ISO 17097:2024-05 (E)

3-D human body scan data - Methods for the processing of human body scan data

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1
3.1 3-D anthropometry 1
3.2 3-D scan data 2
3.3 Processing of 3-D human scan data 4

4 Methods for point-cloud processing 4
4.1 General 4
4.2 Registration 5
4.3 Merging 6
4.4 Denoising (noise removal) 6
4.5 Adjustment of point-cloud resolution 7
4.6 Meshing 7
4.7 Texture mapping 8
4.8 Saving of mesh 8

5 Methods for mesh processing 8
5.1 General 8
5.2 Editing of mesh 10
5.2.1 Merging 10
5.2.2 Hole-filling 10
5.2.3 Smoothing 11
5.3 Adjustment of mesh resolution 12
5.3.1 Mesh subdivision 12
5.3.2 Decimation (mesh downsampling) 13
5.3.3 Remesh (mesh optimization) 13
5.4 Landmarking for mesh alignment 14
5.5 Alignment of mesh coordinates 14
5.6 Template matching (mesh parameterization) 15

Bibliography 16