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Contents: The POPART project participates in the pilot on open research data. In this task we will formulate a data management plan to make available data sets that can benefit the academic community and other users.	

Data Management Plan

Data set reference and name

The identifier for this dataset is 'POPART DATASET'.

Data set description

This dataset includes high quality video footage produced in a professional film studio environment. The goal of this dataset is to enable researchers to improve the quality of state-of-the-art camera tracking and 3D reconstruction algorithms by experimenting with industry data.

The dataset includes footage from the main film camera, both in SDI dump and RED RAW together with two witness cameras attached rigidly to the main camera. The witness cameras have a broader FOV and higher shutter speed allowing for a recording better suited for tracking than the main camera alone. Additionally, some of the tests include footage of CCtags fiducial markers attached in the ceiling of the studio or on the wall. They can be detected and localized by the CCtags library, released as open source in this project. The data set allows researchers to improve upon the CCtags algorithm, verify the quality of the tracking data and provide a reference for the POPART system.

In addition to film footage, the dataset includes a CG world with 3D renderings. This dataset allows to evaluate the quality of any 3D reconstruction software and any camera tracker. The CG world contains the ground truth data and enables to compute the overall error rate of the solution. So it enables to compare the different softwares with metrics.

The CG world has been created by photomodeling using the MayaMVG tool, released as open source in the POPART project.

The first contributions to the POPART_DATASET will be made available in July 2015, and we expect to further expand the dataset.

All open source contributions and released data sets will be available on http://popartproject.eu, the project's Github page https://github.com/poparteu and from Zenodo <a href="https://github.com/poparteu and from Zenodo <a href="https://git

Standards and metadata

The video files in the data set are based on REDCODE RAW [1] and ISO MP4 [2]. Additionally, text files included describe lens metadata and other parameters.

3D models are stored in industry standards Alembic [3] and FBX [4].

- [1] http://www.red.com/learn/red-101/redcode-file-format
- [2] MPEG-4 Part 14 (ISO/IEC14496-14:2003)
- [3] http://www.alembic.io/

[4] http://www.autodesk.com/products/fbx/overview

Data sharing

The data set is released to the general public under the license <u>Creative Commons Attribution-ShareAlike</u> <u>4.0 International</u>, allowing researchers and other interested parties to exploit the data set.

Archiving and preservation

The dataset will be archived for permanent preservation at Zenodo, an initiative by CERN to preserve open research data. The expected lifetime for online preservation is at least 20 years.