



READY FOR DISTRIBUTION

HCS2000™

McTrans is upgrading modules of the Highway Capacity Software™ (HCS™) to add new features and to incorporate the modified procedures in the new Highway Capacity Manual (HCM2000). This exciting new release (HCS2000™) will be distributed immediately following the publication of the HCM2000 by the Transportation Research Board (TRB).

HCS2000™ includes:

- Full maintenance and technical support
- Full office license (not single computer)
- Signal Timing Optimization (being finalized).

(see Page 2)



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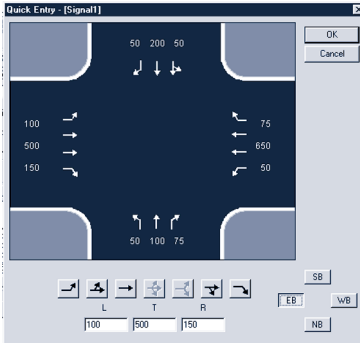
McByte

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HCS2000™



HCS2000 comprises a complete new release of the HCS in which modules have been upgraded to incorporate procedures in both US and metric units to faithfully implement the upcoming HCM2000.



HCS2000 also adds several new features, including a new graphic, quick entry option for lane configuration and volume data in Signalized and Unsignalized Intersections.

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Mac Trans			Intersection	Jones & Market			
Agency/Co.	McTrans Center			Jurisdiction	Alachua County			
Date Performed	10/01/00			Analysis Year	2000			
Analysis Time Period	AM Peak			Project ID	12345			
East/West Street: Market				North/South Street: Jones				
Intersection Orientation: EW				Study Period (hrs.): 0.25				
Vehicle Volumes and Adjustments								
Major Street								
Approach	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume		250	40	150	300			
Peak-Hour Factor, PHF		1.0	1.0	1.0	1.0			
Hourly Flow Rate, HFR		250	40	150	300			
Percent Heavy Vehicles				10				
Median Type	Undivided							
RT Channelized								
Lanes		1	0	1	1			
Configuration		TR		L	T			
Upstream Signal		No			No			
Delay, Queue Length, and Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (vph)		150		160				
C (m) (vph)		1227		531				
v/c		0.12		0.30				
95% queue length		0.41		1.36				
Control Delay		8.3		14.7				
LOS		A		A				
Approach Delay				14.7				
Approach LOS				A				

HCS2000 introduces new interactive, formatted reports that produce forms like the HCM2000 worksheets. These web-like reports react to data entry and modifications, and produce dynamic results in the appropriate fields, right on the forms. Printing is handled like any web page, offering additional control and flexibility.

Significant changes to the HCM procedures that are implemented in this new release include: revised passenger-car equivalents for heavy-vehicle factors with slight changes in LOS thresholds and speeds calculations in Freeways, Weaving, Ramps and Multilane; new saturation flow adjustment factors for pedestrians and bicycles, and a maximum back of queue length estimation for the average and several percentile values in Signals; a new methodology based on speed and percent time spent following (PTSF), and a new directional analysis in TwoLane; a new methodology that focuses on service availability and quality, and emphasizes bus operation on surface streets in Transit; and a new set of procedures to provide quality of service for directional freeway facilities that permits the analysis of multiple contiguous segments over multiple time intervals and integrates the methods in the HCM Freeways, Weaving and Ramps chapters for undersaturated analysis and extends these methods to oversaturated conditions.

HCS2000 (#HCS2000.W95) remains priced at \$500 and is free to all users who purchased HCS-3 since September 1, 2000. Upgrades (#HCS2000.UPG) for HCS-3 users who purchased prior to that date (without pre-ordering) are \$150.

Updated Products

HCS2000™ Ready for Distribution

HCS2000™ upgrades modules in the Highway Capacity Software (HCS TM) to add new features and incorporate the modified procedures in the new Highway Capacity Manual (HCM2000). HCS2000 comprises a complete new release in which modules faithfully implement the HCM2000 in both US and metric units. This exciting new release will be distributed immediately following the publication of the HCM2000 by the Transportation Research Board (TRB). HCS2000 adds several new features, including a new graphic, quick entry option for lane configuration and volume data in Signalized and Unsignalized Intersections. This option allows the user to select lane configurations graphically and place them on the appropriate approach, then add turning movement volumes on the same screen. Data entered on this screen will automatically be inserted on the standard data entry form, and vice versa.

HCS2000 also introduces new interactive, formatted reports that will produce forms like the HCM2000 worksheets. These web-like reports will react to data entry and modifications, and produce dynamic results in the appropriate fields, right on the forms. Printing is handled like any web page, offering additional control and flexibility.

Signal timing optimization options for HCS-Signals is planned for automatic update soon. HCS2000 (#HCS2000.W95) remains priced at \$500 with upgrades (#HCS2000.UPG) from HCS-3 for \$150.

WINprofile has been updated to version 1.05. Major changes include expanded help file, parameter files for control of symbology during transfer to Microstation™ and AutoCAD™ and increased functionality. WINprofile (#WINPRO) by Donald Grisham is available at LOS 6 for \$50.

TRANSYT-7F patch 8.2a is now available for downloading from the [McTrans](#) website. This new version corrects miscellaneous problems found in release 8.2. TRANSYT-7F upgrade release 9.1 is targeted for spring.

aaSIDRA In the Summer 2000 issue of [McTrans](#), we announced aaSIDRA version 1.0 by Akcelik & Associates as a new product. [McTrans](#) is now pleased to announce that we will be not only be carrying aaSIDRA-Full and aaSIDRA-Capacity but will also carry upgrades for these products as well as the hardcopy manual and a new technical support and maintenance product called COVER. To learn more about COVER see the new products section of this issue.

aaSIDRA-Full includes all features all features of aaSIDRA without any limitation, including signal-timing optimization for actuated and pretimed (fixed-time) signals. It is included in the product list in the Traffic Engineering Signal Timing & Warrants section.

aaSIDRA-Capacity includes all features of aaSIDRA-Full except signal timing optimization. It is included in the product list in the Traffic Engineering Capacity Analysis section.

For signalized intersection evaluation using aaSIDRA-Capacity, the user needs to specify the cycle time and green splits. For optimizing actuated and pretimed (fixed-time) signal timings, use aaSIDRA-Full.

aaSIDRA-Full, professional single computer (#SID.FPS) version 1.0.2 is available at LOS 6 for \$690. aaSIDRA-Capacity, professional single computer (#SID.CPS) version 1.0.3 is available at LOS 6 for \$490. The aaSIDRA Manual (#SID.MAN) a printed copy of the manual is available for \$60. Educational, multiple, and upgrade licenses from versions 4.1, 5.0, 5.1 & 5.2 for both products are also available. Please contact [McTrans](#) for details.

SITE/TEAPAC Windows Version The popular program SITE/TEAPAC for site traffic impact studies has recently been released by Strong Concepts as a new Windows-based program. Like its DOS predecessor, SITE for Windows performs the fundamental calculations necessary to estimate traffic for a land development project using typical traffic impact study techniques, including trip generation, trip distribution and traffic assignment. Multi-use and multi-development projects of almost limitless combinations can be analyzed using the unique cumulation feature, and special features support calculations for background traffic growth and pass-by trips. An on-screen assignment option removes the drudgery of defining basic trip assignments, while still permitting easy manual adjustments to these assignments. Existing traffic and network data can be read directly from other TEAPAC data files such as SIGNAL2000, TURNS and WARRANTS, and resulting projected volume data can be sent directly to other TEAPAC programs like SIGNAL2000 for optimized level of service calculations, and PREPASSR, PRETRANSYT and PRENETSIM for signal timing and modeling studies. Use of the TED and TUTOR programs in the TEAPAC system allow complete automation of all of these calculations for unparalleled efficiency, accuracy and speed.

SITE is now available for all Windows platforms. The Windows versions have all of the features noted above (found in the DOS version), plus a unique Visual Mode which provides an intuitive, graphical user interface as a true Windows program. This Visual Mode is the same WinTEAPAC2000 interface found in all other TEAPAC programs such as SIGNAL2000. These Windows versions also provide a fully-indexed, on-line user guide and context-sensitive help and error diagnostics. Data files are fully interchangeable with the DOS version of SITE, for either previous or current versions. The .W95 versions will run on any of the Windows 95/98/NT/2000 platforms; the .WIN versions will run on any of the Windows 3.x or Windows 95/98 platforms. All platforms are licensed together and delivered on a single CD-ROM.

The 12-intersection version of SITE/TEAPAC Ver 4.00 from Strong Concepts (#TPCSIT.1.W95, #TPCSIT.1.WIN and #TPCSIT.1) is available from [McTrans](#) for \$395. The full 25-intersection version (#TPCSIT.2.W95, #TPCSIT.2.WIN and #TPCSIT.2) is available for \$495. Educational versions are available for half-price and demonstration versions are available free as downloads from the Strong Concepts and [McTrans](#) web pages. Registered licensees of DOS versions of SITE may upgrade to a Windows version at a reduced fee directly from Strong Concepts. (See ad on page 11.)

TUTOR/TEAPAC Windows Version The TUTOR/TEAPAC advanced tutorial program for all TEAPAC programs has recently been released by Strong Concepts as a new Windows-based program. Like its DOS predecessor, TUTOR for Windows demonstrates and explains all of the advanced techniques which can be used in any TEAPAC program to automate the calculations which are normally done manually, thus producing unparalleled efficiency, accuracy and speed for the use of any of these programs. The TEAPAC programs for which these techniques can be applied include SIGNAL2000, SIGNAL97, SITE, NOSTOP, PREPASSR, PRETRANSYT, PRENETSIM, WARRANTS and TURNS. The TED/TEAPAC editor is used to create the automation files which are described and demonstrated by TUTOR.

TUTOR is now available for all Windows platforms. The Windows versions have all of the features noted above (found in the DOS version), plus the unique Visual Mode which provides an intuitive, graphical user interface as a true Windows program. This Visual Mode is the same WinTEAPAC2000 interface found in all other TEAPAC programs. These Windows versions also provide a fully-indexed, on-line user guide and context-sensitive help and error diagnostics. Data files are fully interchangeable with the DOS version of TUTOR, for either previous or current versions. The .W95 versions will run on any of the Windows 95/98/NT/2000 platforms; the .WIN versions will run on any of the Windows 3.x or Windows 95/98 platforms. All platforms are licensed together and delivered on a single CD-ROM.

TUTOR/TEAPAC Ver 4.01 from Strong Concepts (#TPCTUT.1.W95, #TPCTUT.1.WIN and #TPCTUT.1) is available from [McTrans](#) for \$95. Educational versions are available for half-price and demonstration versions are available free as downloads from the Strong Concepts and [McTrans](#) web pages. Registered licensees of DOS versions of TUTOR may upgrade to a Windows version at a reduced fee directly from Strong Concepts. (See ad on page 11.)

Update Watch

Package	Version	Status	Target	Distribution
TRANSYT-7F	8.2a	Complete	Available	Patch Download
TRANSYT-7F	9.1	Under development	Spring	Registered users may upgrade
HDM-4	1.2	Under development	Winter	Automatic to registered users
TSIS	5.0	Under development	Fall	Registered users may upgrade

Please note that all new and updated products that are based on HCM2000 will not be distributed until HCM2000 has been released.

COVER for aaSIDRA COVER is a new technical support and maintenance product by Akcelik & Associates. COVER means a reasonable amount of technical support plus free upgrades for major new aaSIDRA versions. Under their continuous development policy, Akcelik & Associates are producing a number of new improved versions of aaSIDRA. You may choose to pay the upgrade fees when the new versions come out, or you may choose to take COVER for free upgrades.

"A reasonable amount of technical support" means assistance to make aaSIDRA operate on your computer system, and investigation of example files that fail to run or produce unexpected results. It does not include assistance in the normal use of aaSIDRA such as coding of aaSIDRA input from an intersection plan. aaSIDRA training courses that cover these topics are offered from time to time.

Free COVER is provided for 2 months (60 days) from the purchase date. This is applicable to new purchases only (not to upgrades). The COVER that can be purchased at fees shown in the Product List is for 12 months. If ordered with a new purchase, the COVER period is 14 months including the 2-month free COVER period that is included in the software price.

The COVER is provided for the latest version of aaSIDRA only. You need to upgrade to the latest version before you can order COVER. Upgrade with a COVER costs less than ordering the upgrade and COVER separately. Contact [McTrans](#) for upgrade pricing information.

COVER BENEFITS include: Free upgrades to major new versions released during the COVER period. This means savings since the COVER fee is likely to be less than the total cost of upgrades during a year due to our continuous development policy.

Notification by EMAIL regarding new patches that become available from our Website.

A reasonable amount of technical support (see below) beyond the initial 2-month COVER period.

Discount offers for other aaTraffic software products.

COVER means that you will have the benefit of always using the latest version of aaSIDRA.

COVER (#SID.CVS) by Akcelik & Associates, Pty. Ltd. is available from [McTrans](#) for \$170 for a single computer license and \$220 for a multiple computer license.

Highway Safety Analysis Highway Safety Analysis (HSA) Software is a new program for conducting traffic accident studies on major highways or local roads. HSA Software is designed to assist engineers in analyzing accident data while performing highway safety investigations or other traffic engineering studies.

HSA Software includes entering and editing accident data from the source documents, filtering data by multiple criteria, preparing accident data listing and summaries with proportional distribution of different accident categories, calculating accident rates using US customary (English) or metric units for the segment length, estimating safety benefits based on proposed safety improvements, and producing Collision Diagrams.

Collision Diagram is a unique and powerful feature of the HSA Software. Diagrams are generated based on accident data entered and filtered for the particular intersection or roadway segment. After the diagram is displayed, it may be edited to better reflect the existing conditions and accident locations. Accident symbols may be moved to more precise location, and/or copied to display the same accident type with the same vehicle direction(s) of travel at different locations within one diagram. For example, some right-angle accidents could occur at the intersection, and others at the driveway on the corner, etc.

Different accident categories, such as fatal, injury, wet road, or night time accidents may be highlighted. This feature allows better identification of the problem areas on the diagram. Collision Diagrams can be prepared for the preset roadway layouts, such as a 4-legged intersection (which may be converted into an offset intersection), "T"-intersection, or segment, and for a custom geometry layout using a bitmap image prepared by the Engineer.

HSA Software has been written for the Windows operating system. It was developed using Microsoft® Access and can run under Access 97 or 2000 environment, or as a stand-alone program using Runtime Access 2000, which is included in the installation package.

HSA Software is user friendly and easy to operate. Conducting traffic accident studies with the HSA Software saves time, and allows organizing the data to reveal existing accident patterns in the most effective way for developing highway safety improvements.

Highway Safety Analysis Software (#HSA.W95) version 2.1 is available from X32 Group at LOS 7 for \$500. A user's manual is included with the software. Please see the HSA Software ad on page 9.

SIGNAL2000/TEAPAC SIGNAL2000/TEAPAC (#TPCS2K.1) is a new program that implements the capacity analysis techniques of the 2000 Highway Capacity Manual (HCM) for signalized intersections (Chapter 16). Like its popular predecessors (SIGNAL97, SIGNAL94 & SIGNAL85), SIGNAL2000 adds an optimization option in Usage Level 2 of the program (#TPCS2K.2) that produces the best possible capacity analysis for the given conditions, including optimized signal timings and optimized signal phasing. This optimization option allows the operations method of the capacity analysis to be used quickly and effectively for all aspects of signal analyses, including signal timing, planning studies, impact analysis and geometric design. SIGNAL2000 is a faithful implementation of the Chapter 16 HCM procedures, which was developed by the chairman of the Signals Subcommittee of the Highway Capacity Manual Committee.

SIGNAL2000 produces all of the analyses and worksheets according to the methods prescribed by the new 2000 HCM, including the new queue model, the new ped/bike analysis, and several of the auxiliary analyses found in the appendices such as the initial queue delay. SIGNAL2000 also offers a powerful and unique comprehensive queuing analysis which provides side-by-side comparison of 10 different queue models for all movements of an intersection. SIGNAL2000 uses data files which are both upwards and downwards compatible with SIGNAL97 and SIGNAL94, and is integrated with all the other TEAPAC programs such as SITE (impact studies), TURNS (turn count analysis), WARRANTS (MUTCD warrant analysis), PREPASSR (pre/post-processor for PASSER-II), PRETRANSYT (pre/post-processor for TRANSYT-7F) and PRENETSIM (pre-processor for CORSIM). Using these programs, a comprehensive traffic study can be completed using a single database of information shared among all of the TEAPAC programs. Both inputs to and results from SIGNAL2000 can be used by these other TEAPAC programs, and SIGNAL2000's optimized results can be exported directly to HCS. Use of the TED and TUTOR programs in the TEAPAC system allow complete automation of all of these calculations for unparalleled efficiency, accuracy and speed. All of these programs are available from [McTrans](#).

SIGNAL2000 is now available for all Windows platforms and for DOS. The Windows versions have all of the features noted above (found in the DOS version), plus the unique TEAPAC Visual Mode which provides an intuitive, graphical user interface as a true Windows program. This Visual Mode is the same WinTEAPAC2000 interface found in all other TEAPAC programs. Windows versions also provide a complete and fully-indexed on-line user guide and context-sensitive help and error diagnostics. Data files are fully interchangeable with the DOS version of SIGNAL2000, as well as all other TEAPAC programs, either Windows or DOS. The .W95 versions will run on any of the Windows 95/98/NT/2000 platforms; the .WIN versions will run on the Windows 3.x or Windows 95/98 platforms. All platforms are licensed together and delivered on a single CD-ROM.

The Optimization version of SIGNAL2000/TEAPAC Ver. 1.00 from Strong Concepts is available from [McTrans](#) for \$595 (#TPCS2K.2.W95, #TPCS2K.2.WIN and #TPCS2K.2). The Capacity-Analysis-Only version of SIGNAL2000/TEAPAC is available for \$295 (#TPCS2K.1.W95, #TPCS2K.1.WIN and TPCS2K.1). These prices include a complete, printed Tutorial/Reference Manual. SIGNAL2000 is also available as part of the TEAPAC Traffic Engineering Package (#TPC*.*.1), the TEAPAC Signal Timing Analysis Package (#TPC*.*.2) and the TEAPAC Site Impact Analysis Package (#TPC*.*.3) in place of the SIGNAL97 program. Educational versions are available for half price and demonstration versions are available as free downloads from the Strong Concepts and [McTrans](#) web pages. Registered licensees of SIGNAL97/TEAPAC may upgrade to SIGNAL2000 at a reduced fee directly from Strong Concepts.

TSIS/CORSIM User Profile

STEAM (The Surface Transportation Efficiency Analysis Model) was developed in order to provide an analytical tool for estimating impacts of multi-modal transportation alternatives in a system-planning context. Cost-effectiveness evaluation of alternatives is a complex process requiring close interaction among planning professionals, decision makers, and citizens. Such assessments require an understanding, estimation, and comparison of the wide range of impacts transportation alternatives typically generate. A variety of economic, financial, social, and environmental impacts must be assessed and tradeoffs made to present decision makers with good information.

The user manual provides the reader with a full understanding of the STEAM software and a detailed explanation of each option incorporated in the analysis. It is organized as follows:

Chapter 2: Overview of STEAM.

This chapter provides a general description of the STEAM analysis including the model objectives, structure of the software, and analytical procedures that are incorporated in the benefit-cost analysis.

Chapter 3: Input Files. This chapter explains in detail the concept of market sectors in relation to the STEAM analysis and provides a description and layout of each of the market sector input files required by the model.

Chapter 4: Software User Interface. This chapter covers the user interface of the STEAM software. Areas discussed include: installation of the program, defining market sectors, changing parameter values, improvement costs, transit service changes, estimating run time, performing investment analysis, and viewing results.

Chapter 5: Risk Analysis. This chapter describes the STEAM risk analysis procedures, including the definition of risk ranges and interpretation of results.

The manual also includes:

- Appendix A: Case Study.
- Appendix B: Glossary of Terms.
- Appendix C: Sources for Default Parameter Values.
- Appendix D: Estimation of Default Emission Rates.

STEAM (#STEAM), Ver. 1.0 by FHWA is available at LOS 3 for \$55.

Last year *McTrans*, in cooperation with the Federal Highway Administration (FHWA) conducted a TSIS User Profile to gauge practitioner tendencies regarding typical applications of TSIS, as well as their preferences regarding the general direction of software support and development. Currently, the TSIS (Traffic Software Integrated System) software package is distributed with the CORSIM microscopic traffic simulation program, and also the TRAFVU graphical animation module.

User profile respondents indicate that TSIS and its component programs are used in a wide variety of traffic and transportation analyses, including:

- verification of signal timing design
- geometric alternatives comparisons
- traffic impact studies
- public presentations and hearings
- verification and validation of other software and methodologies
- access management plans
- queuing studies (turn pocket length, closely spaced intersections, etc.)
- signal warrant analysis
- land-use impacts
- freeway weaving sections and interchanges
- ramp metering studies and HOV
- forecasting, transportation planning, and traffic assignment.

Regarding future TSIS development, respondents would like to see improved linking of TSIS with other programs, and additional improvements to the graphical input data editors such as ITRAF or (with release 5) TRAFED. Although 83% would like to see continued FHWA

involvement in the development of CORSIM, in order to maintain the highest-quality models and methodology, many of the same respondents feel that the private sector is well-suited for developing the interface software, that is input and output tools.

Regarding the technical content of CORSIM, respondents have good confidence in the program results, and would not want additional software improvements to compromise accuracy of the existing simulation methodology. On the other hand, they would like to see increases in the amount of training, calibration advice, and Web discussion groups that are offered.

In general, the TSIS User Profile respondents feel that simulation and animation are an important component of their engineering studies. The majority (87%) find the TRAFVU animation program to be an invaluable component of their analyses, and 95% intend to use TSIS just as often, if not more frequently, in the future.

Overall, the user support of TSIS and CORSIM was very strong and both *McTrans* and FHWA were gratified at the results. —David Hale, *McTrans* Center

[Ed. Note: *McTrans* is very pleased to announce that David is now Dr. Hale, having received his Ph.D. degree from the University of Florida in August 2000. Congratulations Dr. Hale!]

TRB80

A N N O U N C I N G

Transportation Research Board
80th Annual Meeting
January 7-11, 2001
Washington DC

Save with advanced registration before November 30, 2000

For information check the TRB Internet website:

<http://www.national-academies.org/trb/meeting>

Or call the TRB Annual Meeting Information Line: (202) 334-3472

Don't forget to visit the *McTrans* Exhibit booth!

HCS

On external links with no nearby upstream signal, arrival time must be specified as 3, and the upstream filtering/metering factor (I-factor) must be specified as 1.0, in order to reflect random vehicle arrivals in the Signals module.

The HCM table titled "LOS Criteria for Weaving Areas," lists two categories of weaving areas. One of the categories is called "Freeway Weaving Area," and the other category is called "Multilane and CD Weaving Areas." Density thresholds for the various levels of service are different, depending on the type of weaving area being analyzed. If the "Multilane and CD Weaving Areas" check box option is selected within HCS-Weaving, then the density LOS thresholds for multilane and CD weaving areas are applied. If the check box is not selected, then the density thresholds for freeway weaving areas are applied.

In the Signals module, it is possible for vehicle delays to be relatively high on a movement with very little traffic volume. If the cycle length is long, and the green time is short, then any arriving vehicle will be delayed by having to wait through the long cycle length, regardless of traffic volume.

In all HCS modules, input fields for "calculated" values (e.g. passenger car equivalents, or PCE's) can be overwritten by the user when appropriate. In these cases an asterisk appears in the report next to the overwritten value. Any overwritten values can be automatically "restored" to their original calculated value by using the menu item Edit > Restore.

TSIS-CORSIM

As with TRANSYT-7F, user-defined link lengths cannot be too short. Link lengths and free flow speeds must not allow a vehicle to completely skip over any link during one second of simulation. If a vehicle is capable of skipping over a link completely, this can potentially compromise simulation results or cause fatal errors.

In certain cases, it is possible to increase freeway and ramp capacities by lowering the desired free flow speed on ramp links. Indeed, lower speed limits are often observed on short ramp links in the field. This buys time for the drivers to make better decisions.

In order to obtain accurate speed and volume results on congested freeways, one solution is to change car following parameters for vehicles traveling on those links. Link-specific car following sensitivity multipliers cause vehicles to follow the vehicle in front of them closer than they would using the network-wide sensitivity factors. Threshold speed and distance for anticipatory lane changing for on-ramps can be changed to minimize anticipatory lane changing that would contribute to the weaving. Moving an off-ramp warning sign location farther upstream can lengthen the weaving zone area and give vehicles more distance to make the required lane changes.

The TSIS interface is capable of disabling the large animation files (e.g. the ".TSD" files) generated by CORSIM. This allows for faster running times on the computer, and potentially prevents the large animation files from clogging the hard drive. The obvious disadvantage of this strategy would be the inability to view dynamic animation, although the basic network geometry can still be viewed within TRAFVU even without animation files present.

TRANSYT-7F

As with CORSIM, user-defined link lengths cannot be too short. Link lengths and free flow speeds must not allow a vehicle to completely skip over any link during one second of simulation. If a vehicle is capable of skipping over a link completely, this can potentially compromise simulation results or cause fatal errors.

The degree of platoon dispersion on internal links can be calibrated for local conditions by using the platoon dispersion factor (PDF). High platoon dispersion factors indicate heavy friction, i.e. urban CBD areas having significant amounts of parking, turning, pedestrians, and narrow lane widths, which conspire to reduce platoon intensities. Low platoon dispersion factors indicate low friction, i.e. ideal suburban high-type arterial street conditions that allow increased platoon intensities.

For optimization runs it is necessary to specify an optimization node list within the input file. Signal timing is not optimized for intersections that are omitted from this list. There is no required sequence of node numbers. Sometimes changing the optimization node sequence can result in better signal timing plans generated by the program. In addition, nodes can be specified multiple times on the node list if they deserve special attention, although this may increase program running times on the computer.

By selecting "Edit/Run TRANSYT-7F" from within the Windows McT7F interface, it is possible to locate and run the actual TRANSYT-7F program that may reside in a separate subdirectory, or to customize the output filename without changing the input filename. The electronic Help system available within the Windows McT7F interface contains documentation that describes the TRANSYT-7F input file format. Field specific help is also available with the F1 key. Detailed documentation of the TRANSYT-7F methodology is only available within the hardcopy TRANSYT-7F Users Guide, a.k.a. M|O|S|T Volume 4.

Several new Windows-generation integrator programs are currently being developed that will provide additional access to TRANSYT-7F. These include the Arterial Analysis Package 2000 (AAP2K), Quick-7F, and UNITES.