Compression results with various entropy encoders and settings

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Sequential | Progressive

Mobile Images (Provided by Siemens)

		IJG JPEG			3-tables	IJG JPEG		2-tables
	Source	-Baseline	-Optimize	QM-Coder	T.851	Huffman	QM-Coder	T.851
2	921654	54432	53903	49374	49097	52319	48675	48798
3	921654	30881	30126	28772	28603	30427	27980	28798
4	921654	62096	61208	56031	55585	59601	55234	55265
5	921654	35629	34469	32532	32243	34010	31689	31971
6	921654	45690	45214	42517	42431	44495	41500	41711
7	921654	46896	46459	42437	42402	45299	41764	42051
8	921654	57960	57336	53690	53542	56249	52654	52822
9	921654	46528	46018	43125	42996	45252	42239	42489
10	921654	44014	43494	40794	40547	42868	39789	39994
11	921654	43284	42780	40155	40053	42499	39211	39358
Total bytes	9216540	467410	461007	429427	427499	453019	420735	423257
Compression ratio		19.72	19.99	21.46	21.56	20.34	21.91	21.78
Improvement over Huffman baseline					8.54%			6.57%
Improvement over Huffman optimized					7.27%			
Improvement over QM-Coder					0.45%			-0.60%

(based upon byte counts)

T.24 Images

		IJG JPEG			3-tables	IJG JPEG		2-tables
	Source	-Baseline	-Optimize	QM-Coder	T.851	Huffman	QM-Coder	T.851
AERIAL2	4195382	840530	826152	722651	723232	782290	720048	721436
BIKE3	2154190	136817	135334	129871	128995	131686	125408	125675
CATSB	6292534	679274	659353	550696	547817	620919	562705	559919
CATSG	6292534	661362	640781	532151	529855	604307	545505	543211
CATSR								
CMPND1	1179702	57321	55906	49730	49620	52692	49359	49188
CMPND2	4300854	209981	205555	178213	177953	191711	176005	175836
CR	IJG software can only handle 8- and 24-bit data							
CT	IJG software can only handle 8- and 24-bit data							
FINGER	263222	67174	65772	56453	56794	61707	55930	56130
GOLDU	208438	13493	11435	10070	10100	11813	10373	10339
GOLDV	208438	15170	13160	11852	11861	13437	12025	12033
GOLDY	415798	63235	61632	55388	55376	60041	55344	55378
HOTELU	208438	15110	13713	12465	12415	13852	12460	12467
HOTELV	208438	16501	15118	14018	14009	15279	13951	13906
HOTELY	415798	62143	60653	57355	57267	58874	55853	55820
MRI	IJG software can only handle 8- and 24-bit data							
TOOLS	IJG software can only handle 8- and 24-bit data (IJG thinks this is not 8-bit data)							
TXTUR1	1049654	360738	355173	319706	320147	329138	315168	315889
TXTUR2	1049654	228507	223951	200725	201044	214274	199202	199657
US	230454	31717	30867	27748	27696	29505	27513	27471
X_RAY	IJG software can only handle 8- and 24-bit data							
Total bytes	28673528	3459073	3374555	2929092	2924181	3191525	2936849	2934355
Compression ratio		8.29	8.50	9.79	9.81	8.98	9.76	9.77
Improvement over Huffman baseline					15.46%			8.06%
Improvement over Huffman optimized					13.35%			
Improvement over QM-Coder					0.17%			0.08%

(based upon byte counts)

Digital Camera Images (5M pixel - Provided by ASIC North)

		IJG JPEG			3-tables	IJG JPEG		2-tables
	Source	-Baseline	-Optimize	QM-Coder	T.851	Huffman	QM-Coder	T.851
brick	15116598	510681	485876	446399	445024	479615	433330	440574
cement	15116598	349941	311195	284266	284272	312438	282308	281987
desk	15116598	445759	421201	388976	386738	422964	383319	386646
lake1	15116598	580105	571174	509504	507093	554147	503732	507051
pebbles	15116598	1206301	1195986	1054496	1053767	1135323	1037334	1041469
server	15116598	508900	493915	470149	467441	490601	460337	464741
shadow	15116598	316997	268550	236973	237566	272234	240579	250057
sunset3	15116598	352634	327663	288414	286757	316107	285854	291672
window1	15116598	325766	302321	277237	274785	303579	275013	276172
Total bytes	136049382	4597084	4377881	3956414	3943443	4287008	3901806	3940369
Compression ratio		29.59	31.08	34.39	34.50	31.74	34.87	34.53
Improvement over Huffman baseline					14.22%			8.09%
Improvement over Huffman optimized					9.92%			
Improvement over QM-Coder					0.33%			-0.99%