

HCS is 20!

Back in 1987, the Federal Highway Administration asked McTrans to distribute, support, maintain and enhance the Highway Capacity Software. At that time, this new package, developed by Polytechnic University in New York, then converted to DOS by SRA Technologies, was used to implement the procedures defined in the recently published 1985 Highway Capacity Manual. This was a milestone in taking advantage of the McTrans Center to provide user-supported software, which sold for \$40 at the time.

Since then, McTrans has made the HCS available to thousands of end users, provided answers to countless HCS and HCM questions, corrected problems in the software; and, to respond to corrections to the HCM, added many new features to the interface while updating versions to keep in step with new HCM editions. Along the way, new modules have been created to automate new HCM methodologies, DOS was converted to Windows to keep up with Microsoft, data files went from text to binary and now to XML to remain compatible with the industry, and reports were upgraded from text to HTML to support graphics matching HCM worksheets.

1987	HCS Release 1	1985 HCM
1995	HCS Release 2	1994 HCM
1998	HCS Release 2	1997 HCM
2000	HCS2000	2000 HCM
2005	HCS+	Animation +
2008	HCST7F	TRANSYT-7F

Currently, over 15,000 end users rely on the HCS to faithfully implement the procedures prescribed in the HCM. Recent updates to HCS+ added multiple-period analysis for congested signals, a new freeway facilities module, one-touch animation (through CORSIM), Warrants (for performing the MUTCD study), LOSPLAN (from the Florida DOT) and DAITA (for collecting turning movement count data). The just released HCST7F integrates TRANSYT-7F into the package to provide signal timing optimization

for HCS-Signals files or independently.

HCS has accomplished more than just continuous service and support to capacity analysts over the years, but has served to allow this series of module to mature over the years with the massive amount of use and interchanges by its users. No software model is perfect, especially in the beginning, but with more use, the issues are discovered and corrected. No other software program has undergone the amount of use and evolution that HCS has been able to navigate over 20 years as the most widely used transportation software package in the world. For this, McTrans thanks its faithful users for helping make HCS the standard it has become.

Going forward, there are big plans for HCS. First and foremost, keeping up with updates and changes to the HCM is the top priority. McTrans is in the process of expanding programming staff to ensure these updates are ready when the HCM is published.

- In the release of HCST7F, a new Interchanges module implements the new procedures in HCM Chapter 26 for Interchange Ramp Terminals. McTrans is already working on updated modules to incorporate major changes to Signals, Urban Streets, Roundabouts and Weaving Areas that will be part of the planned HCM 2010.
- Beyond the HCM, features are being developed to continue to add value and useability to HCS. Coming soon are left-side drive and multiple language versions of HCS to further support international users.
- On the software side, McTrans is adding state-of-the-art testing tools for increased validation and verification capabilities, and is moving all products to the latest generation of compilers and tools to ensure future compatibility.
- For the users, the Help system is being expanded to include interactive features and, hopefully, integration with the HCM if the design of the 2010 HCM permits. Numerous training seminars and workshops have been presented on the HCM procedures and their application with HCS.

HCST7F Released

- Integrates TRANSYT-7F
- Add Interchanges Module
- Unmet Demand in DAITA

Updates to:
Signals, TWSC & Ramps
Modules

CORSIM Update Available

- TSIS Next Prototype Interface
- 20 New Features & Corrections

Download from McTrans
Now

Turbo Architecture 4.0

Download from FHWA
www.its.dot.gov/arch

TSIS-CORSIM Update

An update to CORSIM can now be downloaded and used within TSIS 6.0. This new version offers 20 new features and corrections, affecting both NETSIM and FRESIM, relative to the original CORSIM 6.0. Visit the McTrans Web site for a list of these features and corrections, or to download and install this update. This version:

- installs a new version of TRAFED, which can handle the new turn pocket improvements

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McTrans

Civil & Coastal Engineering
PO Box 116585
Gainesville FL 32611-6585
352.392.0378
Toll Free (US): 1.800.226.1013
Fax: 352.392.6629
e-mail: mctrans@ce.ufl.edu
<http://mctrans.ce.ufl.edu/>

UF UNIVERSITY of
FLORIDA

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- installs an updated CORSIM Reference Manual HTML Help file, to document the new turn pocket improvements
- installs updated translator programs, to translate between TRF and TNO formats, with the new turn pocket improvements
- fixed a problem with processing turn movement variations within a time period (23)
- fixed the wording of fatal error 2062, which occurs when a turn pocket is too short or too long

TSIS Next, a new prototype user-interface for CORSIM, can now be downloaded and used in conjunction with TSIS 6.0. TSIS Next contains the same type of functionality that can be seen in

the TShell, TRAFED, and TextEditor component programs. TSIS Next is a prototype application that has not been widely tested, so please send in any problem reports and suggestions.

TSIS Next is a “quicker-and-easier” version of TSIS that contains specific advantages and disadvantages. Certain advanced CORSIM applications will continue to require TShell and TRAFED. By having access to both TSIS and TSIS Next on the same computer, you can choose whichever functionality you prefer. Visit the McTrans web site for a list of advantages and disadvantages relative to the original TSIS.