PTV Vistro 2020 Release Notes

PTV | **GROUP**

the mind of movement

Last modified: 2020-05-11

2020.00-05 [153662]

2020-05-11

⊕ New Features and Changes

Reporting

- ⊕ Signal warrants: The default values for the hourly volumes factor, used for estimating the 8-hour and 4-hour signal warrants analysis under Reporting -> Report Nodes, were adjusted to the standard values given in NCHRP Report 716: Travel Demand Forecasting. This update changes the results in the signal warrants report if default values were used. However, the values can be manually adjusted to the previous version defaults. **(1983)**

2020.00-04 [151864]

2020-03-06

⊕ New Features and Changes

File import / export

- ⊕ Visum import: When a file is imported from Visum, Vistro now retains the original trip generation rates on all zones and no longer sets the trip generation rates to 1. **(1972)**

Intersection Setup tab

- ⊕ Offset: The data row 'Offset' was renamed to 'Approach Offset'. **(1956)**

Simulation & AMN

- ⊕ Delayed vehicle green: Delayed vehicle green values will now be exported to the Vissim RBC file to simulate Leading Pedestrian Intervals. The delay vehicle green values will utilize the RBC delay green setting in 'Overlaps' and create a special overlap signal group that utilizes the 'Delay Green' functionality. Signal heads and detector objects will be changed to this created special signal group. **(1922)**

Traffic Control tab

- ⊕ In the Intersection Settings, when the 'Offset Reference' is changed, the 'Offset' value will update to the new selected reference. The relative offset to other controllers remains the same. **(1907)**

✅ Fixed Bugs

Calculation

- ✅ Intersection V/C, signalized: An issue was fixed, where the Intersection V/C of an intersection was larger than 10000. That happened on shared left-through lane groups with permissive phasing, where the through movement had a volume of 0. **(1947)**
- ✅ Two-way stops: An issue in the calculation of base critical headways was fixed. The property 'U-turn is narrow', is now based on the the flag 'Median' and no longer based on the value 'Median Length'. **(1945** 🛑**)**

Graphical editors

- ✅ Crosswalk widths: Crosswalks are now drawn to the correct width value specified in the 'Intersection Setup Tab'. **(1952)**

Intersection setup tab

- ○ Lost two-way stop data: In some cases data was lost on two-way stop controlled intersections. This happened, when there were no movements between the approaches of the major flow. When the file was reopened, the movements suddenly were there again. This issue was fixed. Now this kind of data is not discarded by Vistro, but calculation is not possible. **(1926)**

License

- ○ Mobile Work License: Soft-dongle license compatibility update for coronavirus mobile working offer. **(1999)**

Mitigation

- ○ Volumes for duplicated mitigation options: When a mitigation option is duplicated, the volumes are now copied correctly. **(1949)**

Simulation & AMN

- ○ To simulate pedestrian push-buttons calls in Vissim, pedestrian detectors will be placed in Vissim on the crosswalk links when Vistro's Pedestrian Recall checkboxes are unchecked in the Phase & Time table on the Traffic Control workflow. **(1821)**

⊘ Breaking Changes

Calculation

- ⊘ Two-way stops: Calculation results may be different on intersections with U-turns. **(1945** ○ **)**

2020.00-03 [150306]   2020-01-17

⊘ Fixed Bugs

Reporting

- ○ Fixed crash: In certain cases Vistro crashed, when printing a report for a scenario. This issue was fixed. **(1943)**

2020.00-02 [149398]   2019-12-09

⊘ Fixed Bugs

Main window

- ○ Buttons sizes fixed: Images placed on buttons now have the correct size again. This, for example, affects the buttons 'Rectangular Zoom', 'Show entire network' and 'Measure Distance' in the network editor view. **(1931)**

2020.00-01 [149032]   2019-11-27

⊕ New Features and Changes

Traffic control tab

- ⊕ Overlap on shared lanes: It is now possible to select 'Overlap' as a control type for a movement, even if the movement is associated with a shared lane. This functionality is commonly utilized on tight-diamond interchange ramps, leg-offset signalized intersections, or rare situations when a right-turn overlap is offered in a shared lane. **(1924)**
- ⊕ Signal group summary window: It is now possible to add, edit, and review a controller's signal groups in a separate window. The new '+' button next to the optimization buttons must be clicked. Here additional signal groups can be added for use in the sequence and Phasing &Timing Grid or deleted if marked unused. The window can also be used to review signal timing parameters, especially for intersections with shared controllers. The additional signal groups can be used as placeholders for special phases, such as transit or bicycles, or they can be utilized to model overlapping movements on tight-diamond interchanges. **(1908)**

- Unused signal groups: Vistro now keeps signal groups, even if they are not assigned to a movement. If, for example, the signal group number on a movement is changed from 1 to 2, Signal Group 1 can still be accessed through the new Signal Groups dialog, and it will not be automatically removed from the sequence, so they can remain available for special placeholder cases. Unused Signal Groups must be deleted from the Signal Group Summary Window. **(1923)**

2020.00-00   [147433]   2019-10-07

⊕ New Features and Changes

Calculation

- Final saturation flow rate: It is now possible to define overrides for final saturation flow rates on signalized intersections in the Global Settings. If activated, flow rates for twelve different types of lane groups can be defined and will be used in the calculations. **(1784)**
- Right turn on red based on percentage: All settings for right turn on red volumes were moved to the Volumes tab. It is now possible to calculate right turn on red volume based on a percentage of the movement's Future Total Volume. For this, a percentage can be set for each movement that has right turn on red. It is also still possible to enter an absolute right turn on red volume. **(1786)**
- Two-way stops: The type of site, i.e. 2-lanes, 4-lanes, or 6-lanes, is now determined by the major flow approach with the larger number of through lanes. For example, if that approach has two through lanes, the site is treated as 4-lane-site, even if the other major flow approach is an outbound one-way street. **(1799 ⊘)**

File import / export

- OSM import: It is now possible to import open street map data. **(157)**

Graphical editors

- Adding and removing through lanes: There are two new context menu entries 'Add through lane' and 'Remove through lane' on the button at the end of leg handles. They can be used to add extra lanes in the outbound direction, if in reality there are more outbound lanes that Vistro requires to accommodate all incoming movements. These lanes can also be removed, if there are more lanes than necessary. **(1873)**
- Approach offsets: The new 'Offset' data row in the Intersection Setup grid can be used to change the offset of approaches in relation to their intersection. Positive offsets move the approach to the right, negative offsets to the left. **(1684)**

Intersection setup tab

- Channelized control and bypass control: The value 'Target lane' was removed from the drop-down lists for 'Channelized control' and 'Bypass control'. There are now new data rows 'Channelized Turn has Target Lane' and 'Bypass has Target Lane' to define these geometric properties independently from the control types. **(1843)**
- Exit pockets: The new data rows 'No. of Exit Pockets' and 'Exit Pocket Length' can be used to add and remove exit pockets. It is now possible to add inner exit pockets. Vistro no longer automatically removes exit pockets, when the lane allocation on a different approach is adjusted. Leg handles now have context menu entries 'Add through lane' and 'Remove through lane' to change the number of lanes, that leave the network. **(947)**

Non-graphical editors

- Notes: A new data row 'Notes' was added to all grids. **(1495)**

Optimization

- Master controller: It is now possible to set a controller as master controller for a given coordination group. In the optimization, the time offset of this controller is set to 0, and the offsets of all other controllers are calculated relative to the master controller. **(1691)**

Traffic control tab

- Additional offset references: New references, per NCHRP Report 812 - Signal Timing Manual, 2nd Edition have been added under Intersection Settings. These references include: Beginning of Both Green; Beginning of First Yellow; Beginning of First Red; Beginning of First Flashing Don't Walk. **(1891)**

⊕ Delayed vehicle green: The new value Delayed Vehicle Green can be used to delay the green time start of a vehicle phase. The value is added to the point-in-time, where the green phase would usually start and the signal group split time remains. The value changes calculation results, but it is not taken into account in the calculation of right turn and left turn adjustment factors. **(1766)**

⊘ Breaking Changes

Calculation

⊘ Signalized intersections: When an approach has more than one right turn or more than one left turn, and the movements to different target approaches originate from different lanes, these lanes are no longer put in the same lane group. Instead, there is a lane group for each target approach. **(1896)**

⊘ Two-way stops: Calculation results differ, if the approaches of the major flow have a different number of inbound through lanes. **(1799 ⊕)**

⊘ Two-way stops: Results are different, when there is a major flow with non-zero grade. **(1900)**

Traffic control tab

⊘ Bicycle LOS: 'Bicycle LOS' may be different. **(1718)**

⊘ Signalized, Intersection V/C: Intersection V/C may be different on intersections with short permissive left turns and high volume. **(1858)**