

Augmented Reality for Safer Pedestrian-Vehicle Interactions Dataset

Dataset available at: <https://doi.org/10.7910/DVN/DP2L6Q>

(This dataset supports report **Augmented Reality for Safer Pedestrian-Vehicle Interactions**, http://safersim.nads-sc.uiowa.edu/final_reports/UW%201%20Y1%20report.pdf)

This U.S. Department of Transportation-funded dataset is preserved by the SAFER-SIM University Transportation Center in the Harvard Dataverse Repository (<https://dataverse.harvard.edu/>), and is available at <https://doi.org/10.7910/DVN/DP2L6Q>

The related final report **Augmented Reality for Safer Pedestrian-Vehicle Interactions**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/42274>

Metadata from the Harvard Dataverse Repository record:

Dataset Persistent ID: doi:10.7910/DVN/DP2L6Q

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Title: Augmented Reality for Safer Pedestrian-Vehicle Interactions

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Description: Communicating the presence of pedestrians or bicyclists to vehicle drivers can lead to safer interactions with these vulnerable road users. Advanced knowledge about the presence of these users on the roadway is particularly important when their presence is not expected or when these users are out of range of the advanced safety systems that are becoming a standard feature in vehicles today. For example, having advanced knowledge of a pedestrian walking along a rural roadway is key to increasing driver awareness through in-vehicle warning messages that provide an augmented version of the roadway ahead. As connected vehicles start to enter the market, it is conceivable that when the vehicle sensors detect a pedestrian on a rural roadway, the pedestrian presence can be communicated to vehicles upstream of the pedestrian location that have not reached the destination. As part of the research presented, an experiment was conducted in which the detection of pedestrians by subjects was tested with and without an advanced warning about the pedestrian presence ahead. For comparison purposes, in addition to testing the detection of pedestrians as a result of advanced warning messages on rural roadways, the same situation was tested on urban roadways.

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Dataset description:

This dataset contains 3 .zip file collections, 18 .mov/.mpg files and 1 .docx file described below.

ARPed.zip:

This collection contains 19 .db files, numbered 1 to 11 and 14 to 21. The number is shown before and after ARPed in the name (eg. 01_ARPed_1.db). The file number corresponds with the numbers found in the other zip files. The .db file type is a database file format that is used by various applications (for more information on different types of .db files and associated software, please visit <https://www.file-extensions.org/db-file-extension>).

clickerInfo.zip:

This collection contains 19 .csv files, titled clickerInfo and numbered 1 to 11 and 14 to 21 (eg. 01_clickerInfo.csv). The file number corresponds with the numbers found in the other zip files. The .csv, Comma Separated Value, file is a simple format that is designed for a database table and supported by many applications. The .csv file is often used for moving tabular data between two different computer programs, due to its open format. The most common software used to open .csv files are Microsoft Excel and RecordEditor, (for more information on .csv files and software, please visit <https://www.file-extensions.org/csv-file-extension>).

CueData.zip:

This collection contains 19 .csv files, titled CueData and numbered 1 to 11 and 14 to 21 (eg. 01_CueData.csv). The file number corresponds with the numbers found in the other zip files. The .csv, Comma Separated Value, file is a simple format that is designed for a database table and supported by many applications. The .csv file is often used for moving tabular data between two different computer programs, due to its open format. The most common software used to open .csv files are Microsoft Excel and RecordEditor, (for more information on .csv files and software, please visit <https://www.file-extensions.org/csv-file-extension>).

18 . mov and .mpg files:

There is no clear naming system employed for these files, however the names have the initial numbers 2 to 11 and 14 to 21. This is similar to the numbering system in the other zips, but there isn't a files for each number and for 08 there are two. The .mov and .mpg file type are multimedia container formats that can store one or more tracks of data such as video, audio, text, and effects. NTL staff were able to open the files with Windows Media Player (for more information on .mov and .mpg files and software, please visit <https://www.file-extensions.org/mov-file-extension> or <https://www.file-extensions.org/mpg-file-extension>)

DataDictionary.docx:

This file contains the documentation and data dictionary that corresponds with the dataset. The .docx file is a Microsoft Word file, which can be opened with Word and other free word processor programs, such as Kingsoft Writer, OpenOffice Writer, and ONLYOFFICE.

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/10.7910/DVN/DP2L6Q> on 2019-09-03. 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.