SAMSUNG P.R. 3-3 INVALIDITY CONTENTIONS – APPENDIX A

SoftView, LLC v. Samsung Electronics. Co. Ltd. & Samsung Electronics America, Inc., Case No. 2:25-cv-00246 (E.D. Tex.)

Exemplary obviousness combinations and motivations to combine the prior art are set forth below. The references discussed in the corresponding invalidity claim charts show examples of how the prior art cited discloses the elements of the Asserted Claims explicitly and inherently, or would have rendered them obvious to a POSITA, as set forth in the exemplary combinations below and as described in the cover pleading. These charts serves as notice that Samsung may contend that any claim identified below is inherently disclosed by or rendered obvious by the reference(s) cited as a whole, the knowledge and understanding of a POSITA, in view of the state of the art as evidenced by any background references on which Samsung or its expert(s) may rely, market conditions, user feedback, consumer concerns or interests, common knowledge in the relevant industry, standard industry practices, common sense, obvious user-interface implementations or modifications that need no supporting disclosure, or any other reason—including for claims or claim elements for which the invalidity claim charts do not include any disclosure from the references cited. In addition to the exemplary obviousness combinations described below, additional combinations of these reference may be derived therefrom based on the same or similar teachings, disclosures, and motivations to combine described herein.

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No.	**Prior Art Combination**	**Asserted Claims Rendered Obvious**																		
		11	**13**	**14**	**15**	**16**	**17**	**18**	**20**	**21**	**30**	**31**	**35**	**37**	**38**	**50**	**53**	**55**	**69**	**70**
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious																		
		11	13	14	15	16	17	18	20	21	30	31	35	37	38	50	53	55	69	70
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

’353 Patent																				
No.	Prior Art Combination	Asserted Claims Rendered Obvious																		
		11	13	14	15	16	17	18	20	21	30	31	35	37	38	50	53	55	69	70
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen (‘579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

’353 Patent																				
No.	Prior Art Combination	Asserted Claims Rendered Obvious																		
		87	88	90	92	93	95	97	98	108	111	128	129	133	134	144	145	150	151	
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

’353 Patent																			
No.	Prior Art Combination	Asserted Claims Rendered Obvious																	
		87	88	90	92	93	95	97	98	108	111	128	129	133	134	144	145	150	151
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

’353 Patent																			
No.	Prior Art Combination	Asserted Claims Rendered Obvious																	
		87	88	90	92	93	95	97	98	108	111	128	129	133	134	144	145	150	151
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen (‘579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

’353 Patent																			
No.	Prior Art Combination	Asserted Claims Rendered Obvious																	
		161	162	164	168	170	171	182	185	186	187	189	193	194	196	204	206	207	209
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

’353 Patent																			
No.	Prior Art Combination	Asserted Claims Rendered Obvious																	
		161	162	164	168	170	171	182	185	186	187	189	193	194	196	204	206	207	209
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen (‘579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

’353 Patent																			
No.	Prior Art Combination	Asserted Claims Rendered Obvious																	
		215	216	226	227	228	233	234	236	245	246	251	253	254	257	264	265	269	270
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious																	
		215	216	226	227	228	233	234	236	245	246	251	253	254	257	264	265	269	270
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen (‘579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious												
		282	285	286	287	289	293	294	296	304	306	307	318	319
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious												
		282	285	286	287	289	293	294	296	304	306	307	318	319
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen ('579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious																		
		1	2	3	5	13	14	15	16	17	18	19	20	22	23	33	34	35	36	37
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Location	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious																		
		1	2	3	5	13	14	15	16	17	18	19	20	22	23	33	34	35	36	37
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen (‘579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG,	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious																		
		1	2	3	5	13	14	15	16	17	18	19	20	22	23	33	34	35	36	37
	SVF, VML and the HTML Standards																			

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No.	Prior Art Combination	Asserted Claims Rendered Obvious						
		38	39	40	108	109	114	115
1.	Pad++ & Zaurus	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm or Nokia	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X

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No.	Prior Art Combination	Asserted Claims Rendered Obvious						
		38	39	40	108	109	114	115
20.	Hara & Bray	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X
26.	Opera & SVG	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X

'889 Patent								
No.	Prior Art Combination	Asserted Claims Rendered Obvious						
		38	39	40	108	109	114	115
42.	Hara & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen ('579 Patent)	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X

'628 Patent

'628 Patent														
No.	Prior Art Combination	Asserted Claims Rendered Obvious												
		1	2	3	4	5	7	8	9	10	11	12	13	14
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm/Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X

’628 Patent														
No.	Prior Art Combination	Asserted Claims Rendered Obvious												
		1	2	3	4	5	7	8	9	10	11	12	13	14
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X

'628 Patent														
No.	Prior Art Combination	Asserted Claims Rendered Obvious												
		1	2	3	4	5	7	8	9	10	11	12	13	14
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen ('579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X	X

'729 Patent

'729 Patent																		
No.	Prior Art Combination	Asserted Claims Rendered Obvious																
		1	2	3	4	5	7	8	9	10	13	14	15	16	17	18	21	22
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	Pad++ & Newton or Palm/Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

’729 Patent																		
No.	Prior Art Combination	Asserted Claims Rendered Obvious																
		1	2	3	4	5	7	8	9	10	13	14	15	16	17	18	21	22
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

'729 Patent																		
No.	Prior Art Combination	Asserted Claims Rendered Obvious																
		1	2	3	4	5	7	8	9	10	13	14	15	16	17	18	21	22
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen ('579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen ('579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

<u>'154 Patent</u>

'154 Patent													
No.	Prior Art Combination	Asserted Claims Rendered Obvious											
		13	14	15	16	17	18	19	20	21	22	23	25
1.	Pad++ & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
2.	Pad++ & SVF	X	X	X	X	X	X	X	X	X	X	X	X
3.	Pad++ & VML	X	X	X	X	X	X	X	X	X	X	X	X

’154 Patent													
No.	Prior Art Combination	Asserted Claims Rendered Obvious											
		13	14	15	16	17	18	19	20	21	22	23	25
4.	Pad++ & Newton or Palm/Nokia	X	X	X	X	X	X	X	X	X	X	X	X
5.	Pad++ & Locatio	X	X	X	X	X	X	X	X	X	X	X	X
6.	Pad++ & SVG & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
7.	Pad++ & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
8.	Pad++ & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
9.	Pad++ & SVG & SVF & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
10.	Pad++ & SVG & VML & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
11.	Pad++ & SVG & the HTML Standards & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
12.	Hara & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
13.	Hara & Tsutsumitake & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
14.	Hara & Tsutsumitake & Zaurus & SVG	X	X	X	X	X	X	X	X	X	X	X	X
15.	Hara & Tsutsumitake & Zaurus & SVF	X	X	X	X	X	X	X	X	X	X	X	X
16.	Hara & Tsutsumitake & Zaurus & VML	X	X	X	X	X	X	X	X	X	X	X	X
17.	Pad++ & Bray	X	X	X	X	X	X	X	X	X	X	X	X
18.	Hara & Pad++	X	X	X	X	X	X	X	X	X	X	X	X
19.	Hara & Locatio	X	X	X	X	X	X	X	X	X	X	X	X
20.	Hara & Bray	X	X	X	X	X	X	X	X	X	X	X	X
21.	Hara & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X
22.	Hara & SVF	X	X	X	X	X	X	X	X	X	X	X	X
23.	Hara & VML	X	X	X	X	X	X	X	X	X	X	X	X
24.	Hara & Tsutsumitake & Pad++	X	X	X	X	X	X	X	X	X	X	X	X
25.	Opera & Pad++	X	X	X	X	X	X	X	X	X	X	X	X
26.	Opera & SVG	X	X	X	X	X	X	X	X	X	X	X	X
27.	Opera & SVF	X	X	X	X	X	X	X	X	X	X	X	X

’154 Patent													
No.	Prior Art Combination	Asserted Claims Rendered Obvious											
		13	14	15	16	17	18	19	20	21	22	23	25
28.	Opera & VML	X	X	X	X	X	X	X	X	X	X	X	X
29.	Opera & Newton or Palm or Nokia	X	X	X	X	X	X	X	X	X	X	X	X
30.	Opera & Hara & Tsutsumitake	X	X	X	X	X	X	X	X	X	X	X	X
31.	Pad++ & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X
32.	Hara & Tsutsumitake & Fujitsu	X	X	X	X	X	X	X	X	X	X	X	X
33.	Opera & Pad++ & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X
34.	Pad++ & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X
35.	Pad++ & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
36.	Hara & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X
37.	Hara & Kieffer & Zaurus	X	X	X	X	X	X	X	X	X	X	X	X
38.	Hara & Tsutsumitake & Zaurus & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X
39.	Opera & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X
40.	Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML	X	X	X	X	X	X	X	X	X	X	X	X
41.	Kieffer & one or more of Newton, Palm, Nokia and Locatio	X	X	X	X	X	X	X	X	X	X	X	X
42.	Hara & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X
43.	Hara & Tsutsumitake & Lehtinen (‘579 Patent) & Kieffer	X	X	X	X	X	X	X	X	X	X	X	X
44.	Pad++ & Lehtinen (‘579 Patent)	X	X	X	X	X	X	X	X	X	X	X	X
45.	Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards	X	X	X	X	X	X	X	X	X	X	X	X

1. **Pad++ & Zaurus**

Pad++ was a browser, referred to as Pad++ that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad* ++ (Bederson-4 at 1101)), and would have looked to other art, such as Zaurus, for insight into implementing Pad++'s teachings, given that Zaurus is in a similar technical field and addresses similar problems as Pad++. Because Pad++ and Zaurus disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Zaurus. For example, Zaurus provides additional details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.) The portion of the screen that a user zoomed in on or selected to view was determined by the user activating the horizontal scrolling keys and the vertical scrolling bar with the touch screen. (Zaurus_2 at 79.). Such functionality was applicable to Pad++. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices

in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

2. Pad++ & SVF

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Simple vector format (SVF) was designed to handle common computer aided design (CAD) file formats to describe the current web content. '353 Patent, 4:43-63. The '353 Patent describes the zoom and pan capabilities of the SVF, also referred to as "vectorized content" as known in the CAD art and under consideration by the World Wide Web Consortium for adoption as a standard for vector content on the web. '353 Patent, 4:57 –5:6. The '353 Patent admits that SVF could "describe almost

any current web content." '353 Patent, 4:50-53. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), and would have looked to other art, such as SVF, for insight into implementing Pad++'s teachings, given that SVF is in a similar technical field and addresses similar problems as Pad++. Because Pad++ and SVF disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by SVF. For example, SVF provides additional details regarding implementation of zooming and scaling: "SVF is designed to be a simple format for describing vector images. The basic drawing objects include points, lines, circles, arcs, bézier curves and text. Features of the format include layers (for controlling the visibility of objects), hyperlinks (for allowing the user to click on a portion of the drawing to perform an action), notifications (for sending messages when the user has passed a certain zoom level), fills, and the ability to override the default colors." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 1). "Scale and base point can be added to the image. This information is not used for display. It would be used if the original coordinate system needed to be recreated from the integer values stored in the file. An SVF coordinate pair would first be added to the base point, then each value would be multiplied by the scale factor. The base point corresponds to the origin (0,0) of the SVF file." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 9). Such functionality was applicable to Pad++. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and SVF would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device

ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

3. Pad++ & VML

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). XML was a complement to HTML. In turn, "VML [was] an application of Extensible Markup Language (XML) 1.0 which define[d] a format for the encoding of vector information together with additional markup to describe how that information may be displayed and edited." Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 1). A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to

navigate an information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad* ++ (Bederson-4 at 1101)), and would have looked to other art, such as VML, for insight into implementing Pad++'s teachings, given that VML is in a similar technical field and addresses similar problems as Pad++. Because Pad++ and VML disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by VML. For example, VML provides additional details regarding implementation of image display with HTML and CSS elements on web pages:

> "VML should support scripting, including the requirements of animation. This, again, leads to a desire for the structure of VML to match the structure of the graphics. It also leads to the use of types within VML attributes which are appropriate to animation – for example 2D coordinates are defined as single attributes "x,y" rather than pairs of attributes."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 7).

> "The overall structure of VML may be summarized by the XML definitions of the two primary elements - shape and group. A shape element is used to define a visible vector graphic element. Most shapes have a *path* definition – a sequence of straight lines and cubic bézier curves which defines an outline. The outline may be *stroked*, as specified by attributes on the shape and the stroke sub-element. It may also be *filled*, under the control of shape attributes and the fill sub-element. Additional sub-elements support raster (bitmap) images, more advanced transformations of the path and text drawn on top of the shape…. A group element is used to group together several shapes so that they may be transformed together as one unit."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 8-9).

> "The shape and group elements are containing blocks for their content - they define a CSS2 'block level box'. Inside the containing block a local coordinate system is defined for any sub-elements using the coordsize and coordorigin attributes. All CSS2 positioning information is expressed in terms of this local coordinate space. Consequently CSS2 position attributes (left, top, width, height and so on) have no unit specifier - they are simple numbers, not CSS length quantities. The coordsize attribute defines how many units there are along the width of the containing block. The coordorigin attribute defines the coordinate at the top left corner of the containing block. … Any shapes inside the group are positioned and sized according to this local coordinate system. No matter how the width and height of the group is changed, the local coordinate

> system inside will remain the same. The rationale behind this is that the vectors defining a shape can be specified in a local coordinate system. If the containing block for the shape is changed, the outline of the shape will be automatically scaled to the new box. Similarly, shapes within the local ordinate system of a group will be automatically scaled if the containing block of the group changes…. The containing block merely serves to map the local coordinate space to the page space."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 10). Such functionality was applicable to Pad++, which also displayed information on web pages. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and VML would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

4. Pad++ & Newton or Palm/Nokia

Pad++ was a browser, referred to as Pad++ that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ was being developed for use on platforms ranging from high-end graphics workstations to PDAs and interactive set-top boxes. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 5-6). Using Pad++, one's whole desktop could be zoomable; this feature "seem[ed] especially attractive for systems which have small screens, such as handheld computers (i.e., PDAs)." *A Brief Tour Through Pad++* (Tour at Frequently asked questions, Questions About the

Approach). The Newton, Palm and Nokia devices all offered web browsing capabilities. The Newton handheld device facilitated web browsing and mobile phone calling: "Apple and Third Parties are working to deliver new cellular and radio-based wireless solutions for the Newton platform." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 2); *and see*: "In Germany, Apple Computer recently announced the availability of the GSM Connection Kit for Newton. The kit allows owners of the MessagePad 120 to...communicate from remote locations at any time. These capabilities are enabled by the European-wide GSM network via the Nokia Cellular Data Card and Nokia 2110 or 2140 wireless handsets." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 3). The '957 Patent described a mobile phone with a touch screen. '957 Patent, 2:32-43. The Palm was a handheld device capable of web browsing and mobile phone calling: "3Com designed a tiny two-way radio and integrated it into the hardware design of the Palm VII organizer, using a form factor similar to the Palm III organizer. An ergonomic antenna in the Palm VII product serves both as a radio frequency receiver and an automatic on/off switch for Internet applications." *3Com Announces the Palm VII Connected Organizer, the First Handheld Solution for Out-of-the box Wireless Internet Access* (Palm at 2-3). The Nokia device was a handheld device capable of web browsing and mobile phone calling: "In addition to voice calls, the Nokia 9000 Communicator enables users to send and receive faxes, e-mail and short messages as well as access Internet services and corporate and public databases." *Nokia Unveils World's First All-In-One Communicator for the Americas* (Nokia).

A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate an information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks using HTML (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)). In Pad++, an object includes "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++

discloses reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Pad++ discloses preserving HTML functionality, i.e., hyperlinking, associated with a Web page. *Pad++: A Zoomable Graphical Interface System* (Bederson-1 at 23); *see also A Zooming Web Browser*, (Bederson-3 at 262-63); *Pad++: Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). A person of ordinary skill in the art would have looked to other art, such as Newton, Palm or Nokia, for insight into implementing Pad++'s teachings, given that those devices were in a similar technical field of convenient and user-friendly visual information display, including for web browsers, and addresses similar problems as Pad++. Because Pad++ and Newton, Palm and Nokia disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Newton, Palm and/or Nokia. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and Newton, Palm and/or Nokia would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

5. Pad++ & Locatio

Pad++ was a browser, referred to as Pad++ that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Locatio was a handheld device capable of web browsing, voice calling, touch screen interaction: "What Can It Do with a PHS Attached? By attaching a PHS phone, the Locatio becomes equivalent to the COM model. If you subscribe to DDI so that you can use the PHS phone, you can use the Locatio as a telephone as well. PDAs that can be used as telephones include the Pinocchio by Matsushita Electronics, the Data Scope by Kyocera, the MC-01 by Toshiba etc., and the Locatio can be used in a similar way. If the old style was to have a cell phone or a PHS phone and a PDA as two separate devices, the Locatio (COM) style is to have all in one, which is easier. Not having cables is an advantage. Computers and cables come in sets, and it is not easy to separate them. There are no cables with the Locatio (COM) and there is an order of magnitude difference in the convenience. The Locatio (COM), which comes with a dedicated PHS unit, can be used as a telephone. Making telephone calls with the Locatio (COM) may not be a completely ordinary way of using it, but it is convenient for people who do not have a cell phone or a PHS phone. Even people who do have a cell phone or a PHS phone may not be happy about walking around with both units, once they have got used to Locatio. Maybe using just Locatio (COM) will be the new way." *Locatio™ Beginner's Guide* (Locatio at 65 (English translation)). A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate an information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), and would have looked to other art, such as Locatio as a device for implementing Pad++'s teachings, given that Locatio is in a similar technical field of image display and manipulation and web browsing, and addresses

similar problems as Pad++. *See, e.g.*, "Locatio operations are performed using the touch pen and the multimedia controller." *Locatio™ Beginner's Guide* (Locatio at 61 (English translation)). Because Pad++ and Locatio disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Locatio since Locatio's functionality was applicable to Pad++. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and Locatio would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

6. Pad++ & SVG & Zaurus

Pad++ was a browser, referred to as Pad++ that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). The Scalable Vector Graphics (SVG) had a working group that produced a specification for an SVG format for use by web browsers, "written as a modular XML tagset and usable as an XML namespace, which can be widely implemented in browsers and authoring tools and which is suitable for widespread adoption by the content authoring community as a replacement for many current uses of raster graphics. This will mean that the graphics in Web documents will be smaller, faster, more interactive, and

be displayable on a wider range of device resolutions from small mobile devices through office computer monitors to high resolution printers. This will be a significant advance in Web functionality. Interoperability, both in multiple browsers across multiple platforms and in multiple authoring tools (both read and write), is a prime focus." Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Introduction* (SVG at 1). Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal of providing a browser that preserved HTML functionality while navigating web pages (Bederson-4 at 1104)for user convenience, and would have looked to other art, such as SVG and Zaurus, for insight into implementing Pad++'s teachings, given that SVG and Zaurus are in a similar technical field and address similar problems as Pad++. Because Pad++, SVG, and Zaurus disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Pad++'s processes and/or components with those disclosed by SVG and Zaurus. For example, SVG provides additional details about zooming and panning of web pages (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Interaction, Zoom and pan* (SVG at 14)), and web page scaling (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Graphical Facilities, Transformations* (SVG at 11), while Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). Such functionalities were applicable to Pad++. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++, SVG, and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of

endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

7. Pad++ & SVF & Zaurus

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Simple vector format (SVF) was designed to handle common computer aided design (CAD) file formats to describe the current web content. '353 Patent, 4:43-63. The '353 Patent describes the zoom and pan capabilities of the SVF, also referred to as "vectorized content" as known in the CAD art and under consideration by the World Wide Web Consortium for adoption as a standard for vector content on the web. '353 Patent, 4:57 –5:6. The '353 Patent admits that SVF could "describe almost any current web content." '353 Patent, 4:50-53. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the

art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate an information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), and would have looked to other art, such as SVF and Zaurus, for insight into implementing Pad++'s teachings, given that SVF and Zaurus are in a similar technical field and addresses similar problems as Pad++, such as computer display convenience and useability. Because Pad++, SVF, and Zaurus disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Pad++'s processes and/or components with those disclosed by SVF and Zaurus. For example, SVF provides additional details regarding implementation of zooming and scaling: "SVF is designed to be a simple format for describing vector images. The basic drawing objects include points, lines, circles, arcs, bézier curves and text. Features of the format include layers (for controlling the visibility of objects), hyperlinks (for allowing the user to click on a portion of the drawing to perform an action), notifications (for sending messages when the user has passed a certain zoom level), fills, and the ability to override the default colors." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 1). "Scale and base point can be added to the image. This information is not used for display. It would be used if the original coordinate system needed to be recreated from the integer values stored in the file. An SVF coordinate pair would first be added to the base point, then each value would be multiplied by the scale factor. The base point corresponds to the origin (0,0) of the SVF file." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 9). Zaurus provides additional details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.) The portion of the screen that a user zoomed in on or selected to view was determined by the user activating the horizontal scrolling keys and the vertical scrolling bar with the touch screen. (Zaurus_2 at 79.). Such functionality as described and used by SVF and Zaurus were applicable to Pad++. As such, a person of ordinary skill in the art would have had a

reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++, SVF, and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

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an application of Extensible Markup Language (XML) 1.0 which define[d] a format for the encoding of vector information together with additional markup to describe how that information may be displayed and edited." Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 1). Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a display surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad* ++ (Bederson-4 at 1101)), and would have looked to other art, such as VML and Zaurus, for insight into implementing Pad++'s teachings, given that VML and Zaurus are in a similar technical field and addresses similar problems as Pad++, such as how to display web pages to a user in a convenient and informative manner. Because Pad++, VML, and Zaurus disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by VML and Zaurus. For example, VML provides additional details regarding implementation of image display and CSS and HTML elements on web pages:

> "VML should support scripting, including the requirements of animation. This, again, leads to a desire for the structure of VML to match the structure of the graphics. It also leads to the use of types within VML attributes which are appropriate to animation – for example 2D coordinates are defined as single attributes "x,y" rather than pairs of attributes."

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> "The shape and group elements are containing blocks for their content - they define a CSS2 'block level box'. Inside the containing block a local coordinate system is defined for any sub-elements using the coordsize and coordorigin attributes. All CSS2 positioning information is expressed in terms of this local coordinate space. Consequently CSS2 position attributes (left, top, width, height and so on) have no unit specifier - they are simple numbers, not CSS length quantities. The coordsize attribute defines how many units there are along the width of the containing block. The coordorigin attribute defines the coordinate at the top left corner of the containing block. … Any shapes inside the group are positioned and sized according to this local coordinate system. No matter how the width and height of the group is changed, the local coordinate system inside will remain the same. The rationale behind this is that the vectors defining a shape can be specified in a local coordinate system. If the containing block for the shape is changed, the outline of the shape will be automatically scaled to the new box. Similarly, shapes within the local ordinate system of a group will be automatically scaled if the containing block of the group changes…. The containing block merely serves to map the local coordinate space to the page space."

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9. Pad++ & SVG & SVF & Zaurus

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). The Scalable Vector Graphics (SVG) had a working group that produced a specification for an SVG format for use by web browsers, "written as a modular XML tagset and usable as an XML namespace, which can be widely implemented in browsers and authoring tools and which is suitable for widespread adoption by the content authoring community as a replacement for many current uses of raster graphics. This will mean that the graphics in Web documents will be smaller, faster, more interactive, and be displayable on a wider range of device resolutions from small mobile devices through office computer monitors to high resolution printers. This

will be a significant advance in Web functionality. Interoperability, both in multiple browsers across multiple platforms and in multiple authoring tools (both read and write), is a prime focus." Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Introduction* (SVG at 1). Simple vector format (SVF) was designed to handle common computer aided design (CAD) file formats to describe the current web content. '353 Patent, 4:43-63. The '353 Patent describes the zoom and pan capabilities of the SVF, also referred to as "vectorized content" as known in the CAD art and under consideration by the World Wide Web Consortium for adoption as a standard for vector content on the web. '353 Patent, 4:57 –5:6. The '353 Patent admits that SVF could "describe almost any current web content." '353 Patent, 4:50-53. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a information display surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad* ++ (Bederson-4 at 1101)), and would have looked to other art, such as SVG, SVF, and Zaurus, for insight into implementing Pad++'s teachings, given that SVG, SVF and Zaurus are in a similar technical field and addresses similar problems as Pad++, such as convenient web browser interaction and display. Because Pad++, SVG, SVF, and Zaurus disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Pad++'s processes and/or components with those disclosed by SFG, SVF and Zaurus. For example, SVG provided additional details about zooming and panning of web pages (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Interaction, Zoom and pan* (SVG at 14)), and web page scaling (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Graphical Facilities, Transformations* (SVG at 11), while Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). SVF provided additional details regarding implementation

of zooming and scaling: "SVF is designed to be a simple format for describing vector images. The basic drawing objects include points, lines, circles, arcs, bézier curves and text. Features of the format include layers (for controlling the visibility of objects), hyperlinks (for allowing the user to click on a portion of the drawing to perform an action), notifications (for sending messages when the user has passed a certain zoom level), fills, and the ability to override the default colors." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 1). "Scale and base point can be added to the image. This information is not used for display. It would be used if the original coordinate system needed to be recreated from the integer values stored in the file. An SVF coordinate pair would first be added to the base point, then each value would be multiplied by the scale factor. The base point corresponds to the origin (0,0) of the SVF file." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 9). Zaurus provided additional details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.) The portion of the screen that a user zoomed in on or selected to view was determined by the user activating the horizontal scrolling keys and the vertical scrolling bar with the touch screen. (Zaurus_2 at 79.). Such functionality as described and used by SVG, SVF and Zaurus was applicable to Pad++. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++, SVG, SVF, and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

10. Pad++ & SVG & VML & Zaurus

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). The Scalable Vector Graphics (SVG) had a working group that produced a specification for an SVG format for use by web browsers, "written as a modular XML tagset and usable as an XML namespace, which can be widely implemented in browsers and authoring tools and which is suitable for widespread adoption by the content authoring community as a replacement for many current uses of raster graphics. This will mean that the graphics in Web documents will be smaller, faster, more interactive, and be displayable on a wider range of device resolutions from small mobile devices through office computer monitors to high resolution printers. This will be a significant advance in Web functionality. Interoperability, both in multiple browsers across multiple platforms and in multiple authoring tools (both read and write), is a prime focus." Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Introduction* (SVG at 1).

XML was a complement to HTML. In turn, "VML [was] an application of Extensible Markup Language (XML) 1.0 which define[d] a format for the encoding of vector information together with additional markup to describe how that information may be displayed and edited." Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 1). Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad* ++ (Bederson-4 at 1101)), and would have looked to other art, such as SVG, VML, and Zaurus, for insight into implementing Pad++'s teachings, given that SVG, VML, and Zaurus are in a similar technical field and addresses similar problems as Pad++, such as user convenient web browser display. Because Pad++, SVG, VML, and Zaurus disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Pad++'s processes and/or components with those disclosed by SFG, SVF and Zaurus. For example, SVG provided additional details about zooming and panning of web pages (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Interaction, Zoom and pan* (SVG at 14)), and web page scaling (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Graphical Facilities, Transformations* (SVG at 11). VML provided additional details regarding implementation of image display and CSS elements on web pages:

> "VML should support scripting, including the requirements of animation. This, again, leads to a desire for the structure of VML to match the structure of the graphics. It also leads to the use of types within VML attributes which are appropriate to animation – for example 2D coordinates are defined as single attributes "x,y" rather than pairs of attributes."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 7).

> "The overall structure of VML may be summarized by the XML definitions of the two primary elements - shape and group. A shape element is used to define a visible vector graphic element. Most shapes have a *path* definition – a sequence of straight lines and cubic bézier curves which defines an outline. The outline may be *stroked*, as specified by attributes on the shape and the stroke sub-element. It may also be *filled*, under the control of shape attributes and the fill sub-element. Additional sub-elements support raster (bitmap) images, more advanced transformations of the path and text drawn on top of the shape…. A group element is used to group together several shapes so that they may be transformed together as one unit."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 8-9).

> "The shape and group elements are containing blocks for their content - they define a CSS2 'block level box'. Inside the containing block a local coordinate system is defined for any sub-elements using the coordsize and coordorigin attributes. All CSS2 positioning information is expressed in terms of this local coordinate space. Consequently CSS2 position attributes (left, top, width, height and so on) have no unit specifier - they are simple numbers, not CSS length quantities. The coordsize attribute defines how many units there are along the width of the containing block. The coordorigin attribute defines the coordinate at the top left corner of the containing block. … Any shapes inside the group are positioned and sized according to this local coordinate system. No matter how the width and height of the group is changed, the local coordinate system inside will remain the same. The rationale behind this is that the vectors defining a shape can be specified in a local coordinate system. If the containing block for the shape is changed, the outline of the shape will be automatically scaled to the new box. Similarly, shapes within the local ordinate system of a group will be automatically scaled if the containing block of the group changes…. The containing block merely serves to map the local coordinate space to the page space."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 10). Zaurus facilitated zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.) The portion of the screen that a user zoomed in on or selected to view was determined by the user activating the horizontal scrolling keys and the vertical scrolling bar with the touch screen. (Zaurus_2 at 79.). Such functionality as described and used by SVG, VML, and Zaurus was applicable to Pad++, which also allowed for zooming and magnification of web pages. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++, SVG, VML, and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a

use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

11. Pad++ & SVG & the HTML Standards & Zaurus

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). The Scalable Vector Graphics (SVG) had a working group that produced a specification for an SVG format for use by web browsers, "written as a modular XML tagset and usable as an XML namespace, which can be widely implemented in browsers and authoring tools and which is suitable for widespread adoption by the content authoring community as a replacement for many current uses of raster graphics. This will mean that the graphics in Web documents will be smaller, faster, more interactive, and

be displayable on a wider range of device resolutions from small mobile devices through office computer monitors to high resolution printers. This will be a significant advance in Web functionality. Interoperability, both in multiple browsers across multiple platforms and in multiple authoring tools (both read and write), is a prime focus." Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Introduction* (SVG at 1). The HTML Standards described displaying HTML elements and content in specific sizes relative to the web page display. HTML 4.0 Specification W3C Recommendation (HTML 4.0 § 16.2.1.). Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single information display surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), and would have looked to other art, such as SVG, the HTML Standards and Zaurus, for insight into implementing Pad++'s teachings, given that SVG, the HTML Standards and Zaurus are in a similar technical field and addresses similar problems as Pad++, such as effective and efficient web display. Because Pad++, SVG, the HTML Standards, and Zaurus disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Pad++'s processes and/or components with those disclosed by SFG, the HTML Standards and Zaurus. For example, SVG provided additional details about zooming and panning of web pages (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Interaction, Zoom and pan* (SVG at 14)), and web page scaling (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Graphical Facilities, Transformations* (SVG at 11), while Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). The HTML Standards taught the use and implementation of all HTML elements, such as forms and text, among others. HTML 3.2 Reference Specification, W3C Recommendation (HTML 3.2 § *The BODY*

Element, *Block Elements*). Zaurus facilitated zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.) The portion of the screen that a user zoomed in on or selected to view was determined by the user activating the horizontal scrolling keys and the vertical scrolling bar with the touch screen. (Zaurus_2 at 79.). Such functionality as described and used by SVG, the HTML Standards and Zaurus was applicable to Pad++, which also provided HTML web display. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++, SVG, the HTML Standards, and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; € obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

12. Hara & Zaurus

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading Hara would have understood the disclosed

goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Zaurus, for insight into implementing Hara's teachings, given that Zaurus are in a similar technical field and address similar problems as Hara, such as web display. Because Hara and Zaurus disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Zaurus. For example, Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). Such zooming and magnification functionalities were applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a

known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

13. Hara & Tsutsumitake & Zaurus

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. When a document is to be displayed, the current scroll position is determined, the document state information is retrieved and the current scroll position is subtracted from the y coordinate value in the stored internal format, and the cursor is moved to display the document. Tsutsumitake ¶¶ [0035-0038], Fig. 6. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function

(Hara ¶¶ [0045-0069]), and would have looked to other art, such as Zaurus and Tsutsumitake, for insight into implementing Hara's teachings, given that Zaurus and Tsutsumitake are in a similar technical field and address similar problems as Hara, such as, optimal web page presentation. Because Hara, Zaurus, and Tsutsumitake disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Zaurus and Tsutsumitake. For example, Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y starting coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. Such functionalities were applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination of these references for web page zooming and magnification. Accordingly, combining the teachings of Hara, Zaurus, and Tsutsumitake would have been merely: (a) a combination of prior art elements according to known methods to yield

predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

14. Hara & Tsutsumitake & Zaurus & SVG

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. When a document is to be displayed, the current scroll position is determined, the document state information is retrieved and the current scroll position is subtracted from the y coordinate value in the stored internal format, and the cursor is moved to display the document. Tsutsumitake ¶¶ [0035-0038], Fig. 6. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. The Scalable Vector Graphics (SVG) had a working group that produced a specification for an SVG format, "written as a modular XML tagset and usable as an XML namespace, which can be widely implemented in browsers and authoring tools and which is

suitable for widespread adoption by the content authoring community as a replacement for many current uses of raster graphics. This will mean that the graphics in Web documents will be smaller, faster, more interactive, and be displayable on a wider range of device resolutions from small mobile devices through office computer monitors to high resolution printers. This will be a significant advance in Web functionality. Interoperability, both in multiple browsers across multiple platforms and in multiple authoring tools (both read and write), is a prime focus." Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Introduction* (SVG at 1). A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Zaurus, Tsutsumitake, and SVG, for insight into implementing Hara's teachings, given that Zaurus, Tsutsumitake, and SVG are in a similar technical field and address similar problems as Hara, such as optimal and user-friendly web page display. Because Hara, Zaurus, Tsutsumitake, and SVG disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Zaurus, Tsutsumitake, and SVG. For example, Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y starting coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. SVG provided additional details about zooming and panning of web pages (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Interaction, Zoom and pan* (SVG at 14)), and web page

scaling (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Graphical Facilities, Transformations* (SVG at 11). Such functionalities were applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Zaurus, Tsutsumitake, and SVG would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

15. Hara & Tsutsumitake & Zaurus & SVF

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a

RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. When a document is to be displayed, the current scroll position is determined, the document state information is retrieved and the current scroll position is subtracted from the y coordinate value in the stored internal format, and the cursor is moved to display the document. Tsutsumitake ¶¶ [0035-0038], Fig. 6. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. Simple vector format (SVF) was designed to handle common computer aided design (CAD) file formats to describe the current web content. ’353 Patent, 4:43-63. The ’353 Patent describes the zoom and pan capabilities of the SVF, also referred to as “vectorized content” as known in the CAD art and under consideration by the World Wide Web Consortium for adoption as a standard for vector content on the web. ’353 Patent, 4:57 –5:6. The ’353 Patent admits that SVF could “describe almost any current web content.” ’353 Patent, 4:50-53. A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Zaurus, Tsutsumitake, and SVF, for insight into implementing Hara’s teachings, given that Zaurus, Tsutsumitake, and SVF are in a similar technical field and address similar problems as Hara, such as convenient and optimal computer and web display. Because Hara, Zaurus,

Tsutsumitake, and SVF disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Zaurus, Tsutsumitake, and SVF. For example, Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y starting coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. SVF provided additional details regarding implementation of zooming and scaling: "SVF is designed to be a simple format for describing vector images. The basic drawing objects include points, lines, circles, arcs, bézier curves and text. Features of the format include layers (for controlling the visibility of objects), hyperlinks (for allowing the user to click on a portion of the drawing to perform an action), notifications (for sending messages when the user has passed a certain zoom level), fills, and the ability to override the default colors." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 1). "Scale and base point can be added to the image. This information is not used for display. It would be used if the original coordinate system needed to be recreated from the integer values stored in the file. An SVF coordinate pair would first be added to the base point, then each value would be multiplied by the scale factor. The base point corresponds to the origin (0,0) of the SVF file." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 9). Such functionalities were applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that

matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Zaurus, Tsutsumitake, and SVF would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

16. Hara & Tsutsumitake & Zaurus & VML

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the

display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. When a document is to be displayed, the current scroll position is determined, the document state information is retrieved and the current scroll position is subtracted from the y coordinate value in the stored internal format, and the cursor is moved to display the document. Tsutsumitake ¶¶ [0035-0038], Fig. 6. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. "VML [was] an application of Extensible Markup Language (XML) 1.0 which define[d] a format for the encoding of vector information together with additional markup to describe how that information may be displayed and edited." Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 1). A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Zaurus, Tsutsumitake, and VML, for insight into implementing Hara's teachings, given that Zaurus, Tsutsumitake, and VML are in a similar technical field and address similar problems as Hara, such as optimal HTML and web page display. Because Hara, Zaurus, Tsutsumitake, and VML disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Zaurus, Tsutsumitake, and VML. For example, Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y

starting coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. VML provides additional details regarding implementation of image display and CSS elements on web pages:

> "VML should support scripting, including the requirements of animation. This, again, leads to a desire for the structure of VML to match the structure of the graphics. It also leads to the use of types within VML attributes which are appropriate to animation – for example 2D coordinates are defined as single attributes "x,y" rather than pairs of attributes."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 7).

> "The overall structure of VML may be summarized by the XML definitions of the two primary elements - shape and group. A shape element is used to define a visible vector graphic element. Most shapes have a *path* definition – a sequence of straight lines and cubic bézier curves which defines an outline. The outline may be *stroked*, as specified by attributes on the shape and the stroke sub-element. It may also be *filled*, under the control of shape attributes and the fill sub-element. Additional sub-elements support raster (bitmap) images, more advanced transformations of the path and text drawn on top of the shape…. A group element is used to group together several shapes so that they may be transformed together as one unit."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 8-9).

> "The shape and group elements are containing blocks for their content - they define a CSS2 'block level box'. Inside the containing block a local coordinate system is defined for any sub-elements using the coordsize and coordorigin attributes. All CSS2 positioning information is expressed in terms of this local coordinate space. Consequently CSS2 position attributes (left, top, width, height and so on) have no unit specifier - they are simple numbers, not CSS length quantities. The coordsize attribute defines how many units there are along the width of the containing block. The coordorigin attribute defines the coordinate at the top left corner of the containing block. … Any shapes inside the group are positioned and sized according to this local coordinate system. No matter how the width and height of the group is changed, the local coordinate system inside will remain the same. The rationale behind this is that the vectors defining a shape can be specified in a local coordinate system. If the containing block for the shape is changed, the outline of the shape will be automatically scaled to the new box. Similarly, shapes within the local ordinate system of a group will be automatically scaled if the containing block of the group changes…. The containing block merely serves to map the local coordinate space to the page space."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 10). Such functionalities were applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image

data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Zaurus, Tsutsumitake, and VML would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

17. Pad++ & Bray

Pad++ was a browser, referred to as Pad++ that used HTML and allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Bray teaches implementation of XML as an HTML substitute or alternative on a web browser: "In looking at Microsoft Internet Explorer 5's promised and actual implementation of XML, XML.com technical editor Tim Bray decided to write his review in XML. Since IE5 can display XML, but other browsers are a bit behind in this,

we've provided two versions of this document. The version you are looking at is an HTML version. The XML version is here. Aside from this intro, the HTML version was generated from the XML source on the server side." XML Support in IE5 (Bray at 1). A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate an HTML display surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), and would have looked to other art, such as Bray, for insight into implementing Pad++'s teachings, given that Bray is in a similar technical field of web browsers and addresses similar problems as Pad++, such as web page display. Because Pad++ and Bray disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Bray. For example, Bray, providing an XML implementation of a web browser would allow a person of skill in the art to have a reasonable expectation of success in the combination of HTML aspects of Pad++ with Bray. Accordingly, combining the teachings of Pad++ and Bray would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art. [1]

[1] As an example of the many other combinations available to the person of ordinary skill in the art, a person of ordinary skill in the art would have been motivated to combine Bray with Opera to meet the asserted claim elements. As described herein, Opera was a known web browser. As such, a person of ordinary skill in the art would have been motivated to use Bray's XML teachings with Opera, since one purpose of Opera was to provide an optimal web browsing experience, and XML (as an alternative or supplement to HTML) was described as providing a more feature rich browsing implementation.

18. Hara & Pad++

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Pad++ discloses a browser, referred to as Pad++ that "allows [Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allows users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Pad++, for insight into implementing Hara's teachings, given that Pa++ is in a similar technical field of web page and image display and addresses similar problems as Hara. Because Hara and Pad++ disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Pad++. For example, Pad++ was being developed for use on platforms ranging from high-end graphics workstations to PDAs and interactive set-top boxes. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 5-6). Pad++ users navigate a single information display surface on which documents can be placed at any

position and scaled to any size with panning, zooming, and hyperlinks. *Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101). Pad++ used of "dynamic objects" that restructure themselves in response to users' actions. When a user clicks on a link, Pad++ adds the new page to a tree visible to the user and places the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user can designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). Pad++ discloses preserving HTML functionality, i.e., hyperlinking, associated with a Web page. *Pad++: A Zoomable Graphical Interface System* (Bederson-1 at 23); *see also A Zooming Web Browser*, (Bederson-3 at 262-63); *Pad++: Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Such functionalities were all applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara and Pad++ would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement

to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

19. Hara & Locatio

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Locatio was a handheld device capable of web browsing, voice calling, touch screen interaction." *Locatio™ Beginner's Guide* (Locatio at 65 (English translation)). A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Locatio, for insight into implementing Hara's teachings, given that Locatio is in a similar technical field (web browsing and display) and addresses similar problems as Hara. Because Hara and Locatio disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Locatio. Such functionalities were applicable to Hara, which describes a client device receiving an web browsing documents from a server, and analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending

upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara and Locatio would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

20. Hara & Bray

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091].). Bray teaches implementation of XML as an HTML substitute or alternative on a web browser: "In looking at Microsoft Internet Explorer 5's promised and actual implementation of XML, XML.com technical editor Tim Bray decided to write his review in XML. Since IE5 can display XML, but other browsers are a bit behind in this, we've provided two versions of this document. The version you are looking at is an HTML version. The XML version is here. Aside from this intro, the HTML version was generated from the XML source on the server side." XML Support in IE5 (Bray at 1). A person of ordinary skill in the art

reading Hara would have understood the disclosed goals of optimally displaying information on a web browser (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Bray, for insight into implementing Hara's teachings, given that Bray is in the similar technical field of web browser display and rendering and addresses similar problems as Hara. Because Hara and Bray disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Bray to enhance and make more widely available Hara's web display process. Such functionalities were applicable to Hara, which describes a client device receiving a web browsing documents from a server, and analyzing the scripting in the page for processing text and images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara and Bray would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

21. Hara & Newton or Palm or Nokia

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table,

an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. The Newton, Palm and Nokia devices all were devices with similar hardware components (CPU, RAM, ROM) that offered web browsing capabilities. The Newton handheld device facilitated web browsing and mobile phone calling: "Apple and Third Parties are working to deliver new cellular and radio-based wireless solutions for the Newton platform." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 2); *and see*: "In Germany, Apple Computer recently announced the availability of the GSM Connection Kit for Newton. The kit allows owners of the MessagePad 120 to...communicate from remote locations at any time. These capabilities are enabled by the European-wide GSM network via the Nokia Cellular Data Card and Nokia 2110 or 2140 wireless handsets." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 3). The Palm was a handheld device capable of web browsing and mobile phone calling: "3Com designed a tiny two-way radio and integrated it into the hardware design of the Palm VII organizer, using a form factor similar to the Palm III organizer. An ergonomic antenna in the Palm VII product serves both as a radio frequency receiver and an automatic on/off switch for Internet applications." *3Com Announces the Palm VII Connected Organizer, the First Handheld Solution for Out-of-the box Wireless Internet Access* (Palm at 2-3). The Nokia device was a handheld device capable of web browsing and mobile phone calling: "In addition to voice calls, the Nokia 9000 Communicator enables users to send and receive faxes, e-mail and short messages as well as access Internet services and corporate and public databases." *Nokia Unveils World's First All-In-One Communicator for the Americas* (Nokia). The '957 Patent described a mobile phone with a touch screen. '957 Patent, 2:32-43. A person of ordinary skill in the art reading or using Hara would have understood the disclosed goals of displaying information on a web browser (Hara ¶¶ [0045-0069]), and have looked to other art, such as Newton, Palm or Nokia, for insight into implementing Hara's teachings, given that those devices were in a similar

technical field of visual information display, including for web browsers, and addressed similar problems as Hara. Because Hara and Newton, Palm and Nokia disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara's processes and/or components with those disclosed by Newton, Palm and/or Nokia. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara's and Newton, Palm and/or Nokia would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

22. Hara & SVF

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Simple vector format (SVF) was designed to handle common computer aided design (CAD) file formats to describe the current web content. '353 Patent, 4:43-63. The '353 Patent describes the zoom and pan capabilities of the SVF, also referred to as "vectorized content" as known in the CAD art and under consideration by the World Wide

Web Consortium for adoption as a standard for vector content on the web. ’353 Patent, 4:57 –5:6. The ’353 Patent admits that SVF could “describe almost any current web content.” ’353 Patent, 4:50-53. A person of ordinary skill in the art reading Hara would have understood the disclosed goal of displaying information on a web browser (Hara ¶¶ [0045-0069]) and displaying information in accordance with the resolution of the display screen (Hara ¶¶ [0045-0069]) and would have looked to other art, such as SVF, for insight into implementing Hara’s teachings, given that SVF is in a similar technical field (e.g., optimal image display) and addresses similar problems as Hara. Because Hara and SVF disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara’s processes and/or components with those disclosed by SVF. For example, SVF provides additional details regarding implementation of zooming and scaling: “SVF is designed to be a simple format for describing vector images. The basic drawing objects include points, lines, circles, arcs, bézier curves and text. Features of the format include layers (for controlling the visibility of objects), hyperlinks (for allowing the user to click on a portion of the drawing to perform an action), notifications (for sending messages when the user has passed a certain zoom level), fills, and the ability to override the default colors.” Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 1). “Scale and base point can be added to the image. This information is not used for display. It would be used if the original coordinate system needed to be recreated from the integer values stored in the file. An SVF coordinate pair would first be added to the base point, then each value would be multiplied by the scale factor. The base point corresponds to the origin (0,0) of the SVF file.” Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 9). Such functionality was applicable to Hara, which also teaches display screen resolution magnification. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara and SVF would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a

use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

23. Hara & VML

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Hara discloses the use of HTML. Hara ¶¶ [0039], [0040].XML was a complement to HTML. In turn, "VML [was] an application of Extensible Markup Language (XML) 1.0 which define[d] a format for the encoding of vector information together with additional markup to describe how that information may be displayed and edited." Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 1). A person of ordinary skill in the art reading or using Hara would have understood the disclosed goal of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as VML, for insight into implementing Hara's teachings, given that VML is in a similar technical field and addresses similar problems as Hara, such as image optimal web information display. Because Hara and VML disclose similar steps and components that are highly compatible with each other, it would have been

natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara's processes and/or components with those disclosed by VML. For example, VML provides additional details regarding implementation of image display and CSS and HTML elements on web pages:

> "VML should support scripting, including the requirements of animation. This, again, leads to a desire for the structure of VML to match the structure of the graphics. It also leads to the use of types within VML attributes which are appropriate to animation – for example 2D coordinates are defined as single attributes "x,y" rather than pairs of attributes."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 7).

> "The overall structure of VML may be summarized by the XML definitions of the two primary elements - shape and group. A shape element is used to define a visible vector graphic element. Most shapes have a *path* definition – a sequence of straight lines and cubic bézier curves which defines an outline. The outline may be *stroked*, as specified by attributes on the shape and the stroke sub-element. It may also be *filled*, under the control of shape attributes and the fill sub-element. Additional sub-elements support raster (bitmap) images, more advanced transformations of the path and text drawn on top of the shape…. A group element is used to group together several shapes so that they may be transformed together as one unit."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 8-9).

> "The shape and group elements are containing blocks for their content - they define a CSS2 'block level box'. Inside the containing block a local coordinate system is defined for any sub-elements using the coordsize and coordorigin attributes. All CSS2 positioning information is expressed in terms of this local coordinate space. Consequently CSS2 position attributes (left, top, width, height and so on) have no unit specifier - they are simple numbers, not CSS length quantities. The coordsize attribute defines how many units there are along the width of the containing block. The coordorigin attribute defines the coordinate at the top left corner of the containing block. … Any shapes inside the group are positioned and sized according to this local coordinate system. No matter how the width and height of the group is changed, the local coordinate system inside will remain the same. The rationale behind this is that the vectors defining a shape can be specified in a local coordinate system. If the containing block for the shape is changed, the outline of the shape will be automatically scaled to the new box. Similarly, shapes within the local ordinate system of a group will be automatically scaled if the containing block of the group changes…. The containing block merely serves to map the local coordinate space to the page space."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 10). Such functionality was applicable to Hara, which also taught HTML use and image manipulation for web display. As such, a person of ordinary skill in the art would have had a reasonable expectation

of success in the combination. Accordingly, combining the teachings of Hara and VML would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

24. Hara & Tsutsumitake & Pad++

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. Pad++ discloses a browser, referred to as Pad++ that "allows [Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allows users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information

in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Tsutsumitake and Pad++, for insight into implementing Hara's teachings, given that Tsutsumitake and Pad++ are in a similar technical field and addresses similar problems as Hara, such as web display. Because Hara, Tsutsumitake, and Pad++ disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Tsutsumitake and Pad++. For example, Tsutsumitake teaches scrolling techniques that when a document is to be displayed, the current scroll position is determined, the document state information is retrieved and the current scroll position is subtracted from the y coordinate value in the stored internal format, and the cursor is moved to display the document. Tsutsumitake ¶¶ [0035-0038], Fig. 6. Tsutsumitake taught the use of HTML documents. Tsutsumitake ¶ [0025]. With Pad++ users navigated a single information display surface on which documents can be placed at any position and scaled to any size with panning, zooming, and hyperlinks. *Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101). Pad++ used "dynamic objects" that restructure themselves in response to users' actions. When a user clicks on a link, Pad++ adds the new page to a tree visible to the user and places the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user can designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). Pad++ discloses preserving HTML functionality, i.e., hyperlinking, associated with a Web page. *Pad++: A Zoomable Graphical Interface System* (Bederson-1 at 23); *see also A Zooming Web Browser*, (Bederson-3 at 262-63); *Pad++: Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Such functionalities were all

applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Tsutsumitake and Pad++ would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.[2]

[2] As another example of the many combinations available to the person of ordinary skill in the art to meet the asserted claim elements, a person of ordinary skill in the art would have been further motivated to combine Hara & Tsutsumitake & Pad++ with one or more of one or more of SVG, SVF, and VML to meet the asserted claim elements. SVG, SVF, VML have already been described herein as known ways of implementing specialized computer and web graphic display techniques. At least for the reasons already provided as to why a person of ordinary skill in the art would combine Pad++ with SVG, SVF, VML, a person of skill in the art would further combine SVG, SVF, VML with Hara & Tsutsumitake, which also had the goal of improved user display rendering and design.

25. Opera & Pad++

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single information display surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), and would have looked to other art, such as Opera, for insight into implementing Pad++'s teachings, given

that Opera is in a similar technical field of web browser display and addresses similar problems as Pad++, such as the optimal way to render and display information to the user. Because Pad++ and Opera disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Opera. For example, Opera facilitated web zooming: "If the font size of a document is too small, you can zoom in and out on the document from 20% to 1000%!" (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7). "This field is used for showing the progress of loading, and also history and scaling." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50. "Scaling, document. Scaling, printout." (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 3; Opera362_Help_Files at 22.) "Fixed stray undrawn lines at scales of less than 100%." Opera Software - Opera for EPOC June 4, 2000 at 2. "Zoom in and out of the pages. One click turns off graphics and one click zooms in or out." Opera Software - A Browser Made For You - Features March 3, 2000 at 2. Screenshots show multiple zoom levels: "Zoom: 100%. Zoom 50%. Zoom: 30%. Zoom: 400%." Screenshot compilation of Web pages using Opera 3.60_CNET.com_May 1999 at 2–9. Such functionality was applicable to Pad++, which also provided for display magnification and zooming operations. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and Opera would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

26. Opera & SVG

Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) The Opera browser could "be used on devices such as the Psion Series 5 classic and Geofox." (Opera for EPOC Beta Released Today - Opera Newsroom at 1). "The Opera browser for the Psion makes it possible to access the Internet wirelessly over the GSM mobile phone network." mCommerce Now a Reality on Psion Platform - Opera Newsroom at 2.The Scalable Vector Graphics (SVG) had a working group that produced a specification for an SVG format for use by web browsers, "written as a modular XML tagset and usable as an XML namespace, which can be widely implemented in browsers and authoring tools and which is suitable for widespread adoption by the content authoring community as a replacement for many current uses of raster graphics. This will mean that the graphics in Web documents will be smaller, faster, more interactive, and be displayable on a wider range of device resolutions from small mobile devices through office computer monitors to high resolution printers. This will be a significant advance in Web functionality. Interoperability, both in multiple browsers across multiple platforms and in multiple authoring tools (both read and write), is a prime focus." Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Introduction* (SVG at 1). A person of ordinary skill in the art reading or using Opera would have understood the disclosed goal of providing a functionally useable browser for a small screen while navigating web pages and would have looked to other art, such as SVG, for insight into implementing Opera's teachings, given that SVG is in a similar technical field and address similar problems as Opera, such as optimal web page display. Because Opera and SVG disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to

contemplate adding to, or modifying Opera's processes and/or components with those disclosed by SVG. For example, SVG provides additional details about zooming and panning of web pages (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Interaction, Zoom and pan* (SVG at 14)), and web page scaling (Scalable Vector Graphics (SVG) Requirements, W3C Working Draft, 29 Oct 1998, *Graphical Facilities, Transformations* (SVG at 11). Such functionalities were applicable to Opera: "If the font size of a document is too small, you can zoom in and out on the document from 20% to 1000%!" (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7). "This field is used for showing the progress of loading, and also history and scaling." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50. "Scaling, document. Scaling, printout." (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 3; Opera362_Help_Files at 22.) "Fixed stray undrawn lines at scales of less than 100%." Opera Software - Opera for EPOC June 4, 2000 at 2. "Zoom in and out of the pages. One click turns off graphics and one click zooms in or out." Opera Software - A Browser Made For You - Features March 3, 2000 at 2. Screenshots show multiple zoom levels: "Zoom: 100%. Zoom 50%. Zoom: 30%. Zoom: 400%." Screenshot compilation of Web pages using Opera 3.60_CNET.com_May 1999 at 2–9. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Opera and SVG would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

27. Opera & SVF

Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) The Opera browser could "be used on devices such as the Psion Series 5 classic and Geofox." (Opera for EPOC Beta Released Today - Opera Newsroom at 1). "The Opera browser for the Psion makes it possible to access the Internet wirelessly over the GSM mobile phone network." mCommerce Now a Reality on Psion Platform - Opera Newsroom at 2. Simple vector format (SVF) was designed to handle common computer aided design (CAD) file formats to describe the current web content. '353 Patent, 4:43-63. The '353 Patent describes the zoom and pan capabilities of the SVF, also referred to as "vectorized content" as known in the CAD art and under consideration by the World Wide Web Consortium for adoption as a standard for vector content on the web. '353 Patent, 4:57 –5:6. The '353 Patent admits that SVF could "describe almost any current web content." '353 Patent, 4:50-53. A person of ordinary skill in the art reading or using Opera would have understood the disclosed goal of providing a functionally useable browser for a small screen while navigating web page, and would have looked to other art, such as SVF, for insight into implementing Opera's teachings, given that SVF is in a similar technical field and addresses similar problems as Opera, such as optimal computer information display. Because Opera and SVF disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by SVF. For example, SVF provides additional details regarding implementation of zooming and scaling: "SVF is designed to be a simple format for describing vector images. The basic drawing objects include points, lines, circles, arcs, bézier curves and text. Features of the format include

layers (for controlling the visibility of objects), hyperlinks (for allowing the user to click on a portion of the drawing to perform an action), notifications (for sending messages when the user has passed a certain zoom level), fills, and the ability to override the default colors." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 1). "Scale and base point can be added to the image. This information is not used for display. It would be used if the original coordinate system needed to be recreated from the integer values stored in the file. An SVF coordinate pair would first be added to the base point, then each value would be multiplied by the scale factor. The base point corresponds to the origin (0,0) of the SVF file." Specification for the Simple Vector Format (SVF) v1.1 (SVF 1.1 at 9). Such functionality was applicable to Opera: "If the font size of a document is too small, you can zoom in and out on the document from 20% to 1000%!" (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7). "This field is used for showing the progress of loading, and also history and scaling." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50. "Scaling, document. Scaling, printout." (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 3; Opera362_Help_Files at 22.) "Fixed stray undrawn lines at scales of less than 100%." Opera Software - Opera for EPOC June 4, 2000 at 2. "Zoom in and out of the pages. One click turns off graphics and one click zooms in or out." Opera Software - A Browser Made For You - Features March 3, 2000 at 2. Screenshots show multiple zoom levels: "Zoom: 100%. Zoom 50%. Zoom: 30%. Zoom: 400%." Screenshot compilation of Web pages using Opera 3.60_CNET.com_May 1999 at 2–9. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Opera and SVF would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f)

known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

28. Opera & VML

Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) The Opera browser could "be used on devices such as the Psion Series 5 classic and Geofox." (Opera for EPOC Beta Released Today - Opera Newsroom at 1). "The Opera browser for the Psion makes it possible to access the Internet wirelessly over the GSM mobile phone network." mCommerce Now a Reality on Psion Platform - Opera Newsroom at 2. XML was a complement to HTML. As for VML, it was "an application of Extensible Markup Language (XML) 1.0 which define[d] a format for the encoding of vector information together with additional markup to describe how that information may be displayed and edited." Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 1). A person of ordinary skill in the art reading or using Opera would have understood the disclosed goal of providing a functionally useable browser for a small screen while navigating web page and would have looked to other art, such as VML, for insight into implementing Opera's teachings, given that VML is in a similar technical field of web display and addresses similar problems as Opera. Because Opera and VML disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Opera's processes and/or components with those disclosed by VML. For example, VML provides additional details regarding implementation of image display and CSS elements on web pages:

> "VML should support scripting, including the requirements of animation. This, again, leads to a desire for the structure of VML to match the structure of the graphics. It also leads to the use of types within VML attributes which are appropriate to animation – for example 2D coordinates are defined as single attributes "x,y" rather than pairs of attributes."

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> "The overall structure of VML may be summarized by the XML definitions of the two primary elements - shape and group. A shape element is used to define a visible vector graphic element. Most shapes have a *path* definition – a sequence of straight lines and cubic bézier curves which defines an outline. The outline may be *stroked*, as specified by attributes on the shape and the stroke sub-element. It may also be *filled*, under the control of shape attributes and the fill sub-element. Additional sub-elements support raster (bitmap) images, more advanced transformations of the path and text drawn on top of the shape…. A group element is used to group together several shapes so that they may be transformed together as one unit."

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> "The shape and group elements are containing blocks for their content - they define a CSS2 'block level box'. Inside the containing block a local coordinate system is defined for any sub-elements using the coordsize and coordorigin attributes. All CSS2 positioning information is expressed in terms of this local coordinate space. Consequently CSS2 position attributes (left, top, width, height and so on) have no unit specifier - they are simple numbers, not CSS length quantities. The coordsize attribute defines how many units there are along the width of the containing block. The coordorigin attribute defines the coordinate at the top left corner of the containing block. … Any shapes inside the group are positioned and sized according to this local coordinate system. No matter how the width and height of the group is changed, the local coordinate system inside will remain the same. The rationale behind this is that the vectors defining a shape can be specified in a local coordinate system. If the containing block for the shape is changed, the outline of the shape will be automatically scaled to the new box. Similarly, shapes within the local ordinate system of a group will be automatically scaled if the containing block of the group changes…. The containing block merely serves to map the local coordinate space to the page space."

Vector Markup Language (VML): World Wide Web Consortium Note 13-May-1998 (VML at 10). Such functionality was applicable to Opera: "Opera is a World Wide Web client … documents created with the HyperText Markup Language (HTML)" and "CSS." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999.pdf at 1, 12. "If the font size of a document is too small, you can zoom in and out on the document from 20% to 1000%!" (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7). "This field is used for showing the progress of loading, and also

history and scaling." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50. "Scaling, document. Scaling, printout." (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 3; Opera362_Help_Files at 22.) "Fixed stray undrawn lines at scales of less than 100%." Opera Software - Opera for EPOC June 4, 2000 at 2. "Zoom in and out of the pages. One click turns off graphics and one click zooms in or out." Opera Software - A Browser Made For You - Features March 3, 2000 at 2. Screenshots show multiple zoom levels: "Zoom: 100%. Zoom 50%. Zoom: 30%. Zoom: 400%." Screenshot compilation of Web pages using Opera 3.60_CNET.com_May 1999 at 2–9. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Opera and VML would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

29. Opera & Newton or Palm or Nokia

Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) The Opera browser could "be used on devices such as the Psion Series 5 classic and Geofox." (Opera for EPOC Beta Released Today - Opera Newsroom at 1). "The Opera browser for the Psion makes it possible to access the Internet wirelessly over the GSM

mobile phone network." mCommerce Now a Reality on Psion Platform - Opera Newsroom at 2. XML was a complement to HTML. The Newton, Palm and Nokia devices all offered web browsing capabilities. The Newton handheld device facilitated web browsing and mobile phone calling: "Apple and Third Parties are working to deliver new cellular and radio-based wireless solutions for the Newton platform." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 2); *and see*: "In Germany, Apple Computer recently announced the availability of the GSM Connection Kit for Newton. The kit allows owners of the MessagePad 120 to...communicate from remote locations at any time. These capabilities are enabled by the European-wide GSM network via the Nokia Cellular Data Card and Nokia 2110 or 2140 wireless handsets." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 3). The '957 Patent described a mobile phone with a touch screen. '957 Patent, 2:32-43. The Palm was a handheld device capable of web browsing and mobile phone calling: "3Com designed a tiny two-way radio and integrated it into the hardware design of the Palm VII organizer, using a form factor similar to the Palm III organizer. An ergonomic antenna in the Palm VII product serves both as a radio frequency receiver and an automatic on/off switch for Internet applications." *3Com Announces the Palm VII Connected Organizer, the First Handheld Solution for Out-of-the box Wireless Internet Access* (Palm at 2-3). The Nokia device was a handheld device capable of web browsing and mobile phone calling: "In addition to voice calls, the Nokia 9000 Communicator enables users to send and receive faxes, e-mail and short messages as well as access Internet services and corporate and public databases." *Nokia Unveils World's First All-In-One Communicator for the Americas* (Nokia). A person of ordinary skill in the art reading or using Opera would have understood the disclosed goal of allowing web browsing on the small screen of a mobile device, like the Psion Series 5 classic, and would have looked to other art, such as Newton, Palm or Nokia, for insight into implementing Opera's teachings, given that those devices were in a similar field, including for web browsers on small devices, and addresses similar problems as Opera. Because Opera and Newton, Palm and Nokia disclose similar steps and

components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Opera's processes and/or components with those disclosed by Newton, Palm and/or Nokia. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Opera and Newton, Palm and/or Nokia would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

30. Opera & Hara & Tsutsumitake

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. When a document is to be displayed, the current scroll position is

determined, the document state information is retrieved and the current scroll position is subtracted from the y coordinate value in the stored internal format, and the cursor is moved to display the document. Tsutsumitake ¶¶ [0035-0038], Fig. 6. Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) The Opera browser could "be used on devices such as the Psion Series 5 classic and Geofox." (Opera for EPOC Beta Released Today - Opera Newsroom at 1). "The Opera browser for the Psion makes it possible to access the Internet wirelessly over the GSM mobile phone network." mCommerce Now a Reality on Psion Platform - Opera Newsroom at 2. A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Opera and Tsutsumitake, for insight into implementing Hara's teachings, given that Opera and Tsutsumitake are in a similar technical field and address similar problems as Hara, such as optimal display screen presentation. Because Hara, Opera, and Tsutsumitake disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Opera and Tsutsumitake. For example, Opera described details regarding zooming: "If the font size of a document is too small, you can zoom in and out on the document from 20% to 1000%!" (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7). "This field is used for showing the progress of loading, and also history and scaling." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50. "Scaling, document. Scaling, printout." (Opera 3.60 Help Files

(Combined Printout of HTML)_May 1999 at 3; Opera362_Help_Files at 22.) "Fixed stray undrawn lines at scales of less than 100%." Opera Software - Opera for EPOC June 4, 2000 at 2. "Zoom in and out of the pages. One click turns off graphics and one click zooms in or out." Opera Software - A Browser Made For You - Features March 3, 2000 at 2. Screenshots show multiple zoom levels: "Zoom: 100%. Zoom 50%. Zoom: 30%. Zoom: 400%." Screenshot compilation of Web pages using Opera 3.60_CNET.com_May 1999 at 2–9. In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y starting coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. Such functionalities were applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further likewise discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Opera, and Tsutsumitake would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of

endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

31. Pad++ & Fujitsu

Pad++ was a browser, referred to as Pad++ that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ was being developed for use on platforms ranging from high-end graphics workstations to PDAs and interactive set-top boxes. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 5-6). Using Pad++, one's whole desktop could be zoomable; this feature "seem[ed] especially attractive for systems which have small screens, such as handheld computers (i.e., PDAs)." *A Brief Tour Through Pad++* (Tour at Frequently asked questions, Questions About the Approach). Fujitsu was a handheld device capable of web browsing using Internet Explorer. (Fujitsu-1 at 1; https://youtu.be/Wagi1A7VCaw?si=KwkLAb6kmGWwIjbK&t=372). A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single information display surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks using HTML (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), as well as consideration of operation on a handheld device (Bederson-5 at 5), and would have looked to other art, such as Fujitsu, for insight into implementing Pad++'s teachings, given that Fujitsu was in a similar technical field of visual information display, including for web browsers, and addresses similar problems as Pad++. Because Pad++ and Fujitsu disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or

components with those disclosed by Fujitsu, which was operating as a laptop computer with high end graphics capabilities: "The Stylistic 2300 features a 233 MHz Intel Pentium MMX processor with a 32 KB internal (L1) cache and 512 KB Level 2 (L2) cache, delivering midrange notebook performance in a pen tablet. This power enables the Stylistic 2300 to keep pace with even the most demanding enterprise and multimedia applications." Fujitsu-1 at 2. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and Fujitsu would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.[3]

32. Hara & Tsutsumitake & Fujitsu

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information

[3] As another example of the many combinations available to a person of skill in the art to meet the asserted claim elements, a person of skill in the art would have been motivated to further include Tsutsumitake in combination with Pad++ and Fujitsu. Tsutsumitake stored and processed HTML documents for the purpose of providing a better display of information to the user. Tsutsumitake at [0025]-[0027]. As Tsutsumitake describes such operation with respect to HTML information, a person of ordinary skill in the art would be motivated to use that process in web browser applications on devices like Pad++ and Fujitsu.

to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. When a document is to be displayed, the current scroll position is determined, the document state information is retrieved and the current scroll position is subtracted from the y coordinate value in the stored internal format, and the cursor is moved to display the document. Tsutsumitake ¶¶ [0035-0038], Fig. 6. Fujitsu was a handheld device capable of web browsing using Internet Explorer. (Fujitsu-1 at 1; https://youtu.be/Wagi1A7VCaw? si=KwkLAb6kmGWwIjbK&t=372). A person of ordinary skill in the art reading Hara would have understood the disclosed goals of displaying information in accordance with the resolution of the display screen, displaying information in accordance with a user specified size, displaying a plurality of image data, displaying image data sent from a server to a client, displaying clickable data, and displaying information using a cache function (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Fujitsu and Tsutsumitake, for insight into implementing Hara's teachings, given that Fujitsu and Tsutsumitake are in a similar technical field (e.g., optimal and convenient information display) and address similar problems as Hara. Because Hara, Fujitsu, and Tsutsumitake disclose similar steps, functionality and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Hara's processes and/or components with those disclosed by Fujitsu and Tsutsumitake. For example, Fujitsu was operating as a laptop computer with high end graphics capabilities, including display of multimedia applications on a small screen: "The Stylistic 2300 features a 233 MHz Intel Pentium MMX processor with a 32 KB internal (L1) cache and 512 KB Level 2 (L2) cache, delivering midrange notebook performance in a pen tablet. This power enables the Stylistic 2300 to keep pace with even the most demanding enterprise and multimedia applications." Fujitsu-1 at 2. In a

second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y starting coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. Such functionalities were applicable to Hara, which describes a client device receiving an HTML document from a server, analyzing the HTML to determine whether image tags indicate there is image data to be displayed and processing the images for display and magnification depending upon the resolution of the client device. Hara ¶¶ [0011-0014], [0058-0062]. Hara further discloses that when an image is received in an HTML document, the resolution of the image is compared with the screen resolution to calculate the magnification that matches the width of the display screen. Hara ¶¶ [0058-0061]. If at this magnification the image overruns the display screen, then a magnification is calculated to match the vertical height of the display screen and the most appropriate magnification is selected. *Id.* The resolution of the image data is converted to a size that matches the display screen resolution by interpolating data between dots in the image data. *Id.* As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Fujitsu, and Tsutsumitake would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

33. Opera & Pad++ & one or more of SVG, SVF, and VML

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) As explained in various combinations described above, SVG, SVF, and VML provided ways of using vectors to facilitate object placement, zooming, and magnification for web and computer image display. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate an information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming*

User Interface: Experience Building Pad ++ (Bederson-4 at 1101)), and would have looked to other art, such as Opera, for insight into implementing Pad++'s teachings, given that Opera is in a similar technical field (e.g., optimal web and image display) and addresses similar problems as Pad++. Because Pad++ and Opera disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Opera. For example, Opera facilitated web zooming: "If the font size of a document is too small, you can zoom in and out on the document from 20% to 1000%!" (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7). "This field is used for showing the progress of loading, and also history and scaling." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50. "Scaling, document. Scaling, printout." (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 3; Opera362_Help_Files at 22.) "Fixed stray undrawn lines at scales of less than 100%." Opera Software - Opera for EPOC June 4, 2000 at 2. "Zoom in and out of the pages. One click turns off graphics and one click zooms in or out." Opera Software - A Browser Made For You - Features March 3, 2000 at 2. Screenshots show multiple zoom levels: "Zoom: 100%. Zoom 50%. Zoom: 30%. Zoom: 400%." Screenshot compilation of Web pages using Opera 3.60_CNET.com_May 1999 at 2–9. Such functionality was applicable to Pad++. Further, as noted, and explained in combinations earlier described as between Opera and SVG, SVF, and VML; SVG, SVF, and VML provides ways of using vectors to facilitate zooming, and magnification on electronic displays for web and computer information display. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination of Pad++, Opera and any one or more of VML, SVG, SVF. Accordingly, combining the teachings of Pad++ and Opera with VML, SVG, and/or SVF would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield

predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

34. Pad++ & Kieffer

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Kieffer discloses a protocol for rendering scalable web pages. Kieffer discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed

goal to allowing users to navigate a single display screen on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad ++* (Bederson-4 at 1101)), and would have looked to other art, such as Kieffer, for insight into implementing Pad++'s teachings, given that Kieffer is in a similar technical field and addresses similar problems as Pad++, e.g., rendering scalable web pages. Because Pad++ and Kieffer disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Kieffer. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill the image bounds." Kieffer at cl. 13. Such functionalities were applicable to Pad++, which also describes changing display images to fit to a desired zoom or magnification. Accordingly, combining the teachings of Pad++ and Kieffer would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

35. Pad++ & Kieffer & Zaurus

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ used "dynamic objects" that restructured themselves in response to users' actions. When a user clicked on a link, Pad++ added the new page to a tree visible to the user and placed the new page at the center of the screen as "the current focus" at a size suitable for viewing. *A Zooming Web Browser* (Bederson-3 at 262). A user could designate any page as the current focus by clicking on it. *A Zooming Web Browser* (Bederson-3 at 262). In Pad++, an object included "an HTML page composed of many characters, line segments, and images." *Implementing a Zooming User Interface: Experience Building Pad ++*, (Bederson-4 at 1104). Pad++ disclosed reading HTML and following links across the Internet. *Pad++: A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 12); *see also A Zooming Web Browser* (Bederson-3 at 262-63); *A Zoomable Graphical Sketchpad for Exploring Alternate Interface Physics* (Bederson-5 at 11-12); Pad++ Programmer's Guide (Version 0.2.7) (Programmer's Guide at 1 (Introduction)). Kieffer discloses a protocol for rendering scalable web pages. Kieffer discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single display screen on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User*

Interface: Experience Building Pad ++ (Bederson-4 at 1101)), and would have looked to other art, such as Kieffer and Zaurus, for insight into implementing Pad++'s teachings, given that Kieffer and Zaurus are in a similar technical field and addresses similar problems as Pad++, such as web page display and zooming. Because Pad++, Kieffer and Zaurus disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Kieffer and Zaurus. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill the image bounds." Kieffer at cl. 13. Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). Accordingly, combining the teachings of Pad++, Kieffer and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

36. Hara & Kieffer

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Kieffer discloses a protocol for rendering scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer also comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. A person of ordinary skill in the art reading Hara would have understood the disclosed goal of displaying information on a web browser (Hara ¶¶ [0045-0069]) and displaying information in accordance with the resolution of the display screen (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Kieffer, for insight into implementing Hara's teachings, given that Kieffer is in a similar technical field and addresses similar web display presentation problems as Hara. Because Hara and Kieffer disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara's processes and/or components with those disclosed by Kieffer. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a

"a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill the image bounds." Kieffer at cl. 13. Such functionality was applicable to Hara, which, for example, taught a magnification table for enhanced image display. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara and Kieffer would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

37. Hara & Kieffer & Zaurus

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Kieffer discloses a protocol for rendering scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page

to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer also comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading Hara would have understood the disclosed goal of displaying information on a web browser (Hara ¶¶ [0045-0069]) and displaying information in accordance with the resolution of the display screen (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Kieffer and Zaurus for insight into implementing Hara's teachings, given that Kieffer and Zaurus are in a similar technical field and addresses similar problems as Hara, such as improved and optimal web page display. Because Hara, Kieffer and Zaurus disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara's processes and/or components with those disclosed by Kieffer and Zaurus. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill the image bounds." Kieffer at cl. 13. Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). Such functionality was applicable to Hara, which also taught the benefits of modifying the display size of image data in accordance with a resolution of a display screen running a web browser. As such, a person of ordinary

skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Kieffer and Zaurus would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

38. Hara & Tsutsumitake & Zaurus & Kieffer

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Kieffer discloses a protocol for rendering scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer also comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using

information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. A person of ordinary skill in the art reading Hara would have understood the disclosed goal of displaying information on a web browser (Hara ¶¶ [0045-0069]) and displaying information in accordance with the resolution of the display screen (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Kieffer, Zaurus and Tsutsumitake for insight into implementing Hara's teachings, given that Kieffer, Zaurus and Tsutsumitake are in a similar technical field and addresses similar problems as Hara in the area of computer display enhancement and modification. Because Hara, Kieffer, Zaurus and Tsutsumitake disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara's processes and/or components with those disclosed by Kieffer, Zaurus and Tsutsumitake. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill the image bounds." Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y starting

coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. Such functionality was applicable to Hara as described. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Kieffer, Zaurus and Tsutsumitake would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

39. Opera & Kieffer

Opera was "a World Wide Web client, i.e., a program for retrieving and presenting documents created with the HyperText Markup Language (HTML)." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7. With the Opera browser, a "document consists of text (often with graphics) and links to other documents" and forms. (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50, 67, 74; Opera362_Help_Files at 33, 77, 124.) The Opera browser could "be used on devices such as the Psion Series 5 classic and Geofox." (Opera for EPOC Beta Released Today - Opera Newsroom at 1). "The Opera browser for the Psion makes it possible to access the Internet wirelessly over the GSM mobile phone network." mCommerce Now a Reality on Psion Platform - Opera Newsroom at 2. Kieffer discloses a protocol for rendering scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer also comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web

page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. A person of ordinary skill in the art reading or using Opera would have understood the disclosed goal of providing a functionally useable browser for a small screen while navigating web pages and would have looked to other art, such as Kieffer, for insight into implementing Opera's teachings, given that Kieffer is in a similar technical field and address similar problems as Opera, such as user-friendly and optimal display of web page information. Because Opera and Kieffer disclose similar functionality that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, or modifying Opera's processes and/or components with those disclosed by Kieffer. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill the image bounds." Kieffer at cl. 13. Such functionalities were applicable to Opera: "If the font size of a document is too small, you can zoom in and out on the document from 20% to 1000%!" (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 7). "This field is used for showing the progress of loading, and also history and scaling." Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 50. "Scaling, document. Scaling, printout." (Opera 3.60 Help Files (Combined Printout of HTML)_May 1999 at 3; Opera362_Help_Files at 22.) "Fixed stray undrawn lines at scales of less than 100%." Opera Software - Opera for EPOC June 4, 2000 at 2. "Zoom in and out of the pages. One click turns off graphics and one click zooms in or out." Opera Software - A Browser Made For You - Features March 3, 2000 at 2. Screenshots show multiple zoom levels: "Zoom: 100%. Zoom 50%. Zoom: 30%. Zoom: 400%."

Screenshot compilation of Web pages using Opera 3.60_CNET.com_May 1999 at 2–9. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Opera and Kieffer would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

40. Kieffer & Tsutsumitake & Zaurus & one or more of SVG, SVF, and VML

Kieffer discloses a protocol for rendering scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer also comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. Zaurus was a handheld PDA with a web interface and a small screen. Zaurus_3 at Cover, 1-2. As explained in various combinations described above, SVG, SVF, and VML provided ways of using vectors to facilitate object placement, zooming, and magnification for web display. A person of ordinary skill in the art reading

Kieffer would have understood the disclosed goal of displaying information in accordance with the resolution of the display screen (Kieffer at Abstract, cl. 13) and would have looked to other art, such as Zaurus, Tsutsumitake and one or more of SVG, SVF, and VML for insight into implementing Kieffer's teachings, given that Kieffer, Zaurus Tsutsumitake SVG, SVF, and VML are in a similar technical field and addresses similar problems as Kieffer, such as enhanced computer and web page display. Because Kieffer, Zaurus, Tsutsumitake SVG, SVF, and VML disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Kieffer's processes and/or components with those disclosed by Zaurus, Tsutsumitake, SVG, SVF, and VML. For example, Zaurus described details regarding zooming, and described magnifying or reducing the entire display in response to the user activation of the magnify key. (Zaurus_2 at 79, 86.). In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Tsutsumitake discloses that the summary coordinate information can include X and Y starting coordinates and the length of a line segment from those coordinates. Tsutsumitake ¶ [0049], Fig.9. Further, as noted, and explained in combinations earlier described as between Opera and SVG, SVF, and VML; SVG, SVF, and VML provides ways of using vectors to facilitate zooming, and magnification on electronic displays. Such functionality was applicable to Kieffer (e.g., Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill

the image bounds." Kieffer at cl. 13.) As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Kieffer, Zaurus, Tsutsumitake, SVG, SVF, and VML would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

41. Kieffer & one or more of Newton, Palm, Nokia and Locatio

Kieffer discloses a protocol for rendering scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Kieffer also comprises a system stored on a computer-readable medium comprising a browser, a script creating an HTML or XML based data structure that describes a Web page, and a document object model (DOM). Kieffer at cl. 1, Abstract, 1:64–2:32. The Newton, Palm, Nokia and Locatio devices all offered web browsing capabilities. The Newton handheld device facilitated web browsing and mobile phone calling: "Apple and Third Parties are working to deliver new cellular and radio-based wireless solutions for the Newton platform." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 2); *and see*: "In Germany, Apple Computer recently announced the availability of the GSM Connection Kit for Newton. The kit allows owners of the MessagePad 120 to...communicate from remote locations at any time. These capabilities are enabled by the European-wide GSM network via the Nokia Cellular Data Card and Nokia 2110 or 2140

wireless handsets." *Apple Outlines Plethora of Newton Wireless Communications Solutions at MessagePad 120 Launch* (Newton at 3). The '957 Patent described a mobile phone with a touch screen. '957 Patent, 2:32-43. The Palm was a handheld device capable of web browsing and mobile phone calling: "3Com designed a tiny two-way radio and integrated it into the hardware design of the Palm VII organizer, using a form factor similar to the Palm III organizer. An ergonomic antenna in the Palm VII product serves both as a radio frequency receiver and an automatic on/off switch for Internet applications." *3Com Announces the Palm VII Connected Organizer, the First Handheld Solution for Out-of-the box Wireless Internet Access* (Palm at 2-3). The Nokia device was a handheld device capable of web browsing and mobile phone calling: "In addition to voice calls, the Nokia 9000 Communicator enables users to send and receive faxes, e-mail and short messages as well as access Internet services and corporate and public databases." *Nokia Unveils World's First All-In-One Communicator for the Americas* (Nokia). Locatio was a handheld device capable of web browsing, voice calling, touch screen interaction: "What Can It Do with a PHS Attached? By attaching a PHS phone, the Locatio becomes equivalent to the COM model. If you subscribe to DDI so that you can use the PHS phone, you can use the Locatio as a telephone as well. PDAs that can be used as telephones include the Pinocchio by Matsushita Electronics, the Data Scope by Kyocera, the MC-01 by Toshiba etc., and the Locatio can be used in a similar way. If the old style was to have a cell phone or a PHS phone and a PDA as two separate devices, the Locatio (COM) style is to have all in one, which is easier. Not having cables is an advantage. Computers and cables come in sets, and it is not easy to separate them. There are no cables with the Locatio (COM) and there is an order of magnitude difference in the convenience. The Locatio (COM), which comes with a dedicated PHS unit, can be used as a telephone. Making telephone calls with the Locatio (COM) may not be a completely ordinary way of using it, but it is convenient for people who do not have a cell phone or a PHS phone. Even people who do have a cell phone or a PHS phone may not be happy about walking around with both units,

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once they have got used to Locatio. Maybe using just Locatio (COM) will be the new way." *Locatio™ Beginner's Guide* (Locatio at 65 (English translation)).

A person of ordinary skill in the art reading Kieffer would have understood the disclosed goal of displaying information in accordance with the resolution of the display screen (Kieffer at Abstract, cl. 13) and would have looked to other art, such as Newton, Palm or Nokia, for insight into implementing Kieffer's teachings, given that those devices were in a similar technical field of visual information display, including for web browsers, and addresses similar problems as Kieffer. Because Kieffer and Newton, Palm, Nokia and Locatio disclose similar components and functionality that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Kieffer's processes and/or components with those disclosed by Newton, Palm Nokia, and Locatio. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Kieffer and Newton, Palm, Nokia and Locatio would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

42. Hara & Lehtinen ('579 Patent) & Kieffer

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a

RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Kieffer discloses a protocol for displaying scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Lehtinen describes a device with touch sensitive screens that display information, such as personal digital assistants (PDA), communicators, laptops and radio telephone handsets. '957 Patent, 1:11-15. A person of ordinary skill in the art reading Hara would have understood the disclosed goal of displaying information on a web browser (Hara ¶¶ [0045-0069]) and displaying information in accordance with the resolution of the display screen (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Kieffer and Lehtinen for insight into implementing Hara's teachings, given that Kieffer and Lehtinen are in a similar technical field and address similar problems of optimal device display and interaction as Hara. Because Hara, Kieffer and Lehtinen disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara's processes and/or components with those disclosed by Kieffer and Lehtinen. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value, with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled

at said image's native size to exactly fill the image bounds." Kieffer at cl. 13. Lehtinen describes a display screen on which information may be displayed: "The main body 4 houses a display and a board 20 for the electronics of the device. The display comprises a conventional display apparatus 5 (e.g. a LCD display) and a touch sensitive screen 6 for indicating to the processor 14 of the device when pressure has been applied to or removed from the touch sensitive screen 6. The touch sensitive screen covers one surface of the display apparatus. The touch sensitive screen may be made from any suitable material e.g. resistive material, characteristics of which alter when pressure is applied to the screen." '957 Patent, 2:32-43. Such functionality was applicable to Hara, which described computer image presentation and user initiated magnification. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Kieffer and Lehtinen would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

43. Hara & Tsutsumitake & Lehtinen ('579 Patent) & Kieffer

Hara discloses a protocol for modifying the display size of image data in accordance with a resolution of a display screen running a web browser, to display at a size that can be recognized by a user. Hara ¶¶ [0006-0007]. Hara discloses a user's information processing device comprising a CPU, a RAM, a ROM, an I/O controller, a storage device, a VRAM, and a pointing device. Hara ¶ [0023]. The RAM stores a display table, an image size table, an image magnification parameter table, a user specified size table, a clickable control table, and a row information control table which store information

to process the display. Hara ¶¶ [0031], [0045], [0066], [0072], [0074], [0077], [0080], [0083], [0091]. Tsutsumitake discloses a device that receives and stores a document in an external format, such as HTML, and converts the document to an internal format suitable for display on a screen of the device, e.g., using information blocks, such that a tag, an X coordinate, and a Y coordinate indicate the type of information (e.g., text, image) and the display position of each block. Tsutsumitake ¶¶ [0010], [0025-0027], Figs. 2-5. Kieffer discloses a protocol for displaying scalable web pages. Kieffer further discloses a method in which a Web page's data structure is interpreted and processed in a way that allows for the Web page to be rendered on a browser and automatically updated when the browser's display is resized. Kieffer at Abstract, cl. 16, 2:14–25. Lehtinen describes a device with touch sensitive screens that display information, such as personal digital assistants (PDA), communicators, laptops and radio telephone handsets. '957 Patent, 1:11-15. A person of ordinary skill in the art reading Hara would have understood the disclosed goal of displaying information on a web browser (Hara ¶¶ [0045-0069]) and displaying information in accordance with the resolution of the display screen (Hara ¶¶ [0045-0069]), and would have looked to other art, such as Kieffer, Tsutsumitake and Lehtinen for insight into implementing Hara's teachings, given that Kieffer, Tsutsumitake and Lehtinen are in a similar technical field (e.g., device image display and manipulation) and address similar problems as Hara. Because Hara, Kieffer, Tsutsumitake and Lehtinen disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Hara's processes and/or components with those disclosed by Kieffer, Tsutsumitake and Lehtinen. For example, Kieffer discloses displaying information in accordance with the resolution of the display screen and scaling said displayed information, including text, images, and URL links accordingly. Kieffer at Abstract, cl. 13. Specifically, Kieffer teaches defining a "scaling mode" wherein display of images comprises defining: a "a fit value, with which said image is scaled to fit exactly within the bounds of said slide; a width value, with which said image is scaled, retaining the aspect ratio, so that the width of said image fits exactly in the bounds of said slide; a height value,

with which said image is scaled, retaining the aspect ratio, so that the height of said image fits exactly in the bounds of said slide; and a tile value, with which said image is tiled at said image's native size to exactly fill the image bounds." Kieffer at cl. 13. In a second embodiment, Figure 10 of Tsutsumitake discloses that images can be displayed using summary display coordinate information stored in a table as shown in Figure 9. Tsutsumitake ¶¶ [0015], [0048]. Lehtinen describes a display screen on which information may be displayed: "The main body 4 houses a display and a board 20 for the electronics of the device. The display comprises a conventional display apparatus 5 (e.g. a LCD display) and a touch sensitive screen 6 for indicating to the processor 14 of the device when pressure has been applied to or removed from the touch sensitive screen 6. The touch sensitive screen covers one surface of the display apparatus. The touch sensitive screen may be made from any suitable material e.g. resistive material, characteristics of which alter when pressure is applied to the screen." '957 Patent, 2:32-43. Such functionality was applicable to Hara. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Hara, Kieffer, Tsutsumitake and Lehtinen would have been merely: (a) a combination of prior art elements according to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

44. Pad++ & Lehtinen ('579 Patent)

Pad++ was a browser that allowed "[Web] pages to remain visible at varying scales while they are not specifically being visited, so the viewer may examine many pages at once. In addition, Pad++ allowed users to zoom in and out of pages, enabling explicit control of how much context is viewed

at any time." *A Zooming Web Browser* (Bederson-3 at 262). Pad++ was viewed as a way to implement an alternative windowing system based on zooming. "Your whole desktop could be zoomable. This seems especially attractive for systems which have small screens, such as handheld computers (i.e. PDA's)." Tour at 141. Lehtinen describes a device with a touch sensitive screen that displays information, such as personal digital assistants (PDA), communicators, laptops and radio telephone handsets. '957 Patent, 1:11-15. A person of ordinary skill in the art reading or using Pad++ would have understood the disclosed goal to allowing users to navigate a single information surface on which documents could be placed at any position and scaled to any size with panning, zooming, and hyperlinks (*Implementing a Zooming User Interface: Experience Building Pad* ++ (Bederson-4 at 1101)), and would have looked to other art, such as the Lehtinen for insight into implementing Pad++'s teachings, given that Lehtinen in a similar technical field of convenient image display and addresses similar problems as Pad++, such as display device presentation and interaction. Because Pad++ and Lehtinen disclose similar steps and components that are highly compatible with each other, it would have been natural for one of ordinary skill in the art to contemplate adding to, modifying, or substituting Pad++'s processes and/or components with those disclosed by Lehtinen. For example, Lehtinen describes a display screen on which information may be displayed that allows for touch sensitivity for easier user operation: "The main body 4 houses a display and a board 20 for the electronics of the device. The display comprises a conventional display apparatus 5 (e.g. a LCD display) and a touch sensitive screen 6 for indicating to the processor 14 of the device when pressure has been applied to or removed from the touch sensitive screen 6. The touch sensitive screen covers one surface of the display apparatus. The touch sensitive screen may be made from any suitable material e.g. resistive material, characteristics of which alter when pressure is applied to the screen." '957 Patent, 2:32-43. Pad++ likewise discussed presentation of images on a small, user-manipulatable display screen. As such, a person of ordinary skill in the art would have had a reasonable expectation of success in the combination. Accordingly, combining the teachings of Pad++ and Lehtinen would have been merely: (a) a combination of prior art elements according

to known methods to yield predictable results; (b) a simple substitution of one known element for another to obtain predictable results; (c) a use of known technique to improve similar devices in the same way; (d) application of a known technique to a known device ready for improvement to yield predictable results; (e) obvious to try; and/or (f) known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces since the variations are predictable to one of ordinary skill in the art.

45. Opera & Pad++ & one or more of SVG, SVF, VML and the HTML Standards

As already described, a person of ordinary skill in the art would have been motivated to combine Opera & Pad++, Opera & SVG, Opera & SVF, and Opera & VML. As already described, a person of ordinary skill in the art would have been motivated to combine Opera with Pad++. As described already and in the accompanying charts, the HTML Standards described displaying HTML elements and content in specific sizes relative to the web page display, among many other features of HTML. HTML 4.0 Specification W3C Recommendation (HTML 4.0 § 16.2.1.). Since Opera, Pad++, SVG, SVF, VML were all known to be computer and web graphic display techniques based, at least in part, on HTML, a person of ordinary skill in the art would have been motivated to reference the HTML Standards in implementing aspects of Opera & Pad++ & one or more of SVG, SVF, VML, individually and collectively. A person of ordinary skill in the art would have known to reference the HTML Standards when implementing web page features since it was a known standard for web page design.[4]

[4] Thus, for similar reasons, and as an example of the many other combinations of prior art available to a skilled artisan, Kieffer & Tsutsumitake & Zaurus and one or more of SVG, SVF, and VML and the HTML Standards, would be another suggested combination to a person of ordinary skill in the art that would meet the claim elements for reasons already provided in the above-described respective combinations.

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