VISUM 12.0 Release Notes

Last modified: 2013-03-22

12.01-17 [77837]	2013-03-19

⊕ New Features and Changes

COM:

⊕ IVisum, Embedded: The IVisum interface now provides a new property called "Embedded. It shows whether or not Visum was started via the COM interface. In addition, messages are now dealt with differently: Visum started via the COM interface used to suppress all blocking messages (notes, warnings, errors, requests, etc.). Now these messages are only suppressed when related to an action started via the COM interface. During interactive use of Visum started via COM, messages are now displayed on the interface. **(12296)**

✓ Fixed Bugs

Add-Ins:

✓ Calculate Matrix: The result matrix no longer contains invalid data. This occurred when executing the add-in in the procedure sequence after switching from View mode to Edit mode in the Parameters dialog. **(12168)**

COM Interface:

✓ Adding filter conditions (AddCondition): Wenn adding a filter condition (AddCondition) to an attribute of the type Enum, the value of the Enum can now be specified either in numerical form or by the identifier, as long as this is supported by the client language. A string that contains the numerical value however is not permitted. If the value is specified in an invalid form, a specific error message is issued and the filter condition is not set. Furthermore obsolete attribute names will be converted into new ones, if possible. This may change the filter result. **(11143)**

✓ Print: It is now possible again to execute the Plot() method several times in a row. This had previously failed from the second time the method was called. Then an error message ("PostScript Error OFFENDING COMMAND: GpPBeg1") was displayed. **(10659)**

Dialogs:

✓ Changing the font size: Dialogs whose size cannot be changed are now displayed correctly, even if you change the font size in Windows under Display options. **(12316)**

✓ Edit fleet compositions: The program no longer crashes when you paste data from the clipboard into HBEFA fleet composition shares, in the 'Management of weight proportions of fleet compositions' dialog. **(12266)**

✓ Network parameters, separators: Certain special characters are no longer permitted as separators. When they were used, the program could no longer read network and attribute files, or generate a subnetwork. These special characters are the semi-colon and the dollar sign. **(12058)**

Foreign Formats:

✓ railML import: When a calendar filter was used for data import, train objects with several trainPartSequences were not imported, if the first one contained a trainPart that did not run on any of the valid calender days (even if the following trainParts did). In this case, no error message was output for the journey rejected. Now such train objects are imported and their route course is reduced to the share valid within the filtered time period. **(12152)**

Graphics:

✓ Internet maps: Sometimes internet maps called were wrongly deteled from the hard drive.This error has been fixed. **(12203)**

Network Editor:

- ✅ Shortest path search, deleting connectors: When a PuT TSys shortest path search is performed for an area between zones and a connector that is part of the shortest path is deleted, the program now no longer crashes. **(12219)**

- ✅ Split link: When a link split was undone, the adjustments made to turns and main turns were not undone properly. This error has been fixed. **(12314)**

PrT Assignment:

- ✅ Skim v0: Errors occurred when trying to calculate skim v0 (speed in uncongested network) if skim t0 was not calculated at the same time (journey time in uncongested network). This error has been fixed. **(12287)**

PuT assignment:

- ✅ Skims for PuT Aux: Program no longer crashes, if the calculation of skims for PuT Aux transport systems is set for a network, these transport systems are then deleted and a subsequent skim calculation is performed. **(12198)**

- ✅ Line route item volumes: The calculation of volumes at line route items per time interval was corrected. To divide a line route item into time intervals, the program had mistakenly used the departure time of its previous line route item. Now the departure time of the respective item itself is used. **(12295)**

Subnetwork Generator:

- ✅ Store demand model: The program no longer crashes when you generate a subnetwork, using the option 'Store demand model with subnetwork', the demand model is EVA or VISEM, and default mobility rates are set for all demand strata and person groups. **(12292)**

- ✅ Toll systems: If all links belonging to a specific toll system were disabled, export of the subnetwork failed. This error has been fixed. **(12153)**

Timetable Editor:

- ✅ 'Undo' after creating a vehicle journey: Visum no longer crashes when deleting a vehicle journey with 'undo' which is marked in the tabular timetable and was inserted beforehand. **(12040)**

VISUM Files:

- ✅ Demand file with formula matrices: Demand files with a formula matrix, whose definition contains a reference to another matrix listed further below in the file, could not be read in. This error has been fixed. **(11156)**

- ✅ Line import via network file: When reading line data with option "Permit link or create link of type", newly created links did not have correct orientations. The orientations of the newly created links are now recalculated at the end nodes. **(12122)**

- ✅ Localization of model transfer files: In model transfer files, subattributes were translated into all languages. Model transfer files could thus not be read because Visum only understands the translations of certain languages. This error has been fixed. **(12107)**

- ✅ Program crash when reading a version from file: Reading a version from file with a path (folder and file name) consisting of more than 255 characters used to cause a program crash. In this case, the current path which might have been modified in the file system was not cruxial, but the original path used in Visum for saving this version to file. This bug was fixed. **(12103)**

12.01-16 [76307] 2013-01-20

✅ **Fixed Bugs**

Add-Ins:

- ✅ 2D-Isochrone -> POI: The temporarily created shapefile is no longer saved to the Add-In folder, but to the user directory. In this way, problems with regard to access rights can be avoided. **(12022)**

- ✅ Add-In POI -> FareZone: Characters in the names of the used POIs which are not included in the character set ISO-8859-15 are now replaced by blanks; thus, the network can be saved to file. In previous versions, running this Add-In returned an error message in this case. **(12091)**

- ✅ Add-In POI -> FareZone: Due to technical reasons and since this functionality is not required, this Add-In can no longer be performed as part of the procedure sequence. Furthermore, German umlauts and special characters in the labels of involved objects are now handled correctly. **(12061)**

✅ FareZone -> POI: Now, a stop can be allocated to several fare zones. **(12119)**

Data Model:

✅ Distance-based fares in the fare model: The interpolation between fare levels of distance-based fares works correctly now. **(12070)**

Dialogs:

✅ Dialog 'Create vehicle journey(s)', 'Regular services' tab: In this dialog, the start time and the end time of the regular service time interval used to be displayed in seconds, if the attribute 'Departure' was not displayed in the tabular timetable. This error has been fixed. The format for the display is still taken from the attribute 'Departure', but a useful standard format is now selected if this attribute is not displayed in the tabular timetable. **(12017)**

Graphics:

✅ Print output: For print output and page preview, the backgrounds provided as vector files are now correctly cut (concerns Shape and WMF formats). **(6615)**

Listings:

✅ Visum no longer crahses when flow bundle paths are shown in the PrT path list and the flow bundle has been calculated using the option 'Alternative routes'. **(11824)**

Network Comparisons:

✅ Deleted relations: Visum no longer crashes during the creation of a version comparison with the option 'Change link bars automatically to differences' if the link bars reference an indirect attribute based on a relation which no longer exists (e.g. due to a deleted POI-Category or a deleted version comparison on the network level). **(11989)**

✅ Version comparison with transferred attributes: The dialog which determines the attributes to be transferred from the comparison network for a version comparison on the basis of attributes did not display attributes which are not contained in the network file but in the demand file. As a consequence, these attributes could not be compared with this variant of the version comparison. The error has been fixed. The version comparison with a loaded network in the background was not affected by this. **(12072)**

Network Editor:

✅ Editing paths: Editing the paths resulting from a Tribut assignment sometimes caused a program crash. A crash happened when all paths were deleted or if Undo was called after the deletion of a single path. This bug was fixed. **(11077)**

✅ Editing the shape of the course of coupled line routes: Removing a 'dead end' link will no longer cause a program crash when re-routing the course of a line route which has a coupled time profile.
This bug only occurred if the line route of the coupled time profile was not included in the selection for joint re-routing, which means it was implicitly re-routed in this case. **(12026)**

✅ Specifying the course of coupled line routes: If a line route is shortened to a line route item which is no profile point and the coupled section has to be shortened accordingly, the coupling is retained now as long as possible. For this purpose, the new end point becomes a profile point of the coupled time profile. Furthermore, shortening a line route to a stop point which is traversed multiple times used to return errors in previous versions, since under certain circumstances the involved coupled sections were not shortened correctly. This bug was also fixed. **(12048)**

Procedure Sequence:

✅ Crash due to 'Create group': In certain situations (when closing the 'General procedure parameters' dialog, for example) the program sometimes crashed while the procedure sequence view was being open. This was only the case with a group in the listed procedure sequence. **(11995)**

✅ Loading a parameter file: Repeated opening of a parameter file sometimes caused a program crash. This bug was fixed. **(12002)**

PuT Assignment:

✅ Skim calculation with MPA: The skim calculation with MPA sometimes returned the skim value 0 for OD pairs without paths, though the user-defined value (default 99999.00) pre-set in the general procedure settings was the correct value. This bug was fixed. **(12004)**

- ✅ Validation of time series: Prior to the actual procedure, the timetable-based assignment now checks matrix time series for OD pairs without demand. In this way, a possible crash due to the usual check while the computation procedure is running can be avoided. **(11937)**

PuT Passenger Survey:
- ✅ Flow bundle via paths from direct assignment: The program will no longer crash if the flow bundle is calculated for the paths resulting from the direct assignment, which include unprocessed or implausible path legs. Such a path is contained in the flow bundle iff some plausible path leg fulfills the flow bundle condition. **(12071)**

12.01-15 [75560]   2012-12-17

✅ Fixed Bugs

Add-In:
- ✅ Google Transit Feed: The program will no longer crash if the file 'stop_times.txt' does not contain values in the 'arrival time' and 'departure time' columns or if the time data for a 'trip_id' are not stored in consecutive rows. **(11822)**

COM:
- ✅ Graphic Parameters: Visum no longer crashes if you use the Undo command after inserting an additional class into an existing classification via COM. **(11953)**
- ✅ Subnetwork Generator via COM: When calling the subnetwork generator via COM, an offset of 0 is now permitted for cordon zones. Up to now this could only be done in the dialog. **(11982)**

Dialogs:
- ✅ Edit screenline: The grid of the screenline dialog which displays the values of indirect attributes (via relations to the screenline links) could not display certain attributes. This has been fixed. **(11913)**
- ✅ Procedure parameters for the 'Go to the procedure' operation: The 'Parameters: Go to the procedure' dialog has been adapted to the real behaviour. The jump back will not happen if in the first inequality the equality is reached for at least one network object. **(11919)**

Foreign Formats:
- ✅ ICA report including russian characters: The node name has been unreadable under certain circumstances. This bug has been fixed. **(11997)**
- ✅ ICA reports with Russian characters: ICA reports with Cyrillic characters could not be opened in Excel subsequently. This bug was fixed. **(11807)**

Junction Editor:
- ✅ Export ICA report to Excel: When exporting an ICA report to Excel, no file type was provided in the file selection dialog. Now, the default "ICA calculation (*.xml)" can be selected again as file type. **(11795)**

Network Comparisons:
- ✅ Model transfer files and network merge mode: In the network merge mode, you can no longer create model transfer files as it leads to useless results. **(11966)**

PuT Assignment:
- ✅ Repeating the headway-based assignment: Repeating the headway-based assignment several times no longer leads to a crash, e.g. when used within a demand model with feedback loop. **(11026)**

VISUM Files:
- ✅ Selective reading of graphic parameters: In previous versions, selective reading of graphic parameter files did not completely ignore the settings for the display of turn volumes. Selected turn volumes used to be reset though these were not selected for reading. This bug was fixed. **(11931)**
- ✅ Unsymmetric external matrices: Since the introduction of asymmetrical external matrices in Visum, there had been a hidden bug in the binary format of those matrices. Only matrices with different numbers of rows and columns had been concerned. Usually saving the matrix to file had produced a corrupt matrix file which could have caused a program crash when being read in Visum. In any event, the corrupt matrix file stored faulty row or column totals. This bug was fixed, the file format was modified. **(11171)**

12.01-14 [75097]   2012-11-30

⊕ New Features and Changes

Add-Ins:

⊕ POI->FareZone: Using the 'POI->FareZone' add-in now allows for the generation of fare zones for POIs of various POI categories. **(11756)**

Dialogs:

⊕ 'Edit link' dialog: In this dialog it is no longer possible to enter negative values for the attributes Toll_PrTSys, NumFarePoints and Cost 1/2/3 (negative values are not permitted anyway). **(11866)**

Foreign Formats:

⊕ railML import: If changing trainParts means a change of the day at the same time, then the valid day of the subsequent trainPart items is shifted by the number of previous day changes if the departure is before the previous arrival (which means that shifting has not explicitly been modelled already with the subsequent trainPart item). Accordingly, departures of later trainPart items on the first calendar day may be dropped. If so, a message will be traced to the message file. **(10231)**

Installation:

⊕ Windows 8: The setup has been adjusted to the Windows 8 requirements. This includes the following: 1) As dongle driver, Codemeter 4.50b is installed instead of Codemeter 4.20. Thus, for technical reasons Visum with a single place dongle can no longer be operated via a remote desktop connection. 2) DISM (Deployment Image Servicing and Management installation) of .NET 3.5 is installed. **(11778)**

PuT Assignment:

⊕ Negative demand: The timetable-based assignment calculation now issues warnings if there are OD pairs with negative demand data. The user has the following options: Either terminate the operation or accept the warning and continue (for the OD pair in question, demand = 0 will be assumed in this case) or accept this and any further warning. The 'Calculate skim matrix (timetable-based)' procedure will issue an additional warning if the time series does not store any demand for an OD pair in the assignment time interval.
Prior to the actual calculation, the headway-based assignment procedure issues warnings if there are OD pairs with negative demand data. **(7119)**

⊘ Fixed Bugs

Add-In:

⊘ 'Buffers around PuT lines': The 'Buffers around PuT lines' add-in will no longer fail if line routes are defined without line route course. Furthermore, it works faster now and error handling as well as the handling of large polygons was improved. **(11841)**

⊘ FareZone -> POI: The 'FareZone -> POI' add-in will no longer crash when being executed as one of the operations in the procedure sequence. **(11891)**

Add-Ins:

⊘ Create regular timetable: With a coupled time profile, a vehicle journey number could have been allocated multiple times. In this case, an error message used to be returned. This bug was fixed. **(11727)**

Data Model:

⊘ Average per relation: Compiling data of the 'Instant of time' or 'Time period' data type using the 'Average' aggregation function for a relation now returns result values of the 'Precise duration' type, i.e. floating point values are possible now. **(11771)**

⊘ Long strings of characters: The program will no longer crash when handling very long character strings (about 50,000,000 characters). **(11640)**

⊘ vCur_PrTSys of links: With value 0 for the PrT travel time in the unloaded state (t0) the value of the link's speed in the loaded state (vCur_PrTSys) used to be rounded down to an integer. This bug was fixed. **(11726)**

Demand Procedures:

- ✅ Linear combination of matrices: Transformation operations on matrices which are not required in the further course of the calculation are no longer executed. In particular, this will avoid overflows during 'exp' transformations in many cases. Furthermore, the calculation speeds up due to this. Multiple procedures are concerned: Trip distribution (4-step), EVA weighting, Tour-based model - combined trip distribution/mode choice, Estimate gravitation parameters (KALIBRI). **(11764)**

Dialogs:

- ✅ Attribute selection: In previous versions, aliases representing string-type attributes were provided with the numeric aggregate functions. The selection of such an alias used to cause a program crash. This bug was fixed. **(11870)**

- ✅ Graphic parameters, classification of point objects: With an attribute of the text type, the operation 'Redefine all classes' did not work correctly. If a text attribute was selected in this dialog, this used to be not stored. Instead, the text attribute which was previously selected for the first of the classes was allocated to all all classes. Dieser Fehler wurde korrigiert. **(11835)**

- ✅ Matrix selection: If a zone matrix was to be selected, e.g. as demand segment-specific OD matrix, in a network including only external matrices then the matrix tree called in this context used to appear empty. Clicking the root node ("All matricen") did not call the correct matrix but listed one of the not complying external matrices which then was allocated to the demand segment in question. This bug was fixed. **(11621)**

Filters:

- ✅ Reading *.ane files: Previously, filters were not updated when *.ane (active network elements) files were read, though updating is required since the loaded data may change the 'active' status of the network objects. This bug was fixed. **(11112)**

- ✅ Response to different network volumes: Volume changes due to modified OD pair filter settings (with active option "Filter network volumes") used to be ignored in previous versions, i.e. other filters taking volume attributes into account did not re-evaluate the modified network state. This bug was fixed. **(11739)**

Foreign Formats:

- ✅ Access Export: The export to Access will no longer fail though the network includes short distance fare items. **(11804)**

- ✅ railML Import: Two rare errors were fixed:
  1) If a trainPartSequence which is not the first trainPartSequence of the train item, includes multiple trainParts with various route courses and/or times (and disjunctive valid days accordingly), then too many valid days used to be allocated to individual vehicle journey sections.

  2) If the end of a trainPart is an OCP that is missing in the VISUM network, then this trainPart used to be not imported, if departure and arrival times were different at the last trainPart with time data in the VISUM network. **(11796)**

Graphical Procedures:

- ✅ PuT flow bundle: The flow bundle condition check performed for links for PuT paths was not correct, if the path leg started on a link-based stop point or ended there. Subsequently, paths using the flow bundle link were not recognized as flow bundle paths under certain circumstances. This bug was fixed. **(11868)**

Graphics:

- ✅ Legend: Drawing a legend will no longer cause a program crash if a line bar is displayed but no valid scaling attribute has been selected for this line bar. **(11879)**

Listings:

- ✅ Deletion of analysis time intervals: The program will no longer crash if analysis time intervals are renamed or deleted while a list is being open. **(11700)**

- ✅ PuT path list: Activating the 'Sum' evaluation row in the PuT path list while the OD pair filter was active and subsequent modification of the attribute selection for the tabular display could have caused a program crash. This bug was fixed. **(11110)**

Matrix Editor:

- ✅ Saving the view: Saving the matrix view in the matrix editor while the OD pair filter is being active will no longer cause a program crash. **(11445)**

PuT Passenger Survey:

✅ Paths are sometimes plausible and sometimes they are not: The plausibilization used to fail if the option 'Compare plausible multi-part preced./succeed. part to direct connection' was selected and then a connection search was to be calculated for either a single path leg or the entire preceding/succeeding part. Due to the path legs read in before, the plausibilization could find only direct connections for the concerned path legs. In particular, a path's plausibilization result could possibly depend on the paths for which the plausibilization had been calculated before. This bug was fixed. **(11755)**

Timetable Editor:

✅ Regular services mode: When the regular services display mode is active in the tabular timetable view, the program will no longer crash if in the graphical timetable the context menu is called for a set of vehicle journeys which differs from a set of columns in the aggregated view of the tableau. **(11728)**

🛑 Breaking Changes

Installation:

🛑 Windows 8: The setup has been adjusted to the Windows 8 requirements. This includes the following: 1) As dongle driver, Codemeter 4.50b is installed instead of Codemeter 4.20. Thus, for technical reasons Visum with a single place dongle can no longer be operated via a remote desktop connection. 2) DISM (Deployment Image Servicing and Management installation) of .NET 3.5 is installed. **(11778)**

12.01-13 [73897]   2012-10-19

➕ New Features and Changes

Foreign Formats:

➕ RailML Import: A vehicle journey section's number of valid days can be output to a vehicle journey section attribute now. This is particularly useful for the import into a target network without calendar. **(10922)**

✅ Fixed Bugs

Add-Ins:

✅ Program crash with XP: Closing the program session will no longer cause a Visum crash if during the session an Add-In dialog has been opened. **(11615)**

Data Model:

✅ Matrix of a demand segment: If a different matrix is allocted to a demand segment Visum now checks for the matching network object type reference. **(11620)**

✅ Shortening a line route with activity protocol output: The program will no longer crash if a line route is made shorter while the activity protocol option is active (at least level 2 "All activities"). **(11669)**

✅ User-defined attributes: If a UDA (user-defined attribute) was referenced in a formula attribute, renaming the UDA used to fail and a message saying that no attribute with this new name could be found was returned. This bug was fixed. **(11605)**

Demand Procedures:

✅ "Parameters: EVA trip generation" dialog: In this dialog, the grid sometimes appeared empty by mistake. This bug was fixed. **(11587)**

Dialogs:

✅ Background objects administration: The synchronization of the "Draw" state between the two dialog views did not work correctly: This bug was fixed. **(11090)**

✅ Linear combinations in various dialogs: Marking a row - in the context of numerous procedures - in the "Utility definition" dialog and confirming 'Delete' used to ignore the currently marked row but always removed the last row instead. This bug was fixed. **(11617)**

✅ Parameter dialog for the headway-based assignment procedure: The assignment could not be calculated if the open parameter dialog was closed via the OK button while the default parameter settings for the weighted origin wait time were active. This bug was fixed. **(11690)**

Filters:

- ✅ Indirect attributes returning empty values: Indirect attributes returning an empty value (e.g. because there is no object in the relation) were no more treated as the value 0 in filter conditions since Visum 12.01-12. This error has been fixed. **(11741)**

- ✅ Initialize filter: Initializing filters works much faster now, especially with networks storing numerous Points of interest. **(11342)**

Foreign Formats, VISUM Files:

- ✅ If links or turns were opened for transport systems when a line route or system route was created, Visum used to ignore these changes during subsequent shortest path searches. This bug was fixed. Simultaneously, shortest path searches with one origin and one destination each have significantly been accelerated. This becomes effective during 'Read network additionally' and 'railML Import'. **(11736)**

Graphics:

- ✅ Autotexts in the printing frame: In the printing frame headline, autotexts were not replaced by the correct values if a line break was included in the text. This bug was fixed. **(11228)**

- ✅ Backgrounds from OpenStreetMap: Loading OpenStreetMap backgrounds for zoom levels greater than 15 was possible in previous versions, though no map service was provided for that. Now, only zoom levels up to 15 are available. **(11164)**

- ✅ Column charts: In networks with the imperial unit system, the separate column charts windows in the network editor now always use imperial units for the display of length and speed values. **(11656)**

- ✅ Internet maps: The program will no longer crash if internet maps are downloaded as backgrounds. **(11718)**

- ✅ Overlapping sections in legend: In previous versions, the scale and the class symbols used to overlap if the latter were small-sized. Furthermore, classes in the lower section used to be drawn outside the legend if the symbol height was too small. Either bug was fixed. **(10751)**

- ✅ Shortest path search and print output: The print output did not completely draw the shortest path.This bug was fixed. **(11689)**

Network Editor:

- ✅ Specifying the line route course: In previous versions, even a fixed profile point could be lost when specifying line route shapes. This only occured when a node or stop point was traversed repeatedly. This bug was fixed. **(11383)**

PrT Assignment:

- ✅ ICA calculation: If ICA is calculated for a set of nodes though ICA is not to be calculated for some of them, then the ICA results (LOS, LOS average delay) calculated for these nodes will be initialized. This may only be the case if ICA has already been calculated for a node. **(11594)**

- ✅ MPA: The Student version of Visum sometimes crashed during an assignment using MPA. This bug was fixed. **(11532)**

PuT Line Blocking:

- ✅ Short turning and turning during vehicle journey: If - from a vehicle journey section - both a regular short turning (i.e. to a vehicle journey section of a different vehicle journey with shorter layover times) as well as a short turning to a subsequent vehicle journey section of the same vehicle journey are possible, an unnecessary number of required vehicles used to be calculated. The same applies to the results that used to be calculated if different types of incoming turnings from preceding vehicle journey sections were possible. This bug was fixed. **(11526)**

Timetable Editor:

- ✅ Coupling in pairs in the Timetable editor:The route course section offered for coupling in pairs in the Timetable editor used to be shorter than necessary, if the course of one of the two line routes exceeded the maximum coupling section either at its start or at its end. **(11664)**

VISUM Files:

- ✅ Attribute files: Attribute files saved from the list of system route items can now be read from file again. Using the clipboard also works correctly now. **(11601)**

- ✅ Model transfer file: Directed stop points can be converted to undirected stop points now. **(11548)**

- Open attribute file: In the allocation dialog which appears when reading attributes from file, the attribute name used to be translated into English if the attribute with the given ID was not defined for the target network object but for a different network object. This bug was fixed. **(9757)**

- Read line routes additionally: If - when reading network data additionally or reading model transfer data from file - stop points were modified in a way that line routes were automatically adjusted, then the values of internal indices used to differ from the actual index values. If subsequently a line route course was read which was in topological accordance with the adjusted course then these original indices used to be kept by mistake. In a time profile items table which was read then, referenced line route items with incorrect internal indices could not be found. This bug was fixed. **(11602)**

- Reading attribute file for PuT lines: It is no longer possible to read an attribute file which contains the 'transport system' attribute if the file stores an empty string for the TSys attribute. **(11629)**

12.01-12 [72945]   2012-09-14

⊕ New Features and Changes

Dialogs:

- ⊕ The user interface for defining combinations of matrices and vectors (procedure parameters and other places) was upgraded to modern grid controls. These now provide extended functionalty such as Copy&Paste and simultaneous editing of multiple selected cells. **(3232)**

✓ Fixed Bugs

AddIn:

- Google Maps: Slight deviations occur when converting co-ordinates with the version of the python library 'PyProj' used so far. They have an effect if you want to display the node via the GoogleMaps AddIn. The error does not occur in combination with all projections. The error has been fixed by an exchange of the library version. **(11506)**

COM:

- Changing the focus when running scripts: If you run a script or AddIn in Visum, especially in the context of procedures, the Visum window used to get the focus, if Windows permitted it. This behavior is disadvantageous when working with a different application in parallel and has thus been changed. **(11560)**

- Method Show() at listings: Repeatedly calling the method Show() at the same listing object (I...List) opens the listing in the same list window instead of opening a new window each time. **(11484)**

Data model:

- Multi-edit attribute: Sometimes, copying attribute values via Multi-edit/attribute returned inaccuracies caused by internal rounding. The problem was the conversion of length data from [m] to [km] and vice versa. Other data of the floating-point number data type did not show this behavior. This bug was fixed. **(11253)**

- Attribute Transfer wait time: So far, only the wait times of direct transfers used to enter the attribute 'Transfer wait time' at stops and stop points and not the wait time of indirect transfers with a precedent walk link. This has been fixed. **(11323)**

- Renaming attributes: If attributes are changed, the components that use these attributes are now updated, for example filters or lists. Such changes of an attribute could be the modification of the definition of a formula attribute, but also the renaming of a network object which emerges as subattribute in the attribute ID. **(11317)**

- Standard value for new OD pairs: The parameter for the standard value for new OD pairs under Extras/Options/GUI/Matrix editor/Behavior of arithmetic operations/Default for new OD pairs has been changed from 99999 to 0. As a result, the addition of external matrices of different formats now works as expected. **(11407)**

Demand Procedures:

- TFlowFuzzy: Message in case total of shares is not 1: The error message "The skim value distribution shares do not sum up to 1." in the procedure "Estimate gravitation parameters (KALIBRI)" as well as in the procedure "Demand matrix correction (TFlowFuzzy)" is now translated. **(11499)**

Dialogs:

- ✅ Floating dialogs for lines, line routes, and system routes: In the network merge mode, the dialogs are updated when being opened, i.e. from the very beginning they show the objects in the merged network. **(10894)**
- ✅ General procedure settings: Now, even the latest change will be stored, when the 'Turns VDF' grid is left. **(10183)**
- ✅ Graphic parameters for text editing, page Display->Text section. According to the currently selected attribute, the options "Round" and "Decimal places" appear correctly now (either enabled or disabled). **(11354)**
- ✅ Procedure parameters dialog Kalibri: The input of values in the grid of the procedure parameters dialog of the procedure 'Estimate gravitation parameters' (Kalibri) was not saved reliably so far. This error has been fixed. **(11501)**

Filters:
- ✅ Filter status of dependent filters: The filter status of objects was not updated under certain circumstances in case of dependencies on other filters. This error has been fixed. **(11553)**

Foreign Formats:
- ✅ railML import: During the import it might become necessary to open a turn for a new line route. If previously "Yes, do not ask again" was clicked for another line route, internally "No" used to be assumed by mistake. Thus this operation was not executed and the vehicle journey was skipped. Furthermore, skipped vehicle journeys were not even recorded in the log file. Either bug was fixed. **(11159)**

Graphical Procedures:
- ✅ PuT Flow Bundle: The PuT flow bundle no longer crashes if a condition is defined for main lines while lines without main lines occur. **(11467)**

Graphics:
- ✅ Internet maps: Calling maps in great quantities in one request could lead to a crash during the next request. This error has been fixed. **(11591)**

Listings:
- ✅ PrT Path listing: The program no longer crashes if you scroll down the list while the zone filter is active (can only be activated via COM). **(11172)**

Network Comparisons / PuT Assignment:
- ✅ Transition walk times of stop areas: When using a model transfer file which changed the transition walk times of the stop areas at a stop, the old values of the transition walk times of the stop areas were applied in subsequent PuT assignments. This also applied when saving the data to a version file and subsequently opening this version file. This error has been fixed. **(11262)**

Network comparisons:
- ✅ Model transfer files: These files can also be used to change the signalization type of a SC from "signal group-based" to "stage-based" now. If an SC is switched from the "signal group-based" to the "stage-based" type, new stages are created automatically. In some cases, this behavior terminated the reading process if model transfer files were used, since automatically created objects and objects stored in the file caused conflicts and thus returned invalid intermediate states of the data model. This bug was fixed. **(11382)**

Network Editor:
- ✅ Specify line route course: Editing line route shapes using coupled time profiles will no longer cause a program crash if the results of the 'PuT operating indicators' procedure have to be discarded under certain circumstances, though 'Cancel' is clicked for the associated demand. **(11075)**

Other procedures:
- ✅ Intersect. The 'Intersect' operation works correctly for system routes, system route items, and line route items now. **(11074)**
- ✅ Intersect: The 'Intersect' operation with connectors as source object works correctly now. **(11230)**

Procedure sequence:

- ✅ The execution of a procedure now always changes the status of the version file to the 'modified' state. Accordingly, the program automatically asks whether the data should be saved when the file is closed. **(11360)**

PrT assignment:

- ✅ Paths from LUCE: Now, the correct paths are displayed in lists and by markings even if the paths result from LUCE bushes and the flow bundle path selection is active. **(11353)**

PuT Assignment:

- ✅ Missing time series: The timetable-based or headway-based assignment no longer crashes, if a demand segment does not have an allocated time series. **(11457)**

- ✅ Skim calculation and MPA: The timetable-based assignment with skim calculation and MPA no longer crashes, if several demand segments are assigned but the skim calculation does not use all of them and additionally, there are OD pairs without paths for a demand segment which is not used in the skim calculation. **(11475)**

- ✅ Time series: When checking the existence of a time series within the assignment interval, the start time of the time series has been ignored so far. Due to this, skims could not be calculated, if the assignment interval did not begin on the first calendar day. This error has been fixed. **(11494)**

PuT Operating Indicators:

- ✅ Service kilometers and service time in case of coupling: The indicators service kilometers and service time were not calculated correctly at links if couplings existed. This error has been fixed. **(11556)**

PuT Operator Indicators:

- ✅ Editing the shape of line routes: If the options "Serve stop points of new route" and "For the re-routed section, generate the run time from the link network" (see "Parameters: Line route course search" in dialog "Edit shape of line route"->Parameters) are set to "false", so far, line costing results were discarded without a warning. A warning is now issued in this case. **(10883)**

Scenario Management:

- ✅ Indicators: The program will no longer crash when creating scenario indicators, if several indicators exist with an attribute ID that only differs in the numbers (0-9). **(11542)**

- ✅ Project Directories: Project directories were not set correctly when creating a project. The opening of an existing project was not affected. The error has been fixed. **(11530)**

- ✅ SQL Server Compact installation: If the component SQL Server Compact is not installed properly, Visum now issues an improved error message asking the user to re-install Visum or to manually install this component. **(11412)**

VISUM Files:

- ✅ Paste data from clipboard: If attribute data was pasted from the clipboard with aliases which differed from the aliases in the network in terms of upper case/lower case, this data used to be ignored in previous versions. Now, these values are transferred, case-sensitive spelling of aliases is no longer required. **(11331)**

- ✅ PuT Operational Indicators for time profiles: The order in which the indicators were written differed from the order in which they were read. This led to wrong allocations of indicators to time profiles. The error has been fixed (follow-up and complete solution of ID 4615). **(11195)**

- ✅ Reading a demand file (*.dmd) non-additively while the procedure window is open no longer causes a crash. **(11313)**

⛔ Breaking Changes

Data Model:

- ⛔ Attribute Transfer wait time: The calculation of the attribute 'Transfer wait time' at stops and stop points is changed in such a way that it includes not only the wait time of direct transfers but also the wait time of indirect transfers with precedent walk links. **(11323)**

12.01-11 [70725]   2012-07-19

✅ Fixed Bugs

Add-In:

- ✅ All Add-Ins: The HTML Help for the Add-Ins could not be called after the selection of a file in a different folder in the 'Open file' or 'Save file' window. This bug was fixed. **(11277)**

COM-API:

- ✅ Methods creating a new network: Calling methods which create a new network and thus will initialize the procedure sequence is no longer permitted in the context of a procedure sequence. These are the concerned methods:
IVisum.LoadVersion
IVisum.LaodNet (only, if not additively)
IVisum.LoadAccessDatabase (only, if not additively)
IVisum.LoadFromMsSQLServerDatabase (only, if not additively)
IVisum.ImportShapefile (only, if not additively)
IVisum.ImportEmmeProject
IVisum.ImportHafasProject
IVisum.ImportPuTProject (HAFAS projects only)
IVisum.ClearNet **(11249)**

Data model:

- ✅ Formula Matrices: When initializing a formula matrix, the formula is now deleted and no longer retained. **(11248)**

- ✅ Node geometry: Deleting central islands or channelized turns on legs with crosswalks at signalized nodes caused defective data, if a signal group had been allocated to the crosswalk. This bug was fixed. **(11268)**

- ✅ Stop area transition walk times and Undo: If you delete a stop with multiple stop areas and undo this action, the stop area transition walk times will now also be restored (and no longer be set to 24h). **(11260)**

Demand Procedures:

- ✅ Matrix Editor Muuli: After the gravitation calculation, the matrix was not stored with the original zone numbers, but the zones used to be renumbered starting from 1. This bug was fixed. **(11245)**

Dialogs:

- ✅ General procedure settings: The headers of the the link types table on the 'Volume-delay functions' page of the dialog 'General procedure settings' are now also visible under Windows XP. **(11215)**

Foreign Formats:

- ✅ railML import: If the transition between trainParts of a non-stop train element took place at an ocp that was not allocated to a stop point in the target network, information on adjacent intermediate points between the last stop before and past the transition was lost. This could lead to an incorrect course of the line route. The error has been fixed. **(11160)**

Junction Editor / Vissig:

- ✅ For the display of the signal time plan of stage-based controls in the Junction Editor and in Vissig, in certain cases node orientations used to be applied to main nodes by mistake. Accordingly, the main node display was not correct in these cases. This bug was fixed. **(11214)**

Network Comparisons:

- ✅ If several version comparisons (or a version comparison and "This network") are selected in the attribute selection dialog, then the functions will be pre-selected correctly. In previous versions, all functions used to be inserted as columns. **(11252)**

Network Editor:

- ✅ Inserting stop areas: If no stop exists in the network, inserting a stop area inevitable fails. The 'Create stop area' dialog is longer displayed in this situation. **(11318)**

- ✅ When two line routes are connected, the length of the first line route item of the second line route will no longer get lost. **(10731)**

PrT Assignment:

- ✅ Calculation status: When calculating an assignment with the procedure 'Assignment with ICA' and LUCE as subordinate assignment procedure, so far the result had the procedure type 'LUCE' instead of 'Assignment with ICA'. This error is fixed. **(11320)**

PuT Line blocking:

- ✅ Line block check: Under certain circumstances, the line block check of a line block having a blocking day fault used to create block items of the layover type multiple times. **(11207)**

PuT Operating Indicators:

- ✅ The attributes Revenue-DSeg (length-proportional) and Revenue-DSeg (fare point-proportional) of Territory and TerritoryPuTDetail are no longer exchanged. **(11224)**

Timetable Editor:

- ✅ Editing the line route shape, e.g. route lengthening, did not correctly update the display. The tableau did not recognize the modification, and the graphical timetable did not show the line route any longer. These bugs were fixed. **(11237)**

VISUM Files:

- ✅ When reading attribute data for OD pairs from file, user-defined attributes can no longer be created for not-allocated attributes. Since user-defined attributes are not available for OD pairs, the program used to crash in this case. **(11120)**

🛑 Breaking Changes

COM-API:

- 🛑 Methods creating a new network: Calling methods which create a new network and thus will initialize the procedure sequence is no longer permitted in the context of a procedure sequence. These are the concerned methods:
IVisum.LoadVersion
IVisum.LaodNet (only, if not additively)
IVisum.LoadAccessDatabase (only, if not additively)
IVisum.LoadFromMsSQLServerDatabase (only, if not additively)
IVisum.ImportShapefile (only, if not additively)
IVisum.ImportEmmeProject
IVisum.ImportHafasProject
IVisum.ImportPuTProject (HAFAS projects only)
IVisum.ClearNet **(11249)**

12.01-10 [69634]   2012-06-20

➕ New Features and Changes

Lists:

- ➕ Transport systems. All 'Multi-edit TSys' queries now provide the 'Yes for all' button. **(10247)**

Network editor:

- ➕ Multi-delete time profile items: Now, multi-delete can be applied to all (or all active) time profile items. **(10616)**

✅ Fixed Bugs

COM:

- ✅ ISignalControl::ConvertToExternalControl. This method works correctly now. **(11126)**

Demand procedures:

- ✅ Trip distribution (4-step model): If the skims which are regarded by the utility function had significantly different dimensions, the multi-procedure could not determine the result for a 'doubly constrained' calculation due to a numerical instability. This bug was fixed. **(11009)**

- ✅ EVA weighting: If the path cannot be found to which the EVA weighting matrices are to be stored, the procedure execution used to stop and an error message used to be returned. Now, a warning will appear and you have the chance to continue both the procedure and the entire procedure sequence execution without saving these matrices to file. **(10626)**

Dialog windows:

- Edit turn standards: The verification of overlapping turn standard settings used to return partially overlapping conditions even though the turn standards did not overlap at all (due to a different nodes type, for example). This bug was fixed. **(11176)**

- In some dialog windows in the network window and also in the 'Log and error files' window, pressing the 'Enter' key used to cause a program crash if no row had been marked in the grid. This bug was fixed. **(11135)**

Graphic:

- Legend: Visum will no longer crash when drawing the legend, if the referenced image files cannot be found. **(11063)**

- Table distance. The 'Table distance' setting used to be ignored if a version was read with a value less than 0. Those values are no longer ignored. **(11205)**

Junction editor:

- Markings. If several signal groups or stages are marked in the lower display section in the junction editor's 'Signal timing' view now, then all associated lane turns and crosswalks will be marked in the upper display section. **(11148)**

Lists:

- Previous Visum versions used to crash in the following cases: If a list was opened storing at least one element and if all attributes were switched off for display, then a right-click in the index column caused a program crash. Furthermore, Visum used to crash if only one attribute had been selected and the user right-clicked on the last index. Either bug was fixed. **(11193)**

Matrix editor:

- Initializing formula matrices works correctly now, the computation formula will be reset. **(11155)**

Miscellaneous:

- File info. Changes to the file info comments are now regarded correctly. Thus, a 'Save changes?' query will appear when the file is closed and the changes have not been saved to file before. **(11146)**

- Options. Changes to the 'User' settings via menu Extras - Options - Files & protocols - Activity protocol are adopted correctly now. **(11139)**

- Options. The following 'Network' settings were not handled correctly: Links -> 'Round PuT run time to', Connectors -> 'Round connector times to (PuT and PrT)', Lines -> 'Round to', and Lines -> 'Minimum'. Changes to this data were not taken into account, and closing VISUM used to cause a program crash. Furthermore, saving the option settings as *.xml file did not work correctly. These bugs were fixed. **(11140)**

Network editor:

- Create connectors. This function works correctly again. **(11113)**

PrT assignment:

- ICA, roundabouts: Conflicting volumes are calculated correctly now even if there are inbound one-way streets at the roundabout. Thus, deviating ICA assignment results might be returned. **(11122)**

- ICA, roundabouts: Conflicting volumes are now also calculated correctly with the Kimber method, if there are inbound one-way streets at the roundabout. Thus, deviating ICA assignment results might be returned. **(11182)**

- ICA, signalized. By mistake, the conflict was not taken into account if the green time of a vehicles' signal group (usually at right turns) was strictly contained in the green time of a conflicting pedestrians' signal group. Furthermore, the conflict was not regarded if the green times overlapped and just one of the green times exceeded the end of the cycle (second 0). These bugs were fixed. The corrections might cause deviating ICA assignment results. **(11152)**

- ICA, signalized. The HCM 2010-based calculation for signalized nodes includes the computation of a lane width adjustment factor. The factor which used to be returned for a width of exactly 10 ft was not correct. This bug was fixed. This correction might lead to deviating ICA assignment results. **(11136)**

- ICA, two-way yield/stop. For U-turns, the capacity calculation according to HCM 2010 did not always return correct results, since sometimes the capacity of the right turns of minor flows was not taken into account correctly. This bug was fixed. This correction may cause deviating ICA assignment results. **(11102)**

PuT assignment:

- Connection export of the timetable-based assignment will not crash any more, if no volumes are stored for the demand segment that has been selected for fare calculations. **(11131)**

Scenario management:

- Comparison patterns: If a comparison pattern was applied to not yet calculated scenarios, not always the matching scenarios used to be compared. This bug was fixed. **(11185)**

- Edit comparison pattern. The dialog window used to crash if either scenario the comparison pattern was based upon was no longer available. This bug was fixed. **(11187)**

Third-party data formats:

- In previous Visum versions, the link table import from a database without turn table import used to modify the TSys settings of existing turns by mistake. This bug was fixed. **(10898)**

Breaking Changes

PuT assignment:

- Using stored connections for path calculation. If the assignment is based on stored connections for demand segment X instead of a new connection search, then connections with volume = 0 for DSeg X will be ignored. (Those connections can only exist if DSeg X was assigned together with other DSegs in the first place.) **(11134)**

12.01-09 [68684]   2012-05-23

New Features and Changes

Dialogs:

- Multi-edit, transport systems, allocate constant value to attribute. Two buttons were added to this window. Use them to open (or close) the concerned network objects for all transport systems simultaneously. **(10179)**

- On the dialog *PuT Fares*, the page *Demand segments* now also shows the name of the fare system (e.g. for sorting). The dialog for associating lines with a newly created fare system is now omitted when no lines are defined in the network. **(10683)**

PuT Assignment:

- Skim calculation: For the calculation of skim data, a time series is required with weights which sum up to a value > 0 within the assignment time interval. If this condition is not satisfied, a warning will be returned now. **(10996)**

Fixed Bugs

Access databases:

- Exporting a network to a database (.mdb und .accdb-Format) and re-importing this network will no longer return faulty data. In previous versions, the transfer walk time and the wait times for transport systems and time profiles used to be multiplied by factor 60, since [seconds] were exported and [minutes] were imported. **(11069)**

Add-In:

- Delete numarray from the VISUMPy files **(10978)**

- SetMatrixDiagonal: The add-in now checks whether the zone attribute exists when being executed. Otherwise a warning message is shown. **(11174)**

Add-Ins:

- Import Google Transit Feed. A bug was fixed which occured if the filter date was not in the range from start date to end date. **(11060)**

COM Interface:

✅ Method 'CreateVersionComparison ': The 'adaptLinkBars' parameter of the 'CreateVersionComparison' method did not take effect in previous versions. This bug was fixed. **(11111)**

Data model:

✅ User-defined attributes of POI categories. In certain cases, UDAs of the POI interface were not propagated to the sub-categories. This might have caused data loss when the network was saved. **(10257)**

Demand procedures:

✅ If a procedure sequence is generated for a demand model (4-Step, EVA, Tour-based model), then the input matrices are listed correctly now in the group 'Matrix aggregation' in the procedures 'Combination of matrices and vectors', 'Distribution' and 'Mode choice'. In previous versions, just the value "1.0" appeared. **(10913)**

Dialogs:

✅ 'Analysis time intervals' window. Trying to close the "General procedure settings" though overlapping analysis time intervals have been defined will return a message now. In contrast to previous versions, the dialog will not be closed in this case. **(11067)**

✅ The size of the 'Multi-Edit' window for attributes indicating the current set of elements (DSeg or TSys, for example) is restored when reopening the dialog. Furthermore, the column widths are retained. **(10733)**

✅ Under certain circumstances (Windows XP, 32 bit) error messages were returned by mistake when a main node was created. This bug was fixed. **(11076)**

Filters:

✅ If a transport system is renamed only those filters which include this TSys will be adjusted. Only in this case, a message will appear - in contrast to previous versions. **(10340)**

Model transfer:

✅ Now it is possible to create and apply model transfer files for networks which differ only in the position of a certain stop point being located either on a node or on a link (or vice versa)
. **(11062)**

Network Comparisons:

✅ Model transfer. If a node leg's pocket lane is replaced by an additional through lane on the link, this case will be handled correctly if a model transfer file is applied which includes this difference. **(11115)**

Network editor:

✅ Copy line routes. Redrawing the network (especially the link bars) after the 'Copy' action was finished used to cause a program crash if the bar width was defined by an indirect attribute with reference to vehicle journey items while a vehicle journey item filter was active. This bug was fixed. **(11103)**

✅ Delete node / Connect links. If a 2-leg node is deleted and the remaining links are connected, then existing node legs at the end nodes of the links are now adjusted accordingly even if the newly created link has an empty TSys set due to the completely different TSys sets of the original links. In previous versions, invalid geometry data might have been generated in this case. **(11059)**

✅ Delete/Split link. Either action used to cause a program crash if at the same time a link list was open and the 'undirected values' option was active in this list. This bug could be fixed. **(11129)**

Node editor:

✅ In the node editor, the allocation of lane turns and crosswalks to signal groups (and any other multi-select allocations) can now always be processed correctly. In previous versions this was not possible, if not the 'comma' but a different decimal separator had been selected in the 'Network parameters' window. **(11061)**

Other procedures:

✅ PuT flow bundle. Incorrect flow bundle volumes used to be returned if a PuT path included alighting at a link-based stop point. In this case, the flow bundle calculation did not regard any further link passed in this path. This bug was fixed. **(11024)**

PrT assignment:

- ICA, 'Roundabout HCM 2010' method. Now, the distribution of the outermost turn's volume to lanes works correctly. In previous versions, the volume was allocated to the outermost lane only by mistake. **(11056)**

- The attribute 'Vol/cap ratio PrT' with regard to analysis time intervals does no longer include the basic volume. The attribute variants with regard to AP and AH do not change, they still include the basic volume. This is due to the fact, that the temporal distribution of the basic volume is not known and thus dynamic assignment procedures always calculate without basic volume internally. Now, the correspondingly consistent value is also made available to users. **(11091)**

PuT Assignment:

- Skim calculation: If skim data is calculated and the average value weighted by volumes is derived in this context, though - according to the allocated time series - the existing demand is completely outside of the assignment time interval then no longer the value 0 will be returned for all skims as it used to be in previous versions. This bug was fixed. **(10986)**

- The parameters for the assignment time interval which are set in the procedure parameters dialog for the headway-based PuT assignment are stored correctly now. **(11099)**

Scenario management:

- Model transfer file view. By mistake, the option 'Synchronization Network editor -> Model transfer file view' was always active. This bug was fixed. **(10835)**

Third-party formats:

- railML import: The import operation is no longer cancelled if a trainPart item includes references to invalid operatingPeriod items. Furtermore, the import is also possible if a trainPart item does not have a formationTT item. In this case, the vehicle journey section attribute remains empty, however, the vehicle journey section is created. **(11079)**

- railML import: The vehicle journeys cannot be created if values from the import file are allocated to the vehicle journey attribute 'Number' and the network includes already objects with the same keys. Subsequently the program crashed as soon as couplings were read from file. This bug was fixed. However, the allocation of values to the key attribute 'Number' does still not make sense in most of the cases. **(11006)**

Timetable editor:

- 'Find vehicle journey' in the Timetable editor (Tableau and Graphical timetable, but not in the 'Block view') was not possible, if this vehicle journey was included in the current selection; the vehicle journey was not marked and the window section was not adjusted. **(11081)**

VISUM Files:

- Model transfer. If both directions of a link are closed through a model transfer file, the legs at either adjacent node will also be closed. In previous versions, invalid node geometries might have resulted in this case. **(11123)**

12.01-08 [67933] 2012-04-27

⊕ **New Features and Changes**

COM-API:

⊕ The matrix includes an empty formula now if a formula matrix is initialized. **(10656)**

Dialogs:

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

IO interfaces:

⊕ railML import: For length data, the import of data provided in the scheme version railML 2.0 no longer assumes the unit [m], but [km]. For the following reason, the scheme version railML 2.1 is not concerned: In scheme version 2.0, the length data unit is undefined, whereas the standard provider system FBS stores length data in [km]. Since railML 2.1, the unit [m] has been defined for length data, and any data-supplying system has to use this length unit. **(10917)**

Signal time-space diagram:

⊕ The same background colour as in the screen view is now used in the SVG export and in screenshots. **(9575)**

✔ Fixed Bugs

Add-In:

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

Comparing networks:

✔ Unnecessary messages about incorrect and discarded node geometries were issued when using model transfer files. This error has been fixed. Now the program only issues a message if a geometry previously defined by the user needs to be discarded. **(10984)**

Demand calculation procedures:

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

Dialog windows:

✔ Some dialog titles did not appear in the foreign language. This bug was fixed. **(11050)**

Foreign data formats:

✔ railML import: If a TrainPartSequence with reduced valid days (not daily) was followed by another TrainPartSequence with more valid days within a commercial train, these surplus valid days used to get lost. Thus, the vehicle journey did not run on the particular section on these days. This bug was fixed. **(11034)**

✔ railML import: Valid days which are defined as weekday patterns or extra days or excluded days in the railML file are now correctly read from file. **(10916)**

Graphics:

✔ Backgrounds from OpenStreetMap: The Osmarender map service was closed in February and will not be provided in future. Accordingly, this map service option was deactivated in PTV Visum. Please refer to . **(11054)**

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:

✔ ICA at two-way stop. Conflicting flows were not calculated correctly for the subordinated legs, if the major flow was a one-way road. The calculation is now correct in this case. This leads to deviations in assignments with ICA. **(11004)**

✔ TRIBUT Equilibrium assignment / Assignment_Lohse: These procedures used to cause a program crash if a demand segment's VoT procedure parameters were missing. This bug was fixed. **(11097)**

PuT assignment:

✔ If the option 'Calculate skim matrices' is unchecked in the 'Basis' tab of the 'Parameters ...' window, skim matrices are neither generated nor updated, even if skims have been selected. **(10814)**

✔ When calculating PuT assignments (timetable-based or headway-based), the skim selected in the "Skim matrices" tab are no longer initialized, if the "Calculate skim matrices " option is deactivated. **(11032)**

PuT line blocking:

✔ Depots at stop points on links: If a link stop point was both stop point and depot, the depot was often not used, since the approach from the stop point to the depot (which is actually the same location) was evaluated too high in distance. This bug was fixed. **(11047)**

- Detailed line blocking: If no reference solution could be generated for the derivation of weight factors for the objective function, further computations used to regard absurd weight factors. Accordingly, the values of the objective function components were not in the same order of magnitude and the input coeffecents' control effect used to fail. This bug was fixed. **(11021)**

PuT operating indicators:

- For input attributes, the reference time span was changed from one day to analysis period. **(10887)**

VISUM files:

- Now, reading data from a database returns correctly rounded time and date formats. **(11035)**

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

- When reading network files, the number 0 was incorrectly permitted for POIs. The error has been fixed. **(11005)**

12.01-07 [67421]   2012-04-04

⊕ New Features and Changes

Dialogs:

- HAFAS import settings, "Files" tab: You can now adjust the column width for the paths. **(10921)**

IO interfaces:

- railML import: Time profiles are now numbered without a suffix. A suffix is not required, because there is always just one time profile within a line route. **(10983)**

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)**

Scenario Management:

- Floating window: If the user switches to a different language while the window is open, the dialog entries are adjusted immediately. **(10897)**

✓ Fixed Bugs

Dialogs:

- Managing backgrounds, tree view: In the tree view of the 'Background objects administration' window, the 'Draw' check boxes are checked/unchecked correctly now. **(10918)**

Foreign formats:

- Backgrounds from shapefiles: If 'reading a version file' included 'loading several background files automatically from shapefiles' and the first layer could not be loaded due to e.g. missing data, then VISUM used to crash. This bug was fixed. **(10655)**

- Backgrounds from shapefiles: If the first layer was invisible when more layers were added neither the position of the shape backgrounds nor their color or line style used to be correct. This bug was fixed. **(10411)**

- Hafas import of destination coaches: When destination coach data is imported the global error message 'No link sequence available for the new course' will no longer appear. Only specific error messages will be returned naming the missing pulling train etc.; these messages can be oppressed via option 'No warnings'. **(10397)**

Miscellaneous:

- Debugging of components: If you tried to attach a debugger to own program components that use VISUM via COM, so far the VISUM process used to be terminated because the encryption component interpreted this as a hostile attack. You can now debug components. **(11011)**

- In some cases VISUM start-up failed on Windows XP platform. This issue has been fixed. **(11037)**

Network editor:

- Multi-deleting of nodes: The Multi-deletion of great numbers of nodes has been accelerated. **(10999)**

Passenger surveys:
- Plausibilization of the shortest path search: If a preceeding or succeeding (either single path leg or entire preceeding/succeeding) is made plausible by a connection search, the connection with the minimum impedance within was selected so far and not the one that minimizes the impedance of the entire connection. This could lead to unnecessary wait times just to transfer to a faster connection that reaches its destination later. This error has been fixed. This leads to changes in the plausibilization results. **(10911)**

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)**

PuT assignment:
- Multiple demand segments and MPA: Assigning multiple demand segments combined with MPA could lead to a crash. This error has been fixed. **(10997)**

Scenario management:
- Dependencies between modifications: If a new dependency was entered for a modification additionally to the existing dependencies between the modifications and the project was closed subsequently, then only the recently added dependency used to be stored, older ones used to be deleted. This bug was fixed. **(10926)**

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)**
- Model transfer files and node geometries: Deleting a link due to the application of a model transfer file could have damaged the geometry of either adjacent nodes of this link which might have caused a program crash during various actions, e.g. when drawing the network. This bug was fixed. **(10985)**

12.01-06 [67122]   2012-03-21

⊕ New Features and Changes

COM-API:
- GetNearestLink: The method regards the current projection. **(10896)**

IO interfaces:
- railML import, modifying valid days: If a new variant is created from an existing valid day, then the name of the new variant will indicate the modification. **(10864)**

Miscellaneous:
- Check add-ons: The order of checks for whether an add-on has been purchased or activated was corrected. **(10855)**

VISUM Files:
- Database export Access: Now the export also works with the 64 bit version of Access. **(10743)**

✓ Fixed Bugs

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)**

Graphics:

- Legend: In the legend, bar labels and classification attribute name do not overlap any more. **(10781)**

Junction Editor:

- VISSIG: Several smaller issues concerning the signal time editor GUI have been fixed. **(10907)**

Matrix Editor:

- Class limit: The behaviour of the interval limits was improved. Even during the creation, the upper limit is included in the interval. In previous versions, the upper limit did not always belong to the interval. **(10882)**

Network Editor:

- Aggregate isolated nodes: The computation of the distance between nodes regards the current projection. **(10889)**

Other operations:

- The program now notifies the user, if procedure steps were inserted with a Python script into a procedure sequence and the folder of the script was renamed or moved in the meantime. Furthermore, the Python communication link will be closed in this case, so that, later on, Python scripts can be run again in VISUM. **(10982)**

PrT Assignment:

- At nodes of the two-way stop type, using the HCM2010 method could cause invalid saturation flow rates (value -1,#IND000). This bug was fixed. **(10885)**

PuT Assignment:

- Frequency of service: The program will no longer crash if the service frequency is calculated for very large versions (memory > 4 GB required). **(10899)**

VISUM Files:

- Loading model templates: Now, the DMD file import regards the following tables correctly: VISEMACTIVITYMATRIX, VISEMMODECHOICEMATRIX, VISEMTIMESERIES, MODECHOICEMATRIX. **(10245)**

- Reading RBC files works correctly now, even if the version file is opened via double-click though the VER file and the RBC files are stored in the same folder. **(10880)**

12.01-05 [66911]   2012-03-16

➕ **New Features and Changes**

Data Model:

➕ POI category: A POI category is called 'active' only if it contains active POIs. Especially, you can save a network storing just the data of the active POIs and their category definitions by means of a filter for the POIs of certain categories. **(10857)**

IO interfaces:

➕ 'Parameters: railML import': The special option 'no selection' is now provided for attribute selections in this window. **(9893)**

Lists:

➕ If attribute IDs are renamed, due to changes to the subattribute code, for example, the list columns of these attributes will no longer be dropped. Now, these list columns are renamed accordingly. **(10094)**

➕ Lists in the 'Extended input options' mode: Attributes of the 'demand segment' value type (e.g. for matrices) can now be edited in a combo box. **(8644)**

Network Editor:

➕ Edit line route shape: Autozoom is no longer automatically executed when starting this operation (only 12.01-04). **(10838)**

PuT Assignment:

➕ Skim 'Fare': For the 'Fare' skim, the PuT skim matrix calculation runs much faster now. **(10812)**

Timetable Editor:

➕ Opening the timetable editor after multi-selection of line routes: Similar to the single-selection behavior, the marked line routes are checked in the tree view. The tree also includes those line routes (unchecked) which have not been marked though they belong to the same line as any marked one. **(9853)**

✅ 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)**

COM Interface:

✅ Method 'GetNearestNode': Internally, the 'onlyActive' option used to be regarded as a function of the network editor option 'Click only active objects'. Thus, it sometimes failed. Furthermore, the radius was not correctly calculated. Either bug was fixed. **(10793)**

✅ Methods SetErrorFile / SetTraceFile: No extension *.TXT will be added if either method is called now with a file name entry without file extensions. **(10218)**

Data Model:

✅ Aggregate zones: Even if there is only one active zone for aggregation, aggregating active zones will work correctly. **(10533)**

Dialogs:

✅ 'Edit graphic parameters for POI category' window: In the 'Table' tab, the incorrect number of decimal places was displayed. This bug was fixed. **(10785)**

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

✅ Graphic parameters dialog: The 'Line style' settings for 'Marking 1' and 'Marking 2' used to be ignored. This bug was fixed. **(10765)**

✅ Mulit-edit 'round': The system will no more crash when rounding an attribute of type 'duration'. **(10828)**

Filters:

✅ Filter update for formula attributes: Also for formulas that include an indirect attribute for which the aggregate function 'CountActive' has been chosen. **(10787)**

✅ Now, all newly created vehicle journey items show the correct filter state. **(10822)**

Foreign Formats:

✅ railML import: Also 'February' data is regarded correctly now, if the syntax is correct. **(10858)**

✅ railML import: If a trainPartSequence of a 'commercial train' included two or more trainPart elements which did not differ in the route course but just in the valid day, then the attribute values (valid day, vehicles, UDAs) of the first trainPart (i.e. the vehicle journey section created for it) used to be allocated to all resulting parallel vehicle journey sections. This bug was fixed. **(10826)**

✅ railML import: If two trainParts have the same route course in one trainPartSequence, then both will be accepted even if the valid days are not disjunctive. Two separate vehicle journey sections will be created which are parallel to one another. **(10863)**

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)**

Other Operations:

✅ 'Network check' functionality: The program will no longer crash if the option 'Check network consistency between all connector nodes with weight > 0' is selected though the network includes connected main nodes for which no route can be found. **(10851)**

PrT Assignment:

✅ Assignment procedure LUCE: The reason of possibly instable results could be found and corrected. This might cause slightly different assignment results. **(10861)**

- At round-abouts, by-passing flows are regarded correctly again. Thus, assignment with ICA will return different results. **(10815)**

- Create private transport system: With option 'Transfer network attributes from', also the volume delay function used to be copied without adjustment of the subattribute variants when a PrTSys was created in previous versions. This bug was fixed. Please note: Since the detailed PrT impedance definition may include attributes of different transport systems, the subattribute will not automatically be adjusted when old data is read from file. **(10852)**

- For legs with three or more lanes, the distribution of the vehicles to the lanes has been modified. Now, the lane distribution is taken into consideration. Thus, assignment with ICA will return different results. **(10797)**

PuT Assignment:

- Assignment time interval extension and path legs exceeding the analysis period: In principle, the 'extension' time interval and the time a path leg takes may exceed the AP's time duration. In a specific case, the returned time data was not correct to some extent, e.g. in the path list. This bug was fixed. **(10782)**

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)**

VISUM Files:

- 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)**

- Read version file: Version data is read from file even if the file stores invalid node geometry data and user-defined geometry object attributes. **(10820)**

- Trace file: By mistake, the option settings for the error file used to be regarded for the trace file. This bug was fixed. **(10802)**

12.01-04 [66349]   2012-02-20

⊕ 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)**

- Matrix convolution: A new option is provided, now the Via zone matrix can be either input or output data. **(9002)**

Data Model:

- Formula matrices: The calculation of totals and diagonal sums works faster now. **(10521)**

Dialogs:

- 'HAFAS import' dialog, 'Transport systems' tab: For sorting, any of the columns provided in the TSys list can be selected now. **(10418)**

IO interfaces:

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

✓ **Fixed Bugs**

Add-In:

✓ The method ReadBIMatrix works correctly again. **(10717)**

COM Interface:

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

Data Model:

✓ Relations, reverse direction: Also for attributes with complex indirections, the relation 'reverse direction' returns the correct attribute values now. In previous versions, values of the original direction used to be returned by mistake. **(10760)**

✓ Relations: The relations from link to vehicle journeys and from link to vehicle journey sections used to count the objects for each link passage per line route separately. Thus, too many objects used to be returned. This bug was fixed. **(10762)**

✓ The program will no longer crash if for the calculation of length or area data a projection is used which cannot be converted to any of the 'usual' (i.e. provided with VISUM) projections. **(9631)**

Dialogs:

✓ 'Parameters: Timetable-based assignment' dialog: In previous versions, it was not possible to toggle between 'regular' and 'bi-criterion method' for the shortest path search. This bug could be fixed. **(10744)**

✓ 'Save ESRI shapefile' dialog: The attribute selection takes into consideration now whether metric or imperial units have been selected. **(10778)**

✓ Connectors, length: In all cases, automatic formatting works correctly now in this text field. **(10747)**

✓ Graphic parameters dialog, 'Chart' tab: The 'Font' settings in the 'Pie' tab are now applied. Furthermore, minor dialog control improvements have been implemented. **(10582)**

✓ 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)**

✓ Various POI dialog windows: In the numerous selection lists, the POI categories are no longer listed in lexicographical order, but numerically. **(2378)**

Graphical Operations:

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

Graphics:

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

Matrix Editor:

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

Network Comparisons:

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

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)**

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)**

PuT Assignment:

- Headway-based assignment: The calculation will no longer cause a program crash, if MPA is active and skims are calculated simultaneously and additionally the number of zones has been reduced in the procedure parameter settings. **(10441)**

- Timetable-based assignment: In previous versions, the assignment was cancelled if the vehicle journey impedance was used for the search impedance calculation and no vehicle journey could be found. This bug was fixed. **(10783)**

PuT Line Blocking:

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

Scenario Management:

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

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)**

Timetable Editor:

- 'Find vehicle journey' dialog in the timetable editor: Toggling the 'Only selected vehicle journeys' option now directly affects the list of vehicle journeys. Additionally, the option has been renamed. **(10630)**

- Partially visible columns: VISUM does no longer crash if a column is clicked which is located at the right frame and is only partially visible. **(10565)**

VISUM Files:

- Graphics parameters for link bars: Reading is no longer terminated by the returned message 'Cannot find shortest path search parameters in file', but works correctly now. **(10726)**

- Uni version: The program will no longer crash but loading will be cancelled, if a version file storing more than the maximum permitted number of zones is loaded with a VISUM Uni version. **(10727)**

- 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)**

12.01-03 [65890] 2012-01-30

⊕ New Features and Changes

Lists:

- Deleting a multi-selection: In those lists whose objects can be deleted, now multiple selected objects can be deleted at once via 'Delete' in the context menu. **(10703)**

Network Editor:

- 'Edit line route shape' from the timetable editor: The 'Edit shape' button in the 'Edit line route' window is also provided if this dialog window is called from the timetable editor. In this case, the program automatically switches to the network window. This also applies if 'Edit line route shape' is called from the open list. After line route course editing, the program will automatically switch to the 'Edit line route' window again. **(10672)**

Other Operations:

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

Timetable Editor:

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

✅ 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)**

COM Interface:

- ✅ 'Init assignment' procedure: Via IOperation, direct access to the 'Init assignment' procedure parameters is provided again, though these procedures have no specific parameters. **(10680)**

- ✅ Setting colors: In the graphics parameters via COM interface, AttValue now returns a string of the AARRGGBB style for attributes of the 'Color' type. In previous versions, an integer-type value used to be returned, though the AARRGGBB style was expected for the input via '(Set)AttValue'. **(10698)**

Data Model:

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

Demand Operations:

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

Dialogs:

- ✅ 'Graphic parameters' window, 'Chart' tabs: With the 'Pie' option for a POI category, the correct 'Number of decimal places' entry is retained now when the dialog window is reopened after closing it via 'Apply'. **(10714)**

- ✅ 'User-defined attributes' window: After changes to the window size the new 'Decimal places' input field is moved with the other input fields. **(10666)**

- ✅ 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)**

- ✅ For technical reasons, formula attributes are no longer displayed in the 'User-defined attributes' tabs of the network editor property sheets ('Edit link' or 'Edit zone' et al.). The values can still be displayed in lists. **(10682)**

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)**

Listings:

- ✅ Executing add-ins while a list is open: The program will no longer crash if an add-in is executed under certain circumstances while a list is being open though the add-in will modify the listed data. **(10678)**

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:

- ✅ Multi-Delete was sped up: Multi-Deleting a number of network objects works much faster now. **(10707)**

- ✅ Shortest path search and 'Hand' mode: The program will no longer crash after opening the 'Shortest path search' dialog window and right-clicking in the network window then while being in the 'Hand' mode. **(10652)**

Procedure Sequence:

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

PrT Assignment:

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

PuT Assignment:

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

Scenario Management:

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

12.01-02 [65533]   2012-01-16

⊕ New Features and Changes

Lists:

- ⊕ 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)**

- ⊕ If in an already sorted list another column is selected for sorting, the order of rows according to the first criterion is stable now, i.e. the given order of rows will be retained if the entries in the column which was selected later show identical values. **(7054)**

Matrix Editor:

- ⊕ Create matrices: The 'Create matrix' dialog window has been extended. Now, several matrices with identical properties can be created at the same time. **(5744)**

- ⊕ Editing matrix values: Now, data matrices can still be edited if formula matrices and data matrices are dealt with simultaneously. **(10552)**

- ⊕ Scrolling along diagonal in matrix editor: Now the shortcuts Alt-PgDown and Alt-PgUp can be used to scroll into both directions simultaneously (i.e. diagonal scrolling). **(5534)**

Timetable Editor:

- ⊕ 'Find vehicle journey' returns a message: The user now can disable the current filter settings if the vehicle journey in question is not visible in the timetable editor due to the current filter settings. **(10608)**

- ⊕ Non-served stops: Now, served stops are only those where passengers may board or alight. **(10640)**

✓ Fixed Bugs

Add-In:

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

COM Interface:

- Script destroying the procedure sequence: The program will no longer crash due to changes to a LinCombItem at IVISEMDGroupActivityDistributionPara within the procedure sequence if it is followed by another step in the procedure sequence. **(10610)**

- The IVisum.Autozoom functionality now also works for links. **(10632)**

- 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)**

- Fare levels with fare = 0: Fare levels with fare = 0 are now permitted. In previous versions, this data could be entered, however, the output version file could not be read later. Now, even those versions can be read from file. **(10631)**

- ✅ In certain cases, the value '0' was not displayed for user-defined attributes of the 'formula' type. This bug could be fixed. **(10619)**

Demand Operations:
- ✅ Trip distribution (4-stage model): The button 'Prior to the calculation, reset all result demand matrices to 0' is always provided now. In previous versions it used to be provided only if the number of active OD pairs or active zones had been restricted. The procedure will add the new results to the given values. **(10263)**
- ✅ 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:
- ✅ 'Filter for u'…';' dialog window: Even in the first row and the last row the 'Tab' key works correctly now. **(9065)**
- ✅ Shortest path search PuT: The program will no longer crash if no mode has been defined in the network and the 'Shortest path search PuT' dialog window is opened. **(10653)**

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)**
- ✅ Shapefile export fo line routes: In previous versions, the entire link course was exported if a line route started from (or terminated at) a stop point on a link. Now, only the link section which is traversed by the line route is exported. **(10617)**

Listings:
- ✅ Read layout for 'GIS objects' list: Reading layout settings for lists of a certain GIS category used to fail. If those lists were saved with the version file, even the version could not be read from file subsequently. This bug could be fixed. **(10645)**

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

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

Timetable Editor:
- ✅ Create coupled vehicle journey: Now, the resulting coupled vehicle journey can be edited correctly when a vehicle journey is created for a coupled time profile though the coupling partner time profile is not listed in the timetable editor's line selection. **(10557)**

VISUM Files:
- ✅ 'Read network' for POI categories: By means of the attribute 'MainCatNo', POI categories can refer to themselves. In previous versions, problems might have occured due to the unappropriate order of data during network reading. Now, the order of data is no longer relevant, any self-reference can be resolved. **(10614)**

- ✅ 'Read network' with line route completion: The special link type for links being opened during the shortest path search is only assigned if the link has not been added by the search itself (for a previous line route, for example). **(10554)**
- ✅ Cancelling 'Read network': The program will no longer crash if 'Read network' is cancelled. **(10621)**
- ✅ Model transfer files and stops: The following use case works correctly now. Allocating stop area X of stop A to stop B first, deleting stop A then and creating a model transfer file. **(10586)**
- ✅ Read network for fare models: The allocation of ticket types to demand segments and fare systems works correctly now when network data is read from file. In previous versions, only one fare system used to be allocated per demand segment. **(10638)**
- ✅ Safety backup: The file extension used to be added twice to the backup file, i.e. XXX.ver.ves.ves instead of XXX.ver.ves. This bug could be fixed. **(10611)**

12.01-01 [64071]   2011-12-18

⊕ New Features and Changes

Add-In:
- ⊕ Isoc2POI: The grid has been redesigned. **(10282)**
- ⊕ Isoc2SHP: The calculation runs much faster now. **(10126)**

Dialogs:
- ⊕ Parameter dialogs for demand modeling procedures, EVA weighting: The sub-window 'Define assessment types' now provides the option 'None'. **(10599)**

Graphics:
- ⊕ Internet maps as backgrounds: Internet maps can also be included for geographic projections, now. **(10569)**

IO interfaces:
- ⊕ SATURN: Also right-hand traffic networks can now be imported. **(10539)**
- ⊕ 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)**
- ⊕ Shape file import: If polygons are normalized this will be logged to the trace file. **(10555)**

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

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

PrT Assignment:
- ⊕ UserVDF: The calculation of user-defined VD functions has been accelerated. **(10469)**

Timetable Editor:
- ⊕ Shifting a vehicle journey to another PuT line: Now, the option 'Show only active lines' is provided. **(10551)**

✅ Fixed Bugs

Add-In:
- ✅ EVA, German umlauts: Umlauts used to cause errors in 'Flows - Distribution' with assessment type "competing walk time". This bug could be fixed. **(10563)**

✅ EVA: The program will no longer crash while EVA is being carried out, if option 'only active zones' has been checked in the 'Flows - Distribution' panel. **(10595)**

COM Interface:

✅ Line blocks: Various methods in the Block range caused the interruption of running script files due to the appearing windows. As for other COM applications, these windows are no longer visible and cannot terminate running scripts therefore. **(10543)**

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)**

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)**

✅ Edit bars, line bars: The aggregation level entries (main line, operator u'…';) are no longer interchanged. **(10550)**

✅ Edit line route: Arrival and departure times are no longer calculated modulo 24 hours if this does not fit the selected column data format. Now, values >24:00 can be entered. **(10549)**

✅ Graphics parameters for pie charts: The 'Transparent' check box is subject to changes again. **(7746)**

✅ Overview of the graphic parameters for bars: Now, values van be pasted to the 'Filling classification attribute ID'. Moreover, the option 'Like scaling attribute' can be selected in the selection dialog. **(3252)**

✅ Several grids within dialogs: Marking of several rows using shift works more reliable now. **(10294)**

Filters:

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

Foreign Formats:

✅ SATURN: 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)**

Miscellaneous:

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

Network Editor:

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

✅ Specifying the line route course: The 'Edit shape' button now works correctly if the 'Edit line route' window is called from the 'Find line route' window. **(10548)**

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)**

PuT Line Blocking:

- ✅ Short turning within a vehicle journey and preparation time: In previous versions, an unnecessary 'preparation' line block item used to be created within the vehicle journey for the shortened transition (time fault), if both pre- and post-preparation times had been set with a post-preparation time that was sufficient to cover the gap between the vehicle journey sections of the vehicle journey completely. This bug could be fixed. **(10602)**

PuT Operating Indicators:

- ✅ Attribute End stops of vehicle journeys crossing the midnight flag: Now, this attribute is correctly calculated if the vehicle journey crosses the 12 pm mark (these journeys used to be ignored (not counted) in previous versions). This bug only occured if the vehicle journey had to stop just once after midnight. **(10564)**

- ✅ 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)**

Scenario Management:

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

Timetable Editor:

- ✅ Line block view: The line block view will no longer show a layover time fault if a short turning connects two vehicle journey sections of a vehicle journey for which a preparation time has been defined. **(10578)**

- ✅ Shortcuts: The shortcuts now work even if the line or line block selection tree has the focus. **(10556)**

VISUM Files:

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

12.01-00 [64429] 2011-11-29

➕ **New Features and Changes**

Add-In:

- ➕ Additionally, the HTML Help files are available in PDF format now. **(1944)**

- ➕ New add-in: With the new add-in it is now possible to add the correct paths for the PythonModules folder to the paths stored in the sys.path file. **(10158)**

COM-API:

- ➕ Classified line bars: Now, also the COM interface supports the line bar classification. Furthermore, the classification settings can be adjusted via an 'Edit' button like any other settings. **(10178)**

- ➕ GetNearestLink: The COM interface has been extended. Now, a cache can be activated for the execution of the method GetNearestLink. Using this cache will significantly accelerate the method execution if it is called repeatedly. **(2346)**

- ➕ IExecuteScriptPara: An access method from Ioperation to IExecuteScriptPara has been added. In this way, access to the 'FileName' attribute is provided. **(10284)**

Data Model:

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

- ➕ System routes: Even if either the start stop point or the end stop point is a directed stop point on a link, the opposite direction of a system route can now be created in the same way as the opposite direction of a line route. **(9386)**

Dialogs:

- ➕ Procedure parameters windows: The parameter windows for the demand modeling procedures (4 stage model, VisEVA and Tour-based model) were updated. Now, the data of all demand strate is displayed simultaneously. Aggregation in the list makes it possible to compare the settings by demand stratum easily. **(6202)**

Graphics:

- ⊕ Auto zoom in the page preview: If 'Auto zoom' is called for an object which is located outside of the currently displayed area, the query 'Would you like to close the page preview for map section display?' will appear. **(10473)**
- ⊕ Drawing POI connections: Via a new option, drawing can be reduced. Only the connections of active POIs are drawn in this case. **(10464)**

Network Editor:

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

PuT Line Blocking:

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

PuT Operating Indicators:

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

Timetable Editor:

- ⊕ ITimetableEditor: Via the COM interface, the new option 'Hide stops without stop event' in the timetable editor's sequence of stops is now available as method HideUnservedStops. **(10424)**
- ⊕ Sequence of stops: With a new option in the timetable editor, stops which are not served (i.e. non-profile points of the selected time profiles) can be excluded from the sequence of stops view. **(9345)**

✓ Fixed Bugs

Add-In:

- ✓ Script menu files: Script menu files storing script menu configuration settings can now be read additively. In this case, the entries are added to the existing script menu. **(10508)**
- ✓ 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:

- ✓ Aggregate zones: This functionality is now provided via COM interface. **(10532)**

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)**
- ✓ User-defined attributes: The values of user-defined attributes of the network could not be edited. Now they are subject to changes. **(10485)**

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:

- ✓ 'PuT lines / Line routes' window: The current selection is now reset if the 'Initialize' button is clicked in the 'PuT lines' mode. **(10490)**
- ✓ Attribute selection in the 'Save network' window: In the context menu, the commands "Check displayed attributes" and "Uncheck displayed attributes" work correctly now. **(10488)**

- ✅ Comparison of run and dwell times: Actions like "from dwell time for all" will no longer discard the 'cross' flags in the first column of the grid. **(10460)**
- ✅ Dialog 'Edit time series': Weights and percentages are now shown including decimals. **(10445)**
- ✅ Edit time profile: The list of vehicle combinations is now sorted by number. **(10461)**
- ✅ Filter windows: In some cases, the new value was not regarded if a criterion had been changed from '= attribute' to '= value'. Furthermore, the program might have crashed if a deleted user-defined attribute was used in the right-hand section of the filter criterion settings. Either bug could be fixed. **(10506)**
- ✅ Procedure settings for skims (PrT and PuT): In the table, Copy&Paste works correctly now also for single cells. Though the value display used to be updated in previous versions, the pasted value was not stored with the data model. **(10450)**

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

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

Graphics:
- ✅ Bars, attribute 'Round to': Since VISUM 12, this attribute has not been stored with the graphics parameters or version file. That is why the settings used to get lost. This bug could be fixed. **(10480)**
- ✅ Graphics parameters for line bars: The program will no longer crash, if operators are created or deleted after changes to the default order of line bar drawing. **(10044)**

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

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

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

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

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)**

PuT Line Blocking:
- ✅ Line block check: Depot layovers are checked correctly now, even if the line block includes chains which consist of nothing else but layover items. **(10526)**

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

Timetable Editor:
- ✅ Text size in the 'Regular services' mode: In columns which have not been marked the standard font and text size is no longer used. Instead, the graphic parameter settings for active unclassified objects are used. **(10500)**

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 object' mode, even if both the minimum and maximum value columns are missing. **(10519)**
- ✅ Network file, table 'User-defined attributes': Definitions of UDAs with a standard value smaller than zero are now correctly read from file. **(10510)**
- ✅ 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)**

12.00-03 [63942]   2011-11-12

⊕ 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)**

COM-API:

⊕ Histogram, reading interval data: Changes to the interval limits affect all matrices now, not just a single one. **(6160)**

Data Model:

⊕ Stop points: The new attribute 'IsTerminalForVehicleJourneySection' indicates the final stop points in terms of line blocking. **(10289)**

Dialogs:

⊕ 'Create vehicle journey' window: The focus is now in the 'Name' entry field, when the window is opened. It used to be in the 'Number' field. **(10459)**

IO interfaces:

⊕ Access database format accdb: In VISUM, also the accdb database format of Access 2007 is supported for data import and export. **(9147)**

⊕ 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)**

Lists:

⊕ Network object lists are no longer automatically updated after changes to the procedure parameter settings. **(10400)**

⊕ Reading data for object types with numerous sub-attributes from attribute files or pasting data from clipboard is much faster now. **(10388)**

Network Editor:

⊕ Connecting line routes: For connected line routes with more than one time profile, too many of these used to be deleted. Now, time profiles with identical names are connected to each other and will no longer be deleted. **(3108)**

Other Operations:

⊕ Network check, option 'Viability for ICA': Warnings which refer to pure PuT lane turns will no longer appear, since these lane turns are not relevant to ICA calculations. **(4540)**

PrT Assignment:

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

⊕ LUCE procedure: If for a mesh a user-defined VDF is used which does not calculate in [PCU], no longer TSys-comprehensive balancing will be performed to reach the proportionality. **(9830)**

Scenario Management:

- Closing the 'Procedure sequence' view: The window is closed before the scenario calculation is saved. Thus, the network window will appear immediately when the result version is loaded. **(10371)**
- Skim aliases: When aliases are defined for skims, the attribute name entry field is now automatically preset. **(10377)**

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)**
- Reading network / model transfer file: Warnings used to be recorded in the error.txt file and did not appear on the screen. Now, these warnings are stored in the trace.txt file. Thus, no irritating error messages will be displayed in the scenario management. **(10368)**

Fixed Bugs

Add-In:
- 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:
- IDemandTimeSeries: Changes to the attribute 'TimeSeriesNo' now have an effect when the procedure is subsequently executed. **(4075)**
- IOperation::Filename: The attribute 'filename' returns the filename now instead of an empty string. However, the attribute remains obsolete. **(10359)**
- IPrTDemandSharePara, SetDemandShare: In rare cases, using this function could have caused different behavior. **(10392)**
- Only for the attribute selection window display, VISUM is placed on top and gets the focus now. **(10369)**
- SVG export: VISUM will no longer crash if a path is specified for the SVG export which does not exist. **(10355)**

Data Model:
- Attribute 'Number of service trips proportional': This VISUM 11.5 attribute had been renamed for VISUM 12, but mapper settings had not been defined. Thus it could not be selected in lists or for graphical display, for example. Now, the required settings have been added. **(10370)**
- 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)**
- Line block response to forced chainings: Less line blocks will now receive a forced chaining fault if forced chainings are defined. **(7303)**
- Reading user-defined attributes: The default value 1 (true) is no longer ignored for UDAs of the Boolean type. **(10375)**

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

Foreign Formats:
- Open database: Now also those tables can be read from file, whose names have been changed meanwhile in VISUM. **(10394)**

- ✅ 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)**

- ✅ 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, 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)**

Graphics:

- ✅ 'Edit graphic parameters' window: The program will no longer crash after mouse-click on 'Bars', if the settings included a volume bar and a non-visible flow bundle bar. **(4077)**

- ✅ Layer 'Lane allocation': The graphic parameters are correctly adjusted now after the deletion of a transport system, and the program will no longer crash in this case. **(10437)**

IO interfaces:

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

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)**

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:

- ✅ 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)**

- ✅ Editing the shape of coupled line routes: In certain cases, either optional re-routing of the coupled line routes was not provided or the simultaneous re-routing of coupled line routes caused a program crash. This bug could be fixed. **(10389)**

Other Operations:

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

Procedure Sequence:

- ✅ Closing the 'General procedure settings' window: The program will no longer crash if the OK button is clicked while in the background the 'Procedure sequence' window is open with groups in the listed procedure sequence. **(10361)**

- ✅ Moving a group: Now, moving is okay even if the goup is moved downward and the subsequent group consists of just a single entry. **(10349)**

- ✅ Read procedure parameters (XML) additively: The program will no longer crash, if the 'Procedure sequence' window is open while the XML parameters are being read additively. **(10431)**

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)**
- ✅ ICA, signalized nodes, HCM 2000: For turns with volume = 0 on shared lanes, no longer the value 0 is automatically set for tCur and capacity. Now, appropriate values are set. **(10353)**

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)**
- ✅ Timetable-based: For the shortest path search, the extension was added (as preceeding time slot) to the assignment time interval by mistake. If start and end overlapped thereby, incorrect assignment results use to be returned. **(10407)**

Scenario Management:
- ✅ Base version modifications and check: By mistake, the base version used to be overwritten even if the base version check returned an error after modifications, when 'Check and finish the modifications' was executed. This bug could be fixed. **(10409)**

Timetable Editor:
- ✅ Edit graphic parameters: In some networks, opening this dialog caused a program crash. This bug could be fixed. **(10387)**
- ✅ Line block view: Forced chainings following block items which exceed one day are now correctly displayed. **(10444)**

VISUM Files:
- ✅ Couplings in model transfer files: Modified couplings or coupled time profiles in model transfer files are handled correctly now. **(10440)**
- ✅ Network file, line routes and system routes: The detour factor test will no longer apply the Euclidian length if a projection is used. Furthermore, projections are now regarded for the following: in PuT path lists, in the matrix toll list, for access node definition, in PuT interlining matrices, and for the direct distance calculation between two (main) zones. Thus, TRIBUT assignments might return deviating results if a projection is used and the particular procedure parameters are set in a way, that the value of time depends on the direct distance. **(10432)**
- ✅ Network reading for aliases: In previous versions, aliases with relations that had been renamed meanwhile in the attribute IDs were ignored without comment. Now, the new names are allocated. **(10364)**
- ✅ 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)**
- ✅ Saving version data files: The program will no longer crash, if the version is saved to file with separate Smart Map graphics parameters for line bar display. **(10363)**

12.00-02 [63251]   2011-10-16

➕ New Features and Changes

Data Model:
- ➕ Relations to POIs: Parallel to the existing relations to POIs (from links, for example) additionally new relations to the POIs of a category are now provided. **(2339)**
- ➕ Vehicle journey adjustment due to line route lengthening: Optionally, the dimensions of the vehicle journeys can now be retained. In previous versions, a vehicle journey from the line route start and/or to the line route end used to be lengthened accordingly from the new line route start and/or to the new line route end automatically when the line route was lengthened. **(10122)**

Dialogs:
- ➕ Overview dialog for Aliases: In the Network menu, an Overview dialog is provided now for Alias Management in the network. **(8277)**

Matrix Editor:

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

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

PuT Assignment:
- ⊕ Fare calculation: The calculation was speeded-up in networks with numerous fare systems. **(1590)**

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

✅ 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)**

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

Data Model:
- ✅ Formula matrices: Changing the data source type from 'formula' to 'data' will no longer cause matrix data loss. Instead, the data will be transferred. **(10325)**
- ✅ Formula matrices: Now, the number (key) of a matrix is subject to changes even if a formula matrix contains a reference to this matrix. **(10346)**
- ✅ Formula matrices: The program will no longer crash and corrupt formulas will no longer be generated as a result of changes to the ID of a user-defined attribute or to a demand segment which is referenced in the formula matrix. **(10337)**
- ✅ User-defined attributes: If the properties "minimum and maximum values" were missing in the network file, the message "Minimum value exceeds maximum value" used to be returned and the UDA was not imported. This bug could be fixed. **(9207)**

Dialogs:
- ✅ Trip distribution (4-stage model): If the procedure uses estimated parameters from Kalibri, then the Choice model window will now show the remaining editable parameters (alignment etc.) correctly. In previous versions, this did not work. **(10343)**

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

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

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

VISUM Files:

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

12.00-01 [62902]   2011-09-29

➕ New Features and Changes

IO interfaces:

- ➕ HAFAS-Import: Information about "main masts" in the file "Connections between stops" is now evaluated correctly. **(3239)**
- ➕ HAFAS import: Destination coaches are now included in the import. **(9338)**
- ➕ SATURN Import: The SATURN importer can read the free SATURN-FORMAT in "Section 5555" and considers the parameter "XYUNIT". **(10313)**

Lists:

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

Miscellaneous:

- ➕ Command line options: There are new command line options for 'load version, execute procedures' and for 'load version, ecetude procedures, save version'. **(9544)**

PrT Assignment:

- ➕ Due to the accelerated impedance calculation, the equilibrium assignment is faster now. **(9466)**
- ➕ Equilibrium assignment: Now, even 0 outer iterations are permitted. Thus, only the route volumes have to be adjusted to the new matrix when starting from an initial solution. When not starting from an initial solution, the procedure works like an incremental assignment. **(10293)**
- ➕ Impedance calculation at node (ICA): For the 'all-way' control type, the computation could be sped up. This also affects the assignment with ICA. **(9645)**
- ➕ PrT functions: The option for reproduction of results until VISUM version 11.02 with acceptance of an instable shortest path search is no longer available. Now, always the new and stable shortest path search is used. **(10296)**

✅ Fixed Bugs

Add-In:

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

COM Interface:

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

Data Model:

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

Dialogs:

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

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)**

Network Editor:

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

Other Operations:

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

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)**

Scenario Management:

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

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:

- 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)**