

Community Maps - Data Service User Guide

Wisconsin Traffic Operations and Safety (TOPS) Laboratory

January 4, 2023

Date Coverage:

Community Maps is updated on a nightly basis with preliminary crash report information from the Wisconsin DT4000 police crash report database. All police reported motor vehicle crashes are included. Community Maps includes records for all reported crashes since 2010 to the present day. Records for fatal crashes are available since 2001. See the Community Maps "About" page for more information.

Community Maps provides several options to access crash data as a service. This may be used, for example, to incorporate CM crash data directly into external applications such as an agency GIS system or a web-based crash map. This guide provides information on how to work with CM data services.

Data Service Base URLs:

- JSON: <https://CommunityMaps.wi.gov/crash/public/crashesKML.do?filetype=json>
- KMZ: <https://CommunityMaps.wi.gov/crash/public/crashesKML.do?filetype=kmz>
- KML: <https://CommunityMaps.wi.gov/crash/public/crashesKML.do?filetype=kml>

Search Criteria:

The URL can take a list of optional arguments to refine the search criteria. Available parameters are listed below. All parameters are case sensitive and should be entered in lower case unless otherwise specified.

- county
 - Limit search results to one or more counties. The default is to search on all counties, which is equivalent to *county=all*. Multiple county parameters are joined by an OR condition. For example, to retrieve both Dane or Brown county crashes, use *county=dane&county=brown*.
- injsvr
 - Limit search results to one or more injury severities. The default is to search on fatal crashes, which is equivalent to *injsvr=K*. Multiple injury severities are joined by an OR condition. For example, to retrieve both K or A crashes, use *injsvr=K&injsrv=A*.
- startmonth
 - Limit search results to a starting month. The default is 01.
- startyear
 - Limit search results to a starting year. The default is set to the current year when the current date is after the rollover date (March), otherwise set to the previous year.



- endmonth
 - Limit search results to an ending month. The default is 12.
- endyear
 - Limit search results to an ending year. The default is set to the current year.
- crash flags
 - Eight flags are available:
 - bikeflag (Bike Flag)
 - pedflag (Pedestrian Flag)
 - mcyflag (Motorcycle Flag)
 - speedflag (Speed Flag)
 - conszone (Construction Zone)
 - distractd (Distracted Flag)
 - impaired (Impaired Flag)
 - occpprot (Occupant Protection Flag)
 - teendrvr (Teen Driver Flag)
 - oldrdrvr (65+ Driver Flag)
- flaglogic
 - Controls how multiple crash flags are interpreted. The default is to join multiple flags by an OR condition. For example, to retrieve speed or work zone related crashes, use *speedflag=Y&conszone=Y*. Setting flaglogic to 'AND' would join multiple flags using a logical AND condition. For example, the combination *speedflag=Y&conszone=Y&flaglogic=AND* returns crashes that are both speed and work zone related.
- filetype
 - Select the Data Layer format. The available file formats are: JSON, KML, and KMZ. The JSON file format is based on GeoJSON and should work directly with most mapping frameworks. The default returns a KMZ format.
- compressed
 - Limits the Data Layer to the compressed mode. The default is 'N'. When compressed mode is set to 'Y', crash level information is limited to the crash report document numbers, geo-coordinates, and injury severities. Compressed mode is used by Community Maps to improve performance when originally rendering the map.

Example:

Return a JSON file of impaired driver related fatal crashes for all counties for the years 2018 and 2019:

<https://CommunityMaps.wi.gov/crash/public/crashesKML.do?filetype=json&startyear=2018&endyear=2019&impaired=Y>

Test Site URL:

A JSON test service is also available for maintenance and enhancements purposes:



The Following Elements Are Returned by the Community Maps Data Service:

Element	Definition
id	A unique identifier for a crash, taken from the police crash report document number.
coordinates	The latitude and longitude coordinates of a crash, corresponding to the first harmful event.
injsvr	The highest level injury severity for a crash, taken over all persons involved in a crash: K = Fatal Injury A = Suspected Serious Injury B = Suspected Minor Injury C = Possible Injury O = No Apparent Injury
totfatl	Total number of persons killed in a crash.
totinj	Total number of persons injured in a crash.
cnytname	The name of the county in which a crash occurred.
muniname	The name of the municipality (city, village, or town) in which a crash occurred.
date	The date when a crash occurred.
onrdwy	The name of the street or highway on which the crash took place.
atrldwy	The name of the intersecting or nearest street or highway on which the crash took place.
bikeflag	Indicates whether a bicycle was involved in a crash.
pedflag	Indicates whether a pedestrian was involved in a crash.
mcycflag	Indicates whether a motorcycle was involved in a crash.
speedflag	Indicates whether speed was a factor in a crash, based on the following criteria: a driver exceeded the speed limit, was driving too fast for conditions, or a citation was issued.
conszone	Indicates whether a crash occurred in a construction, maintenance, or utility work zone or was related to activity within a work zone.
teendrvr	Indicates whether a crashed involved one or more drivers between 16 and 19 years of age.
65+drvr	Indicates whether a crashed involved one or more drivers of age 65 years or older.
occprot	Indicates whether one or more motorists involved in a crash had not used occupant protection.
distrcd	Indicates whether driver distraction was a factor in a crash.
impaired	Indicates whether driver alcohol or drug use was a factor in a crash.
disclaimer	Information about the Community Maps crash data.

Many elements are only available when compressed mode is off (compressed = "N"). There are also some differences between the JSON and KML/KMZ elements names.



Limitations:

The Community Maps API will return up to 50,000 crashes per request. API requests that exceed 50,000 crashes will return an HTTP Status 413 – Payload Too Large response.

Disclaimer:

The following disclaimer is provided with the JSON, KML, and KMZ data feeds:

Community Maps provides a statewide map of all police reported motor vehicle crashes in Wisconsin from 2010 to the current year. Fatal crashes are included from 2001. Crashes occurring on or after January 1, 2017 are mapped using geo-coded locations from the Wisconsin DT4000 police crash report. Prior year crashes have been geo-coded from the crash report location descriptions. Crashes that have not been geo-coded are not displayed on the map. Community Maps is maintained by the Wisconsin Traffic Operations and Safety (TOPS) Laboratory for research purposes and as a service to the Wisconsin Department of Transportation Bureau of Transportation Safety. See Community Maps for more information: <https://CommunityMaps.wi.gov/>.

Organizations that incorporate the Community Maps data service into an external application, such as a public facing website, are asked to display the disclaimer message with the data.

KML/KMZ Format Notes:

For each placemark section in the KMZ file, additional crash data attributes are provided in the extendedData section: County, Municipality, On Road, At Road, Date, Severity, Total Fatalities, Total Injuries, Flags (Bike Flag, Motorcycle Flag, Pedestrian Flag, Speed Flag, Construction Zone Flag, Impaired Flag, Distracted Flag, and Occupant Protection Flag). If a given crash record attribute does not have a value in the Community Maps database, it will be excluded from the list.

Six icon styles are also provided to distinguish crashes by injury severity. Red icons represent fatal crashes, orange icons represent injury crashes (A), yellow icons represent injury crashes (B), blue icons represent injury crashes (C), green icons represent property damage (P), black icons represent crashes where the injury severity has unspecified.

