

BODY

input

100 unique male and female models (50:50)
markerless unclothed (minimal coverage) models
sequential frame rate: 24fps
8.9 seconds (214 frames) each
unconstrained full body in natural motion
four basic body pose actions: T-pose, bicep flex, hand clap, squat, walk in place (with transitions)
green screen background (luma key to replace lights)
under constant flicker-free global illumination

output

100 x 4D sequences (discrete objs w/4K jpg textures)
camera calibration data from photogrammetry
96 original camera images per frame (20MP jpegs)
4 x 120fps full body 2D HD .mp4 video-only views with audio (at 90 degree positions)

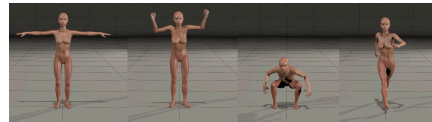
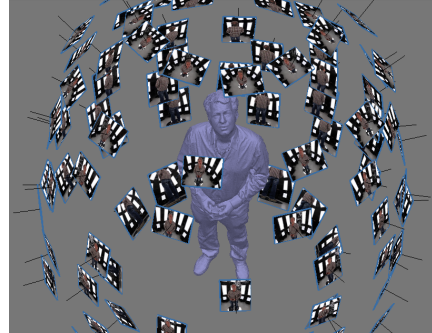


image source: Poser

FACE

input

100 unique male and female models (50:50)
markerless makeup-free models with short or tied hair
sequential frame rate: 24fps
8.9 seconds (214 frames) each
unconstrained head and shoulders in natural motion
seven basic facial expressions: neutral, anger, disgust, fear, joy, sadness, surprise (with transitions)
green screen background (luma key to replace lights)
under constant flicker-free global illumination

output

100 x 4D sequences (discrete objs w/4K jpg textures)
camera calibration data from photogrammetry
24 original camera images per frame (20MP jpegs)
12 x 120fps head and shoulders 2D HD .mp4 video-only views with audio (at 30 degree positions)



image source: FACSGen

These very high resolution markerless mesh and texture datasets are intended for training animation systems on 4D mesh and texture changes over time. Trained animation systems can then subsequently retopologize (normalize) the meshes over time, auto-rig the meshes over time, and reproject, normalize, and compress the textures over time, resulting in the ability to edit and retarget performances while gaining the bandwidth benefits of temporal compression. The original camera images with color charts will be included with scripts for reprocessing with free open source photogrammetry solutions for lower / higher resolution meshes and textures.

SIZE OF DATASETS

42,800 3D .obj files, 2,568,000 still images: approximately 2.5TB 4D data, 15TB 2D images, 250GB 120fps HD .mp4. License terms to allow dissemination (partially or in full) by recipients.

LICENSE TYPE

Modified Creative Commons Attribution 4.0 International CC-BY-4.0 to include non-military commercial use.

