Wisconsin DOT
Statewide ITS Architecture

Turbo Architecture Version 7.0
Updates, Consolidation, and Applications
May 2012

As a continuing effort to keep the Wisconsin ITS Architecture up to date, the Turbo architecture files were updated to the most current version of Turbo 7.0. Turbo 7.0 updated the files to version 7.0.0 of National ITS Architecture's Physical Architecture, Service (Market) Packages, and Standards Development Organization (SDO)MAP. The previous versions being used in Turbo 5.0 were Physical Architecture v. 6.1.8, Market Packages v. 6.1.6, and SDOMAP v. 6.1.6.

In 45 instances, Turbo 7.0 affected the functional requirements of elements in the Wisconsin ITS Architecture. Each of these changes fall into one of three categories: edited, renumbered, and replaced. Below are the functional requirements that were changed within the regional architecture. Many of these were listed for multiple elements but are only listed once.

Edited:
- Roadway Equipment Coordination
- Roadway Signal Controls
- TMC Signal Control
- MCV Vehicle System Monitoring and Diagnostics
- Personal Interactive Information Reception
- CV Information Exchange
- Collect Traffic Surveillance
- TMC Incident Detection

Renumbered: Emergency Routing

Replaced:
- TMC Freeway Management → TMC Traffic Metering
- TMC Speed Monitoring → TMC Speed Monitoring and Warning
- Traffic Maintenance → Traffic Equipment Maintenance
- Roadway Freeway Control → Roadway Traffic Metering

There was a single change to element mapping and that was the removal of the word "subsystem" from names of the subsystems. For example, "roadway subsystem" is now simply named "roadway" under the class of subsystems.

Architecture flows contained many changes but only two that were used in the Wisconsin Statewide Architecture are discontinued. The discontinued flows of "driver log request" and "on-board safety request" are both from WisDOT_DSP_SE Region_Waukesha_SWEF element to x-Commercial Vehicle. Besides the discontinued flows, there are also a variety of other changes to the architecture flows including new and replaced flows which are listed below for the Wisconsin ITS Architecture.

New: signal control status → signal fault data

Replaced: Freeway control data → traffic metering control
                Freeway control status → traffic metering status
                Incident information for media → traffic information for media
                ISP coordination → emergency traveler information
                ISP coordination → incident information
                ISP coordination → multimodal information
                ISP coordination → parking information
                ISP coordination → road network conditions
                ISP coordination → traffic images
                ISP coordination → transit service information
                Request for right-of-way → right-of-way request notification
                Road network conditions → traffic information for media
                Signal control data → signal control commands
                Signal control data → signal control device configuration
                Signal control data → signal control plans
                Signal control data → signal system configuration
                Traffic control coordination → device control request
                Traffic control coordination → device data
                Traffic control coordination → device status
                Traffic information coordination → emergency traffic coordination
                Traffic information coordination → incident information
                Traffic information coordination → road network conditions
                Traffic information coordination → traffic images
                Yellow pages information → travel services information
                Yellow pages request → travel services request

Discontinued: driver log request
                on-board safety request

The full statewide architecture is available at http://www.topslab.wisc.edu/its/architecture/. Feedback, comments, and questions should be directed to architecture@topslab.wisc.edu.