Appendix C. Detailed segmentation statistics.

The tables is this appendix show distribution statistics, by finger position, for the segmentation algorithms tested as compared to the hand marked ground truth for 3-inch slap images. The differences between the segmentation algorithm and ground truth are sorted into bins based on the tolerances allowed for correct segmentation. Specifically, the left/right edges must be within -32/+64 pixels of the ground truth, top edge -64/+64 and bottom edge -64/+128. For each finger position there is a column for each of the four segmentation box edges (L, R, T and B).

The first row ("No Finger Found") shows the counts for when a finger was not detected by the segmentation algorithm. The next four rows show statistics for segmentation edges that are within the specified minimum (MN) and maximum (MX) pixel tolerances compared to the ground truth, so these are considered good segmentations. Rows 1 (MN <= d < 0) and 3 (0 <= d <= MX) show the average value for all differences in that range and rows 3 and 5 show the total count occurring in that range.

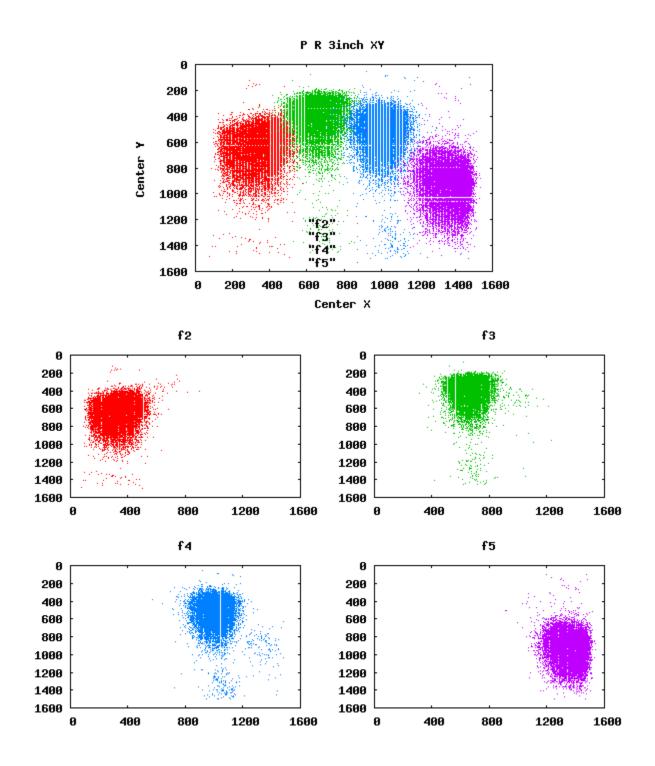
Rows 6-9 also show average difference values and bin counts but for ranges $MN-32 \le d \le MN$ and $MX \le d \le MX+32$, which are just outside the accepted tolerance ranges. Rows 10-13 tally everything greater than 32 pixels away from the accepted tolerance range, $d \le MN-32$ and d > MX+32.

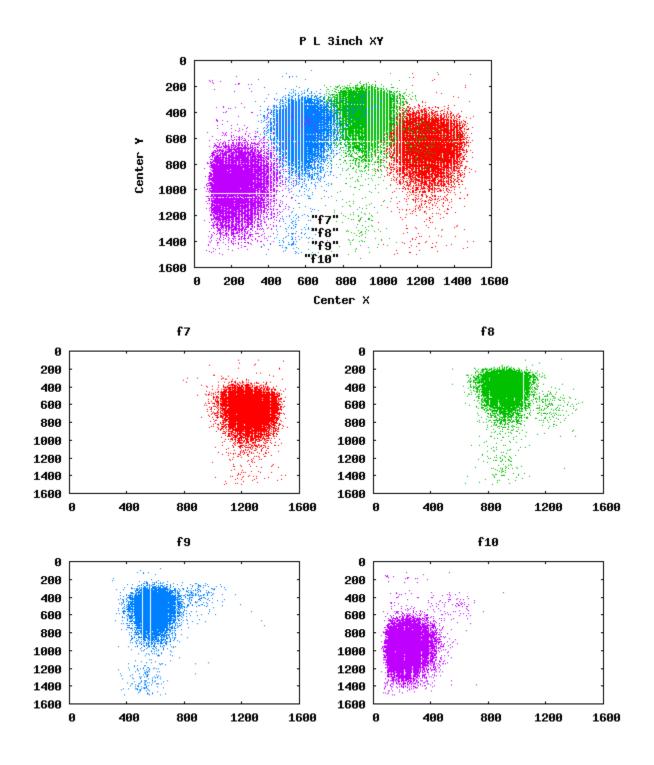
The last three rows show the total count for each bin, the overall average difference value and the standard deviation of all the difference values.

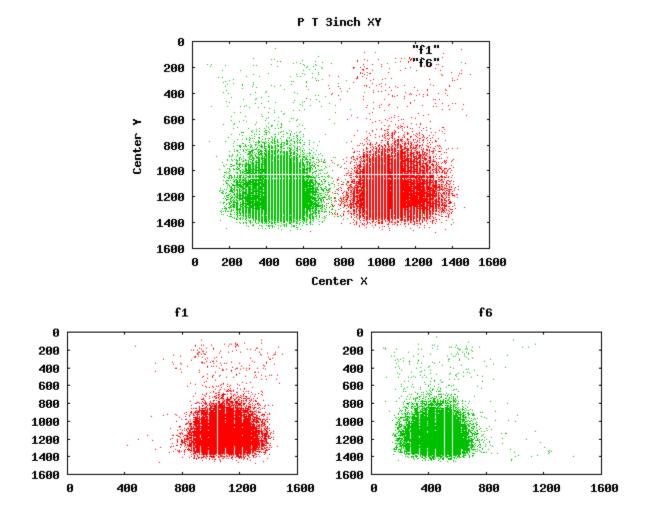
									P = L	akota										
No Finger Found	R. Thumb 64				R. Index 361			R Middle 37			R. Ring 25				R. Little 61					
	L	R	т	в	L	R	т	В	L	R	т	В	L	R	T	в	L	R	т	в
MN <= d < 0	-10.18	-9.86	-13.90	-16.95	-6.89	-7.33	-11.70	-15.92	-7.56	-7.07	-10.04	-17.45	-6.48	-7.23	-8.10	-18.51	-6.74	-8.64	-11.12	-14.68
#	9284	9699	14708	4612	8788	3814	16070	8299	6768	4558	11444	7635	9011	5395	10894	7823	6944	6906	15156	8340
0 <= d <= MX	9.67	11.76	12.93	32.10	6.09	11.17	13.18	22.20	6.42	11.30	15.20	32.81	7.45	13.49	15.29	31.77	6.37	9.19	12.56	19.87
#	14621	13984	9385	16180	15955	21028	8756	16059	17982	20239	13323	16102	15598	19087	13739	15332	17661	17478	9490	15571
MN-32 <= d < MN	-38.47	-41.59	-76.47	-78.18	-42.93	-43.43	-75.14	-74.90	-42.95	-41.84	-75.24	-76.89	-46.22	-38.94	-75.25	-77.42	-42.13	-40.91	-73.81	-77.15
#	244	379	63	185	109	35	22	182	83	43	17	370	107	111	12	493	86	216	26	222
MX < d <= MX+32	83.42	75.54	#DIV/0!	143.72	75.93	74.00	73.75	141.51	75.60	76.61	70.17	141.98	75.17	74.92	82.40	142.08	69.83	77.14	69.25	142.74
#	12	56	0	1272	14	15	4	147	10	23	6	385	6	155	5	453	6	87	4	213
d < MN-32	-208.94	-400.1	-170.97	-721.26	-205.10	-189.65	-725.33	-226.86	-253.91	-240.93	-645.04	-133.18	-253.59	-285.97	-675.49	-158.50	-146.05	-1260.43	-455.91	-702.25
#	154	242	29	365	84	24	58	108	111	22	170	92	231	34	290	216	49	241	34	385
d > MX+32 #	516.42	251.05	784.03	202.91	215.08	309.69	311.46	378.40	308.32	333.15	231.13	380.30	429.27	278.66	266.50	366.85	1142.98	181.26	684.01	233.41
#	107	62	237	1808	18	52	58	173	14	83	8	384	15	186	28	651	222	40	258	237
Total #	24422	24422	24422	24422	24968	24968	24968	24968	24968	24968	24968	24968	24968	24968	24968	24968	24968	24968	24968	24968
Average	2.52	-0.98	3.81	29.20	0.79	8.74	-3.93	10.92	1.51	8.76	-0.84	24908	0.04	10.73	-2.69	22.95	12.38	-7.92	4.41	-0.59
Std Dev	47.19	62.76	82.59	127.74	17.56	19.80	43.46	54.12	23.05	24.88	63.65	70.63	32.19	34.13	80.09	81.71	111.30	133.56	75.53	111.51
Stubev	47.15	02.70	02.55	127.74	17.50	15.80	43.40	54.12	23.05	24.00	05.05	70.05	52.15	54.15	00.05	01.71	111.50	155.50	75.55	111.51
		L. Tł	numb			L. In	dex			L. M	ddle			L. R	ling			L. Lit	ttle	
No Finger Found			numb 54			L. In 17				L. Mi 1	ddle 5			L. R 4	ling 1			L. Lit 15		
No Finger Found	L			В	L			в	L			в	L			В	L			в
No Finger Found MN <= d < 0	L -8.95	e	54	B -17.07	L -6.86	17	'5	B -16.40	L -4.80	1	5	B -19.03	L -4.63	4	1	B -20.49	L -7.68	15	8	B -16.01
Ū.	-	R	54 T		_	17 R	75 T		_	1 R	5 T		_	4 R	1 T		_	15 R	8 T	
Ū.	-8.95	6 R -10.78	54 T -15.38	-17.07	-6.86	17 R -9.33	75 T -11.79	-16.40	-4.80	1 R -8.07	5 T -10.02	-19.03	-4.63	4 R -8.36	.1 T -7.69	-20.49	-7.68	15 R -8.83	•8 T -11.25	-16.01
MN <= d < 0 #	-8.95 8636	R -10.78 10654	54 T -15.38 15817	-17.07 5280	-6.86 3234	17 R -9.33 7092	75 T -11.79 15155	-16.40 7960	-4.80 5837	1 R -8.07 6225	5 T -10.02 10411	-19.03 8213	-4.63 5339	4 R -8.36 7126	1 T -7.69 9649	-20.49 9615	-7.68 7286	15 R -8.83 5302	T -11.25 14024	-16.01 10116
MN <= d < 0 # 0 <= d <= MX #	-8.95 8636 11.26 15079	R -10.78 10654 9.92 13194	54 T -15.38 15817 12.17 8366	-17.07 5280 31.78 15614	-6.86 3234 8.40 21346	17 R -9.33 7092 9.27 17102	75 T -11.79 15155 14.06 9390	-16.40 7960 21.96 16077	-4.80 5837 10.24 18779	1 R -8.07 6225 10.26 18323	5 T -10.02 10411 15.35 14181	-19.03 8213 33.25 15129	-4.63 5339 12.54 19047	4 R -8.36 7126 10.47 17381	1 T -7.69 9649 16.41 14960	-20.49 9615 31.32 13307	-7.68 7286 8.62 17217	15 R -8.83 5302 9.88 19351	8 T -11.25 14024 13.10 10701	-16.01 10116 19.18 13892
MN <= d < 0 #	-8.95 8636 11.26 15079 -42.58	R -10.78 10654 9.92 13194 -38.31	T -15.38 15817 12.17 8366 -74.91	-17.07 5280 31.78 15614 -76.22	-6.86 3234 8.40 21346	17 R -9.33 7092 9.27 17102 -40.78	T 11.79 15155 14.06 9390 -73.96	-16.40 7960 21.96 16077 -76.29	-4.80 5837 10.24 18779 -43.25	1 R -8.07 6225 10.26 18323 -41.68	5 T -10.02 10411 15.35 14181 -76.17	-19.03 8213 33.25 15129 -76.69	-4.63 5339 12.54 19047 -40.39	4 R -8.36 7126 10.47 17381 -43.15	1 T -7.69 9649 16.41 14960 -77.13	-20.49 9615 31.32 13307 -77.14	-7.68 7286 8.62 17217 -43.65	15 R -8.83 5302 9.88 19351 -41.64	T -11.25 14024 13.10 10701 -73.26	-16.01 10116 19.18 13892 -77.04
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN #	-8.95 8636 11.26 15079 -42.58 376	R -10.78 10654 9.92 13194 -38.31 390	T -15.38 15817 12.17 8366 -74.91 49	-17.07 5280 31.78 15614 -76.22 183	-6.86 3234 8.40 21346 -44.72 29	17 R -9.33 7092 9.27 17102 -40.78 366	T -11.79 15155 14.06 9390 -73.96 23	-16.40 7960 21.96 16077 -76.29 199	-4.80 5837 10.24 18779 -43.25 36	R -8.07 6225 10.26 18323 -41.68 129	5 T -10.02 10411 15.35 14181 -76.17 12	-19.03 8213 33.25 15129 -76.69 514	-4.63 5339 12.54 19047 -40.39 23	4 R -8.36 7126 10.47 17381 -43.15 154	1 T -7.69 9649 16.41 14960 -77.13 8	-20.49 9615 31.32 13307 -77.14 806	-7.68 7286 8.62 17217 -43.65 131	15 R -8.83 5302 9.88 19351 -41.64 148	T -11.25 14024 13.10 10701 -73.26 41	-16.01 10116 19.18 13892 -77.04 255
MN <= d < 0 # 0 <= d <= MX #	-8.95 8636 11.26 15079 -42.58 376 75.56	R -10.78 10654 9.92 13194 -38.31 390 82.50	54 T -15.38 15817 12.17 8366 -74.91 49 85.50	-17.07 5280 31.78 15614 -76.22 183 143.99	-6.86 3234 8.40 21346 -44.72 29 77.24	17 R -9.33 7092 9.27 17102 -40.78 366 80.47	T -11.79 15155 14.06 9390 -73.96 23 74.40	-16.40 7960 21.96 16077 -76.29 199 142.79	-4.80 5837 10.24 18779 -43.25 36 77.81	R -8.07 6225 10.26 18323 -41.68 129 76.61	5 T -10.02 10411 15.35 14181 -76.17 12 87.50	-19.03 8213 33.25 15129 -76.69 514 142.31	-4.63 5339 12.54 19047 -40.39 23 76.68	4 R -8.36 7126 10.47 17381 -43.15 154 77.40	1 T -7.69 9649 16.41 14960 -77.13 8 81.07	-20.49 9615 31.32 13307 -77.14 806 143.46	-7.68 7286 8.62 17217 -43.65 131 76.83	15 R -8.83 5302 9.88 19351 -41.64 148 74.38	T -11.25 14024 13.10 10701 -73.26 41 81.50	-16.01 10116 19.18 13892 -77.04 255 143.18
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN #	-8.95 8636 11.26 15079 -42.58 376	R -10.78 10654 9.92 13194 -38.31 390	T -15.38 15817 12.17 8366 -74.91 49	-17.07 5280 31.78 15614 -76.22 183	-6.86 3234 8.40 21346 -44.72 29	17 R -9.33 7092 9.27 17102 -40.78 366	T -11.79 15155 14.06 9390 -73.96 23	-16.40 7960 21.96 16077 -76.29 199	-4.80 5837 10.24 18779 -43.25 36	R -8.07 6225 10.26 18323 -41.68 129	5 T -10.02 10411 15.35 14181 -76.17 12	-19.03 8213 33.25 15129 -76.69 514	-4.63 5339 12.54 19047 -40.39 23	4 R -8.36 7126 10.47 17381 -43.15 154	1 T -7.69 9649 16.41 14960 -77.13 8	-20.49 9615 31.32 13307 -77.14 806	-7.68 7286 8.62 17217 -43.65 131	15 R -8.83 5302 9.88 19351 -41.64 148	T -11.25 14024 13.10 10701 -73.26 41	-16.01 10116 19.18 13892 -77.04 255
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 #	-8.95 8636 11.26 15079 -42.58 376 75.56 70	R R 10.654 9.92 13194 -38.31 390 82.50 8	54 T -15.38 15817 12.17 8366 -74.91 49 85.50 2	-17.07 5280 31.78 15614 -76.22 183 143.99 1296	-6.86 3234 8.40 21346 -44.72 29 77.24 23	17 R -9.33 7092 9.27 17102 -40.78 366 80.47 32	T -11.79 15155 14.06 93900 -73.96 23 74.40 5	-16.40 7960 21.96 16077 -76.29 199 142.79 179	-4.80 5837 10.24 18779 -43.25 36 77.81 54	1 R -8.07 6225 10.26 18323 -41.68 129 76.61 18	5 T -10.02 10411 15.35 14181 -76.17 12 87.50 6	-19.03 8213 33.25 15129 -76.69 514 142.31 391	-4.63 5339 12.54 19047 -40.39 23 76.68 276	4 R -8.36 7126 10.47 17381 -43.15 154 77.40 5	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15	-20.49 9615 31.32 13307 -77.14 806 143.46 383	-7.68 7286 8.62 17217 -43.65 131 76.83 153	15 R -8.83 5302 9.88 19351 -41.64 148 74.38 4	T -11.25 14024 13.10 10701 -73.26 41 81.50 2	-16.01 10116 19.18 13892 -77.04 255 143.18 224
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 # d < MN-32	-8.95 8636 11.26 15079 -42.58 376 75.56 70	R R 10.78 10654 9.92 13194 -38.31 390 82.50 8 2.50 8	54 T -15.38 15817 12.17 8366 -74.91 49 85.50 2 -382.30	-17.07 5280 31.78 15614 -76.22 183 143.99 1296 -607.25	-6.86 3234 8.40 21346 -44.72 29 77.24 23 -322.37	17 R -9.33 7092 9.27 17102 -40.78 366 80.47 32 -1139.44	75 T -11.79 15155 14.06 9390 -73.96 23 74.40 5 -767.33	-16.40 7960 21.96 16077 -76.29 199 142.79 179 -691.12	-4.80 5837 10.24 18779 -43.25 36 77.81 54 -310.76	1 R -8.07 6225 10.26 18323 -41.68 129 76.61 18 -252.03	T -10.02 10411 15.35 14181 -76.17 12 87.50 6 -484.20	-19.03 8213 33.25 15129 -76.69 514 142.31 391 -159.08	-4.63 5339 12.54 19047 -40.39 23 76.68 276 -314.31	4 R -8.36 7126 10.47 17381 -43.15 154 77.40 5 -118.38	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15 -835.79	-20.49 9615 31.32 13307 -77.14 806 143.46 383 -146.41	-7.68 7286 8.62 17217 -43.65 131 76.83 153 -264.58	15 R -8.83 5302 9.88 19351 -41.64 148 74.38 4 -137.54	 T -11.25 14024 13.10 10701 -73.26 41 81.50 2 -520.42 	-16.01 10116 19.18 13892 -77.04 255 143.18 224 -327.07
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 # d < MN-32 #	-8.95 8636 11.26 15079 -42.58 376 75.56 70 -262.62 205	R -10.78 10654 9.92 13194 -38.31 390 82.50 8 -264.17 89	T -15.38 15817 12.17 8366 -74.91 49 85.50 2 -382.30 38	-17.07 5280 31.78 15614 -76.22 183 143.99 1296 -607.25 244	-6.86 3234 8.40 21346 -44.72 29 77.24 23 -322.37 23	17 R -9.33 7092 9.27 17102 -40.78 366 80.47 32 -1139.44 345	r -11.79 15155 14.06 9390 -73.96 23 74.40 5 -767.33 69	-16.40 7960 21.96 16077 -76.29 199 142.79 179 -691.12 374	-4.80 5837 10.24 18779 -43.25 36 77.81 54 -310.76 232	1 R -8.07 6225 10.26 18323 -41.68 129 76.61 18 29 76.61 18	T -10.02 10411 15.35 14181 -76.17 12 87.50 6 -484.20 343	-19.03 8213 33.25 15129 -76.69 514 142.31 391 -159.08 149	-4.63 5339 12.54 19047 -40.39 23 76.68 276 -314.31 186	4 -8.36 7126 10.47 17381 -43.15 154 77.40 5 -118.38 122	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15 -835.79 184	-20.49 9615 31.32 13307 -77.14 806 143.46 383 -146.41 373	-7.68 7286 8.62 17217 -43.65 131 76.83 153 -264.58 117	15 R -8.83 5302 9.88 19351 -41.64 148 74.38 4 -137.54 53	T -11.25 14024 13.10 10701 -73.26 41 81.50 2 -520.42 62	-16.01 10116 19.18 13892 -77.04 255 143.18 224 -327.07 234
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 # d < MN-32 # d > MX+32	-8.95 8636 11.26 15079 -42.58 376 75.56 70 -262.62 205 237.17	R -10.78 10654 9.92 13194 -38.31 390 82.50 8 82.50 8 82.50 8 -264.17 89 478.05	54 T -15.38 15817 12.17 8366 -74.91 49 85.50 2 -382.30 38 741.99	-17.07 5280 31.78 15614 -76.22 183 143.99 1296 -607.25 244 210.60	-6.86 3234 8.40 21346 -44.72 29 77.24 23 -322.37 23 1016.91	17 R -9.33 7092 9.27 17102 -40.78 366 80.47 32 -1139.44 345 296.44	r 11.79 15155 14.06 3390 -73.96 23 74.40 5 69 403.48	-16.40 7960 21.96 16077 -76.29 199 142.79 179 -691.12 374 393.89	-4.80 5837 10.24 18779 -43.25 36 77.81 54 -310.76 232 357.81	1 R -8.07 6225 10.26 18323 -41.68 129 76.61 18 -252.03 57 345.48	5 T -10.02 10411 15.35 14181 -76.17 12 87.50 6 -484.20 343 257.27	-19.03 8213 33.25 15129 -76.69 514 142.31 391 -159.08 149 362.25	-4.63 5339 12.54 19047 -40.39 23 76.68 276 -314.31 186 135.89	R -8.36 7126 10.47 17381 -43.15 154 77.40 5 -118.38 122 358.71	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15 -835.79 184 193.03	-20.49 9615 31.32 13307 -77.14 806 143.46 383 -146.41 373 399.27	-7.68 7286 8.62 17217 -43.65 131 76.83 153 -264.58 117 136.14	15 R -8.83 5302 9.88 19351 -41.64 148 74.38 4 -137.54 53 359.12	8 T -11.25 14024 13.10 10701 -73.26 41 81.50 2 -520.42 62 515.85 15.85	-16.01 10116 19.18 13892 -77.04 255 143.18 224 -327.07 234 293.50
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 # d < MN-32 #	-8.95 8636 11.26 15079 -42.58 376 75.56 70 -262.62 205	R -10.78 10654 9.92 13194 -38.31 390 82.50 8 -264.17 89	T -15.38 15817 12.17 8366 -74.91 49 85.50 2 -382.30 38	-17.07 5280 31.78 15614 -76.22 183 143.99 1296 -607.25 244	-6.86 3234 8.40 21346 -44.72 29 77.24 23 -322.37 23	17 R -9.33 7092 9.27 17102 -40.78 366 80.47 32 -1139.44 345	r -11.79 15155 14.06 9390 -73.96 23 74.40 5 -767.33 69	-16.40 7960 21.96 16077 -76.29 199 142.79 179 -691.12 374	-4.80 5837 10.24 18779 -43.25 36 77.81 54 -310.76 232	1 R -8.07 6225 10.26 18323 -41.68 129 76.61 18 29 76.61 18	T -10.02 10411 15.35 14181 -76.17 12 87.50 6 -484.20 343	-19.03 8213 33.25 15129 -76.69 514 142.31 391 -159.08 149	-4.63 5339 12.54 19047 -40.39 23 76.68 276 -314.31 186	4 -8.36 7126 10.47 17381 -43.15 154 77.40 5 -118.38 122	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15 -835.79 184	-20.49 9615 31.32 13307 -77.14 806 143.46 383 -146.41 373	-7.68 7286 8.62 17217 -43.65 131 76.83 153 -264.58 117	15 R -8.83 5302 9.88 19351 -41.64 148 74.38 4 -137.54 53	T -11.25 14024 13.10 10701 -73.26 41 81.50 2 -520.42 62	-16.01 10116 19.18 13892 -77.04 255 143.18 224 -327.07 234
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 # d < MN-32 # d > MX+32 #	-8.95 8636 11.26 15079 -42.58 376 70 -262.62 205 237.17 56	R -10.78 10654 9.92 13194 -38.31 39.00 82.00 82.00 82.00 82.00 82.00 82.00 82.00 82.00 83.00	54 T T 15.37 15.17 8366 -74.91 49 85.50 2 -382.30 388 741.99 150	-17.07 5280 31.78 15614 -76.22 183 143.99 1296 -607.25 244 210.60 1805	-6.86 3234 8.40 21346 -44.72 29 77.24 23 -322.37 23 1016.91 309	17 R -9.33 7092 9.27 17102 -40.78 366 8.367 32 -1139.44 345 296.44 27	r 11.79 15150 14.06 3390 -73.96 23 74.40 -73.96 403.48 322	-16.40 7960 21.96 16077 -76.29 199 142.79 179 -691.12 374 393.89 175	-4.80 5837 10.24 18779 -43.25 36 77.81 54 -310.76 232 357.81 26	R -8.07 6.225 10.266 18323 -41.68 129 7.6.61 18 -252.03 345.48 212	5 T 10411 15.35 14181 -76.17 12 87.50 6 -484.20 343 257.27 11	-19.03 8213 33.25 15129 -76.69 514 142.31 391 -159.08 149 362.25 568	-4.63 5339 12.54 19047 -40.39 23 76.68 276 -314.31 186 135.89 93	R -8.36 7126 10.47 17381 -43.15 154 77.40 5 -118.38 122 358.71 176	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15 -835.79 184 193.03 148	-20.49 9615 31.32 13307 -77.14 806 143.46 383 -146.41 373 399.27 480	-7.68 7286 8.62 17217 -43.65 131 76.83 153 -264.58 117 136.14 60	15 R -8.83 5.802 9.88 19351 -41.64 148 74.38 4 -137.54 539.12 106	* * * 14.02 13.10 10701 * -73.26 41 81.50 * -75.20.42 62 515.85 134 -73.26	-16.01 10116 19.18 13892 -77.04 255 143.18 224 -327.07 234 293.50 243
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 # d < MN-32 # d > MX+32 # Total #	-8.95 8636 11.26 15079 -42.58 376 75.56 70 -262.62 205 237.17 56 24422	R -10.78 10654 9.92 13194 -38.31 390 82.50 -264.17 89 478.05 87 24422	54 T T 15.37 3366 74.91 49 85.00 2 38 741.99 150 24422	-17.07 5280 31.78 15614 -76.22 183 143.99 1296 -607.25 244 210.60 1805 24422	-6.86 3234 8.40 21346 -44.72 29 77.24 23 -322.37 23 1016.91 309 24964	17 R -9.33 7092 9.27 17102 -40.78 366 80.47 32 -1139.44 345 296.44 27 24964	r 11.79 1515 14.06 3930 -73.96 23 74.40 5 403.48 322 24964	-16.40 7960 21.96 16077 -76.29 199 142.79 179 -691.12 374 393.89 175 24964	-4.80 5837 10.24 18779 -43.25 36 77.81 54 -310.76 232 357.81 26 24964	R -8.07 6225 10.26 18323 -41.68 129 76.61 18 -252.03 57 345.48 212 24964	T 10.02 10411 15.35 14181 44181 6 484.20 343 257.27 11	-19.03 8213 33.25 15129 -76.69 514 142.31 391 -159.08 149 362.25 568 24964	-4.63 5339 12.54 19047 -40.39 23 76.68 276 -314.31 186 135.89 93 24964	4 R -8.36 17.126 10.47 17381 -43.15 154 77.40 5 -118.38 122 358.71 176 24964	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15 -835.79 184 193.03 148 24964	-20.49 9615 31.32 13307 -77.14 806 143.46 383 -146.41 373 399.27 480 24964	-7.68 7286 8.62 17217 -43.65 131 76.83 153 -264.58 117 136.14 60 24964	15 R -8.83 5302 9.88 19351 -41.64 148 74.38 4 -137.54 53 359.12 106 24964	8 T -11.25 14024 13.10 10701 -73.26 41 81.50 2 -520.42 62 515.85 134 24964 134	-16.01 10116 19.18 13892 -77.04 255 143.18 224 -327.07 234 293.50 243 24964
MN <= d < 0 # 0 <= d <= MX # MN-32 <= d < MN # MX < d <= MX+32 # d < MN-32 # d > MX+32 #	-8.95 8636 11.26 15079 -42.58 376 70 -262.62 205 237.17 56	R -10.78 10654 9.92 13194 -38.31 39.00 82.00 82.00 82.00 82.00 82.00 82.00 82.00 83.00	54 T T 15.37 15.17 8366 -74.91 49 85.50 2 -382.30 388 741.99 150	-17.07 5280 31.78 15614 -76.22 183 143.99 1296 -607.25 244 210.60 1805	-6.86 3234 8.40 21346 -44.72 29 77.24 23 -322.37 23 1016.91 309	17 R -9.33 7092 9.27 17102 -40.78 366 8.367 32 -1139.44 345 296.44 27	r 11.79 15150 14.06 3390 -73.96 23 74.40 -73.96 403.48 322	-16.40 7960 21.96 16077 -76.29 199 142.79 179 -691.12 374 393.89 175	-4.80 5837 10.24 18779 -43.25 36 77.81 54 -310.76 232 357.81 26	R -8.07 6.225 10.266 18323 -41.68 129 7.6.61 18 -252.03 345.48 212	5 T 10411 15.35 14181 -76.17 12 87.50 6 -484.20 343 257.27 11	-19.03 8213 33.25 15129 -76.69 514 142.31 391 -159.08 149 362.25 568	-4.63 5339 12.54 19047 -40.39 23 76.68 276 -314.31 186 135.89 93	R -8.36 7126 10.47 17381 -43.15 154 77.40 5 -118.38 122 358.71 176	1 T -7.69 9649 16.41 14960 -77.13 8 81.07 15 -835.79 184 193.03 148	-20.49 9615 31.32 13307 -77.14 806 143.46 383 -146.41 373 399.27 480	-7.68 7286 8.62 17217 -43.65 131 76.83 153 -264.58 117 136.14 60	15 R -8.83 5.802 9.88 19351 -41.64 148 74.38 4 -137.54 539.12 106	* * * 14.02 13.10 10701 * -73.26 41 81.50 * -75.20.42 62 515.85 134 -73.26	-16.01 10116 19.18 13892 -77.04 255 143.18 224 -327.07 234 293.50 243

Appendix D. Plots of 3-inch segmentation box centers.

The plots in this appendix show the distribution of the segmentation box centers (x,y) for the 3-inch data. There is a combined plot for each slap image and then a smaller plot for each finger position. The individual finger plots are better for seeing the full "spread" of x,y positions detected. The plot for the ground truth (GT) is included as a baseline for comparison. The blank lines that appear in some of the plots are most likely caused by the segmentation algorithm doing some level of sampling of the input image. The reason the lines are not evenly distributed in some plots is an artifact of the sampling when scaling the images for displaying in the report.

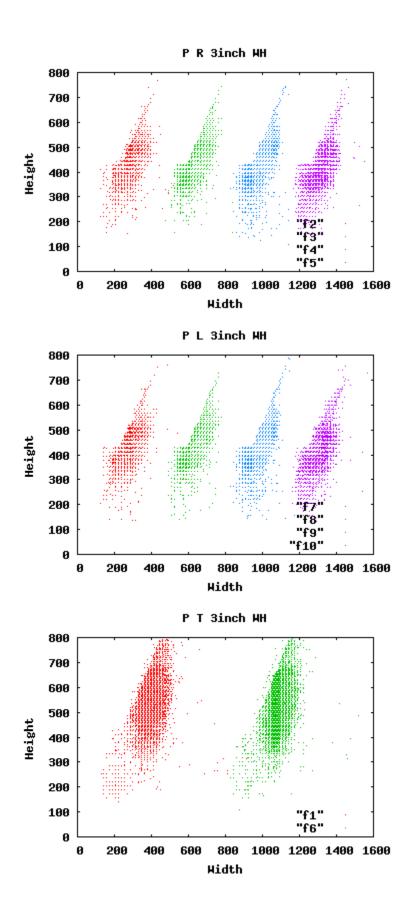






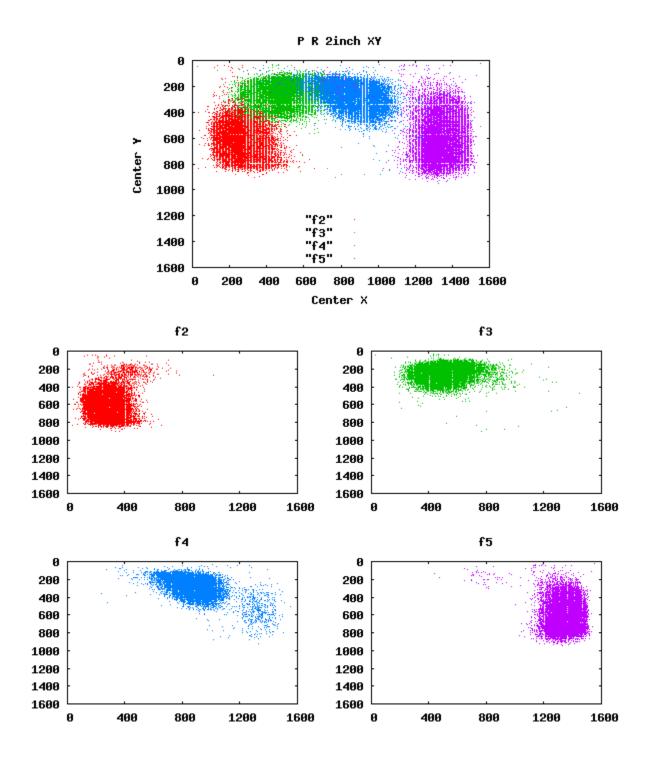
Appendix E. Plots of 3-inch segmentation box widths and heights.

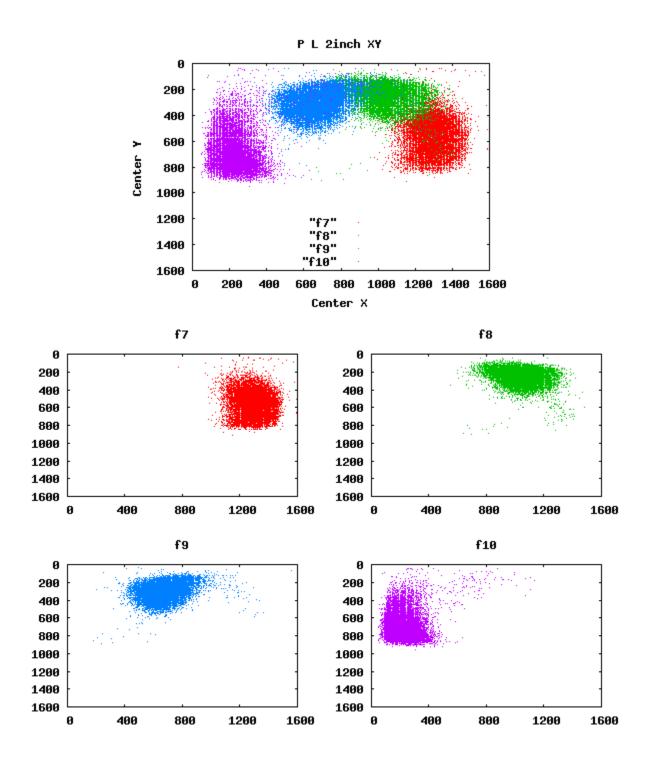
The plots in this appendix show the distribution of the segmentation box widths and heights for the 3-inch data. There is a combined plot for each slap image and then a smaller plot for each finger position. The individual finger plots are better for seeing the full "spread" of widths and heights detected. The widths are "spread out" on the plot by adding 350, 750 and 1050 to the 2nd, 3rd, and 4th widths plotted. The plot for the ground truth (GT) is included as a baseline for comparison. The blank lines that appear in some of the plots are most likely caused by the segmentation algorithm doing some level of sampling of the input image. The reason the lines are not evenly distributed in some plots is an artifact of the sampling when scaling the images for displaying in the report.



Appendix F. Plots of 2-inch segmentation box centers.

The plots in this appendix show the distribution of the segmentation box centers (x,y) for the 2-inch data. There is a combined plot for each slap image and then a smaller plot for each finger position. The individual finger plots are better for seeing the full "spread" of x,y positions detected. The plot for the ground truth (GT) is included as a baseline for comparison. The blank lines that appear in some of the plots are most likely caused by the segmentation algorithm doing some level of sampling of the input image. The reason the lines are not evenly distributed in some plots is an artifact of the sampling when scaling the images for displaying in the report.





Appendix G. Plots of 2-inch segmentation box widths and heights.

The plots in this appendix show the distribution of the segmentation box widths and heights for the 2-inch data. There is a combined plot for each slap image and then a smaller plot for each finger position. The individual finger plots are better for seeing the full "spread" of widths and heights detected. The widths are "spread out" on the plot by adding 350, 750 and 1050 to the 2nd, 3rd, and 4th widths plotted. The plot for the ground truth (GT) is included as a baseline for comparison. The blank lines that appear in some of the plots are most likely caused by the segmentation algorithm doing some level of sampling of the input image. The reason the lines are not evenly distributed in some plots is an artifact of the sampling when scaling the images for displaying in the report.

