



National Model

for the Application of Data Collection and Management Technology to Improve Public Safety

NEWSLETTER

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Welcome
pg. 1

National
Model
News
pg. 3

Product
Spotlight
TRACS 10
pg. 3

State
Report
IOWA
pg. 4

Legacy
Lowdown
EVIDENCE
COLLECTION
pg. 5

Tech
Blog
pg. 6

Next
News
Letter
pg. 8

Welcome

Welcome to the new National Model Newsletter. This newsletter is part of a renewed effort to educate and inform the public safety and transportation communities about the *“national model for the application of data collection and management technology to improve public safety”* initiative.

The National Model is a nationally recognized program for sharing information, resources, and technologies to improve safety. The focus of the National Model is improving data collection for roadway incidents, leveraging proven technology for law enforcement, streamlining the communication of safety information to key stakeholders, and extending the use of this information for short- and long-range safety and law enforcement programs.

The National Model is an innovative effort to demonstrate and share how new technologies and techniques can be cost-effectively used in a statewide operational environment to improve safety data collection and management processes. Using these new approaches shortens the data collection time, minimizes disruption to traffic, increases officer efficiency and safety, and improves data quality, all of which contribute to better information for safety decisions and improved public safety.

The National Model’s Traffic and Criminal Software (TraCS) solution and other software offerings are best practices that enable:

- Collaboration among states/provinces to share and improve the data collection software, so scarce resources are used more efficiently.
- Collection of vital data more accurately and quickly.
- Information shared seamlessly and quickly among federal, state/provincial and local agencies.
- Expansion of the National Model/TraCS to include criminal justice, homeland security, emergency management, incident management and first responder applications to leverage the utility and timeliness of data moving to key decision-makers.
- Saving significant tax-payer dollars by freeing up funding for other critical needs.

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Visit the new National Model web site:
www.nationalmodel.us

National Model Objectives

Objective 1: Continue to enhance and maintain the National Model in a manner that serves the greater good and positions local agencies, states/provinces and federal entities to share timely and accurate data.

Objective 2: Collaborate among TraCS entities to collectively resolve common issues.

Objective 3: Monitor and evolve existing technologies to stay current and adopt new technologies at the appropriate times.

Objective 4: Continue to expand the number of entities deploying the National Model.

Objective 5: Resolve the majority of operational and performance issues at the state/provincial level, with states/provinces being responsible for monitoring and measuring performance.

Objective 6: Develop and maintain TraCS in a way that provides the highest level of flexibility, while maintaining a common source code, so each state/province can deploy as needed. The software should not be an obstacle to change.

Objective 7: Provide a decision-making framework for the National Model to allow for centralized coordination and planning with decentralized execution.

Objective 8: Raise awareness of the availability of the National Model and the benefits of multiple entities working together. Use outreach efforts to promote TraCS and communicate its robustness, versatility and flexibility as a data collection and management tool.

Objective 9: Establish self-sustaining funding that can accommodate growth, and that is primarily user-jurisdiction funded from state/provincial funds or federal discretionary funds and formula allocations. An adequate level of funding is needed to obtain and retain the skill sets needed to maintain and enhance TraCS and provide technical support.

The management of the National Model is best described as a Lead-State Consortium, with a National Program Manager from the state of Iowa, a Steering Committee made up of participants from the licensed-user community, and working groups formed for specific tasks. Management can be characterized as a “lean operation” to provide quick response, efficiency and flexibility.

TraCS and the other software available through the National Model, including the Incident Location Tool (ILT), the Mobile Architecture for Communications Handling (MACH) and the Incident Mapping Tool (IMAT) are licensed at the provincial or state-agency level on a royalty-free basis and can be distributed to as many agencies within that state/province as needed. Members of the National Model pay a minimal support and maintenance fee for the software.

National Model News

The last National Model Steering Committee meeting was held in West Des Moines, Iowa on June 25 - 26, 2009. Of the 17 states and Canadian province that are members of the National Model, there were approximately 35 attendees from nine states/provinces with approximately 30 participants attending remotely from an additional six states.

A lot of ground was covered during the meeting including:

- The August, 2009, release date for TraCS 10.
- The list of enhancements already in the queue for TraCS 10.
- Web TraCS scheduled for a release in summer, 2010.
- Incident Location Tool 5.0 and IMAT 5.0.
- The new offering of the MACH data communications software through the National Model available fall, 2009.

The next Steering Committee meeting will be January 28-29, 2010, in Orlando, Florida. Details will be distributed closer to the meeting date.

Product Spotlight

TraCS

TraCS is a sophisticated data collection and reporting software application for the public safety community. It provides organizations with a state-of-the-art information management tool to streamline and automate the capture and transfer of incident data collected in the field. TraCS improves the accuracy, completeness, and timeliness of incident data and reduces users' administrative duties and paperwork.

TraCS was developed by the Iowa Department of Transportation with funding assistance from several federal agencies. From its conception, TraCS was designed and developed using a flexible architecture that, with minor modifications, is transferable and easily adapted and customized for use by agencies in states/provinces other than Iowa. The included Software Development Kit (SDK) allows other states/provinces to manage the evolution of their current paper forms into TraCS electronic forms, while customizing the TraCS environment to meet their individualized needs.

F E A T U R E S O F T R A C S

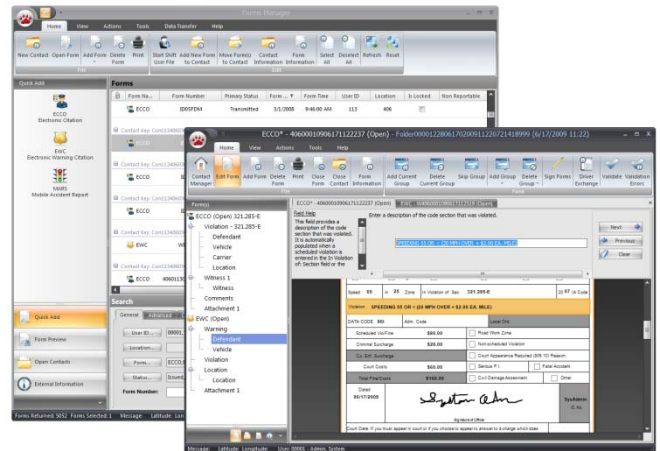
- Small footprint for maximum performance
- Streamlined interface and navigation tree
- Forms editor with over 60 Databars
- Contact Manager for organizing forms
- Flexible form data edits and validations
- Print Manager

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- Form file attachments (images, video, etc.)
- Data transfer between Field Units and Workstations
- Signatures (e-ink, barcode imager, tablet)
- Transmission of data to federal and state agencies
- Five different diagramming options
- TraCS Office Database (Access, SQL Server, or Oracle)
- Process flow for business rules
- External search engine for interfacing to other programs or data sources

The TraCS solution provides the foundation from which an entity can customize the data collection tool, based upon unique needs and requirements. TraCS does not restrict the entity to conform to a pre-packaged software application or communications method. TraCS users have received national awards and media recognition for rapid and successful deployment of incident reporting based on this reusable toolkit.



TraCS has recently undergone a three-year total rewrite from the ground up, incorporating all of the lessons learned from the past 12 years and using the latest technologies and user interface designs. TraCS version 10 is the next-generation data collection software for the public safety community and provides even more features and flexibility to ensure a more productive and enhanced user experience. TraCS 10 is a Microsoft .NET application that is now available through the National Model program on a royalty-free basis.

State Report

Iowa

In 1994 the Iowa Department of Transportation, working in partnership with the Iowa Department of Public Safety and several local law enforcement agencies, initiated a program to create a PC-based crash reporting system to expedite data capture for police crash reports. In 1995, traffic citations and commercial motor vehicle inspections were added. Over time, the program evolved into TraCS, an integrated system used by state and local law enforcement agencies with continuing leadership and support from the state. Participation by all levels of law enforcement (city, county and state) in the development of TraCS was essential to the success of the program.

In 1996, Iowa was selected by the Federal Highway Administration (FHWA) (cont.)

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as a partner for the National Model for the Statewide Application of Data Collection and Management Technology to Improve Highway Safety project. FHWA provided funds to share National Model/TraCS project successes with other states, and subsequently the Federal Motor Carrier Safety Administration and the National Highway Traffic Safety Administration also contributed funds to enhance the program's success.

Today, through the National Model program, 17 states and a Canadian province are utilizing the TraCS software. In Iowa, the State Patrol, Motor Vehicle Enforcement and more than 170 local law enforcement agencies are using TraCS and the Incident Location Tool (ILT). More than 83% of all crash reports in the state are submitted electronically and more than 52% of all traffic citations are captured and sent electronically to the Iowa Court Information System (ICIS) through TraCS.



Iowa agencies collect data in TraCS using the following forms: MMUCC Accident, Traffic Citation, Warning Citation, Parking Citation, Commercial Motor Vehicle Inspection, Operating While Intoxicated, Arrest, Jail Booking, Evidence Collection and Tracking, Time and Activity, NIBRS-based Incident Reporting, Field Interrogation, Vehicle Towing and Impound, and Deer Tag.

Iowa agencies also depend on other advanced features in TraCS including uploading CMV Inspections directly to SAFER, interfacing with the DataMaster evidentiary breathalyzer, transmitting NIBRS data to the FBI, and a mobile data interface to import returned DL and Vehicle Registration query results.

Legacy Lowdown

Evidence Collection in TraCS 7.3

The Iowa Department of Transportation recently had an Evidence Collection and Tracking (ECAT) form and related functionality added to TraCS 7.3. The design of ECAT was done through a user group with members representing state, county, and local law enforcement agencies throughout Iowa. The user group was critical for helping the developers of ECAT understand the needs of an evidence collection system and the best way to incorporate that vision into the TraCS architecture.

ECAT allows TraCS to be used as an evidence collection tool for officers and investigators to report and label evidence recovered or obtained in the field, and it can also be used by the property room clerk to keep track of where every piece of evidence collected is located at any time.

With a tracking barcode on each evidence label, the unique check in/check out property custody change feature and the evidence purge functionality, ECAT is a *(cont.)*

great alternative for TraCS agencies to using more complicated and expensive software packages.

ECAT will be incorporated into TraCS 10 later this year with even more features and conveniences, including the ability to read a barcode from an evidence label for automatic record retrieval.

Tech Blog

TraCS 7.3 to TraCS 10 Conversion

Remember that state and provincial TraCS form developers can post and track issues and questions by registering with the TraCS Issue Tracker.

Contact the TraCS support line to register at
 [\(724\) 368-4500 x 121](tel:724-368-4500)

Now that TraCS 10 has been released, it is time to discuss the steps to migrate your TraCS 7.3 implementation to the new TraCS 10 architecture. TraCS 10 was developed as a replacement to TraCS 7.3, not as an upgrade. Although many of the concepts and thought processes behind TraCS 7.3 are still in TraCS 10, many things have changed to take advantage of new technologies and to make TraCS functionality even more user friendly and customizable. TraCS 10 highlights include:

- Written from the ground up using Microsoft .NET technology
- State of the art security features meeting FIPS 140-2 and FBI standards
- Fresh new look that is similar to other popular applications
- New Forms Manager with more detailed searching capabilities
- More robust Databars including a Rich Text Narrative Databar
- Revamped Common Information techniques to ensure data integrity
- Advanced Process Flow functionality that allows you to take control of almost every aspect of the application
- Updated Configuration Manager editors for easy setup and more complete user management
- More powerful External Search interface that can be called through validation rules
- Ability to add your own peripheral and diagram tool interfaces
- Better control over Start/End Shift and Transmission processes
- Redesigned and easier to use SDK tools

Switching to TraCS 10 from TraCS 7.3 is not difficult. However, it is required (or at least highly recommended), that all forms developers attend one of the regional TraCS 10 SDK training classes that will be scheduled throughout 2010 before beginning the conversion process. Even if you have already attended a TraCS 7.3 SDK training class, TraCS 10 has enough differences to require additional training.

The first task for a forms developer is to convert your state/province's TraCS Pack to TraCS 10. Plan on 40 hours per form for conversion and approximately 120 hours for configuration and TraCS Pack deployment setup. Example: 5 forms x 40 + 120 = 320 hours. The following steps will need to be taken to accomplish a successful conversion:

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- ✓ Convert TraCS 7.3 forms and reports to the TraCS 10 format using the TraCS 10 Forms Builder. Adjust the converted forms and reports as necessary.
- ✓ Convert TraCS 7.3 validation rules to the TraCS 10 format using the TraCS 10 Rules Builder. Modify any invalid converted rules as indicated by the Rules Builder.
- ✓ Recreate TraCS 7.3 hard coded process flow logic using the TraCS 10 Rules Builder.
- ✓ Recreate TraCS 7.3 process flow rules using the TraCS 10 Rules Builder.
 - Process flow functionality controlled by the following TraCS 7.3 files must be recreated: *AcceptReject.ini*, *DriverExchange.ini*, *EditableIssuedForms.ini*, *NonReportable.ini*, *ProcessFlow.xml*, *TransmitFromTraCS.ini*
- ✓ Recreate TraCS 7.3 autonumber rules using the TraCS 10 Rules Builder.
- ✓ Recreate TraCS 7.3 autopopulate and replicate rules using the TraCS 10 Rules Builder.
- ✓ Create global configuration settings using the TraCS 10 Configuration Manager Editors to be distributed to the local agencies.
 - These editors allow the state/province agency to dictate how many aspects of TraCS will work for the local agencies including access level setup, user definable fields, ini settings setup, and custom searches.
- ✓ Recreate TraCS 7.3 Transmission Extraction, Conversion, and Communication instructions using the TraCS 10 Import/Export Editor and TransComm Editor.
- ✓ Rewrite or create wrappers for existing TraCS 7.3 External Search, TranConvert , and TransComm DLL files.
- ✓ Convert the TraCS 7.3 Support.mdb to the TraCS 10 format using the TraCS 10 Conversion Wizard.
- ✓ Create a TraCS 10 TraCS Pack file using an installation tool such as Wise or Install Shield or by using the TraCS 10 Distribution Editor.
 - Instead of deploying the entire Support.mdb file to local agencies, use the TraCS 10 Distribution Editor to create a distribution file that contains all of the changed Support.mdb tables to be installed at the agency including the Translation_ Tables and Translation_ Fields tables.

Once your new TraCS 10 TraCS Pack is tested and packaged, it can be deployed to your TraCS 7.3 agencies.

In the next Tech Blog we will discuss the steps and considerations with converting existing TraCS 7.3 agencies to TraCS 10.

Next Newsletter

Stay tuned for the November/December 2009 issue of the National Model Newsletter where we will feature:

Product Spotlight	INCIDENT LOCATION TOOL 5.0 (ILT)
State Report	NEW YORK
Legacy Lowdown	TIME AND ACTIVITY REPORTING (TAR)

Questions or Comments? Would you like your state/province report to be included in this newsletter? E-mail us at: newsletter@nationalmodel.us
