

Synchro Studio 10

with **Warrants** and **TripGen**

Release Notes

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Introduction

This document provides a brief description of the enhancements included within each new release of the software.

Release 10.2.0: May 21.2018

This release introduces enhanced integration with Trafficware's ATMS central traffic management system. A wizard style interface allows you to import controller database information from ATMS, and then send back revised signal timing from Synchro to ATMS. From the Transfer tab, select ATMS to import, export, or manage connections with ATMS. Refer to the User Guide for additional details.

The following bug fixes and enhancements are also included with release 10.2.

1. Speed enhancements have been made to the TIA module in Synchro, allowing files with 3 or more developments to open faster.
2. Improved compatibility with older versions of Synchro, reducing errors some customers have encountered when upgrading files from Synchro 9.

Release 10.1.2: September 28, 2017

This is a minor maintenance release to correct the following issues.

1. Bing Maps may again be imported for use as a background image in Synchro. The interface has been updated to comply with Microsoft's new development standards. Learn more: <http://www.trafficware.com/blog/updates-to-bing-maps>
2. Intersection names were missing from some of the TWSC intersection reports in release 10.1. This issue has been resolved.
3. Editing Link OD Volumes caused an error in release 10.1.1. This issue has been resolved.
4. In TripGen, a land use may be copied by right-clicking on it in the Project Tree and selecting 'Copy Land Use'.

Release 10.1.1: July 25, 2017

This is a minor maintenance release to correct the following issues.

1. If a Bing image has been added to Synchro as a background image, it will now be visible in SimTraffic by default.
2. A correction has been made to the TIA module in Synchro, allowing users to import volume data from TripGen files with multiple phases.
3. Minor adjustments have been applied to the default color scheme in SimTraffic.

Release 10.1.0: July 14, 2017

This release includes a replacement of SQL Server database management system with SQLite, providing users with a speed increase of up to 50% during program start-up and up to 20% speed increase when performing network optimization. Additionally, the installer file size has been reduced, reducing installation time by approximately 50%.

The following bug fixes and enhancements are also included with release 10.1.

1. ***Improved file saving logic***

- a. Improvements have been made to the logic used to identify unsaved changes, so that users should only be prompted to save Synchro files when the file has changed.
- b. SimTraffic does not prompt users to rerecord the history (.hst) file if no changes have been made to the Synchro file.

2. ***HCM 6th Edition and HCM 2010***

- a. T-intersections with a single lane on the terminating approach may now be analyzed using the HCM 6th Edition signalized intersection methodology.
- b. Previously, some signalized intersections that didn't strictly follow NEMA phasing (specifically those with through phases assigned counter-clockwise around intersection) reported incorrect results for right-turn overlaps. This issue has been corrected, so that phases may now be assigned clockwise or counter-clockwise without affecting the results. This affects both HCM 6th Edition and HCM 2010.

3. ***Reports***

- a. Customized report settings, such as selected report, header, and footer text, are now saved to the Synchro file.
- b. The HCM 2010 and HCM 6th Edition AWSC reports have been formatted to skip U-turn columns when U-turns are not defined.

4. ***Time-Space Diagram*** – The Time-Space Diagram may now be printed using the command File>Print Window or [Ctrl]+[P].

5. ***Updated Color Scheme***

- a. Both Synchro and SimTraffic include an updated color scheme, complementing the ribbon bars and Synchro 10 icons.
- b. A “Classic Colors” button has been added to the Map Settings window in both Synchro and SimTraffic, allowing users to apply the Synchro 9 color scheme.

6. ***Bing Maps*** – Modified the connection procedures for Bing Maps, in order to prevent some firewalls from erroneously identifying the image download as a virus.

Release 10.0.1: April 17, 2017

This is a minor maintenance release to correct the following issues.

1. **Miscellaneous improvements to Synchro**
 - a. Corrections were made to Synchro's recalculation procedures, ensuring consistent results when inputs are changed or TIA Development Volumes are applied to the network.
 - b. A correction has been made to the Control Type selection in the Node Settings. Users can now edit the Control Type in side view, without opening the full Timing Settings or Phasing Settings window.
 - c. An improvement was made to the way Synchro stores intersection coordinates, allowing users to add intersections with large coordinate values.
2. **Optimization:** Dialog boxes used during the Network Cycle Length Optimization process have been reorganized for easier access to needed information.
3. **Reports**
 - a. A correction was made to the Multi-File Comparison report, to prevent errors some users have experienced when creating this report.
 - b. When printing multiple reports together, an improvement has been made to eliminated wasted pages and duplicate reports.
 - c. In the previous release, some roundabouts required users to view the HCM 6th Edition results on screen before print the report. The HCM 6th Edition Roundabout report can now be printed immediately for all qualifying intersections.
4. **Warrants:** An update has been applied to the reporting engine, allowing users to print reports without error.

Release 10.0.0: January 30, 2017

This section outlines some of the major changes in the initial release of **Synchro Studio 10**. A full list of changes since **Synchro Studio 9** to the initial release of **Synchro Studio 10** is found in the **Getting Started and What's New in Version 10** document.

1. **HCM 6th Edition** – Synchro 10 supports the signalized intersection, all-way stop control (AWSC), two-way stop control (TWSC), and the roundabout methods. A white paper is provided at <http://www.trafficware.com/synchro-help.html/> to provide details on the implementation.
 - a. The HCM 6th Edition Settings pane includes three expandable sections: Signal Timing Details, Adjusted Flow Rate, and Ideal Saturated Flow. The most commonly used parameters are viewable with all sections collapsed, with additional details about the intersection available by expanding one or more of these section(s).
 - b. A new field is included for signalized intersections to enter the delay for unsignalized movements, such as yielding or free right-turns. Users can choose whether or not to include this unsignalized delay in the analysis, and a corresponding note will be included on the report.
 - c. New saturation flow adjustment factors have been added to the signalized intersection analysis to account for work zone presence.

- d. Modifications were made to the equation for saturation flow rate to combine the adjustment factors for heavy vehicles and grade.
 - e. A compliance check was added to both HCM 2010 and HCM 6th Edition so that pm+pt left-turns are not allowed from a shared lane. The HCM computational engine does not analyze this phasing correctly. Trafficware is researching this limitation, and may provide analysis in the future.
 - f. LOS thresholds have been updated for pedestrians and bicycles at signalized intersections.
 - g. A new field is included for the signalized intersection bicycle analysis, to enter the striped parking lane width.
 - h. A correction was made to the calculation of Time Blocked by Platoon for TWSC intersections, specifically affecting files in metric.
 - i. The new capacity model in the HCM 6th Edition results in higher capacities than those calculated using HCM 2010 methodologies. This address concerns within the user community that capacities are lower than observed.
2. **HCM 2010** – When calculating the phase duration of actuated signal phases, Simultaneous Gap Out is assumed to be Off. This is an update to the more commonly used setting, and a change from Synchro 9.
 3. **Ribbon Bars** – The user interface for Synchro, SimTraffic, and 3D Viewer was updated, introducing a new look and feel with easy-to-use ribbon bar controls. The ribbon is organized by task, and designed to help improve efficiency.
 - a. The ribbon bars in 3D Viewer are highly customizable, by selecting the drop-down arrow in the upper-left of the window.
 - b. All icons in Synchro, SimTraffic, and 3D Viewer have been modernized.
 4. **Optimization** –The Optimize Network Cycle Length process has been enhanced, allowing calculations to complete approximately 12% faster than those in Synchro 9.
 5. **New Help Portal** – The new Help Portal may be accessed through the Help  button in Synchro, SimTraffic or 3D Viewer, or by visiting <http://www.trafficware.com/synchro-help.html/>. This is a convenient place to access the Synchro Studio User Guide, Support website, Forum, Getting Started Guide and What's New in Synchro 10, Tips from the Trainer Blog, and a White Paper on the Implementation of the HCM 6th Edition in Synchro 10.
 6. **Windows XP** – Support for the Windows XP operating system has been discontinued, following Microsoft's decision to end technical support on April 8, 2014.