Macroscopic Fundamental Diagram Approach to Traffic Flow With Autonomous/Connected Vehicles Dataset

Dataset available at: https://doi.org/10.5281/zenodo.3750144

(This dataset supports report **Macroscopic Fundamental Diagram Approach to Traffic Flow With Autonomous/Connected Vehicles**)

This U.S. Department of Transportation-funded dataset is preserved by STRIDE | Southeastern Transportation Research, Innovation, Development & Education Center in the Zenodo Repository (https://zenodo.org/), and is available at https://doi.org/10.5281/zenodo.3750144

The related final report **Macroscopic Fundamental Diagram Approach to Traffic Flow With Autonomous/Connected Vehicles**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/57432.

Metadata from the Zenodo Repository record:
Title: Project O2 - A Cooperative Bypassing Algorithm for Connected and Autonomous Vehicles in Mixed Traffic
Author: Guojing Hu; Robert W Whalin
Description: The dataset includes Python code and VISSIM file for the research paper "A Cooperative Bypassing Algorithm for Connected and Autonomous Vehicles in Mixed Traffic".
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Dataset description:
This dataset contains 1 file collection described below.

Macroscopic_Fundamental_Diagram_Approach_to_Traffic_Flow_With_Autonomous_Connected_Vehicles_Data.zip:
- change_speed_lane.c
- change_speed_lane.cp36-win_amd64.pyd
- cv.err
- cv.inp0
- cv.inpx
- cv.layx
- cv_exception.err
- main_two_lane.py

The .c file extension is related to C/C++ programming language. The c files are used for main source code files written in the C/C++ programming language. It may be a standalone program or one of many files referenced within the programming project. These files can be viewed with any text editor, but most software development programs will display the text with helpful syntax highlighting. (for more information on .mp4 files and software, please visit https://www.file-extensions.org/c-file-extension).

The .pyd file extension is used for Python Dynamic modules, an equivalent of DLL format (dynamic link library), but written in Python programming language. A very common Python format used by many programs based on Python, like Jabbim. (for more information on .mp4 files and software, please visit https://www.file-extensions.org/pyd-file-extension).

The .py file extension is commonly used for files containing source code written in Python programming language, developed by Guido van Rossum. (for more information on .mp4 files and software, please visit https://www.file-extensions.org/py-file-extension).

The .err file extension is used for various error files. Mostly .err files are simple text files containing error messages from a specific application if some error occurs. Usually err files are automatically generated by program compilation and often used in beta testing or in software development. For example Visual FoxPro compilation error uses .err file suffix. (for more information on .mp4 files and software, please visit https://www.file-extensions.org/err-file-extension).

The .inpx file extension is associated with the PTV Vissim, a software for Microsoft Windows that allows users to simulating and controlling daily road traffic. The inpx file stores various data used for internal purposes of the PTV Vissim. (for more information on .mp4 files and software, please visit https://www.file-extensions.org/inpx-file-extension).

The .layx file extension is associated with the PTV VISSIM, a multi-modal traffic flow simulation program for Microsoft Windows, developed by PTV. The layx file contains vehicle network data from VISSIM. (for more information on .mp4 files and software, please visit https://www.file-extensions.org/layx-file-extension).

National Transportation Library (NTL) Curation Note:
As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (https://ntl.bts.gov/public-access) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset. NTL staff last accessed this dataset at https://doi.org/10.5281/zenodo.3750144 on 2021-11-04. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.