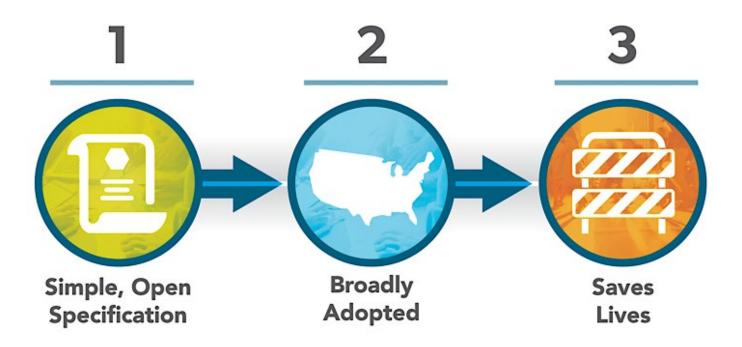
WORK ZONE DATA EXCHANGE

The Work Zone Data Exchange (WZDx)



USDOT ITS-JPO

WZDx is...

 A simple, open standard for sharing data about planned and active work zone events.



Source: FHWA

Private sector involvement in WZDx





Current WZDx Version 4.0 & Structure

- The WZDx specification is structured in an object model
- A valid WZDx document is a valid GeoJSON document
- Human-readable documentation: object and enumerated type files
- Version 4.0 released in December 2021:
 WZDx is completely open and available at
- https://github.com/usdot-jpo-ode/wzdx

WZDx Feed

Road Event Feed Info

Road Event Feature

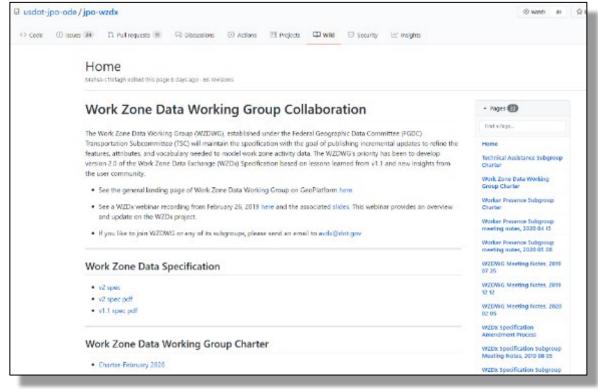
Road Event Source Info Road Event Properties

Geometry



Work Zone Data Working Group

- Maintains the WZDx Specification
- Champions open development methods to foster community involvement and support
- Promotes best practices for creating, publishing, consuming, mapping, and analyzing work zone event data and the WZDx Specification



https://github.com/usdot-jpo-ode/wzdx

Documents and meeting notes shared via <u>GitHub</u> Wiki page



WZDWG Working Groups

Specification Update Subgroup

Update the WZDx specification

Worker Presence Subgroup

Promote the inclusion of real-time information on the presence of workers in work zones

Technical Assistance
Subgroup

Identify best practices in implementing feeds

Smart Work Zone Devices Subgroup

Extend the specification to include real-time data from SWZ devices

Specification Extension Subgroup

Identify and draft extensions to the WZDx specification beyond work zones

HD Map Stack for AVs

Real-time Layer

Map Priors Layer

Semantic Map Layer

Geometric Map Layer

Base Map Layer

HD Map Stack for AVs

Real-time Layer

Map Priors Layer

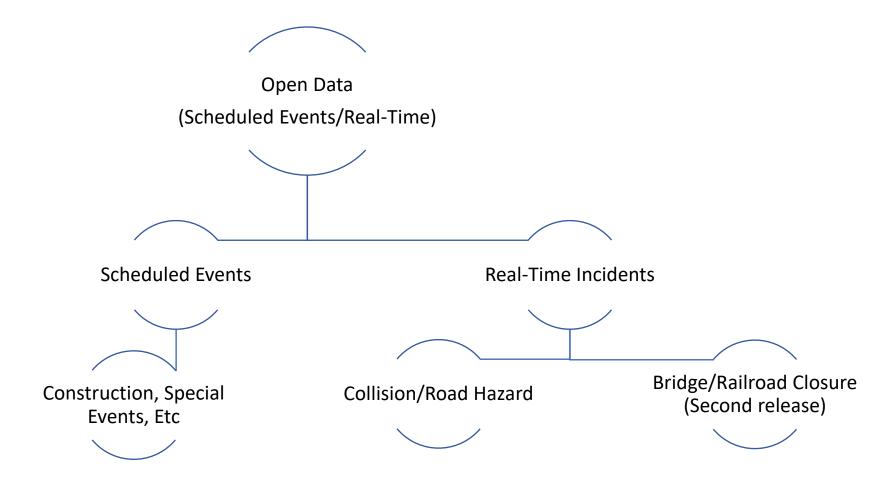
WDZx sits here

Semantic Map Layer

Geometric Map Layer

Base Map Layer

SDOT Data Feed



SDOT Data Feed

Current ArcGIS Map Service Endpoint

- Next Steps for SDOT
 - Coverage for all of the city
 - Comply with current WZDx specification
 - Join WSDOT's regional feed

WZDx Use Case: Truck Operator Notification of Upcoming Work Zone

Maricopa County

- Maricopa County (AZ) and Drivewyze demonstrated using WZDx to send work zone alerts to truck drivers via electronic logging devices
- WZDx feeds can include detour routes around a work zone
- Maricopa County and Arizona DOT will expand the scope of their WZDx feed with a WZDx Demonstration grant in 2021



MDOT & GM Demonstration

- In early November 2021 MDOT set up a pilot v3.1 WZDx feed in coordination with GM.
- The demonstration used a GM Super Cruise-equipped vehicle to navigate around a lane closure using information provided from the WZDx feed.
- More information and materials will be available soon.

Questions?

Craig.Moore@seattle.gov

Resources

To learn more and access available resources, please visit:

- WZDx Version 4.0 Specification
- WZDx GitHub Wiki (Day-to-Day Subgroup Activities)
- WZDx Technical Assistance Help Desk
- WZDx Data Feed Registry
- FHWA WZDI Data Dictionary and Framework
- Work Zone Data Collection Toolset

For more information on the WZDx project or anything else related to the Work Zone Data Working Group, contact AVDX@dot.gov.