AAM Data Report

Generated by the AAM-API [c:/users/mbs/studies/hands/model6_no_outliers]

Mikkel B. Stegmann [mbs@imm.dtu.dk]

January 18, 2002

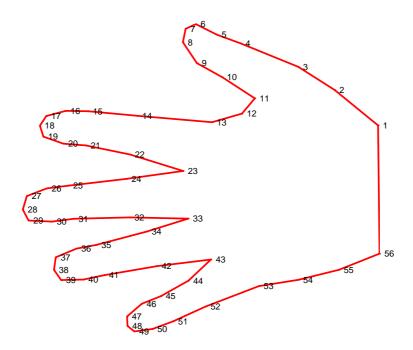


Figure 1: Mean shape.

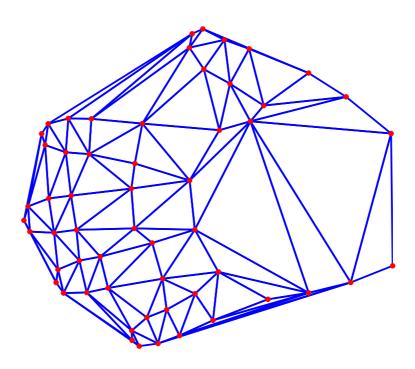


Figure 2: Delaunay triangulation of the mean shape.

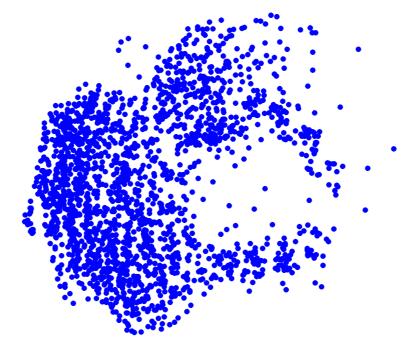


Figure 3: Point cloud of the unaligned annotations.

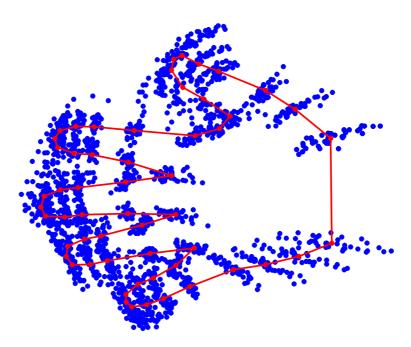


Figure 4: Point cloud of the aligned annotations with mean shape fully drawn in red.

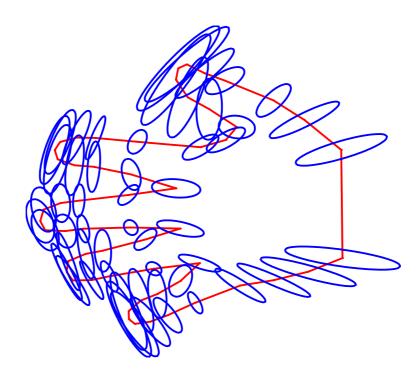


Figure 5: Independent principal component analysis of each model point.

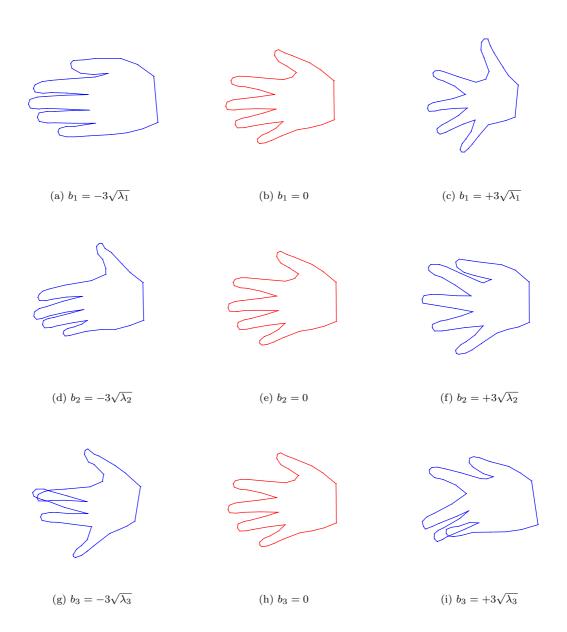


Figure 6: Mean shape deformation using 1st, 2nd and 3rd principal mode. $b_i = -3\sqrt{\lambda_i}, b_i = 0, b_i = 3\sqrt{\lambda_i}$.

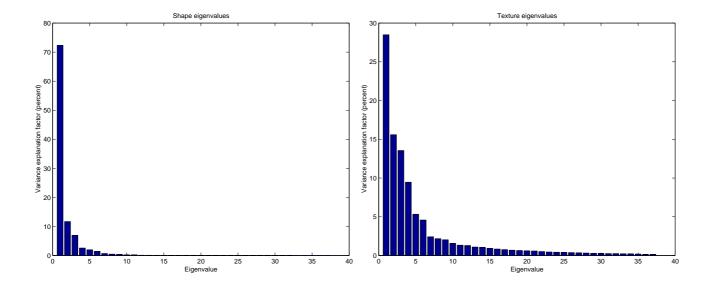


Figure 7: Shape (left) and texture (right) eigenvalues in descending order.

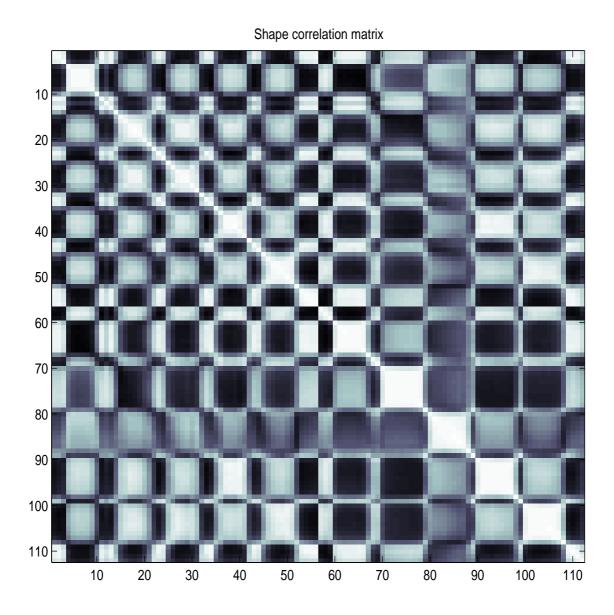


Figure 8: Correlation matrix of the annotations.

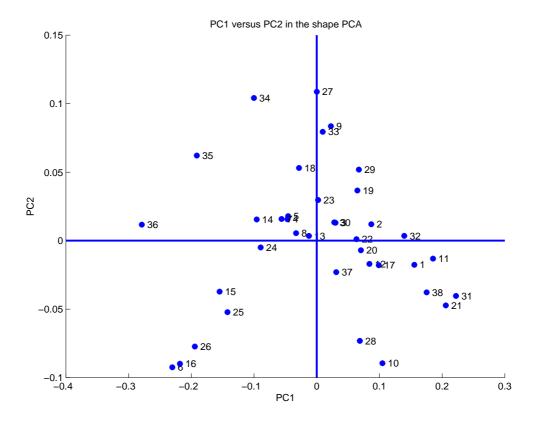


Figure 9: PC1 $(b_{s,1})$ vs. PC2 $(b_{s,2})$ in the shape PCA.

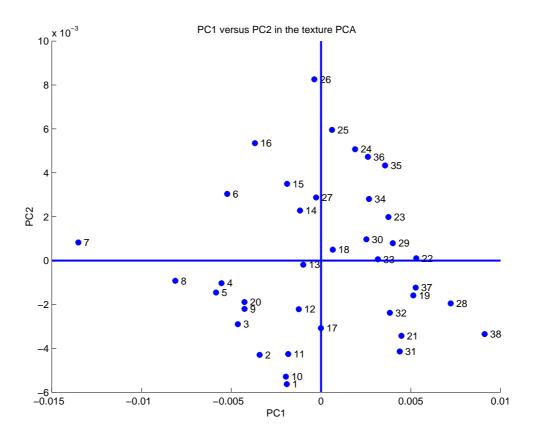


Figure 10: PC1 $(b_{g,1})$ versus PC2 $(b_{g,2})$ in the texture PCA.

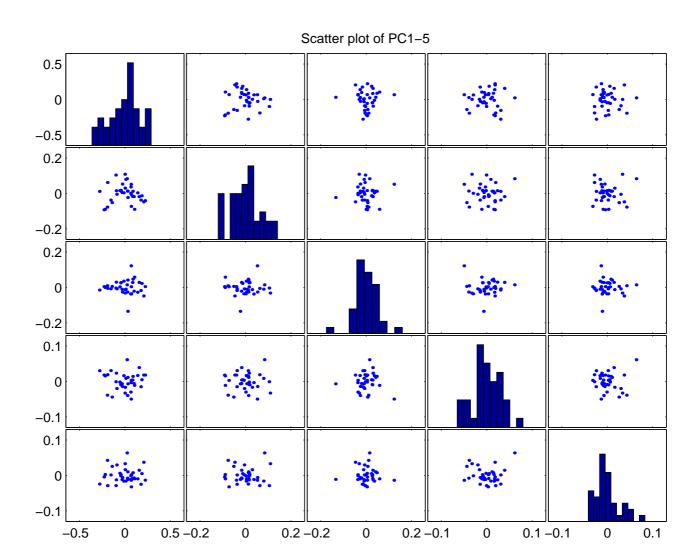


Figure 11: Scatter plot of PC1-5 (PC1 is top-left).



Figure 12: Texture variance, black corresponds to high variance.

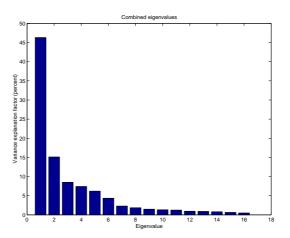


Figure 13: Combined eigenvalues.

Active Appearance Model File

Written : Friday January 18 - 2002 [11:40]

Format version : 0.94

Shapes : 38

Shape points : 56

Texture samples : 3728

Model reduction : 5

Add Shape Extents : 0

Convex hull used : No

Tangent space used : Yes

Learning Method : 0

Variance Exp. Level: 95

Parameters used : 16

Mean shape area : 3723.72

Combined mode variation :

- 1 44.04% (44.04%)
- 2 14.39% (58.43%)
- 3 8.09% (66.52%)
- 4 7.05% (73.57%)
- 5 5.89% (79.46%)
- 6 4.14% (83.61%)
- 7 2.20% (85.80%)
- 8 1.76% (87.57%)
- 9 1.41% (88.98%)
- 10 1.26% (90.24%)
- 11 1.20% (91.43%)
- 12 0.91% (92.35%)
- 13 0.87% (93.22%) 14 0.78% (93.99%)
- 14 0.78% (93.99%) 15 0.61% (94.61%)
- 16 0.47% (95.08%)

Shape mode variation :

- 1 72.34% (72.34%)
- 2 11.70% (84.04%)
- 3 6.99% (91.04%)
- 4 2.60% (93.63%)
- 5 1.99% (95.62%)
- 6 1.43% (97.05%) 7 0.71% (97.76%)
- 8 0.49% (98.25%)
- 9 0.40% (98.65%)

```
10
     0.23% (98.88%)
11
     0.21%
            (99.09%)
     0.13%
12
            (99.22%)
     0.12%
13
            (99.34%)
     0.10%
            (99.44%)
14
15
     0.06%
            (99.50%)
     0.06%
            (99.56%)
16
17
     0.05%
            (99.61%)
            (99.66%)
      0.05%
18
19
     0.04%
            (99.70%)
20
     0.04%
            (99.74%)
     0.03%
21
            (99.77%)
     0.03%
22
            (99.80%)
23
     0.03%
            (99.83%)
24
     0.02%
            (99.85%)
     0.02%
            (99.87%)
25
26
     0.02%
            (99.89%)
27
     0.02%
            (99.90%)
28
     0.02%
            (99.92%)
     0.01%
            (99.93%)
29
     0.01%
30
            (99.95%)
31
     0.01%
            (99.96%)
            (99.97%)
32
     0.01%
            (99.98%)
33
     0.01%
34
     0.01%
            (99.98\%)
35
     0.01%
            (99.99%)
36
     0.01%
            (99.99%)
37
      0.01%
            (100.00%)
Texture mode variation :
    28.49% (28.49%)
1
2
    15.60% (44.09%)
3
    13.56%
           (57.65%)
4
     9.47%
           (67.11%)
     5.33%
5
           (72.44\%)
     4.59%
           (77.03%)
7
     2.42%
           (79.45%)
     2.18%
           (81.63%)
8
     2.03%
9
           (83.66%)
            (85.22%)
10
     1.56%
     1.35%
            (86.56%)
11
12
     1.30%
            (87.86%)
     1.10%
13
            (88.96%)
14
     1.06%
            (90.02%)
     0.94%
            (90.96%)
15
     0.84%
            (91.80%)
16
      0.77%
            (92.57%)
17
18
      0.70%
            (93.27%)
     0.65%
            (93.92%)
19
20
     0.59%
            (94.51%)
     0.59%
21
            (95.10%)
22
     0.52%
            (95.62%)
     0.46%
            (96.08%)
23
     0.43%
            (96.51%)
24
     0.40%
            (96.91%)
25
26
     0.38%
            (97.29%)
27
     0.33%
            (97.63%)
28
     0.33%
            (97.96%)
29
     0.29%
            (98.25%)
30
     0.28%
            (98.52%)
```

```
31 0.26% (98.78%)
32 0.25% (99.04%)
33 0.23% (99.27%)
34 0.22% (99.48%)
35 0.20% (99.68%)
36 0.17% (99.84%)
37 0.16% (100.00%)
```