

## McTrans Celebrates 20 Years!

It was May 1986, when the University of Florida was awarded a grant to establish the McTrans Center to facilitate software distribution and support to the transportation engineering and planning community.

As you may or may not know, the grant that created McTrans only lasted two years by design. Since May 1988, McTrans has been totally self-supporting, relying on revenues from software, support and training to run the operations of the center and pay salaries. This is quite a success story within the realm of the public sector and government grants. McTrans has provided a wide variety of services and grown tremendously over the last 18 years to serve over 30,000 users without any public funding.

Thanks to you our users, we have just turned 20 years old, still growing and going strong. Please accept our deepest appreciation for your support over the years.

### HCS+ Annual Support Subscription

- Who:** All HCS+ registered users.
- What:** required for access to HCS+ technical support, including all telephone and email assistance in using HCS+, and software updates to incorporate approved changes and additions to the Highway Capacity Manual (HCM) as well as software enhancements or corrections.
- When:** Subscription renewal is due annually by the end of the month of the original purchase or upgrade to HCS+
- Where:** You can process the renewal for office licenses online at: <http://mctrans.ce.ufl.edu/store/shopcart1.asp?action=showproduct&category=HCSPLUS.SUB>  
Or, for any license including Agency Licenses, you can call 1-800-226-1013.
- Why:** As part of this continuous updating process, we have plans to:
- Add the Interchange Ramp Terminals module
  - Include Pedestrian and Bicycle modules
  - Modify the Unsignal module for the new Roundabouts procedure
  - Update the Arterials module for the new Urban Streets methodology
  - Add CORSIM one-touch animation for Arterials and Interchanges

## LADOT Traffic Management Software Now Available

The City of Los Angeles Department of Transportation (LADOT) is pleased to announce the release of their highly acclaimed suite of traffic management software tools used in daily traffic operations in the City's Automated Traffic Surveillance and Control (ATSAC) Center. Each of these software applications is fully operational in the City of Los Angeles and has been for well over five years. Now these powerful traffic management tools are available for purchase through the McTrans Center. All of these applications were designed, developed, tested and operated by a team of experienced LADOT Engineers, each with over 12 years traffic operations experience. Through this distribution, LADOT hopes other agencies will realize comparable benefits to those attained in Los Angeles through the integration of these powerful applications in the ATSAC Center. Each component is described on page two.

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### DYNASMART-P Update and Training

DYNASMART-P is a state-of-the-art planning tool that engineers can use to address complex transportation planning and operations issues simultaneously, particularly in the ITS context. DYNASMART-P supports planning and operations decisions through the application of simulation-based dynamic traffic assignments. This tool combines dynamic network assignment models, used primarily with demand forecasting procedures for planning applications, and traffic simulation models, used mainly for traffic operations studies. With DYNASMART-P, engineers can model the evolution of traffic flows that result from individual drivers seeking the best routes to their destinations. The software is designed to overcome many of the limitations of current static planning tools, such as the types of measures that can be evaluated.

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## McTrans

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### Adaptive Traffic Control System (ATCS) 7

The ATCS7 is a personal computer based traffic signal control program which provides fully traffic responsive signal control based on real-time traffic conditions. The ATCS7 architecture is based on the legacy Urban Traffic Control System (UTCS) but operationally exceeds the capabilities of UTCS by providing a traffic adaptive system of control. ATCS7 uses an adaptive algorithm to automatically and repeatedly adjust traffic signal timing in response to prevailing traffic demands. This is accomplished by allowing ATCS to simultaneously control all three critical components of traffic signal timing, namely cycle length, phase split and offset.

ATCS differs from other traffic control systems in that as traffic patterns change, traffic signal timing is also correspondingly changed to match the current conditions. When ATCS is controlling traffic signals in the adaptive mode, the entire signal network is continuously analyzed, and the most appropriate signal timing for the existing conditions is implemented. Thus, it is possible to start ATCS with only one base timing plan and let the system evolve this base timing into appropriate timing as conditions change during the day. Any minor unusual occurrences that would otherwise cause congestion in a time-of-day plan system are automatically accommodated by ATCS. The result is fewer stops and less delay for motorists, along with improved traffic signal coordination throughout the

network. ATCS controls over 3100 signalized intersections in Los Angeles, growing from the City's initial ATCS installation in 1996.

### Traffic Signal Control Program (TSCP) 7

TSCP7 allows the Model 2070 Controller to function as a two-through-eight phase, six-overlap, dual-ring traffic signal controller. TSCP7 can operate as a stand-alone actuated or non-actuated controller, or as part of an interconnected system to either an ATSAC type traffic control system with second-by-second communications, or a hard-wire or modem field master. The primary purpose of this program is to provide traffic control functions through the timing of the traffic signal indications in the field. TSCP7 also has the ability to accommodate transit priority for buses and light rail trains, including special phases for light rail signals. TSCP7 is the only 2070 software that integrates, without modification, to the ATCS7 software.

### Smart Transit Priority Manager (STPM) 7

The STPM7 program is a personal-computer based central control program designed to operate in combination with 2070 traffic signal controllers and the TPS7 software to manage all transit priority functions. STPM7 is a real-time application which requires similar communication architecture as the ATCS7 application as well as bus detection hardware to identify individual buses as they progress through their routes. This application integrates seamlessly to

the ATCS7 system utilizing the same client interface software and graphics subsystem.

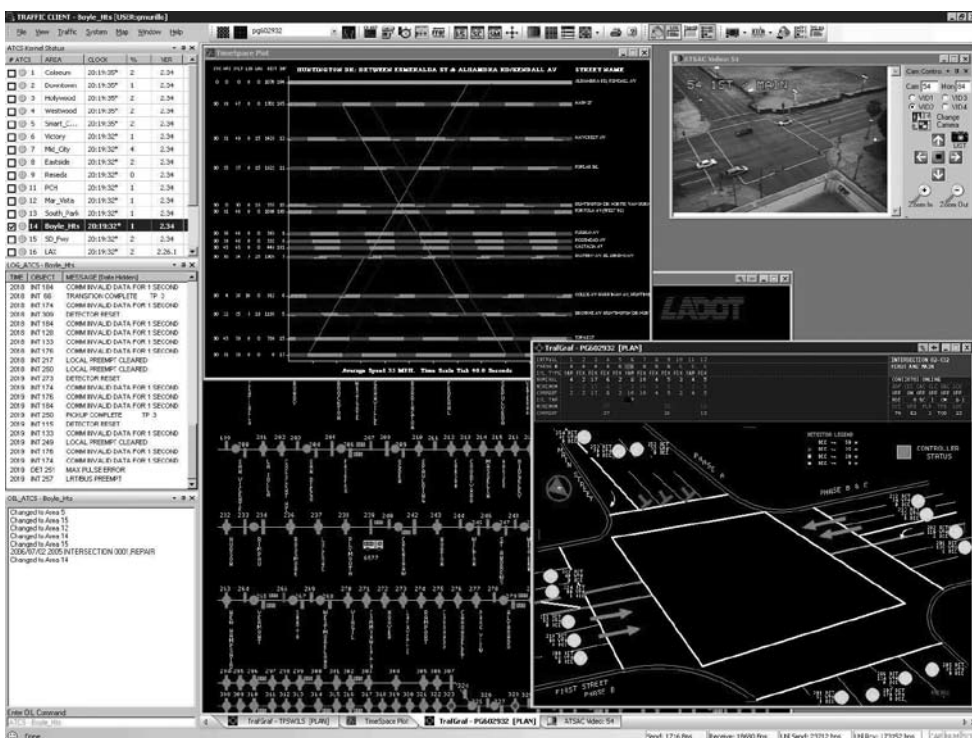
STPM7 is an extremely complex system which (1) monitors and tracks buses, (2) requests priority at signalized intersections along transit routes, and (3) records all bus travel times through the system and provides passengers with bus arrival times at selected bus stops (via variable message signs). This program provides both a text-based and graphical-based user interface that allows the signal system operator and the transit operator to monitor and control their respective systems. The types of priority provided by the system are "Early Green," "Green Extend," "Free Hold," and "Phase Call."

### Transit Priority System (TPS) 7

TPS7 program is specifically designed to operate within 2070 controllers in conjunction with the Traffic Signal Control Program (TSCP) 7 to provide transit priority functions in addition to traffic signal control. The program expands the 2070 controller's capabilities to include specific priority for buses and emergency vehicles at signalized intersections. The TPS7 2070 controller software or similar software is required in combination with STPM7 for transit priority operation.

### Order through McTrans

Each component is available through McTrans using the following product numbers and prices: TSCP7 (\$15,000); ATCS7 (\$30,000); STPM7 (\$30,000); and TPS7 (\$30,000). The software comes with one year of technical assistance limited to 100 hours through the contracted Technical Support Agents who has experience in setting up and running these packages.



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**DYNASMART-P Update**

Version 1.2 is currently being tested for a planned release in the next month or two. The revised version has the following key changes:

- Minimizing the computer memory requirements for running large networks;
- Time-dependent link pricing feature allowing users to specify a toll that depends on the time of the day for any user-specified link;
- Highway bias allowing users to model the driver's bias and preference in path finding; and
- Multiple metering rates allowing users to specify time-dependent metering rates for a ramp meter.

### Training

Two two-day training workshops sponsored by FHWA will be held on August 15-16 and August 28-29, 2006 at the National Highway Institute (NHI) in Arlington Virginia, respectively. The workshops will be free to participants selected by the FHWA. If you are interested in participating in the workshop, please complete the application form at:

<http://mctrans.ce.ufl.edu/>

and return it to [john.tolle@fhwa.dot.gov](mailto:john.tolle@fhwa.dot.gov) with a carbon copy to [john.halkias@fhwa.dot.gov](mailto:john.halkias@fhwa.dot.gov) and [henry.lieu@fhwa.dot.gov](mailto:henry.lieu@fhwa.dot.gov). Please contact [john.tolle@fhwa.dot.gov](mailto:john.tolle@fhwa.dot.gov) if you need more information.

## NEW Products

### Crossys Express

Crossys Express innovates process for data collection, manipulation, traffic analysis and interfaces with other software such as HCS 2000, HCS + and Synchro. Traffic analysis includes data collection, data input process, analysis and output summary. However due to manual process of data input/summary, traffic analysis processes in the projects are inefficient and provide unreliable analysis results. Crossys Express solves these problems and enables automated data processing and traffic analysis. Therefore, the overall costs of traffic projects are much lower than they needs to be. Its great and powerful features will help you complete projects with more efficient and smart ways. The key features are as follows:

- Electronic Data Collection
- Various Summary for Volume Data
- Automated Data Conversion
- Data Trend Analysis
- Graphical Data Presentation
- Network Flow Balance Template
- Automated Summary Report
- Interface with HCS
- HCS Output Summary
- Interface with Synchro

## UPDATED Products

### TRAFFIX' 7.8

Dowling Associates, Inc. announces the release of TRAFFIX' 7.8 traffic impact analysis software.

TRAFFIX ' 7.8 contains many new features, including the Canadian Capacity Guide method for signals, intersection graphical volume report, new queue output reports, movement LOS reporting, emissions, fuel consumption and number of stops calculations, global % HV entry, trip distribution copying from zone, LOS threshold reports, run scenario hot buttons, signal warrant updates and HCM updates.

TRAFFIX' allows users to: rapidly forecast the impact of new developments; conduct capacity analyses using HCM, ICU, Circular 212 and other methods; interactively test mitigation measures; determine individual development projects' traffic impact fees; generate comprehensive, concise reports; import from travel demand models and ASCII; and export to Synchro, HCS, XML and ASCII, for multiple intersections and scenarios...all from a single file.

TRAFFIX' 7.8 is priced at \$3950 per site license.

## Update Watch

Package	Version	Status	Target	Distribution
<i>HCS+</i> <sup>TM</sup>	5.21	Complete	Available	Patchdownload
TRANSYT-7F	10.3	Complete	Available	Patch download
TSIS/CORISM	6.0	Testing	Fall	Registered Users may upgrade
DYNASMART-P	1.2	Testing	August	Available to registered users
IDAS	2.3	Complete	Available	Sent to Registered Users
QuickZone	2.0	Complete	Available	Sent to Registered Users
TNM	2.5	Complete	Available	Sent to Registered Users
Turbo Architecture	3.1	Complete	Available	Patch download

## 4 UPDATED Products

### WINhydro 2006

First developed and marketed in 1982 by civil engineers engaged in actual storm drainage design as HYDROpac© (a MS-DOS program) the core modules have been continuously upgraded. The new releases are now named WINhydro© with the latest version being WINhydro 2006. It has an been rewritten to run on the latest Microsoft™ operating systems.

WINhydro 2006 provides the added functionality of:

- Computation of drain times for Detention/Retention basins
- Computation of rainfall intensity and writing rainfall data file using IDF factors
- Estimation of pollutants contained in storm runoff
- Includes WIN-TR55
- Choice of rainfall intensity file to use

### WINprofile 2006

This latest version of WINprofile includes the following additions:

Parameter files for transfer of storm drain profiles to CAD. These files allow control of Microstation™ levels, colors, text size and line weight and AutoCAD™ layers, colors and text size.

Now, while in WINprofile 2006©, you can transfer complete grade, street, storm sewer, sanitary sewer, water line and other profiles to AutoCAD&trade using dxf files and directly into MicroStation™ using an included MDL .

WINprofile 2006's computational routines for street/roadway grades, storm drain sizing with profile generation, generation of wastewater profiles and other routines provide a finished product with minimal input.

Profile data generated during hydraulic gradient calculation by WINhydro 2006© may also be integrated into the WINprofile 2006 data files.

### WINproject 2006

WINproject 2006 was written to establish the state-of-the-art in user friendly data entry; computation of probable costs; preparation of Bid Schedules and tracking of contractor payments for projects that have discrete payment quantities. A major item of WINproject 2006 is the self-explanatory nature of the video display. After a modest amount of familiarization, you need only the computer and your data to prepare documents. Other features of WINproject 2006 include:

- Ability to convert any properly formatted ASCII database into a WINproject 2006 database;
- Overwrite protection with override for existing files;
- Three levels of access with the access code option allowing the highest level of access independent of the security file included. System Operator is the top level and may perform all functions. Estimator is the second level and may perform all functions except change database items. Bidder is the lowest level and may only enter unit costs and print documents
- Estimates, bid schedules and pay requests share the same takeoff data file.

## Did You Know?

### HCS+

The methodology for determining the proportion of volume in lanes 1 and 2 on a 6-8 lane freeway sometimes produced unreasonable results by under-predicting v12 and overpredicting the volume in the outer lane(s). A revised procedure has been approved to provide a check against the limitations of the outer lane(s). The revised method has been implemented in HCS+ version 5.21, due out this summer.

### TSIS-CORSIM

CORSIM allows bus stations to hold up to 6 buses. Buses are moved through the station in a first-in-first-out manner. TRAFED allows the user to modify routes and schedules easily, and CORSIM reports MOEs for buses and bus routes.

### TRANSYT-7F

TRANSYT-7F is capable of optimizing CORSIM networks with pre-timed and semi-actuated signals, where CORSIM simulates the candidate timing plans, and TRANSYT-7F manages the genetic algorithm. The next version of TRANSYT-7F may be expanded in order to directly optimize fully-actuated signals in CORSIM, and directly optimize multi-period CORSIM networks