



V-SPOC: Volume, Speed, and Occupancy Suite

Wisconsin Traffic Operations and Safety Laboratory

V-SPOC Project Overview

The Traffic Operations and Safety (TOPS) Laboratory *WisTransPortal Data Hub* contains a complete archive of all 5-minute traffic detector data (volume, speed, and occupancy) from the Wisconsin Department of Transportation (WisDOT) Advanced Traffic Management System (ATMS) for the years 1997-present. The archive includes data for the Milwaukee (SE Region), Madison (SW Region), and Wausau (NC Region) metropolitan areas. The *WisTransPortal* database is updated every 24 hours with WisDOT ATMS detector data from the previous day.

The V-SPOC (Volume, Speed, and Occupancy) Application Suite was developed in partnership with the WisDOT Statewide Traffic Operations Center (STOC) as a component of the *WisTransPortal* to provide online tools to retrieve and analyze traffic detector data from the ATMS data archive. The V-SPOC web-interface includes a complete detector database query selection tool, data visualization and export capabilities, data quality reporting, and integration with other ITS data sets in the *WisTransPortal* database.

V-SPOC was developed to enhance an existing software application at the WisDOT STOC. Desired improvements included increased efficiencies in the data archiving and retrieval process, support for users outside of WisDOT to easily obtain data, and integration with a monthly Freeway Performance Measures report. In addition, V-SPOC was designed to be portable and freely available for use in other state traffic operations centers.

The V-SPOC Application Suite includes the following modules:

- General Detector Data Retrieval - General Purpose Detector Data Export and Graphing Utility
- Corridor Analysis - Corridor Volume Data Balancing Tool and Graphing Utility
- Monthly Data - Region-Wide Detector Data Export Tool
- Ramp Meter Retiming - Data Export Function for the Ramp Meter Retiming Workbook
- TRADAS - Data Export Function for the WisDOT TRADAS System
- Corridor Meta Data - Inventory Report of Corridors, Count Locations, Controllers, and Detectors
- Corridor Configuration Management - Corridor, Detector, Controller, Count Location Configuration Management Tool

V-SPOC is a thin-client web application with minimal computer requirements; for the majority of its functionality just a browser and internet connection will suffice. Complete information about V-SPOC, including information on how to request a login account, is available from the V-SPOC Project Information Page on the *WisTransPortal*: <http://transportal.cee.wisc.edu/about/vspoc.html>.

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