Synchro Studio 9
Traffic Signal Timing, Capacity Analysis, Simulation, and Animation

Redefining the State-of-the-Art in Signal Timing

What is Synchro Studio?

Synchro Studio is a robust, easy-to-use traffic signal software that helps traffic engineers and transportation planners design, model, optimize, simulate, and animate signalized and unsignalized intersections (including roundabouts), delivered in a comprehensive, standardized file format.

Synchro Studio provides the best in traffic analysis, optimization, and simulation applications. The package combines the modeling capabilities of Synchro® and the micro-simulation and animation capabilities of SimTraffic® with our three-dimensional viewer, creating the ultimate tool kit for any traffic engineer.

Synchro Studio Includes the Following:

- **Synchro**
  Design, model, and optimize traffic signal infrastructure.

- **SimTraffic**
  Simulate real-world vehicular and pedestrian traffic scenarios.

- **3D Viewer**
  Convert two dimensional modes from SimTraffic to a 3D Viewer application

Supplemental Modules:

- **Warrants**
  Evaluate a network of intersections according to the Manual on Uniform Traffic Control Devices (MUTCD) standards and guidelines for signalization.

- **TripGen**
  Calculate the expected number of trips based on data from the Institute of Transportation Engineer’s (ITE) Trip Generation Manual

Why do traffic agencies and consultants use Synchro Studio?

- Twenty years of industry use, ensuring the product is tested and proven
- Provides users with a powerful microsimulation tool
- Pays for itself after your first traffic signal or traffic analysis project
- Ease-of-use and adoptability, allowing the engineer to analyze traffic operations in days versus weeks
- Implements the Intersection Capacity Utilization (ICU) Method
Enhanced Optimization Functionality

- Weighting factors added to the optimization routine
- Weighting factors applied to either individual phase(s) or to only the reference phase(s)
- Detailed optimization MOE results summary created directly within Synchro
- Export MOE summary tables for additional analysis, including delay, timing, queuing, and performance indices (PI)
- Ability to append MOE summary tables when making final timing adjustments within Synchro

Customizable Toolbars and View Ports

- Dock individual Toolbars anywhere within the Map Window, as well as float within the monitor display, including across multiple monitors
- Choose between small and large icons for ease in navigation
- Create custom Toolbars based on user preference
- Quickly code intersection geometrics and signal timing using the new Templates toolbar
- Develop custom templates based on commonly used parameters
- Create up to four View Ports within Synchro, allowing users to view multiple locations within the Map Screen
Traffic Impact Analysis (TIA)
Using the new Trip Distribution and Trip Assignment tools, you can now complete a TIA entirely within Synchro.

- Analyze multiple developments within a single Synchro file. Each development may have multiple land uses and driveways.
- Import Trip Generation data from TripGen 2014 or enter the number of trips directly into Synchro.
- Allow Synchro to automatically determine routes to each development based on the shortest distance or fastest time, or add your own custom routes.
- Assign trips based on existing travel patterns, or customize the percentage of trips on each route.
- Add a future year growth rate, and select which development(s) to analyze in Synchro.

Default Network Settings
- Default pedestrian Walking Speed updated to 3.5 ft/sec (MUTCD)
- Default All-Red Time updated to 1.0 sec (FHWA)
- Default Minimum Initial updated to 5.0 sec (FHWA)
- Default Walk Time updated to 7.0 (MUTCD)
- Adjustable emission factors
- Program custom, local default parameters using the Default.syn file

HCM 2010 Updates
- Strict adherence to HCM 2010 methodologies
- Addition of the TWSC Pedestrian Module has been added
- Updates to Signalized Intersection Methodology based on TRB’s 7.12 computational engine

Additional Features
- Import Bing™ maps, ensuring appropriate scaling and positioning within Synchro
- Flashing Yellow Arrow within SimTraffic
- Updated Screen Recorder within SimTraffic now compatible with PowerPoint™
- Model mid-block pedestrian crossings via the Link is Hidden feature
- Maximum Cycle Length increased to 3,000 seconds to allow for modeling rail crossings and draw bridges
Additional Software Applications

TripGen
TripGen is a simple, easy-to-use tool that calculates trip generation based on ITE’s Trip Generation Manual, editions 8 and 9. The analyst selects the desired independent variable and then calculates driveway volumes by using the rates or equations found in the Trip Generation Manual.

- Enhanced input and output screens
- Project information description and note input fields
- Project Tree that includes Alternatives and Phases
- Create Custom trip rates, including pass-by and internal trip rates
- Easily compare number of trips based on average rates vs. equations
- Export total Alternative number of trips to Excel™
- Additional report options

Warrants
Warrants is an easy-to-use product that enables traffic professionals to determine whether a traffic signal is needed for an intersection. Warrants will evaluate an entire network of intersections at once, capturing multiple volume periods for each intersection. Layout and volume information are directly imported from Synchro for easy model setup.

Support and Maintenance
With the release of Version 9, there is a 15% assessment (of the total software purchase) in order to provide two years of support and maintenance. Users will have access not only to the current Support Site, but in addition will have unlimited access to Just-In-Time Training Videos, selected webinars, and discounts on face-to-face training classes.

The Just-In-Time Training Videos are aimed at providing users a brief video focused on a particular feature within Synchro or SimTraffic, viewable at any time. Version 9 users will have viewing access to selected webinars for the price of the associated quiz/certificate. Activated Version 9 users will also receive a 10% discount during the registration process for our face-to-face training courses.

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