From Scans to Avatars: Using Multi-Viewpoint, High Precision 3D Surface Imaging to create Realistic Deformable Models of the Body

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Abstract

At the first Lugano Conference in 2010 Michael Black outlined his vision to Chris Lane for the development of a personalized avatar of complex human body movements calibrated by a streamlined workflow of 3D body scans. During the conference 3dMD publically launched its new generation of very fast 3D body surface capture devices which Michael felt could be developed to support his long term software research. At the second conference a video of the pre-delivery 3Dbody system developed for Michael's group was shown. Less than one year after commissioning the equipment, Chris and Michael will be showing a fully functional hardware and software process which results in the production of a spatially precise dynamic avatar which can be subsequently edited and posed. The process of going from a "scan" to an "avatar" is fully automatic, does not require landmarking, and the resulting avatar is easily edited to change its shape and pose. The joint presentation will highlight the development of a very focused commercial-academic partnership and debut the resultant technology with videos and demonstrations that have not been seen before at a public event. The presenters will conclude by summarizing the commercial potential for this approach to dynamic 3D body metrics.

* www.3dmd.com