UAS images and generated point-cloud model of a concrete bridge in Corvallis, OR Dataset

Dataset available at: https://doi.org/10.7910/DVN/VLABDW

(This dataset supports report **UAS Image-Based Point Clouds to 3D Brim: 3D As-Is Bridge Model Generation**)

This U.S. Department of Transportation-funded dataset is preserved by the Pacific Northwest Transportation Consortium (PacTrans) is the Regional University Transportation Center (UTC) for Federal Region 10 in the digital repository Harvard Dataverse (https://dataverse.harvard.edu), and is available at https://doi.org/10.7910/DVN/VLABDW

The related final report **UAS Image-Based Point Clouds to 3D Brim: 3D As-Is Bridge Model Generation**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/61970.

Metadata from the Harvard Dataverse Repository record:

Dataset Persistent ID: doi:10.7910/DVN/VLABDW
Publication Date: 2022-05-10
Title: UAS images and generated point-cloud model of a concrete bridge in Corvallis, OR
Author:

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Description: This dataset includes three parts: (1) 1247 high-resolution images (collected by UAS, in DNG format) of three spans of a concrete bridge, they are stored in 20 zip files considering the file size limit; (2) locations of 12 ground control points and 15 visual targets attached to the bridge surface in world coordinates (in TXT format); and (3) a point-cloud model (in LAS format; 8,926,909 points with a mean error estimate of the targets of 0.0408 m) of the bridge based on the UAS images. (2021-10-31)
Subject: Engineering
Keyword: UAS Imaging, Structure from Motion, Concrete Bridges, Bridge Information Modeling
Related Publication: Turkan, Yelda and Xu, Yiye. UAS Image-Based Point Clouds to 3D BrIM: 3D As-is Bridge Model Generation, PacTrans Project Report. 2022.
Notes: Number of data files exceeds the limit. For complete data set contact pactrans@edu http://hdl.handle.net/1773/48594
Depositor: Yarbrough, Christina
Deposit Date: 2022-05-03

Recommended citation:

Turkan, Yelda; Xu, Yiye, 2022, "UAS images and generated point-cloud model of a concrete bridge in Corvallis, OR", https://doi.org/10.7910/DVN/VLABDW, Harvard Dataverse, V1

Dataset description:
This dataset contains 798 files with an overall size of 30.6 GB. To access this dataset and see the file list please visit https://doi.org/10.7910/DVN/VLABDW.

The breakdown of the files that is show in the repository is shown below.

- Image (798)

File Type Descriptions:
The .dng file extension is associated with the universal Digital Negative RAW file format developed by Adobe. It is non-proprietary and public defined format for camera RAW files that can be used by hardware and software developers for a more flexible RAW processing and archiving workflow. End users can use Digital Negative (DNG) as an intermediate format for storing digital images (for more information on .dng files and software, please visit https://www.file-extensions.org/dng-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://doi.org/10.21949/1503647) 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/VLABDW on 2022-05-26 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.