Supplementary Materials of DART: Articulated Hand Model with Diverse Accessories and Rich Textures

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1 Dataset documentation and intended uses

The Authors of DART state that we bear all responsibility in case of violation of rights.

DART has three main components: (1). synthetic data generator (Unity GUI), (2). DARTset (800K synthetic data paired with mesh, 3D/2D joint positions) and (3). 335 high fidelity texture maps, dozens of accessories and wrist-enhanced DART template hand.

The potential usage of DART can be like below but not limited:

- DART's GUI aims to synthesize images with user-favorable settings: hand poses, camera views, background, illumination, and DART's textures and accessories.
- DARTset can be mixed up with real-world data during training, to boost the performance and generalization in both hand pose estimation and mesh recovery tasks.
- Released high-fidelity texture maps and 3D accessories could also be attached to other articulated hand models, or be combined with existing libraries of texture or accessory.

2 URL and Maintenance plan

We have released the full package at dart2022.github.io for only research purpose, including DART documentation, video demo, Unity executable package, source code (Unity and PyTorch Dataloader), DART's texture maps, 3D textured accessories, and DARTset (0.8M). All above will be available for a long time. And we will provide the necessary maintenance for extended development.

3 License

All codes are with an MIT license. Unity GUI tools are with CC BY-NC 4.0 license. The released DARTset is CC BY-NC-ND 4.0 license.