



The Alabama E-Citation Project: A Solution with Nationwide Applicability to Commercial Vehicle Enforcement

In Alabama, we have developed and deployed Electronic Citation Software (*E-Citation*) that can be used to quickly, accurately, securely and legibly issue citations by an officer in a mobile setting. This citation software has been developed principally for commercial vehicle enforcement, and has been deployed with great success within the commercial vehicle enforcement unit (MCSAP) at the Alabama Department of Public Safety. Using a conventional laptop or tablet PC, an officer can issue tickets electronically, print a copy for the violator, and periodically transmit the tickets to an on-line central server repository.

This program has a number of versatile features:

- Driver's license barcode and magnetic stripe scanning;
- Auto-population of driver's license information;
- Interfaces with Web pages and other applications;
- Set defaults to auto-populate certain form fields;
- Ability to import driver and/or vehicle data from third party applications (Aspen, etc.);
- Automated data validation;
- Ticket replication to allow multiple tickets to be written quickly and easily;
- Templates to allow customized preset values;
- Automated Internet-based upload of ticket data to central data repository;
- Automated internet-based download of ticket numbers from a central repository;
- Ability to write warning tickets;
- Integrated daily activity log.

Along with the electronic citation application itself, we provide a toolbar that provides a platform for integration both with Web pages, local Windows applications, and peripherals such as bar code scanners and GPS units. We call this the *Officer's Desktop (OD) Toolbar*. Web sites, applications and peripherals can be added to the OD Toolbar in a relatively straightforward way. This provides an excellent environment for integration on the field officer's computer system desktop in general, but it also provides an excellent platform for CVISN compliance. Applications on the OD Toolbar can communicate among themselves without mutual custom integration. These applications can also share serial devices (scanners, GPS), and communicate the data read via these devices (such as a scanned "person").

More specifically, the OD Toolbar provides the following features:

- *Tight integration between E-Citation and ASPEN, including violation sharing.* Once a violation is noted in ASPEN, it is mapped to the appropriate statute for citation administration.
- *A comprehensive framework for application integration.* This includes buttons for each application and/or Web site, as well as a method for applications to communicate with each other by sharing data with the OD Toolbar (i.e., by treating the toolbar as a "data bus"). Thus, custom integration between applications wishing to communicate is not required; it is only

necessary for applications to communicate with the toolbar. A standard GJXDM format is utilized for data elements communicated with the toolbar.

- *A framework for communicating between Web sites and various applications.* In Alabama, we utilize the Law Enforcement Tactical System (LETS) as one component of the OD Toolbar. LETS provides access to Alabama driver and vehicle data, including previous citations (both pre- and post-conviction). LETS can be optionally used to pre-populate the citation form, although it is not required. With regard to commercial vehicle enforcement, LETS contains Alabama CVIEW data, which is therefore available as part of this overall environment. We also have a Quick QC button that allows Motor Carrier Enforcement officers to enter Query Central without going through a VPN connection.
- *A framework for integrating and sharing peripherals.* All NMEA-compatible GPS units are serial devices; most bar code and magnetic stripe scanners are either true serial or utilize a virtual COM port over USB. As such, peripherals must typically be controlled by individual applications, and manually switched from one application to the next. With the OD Toolbar, such peripheral devices are attached to the toolbar itself, which then communicates data among the various applications.
- *Compatibility with TraCS.* TraCS may be utilized as an OD Toolbar application. This is useful if your state is already using TraCS for crash reporting, citations or other safety or justice applications. Even with TraCS, however, the OD Toolbar provides useful functionality in terms of application and peripheral hardware integration. The OD Toolbar integrates TraCS with non-TraCS applications (such as Web-based applications), and allows an entire suite of applications to seamlessly share scanners and GPS units.

We are seeking to expand this project along two independent dimensions. First, the OD Toolbar has tremendous potential as an integration platform that is independent of the use of our e-citation software. With central federal support, we are seeking to shrink-wrap and distribute the toolbar to commercial vehicle enforcement units nationwide, as a mechanism to promote field application-peripheral integration (regardless of the specific software applications utilized). This could support a number of CVISN and other initiatives to provide an integrated enforcement suite on the field officer's computing platform.

Second, we are seeking to expand our success in electronic citations in Alabama to other states. Our expectation is that the federal dollars invested in Alabama could be leveraged, and expansion to other states could be conducted at a fraction of the original cost expended in Alabama. Our use of Microsoft .NET technologies and a table-driven structure for managing statutes and other jurisdiction-specific elements gives us an extremely stable and flexible platform for expansion. We look forward to the challenge of working with other states to leverage this investment.

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