U.S. Department of Transportation
Federal Highway Administration

Priority, Market-Ready Technologies and Innovations

Intelligent Transportation Systems (ITS) SpecWizard

Problem: Effective intelligent transportation systems require consistent specification standards

Intelligent transportation systems (ITS) can be cutting-edge technologies that help improve roadway safety and enhance the Nation's mobility. ITS specifications that are not based on industry-consensus standards, however, can limit interoperability and interchangeability, ultimately affecting the system's expandability and interjurisdictional coordination. By specifying the functions and format of messages between devices and between systems, the National Transportation Communications for ITS Protocol (NTCIP) helps ensure that systems function efficiently.

Solution: SpecWizard™ helps write standards into ITS specifications

To help transportation agencies ensure ITS efficiency, the U.S. Department of Transportation's ITS Standards Program procured SpecWizard.

What is SpecWizard?
SpecWizard is a software tool that helps specification developers write specifications for NTCIP standards-based ITS equipment. NTCIP standards are open standards—ITS equipment based on these standards offer greater levels of interoperability and interchangeability than equipment not based on NTCIP standards. NTCIP standards safeguard transportation agencies from being locked into proprietary solutions.

How does it work?
SpecWizard analyzes a user's answers to a series of key questions about a specific ITS deployment (such as desired features for the device, maintenance plans and support, and other issues), and produces a text file that can be edited and incorporated into a specification for NTCIP-based equipment. SpecWizard currently addresses deployments for:

- Dynamic message signs (DMS).
- Environmental sensor stations.
- Signal controllers.

SpecWizard's capabilities may be expanded, depending on demand.

Successful Applications

SpecWizard is just now being used for DMS procurements. FHWA provides a DMS procurement workshop to public agencies that identify issues related to developing ITS specifications in general and DMS specifications specifically. The workshop also is available to private sector consultants that are currently under contract with a public sector agency, if they attend with the agency contact. The workshop teaches agencies how to use SpecWizard to develop the NTCIP section of a DMS specification. SpecWizard has been distributed through the DMS Application Workshop to participants in Florida, Idaho, Illinois, Louisiana, Montana, New Hampshire, North Dakota, Pennsylvania, South Dakota, Vermont, Virginia, and Wyoming, and an increasing number of locations have purchased SpecWizard directly.

Benefits

- Is an easy-to-use software program with a familiar interface.
- Features a bandwidth analysis tool, which combines specific communications system performance and polling desires with NTCIP requirements and alerts users to any expected performance problems.

Additional Resources

SpecWizard is available from the McTrans online catalogue at **www-mctrans.ce.ufl.edu** or can be ordered by phone at 1–800–226–1013. Free updates to SpecWizard will be available when the new version of the DMS standard is released in 2004.

Focused, short-term technical assistance is available to public agencies through the ITS Standards Program's field support team. Contact your FHWA Resource Center or FHWA Division Office.

For more information, contact:

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ITS SpecWizard CD-ROM with computer system requirements and installation instructions

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