PTV Vistro 5 Release Notes

PTV | GROUP

the mind of movement

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5.00-02 [120656]

2017-05-23

✅ Fixed Bugs

File import / export

- ✅ Export to Vissim: Geometry generation on intersections with leg handles and non-standard lane widths was improved. **(1562)**
- ✅ Vissim: In files exported to Vissim vehicles could take a right turn on red, even if the rightmost turn was straight. Now Vistro only uses the 'right-turn-on-red' marker when the rightmost turn is a right turn (or a left turn in left-hand traffic). Furthermore, in Vistro the flag now can only be set if the rightmost turn is a right turn. **(1555)**

Optimization

- ✅ Local optimization, overlaps: Local optimization now works correctly and no longer hangs if the thru movement of a protected-permissive left turn is set to 'Overlap'. **(1571)**

Reporting

- ✅ .csv reports: An issue was fixed were not all data was written to csv reports when intersections had 5 or more legs. **(1573)**

Traffic control tab

- ✅ HCM 6th edition, signalized: The pedestrian recall flag is now taken into account correctly when effective phase durations are calculated. **(1560 ⚠)**
- ✅ Overlaps: An issue was fixed where Overlap settings were not saved properly in scenarios. **(1575)**
- ✅ Roundabouts, HCM: The exiting flow rate is now calculated correctly. **(1563)**
- ✅ Signalized, ICU: Critical movements are now also calculated correctly when an approach does not have an opposite approach. This also affects Intersection V/C. **(1577 ⚠)**

⚠ Breaking Changes

HCM 6th edition, signalized

- ⚠ Calculations results will differ if the pedestrian recall flag is active. **(1560 ✅)**

Signalized, ICU

- ⚠ Intersection V/C will differ for intersections with approaches that do not have an opposite approach. **(1577 ✅)**

5.00-01 [119191]

2017-04-05

➕ New Features and Changes

Reporting

- ➕ Future background volume: Vistro now has a graphical report for background volumes. It can be activated with the entry 'Traffic Volume - Future Background Volume'. **(1524)**

Traffic control tab

- ➕ Overlap: It is now possible to assign control type 'Overlap' to right turn movements (and left turn movements in left-hand traffic) when the control type of the through movement is 'Split'. **(1536)**

✅ Fixed Bugs

Optimization

- ✅ Network optimization: In network optimization cycle times are now handled consistently. If cycle time optimization is inactive, existing cycle times are checked correctly. Notice that half cycles are allowed. If cycle time optimization is active, Vistro now treats the cases correctly, where more than two cycle times exist. Controllers are either assigned the half or the full cycle time depending on their cycle time at the start of the process. **(1433)**

Reporting

- ✅ Signal warrants: Signal warrants are now calculated correctly for very high volumes. **(1543 🔴)**
- ✅ Signal warrants: The hourly volume factors are now always sorted correctly. **(1542)**

Simulation

- ✅ Pedestrian recall: For fixed-time controllers the pedestrian recall flag is now set when a file is exported to Vissim. **(1556)**

Traffic control tab

- ✅ Crosswalks, pedestrian signal groups: An issue was fixed where pedestrian signals could not be set correctly when there were legs with no inbound link. Now in these cases - and when an intersection only has three legs - all necessary settings are accessible and pedestrian signals are assigned to the correct crosswalks. **(1553)**
- ✅ Free running: Coordination type 'Free running' can now only be used together with the actuation type 'Fully actuated'. If the coordination type is set to "Free running", Vistro automatically sets the actuation type to "Fully actuated". **(1511 🔴)**
- ✅ ICU: Issues were fixed regarding critical movements and v/c on overlap movements. Furthermore, the global settings for saturation flow rates are now taken into account in all cases. **(1541 🔴)**
- ✅ Protected movement from a shared lane: It is no longer possible to assign Control Type 'Protected' to movements on a shared lane. In existing networks Vistro will automatically adjust this setting to 'ProtectedPermissive'. This will change calculation results if for the protected phase non-zero amber or allred durations were given. **(1527 🔴)**
- ✅ Signalized intersections, left-hand traffic: For lane groups with permissive right turns in networks with left-hand traffic the capacity is now calculated correctly. **(1538 🔴)**

Trip distribution grid

- ✅ Copy & Paste: After copying and pasting values the value in the 'Total' row is now always updated correctly. **(1540)**

🔴 Breaking Changes

Reporting

- 🔴 Signal warrants: Signal warrant reports may yield different results than before. **(1543 ✅)**

Traffic control tab

- 🔴 Free running: ICA results may change for controllers with coordination type 'Free running' depending on the setting for actuation type. **(1511 ✅)**
- 🔴 ICU: Calculation results will be different for intersections with overlap movements and are likely to be different if the global setting for saturation flow rates is not set to default. **(1541 ✅)**
- 🔴 Protected movement from a shared lane: Calculation results will change if Control Type of a shared lane was 'Protected'. **(1527 ✅)**
- 🔴 Signalized intersections, left-hand traffic: Capacity and delay ouf lane groups with permissive right turns may change. **(1538 ✅)**

5.00-00 [116143]   2017-01-10

➕ New Features and Changes

Data model

⊕ **Intersection numbers:** The management of intersection numbers in scenario management was improved. When a new intersection is added, Vistro now generates a default intersection number that has not been used yet in any other scenario. This is the same mechanism as the one for zones and gates. **(1515)**

Graphical editors

⊕ **Edit zones and gates of paths:** It is now possible to edit the origins and destinations of paths. This feature can be combined with the feature to duplicate paths. Origin or destination of a path may be changed by highlighting the path in the graphical editor and moving the pin that belongs to the zone or gate. **(1472)**

⊕ **Splitting links:** It is now possible to insert intersections between existing intersections. This is possible by dropping an intersection on a highlighted link. Example: Select 'signalized intersection' in the toolbar on the left-hand side of Vistro and click on a highlighted link. It is also possible to use the 'Insert Intersection' entry in the context menu of a highlighted link. Paths using the link are retained. **(22)**

Reporting

⊕ **All-way stop:** The report for all-way stops was extended to show V/C. **(1482)**

⊕ **Lane Group Calculations:** The table 'Lane Group Calculations' of the Intersection Level Of Service Report now contains the cycle time. **(1494)**

Traffic control tab

⊕ **HCM 6th Edition:** Vistro 5 fully supports calculations according to HCM, 6th edition, on signalized intersections, roundabouts, all-way stops and two-way stop controlled intersections. This includes pedestrian and bicycle methodologies on signalized intersections. **(1435)**

⊕ **ICU, movement V/C:** For the analysis types ICU 1 and ICU 2 the movement V/C ratio is now shown in the sub-table 'Movement, Approach & Intersection Results' **(1505)**

⊕ **Initial queue delay:** The value 'd3, Initial Queue Delay' is now editable. This value will be added to the delay of the lane group. **(1098)**

⊕ **Signalized:** It is now possible to override the base saturation flow rate for any given lane group using the flag 'Override Base Saturation Flow Rate per Lane'. If the override is active, the value 'User Defined Base Saturation Rate per Lane' will be used in the following calculations. **(1501)**

⊕ **Unsignalized outer turns:** When the analysis method of a signalized intersection is set to 'HCM 6th edition' it is possible to assign the control type 'Unsignalized' to outer turns. It is then possible to edit the delay of that movement manually. This delay will be taken into account in the delay calculation of the approach and the intersection. **(1458)**

Trip assignment tab

⊕ **Duplicate paths:** It is now possible to duplicate paths. A path can be duplicated by using the "Duplicate Path" entry in the context menu of the trip assignment tab. The same entry is available in the paths context menu in the graphical editor. **(1471)**

⊘ Breaking Changes

Incremental delay

⊘ Incremental delay on intersections with semi- or fully actuated controllers can be smaller than in Vistro 4. **(1537)**

Overlaps on through movements

⊘ Calculation results on signalized intersections with through movements with control type 'Overlap' may change. **(1470)**