



PTV Vistro 2025

Key Highlights



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Preamble

This document offers a glimpse into the significant Service Pack updates in PTV Vistro, spanning from version 2024 to version 2025, as well as the latest additions in the initial release of version 2025. For additional features, please refer to the release notes. It's worth noting that future versions within the 2025.00-xy service packs will introduce new features not covered in this overview document.

For comprehensive instructions on utilizing the new functionality, you can consult the Vistro 2025 online help and refer to the document titled "PTWistro2025_Manual.pdf".

Release Highlights summary

PTV Vistro 2025 introduces a suite of enhancements designed to streamline model building and review processes, improve interoperability with PTV Visum and Vissim, advance signal optimizations, and revolutionize the way results, models, and collaborations are managed. This release is particularly focused on leveraging cloud technologies to offer seamless integrations and collaborative tools, ensuring that traffic and signal operations engineers and transport planners can work more efficiently and effectively.

A key highlight of PTV Vistro 2025 is its integration with PTV Hub. Through Vistro + Hub, users can now manage their Vistro licenses, store models in the cloud, and annotate them with revision notes for better version control. The new workspace features facilitate the creation of project areas that enhance team collaboration, setting the stage for more dynamic and interactive workflows. The goal of Vistro 2025 is to continue to deliver cloud-based visualizations and reporting, allowing users to customize dashboards and effortlessly filter and review signal timings and operations using maps, charts, tables, and Vissim simulations.

The latest version also brings significant improvements to model creation workflows and integration with PTV Visum and Vissim. New capabilities include the visualization of turn paths and detectors, which aid in accurate model setup and leverage Vissim's advanced simulation functionalities for detailed microscopic and multimodal analyses, as well as Visum SBA's rapid meso simulation for broader city-scale studies. The interaction between Vistro and Visum has been enhanced by increasing the number of junction control types available in Vistro. Now, you can supercharge their model building with the Google Street View integration to support the detailing of intersection configurations without leaving your desk for a field review.

Finally, PTV Vistro 2025 delivers a substantial overhaul of signal controller optimization features, making them more user-friendly and flexible. The improved max green calculation now adjusts automatically for splits and clearance intervals, enhancing the quality of Vissim simulations. Handling of semi-actuated controllers has been simplified, and users can now examine the impacts of actuated pedestrian crossings at locations with low pedestrian volumes, including pedestrian intervals that can exceed vehicle greens.

1 Workspace

1.1 Seamless integration with PTV Hub

PTV Vistro 2025 expands its capabilities with full integration into PTV Hub. Manage your licenses efficiently with the Licenses app and use the Models app to store models and document revisions. Define your team, set access controls, and create Workspaces to store your project data.

The screenshot displays the PTV Hub interface. At the top, there are three storage usage indicators, each showing 62% usage (61.7 MB of 100 MB). Below these is a search bar and a toggle for 'Last modified by me'. A table lists models with columns for App, Name, Initial upload, Initial upload by, Last modified, Last modified by, Current size, Total size, and Number of scenarios. The table shows two entries for 'Chapel Hill - New Improvements'.

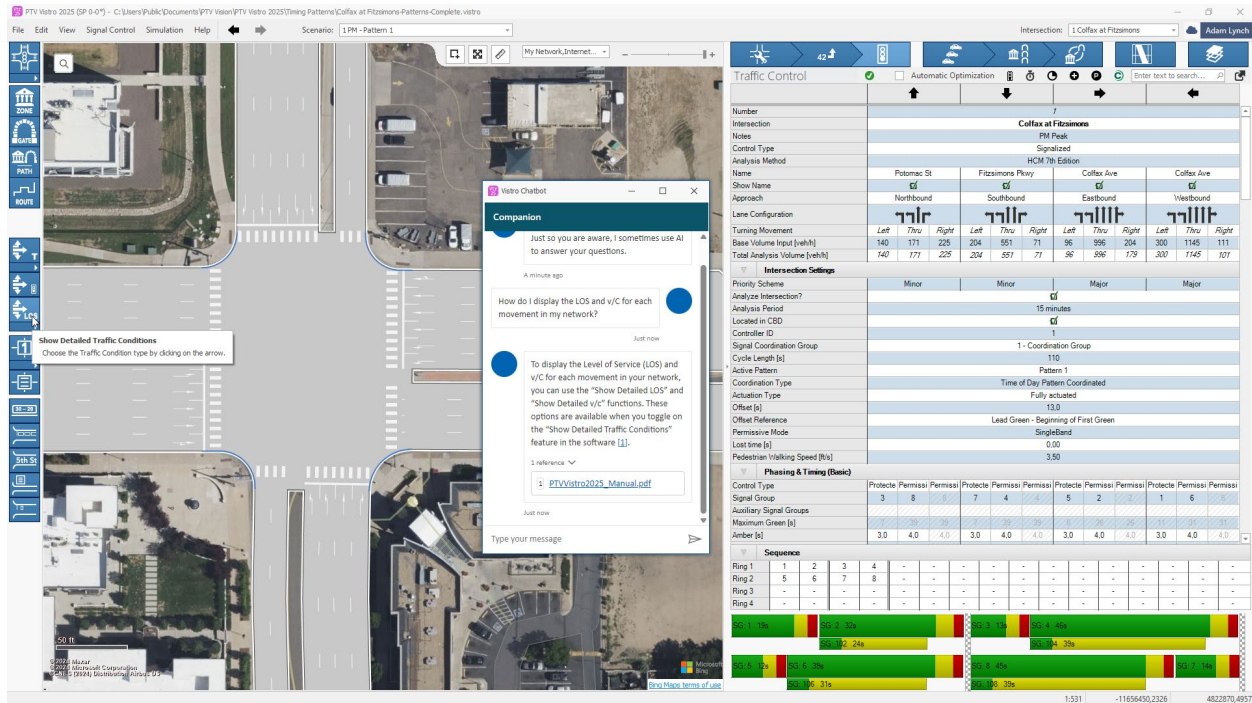
App	Name	Initial upload	Initial upload by	Last modified	Last modified by	Current size	Total size	Number of scenarios
Vst	Chapel Hill - New Improvements	29/08/202...	Jimi Hendrix	8/29/2024	Jimi Hendrix	52.9 MB	52.9 MB	
Vtr	Chapel Hill - New Improvements	29/08/202...	Jimi Hendrix	8/29/2024	Jimi Hendrix	70.9 KB	70.9 KB	

Below the table, a detailed view of a model revision is shown. It includes metadata for 'Initial upload' and 'Initial upload by' for both Vst and Vtr, and a note stating 'This revision includes optimization'.

The 'Version history' section contains a table with columns for Created, Created by, Comment, Revision size, Changed, and Source of revi... The history shows a single entry for '29/08/2024, 4:02:59 PM' created by 'Jimi Hendrix' with a revision size of 70.9 KB, changed from 70.9 KB, and sourced from 'Desktop'.

1.2 Support Chatbots

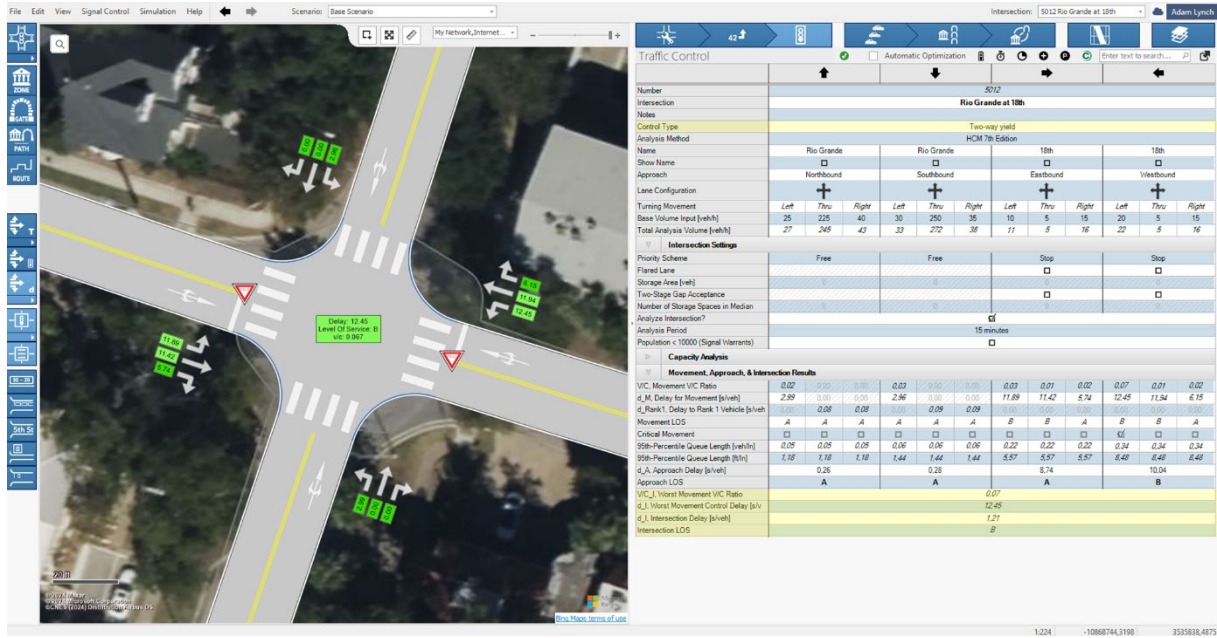
Companion is an AI-powered interface designed for your questions about PTV Vistro. You can use it for a wide range of questions, including complex ones. Companion is based on PTV's help pages, webinars, and other product documentation. It relies only on PTV-generated materials to produce trustworthy results. Available in multiple languages, some responses are in English only.



2 Analysis Methods

1.3 Two-way Yield Control Type

Analyze two-way yield control intersections in Vistro by selecting this feature in the Traffic Control Workflow. Yield signs will appear on selected approaches, with yield-controlled approaches calculated differently from two-way stop control. Vehicles only stop when necessary, resulting in varied movement and controlled delays. Use this feature to compare yield and stop-controlled intersections in your mitigations and scenarios.



1.4 Uncontrolled Control Type

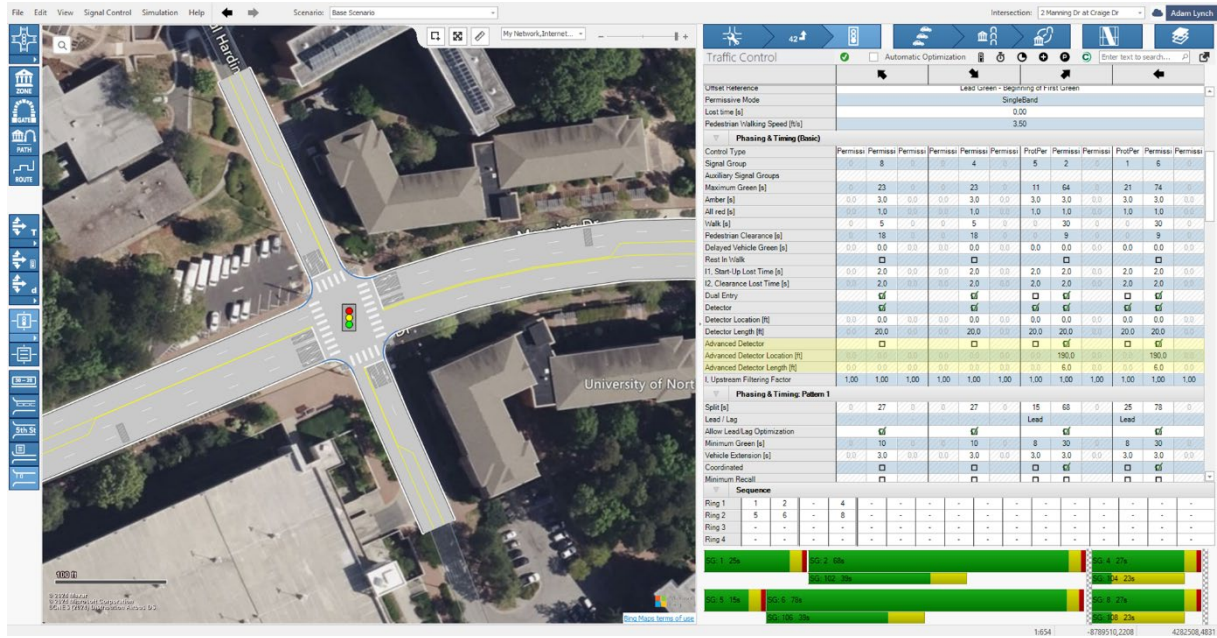
The Uncontrolled control type, now in Vistro, includes a set impedance factor affecting delay and assignment calculations, enhancing interoperability with PTV Visum workflows. This addition allows for consistent analysis and streamlines data integration between Vistro and Visum, improving traffic management and planning.

Control Type	Uncontrolled
Analysis Method	Unknown
Name	Uncontrolled
Show Name	Signalized
Approach	Roundabout
Lane Configuration	All-way stop
Turning Movement	Two-way stop
Base Volume Input [veh/h]	Two-way yield

3 Traffic Control Workflow

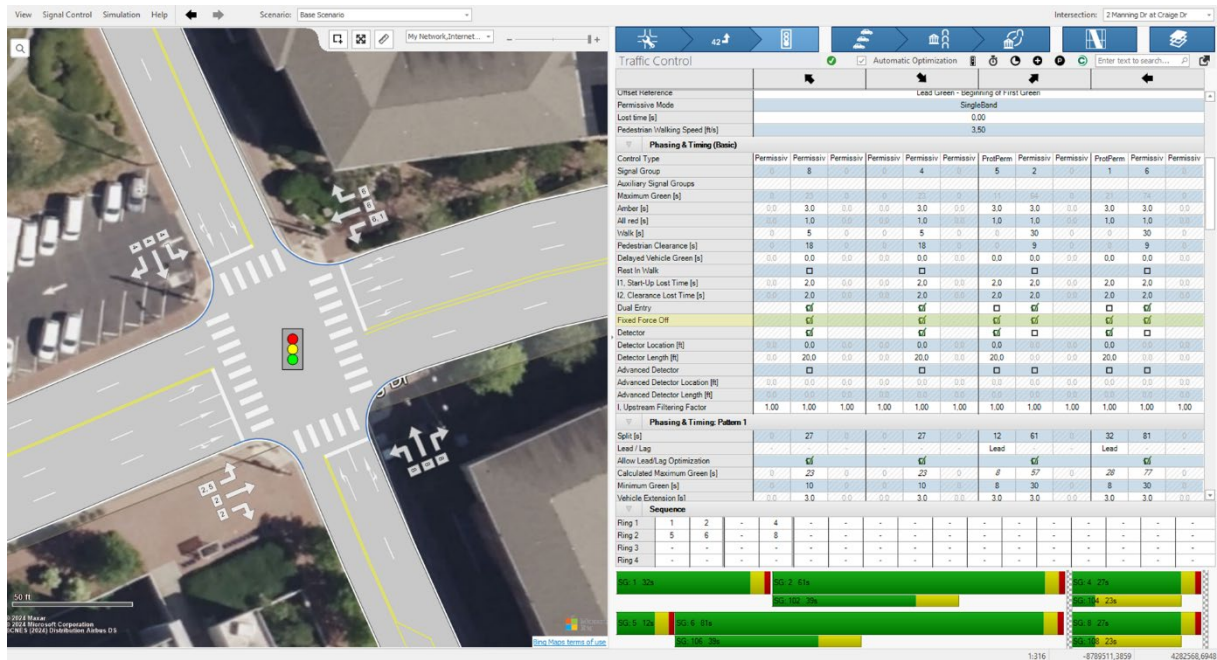
1.5 Advanced Detector Settings

Vistro now includes advanced detection capabilities. Input extra detector locations and lengths to create detailed detector placements, which are exported to PTV Vissim. The seamless transfer of these settings to PTV Vissim ensures accuracy and consistency in your traffic simulations. These features are crucial for fine-tuning detector settings, improving traffic flow, and enhancing safety by optimizing signal phase extensions and dilemma zone detection.



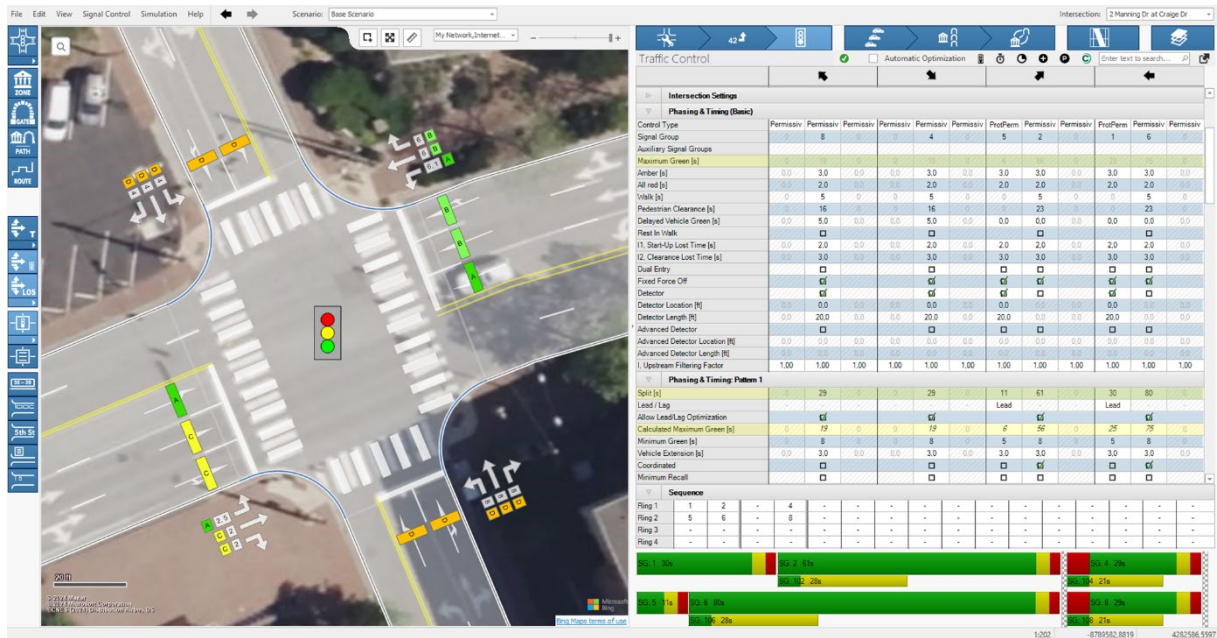
1.6 Fixed and Floating Force Off settings for signal optimization

Vistro now supports both fixed and floating force-off methods for optimizing signal splits on major and minor streets. The new floating force-off method allows force-off points to shift based on previous phase demands, allocating unused time to coordinated phases and treating split times as maximums for non-coordinated phases. Fixed force-off, available previously, keeps force-off points static, letting non-coordinated phases use unused time from prior phases. Toggle these options in the Traffic Control workflow for better signal optimizations.



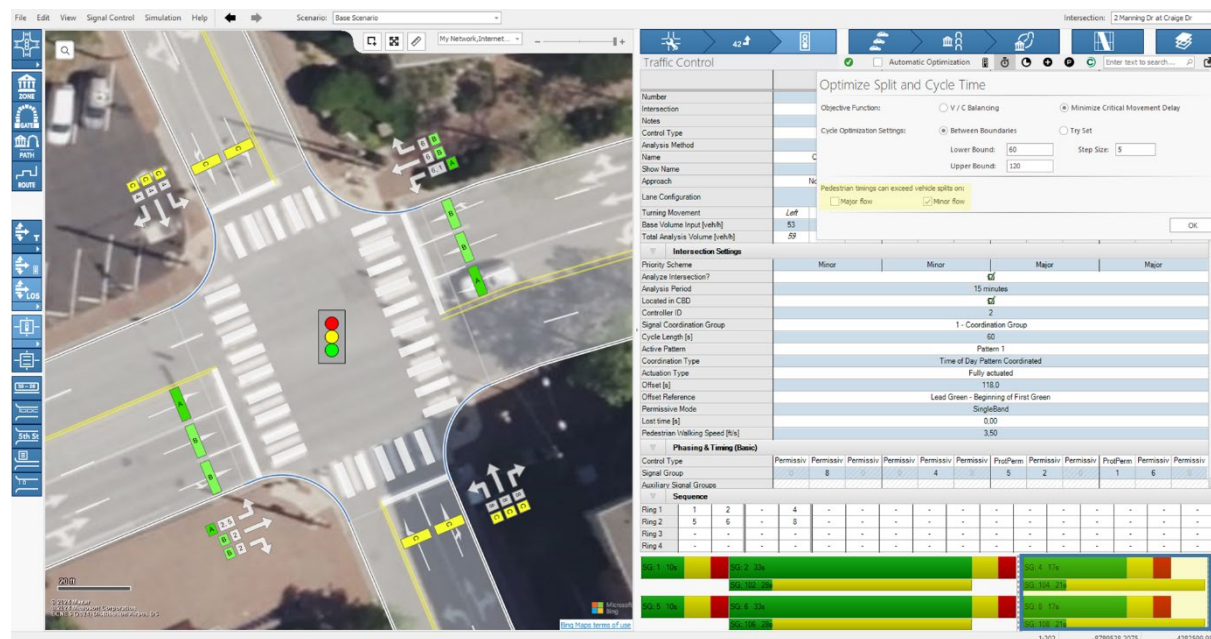
1.7 Automatic calculations of maximum green settings

Vistro now calculates Maximum Green when a pattern is active. The basic timing table's Maximum Green value is greyed out and editable only in free-running mode. This feature improves calculation accuracy, supports multiple patterns, and enhances Vistro's integration with Vissim.



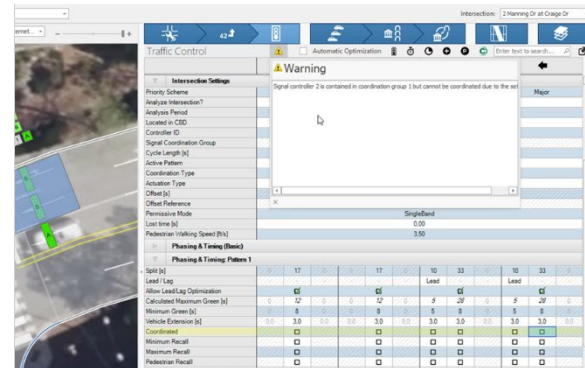
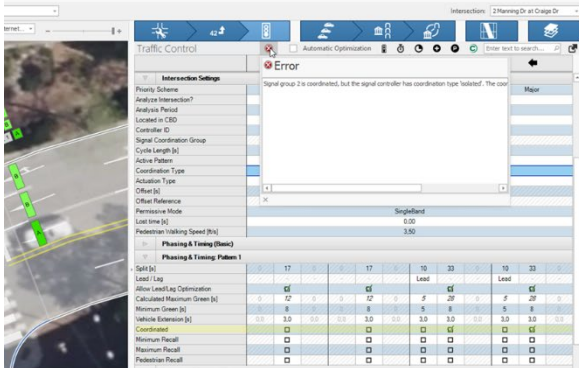
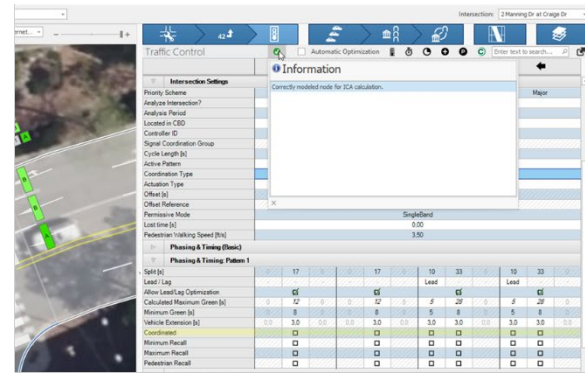
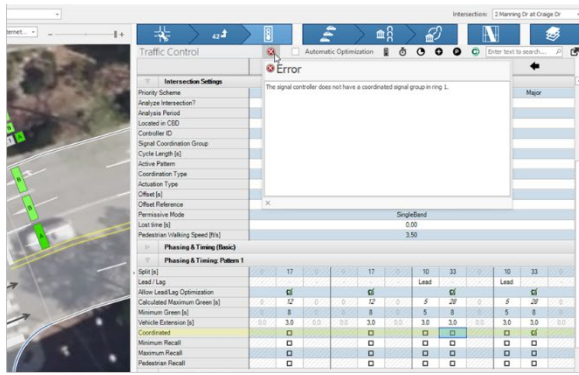
1.8 Split optimization settings related to Pedestrian timings

The Split Optimization feature now includes options where Major or Minor streets can optimize splits where Pedestrian timing can exceed vehicle splits. These settings allow longer pedestrian signals compared to vehicle signals, ensuring safer crossings on approaches with low pedestrian volume but longer crossing distances. Signals can temporarily operate out of coordination, mimicking real-world adjustments. This functionality enhancement is useful for maintaining traffic flow while accommodating pedestrian safety, especially where longer pedestrian phases are needed.



1.9 Optimization Improvements for Semi-Actuated Intersections

The cycle length calculation for semi-actuated intersections now depends on coordinated flags in the "Phasing and Timing" sub-table. If a coordinated signal group exists, the cycle length aligns with the splits, matching the controller's cycle length. Without a coordinated phase, the cycle length adjusts based on demand. This improvement ensures more accurate cycle lengths, enhancing traffic flow and intersection efficiency.



4 Graphical Editors

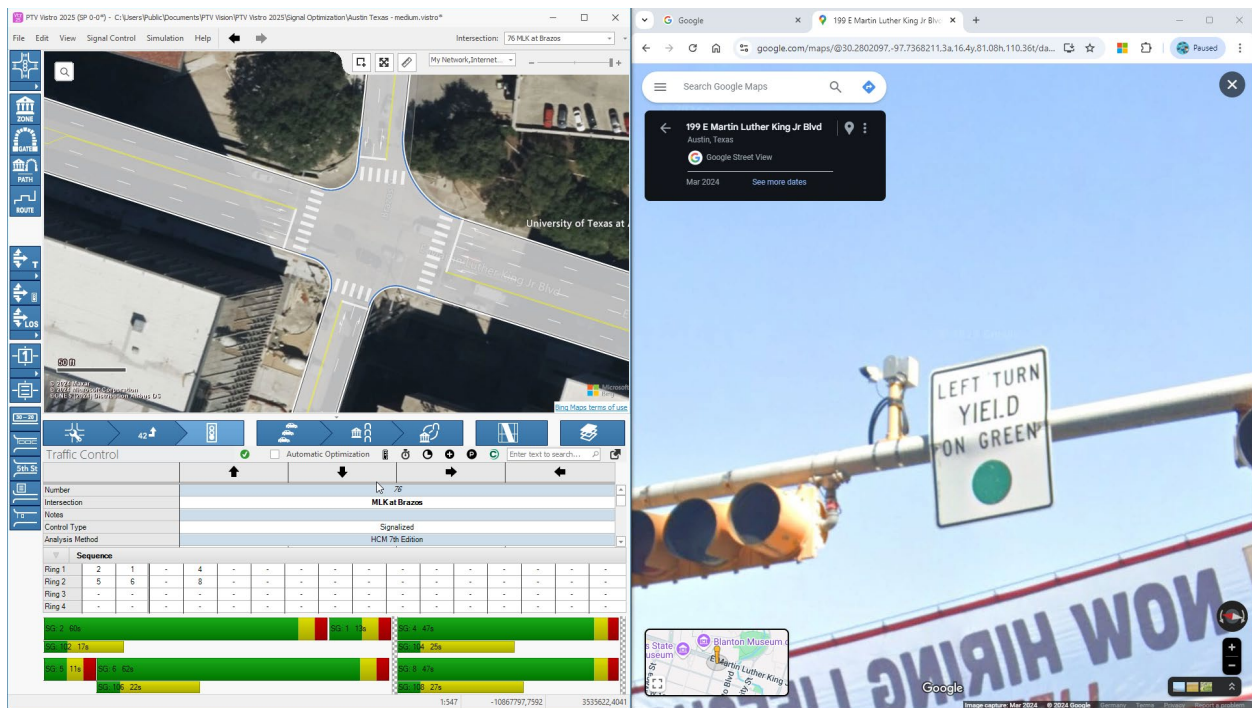
1.10 Detector Visualization

Visualize detector positions and lengths, toggle their visibility, and view their placement from the stop bar along the links. This graphical toggle and visualization enable you to check detectors and settings quickly while reviewing and to ensure that simulations in PTV Vissim are setup and ready to go.



1.11 Google Street View Integration

The new Google Street View integration in Vistro lets users quickly access Street View at their junction location. This feature streamlines the modeling process by enabling instant verification of geometry and signal phasing configurations. It enhances both efficiency and accuracy, allowing users to seamlessly check details within the Vistro workflow.



1.12 Turning Path Visualizations

Vistro now features a visualization of turning movements and lane group turns, simplifying the modeling of complex intersections with over five legs. This tool provides clear path arrows to confirm lane configurations, ensuring more accurate volume and lane setup. Correct lane configurations enhance simulation accuracy in PTV Vissim and streamline detailed intersection modeling, improving overall project precision and efficiency.

Volumes												
New Intersection												
Signalized HCM 7th Edition												
Name	MOVEMENT 2			MOVEMENT 2			MOVEMENT 1			MOVEMENT 1		
Show Name	Northbound			Southbound			Northbound			Southbound		
Approach												
Lane Configuration												
Turning Movement	Left	Thru	Thru	Left	Thru	Thru	Thru	Thru	Right	Thru	Right	
Base Volume Input [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Total Analysis Volume [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Base Volume Input [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Final Base Volume [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
Proportion of CAVs [%]	0.00											
Proportion of EVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
TIA Demand												
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Future Background Volume [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Diverged Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Net new site trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Future Total Volume [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Right Turn on Red												
Right Turn on Red Method	Absolute	Absolute	Absolute	Absolute	Absolute	Absolute	Absolute	Absolute	Absolute	Absolute	Absolute	
Right Turn on Red Percentage [%]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	
Total Hourly Volume [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Total 15-Minute Volume [veh/h]	0	0	0	0	200	0	275	0	0	0	0	
Total Analysis Volume [veh/h]	0	0	0	0	800	0	1100	0	0	0	0	
Presence of On-Street Parking												
On-Street Parking Manoeuvre Rate [%]												
Local Bus Stopping Rate [%]												
v_ob, Outbound Pedestrian Volume cross												
v_ib, Inbound Pedestrian Volume cross												
v_ob, Outbound Pedestrian Volume cross												
v_ib, Inbound Pedestrian Volume cross												
v_ob, Corner Pedestrian Volume [ped/h]												
Bicycle Volume [bicycles/h]												

5 Export

1.13 Enhanced Synchro12 Export Compatibility

Vistro now supports exporting to Synchro12 with realigned diverging code and consistent signal phasing numbers for controllers with fewer than 8 phases. Improved link export handling, updated signal control sequence phase positions, and visible second detector positions enhance the export process.