Errata for Texture Mapping Progressive Meshes

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1. Introduction

2. Previous work

3. Texture stretch metric

4. Our PM parametrization scheme

5. Results

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The stretch efficiencies in the following table were computed incorrectly in the original paper.

The corrected numbers appear below. In all cases, the corrected numbers represent improvements (higher efficiencies) over the erroneous results reported previously.

Models	bunny	parasaur	horse	hand
# faces in M^n	69,630	43,866	96,956	60,856
# vertices in M^n	34,817	21,935	48,480	30,430
# charts	75	75	120	60
# faces in M^0	288	298	470	230
# vertices in M^0	146	151	237	117
(stretch efficiency with uniform parametrization)	0.63	0.003	0.61	0.11
stretch efficiency	0.84	0.63	0.80	0.68
intra-rectangle efficiency	0.77	0.71	0.77	0.76
rectangle-packing effic.	0.87	0.89	0.91	0.82
packing efficiency	0.67	0.63	0.70	0.62
texture efficiency	0.56	0.40	0.56	0.42

Table 1: Quantitative results.

Table 1 provides results on the efficiency of the parametrization in reducing the required texture memory. *Stretch efficiency* is the total surface area in 3D divided by the total chart area in 2D, $\Sigma_T A'(T) / \Sigma_T A(T)$, given that charts are resized as in Section 4.3. It is less than unity if some surface regions are sampled more than necessary (i.e. if texture stretch is not uniform everywhere and in every direction). *Packing efficiency* is the sum of chart areas in 2D divided by the rectangular texture domain area. It is less than unity due to two factors: the enclosure of chart polygons into rectangles, and the wasted space between the packed rectangles. *Texture efficiency* is the product of stretch and packing efficiencies, or total surface area divided by texture domain area.

6. Summary and future work

References