- Read survey data, multi-row format: If the data contained an error, not only the incorrect data record was not read from file, but also the subsequent one. This bug could be fixed. **(9769)**

VISUM Files:

- Read network additively: VISUM used to crash if the $ZONE table had to be skipped for any reason. **(9756)**

- Read survey data: The program will no longer crash when trying to read multi-row survey records as attribute file. This is still possible via the 'Read survey data' procedure, but now a detailed message appears when the user tries to read survey records from an attribute file. **(9761)**

11.52-03 [57417]   2011-02-02

⊕ New Features and Changes

Add-In:

- ⊕ 'Calculate Matrix' add-in: To the trace file, both the number and the matrix total of edited matrices are logged now. **(2988)**
- ⊕ Run VBA: Now an add-in is provided that executes a VBA function which is stored in an Excel sheet. **(5788)**

COM Interface:
- ⊕ Python scripts: Procedures containing Python scripts can be executed from other Python scripts again, provided the inner scripts do not use wx. **(9714)**

Dialogs:
- ⊕ Operator properties: The operator name which used to be mandatory is an optional attribute now. **(9746)**

Foreign Formats:
- ⊕ Shapefile export: Optionally, VISUM can store the z-coordinates of nodes and link polygons (PointZ format and PoyLineZ format). **(9696)**

Matrix Editor:
- ⊕ Matrix editor, 'Add external matrix to the network model': The functionality has been extended. **(5476)**
- ⊕ Matrix editor, 'Aggregate': The functionality has been extended. **(5252)**
- ⊕ Matrix editor, 'Projection': The functionality has been extended. **(5332)**

PuT Line Blocking:
- ⊕ Line blocking: The 'Detailed line blocking' procedure runs much faster now. **(1056)**

Timetable Editor:
- ⊕ Line block display: Empty trips and user-defined block items can be shifted by drag&drop now, furthermore they can be placed horizontally on the time axis. **(9329)**

✓ Fixed Bugs

Data Model:
- ✓ Conversion of toll system co-ordinates: The x and y co-ordinates of toll systems are now converted correctly when the projection is changed. **(9722)**
- ✓ WKT surfaces: Also for multi-part surfaces, VISUM creates correct WKT descriptions now. **(9735)**
- ✓ WKT: The handling of WKT attributes at network objects was not correct, various bugs could be fixed. **(9553)**

Demand Operations:
- ✓ EVA weighting: If the competing walk time is shorter than the journey time of a mode, the evaluation is set to 0. In previous versions, negative evaluation values were returned in this case, and thus a negative demand (due to multiplication by positive balance factors). **(9749)**

Dialogs:
- ✓ Graphic parameters window, classification settings: With classification attributes having the string format "Percent", no unneeded error messages will appear while the classification settings are edited. **(9636)**
- ✓ Matrix selection (various cases): The program will no longer crash if OK is confirmed though nothing has been selected. **(9744)**

Graphics:
- ✓ Drawing lines with width = 0: Those lines will no longer be drawn by mistake in the node flow (edges, circle) display and in the preview window for line graphic parameters. **(9728)**

Junction Editor:
- ✓ Junction editor: The program will no longer crash if network objects (e.g. a signal group) is deleted in the junction editor while a filtered viewing mode (Show only permitted turns, for example) is active. **(9634)**

Matrix Editor:

- ✅ Matrix selection (various cases): The program will no longer crash if the node "All matrices" is selected though there is no matrix available. **(9721)**

Miscellaneous:

- ✅ Documentation: The Russian and Chinese attribute documentations have been added to the file 'attribute.xls'. **(1054)**

Network Editor:

- ✅ Floating dialog boxes for line routes and PrT paths: The program will no longer crash if the user selects a network object by mouse-click and checks the option "Only active ones" subsequently. **(9733)**

- ✅ Hierarchical filters: Those filter settings (lines, stops) are evaluated as often as a new object is created by duplicating an existing object on any hierarchy level. In previous versions, the newly created objects might have been in the active state though they did not satisfy the filter conditions. **(1058)**

- ✅ Link properties window: When toggling between the two link directions via the "Opposite" button, also the undirected volume values are displayed correctly now. **(9718)**

PrT Assignment:

- ✅ TRIBUT-Equilibrium assignment: Even if several demand segments use the same transport system, no negative volume values will be returned. **(9724)**

PuT Assignment:

- ✅ Timetable-based assignment: The program will no longer crash if several computation kernels are used and the search of the timetable-based procedure takes the impedances of the trips into consideration. **(9732)**

PuT Line Blocking:

- ✅ Detailed line blocking: If a comparison solution is used which has closed blocks with overnight layovers in depots, no longer empty solutions (i.e. no line blocks) will be returned. **(1059)**

- ✅ Detailed line blocking: Line blocking with vehicle interchange will no longer cause a program crash if all chains of an intermediate solution do not permit any common alternative vehicle. **(1064)**

PuT Passenger Survey:

- ✅ Shortest path search (timetable-based assignment using the shortest path search or passenger onboard surveys or interactive shortest path search): Less memory is required now while the transfer times are still returned correctly. **(1063)**

VISUM Files:

- ✅ Procedure parameters file XML: Some parameters of the object 'EquiStopCriteriaPara' are saved to file with more decimal places, they can be read from file, too. **(9740)**

- ✅ Read network (frequently used cases): The conflict handling settings now work with additive network reading of a selected "frequently used case". Previously, these settings were ignored internally though the window was displayed on screen. **(9725)**

11.52-02 [57080]   2011-01-18

➕ New Features and Changes

COM Interface:

- ➕ New methods in VisumPy.helpers speed up access to matrix data from scripts / add-ins which are executed from within VISUM. **(1634)**

Foreign Formats:

- ➕ SATURN: The SATURN documentation is now part of the VISUM documentation. **(9661)**

Network Editor:

- ➕ Edit line route shape: Links that have been opened for the transport system during interactive re-routing of a line route are now logged to trace file. **(9165)**

Other Operations:

- ➕ Matrix disaggregation: The procedure has been accelerated. **(9652)**

✅ Fixed Bugs

COM Interface:

- ✅ Get/SetMatrixRaw: The program will no longer crash when one of these methods is applied. **(9685)**

- ✅ IMatrix::SetDiagonal: This method works correctly now. **(9693)**

- ✅ Read attribute data: By mistake, access to certain attributes with only few valid values (enums) returned numbers instead of alphanumerical chains. Access to attributes of the transport system set type returned error messages. These bugs could be fixed. **(9676)**

- ✅ Setting the attribute 'ControlType' for nodes through COM now accepts the values 5 (Roundabout) and 6 (two-way-yield) **(9673)**

Data Model:

- ✅ Links, number of lanes: VISUM will no longer crash if the number of lanes is edited at a link with crossing lane turns. **(9688)**

Dialogs:

- ✅ Attribute selection dialog: Under certain circumstances, creating a UDA could cause a program crash. Example: Shapefile import. This bug could be fixed. **(9655)**

- ✅ EVA trip generation: The display of productions and attractions now depends on the o-d type of the activity pair. **(9500)**

- ✅ Links: VISUM will no longer crash if relations to other network objects are used in the network settings for base volumes of links. **(9690)**

- ✅ Save matrix as: If the filename was empty before, the message 'Enter file name' no longer appears after input of the matrix file name. **(9675)**

Foreign Formats:

- ✅ EMME/2 import: Fixed rhythm EMME line data (headways) are read as minutes now. Used to be read as seconds by mistake. **(9697)**

- ✅ Save database: The current language is stored in the version data block for database export, if either a network or a database with a different language was opened before. Previously, data could not be read from file if the langauges were not identical. **(9708)**

- ✅ Shapefile import: No polygon can be created for polylines and polygons with an insufficient number of points. An isolated point is now used for labelling (network object position), if applicable. **(9670)**

Graphics:

- ✅ Print frame: The buttons for alignment work now. Images in the print frame are not necessarily left-justified now. **(9611)**

Junction Editor:

- ✅ ICA report: VISUM will no longer crash when trying to update the ICA report after manual changes to this report and overwriting by VISUM is prevented via 'Cancel'. **(9679)**

Network Comparisons:

- ✅ Version comparison: Version comparison > Volume difference links > Cross-section display: For values missing in one of the versions, negative volume data (-65536) will no longer be displayed. **(1051)**

Network Editor:

- ✅ Aggregate line routes: The procedure will no longer terminate if the time profile names only differ in upper and lower case. **(9658)**

- ✅ Aggregate lines: Aggregation of disjunctive time profiles did not work correctly, several bugs could be fixed. **(9680)**

- ✅ Multi-delete nodes: Using option 'Clear Undo stack to save RAM' could cause a program crash. This bug could be fixed. **(9622)**

Other Operations:

- ✅ Calendar / assignment period: Assignment periods outside of the calendar period are adjusted without warning. **(9668)**

- Signal timing optimization for VISIG controls: The program will no longer crash if all signal groups have permanent green. **(9678)**

PrT Assignment:
- Assignment with ICA: The program will no longer crash if the blocking back model is active and no path can be found. **(9671)**
- ICA, signalized nodes: The critical path calculation has been changed in a way, that paths with delay 0 do not automatically have priority over other paths. This might lead to deviating results for the volume/capacity ratio of nodes. Especially it can be avoided in many cases, that signal groups having permanent green are considered to be critical. **(9612)**

PuT Assignment:
- Memory consumption, read version: Compared to VISUM 11, reading a version file including PuT assignment result data required much more memory with VISUM 11.5. The memory consumption could be reduced. **(1050)**

Signal time-space diagram:
- Signal time-space diagram: For the preset maximum signal time, the default has been improved. **(9692)**

VISUM Files:
- ATT file import / clipboard: When 'Create' is confirmed in the dialog, a warning appears now if an origin attribute ID is not valid (with number in first position, for example) and thus no UDA can be created. **(9664)**
- Read network / Database import with vehicle journey items: Reading data from file used to fail and returned the message, that the attribute data is not subject to changes. This bug could be fixed. **(9711)**
- Read network, couplings: Reading coupling data from file will no longer return errors. **(9666)**
- Reading PuT routing of the network: No longer unwanted error messages appear if a user wants to use existing line routes with associated stop points on links. VISUM no longer crashes if in this scenario existing line routes are not used. **(9300)**
- Save DMD file: Table 'Matrix entries' is visible even if option 'Hide empty tables' has been checked. **(9674)**
- Save network / Database export with vehicle journey items: If option 'Hide empty tables' has not been checked, then an empty vehicle journey items table will not be stored after call via COM; with interactive call, the checkbox next to the table vehicle journey items is unchecked. **(9702)**
- Save version, connectors: Connector UDAs were not stored correctly and could therefore not be read from file correctly. When a version file was opened, the connector data was not allocated to the appropriate connector. This bug could be fixed. Version files created with previous VISUM 11.5 versions cannot be restored correctly. Network files are not concerned. **(9700)**

11.52-01 [56742]   2010-12-21

⊕ New Features and Changes

Add-In:
- ⊕ Matrix add-ins: Any add-in accessing matrices runs significantly faster now. **(1637)**
- ⊕ Matrix Convolution: The procedure runs much faster now. **(9608)**

Data Model:
- ⊕ Attributes of time series items: For time series items, the new output attributes "Share" and "AccumShare" are provided and can be accessed via the COM interface. **(9557)**

Dialogs:
- ⊕ Save procedure parameters: When saving procedure parameters in some cases a file name with the extension *.xml is displayed. In this case also the dialog switches to the file type *.xml to avoid the creation of a file with the extension '.xml.par'. **(9313)**

Foreign Formats:
- ⊕ SATURN import: If connectors have been defined for buffer and simulation networks, the mid-link is connected and new links are generated with appropriate attributes. **(8930)**

- ⊕ Shapefile import: Normalization and harmonization of data will only be performed if necessary. **(9591)**
- ⊕ Tour based demand model: Now, reading VHD files runs as fast as it used to in VISUM version 11. **(9624)**

Matrix Editor:

- ⊕ Matrix editor: Now, the diagonal data can be copied to the clipboard and pasted from the clipboard, too. **(5099)**
- ⊕ Sum output in the status bar: The status bar now shows the total matrix sum and the sum of the diagonal of the displayed matrix. **(5772)**

Other Operations:

- ⊕ Intersect: The intersection of linear objects and polygons runs much faster now. **(977)**

PrT Assignment:

- ⊕ Assignment with ICA: Now, the convergence of an assignment with ICA is presumed even if the embedded Equilibrium_Lohse procedure did not reach convergence. Thus the assignment with ICA returns different results. The embedded equilibrium procedure is not concerned. **(9648)**
- ⊕ ICA, signal-controlled nodes: For turns without signal control but lane turns, tCur is set = 0 now. Previously, tCur = 100000h was set. **(9638)**
- ⊕ LUCE procedure: The gap values in the list PrT assignment quality (Excess Cost, Duality Gap) have been corrected. (Internally, correct values were used for cancelling.) The attributes Relative Gap and Target Function Equilibrium are no more calculated by this procedure. **(9644)**

✅ Fixed Bugs

Add-In:

- ✅ Add-in EVA-Evaluation: Several functionality and GUI problems could be solved. **(9609)**

Data Model:

- ✅ Delete vehicle unit: With networks containing system routes and specific vehicle combination run times VISUM will no longer crash, if a vehicle unit is deleted and either Cancel or Undo is clicked subsequently. **(9600)**
- ✅ Demand models, create a process flow: Faulty data will no longer be generated if the model does not include the PrT mode or any demand segments. **(3226)**
- ✅ Stage-based signal control: Changes to the allocation of signal groups to stages could create faulty data. Thus, error messages appeared when the version file was opened later. This bug was fixed. **(9613)**

Dialogs:

- ✅ Links dialog: If indirect attributes are used for the detailed definition of the PrT impedance, the links dialog no longer crashes. **(9623)**
- ✅ Links dialog: The value range check for v0 and length has been corrected. **(1046)**

Foreign Formats:

- ✅ Access import: Now, the re-import of network data is possible even if the database once was created by export of listed attributes. **(965)**
- ✅ Additive database import: The option "First of all, determine existing tables" works correctly now. **(9607)**
- ✅ SATURN import: Now, the TSysSet of turns is filled correctly. Furthermore, the turn type and the node's method for node impedance calculation are allocated automatically. **(9601)**

Graphics:

- ✅ Edit classification settings: Now the color allocation controls are active when the dialog is opened with only one specified class and the color settings are subject to changes. **(9602)**
- ✅ Flow bundle bars: If the bar distance differs from 0, flow bundle bars are shifted. **(1032)**

Listings:

- ✅ Cells without data: Under certain circumstances, cells without data were created in lists which used to remain empty even during export as attribute file. The cell value could only be called by mouse-click in the empty cell. This bug was fixed. **(9302)**

Matrix Editor:

- ✅ "Round" functionality: Rounding to 0 will no longer be treated like division by 0 by mistake. Furthermore, the default value for rounding was changed. **(9509)**

- ✅ Delete intervals: The program will no longer crash when all matrix histogram intervals are deleted if level 4 has been chosen for the activity protocol. **(9616)**

- ✅ Simultaneous processing of matrices: The program will no longer crash if more than 64 matrices are edited simultaneously. **(9633)**

Miscellaneous:

- ✅ TSys codes with special characters: VISUM will no longer crash when the attribute selection window is opened if the code of a transport system includes special characters. **(9615)**

Network Editor:

- ✅ Read network additively: Directed stop points on links could not be read correctly. Subsequently, drawing the line route could cause a program crash. These bugs were fixed. **(9596)**

- ✅ Status bar: Even during changes to the network, the information displayed in the status bar will not be switched off. **(9454)**

Other Operations:

- ✅ ICA, signalized nodes: The ICA calculation was not necessarily correct if the opposite leg of a left-turn had no straight volumes. This correction might cause different results calculated by the assignment with ICA. **(9654)**

- ✅ Intersection of linear objects: The intersection of linear objects (except for links, line routes and PrT paths) used to calculate shares that were too small. Thus, incorrect results were returned. Now, the calculation is correct. **(976)**

- ✅ Signal cycle and split optimization, VISSIG: The calculation used to return incorrect results if lane groups with multiple lanes existed which had the same signal group. This bug could be fixed. **(9653)**

PuT Assignment:

- ✅ Read timetable-based PuT assignment parameters: The parameters are read correctly now even if the file was generated in a network version with calendar though it is read in a network version without calendar. **(979)**

- ✅ TSys-based assignment: The program will no longer crash, if the run times on links are extraordinarily long (e.g. 100,000 h). **(9639)**

PuT Line Blocking:

- ✅ PuT interlining matrix: The process is not longer cancelled, if the interlining matrix is calculated successfully. Additionally, the file names of the output matrices will now be generated correctly. Up to now, the separating u'";.u'"; was missing. **(1047)**

11.52-00 [56379]   2010-12-07

➕ New Features and Changes

COM Interface:

- ➕ IMatrix.Get/SetValuesRaw: New method for 'Read' and 'Write' matrices from/to a given storage address. For scripts run in VISUM, this provides efficient access to matrix data. **(9489)**

Data Model:

- ➕ Cordon nodes with road toll systems: Connectors that can be used by at least one private transport system decide whether a node is a cordon node. In this logic, these connectors are regarded as if being links. **(9151)**

- ➕ Even with external controls, the attribute 'ICA loss time adjustment' can be edited. **(9589)**

Demand Operations:

- ➕ After parallelization, the EVA weighting procedure runs much faster now. But even with a single core, the significant acceleration of the computation becomes obvious. **(9576)**

- Tour-based model - combined trip distribution/mode choice: The set of parameters has been improved for the procedure. **(9138)**
- Tour-based model and EVA: Similar to the 4 step demand model, now also the tour-based model and the EVA demand model allow for restrictions to only the active zones or to the active OD pairs. **(8928)**

Dialogs:
- Attribute selection: The dialog opens much faster now, even with numerous subattribute variants. **(9563)**
- Signal control dialog: Now the value "Is reference SC" can be edited for external controls, too. **(9599)**

Filters:
- Filter dialogs: The separate sub-dialog for bracketing definition was discarded. It has been replaced by buttons in the same dialog. Thus it is now possible to define any number of terms. **(9538)**

Foreign Formats:
- Connect to personal geo database: VISUM can be connected to ArcGIS 10 now. **(9262)**

Matrix Editor:
- Dynamic aggregation: As an aggregation function, also the weighted mean is provided now. **(5144)**
- Histogram: Tooltips and bar labels have been improved. **(9573)**
- Matrix comparison: The matrix editor now provides a new window for the comparison of two matrices. **(5029)**

PrT Assignment:
- Equilibrium assignment LUCE: The option 'Explode (main) nodes' was discarded. Thus, the assignment procedure returns deviating results. **(9533)**
- Initialize assignment: Now even values that have been modified by assignment with ICA are reset. This data include VISUM attributes and UDAs of nodes, main nodes, turns and main turns. **(9230)**
- TRIBUT: Either procedure was significantly accelerated. The TRIBUT - Learning procedure has been parallelized. Both procedures take road toll systems into account now. **(104)**

PuT Assignment:
- Perceived journey time: Optionally, the factor for the number of transfers which is regarded for the PJT calculation can depend on the journey time now for modelling either increasing or decreasing impact regardless of the time required in total. **(9479)**

TFlowFuzzy:
- Flow matrix calculation: The PuT flow matrix calculation has been accelerated. That is why the level of VISUM 11 is reached now for the same data though numerous additional types of counted data are regarded now. **(9559)**

Timetable Editor:
- Line block display: Now, the classified display of user-defined block items is possible. The new graphic parameters 'Conflict' for layover times can be used to highlight layover time faults. **(9330)**

VISUM Files:
- Items in model transfer files: After changes to single attributes of line route items or time profile items only the edited items are saved now. Previously, all items including changes due to interdependencies used to be saved completely. **(9145)**

✓ Fixed Bugs

Add-In:
- Filter conditions are now correctly evaluated. Also, missing target matrix numbers no longer generate an error in multi mode, but are skipped. **(9547)**

COM Interface:
- IDemandSegment: Read access to DSeg.ODMatrix of an IDemandSegment object that represents a demand segment without allocated OD matrix now returns a COM error. Previous VISUM versions used to return a corrupt IMatrix object. **(9520)**

Data Model:

- Line blocks: Stops in depots are checked now after changes to the vehicle combination of a line block. Without this check, corrupt version files could be created. **(9555)**

Dialogs:

- Attribute selection dialog: In the hierarchical view, invalid combinations of aggregation functions and attributes are now longer displayed. So far, the selection could cause a program crash. **(9550)**

- Color selection with two PC monitors: The color selection window will always open on the monitor that shows the VISUM main window. **(9551)**

- Line route dialog: Changing the format for attributes of the moment in time type (from hh:mm:ss to hh:mm) will now change the display. Furthermore, input data is now interpreted correctly after changing the time format to 'minutes'. **(9429)**

- Line routes window: Even in the Multi View mode (display of multiple time profiles) data can now be pasted from the clipboard to the profile point column. **(9522)**

- Multi-edit line block items: This dialog was abolished. **(9577)**

- Some of the texts used to appear in German though a different language had been selected. This bug could be fixed. **(9572)**

Foreign Formats:

- Database export, Territory PuT detail list: Data export does no longer lead to a program crash. **(9568)**

- Shapefile export of line routes: Line routes whose start and end are located at link stop points on adjacent links in such a way that less than 50% is traversed of either link will no longer terminate the shapefile export. Now, they are included in the export data. **(9562)**

Installation:

- VISSIM Preview: Under certain conditions, the VISSIM Preview registration used to fail if the User Account Control was active. This bug could be fixed. **(945)**

Listings:

- Delete vehicle journeys: The program will no longer crash if a service trip list of 'active trips only' is open and the network contains a PuT shortest path search result simultaneously when service trips are deleted. **(9592)**

- Paste from clipboard: Even if the timetable editor is open, data import from the clipboard is possible. **(9595)**

Network Editor:

- Edit line route shape: Stop points are served correctly now. Errors used to occur if the same section was re-routed repeatedly. **(9564)**

- Line route dialog: Using the keys Ctrl-C for copying data in this dialog will no longer cause a program crash if multiple line routes have been marked. **(9507)**

- Merge nodes: The program will no longer crash when an isolated node and another node are merged while a node list that regards the current filter settings is open and the number of the filtered rows is changed by merging these nodes. **(9588)**

PrT Assignment:

- Dynamic-stochastic assignment: The condition for the preselection of routes in the dynamic-stochastic assignment did not take effect so far. This bug could be fixed. This might cause different assignment results. **(9436)**

- Equilibrium assignment LUCE with option 'Use current assignment result as initial solution': Among others, an error concerning cycle handling could be corrected. **(9451)**

- ICA, All-way stop: An error during probability adjustment factor calculations caused an incorrect overall result. This bug could be fixed. **(9580)**

- Stochastic and dynamic-stochastic assignments: The independence calculation according to Ben-Akiva contained an arithmetic error which could be corrected. This might cause different assignment results. **(9447)**

Timetable Editor:

- Line selection dialog: Changes to the filter conditions (via right-click on the filter icon) now immediately affect the set of displayed lines. **(9566)**

VISUM Files:

- ANM export: With left-hand traffic, crosswalks were created without the INDEX and CHANNELIZEDTURN attributes in some cases. These files could not be read in VISSIM. Furthermore, the CHANNELIZEDTURN attribute value was not correct in some cases. **(9567)**

- Open attributes: If the user-defined attribute X being included in the attributes just read from file was transfered interactively to the newly created UDA Y with the help of the 'New' button, then X used to be overwritten by mistake. This bug could be fixed. **(9536)**

- Route import (RIM) and MPA: Existing connectors were not found, if 'By shares' was selected for the demand distribution and 'Each single OD pair' was selected for 'Method for connector shares'. This bug could be fixed. **(6257)**

11.51-05 [55949]   2010-11-19

⊕ New Features and Changes

Data Model:

- Signal controllers: Now a user can also edit the attribute "Is reference SC" for external controls. **(9525)**

Demand Operations:

- Procedure 'Eva Distribution/Mode Choiceu'';: The procedure has been parallelized and is therefore now significantly faster. **(9523)**

Dialogs:

- Classification dialog: The dialog labels now refer to the graphic item that is used. **(9415)**

- Filters: The width of the labels in the column "Attribute" now depends on the name of the set attribute. **(6361)**

Graphics:

- Edit turn volumes: When calling up the turn volumes dialog, the user can optionally activate the turn volumes layer. **(9524)**

- Export of turn volumes: VISUM now provides a feature for the multi-export of turn volumes in the format *.svg. **(8953)**

- Multi-export of turn volumes: Conflicts with file names will be avoided in the future. **(8956)**

- Signal time-space diagram: VISUM now has a new view for the visualization of the signal coordination on different nodes. This is a path-time diagram for a link sequence which shows the location of the greentime of the considered signal control. **(8800)**

Matrix Editor:

- Graphic parameters: The graphic parameters for a matrix are kept during network editing, even after the Matrix editor is closed. **(9510)**

PuT Assignment:

- Network volume and statistics, transport system-based PuT assignment: If the procedure is executed, now the list "PuT assignment statistics" is filled with values. **(9456)**

✓ Fixed Bugs

Data Model:

- Closing of main turns: When main turns were closed in the past, allocated lane turns were not removed. This caused VISUM to crash at a later stage, and version files got corrupted. This bug has been fixed. **(9521)**

- Create transport system: Now the settings of the volume delay functions in PrT are also transferred, when a user creates a transport system and transfers the network attributes of another transport system. **(9518)**

- Create transport system: Some special cases led to a system crash. This bug has been fixed. **(9526)**

Demand Operations:

- ✅ Calculate PuT skim matrices: The statuses of the check boxes are now displayed correctly in the 'Basis' tab of the procedure's parameter dialog. **(9513)**

- ✅ Procedure parameters VISEM trip distribution/mode choice: In certain cases the system used to crash when reading binary files that contained procedure parameters of the named procedure. This bug has been fixed. **(9529)**

- ✅ VISEVA: If shared mode choice matrices are used for the involved demand strata, up to now by mistake only the result for the demand stratum that was calculated at last was returned. This bug could be fixed. **(5773)**

Graphics:

- ✅ Column chart: The scaling for negative values now works correctly again. **(9478)**

- ✅ Desire line: If a matrix value has been changed (for example in the OD pair list), now the n largest OD pairs are automatically recalculated, even if no filter for OD pairs is active. **(8306)**

- ✅ Display of directed point objects: If an image is used to display a directed point object (e.g. count location or stop point), the image is now shifted correctly. **(9528)**

- ✅ Graphic parameters diagram: When reading older versions of graphic parameters files, now the field for decimal places is filled correctly again. **(9534)**

- ✅ Traversed stop points: Now traversed stop points no longer will be drawn in the extended marking only. **(9515)**

Miscellaneous:

- ✅ "Help" menu: Under certain circumstances the menu entries of the user manuals were grayed out (inactive). This bug has been fixed **(936)**

PuT Assignment:

- ✅ Timetable-based PuT assignment: The procedure no longer freezes when a flow bundle and the filter for OD pairs are active. **(9504)**

VISUM Files:

- ✅ Read network file additionally: In the past inconsistent data and system crashes could occur when the 'ignore' mode was used when reading a network file additionally with main zone and zone tables with main zone interdependencies. This bug has been fixed. **(9527)**

11.51-04 [55716]   2010-11-11

➕ New Features and Changes

Data Model:

- ➕ Mean wait time at signal control: Analogously to nodes, the attributes 'Level of Service' and 'Level of Service mean delay' are also provided for signal controls (SCJ) now. **(9376)**

- ➕ Some of the PrT-specific attributes of basic network object types (the SCJ number per node, for instance) have been shifted from the 'Basis input' attribute group to the 'PrT input' attribute group. **(7742)**

Graphics:

- ➕ Desire line: Desire line links are no more moved aside together with their bars if a distance between bars is specified. Desire line links always connect zone cetroids directly. **(9519)**

Junction Editor:

- ➕ External signal controls: Changes in the external signal control dialog are immediately visible in VISUM now without closing this dialog window. **(9494)**

Other Operations:

- ➕ Signal cycle and split optimization for external SCJ: The procedure 'Signal cycle and split optimization' now also supports external VISSIG controls of signal controls (SCJ). **(9297)**

➕ Signal cycle and split optimization: For each signal control, the optimization is performed separately. If multiple nodes have been allocated to a signal control, all of these nodes are regarded simultaneously. **(9296)**

VISUM Files:

➕ Item 1: The filename entered for a COM command is always used as specified, the matching file extension will not be added automatically. Item 2: When a file is opened interactively, the default file extension is added only if the file exists *with* this extension only. **(9446)**

➕ Model transfer files: Now also matrices that were saved to an external file when the demand file was saved are now taken into consideration when a model transfer file is saved. This means, that the matrix data is compared and will be stored with the model transfer file, if applicable. **(9469)**

✅ Fixed Bugs

Data Model:

✅ PrT paths: The program will no longer crash when a node is deleted with merging of links if it is traversed by a PrT path and the Undo stack is cleared subsequently. **(9467)**

✅ Signal groups and crosswalks: If a signal control has been allocated to multiple nodes and if a crosswalk is allocated to a signal group at one of these nodes then the crosswalk allocations of this signal group at other nodes will no longer be discarded. **(9483)**

Demand Operations:

✅ Mode choice: Option "Apply to all DStrata" now works even for data rows that have recently been added to the utility table. **(9465)**

Dialogs:

✅ HAFAS import parameters: VISUM will no longer crash when the 'Open file' dialog is closed. **(9493)**

✅ Transport systems dialog: The program will no longer crash if a transport system is deleted and then a new transport system is created with the name of the deleted TSys. **(9492)**

✅ VDF definition: In the VDF list, the entry in the marked cell appears much clearer now. Furthermore, multi-delete can be applied to VDFs now. **(5365)**

Graphics:

✅ Redraw after version comparison: Subsequently to a version comparison update, the network will be redrawn. **(9506)**

✅ Visum will no more crash when drawing desire lines, if there is no desire line bar to draw and of the layers bars and desire line links are switched on. **(9512)**

Listings:

✅ List link types: The link type list is updated when the set of active links changes (since indirect attributes exist that might be concerned, e.g. MaxActive). **(9391)**

Matrix Editor:

✅ Histogram: VISUM will no longer crash if the classification matrix and the processed matrices do not match. **(9497)**

✅ Matrix editor - Edit graphic parameters: Classified display of active cells: Now, the classes are subject to changes even if the option "Classified drawing mode" for "Matrix values" has been selected. **(9408)**

Network Editor:

✅ Coupling: It is now possible to couple in sections with different route points but identical time profile items. **(856)**

✅ Spatial selection, checkboxes for PuT lines: The PuT line selection checkbox settings are now regarded for 'Invert selection' etc. **(7207)**

PrT Assignment:

✅ Blocking back with LUCE or DUE: Blocking back is now calculated with either assignment procedure if option 'Blocking back calculation also during assignment' has been checked. **(9464)**

VISUM Files:

- Matrices in $O format: The option 'Sum up all values per (Main) OD pair' set via menu Extras - Options is taken into consideration now. Furthermore, the number of decimal places is correct now after reading or writing an external matrix file in $O format. **(9482)**

- Model transfer files: The geometry is adjusted correctly now if links are deleted via model transfer files. The program will no longer crash in this case. **(9498)**

- Open a model transfer file: The network scale is no longer set if the scale is the same in both networks, since rounding used to cause differences. **(9502)**

- XML files now store attributes of the type length, speed or area with their units. Thus, even after toggling between imperial and metric units the particular data is read correctly from XML files. Furthermore, the attributes SourceBufferSize and DestBufferSize (with IntersectAttributePara) and BBackSpacePerVehUnit (with AssignmentICAPara) are of the 'short lenght' type now. That is why these values can be returned in [ft] or [m] via COM according to the currently selected unit system. **(9417)**

11.51-03 [55423]   2010-10-27

⊕ New Features and Changes

Matrix Editor:

- Histogram: The matrix histogram can now display an y axis and label it with relative shares. **(5118)**

Miscellaneous:

- Running script files: Even if the file extension 'vbs' has not been connected as usual VISUM seeks for the VBScript Script Engine for running those scripts. **(9435)**

Network Editor:

- Line filter call: When the line filter is called from the overview toolbar initially the 'Lines' tab will appear. **(9441)**

⊘ Fixed Bugs

Add-In:

- Add-in 'Calculate Matrix': It is now possible to execute the add-in 'Calculate Matrix', if a filter is defined. **(9450)**

- The frame script for Python calls which has been integrated in VISUM does no longer import VisumPy (in exactly this diction). In this way, some cases of script calls that used to fail could be eliminated. **(9407)**

Demand Operations:

- Create sequence of operations: When creating a sequence of operations with GoTo-operation (4-step demand model, EVA, and VISEM), in the GoTo-operation the matrix parameter is now set correctly. **(9444)**

- Mode choice procedure: The procedure will no longer cause a program crash if zone attributes are selected for the utility definition. **(9477)**

Dialogs:

- Edit stop dialog: When transfer walk times between stop areas or special walk and wait times are edited, the selected time format option will be applied to the input data. **(9472)**

- Links dialog: When entering digits into input fields for attributes with units, in the input fields the numerical order is no longer changed. **(9445)**

- PrT paths dialog: VISUM will no longer crash if option 'Only flow bundle paths' is selected for the conversion of the paths. **(9434)**

Foreign Formats:

- DXF export: It is now possible to export languages with Unicode character sets (especially Russian, Greek, etc.). For languages like Chinese or Japanese, a multibyte conversion would be required which is not possible. **(9440)**

Graphics:

- ✅ Distance between flow bundle links for display of desired lines: The distance between the bars for desired lines now regards the desired lines links including the corresponding bars instead of only the links. **(9416)**
- ✅ Preview: The system no longer crashes in the preview. This happened in the past, if VISUM had to generate too many graphical objects. **(9439)**

Listings:
- ✅ PuT path legs: The list is now updated as soon as time profile attribute data changes, for instance the number of fare points. **(9449)**

Matrix Editor:
- ✅ Even for more than 32,000 zones the matrix data is displayed. **(9365)**
- ✅ Matrix histogram and loading another network: The program does no longer crash if another network is read from file while the matrix histogram is kept open with a classification matrix. It does no longer prevent the deletion of an external matrix which is being used for the classification. **(9461)**

Network Comparisons:
- ✅ Version comparison and link bars: The network is now redrawn if the version comparison includes the automatic link bar change. **(9480)**

Network Editor:
- ✅ Coupling: Coupling is not possible in the following situation: Two time profiles have identical items (i.e. all items are on the same stop points or nodes) but the topology of the line route items is not identical. **(839)**
- ✅ Line blocks including empty trips: Empty trips based on systems routes are adapted to changes to length or duration. If a system route is deleted, block items based on this system route are maintained and become emoty trips not based on a system route. **(9448)**
- ✅ Multi-Edit Links special function 'Polygons': The "Only active ones" checkbox setting is now regarded. **(9468)**

Other Operations:
- ✅ Combination of matrices and vectors: If option "Regard only active od pairs" has been checked, the values of passive od pairs remain unchanged now instead of being reset to zero. **(9453)**

PuT Assignment:
- ✅ Shortest path search: By mistake, the shortest path search used to find only a single path leg A-C, though a vehicle journey A-B and another vehicle journey B-C existed on a time profile with the second trip departing exactly when the first one arrived. This could lead to a program crash, for instance during the direct assignment. **(9459)**

PuT Passenger Survey:
- ✅ Read multi-line survey data: The system no longer crashes, if in multi-line formats no origin zone and no from-stop is specified. **(9443)**

Timetable Editor:
- ✅ Coupling in timetable editor: Up to now in the following situation erroneously the message "Coupling not possible" was displayed: If the common section of two vehicle journeys included only two time profile items, and the to-times of the second item were different. This no longer happens. **(9427)**
- ✅ Delete vehicle journey sections: The program will no more crash when deleting multiple vehicle journey sections when block display is open and if block items based on the deleted vehicle journey sections exist. **(9460)**
- ✅ PuT line selection: Changes to the basic line selection in the timetable editor will no longer cause a program crash. **(9428)**

VISUM Files:
- ✅ Read network additionally: By mistake, warnings concerning 'Create PT line route' (such as 'Open turn?') were not displayed on screen, automatically NO was confirmed instead. That is why line routes could not be created. This bug could be fixed. **(9471)**

11.51-02 [55184]   2010-10-13

⊕ New Features and Changes

Add-In:

⊕ Program startup: If an add-in cannot be found during program startup, an improved error message provides hints how to solve the problem. **(9371)**

⊕ Unhandled exceptions in Python-scripts and add-ins are now logged in the error file automatically. **(9406)**

Matrix Editor:

⊕ The colors of cells in the matrix editor can now be edited just as flexibly as the color settings in the network graphics parameters. **(9383)**

⊕ Vector as data source: Now it is possible to use zone attributes and main zone attributes (i.e. vectors) as data source for matrix operations. **(5102)**

Miscellaneous:

⊕ Script menu: In the registry, VISUM does no longer change the key names which describe the script menu commands. **(9326)**

Timetable Editor:

⊕ Block display: A new search dialog allows to search for vehicle journeys in the gantt diagram. **(9050)**

✓ Fixed Bugs

Add-In:

✓ Add-in FareSubZone -> POI: The add-in now terminates correctly. Afterwards other add-ins and scripts can be started. **(9403)**

COM Interface:

✓ All messages generated by ScriptMuuli appear in english now. **(9431)**

✓ ANM export: Renamed parameter 'writeNetwork' to 'writeRoutes'. The parameters 'writeNetwork' and 'writeMatrices' were interchanged; this has been corrected. **(9426)**

✓ INetPara::SetProjection: When a projection is set, the syntax is checked and a detailed error message will be returned, if applicable. **(9423)**

✓ Running scripts: The folder ".\" is no longer modified when scripts are run. **(9373)**

✓ Script execution: VISUM no longer crashes, if a script is started that does not exist. **(9409)**

Data Model:

✓ Blocks: If the vehicle combination set of a vehicle journey section is changed, blocks with the property 'Has vehicle exchange' are also changed and get the property 'Has vehicle fault'. **(9095)**

✓ Multi-edit links TSysSet: If geometries existed, VISUM sometimes crashed. This bug has been fixed. **(9411)**

✓ Signalization: Adjustments were made to the minimum green times of signal groups. This also affects the optimization and NEMA imports. **(9421)**

Dialogs:

✓ EVA Trip Generation: In the Eva trip generation window now all controls are displayed again. **(9209)**

Junction Editor:

✓ Signal timing view: Greentimes now are depicted correctly in the signal program view. **(9438)**

Network Comparisons:

✓ If an attribute with sub-attribute was selected for the version comparison, VISUM used to regard one of either value instead of the total value for the cross-section logic. **(9410)**

Network Editor:

✓ Edit shape of line routes, separating couplings: Though the message appeared, the couplings were not discarded when the line route shapes were edited. This bug could be fixed. **(9414)**

- ✅ Edit territory shape: VISUM used to crash if the territory included an empty polygon before. This bug could be fixed. **(9400)**
- ✅ Node geometry: VISUM no longer crashes, if a user removes crossing lane turns and then undoes this action. **(9404)**
- ✅ Split link: Cancelling the split link operation in an assigned network will no longer cause a program crash. **(9405)**

Other Operations:

- ✅ Matrix disaggregation: The zone attribute ID of the disaggregation weights is now read correctly from files of type *.par and *.ver. **(9419)**

PuT Assignment:

- ✅ Shortest path search with reverse correction: In the rare case when the reverse correction found simultaneous departures on different time profiles, up to now no consistent results were achieved. No the user gets repeatable results. As a consequence, the following results may change: timetable-based assignment (only applies to the shortest path search using reverse correction), passenger surveys, calculation of isochrones, interactive shortest path search. **(830)**
- ✅ Tariff model: The program will no more crash when calculating fares for circle line transitions. **(9425)**

TFlowFuzzy:

- ✅ Save flow matrix: The algorithm has been changed. Therefore, the flow matrix calculation calculates further values (vector of assignment sums). When saving, they are written into the flow matrix. **(9381)**

Timetable Editor:

- ✅ Block display: User-defined block items overtake the correct data from their insert position when inserting them while the time for day change is shifted. **(9433)**

VISUM Files:

- ✅ ANM export: Routes using blocked links are no longer included. **(9422)**

11.51-01 [54845]   2010-09-28

✅ **Fixed Bugs**

Demand Operations:

- ✅ Nested Mode Choice: The program will no more crash during nested mode choice procedure if there are modes without assigned matrices. **(9390)**

Dialogs:

- ✅ Dialog Line style parameters: The program will no more crash when more than one stroke layer is used. Settings will no more be copied when switching from one layer to another. **(9398)**
- ✅ Ticket types: The program will no more crash when creating more than one identical classes by editing the key column directly within the ticket type grid. **(9308)**

Miscellaneous:

- ✅ Several procedures: The program will no more crash if protocol or other output data should be written to a file and if the given path does not exist. **(823)**

Network Editor:

- ✅ Delete nodes: If a stop point is located on a node and if, when deleting the node, the procedure is aborted by the user since the resulting adaption of time profiles is negated, the node will no more be deleted. **(9379)**

Other Operations:

- ✅ Matrix procedures: The procedures MSA over matrices and combination of matrices and vectors now don't crash when the output matrix does not exist. **(9231)**

VISUM Files:

- ✅ Read / write matrices: When reading matrices in text format, spaces are ignored before the comment character. Matrices containing such lines with space before '*' will no more be written. **(9159)**

11.51-00 [54796]   2010-09-24

⊕ New Features and Changes

Add-In:

⊕ The add-in 'Simple difference Network' has been removed. This functionality is now provided by the version comparisons introduced with VISUM 11.5. **(9375)**

COM Interface:

⊕ There is a new COM interface to start the extended route choice. **(9219)**

⊕ There is a new COM method for setting the default time format (Extras > Options > Formats). **(7693)**

⊕ Transport systems: There is a new COM method for creating a transport system that corresponds to an existing system. **(9111)**

Data Model:

⊕ Copy time profile: If a time profile is copied, now specific transfer walk times and wait times are copied as well. This also applies to coupling in the timetable editor. **(9312)**

⊕ Demand strata can now have user-defined attributes. **(9255)**

⊕ Forced chainings: Deleting lines (line routes, time profiles, etc.) in a network with forced chainings now works faster. **(9311)**

⊕ Matrices can now have user-defined attributes. **(9254)**

Listings:

⊕ Lists 'Line blocks' and 'Line block items': The course of the line block is marked in the network window similar to PrT or PuT routes. **(4300)**

⊕ Now a demand strata list is provided. **(9256)**

Matrix Editor:

⊕ Open version file: If matrix windows were open during the save process, they will be restored on opening a version file is if the corresponding option is set. **(5032)**

⊕ The new matrix editor nor provides a COM interface. It is posssible to open or close windows and to set certain parameters. For details see the new COM interface documentation. **(5020)**

Other Operations:

⊕ Operation 'Save version': In some cases VISUM stopped the execution of procedures due to supposed errors in the 'Save version' operation, although the operation was successful. This no longer happens. **(9374)**

TFlowFuzzy:

⊕ The TFlowFuzzy matrix correction procedure may now use internal VISUM matrices alternatively to matrix files as parameters. **(9122)**

VISUM Files:

⊕ Assignment with ICA: The parameters of the assignment with ICA are now accessible via COM. They have been included into the XML procedure parameter file. **(8467)**

⊕ Blocking back model: The parameters of the blocking back model that are displayed under Procedures > Functions > PrT functions are now accessible via COM. They have been included into the XML procedure parameter file. **(3856)**

✓ Fixed Bugs

Add-In:

✓ Add-in 'EVA demand model': The add-in no longer crashes, if the EVA demand model is incomplete. **(9135)**

✓ Instable behaviour of add-ins and crashes: The stability of add-ins has been considerably improved. Please also refer to the 'Notes for upgrading users' for nescessary modifications if Your scripts/AddIns make use of wxPython for the user interface. **(8936)**

Data Model:

- Bars and version comparison: The system no longer crashes or displays bars incorrectly during a version comparison, if a user selects the entry 'Like scaling attribute' in the graphic parameters for the bar fill style. **(9369)**

- System routes: It is now forbidden to insert the opposite direction of a system route if one of the two terminal stop points is directed. **(9305)**

Dialogs:

- Relations: The system no longer crashes, if a user expands relations comprising several levels in the attribute selection window. **(9366)**

Graphical Operations:

- Edit flow bundle: The system no longer crashes, if a user edits the flow bundle parameters and has the path list open. **(9378)**

- PuT Flow bundle: 1. Boarding passengers boarding at the start of a path leg are no longer counted as passing through. 2. Traversed stop points without a time profile item are counted as passing through - no stop. **(9395)**

Installation:

- Installation via inf: When installing without Python it will be grayed out in the component selection. **(9380)**

Other Operations:

- When reading legacy data which contain operations that are no longer available in the current release, VISUM no longer simply stops reading the version file. Instead, an operation of the type 'Invalid operation' is inserted into the procedure as a placeholder. Eventually, this operation must be deleted to make the procedure executable again. **(775)**

- Write skim matrices to file: The file name will be overtaken from the dialog correctly. **(9367)**

PuT Line Blocking:

- Line blocking (both procedures): Sometimes no solution could be found, and an error message was displayed. This no longer happens. The error correction changes the results because now sometimes a different but equivalent flow solution is found. **(9196)**

TFlowFuzzy:

- Calculate flow matrix: When calculating the flow matrix, the counted data is also distributed across the individual demand segments. If the global filter is activated, this also happens if there is just one demand segment. **(9382)**

11.50-07 [54491]   2010-09-14

⊕ **New Features and Changes**

Dialogs:

- Forced chainings dialog and wizard: In both dialogs, the attribute selection refers to the tables. **(9251)**

- Version comparison, attribute selection: Several improvements have been made. **(9324)**

Network Editor:

- Edit shape of line route: If the shapes of line routes are edited and as a consequence couplings are separated, an entry is written into the file trace.txt. **(8940)**

PuT Assignment:

- Paths and MPA: If paths are calculated using MPA and saved as *.CON file, during the import the distribution is carried out according to connector shares. **(490)**

- Timetable-based assignment: For simple fare models the timetable-based assignment now runs as fast as it did in VISUM 11.0 again. **(9314)**

⊘ **Fixed Bugs**

Data Model:

- ✅ Fares: The number of traversed fare zones is calculated correctly in complicated networks, too. **(9242)**

- ✅ It is no longer possible to assign a number to a POI which already has been allocated within its category. **(9315)**

- ✅ On certain paths it was possible to assign more than one transport system to one PrT mode. This bug has been fixed. **(9263)**

Dialogs:

- ✅ Edit graphic parameters: When an invalid value for point symbols is entered the program no longer displays the same warning several times. **(9184)**

- ✅ Edit line route: The column "<>" no longer displays black boxes. **(9322)**

- ✅ OD demand data dialog and filter dialogs: In some cases using the key combination Ctrl+C led to a system crash. This bug has been fixed. **(9317)**

Filters:

- ✅ Filter dialog: After removing filter rows and clicking OK in some cases a message was displayed saying that there are faulty parentheses. This message appeared even if the expression contained two rows or less. Now parentheses that are no longer required are removed. The message no longer appears. **(9268)**

Graphics:

- ✅ Multi-export of turn volumes: During the multi-export of turn volumes the circle size in the export parameters is considered. **(9332)**

Network Editor:

- ✅ 'Find u'…';' windows in the network editor: Now, also the first entry in the list will be highlighted if a matching first character is entered in the entry field. **(10274)**

- ✅ Copying or merging lines or line routes: Possible crashes on rare run-time errors were fixed. **(10166)**

- ✅ Find main node: The "Only active" option used to be disabled in this window. Now it is active by default. **(10276)**

- ✅ Multi-delete nodes: The program will no more crash when multi-deleting nodes if crosswalks exist in the network and UNDO stack is not active. **(9316)**

Procedure Sequence:

- ✅ Stopping the sequence of procedures: If skim matrices are opened in the matrix editor during a timetable-based assignment, the running sequence of procedures will no longer be unintentionally stopped. **(2541)**

11.50-06 [54287]   2010-09-07

➕ **New Features and Changes**

Dialogs:

- ➕ Line blocking: Save option "Forced block check" in registry. **(9118)**

- ➕ Save attribute file: The dialog title clearly states whether data will be written to file or database. **(9058)**

✅ **Fixed Bugs**

Data Model:

- ✅ Coupling: The coupling sections are now correclty adjusted, if a coupled section is shortened at its start. **(9291)**

Dialogs:

- ✅ Attribute selection: The program will no longer crash when a user tries to extend the sum branch of a relation. (This bug only occurred only after the installation of the last service pack.) **(9304)**

Foreign Formats:

- ✅ GIS objects: The access to external attributes in lists is now possible again. **(9310)**

Network Editor:

- ✅ GIS objects: The context menu option "Create UDA" was grayed out (deactivated) as no user-defined attributes for GIS objects exist. **(9303)**

- ✅ Quick view window: Marked areas in the quick view window are automatically deactivated when the user selects a different network object. In the past, marked areas remained active which sometimes led to crashes. **(9292)**

- ✅ Quick view window: The advanced input options in the quick view window are working again. **(9290)**

PuT Line Blocking:

- ✅ Block check: If a forced chaining exists and a user checks whether an empty trip can be inserted layover times are no longer considered. **(9286)**

- ✅ Block check: If long empty trips or extensive user-defined block checks exist, the block check no longer reports errors due to unauthorized layover times, and the forced block check no longer reports errors due to unauthorized block days. **(9282)**

- ✅ Line blocking (both procedures): Blockings are now generated correctly, if forced chainings enforce a shorter layover time and simultaneously an empty trip is required. **(9273)**

11.50-05 [54211]   2010-09-02

➕ New Features and Changes

COM Interface:

- ➕ INode / IMainNode: The COM method UpdateImpedance optionally writes a report, depending on procedure parameters. **(9244)**

Dialogs:

- ➕ Print settings: The menu item "Set print page..." now works even in case a list view ist active. Moreover, the menu item appears in the "Layout" menu as well now. **(9175)**

Graphics:

- ➕ Turn volume parameters: When editing graphic parameters of text blocks in Turns->Turn volumes->Text format->Standard, the new settings can optionally be applied to all active turn volumes. **(9173)**

Matrix Editor:

- ➕ Graphic parameters: Graphic parameters for the matrix editor are available now. They can be used to produce a classified depiction of grid cells and can be stored in a parameters file. **(5168)**

- ➕ Layout: The matrix editor supports saving and loading layout files from now on. **(5031)**

PrT Assignment:

- ➕ Eqilibrium-Lohse and stochastic assignment: The range of the termination parameter has been enlarged s.t. a factor of 0 can be used instaed of 0.01. **(9253)**

Timetable Editor:

- ➕ Block display: When creating an user-defined block item, the blocking day will always be determined correctly from the insert position. **(9272)**

✅ Fixed Bugs

Data Model:

- ✅ Remove transport systems: When removing a transport system blocks using it as empty trip transport system are removed as well. **(9278)**

- ✅ Signal controllers: There are no rounding errors anymore when signalgroup-based controllers are converted to stage-based controllers. Since this conversion is used implicitly in signal cycle and split optimization, this may lead to minor differences in the results. **(9243)**

- ✅ System routes: If a system route uses a turn, this turn must not be blocked for the transport system of this system route. **(9235)**

Dialogs:

- ✅ Attribute selection: The program will no longer crash if one tries to add an alias pointing to an attribute with sub-attribute that does not exist any more in the attribute selection dialog. **(9270)**
- ✅ Graphic parameters for diagrams: Column diagrams are drawn correctly if there is more than one column, one of the attreibute values is 0, and the option "hide if (absolute) value <=" is disabled. **(2637)**
- ✅ PuT fares: Multiple minor grid bugs were fixed. **(9241)**

Foreign Formats:
- ✅ Import shapefile: Point objects do not loose their coordinates when importing as stops. **(9229)**
- ✅ SVG export for Inkscape: Point symbols are scaled correctly. **(8845)**

Graphical Operations:
- ✅ Read network file additively and shortest path search: If a PrT shortest path search has been executed in a network, when reading a network file additively the shortest path search will no longer be executed after each line containing a turn, but only once when reading the file is finished. This speeds up reading network files in this case. **(4147)**

Graphics:
- ✅ Background JPEG images larger than 500x500 pixels were always exported in black and white when printing to a PDF. **(9257)**
- ✅ Desire lines: Desire line links are drawn if the bar layer is switched off. **(8751)**
- ✅ Draw link bars: Link bar labels are no longer moved by the link's width if the bar layer is switched off. **(9252)**
- ✅ SVG as background in VISUM: Dashed lines are displayed correctly. **(6944)**
- ✅ The network no longer disappears when pasting empty list contents. **(9261)**
- ✅ Turn volumes: Bars on straight turns are displayed correctly now. **(9233)**
- ✅ Version comparison: Bars of percental difference attributes are displayed correctly now. **(9283)**

Listings:
- ✅ PuT partial routes: Indirect attributes of ticket types are updated correctly on network changes now. **(9246)**

Matrix Editor:
- ✅ Histogram: The program will no longer crash when opening a version file or creating a new network while a matrix histogram is open. **(9265)**
- ✅ Matrix histogram: All toolbar icons of the matrix editor now work correctly if both matrix editor and matrix histogram are open. **(9258)**
- ✅ Matrix histogram: VISUM no longer crashes if all intervals are deleted in a histogram of multiple matrices. **(9259)**

Miscellaneous:
- ✅ Context sensitive online help (fare systems): The context sensitive online help now works for all the pages of the fare system dialog. **(9279)**
- ✅ Copy & paste in matrix editor: Copy & paste from matrix editor into excel maintains newlines on chinese operating systems as well. **(9177)**

PuT Assignment:
- ✅ Connection import: VISUM no longer crashes if reading network volumes fails. **(9239)**

PuT Line Blocking:
- ✅ Block Check: Layover times before the first and behind the last service trip block item are maintained when checking open blocks. **(9216)**
- ✅ Block check: The program will no longer freeze (endless loop) while executing the block check procedure if, by inserting empty trip items, the standard sort order of block items is changed. **(9119)**
- ✅ Blocks: The program will no longer crash if changes to the pre or post preparation times leads to the deletion of the corresponding block item. **(9250)**

Timetable Editor:

✅ Block display: The program will no longer crash if a block is inserted while the tree showing all blocks is open and if the insertion is canceled within the dialog. **(9271)**

VISUM Files:

✅ Attribute files: The program will no longer crash when reading an attribute file containing a column named as an alias exisiting in the current network and pointing to an attribute with sub-attribute. **(9269)**

11.50-04 [53978]   2010-08-23

⊕ New Features and Changes

Add-In:

⊕ Add-Ins: The window header now always matches the title of the document. **(9148)**

Dialogs:

⊕ Edit line route: Arrival and departure times are editable now. **(7718)**

Graphics:

⊕ Set up and edit classification: Automatic class limits can now also be calculated with natural breaks. **(8868)**

Timetable Editor:

⊕ Block display: The valid days label uses "not valid" for days outside calendar now, when searching for a matching valid days object in the network **(9195)**

VISUM Files:

⊕ Open / Save procedure parameters: An entry is written in Trace.txt when a parameter file (.xml or .par) is opened / saved successfully. **(9228)**

✅ Fixed Bugs

COM Interface:

✅ Shorten a line route: This functionality will no longer freeze. **(9204)**

Demand Operations:

✅ Demand procedures: The procedures can now be applied independently of existing add-ons. **(9220)**

Dialogs:

✅ Line route dialog: The arrival and departure data is correct now, even if an additional stop event with dwell time > 0 was added above a reference point. **(9211)**

✅ Save network: The table and attribute selection is no longer reset if one of the options is checked: "Save only active network objects", "Hide empty tables", "Hide attributes with default values". **(8822)**

✅ Set up and edit classification: Setting up the class limits now works correctly. **(9225)**

Filters:

✅ Filter dialog: In certain cases, VISUM used to crash if the first data row in the filter conditions grid was deleted. This bug could be fixed. **(9223)**

Matrix Editor:

✅ Arithmetic operations: The buttons for rounding and linear combination of matrices and vectors now work correctly. **(9218)**

✅ Old matrix editor: (1) Upon closing a matrix the reference in the list of open matrices is removed. (2) Code files are now displayed correctly. **(9187)**

Network Editor:

✅ Version comparisons: A suffix is now added to user defined attributes (same as for other attributes). **(9208)**

PrT Assignment:

✅ LUCE using an existing assignment as initial solution: The procedure will no longer produce instable results which used to occur in certain cases. **(9171)**

11.50-03 [53811]   2010-08-16

➕ New Features and Changes

COM Interface:

➕ Log files: The COM methods WriteToTrace and WriteToError add a line break to complete the generated entry. **(9164)**

Dialogs:

➕ Shapefile export: Unlike the regular mode, the OK button is initially selected in the attribute selection dialog and the Cancel button aborts the operation. **(8662)**

Matrix Editor:

➕ Via the filter icon in the matrix editor toobar, filtering can globally be switched on or off. **(9178)**

Miscellaneous:

➕ Reduced memory fragmentation after assignment calculations. **(8050)**

Network Editor:

➕ Like in web browsers, the keyboard can be used now to navigate in the view history, i.e. the key combinations Alt - Arrow left and Alt - Arrow right can be applied. **(8451)**

➕ When aggregating lines, all line routes that can be aggregated are now actually aggregated in one procedure run u'–'; independent of the order of the IDs. **(7487)**

Other Operations:

➕ All procedures will warn interactively if an error occures. Warnings will also be logged in trace and error files. **(9153)**

PrT Assignment:

➕ Deleting PrT assignment results for multiple demand segments has been accelerated. **(9188)**

➕ PrT assignment with ICA: The assignment is now considered to have reached convergence only if the internal assignment (Equilibrium_Lohse or Equilibrium assignment) has reached convergence, too, and was not terminated because the maximum number of iterations had been reached. **(9172)**

✅ Fixed Bugs

COM Interface:

✅ SetMultiAttValues: This method checks the validity of the index ([x,0] in the first place of the array). **(9201)**

Data Model:

✅ Edit line route shape: The program no longer crashes when the line route is lengthened. **(782)**

✅ Line blocks: The program will no longer freeze (endless loop) if the pre and post preparation times of vehicle journey sections are reduced, though a shorter time had been set manually for the the layover block items in the line blocks before. **(9186)**

✅ Matrix cache: In certain cases, defragmentation of the matrix swap file caused a program crash. This bug could be fixed. **(9181)**

Dialogs:

✅ Column Charts: Attributes with an ID consisting of one character only may be used as label for x-axis (used e.g. for russian short name of link attribute 'NO'). **(9169)**

✅ The program will no longer freeze (endless loop) if a warning or an error message appears in the process window of a separate thread while the procedure is running. **(9182)**

Filters:

✅ Group filter: The filter state is now updated when an object is created. **(779)**

Graphical Operations:

- Flow bundle: The flow bundle is recalculated again after changes to the OD pair filter. **(9199)**

Listings:

- Goodness of PrT assignment with ICA list: In certain cases, the program used to crash when assignment results were discarded while the list was open. This bug could be fixed. **(9168)**

Matrix Editor:

- Matrix histogram: Interval files in old format (extension .cod) can now be read. **(9166)**

- Multi-matrix processing: Operations on matrices, which themselves are the second operand for other matrices, are performed at last. In this way, the operation regards the original value of the operand. **(8584)**

Miscellaneous:

- Open version via double-click: When a version file is opened by double-click in the explorer, the file name spelling (upper and lower case) is retained. **(9176)**

Network Comparisons:

- Network merge mode: Merging the networks works now while a list of user-defined paths is open. **(9190)**

Network Editor:

- Edit zone shape: The program will no longer freeze (endless loop) if the user clicks a polygon point that belongs to two adjacent polygons while holding down the CTRL and SHIFT keys. **(9144)**

PrT Assignment:

- LUCE with warm start: The procedure returns sufficient volumes now even if traversed network objects were blocked in the initial solution. Results are not fully stable numerically, but this issue will be addressed shortly. **(9197)**

PuT Assignment:

- Connection import: Even if an error occured, the process window is closed (for example, if the file to be imported does not exist). **(9167)**

- Connection import: VISUM now rejetcs path legs using time profiles backwards. **(9206)**

PuT Operating Indicators:

- Saving version data to file works correctly even if the network includes PuT operating indicators for Territory x [u'…';] x Vehicle combination, though some entries do not have a vehicle combination. **(9191)**

PuT Passenger Survey:

- Read passenger onboard data from file (either data format): The program will no longer crash if the target network is empty. **(777)**

Timetable Editor:

- Set PuT line selection via COM: Setting the line selection for the timetable editor via COM does not produce invalid sequences of stops or stop points. **(9183)**

- The Screenshot functionality now works in the timetable editor, too. **(9194)**

11.50-02 [53562]   2010-08-04

⊕ **New Features and Changes**

Data Model:

⊕ The growth of the matrix swap file is decreased much. **(8839)**

Demand Operations:

⊕ Estimating gravitation parameters and TFlowFuzzy: It is possible to read interval-Att-files for the procedures **(9101)**

Dialogs:

- ➕ Blocking back model: The input field for the average space required per car unit now also handles imperial units correctly and full stop or comma as decimal separators. **(9107)**

- ➕ File names: When using the 'Open' or 'Save as' command, the default extension of the respective file type is added to file names which do not have a valid extension yet. If, in the project directories, a '*' has been entered for the file type, any extension is permitted. In this case, no additional extension is added. **(6082)**

- ➕ Forced chainings dialogs: In the Forced chainings dialog and in the wizard to define new forced chainings, the column selection for the table can now be set. The columns with calculated departure, arrival and valid days are always displayed. **(9075)**

Foreign Formats:

- ➕ PolygonM+Z behave just like Polygon. The z-coordinates/the measured value cannot be used in EdgePoint and are thus discarded. **(4362)**

Graphics:

- ➕ Editing classifications: If you edit an existing classification, the current color gradients are transferred to the dialog as far as possible. **(8870)**

- ➕ Text labels of print frames can have multiple lines and are wrapped automatically **(7179)**

- ➕ The initial graphic parameters classification is calculated from existing classes **(9126)**

Matrix Editor:

- ➕ Integrated matrix editor: Row and column sums are now available. **(9158)**

- ➕ Matrix editor: The base functionality is provided. **(6097)**

Miscellaneous:

- ➕ VISUM respects HIGH DPI (120 DPI, 144DPI) **(8187)**

Network Editor:

- ➕ Transport system: When inserting a transport system, another transport system can be specified. From this transport system, the trafficability of the network and other transport system-dependent attributes are copied. **(9047)**

PrT Assignment:

- ➕ The Tribut learning procedure has been accelerated considerably. **(9114)**

PuT Assignment:

- ➕ Connection files: The export and import of connection files has been parallelized. **(7352)**

- ➕ Headway-based assignment: In case of lines operating in parallel, only the last stop of multiple equivalent stops is used for transfers. **(9129)**

PuT Line Blocking:

- ➕ Line blocking with vehicle interchange: The procedure can generate blocks with predetermined secondary properties (long/short blocks, distribution of the layover times), just like the procedure without a vehicle interchange. **(7752)**

Timetable Editor:

- ➕ Context menu entries in the timetable editor which refer to marked vehicle journeys are grayed out, if nothing has been marked. Context menu entries that require further user input are identified by "u'…';", as usual. **(9121)**

- ➕ Wizard to define forced chainings: A progress dialog is displayed when determining the possible targets. The determination can be cancelled. In this case, any already determined targets will be displayed. **(9076)**

VISUM Files:

- ➕ Network writing: If "only active" is selected, only couple sections are written which have active couple section items **(9090)**

✅ **Fixed Bugs**

Add-In:

- ✅ Balance matrix: The user is now notified if the matrix contains invalid values. **(9087)**

- ✅ The add-in 'Line buffers' can be executed using the python installation shipped together with VISUM 11.5. **(9017)**

COM Interface:

- ✅ Interactive deletion of current network is prohibited if COM references to network objects exist. **(9081)**

Data Model:

- ✅ Emission calculation according to HBEFA: If a fleet composition has no subsegment with a positive weight, this results in a uniform distribution of all segments of the selected categories in the calculation and in the linear combination of fleet compositions. **(8988)**

Demand Operations:

- ✅ EVA mode choice: If balancing is not possible in the network yet demanded in the procedure parameters, this is changed when opening the parameters dialog. A message is issued concerning the modification in the procedure parameters. **(9045)**

- ✅ VISEM combined: The transformation of the utility matrix is calculated after LogSums now (was calculated too early) **(9137)**

Dialog windows:

- ✅ 'Print settings' for lists: The message 'Printer not found' will no longer appear if the print job is cancelled. **(8710)**

Dialogs:

- ✅ "Comparison of stop and run times": Dialog window does not crash any more if only active objects are displayed and filtered by system routes **(9157)**

- ✅ Edit stop dialog: The specific walk and wait times between time profiles are displayed correctly. **(9131)**

- ✅ Tooltips: Tooltips with umlauts are translated correctly on operating systems with a u'''; foreignu'''; codepage. **(9099)**

Filters:

- ✅ Filter on vehicle journey items: vehicle journey items are passive, if their vehicle journey is passive. This could be wrong if the journey was passive, because of a filter on vehicle journey sections **(8697)**

Foreign Formats:

- ✅ Shapefiles: Z- coordinates of nodes are now exported/imported correctly. **(9097)**

Graphics:

- ✅ Legend: When scaling path bars, the legend now also displays the specified attribute. **(9120)**

- ✅ Line bars: the aggregate function "weighted mean" also regards the first attribute value now **(9141)**

Junction Editor:

- ✅ If you set the display language to Russian, the labels of the radio buttons ('legs', 'lanes') and check boxes ('Major flow manually') are now displayed in full. **(9110)**

Matrix Editor:

- ✅ Standalone matrix editor ("Muuli"): Changing options and saving of changed matrices works again. Also creating and editing a code file works again. **(9163)**

Miscellaneous:

- ✅ Procedure "Save Version" occasionally generated a confusing warning if the filepath wasn't valid. **(9132)**

- ✅ VISUM now starts even if UAC is activated, user has no admin permission and a scriptmenu entry for 'Computer' exists. **(9116)**

Network Editor:

- ✅ Demand segments: VISUM no longer crashes when discarding line costing results, for example due to the creation or deletion of a new demand segment. **(9124)**

TFlowFuzzy:

- Correct shares of the given matrix are now calculated, when selecting the 'Shares due to the matrix' option. **(9143)**

Timetable Editor:

- Line block view: The printout is positioned better than before. **(9092)**

- Parameter dialog for line block display: The combobox of block versions for the determination of unbound actions is sorted numerically by the block version number. Furthermore, the previous block version selection can be restored more often than before when reopening the dialog. **(9078)**

VISUM Files:

- Additive network reading: The 'Cancel' option as conflict handling for line route or time profile items led to a termination of the additive network reading. So far, the effected items were overwritten in this case. **(765)**

- Conflict avoidance works correctly if signal groups are read additionally from a network file **(8075)**

- Saving a network: In the "Save only active network objects" mode, the program only exports time profile transfer times that belong to active time profiles. **(9142)**