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Data Management Plan
Annex 1

WP6 – Project Management

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1. Introduction

This Annex to Data Management Plan (DMP) of TERAIS project, specifies all the datasets related to studies published under the TERAIS acknowledgement. Datasets are organized as follows: six parent datasets, two for each partner of the consortium, are listed in the main document of the DMP and reports all main features that are valid for the child datasets that are connected to them. Child datasets are listed in this Annex (Annex 1). For each child-dataset, features such as the dataset name, authors, related publication, keywords, repository, level of Confidentiality / Accessibility policies, and PID are specified in Table 1.

2. List of datasets

Here below are listed the child datasets of the TERAIS project, each connected to:

1) a parent dataset (PD) whose features are listed in the main document of the DMP
2) a specific publication acknowledging TERAIS.

Table 1. *Summary of the TERAIS research datasets*

#	DATASET NAME	PARENT DATASET	AUTHOR(S) (email + ORCID)	KEYWORDS	TITLE & OA PID of related publication	SIZE	REPOSITORY, PID & ACCESSIBILITY	EXPECTED IMPACT
1	TERAIS_SLS-SuperSampl_code	PD 2 UKBA code	lukas.gajdosech@fmph.uniba.sk 0000-0002-8646-2147		Supersampling of Data from Structured-light Scanner with Deep Learning https://doi.org/10.48550/arXiv.2305.05215	-	Zenodo, https://doi.org/10.5281/zenodo.10688235 Restricted (collaboration with private sector)	The code used to evaluate 3D point cloud supersampling methods. Restricted access due to collaboration with the private sector.
2	TERAIS_SLS-SuperSampl_data	PD 1 UKBA Exp Data	lukas.gajdosech@fmph.uniba.sk 0000-0002-8646-2147		Supersampling of Data from Structured-light Scanner with Deep Learning https://doi.org/10.48550/arXiv.2305.05215	-	Zenodo, https://doi.org/10.5281/zenodo.10688199 Restricted (collaboration with private sector)	The data used to evaluate 3D point cloud supersampling methods. Restricted access due to collaboration with the private sector.
3	BillBoardLamac_code	PD 2 UKBA code	viktor.kocur@fmph.uniba.sk 0000-0001-8752-2685		Evaluating the Significance of Outdoor Advertising from Driver's Perspective Using Computer Vision https://arxiv.org/abs/2311.07390	**12.0 kB**	Zenodo, https://zenodo.org/doi/10.5281/zenodo.10689666 OA	The code can be used with conjunction with the published data to create models for assessing significance of roadside advertisements as well as for similar assessment for other types of objects
4	BillBoardLamac_data	PD 1 UKBA Exp Data	viktor.kocur@fmph.uniba.sk 0000-0001-8752-2685		Evaluating the Significance of Outdoor Advertising from Driver's Perspective Using Computer Vision https://arxiv.org/abs/2311.07390	**1.5 MB**	Zenodo, https://zenodo.org/doi/10.5281/zenodo.10689664 OA	The data can be used to research aspects of roadside advertisement such as its significance in terms of driver's attention

5	TERAIS_STD-Noise_code	PD 2 UKBA code	lukas.gajdosech@fmph.uniba.sk 0000-0002-8646-2147		Enhancement of 3D Camera Synthetic Training Data with Noise Models https://doi.org/10.48550/arXiv.2402.16514	**60.4 MB**	Zenodo, https://doi.org/10.5281/zenodo.10581562 OA	The provided code can be used to estimate the parameters of 3D camera noise models. The code can also be used to train Deep CNN with synthetic noise added and evaluation of the trained model.
6	TERAIS_STD-Noise_data	PD 1 UKBA Exp Data	lukas.gajdosech@fmph.uniba.sk 0000-0002-8646-2147		Enhancement of 3D Camera Synthetic Training Data with Noise Models https://doi.org/10.48550/arXiv.2402.16514	**6.5 GB**	Zenodo, https://doi.org/10.5281/zenodo.10581278 OA	The dataset can be used to estimate noise parameters of three different types of 3D cameras. The dataset can also be used to train and evaluate DeepCNNs for object segmentation from depth maps featuring an object for which its precise 3D model is available.
7	SnaptureGR_code	PD 6 UHAM code	hassan.ali@uni-hamburg.de 0000-0001-9907-1834		Snapture—a Novel Neural Architecture for Combined Static and Dynamic Hand Gesture Recognition https://doi.org/10.1007/s12559-023-10174-z	**435.4 kB**	Zenodo, https://zenodo.org/doi/10.5281/zenodo.10679196 OA	The code can be used to train a gesture recognition model which can enhance the robot's human-awareness using non-verbal cues.
8	SnaptureGR_data	PD 5 UHAM Exp Data	hassan.ali@uni-hamburg.de 0000-0001-9907-1834		Snapture—a Novel Neural Architecture for Combined Static and Dynamic Hand Gesture Recognition https://doi.org/10.1007/s12559-023-10174-z	**190.6 kB**	Zenodo, https://zenodo.org/doi/10.5281/zenodo.10693816 OA	The repository refers to the public datasets used for this study. Other gestures recognition models can be trained using the same data.
9	SafeRL_code	PD 2 UKBA code	igor.farkas@fmph.uniba.sk 0000-0003-3503-2080		Safe Reinforcement Learning in a Simulated Robotic Arm https://doi.org/10.48550/arXiv.2312.09468	**9.8 MB**	Zenodo, https://zenodo.org/doi/10.5281/zenodo.10694747 OA	The repository contains code for the paper enabling further research into various RL approaches in robotics.
10	SynthGaze_code	PD 1 UKBA Exp Code	igor.farkas@fmph.uniba.sk 0000-0003-3503-2080		Appearance-based gaze estimation enhanced with synthetic images using deep neural networks	**109.2 kB**	Zenodo, https://zenodo.org/doi/10.5281/zenodo.10696083 OA	This repository contains code to train and evaluate NNs for eye gaze estimation.

					https://doi.org/10.48550/arXiv.2311.14175			
11	whatisthis_code	PD2 UKBA code	lucny@fmph.uniba.sk 0000-0001-6042-7434		Tuning-less Object Naming with a Foundation Model https://doi.org/10.48550/arXiv.2311.04924	**13.9 kB**	Zenodo https://doi.org/10.5281/zenodo.10702868 OA	This repository contains code to run the system for the tuning-less object naming and can be used by the research community.
12	whatisthis_data		lucny@fmph.uniba.sk 0000-0001-6042-7434		Tuning-less Object Naming with a Foundation Model https://doi.org/10.48550/arXiv.2311.04924		Zenodo https://zenodo.org/doi/10.5281/zenodo.10841424 OA	A set of images collected during interaction with the robot naming objects
13	BinGen_code	PD2_UKBA code	lukas.gajdosech@fmph.uniba.sk 0000-0002-8646-2147		Novel Synthetic Data Tool for Data-Driven Cardboard Box Localization https://doi.org/10.48550/arXiv.2305.05215	-	Zenodo https://doi.org/10.5281/zenodo.10649535 Restricted (collaboration with private sector)	The code in this repository can be used to generate synth data and train a neural network for semantic segmentation.
14	BinGen_data	PD1_UKBA Exp Data	lukas.gajdosech@fmph.uniba.sk 0000-0002-8646-2147		Novel Synthetic Data Tool for Data-Driven Cardboard Box Localization https://doi.org/10.48550/arXiv.2305.05215	**3.4 GB**	Zenodo https://doi.org/10.5281/zenodo.10650158 OA	The data in this repository can be used to train neural networks for bin pose estimation.
15	WSL-SegTeeth_code	PD2_UKBA code	viktor.kocur@fmph.uniba.sk 0000-0001-8752-2685		Processing and Segmentation of Human Teeth from 2D Images using Weakly Supervised Learning https://doi.org/10.48550/arXiv.2311.07398	-	Zenodo https://doi.org/10.5281/zenodo.10688264 Restricted (collaboration with private sector)	The code in this repository can be used to train a deep neural network for human teeth keypoint detection and segmentation. Restricted access due to collaboration with the private sector.
16	WSL-SegTeeth_data	PD1_UKBA Exp Data	viktor.kocur@fmph.uniba.sk 0000-0001-8752-2685		Processing and Segmentation of Human Teeth from 2D Images using Weakly Supervised Learning https://doi.org/10.48550/arXiv.2311.07398	-	Zenodo https://doi.org/10.5281/zenodo.10688365 Restricted (collaboration with private sector)	This dataset contains images of human oral cavities with annotated keypoints of teeth. Few samples also have mask annotations. Restricted access due to collaboration with the private sector.

17	QuasiNet_code	PD2_UKBA code	kristina.malinovska@fmph.uniba.sk 0000-0001-7638-028X		Neural network with trainable product layers https://doi.org/10.48550/arXiv.2401.06137	**7.0 kB**	Zenodo https://doi.org/10.5281/zenodo.10702248 OA	Code for the proposed neural network implementation. The repository also contains experiments from the paper for replication.
18	GANShift_code	PD2_UKBA code	kristina.malinovska@fmph.uniba.sk 0000-0001-7638-028X		Controlling the Output of a Generative Model by Latent Feature Vector Shifting https://doi.org/10.48550/arXiv.2311.08850	**47.5 MB**	Zenodo https://doi.org/10.5281/zenodo.10708458 OA	Repository contains the code for the proposed method to be used by the research community.
19	VR_SDM_code	PD2_UKBA code	ivan.polasek@fmph.uniba.sk 0000-0001-6004-701X		Collaborative software design and modeling in virtual reality https://doi.org/10.1016/j.infsof.2023.107369	-	Zenodo https://doi.org/10.5281/zenodo.10706814 Restricted (collaboration with private sector)	Code for the system proposed in the paper.
20	VR_SDM_data	PD3_UKBA Exp. data	ivan.polasek@fmph.uniba.sk 0000-0001-6004-701X		Collaborative software design and modeling in virtual reality https://doi.org/10.1016/j.infsof.2023.107369	-	Zenodo https://doi.org/10.5281/zenodo.10706914 Restricted (collaboration with private sector)	Data from human evaluations of the proposed method.
21	Xmodels_code	PD2_UKBA code	lukas.radosky@fmph.uniba.sk 0000-0003-3909-3219 ivan.polasek@fmph.uniba.sk 0000-0001-6004-701X		Executable Multi-Layered Software Models https://doi.org/10.1145/3643660.3643938	**644.9 MB**	Zenodo https://zenodo.org/doi/10.5281/zenodo.10710970 OA	The code in this repository is a software modelling tool using fusion of static and dynamic models, that is also able to generate source code in Python

22	SynthGaze_data	PD1_UKBA Exp. data	igor.farkas@fmph.uniba.sk 0000-0003-3503-2080		Appearance-based gaze estimation enhanced with synthetic images using deep neural networks https://doi.org/10.48550/arXiv.2311.14175	**16.95 GB**	Zenodo https://doi.org/10.5281/zenodo.10711777 OA	Synthetically generated gaze images which can be used for training of Gaze Estimation neural networks.
23	MHS-MXP_code	PD2_UKBA code	martin.homola@fmph.uniba.sk 0000-0001-6384-9771		Merge, Explain, Iterate: A Combination of MHS and MXP in an ABox Abduction Solver https://doi.org/10.5281/zenodo.10724508	**315.8 MB**	Zenodo https://doi.org/10.5281/zenodo.10708157 OA	Code for the methods presented in the paper.
24	ImAssocRob_code	PD2_UKBA code	andrej.lucny@fmph.uniba.sk 0000-0001-6042-7434		Robot at the mirror: learning to imitate via associating self-supervised models https://doi.org/10.48550/arXiv.2311.13226	**18.6 kB**	Zenodo https://doi.org/10.5281/zenodo.10713544 OA	Code for the methods presented in the paper. Can be used by the research community.
25	ImAssocRob_data	PD2_UKBA data	andrej.lucny@fmph.uniba.sk 0000-0001-6042-7434		Robot at the mirror: learning to imitate via associating self-supervised models https://doi.org/10.48550/arXiv.2311.13226	**575.7 MB**	Zenodo https://doi.org/10.5281/zenodo.10841497 OA	A set of simulated robot poses recorded during learning imitation at the mirror for various parameter setups
26	EduDrone_code	PD2_UKBA code	pavel.petrovic@fmph.uniba.sk 0000-0001-8308-0066		Using Programmable Drone in Educational Projects and Competitions https://doi.org/10.48550/arXiv.2402.17409	**1.9 MB**	Zenodo https://doi.org/10.5281/zenodo.10715699 OA	Code for the methods presented in the paper. Can be used by the research community.

27	DL Addressee Estimation Model for HRI - data	PD3_IIT_data	carlo.mazzola@iit.it 0000-0002-9282-9873		To Whom are You Talking? A Deep Learning Model to Endow Social Robots with Addressee Estimation Skills https://doi.org/10.48550/arXiv.2308.10757	**16.1 GB**	Zenodo https://doi.org/10.5281/zenodo.10711588 OA	Data derived from deep learning Addressee Estimation model trained on Vernissage Corpus
28	DL Addressee Estimation Model for HRI - code	PD4_IIT_code	carlo.mazzola@iit.it 0000-0002-9282-9873		To Whom are You Talking? A Deep Learning Model to Endow Social Robots with Addressee Estimation Skills https://doi.org/10.48550/arXiv.2308.10757	**58.3 kB**	Zenodo https://doi.org/10.5281/zenodo.10709858 OA	Code to train a deep learning Addressee Estimation model on Vernissage Corpus
29	NICOL_Software	PD 6 UHAM code	matthias.kerzel@uni-hamburg.de		NICOL: A Neuro-Inspired Collaborative Semi-Humanoid Robot That Bridges Social Interaction and Reliable Manipulation https://doi.org/10.1109/ACCESS.2023.3329370	-	UHH	NICOL robot software and CAD/URDF files, including everything needed to run the CoppeliaSim simulation
30	cycleik_code	PD 6 UHAM code	jan-gerrit.habekost@uni-hamburg.de		CycleIK: Neuro-inspired Inverse Kinematics https://doi.org/10.1007/978-3-031-44207-0_38	-	GitHub https://github.com/jangerritha/CycleIK	Implementation of CycleIK reproduce the results of the paper

3. Abbreviations & keywords

Table 6. *Abbreviations and keywords.*

Abbreviation/ Keyword	Definition
CD	Child-Dataset
DMP	Data Management Plan
DOI	Digital Object Identifier
IIT	Italian Institute of Technology
PD	Parent-Dataset
PID	Persistent Identifier
TERAIS	Towards Excellent Robotics and Artificial Intelligence at a Slovak university
UKBA	Comenius University Bratislava (Univerzita Komenského v Bratislave)
UHAM	University of Hamburg