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Revision 8.1 (Web Version)
Test Machine Specifications:
* Intel Core i7 (Sandy Bridge)
* 8 GB RAM (DDR-3 @ 1600 MHz), SSD (SATA-3)

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Squeeze Chart 2014

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TAR is used when the program cannot compress all files of a testset in a single archive or when recurse through subdirectories does not work properly.

http://tpi.sourceforge.jp/index.php/News
http://mattmahoney.net/dc/text.html
http://ftp.sac.sk/sac/pack/
ftp://ftp.sac.sk/pub/sac/pack

#	THE TEST DATASET'S / BEST Bits Per Byte value ➔ / BEST ratio ➔ / UNCOMPRESSED SIZE	% weighted average 316.13769	encoding time in seconds	decoding time in seconds	APP 1.6669 20.8364% 327.811.342	AUDIO (WAV) 4.5337 56.6710% 606.681.892	CAMERA RAW 6.1909 77.3857% 577.835.051	GUTENBERG 3.0112 37.6403% 709.240.453	INSTALLER 6.4956 81.1945% 609.139.052	MOBILE 7.3490 91.8620% 492.103.406	PGM / PPM 3.3703 42.1287% 633.482.445	SOURCES 1.2253 15.3160% 200.001.544	XML 1.1948 14.9354% 1.000.000.000	usual file extension	architecture: OS Name bit depth	cores used	when released / developed	where developed (country)	algorithms used	program age in years
	GUI NanoZip 0.08 -cc -m2g ('10) Sami Runsas	105,09608	6.933	6.718	69.728.614	344.830.061	454.178.452	271.181.957	572.480.489	478.680.399	273.691.671	31.341.330	150.005.854	.nz	win64	1	3-Jun-2010	Finland	Fast CM + filter	3,90
2	GUI NanoZip 0.09 -cc -m2g ('11) Sami Runsas	105,11346	6.687	6.653	69.699.825	344.830.935	454.082.848	273.648.068	572.487.400	478.618.331	273.648.831	31.322.350	149.750.763	.nz	win64	4	4-Nov-2011	Finland	Fast CM + filter	2,48
	ZCM 0.88 -m7 -r -s (2013) Francesco Nania	108,26542	1.723		75.418.609	374.148.733	459.900.610	286.929.481	574.442.060	483.725.771	264.529.873	33.321.514	163.973.392	.zcm	win32	1	21-Jun-2013	Italy	Fast CM + filter	0,85
4	ZCM 0.70d -m7 -r -s (2012) Francesco Nania	109,34725	1.968	2.379	75.621.740	386.194.956	463.205.174	285.838.300	574.059.514	484.204.751	268.775.465	33.915.597	166.349.880	.zcm	win32	1	16-Oct-2012	Italy	Fast CM + filter	1,53
	ZCM 0.60d -m7 -r -s (2012) Francesco Nania	109,90809	2.278	1.988	75.296.590	386.587.597	479.334.429	292.250.083	574.089.434	483.947.409	269.208.615	33.841.222	164.815.299	.zcm	win32	1	11-Sep-2012	Italy	Fast CM	1,63
6	GUI Precomp 0.4.3 + FreeARC 0.67 ultra +exp B.	110,28251	5.261	772	68.304.203	351.107.079	489.483.982	266.960.540	578.428.557	463.570.395	303.459.585	34.744.226	184.970.713	.arc	win32	1	12-Dec-2012	Russia	Dedup. + LZMA + PPMd + GRZip + TTA	1,38
	ZCM 0.50 -m7 -r -s (2012) Francesco Nania	110,36363	2.151	2.290	75.468.211	387.303.577	484.866.267	295.203.523	577.288.969	484.732.964	274.063.005	33.687.899	163.874.712	.zcm	win32	1	2-Jun-2012	Italy	Fast CM	1,90
8	ZPAQ 6.23 -method 8 ('13) Matt Mahoney	110,42622	14.814		70.980.256	425.179.239	447.489.322	281.886.218	576.298.915	480.913.794	286.018.404	30.632.248	153.677.859	.zpaq	win64	8	25-Mar-2013	United States	Dedup. + Fast CM + filter	1,09
	ZPAQ 6.33 -method 77 ('13) Matt Mahoney	110,60004	11.750		71.858.850	425.204.026	447.512.299	283.252.643	576.622.979	480.937.821	286.204.166	31.381.272	157.683.624	.zpaq	win64	8	21-Jun-2013	United States	Dedup. + Fast CM + filter	0,85
10	GUI NanoZip 0.09 -cO -m2g ('11) Sami Runsas	110,61308	2.791	1.284	77.381.984	346.114.516	469.040.251	302.565.445	572.140.371	484.239.749	276.707.145	35.424.470	172.140.357	.nz	win64	4	4-Nov-2011	Finland	BWT + LZT + filter	2,48
	ZCM 0.40 -m7 -r -s (2012) Francesco Nania	110,91867	2.169	2.175	76.787.070	386.870.808	488.572.394	296.469.155	577.436.637	484.983.882	274.060.854	33.890.897	165.529.281	.zcm	win32	1	16-May-2012	Italy	Fast CM	1,95
12	ZPAQ 6.43 -method 67 ('13) Matt Mahoney	111,06642	14.152		71.858.143	425.023.907	447.161.962	283.234.100	576.625.702	480.925.972	286.197.426	31.386.867	157.682.201	.zpaq	win64	8	16-Dec-2013	United States	Dedup. + Fast CM + filter	0,36
	GUI WinRK 3.1.2 (ROLZ3) ('06) Malcolm Taylor	111,10112	7.416	2.596	76.614.559	343.812.879	485.395.149	286.131.614	573.646.514	481.541.757	266.877.734	34.882.268	181.306.077	.rk	win64	4	1-Mar-2006	New Zealand	ROLZ-3 + PPM	8,16
14	CCMx 1.30c opt. 7 Christian Martelock	111,37352	2.760	2.850	78.398.914	391.606.412	466.979.717	289.869.520	577.169.132	484.047.738	296.599.146	32.892.892	167.908.122	.ccmx	win32	1	24-Apr-2008	Germany	Fast CM + filter	6,01
	GUI WinRK 3.1.2 (ROLZ2) ('06) Malcolm Taylor	112,43209	7.068	2.446	79.404.688	345.763.924	497.270.881	286.859.957	586.211.755	484.970.039	266.988.020	35.221.720	182.165.440	.rk	win64	4	5-Feb-2012	New Zealand	ROLZ-3 + PPM	2,23
16	MCM 0.3 -9 (2013) Matthieu Chartier	112,60664	4.783		82.529.921	450.157.372	458.055.272	283.140.276	577.002.867	482.161.433	294.329.466	32.210.270	156.605.126	.mcm	win32	1	17-Jun-2013	Canada	Fast CM	0,86
	MCM 0.4 -9 (2013) Matthieu Chartier	113,69469	4.707		83.602.512	451.091.291	462.517.672	286.044.317	578.346.969	482.662.407	300.188.192	32.963.389	158.018.013	.mcm	win32	1	23-Jul-2013	Canada	Fast CM	0,76
18	GUI NanoZip 0.09 -co -m2g ('11) Sami Runsas	113,79406	476		81.589.626	347.875.435	491.875.984	299.055.780	579.100.338	485.878.580	277.080.042	38.903.203	185.674.185	.nz	win64	4	4-Nov-2011	Finland	BWT + LZT + filter	2,48
	GUI FreeARC 0.67 (2012) ultra Bulat Ziganshin	113,98933	2.091		80.135.168	351.107.079	501.293.683	302.192.145	578.708.723	490.303.204	303.462.080	34.886.587	184.182.322	.arc	win32	2	12-Dec-2012	Russia	Dedup. + LZMA + PPMd + GRZip + TTA + delta	1,38
20	PAQ9a -9 ('07) Matt Mahoney et al.	114,07239	15.702	16.591	79.385.282	454.055.569	457.915.837	280.356.591	574.254.311	481.186.044	294.809.748	31.283.840	159.137.846	.paq9a	win32	1	31-Dec-2007	United States	LZP + Fast CM	6,33
	LPAQ9m -9 (2009) Matt Mahoney et al.	114,41153	11.152	11.947	82.315.624	483.211.343	466.721.795	283.643.675	574.158.259	483.441.042	298.879.799	31.224.332	149.353.612	.lpaq9m	win32	1	20-Feb-2009	USA + Russia	Fast CM	5,19
22	LPAQ9i -9 (2008) Matt Mahoney et al.	114,46857	11.191	12.359	82.714.262	487.740.113	466.891.537	281.229.305	574.033.450	483.245.196	296.361.005	31.263.296	149.804.592	.lpaq9i	win32	1	27-Apr-2008	USA + Russia	Fast CM + E8E9	6,00
	LPAQ7e -9 (2007) Matt Mahoney et al.	114,83981	11.071	11.481	82.483.738	504.932.570	464.634.575	278.351.488	574.136.654	481.952.693	298.708.197	31.143.250	150.172.517	.lpaq7e	win32	1	31-Oct-2007	USA + Russia	Fast CM + E8E9	6,49
24	LPAQ4e -9 (2007) Matt Mahoney et al.	115,34216	10.865	11.715	83.789.117	507.404.490	461.784.004	278.771.170	574.253.251	480.992.119	296.982.199	31.636.700	153.118.456	.lpaq4	win32	1	1-Oct-2007	USA + Russia	Fast CM + filter	6,57
	TANGELO 2.0 (2013) Jan Ondrus	115,42819	19.933		78.906.065	451.394.450	458.817.126	288.474.516	576.488.437	481.671.721	291.703.582	31.314.571	164.118.727	.tan	win32	1	6-Jul-2013	Czech Republic	Fast CM	0,81
26	GUI Precomp 0.4.3 + 7-ZIP 9.3.0 ultra 128MB	116,42884	6.491		78.762.255	441.043.625	487.151.173	267.535.706	576.683.197	460.935.592	337.122.045	35.800.534	180.044.575	.7z	win32	1	2-Jan-2009	Russia	LZMA2lc4:128; PPMd:1024 o10 + delta:3	5,32
	CMM4 0.2b 96 (2008) Christopher Mattern	116,62104	5.534	4.843	84.362.230	510.874.018	468.665.303	286.575.129	578.462.992	483.475.436	303.327.118	32.582.554	164.930.949	.cmm4	win32	1	4-Jun-2008	Germany	Context Mixing	5,90
28	LPAQ1 -9 (2007) Matt Mahoney et al.	116,86397	11.332	12.095	84.488.523	516.330.193	467.019.940	281.496.506	574.106.066	481.430.206	304.463.339	31.930.129	157.883.859	.lpaq1	win32	1	24-Jul-2007	United States	Fast CM	6,76
	GUI UHARC 0.6b -mx/-m3 -mm+ U. Herklotz	116,97022	8.159		80.232.277	395.293.930	477.253.880	301.703.146	576.204.183	485.825.646	292.075.855	35.198.987	203.974.516	.uha	win32	1	6-Feb-2005	Germany	PPM 50 MB + LZ + ARI 291 MB	9,23
30	GUI 7-ZIP 9.3.0 LZMA2 ultra128:fb273:bt4:lc4	117,06648	2.830	1.639	79.500.816	441.035.970	493.043.375	304.617.390	577.098.703	487.440.321	322.709.493	36.126.394	179.406.622	.7z	win64	4	7-Sep-2012	Russia	LZMA2:128, PPMd:1024 o14, delta:3	1,64
	BIT 0.7 LWCX -P=5 Osman Turan	117,32270	6.284		85.276.158	510.306.657	468.307.527	287.061.074	578.113.802	483.390.665	303.742.288	32.915.199	168.718.324	.bit	win32	1	4-Jan-2009	Turkiye	Context Mixing	5,31
32	GUI UHARC 0.4 ('01) -mx/-m3 -mm+ U. Herklotz	117,60932	5.590		83.847.245	397.613.629	478.646.282	304.729.847	582.549.377	485.987.428	293.432.096	36.934.509	212.232.106	.uha	win32	1	28-Dec-2001	Germany	LZP ALZ PPM	12,33
	TANGELO 2.4 (2013) Jan Ondrus	117,75499	3.947		90.970.960	522.955.272	475.340.089	272.133.582	577.858.048	459.121.106	318.791.327	33.876.178	174.391.732	.tan	win32	1	17-Aug-2013	Czech Republic	Fast CM	0,69
34	PPMonstr ver J -o16 -m1600 D. Shkarin	117,78993	24.383	24.475	77.709.784	490.752.860	476.341.671	284.281.919	577.945.041	482.786.594	309.513.090	31.490.102	154.192.936	.pmm	win32	1	16-Feb-2006	Russia	PPM-II	8,20
	SBC 0.970r3 -m3 -b63 -os Sami Makinen	118,00548	2.250		97.303.748	352.299.035	473.450.475	304.275.096	582.698.288	485.944.367	304.403.688	38.774.613	194.610.863	.sbc	win64	1	11-Mar-2008	Finland	BWT + ARI	6,13
36	TANGELO 2.3 (2013) Jan Ondrus	118,04697	3.665		89.309.602	516.077.838	474.196.801	290.752.195	577.801.308	484.812.825	312.002.309	33.346.539	172.846.758	.tan	win32	1	22-Jul-2013	Czech Republic	Fast CM	0,76
	GUI Squeez 5.63 / SpeedCmd (32MB ultra) auto	118,38570	7.325		85.752.271	361.509.947	489.920.850	298.886.419	577.911.802	483.275.656	355.828.299	40.097.449	185.335.396	.sqx	win64	1	11-May-2005	Germany	LZR / PPM (o8, 768 MB) + filter	8,96
38	RZM 0.07e (2008) Christian Martelock	118,43869	5.095		80.746.777	470.056.236	478.724.569	307.929.578	576.714.890	484.783.957	320.968.722	34.837.417	193.711.323	.rzm	win32	1	16-Mar-2008	Germany	64 MB sliding window ROLZ	6,11
	REFLATE 0c1 (2012) Eugene Shelwien	118,58749	10.107		76.576.376	535.503.906	486.028.153	304.551.121	494.587.185	474.923.533	349.677.414	33.730.570	193.096.414	.ref	win32	1	31-Dec-2011	Russia	ZLIB/JPEG recompressor + LZMA	2,33
40	GUI Compressia 1.0b max, 15MB, english, solid Yaak	118,88569	23.753		82.086.199	488.772.424	475.960.844	298.548.015	591.134.831	491.043.803	310.841.214	37.257.475	182.328.204	.car	win32	1	1-Mar-2003	Israel	BWT + ARI + PPM-II + filter	11,16
	Packet 1.1 -h4 -b512 -mx Francesco Nania	119,27314	3.046		85.566.387	400.864.727	481.667.787	313.282.760	574.046.330	485.433.113	297.838.031	38.728.339	215.148.334	.packet	win32	1	7-Dec-2013	Italy	LZ77 + Fast CM	0,39
42	GUI FLASHZIP 1.1.3 (2013) -r -s -mx3 -k7 -b1024	119,31325	1.667		88.961.837	384.619.601	496.852.845	319.261.810	578.923.326	486.803.989	288.721.818	38.740.607	210.064.678	.flz	win32	1	5-Aug-2013	Italy	ROLZ + ARI	0,73
	GUI FLASHZIP 1.1.0 (2012) -r -s -mx3 -k7 -b1024	119,33399	1.697		88.961.837	384.633.518	497.660.006	319.268.847	578.923.326	486.803.989	288.721.818	38.740.447	210.064.678	.flz	win32	1	3-Dec-2012	Italy	ROLZ + ARI	1,40
44	GUI UHARC 0.6b -m3 -mm+ -md+ 32 MB U. Herklotz	119,62002	8.793		84.008.979	396.767.348	486.843.544	330.829.476	576.204.182	486.101.118	292.738.127	38.185.525	218.104.700	.uha	win32	1	6-Feb-2005	Germany	ALZ3 291 MB	9,23
	GUI STUFFIT 14.0.1.27 (2010) bit-perfect	119,92363	2.679		95.432.555	403.289.660	484.760.105	271.777.543	585.557.564	452.056.163	344.467.525	39.655.270	200.157.791	.sitx	win64	8	8-Feb-2010	United States	LZARI 5:28 / PPM 16:30	4,22
46	MComp 2.00 -mf3x 600m (2008) M. Taylor	119,96754	11.171		84.823.247	515.406.343	485.310.639	299.880.731	576.103.500	484.900.652	343.864.694	33.861.762	179.927.192	.mcomp	win64	1	23-Aug-2008	New Zealand	ROLZ-3	5,68
	GUI WinRar 4.20 solid best force PPMd E. Roshal	120,18950	3.285	2.183	92.959.368	408.872.338	487.351.765	305.582.289	592.737.914	490.590.092	319.664.733	38.238.952	192.946.122	.rar	win64	1	9-Jun-2012	Russia	PPM-II o9-128M + filter	1,88
48	BSC 3.1.0 -b1024r -m0 -e2 Ilya Grebnov	120,59777	1.069	650	106.062.384	413.460.698	504.212.594	294.567.520	585.458.040	490.817.414	324.642.920	38.190.522	167.869.306	.bsc	win64	8	8-Jul-2012	Russia	BWT + libdifsufsort + QLFC + CM + filter	1,80
	BSC 3.1.0 -b1024rsca -m0 -e2 Ilya Grebnov	120,78965	1.319		105.153.385	413.450.026	504.454.068	294.567.520	585.458.040	490.817.414	324.577.856	38.261.586	172.050.326	.bsc	win64	8	8-Jul-2012	Russia	BWT + libdifsufsort + QLFC + CM + filter	1,80
50	TC 5.2 Dev 2 (2007) Ilya Muravyov	120,97694	9.846		88.221.049	533.737.274	477.290.425	293.893.106	581.154.502	484.626.306	316.902.047	36.384.661	185.618.928	.tc	win32	1	5-Feb-2007	Russia	Fast PAQ Weighting	7,23
	PPMonstr ver I (2002) -o16 -m800 D. Shkarin	121,08219	22.427	15.429	85.932.151	510.674.710	478.413.959	286.529.751	582.155.671	486.867.113	318.828.729	33.346.449	158.192.202	.pmm	win32	1	30-Apr-2002	Russia	PPM-II	11,99
52	BSC 3.1.0 -b1024rsca -m0 -H28 -M255 I. Grel	121,31154	1.288		108.172.356	412.185.160	507.255.944	300.897.766	581.534.528	484.920.043	324.387.750	38.202.132	172.066.806	.bsc	win64	8	8-Jul-2012	Russia	LZP+BWT+libdifsufsort+QLFC + CM + filter	1,80
	Blizzard 0.24 300m ('08) Chr. Martelock	121,32574			98.816.831	502.115.581	492.083.648	293.705.230	582.751.906	485.502.585	306.869.116	38.309.760	171.545.984	.bliz	win32	1	30-Jun-2008	Germany	BWT + filterCM	5,83
54	LZPXJ 1.2h opt. 9 (2007) Ilya Muravyov	121,35444	3.430		90.121.506	430.775.908	489.930.019	315.898.262	578.386.352	485.829.975	323.753.445	37.803.252	204.385.085	.lzpxj	win32	1	7-Mar-2007	Russia	LZ + ARI	7,14
	GUI CTXf 0.75 pre-b1 (2003) -me -b L. Nikita	121,50288			101.856.759	407.913.955	491.460.126	308.122.202	590.693.341	489.051.945	311.183.180	37.513.145	198.221.614	.cxf	win32	1	27-Sep-2003	Belarus	PPM-II + filter	10,58
56	Blizzard 0.24 30m ('08) Chr. Martelock	122,24916			97.991.972	526.871.036	467.663.215	297.266.236	583.452.991	483.739.655	300.975.553	38.031.300	186.228.420	.bliz	win32	1	30-Jun-2008	Germany	BWT + filterCM	5,83
	GUI WinRar 4.20 solid best auto filter E. Roshal	122,58817	913	522	93.212.800	409.067.261	510.033.127	307.792.311	583.840.363	487.787.256	321.392.802	38.231.702	218.410.260	.rar	win64	8	3-May-2012	Russia	LZ77 + Huffman + PPM-II o9-128M	1,98
58	GUI BEE 0.7.9 -m3 -d9 A.Filinsky & M.Caruso	122,68370			96.006.788	551.429.377	486.258.767	298.267.270	593.584.313	488.392.823	325.177.589	36.045.184	170.393.336	.bee	win32	1	23-Sep-2005	Russia	PPM	8,59
	GUI DGCA 1.00 - 1.10e ('04-'06) Shin-ichi Tsuruta	122,92189	2.004		111.059.712	399.127.808	460.377.360	309.172.160	588.457.568	483.831.216	297.893.488	39.694.096	210.053.344	.dgc	win32	1	1-Aug-2004	Japan	BWT + ARI	9,74
60	YZX 0.11 -r -s -m9 -b8 -h5 Francesco Nania	122,97752	1.455		96.926.596	401.535.701	494.529.097	322.515.123	596.487.480	487.188.193	301.389.949	40.203.453	213.795.355	.yzx	win32	1	4-Jan-2012	Italy	LZKS	2,31
	GUI PeaZip 3.3 .7z ultra + adv filters G. Tani	123,09528			79.557.116	543.048.858	499.251.222	321.073.660	577.113.799	487.604.108	366.073.941	36.178.823	179.928.850	.7z	win64	2	14-Sep-2010	Russia	LZMA:128; PPMD:1536 o10	3,62
62	BCM 0.14 (2013) c1000 Ilya Muravyov	123,60568	2.137		109.064.976	499.127.439	499.199.461	297.005.032	591.413.505	487.250.991	308.769.405	39.017.441	169.142.589	.bcm	win32	1	23-Jun-2013	Russia	BWT + CM	0,84
	LZMA SDK 9.20 + LZMAREC E. Shelwien	123,68326			86.206.329	532.637.848	488.712.409	305.744.176	576.224.449	484.247.497	361.554.908	35.717.780	196.089.049	.lzma	win32	1	28-Dec-2010	Russia	LZMA with better entropy coding	3,33
64	BBB 1.0 cm100 (2006) Matt Mahoney	123,72660	17.109		108.106.941	514.242.745	479.925.123	299.022.344	588.953.967	485.035.191	303.250.005	38.867.037	176.930.184	.bbb	win32	1	31-Aug-2006	United States	BWT	7,66
	M03 1.1 blocksize 1GB M.A. Maniscalco	123,88802	4.658		107.096.473	517.633.014	505.470.065	296.483.301	589.660.415	489.144.884	319.356.247	37.819.153	167.169.555	.m03	win32	1	24-Oct-2011	United States	BWT	2,51
66	PPMd Jr1 sh8 -o16 -m1600 -c E. Shelwien	124,09877			96.927.521	549.847.725	493.046.240	296.677.240	590.076.036	491.288.116	336.818.689	37.054.168	175.321.640	.pmd	win32	1	9-Dec-2008	Russia	PPM-II (o16, m1600)	5,38
	Durilca'light 0.5 -m800 -o32 Dmitry Shkarin	124,10369	6.173		101.735.814	546.893.296	492.566.701	293.867.873	587.588.278	489.455.650	331.538.623	36.285.821	175.973.254	.dul	win32	1	1-Apr-2006	Russia	PPM-II + filter	8,07
68	M03 0.2 α (2009) 250 MB M.A. Maniscalco	124,19914			108.069.738	522.103.606	494.193.746	296.964.823	589.340.653	486.960.489	318.653.295	37.884.010	171.677.206	.m03	win32	1	11-Oct-2009	United States	BWT	4,54
	MComp 2.00 -mw -M400m (2008) M. Taylor	124,21281			108.270.717	501.899.826	497.994.252	300.046.294	590.697.638	488.567.000	310.736.978	39.029.557	175.148.453	.mcomp	win64	1	23-Aug-2008	New Zealand	Experimental BWT 2000 MB	5,68
70	BCM 0.12 -b100 (2010) Ilya Muravyov	124,25783	1.593		109.705.317	524.070.262	480.453.720	300.316.365	593.675.968	486.671.559	304.919.660	38.994.819	171.873.993	.bcm	win32	1	31-Oct-2010	Russia	BWT + CM	3,49
	LZHAM α7r1 -m4 -d29 -e -x R. Geldreich, Jr.	124,50221	10.405		88.884.166	528.950.524	495.594.431	310.270.236	573.257.031	485.522.129	357.793.035	37.325.895	192.771.132	.lzham	win64	8	15-Dec-2011	Russia & United States	LZ + Huffman + ARI + MARKOV	2,37
72	CSC 3.2 final (2011) -m3 -d512 -r Fu Siyuan	124,71721	1.209		88.534.765	411.371.250	482.105.407	324.170.450	577.523.189	487.374.122	332.646.388	41.620.483	235.589.271	.csc3	win32	1	18-Aug-2011	China	LZ77 + ARI + filters	2,69
	LZHAM α6 -m4 -d29 -e -x R. Geldreich, Jr.	124,87475	7.650		88.961.163	537.127.392	499.118.240	310.356.437	573.282.323	485.550.450	357.894.064	37.338.554	192.697.401	.lzham	win64	8	10-Jan-2011	Russia & United States	LZ + Huffman + ARI + MARKOV	3,30
74	Distance Coder 1.24 -b16300el Edgar Binder	125,04299			116.635.812	421.314.004	478.896.238	308.597.737	594.394.289	487.528.532	313.543.103	40.462.792	195.272.402	.dc	win32	1	12-Apr-2000	Germany	BWT + ARI + Distance Coding	14,04
	GUI WinRar 5.0 solid best 1024MB E. Roshal	125,08731	1.156	358	90.158.844	432.589.940	504.354.380	331.617.046	575.585.759	487.400.203	346.631.781	39.601.660	218.721.519	.rar	win64	8	22-Aug-2013	Russia	LZ77 + Huffman + filter	0,68
76	GUI Free Zip Archiver 2.0.1.2 max Hamstersoft	125,32985			80.295.152	542.499.471	500.230.528	321.375.512	581.634.110	489.936.161	365.813.900	36.820.961	202.974.954	.7z	win32	2	6-Mar-2012	United States	LZMA + filter	2,14
	UHBC 1.0 ('03) -b128m -m3 Uwe Herklotz	125,44342			108.002.392	528.946.894	487.957.436	300.665.961	587.743.831	485.577.118	311.046.550	38.464.708	187.992.164	.uhbc	dos16	1	30-Jun-2003	Germany	BWT + WFC + MTF	10,83
78	GUI M03 (2005) 32 MB Michael A. Maniscalco	125,60268			108.531.937	532.097.101	482.505.605	302.273.608	594.825.412	490.128.616	317.729.374	38.146.497	182.664.270	.m03	win32	1	15-Feb-2005	United States	BWT	9,20
	LZMA SDK 9.20 (2010) -d27 -fb273 I. Pavlov	125,64327			88.578.383	541.569.322	500.259.902	311.681.734	581.554.823	489.877.140	366.175.283	36.216.616	197.679.384	.lzma	win32	2	18-Nov-2010	Russia	LZMA 9.20	3,44
80	GUI KuaiZip 2.3.2 (2011) best solid	125,68009	2.374		81.921.732	541.637.746	500.544.087	322.423.957	581.732.635	489.874.761	365.718.716	37.001.167	202.974.906	.kz	win32	1	22-Sep-2011	China	LZMA (?)	2,60
	SMAC 1.20 (2014) Jean-Marie Barone	126,19638	10.982		103.436.610	562.984.205	489.531.813	296.380.124	581.170.478	482.917.722	346.571.229	37.057.356	184.851.016	.sma	win32	1	2-Jan-2014	France	Fast CM	0,32
82	NanoZip 0.09 -cDP 2GB ('11) Sami Runsas	126,22252	392		95.021.017	357.601.959	520.764.815	326.122.831	574.792.742	486.796.795	288.783.661	44.067.167	264.844.379	.nz	win64	4	4-Nov-2011	Finland	LZHDS + filter	2,48
	SMAC 1.19 (2013) Jean-Marie Barone	126,32566	10.869		103.593.603	563.091.725	489.903.454	296.796.060	581.210.127	483.008.912	346.818.917	37.158.994	185.164.440	.sma	win32	1	13-Dec-2013	France	Fast CM	0,37
84	SMAC 1.18 (2013) Jean-Marie Barone	126,32570	15.301		103.593.755	563.091.038	489.903.135	296.796.470	581.210.396	483.009.146	346.818.505	37.159.116	185.164.417	.sma	win32	1	7-Dec-2013	France	Fast CM	0,39
	GUI WinZip 18.0 ZIPX best method - Corel Corp.	126,41723	993	743	107.598.037	353.119.941	499.808.100	288.191.080	581.665.614	466.061.860	351.596.474	51.599.189	202.715.769	.zipx	win64	8	23-Oct-2013	United States	LZH + BZ2 + LZMA + LZMA2 + PPMd + WV + JPEG	0,51
86	UHARC 0.2 (1997) -m3 -md2048 -mm+ U. Herkl	126,49523			96.421.346	427.704.915	473.765.789	340.795.851	582.621.787	484.745.699	294.683.992	41.208.512	251.404.151	.uha	dos16	1	21-Dec-1997	Germany	ALZ3 (?)	16,35
	BSSC 0.95α -b16383as Sergeo Sizikov	126,56427			106.488.393	514.610.218	482.648.538	305.387.815	589.828.182	486.063.486	322.682.944	39.476.848	199.433.478	.bssc	win32	1	12-Mar-2005	Russia	BWT + DCE + filter	9,13
88	GUI Power Archiver 13.02.04 .7z opt.ultra solid	126,61163	2.698		82.645.296	606.680.942	499.781.278	308.482.141	577.347.120	487.529.751	366.031.819	36.829.715	196.472.264	.7z	win32	2	24-Sep-2012	United States	LZMA / PPMd	1,59
	XZ 5.1.3 alpha -9 -e -T0 (2013) Lasse Collin	126,75112	2.194	351	89.174.836	542.073.960	499.282.256	316.127.380	577.309.560	487.397.416	366.198.176	36.621.412	203.103.192	.xz	win64	8	25-Nov-2013	Finland	LZMA2 + filter	0,42
90	GUI WinAce 2.5 - 2.69 max solid + f. M. Lemke	126,78849	3.309		93.533.161	402.349.345	520.115.641	341.769.413	585.010.169	489.126.332	300.556.906	41.761.190	248.471.149	.ace	win32	1	28-Feb-2005	Germany	LZ77 + Huffman + filter	9,16
	PPMVC 1.2 -o8 -m256 P. Skibinski	126,90756			105.065.841	552.136.807	482.698.369	299.863.893	591.019.735	488.092.322	339.815.777	38.169.677	189.600.577	.pmv	win32	1	11-Jan-2007	Russia / Poland	PPM-II + VARIable Context	7,29
92	TC 5.1 Dev. 7x (512 MB) Ilya Muravyov	127,06940			90.373.039	533.692.540	476.837.081	330.228.855	583.742.981	484.319.020	338.880.556	37.469.753	224.269.866	.tc	win32	1	3-Jan-2007	Russia	LZ with 512 MB dictionary	7,32
	GUI LZIP 1.11 -9 (2010) Antonio Diaz Diaz	127,10973	5.912	396	90.361.782	542.419.333	500.000.209	316.321.162	582.134.631	489.939.093	367.325.538	36.824.254	206.805.927	.lz	win32	2	26-Sep-2010	- unknown -	LZMA	3,59
94	RINGS 2.0 -s -r -m7 (2013) Francesco Nania	127,26989	1.815		115.689.544	406.943.112	475.629.327	323.516.471	586.955.935	483.626.079	297.851.879	53.443.936	175.365.258	.zpaq	win32	1	11-Jul-2013	Italy	BWT + ARI	0,79
	GUI WinZip 16.0 - 17.5 .ZIPX Corel Corp.	127,28627	1.144	1.107	113.745.713	353.119.941	499.808.100	287.887.660	583.318.308	466.050.207	351.595.430	51.171.467	202.715.409	.zipx	win64	8	17-Apr-2012	United States	LZH + BZ2 + LZMA + LZMA2 + PPMd + WV + JPEG	2,03
96	GUI M03 (2005) 8 MB Michael A. Maniscalco	127,32185			110.686.632	537.803.423	478.051.361	307.495.411	596.877.061	489.208.756	319.694.127	38.142.148	195.745.327	.m03	win32	1	28-Jan-2005	United States	BWT	9,25
	BALZ 1.11 Mode ex (2008) Ilya Muravyov	127,33083			91.437.732	528.099.307	490.572.583	322.583.267	586.053.677	490.499.206	352.840.233	37.346.605	217.554.463	.balz	win32	1	29-May-2008	Russia	LZ77 (greedy parsing)	5,91
98	GUI WinRar 4.20 solid best no PPMd E. Roshal	127,47559	636	226	94.055.673	408.840.098	511.441.694	340.923.674	583.872.759	487.786.522	321.674.370	41.152.941	248.944.093	.rar	win64	8	3-May-2012	Russia	LZ77 + Huffman + filter	1,98
	OLFC 6.6w (blocksize 200 MB) Florin Ghido	127,62060			111.882.033	541.403.831	498.385.630	305.738.834	588.307.467	485.795.961	324.433.275	40.260.049	180.487.530	.qg	win32	1	7-Feb-2001	Romania	BWT + ARI	13,22
100	GUI WinZip 12.0.8252 optimize best Corel Corp.	127,66881			114.068.434	353.119.941	499.941.562	287.992.261	584.523.077	466.234.013	351.717.891	51.958.902	202.715.769	.zip	win32	1	10-Sep-2008	United States	LZH + SF + BWT + LZMA + PPMd	5,63
	PPMonstr ver G -o16 -m256 ('00) D. Shkarin	127,72137			108.233.769	559.661.105	485.197.621	304.871.365	607.113.152	490.093.603	337.025.048	37.014.952	188.392.580	.pmm	win32	1	26-Nov-2000	Russia	PPM-II	13,42
102	GUI B1 Free Archiver 1.4.67 (2013) ultra	127,75225	3.623		90.531.315	541.418.792	501.457.181	319.193.219	581.862.268	490.060.333	366.470.831	37.296.432	211.635.644	.b1	win32	2	11-Oct-2013	United States	LZMA	0,54
	BWCM c128 (2013) Nauful	128,32156	4.865		112.710.682	526.989.975	488.491.347	305.793.155	597.466.988	491.762.627	308.917.391	41.458.908	182.732.499	.bwcm	win32	2	2-Dec-2013	United States	LZP + BWT + CM	0,40
104	GUI Squeez 4.20.440 ('03) 4MB max + filter	128,39573	4.127		95.661.953	369.832.091	517.199.086	336.725.810	583.950.962	487.687.694	366.830.143	43.625.375	237.630.152	.sqx	win32	1	23-Jul-2003	Germany	LZ + filters	10,76
	DARK 0.46 -b128mf1s2 (2006) D. Malyshev	128,41545			113.572.641	547.941.949	499.581.603	305.213.200	595.135.649	490.054.574	326.389.070	40.156.755	180.460.007	.dark	win32	1	23-Aug-2006	Russia	BWT + Distance Coding	7,68
106	BMA 1.35 -m64m -mx -ax A. Cherenkov	128,53243	3.483		109.050.502	396.021.787	478.872.414	322.437.857	580.831.147	483.988.300	325.952.081	54.653.845	191.082.735	.bma	win32	1	19-Jun-2008	Russia	BWT + MTF + RLE + ARI	5,86
	M99 128 MB -m ('07) Michael A. Maniscalco	128,61523			115.809.668	541.800.959	496.664.847	306.068.242	591.972.098	486.794.888	326.725.230	41.197.626	178.185.035	.m99	win32	1	27-Mar-2007	United States	BWT + MSufSort3.1 + ARI	7,08
108	GUI ALZIP 8.5 .EGG solid, p. on ratio ESTSOFT	129,09279	3.438		91.625.148	541.831.172	500.777.382	321.995.902	584.408.803	489.807.206	366.440.403	39.225.968	215.667.154	.egg	win32	1	7-Oct-2010	Korea	LZMA ?	3,56
	M99 32 MB -m ('07) Michael A. Maniscalco	129,17165			116.097.070	540.862.071	485.630.231	308.767.288	591.173.241	486.368.507	324.381.207	41.294.540	188.852.254	.m99	win32	1	27-Mar-2007	United States	BTW + MSufSort3.1 + ARI	7,08
110	YBS 0.03f -m16m Vadim Yoockin	129,86338			119.353.441	543.052.963	482.277.855	308.911.519	601.489.992	490.448.245	321.867.467	39.994.251	194.413.052	.ybs	win32	1	22-Sep-2002	Russia	BWT + Distance Coding	11,60
	DARK 0.50 -b200ms (2006) Dmitry Malyshev	130,03169			115.630.396	542.509.538	477.088.827	309.751.586	593.767.607	488.747.044	321.144.028	42.873.280	195.580.747	.dark	win32	1	8-Oct-2006	Russia	BWT + Distance Coding	7,55
112	ABC 2.4 (2003) -c Jürgen Abel	130,06467			115.922.733	542.777.545	479.587.507	311.868.301	593.027.830	485.653.639	323.092.232	40.252.099	206.175.132	.abc	win32	1	12-Oct-2003	Germany	BWT + MTF, SiF, AWFC	10,54
	MComp 2.00 -mc -M512m (2008) M. Taylor	130,08571			113.605.203	530.686.585	485.385.486	306.667.317	590.126.320	485.300.139	331.444.892	41.160.241	209.600.275	.mcomp	win64	1	23-Aug-2008	New Zealand	experimental DMC	5,68
114	GUI PIM 2.90 (Best) (2009) Ilya Muravyov	130,13056			109.487.244	436.709.530	483.882.325	321.416.881	587.720.438	486.662.689	344.731.724	49.767.293	203.090.900	.pim	win32	1	1-Jan-2009	Russia	PPM + filters	5,32
	RINGS 1.5 opt. 9 ('08) Francesco Nania	130,38652			113.861.705	544.680.797	494.820.010	314.419.309	588.280.135	485.809.683	324.974.451	43.596.595	191.679.072	.rings	win32	1	21-Apr-2008	Italy	Fast BWT+MTF+Pre-HUF+ARI	6,02
116	GUI PIM 2.50 (Best) (2008) Ilya Muravyov	130,55668			110.439.081	436.709.095	488.735.879	321.530.074	591.545.645	486.662.941	346.090.379	49.775.490	203.090.900	.pim	win32	1	22-Jul-2008	Russia	PPMd + filter	5,76
	GUI WinZip 11.0 - 11.1 optimize best Corel Corp.	130,71161			123.954.067	353.118.653	484.871.726	323.070.215	597.005.138	489.111.257	345.595.489	51.207.954	203.200.393	.zip	win32	1	18-Oct-2006	United States	LZH + SF + BWT + PPMd	7,53
118	GUI DZO Compressor 0.1.1 beta Essenso Lab	130,78348	2.489		91.988.920	546.358.648	504.943.936	330.980.725	585.904.942	493.369.032	370.691.482	39.820.387	222.285.703	.dzo	win32	2	28-Jun-2012	India	deduplication + LZMA	1,83
	GUI Stuffit 8.0-8.5 (sitx) (Alladin Systems)	130,80715			96.178.107	541.133.248	500.962.506	334.586.086	585.659.904	489.996.550	365.991.876	40.288.195	216.587.257	.sitx	win32	1	1-Jan-2003	United States	BWT, LZ + ARI, PPM + filter	11,32
120	CM0 (2013) Nauful	131,17963	5.041		107.828.454	549.287.007	495.786.268	317.349.443	611.304.042	503.297.860	337.849.662	41.114.563	203.670.982	.cm0	win32	2	4-Dec-2013	United States	Fast CM	0,40
	GUI CBT 1.072 β 26 Mode 4, solid K-Shinya	131,21074			111.799.089	557.429.839	485.751.994	315.205.871	596.197.591	490.123.917	347.307.421	39.743.605	206.679.277	.cbt	win32	1	11-Mar-2004	Japan	LZ 77 + BWT	10,13
122	GUI WinArchiver 3.1 (2013) .MZP best	131,51605	3.011		92.138.575	539.821.325	505.676.498	330.765.243	585.758.383	487.621.514	368.630.301	39.668.539	238.368.426	.mzp	win32	1	18-Jun-2013	United States	LZMA	0,86
	ICT Universal Coder 2.1 ('99)	131,53467			115.109.749	550.112.440	487.586.241	315.923.570	593.459.230	488.289.367	331.332.413	41.531.113	207.696.047	.ict	win32	1	16-Dec-1999	United States	PPM	14,36
124	CM0_EXT (2013) Nauful	131,74350	26.502		110.433.348	558.557.651	500.305.335	324.185.104	617.486.813	507.092.220	343.824.190	41.119.319	189.676.585	.cm0ext	win32	2	4-Dec-2013	United States	Fast CM	0,40
	HOOK 1.4 ('09) 912 MB Francesco Nania	131,83259			110.134.915	552.653.991	502.405.822	311.569.828	594.752.241	495.687.475	340.024.410	41.936.353	209.242.446	.hook	win32	1	29-Apr-2009	Italy	ADMC + filter	4,99
126	GUI WinRar 2.90 Final (2001) Eugene Roshal	131,85140			110.224.188	402.585.362	517.258.490	345.841.601	587.893.539	488.155.324	308.708.335	43.915.643	262.946.271	.rar	win32	1	1-Oct-2001	Russia	LZ77 + Huffman	12,57
	BMA 1.33 -m16m -a (2006) A. Cherenkov	131,97143	3.602		112.958.518	425.228.044	479.823.864	324.950.189	585.721.310	484.279.511	330.089.323	55.086.364	208.335.680	.bma	win32	1	19-Aug-2006	Russia	BWT + MTF + RLE + ARI	7,69
128	LZPM 0.16 mode ex (2008) Ilya Muravyov	132,03048			94.890.237	564.230.073	501.102.036	324.796.871	590.934.557	490.819.022	378.820.758	39.025.872	228.290.688	.lzpm	win32	1	14-Nov-2008	Russia	LZ77 with 8 MB dictionary	5,45
	COMPROX 0.11.0 ('12) -b200 -F -f Zhang Li	132,10920	1.838		100.747.414	553.606.526	510.792.045	317.612.755	594.851.807	485.958.021	396.290.778	40.117.844	207.174.573	.comprox	win32	2	18-Dec-2012	China	LZ77 + ARI	1,36
130	4x4 0.2 Option 9 (2008) Bulat Ziganshin	132,18261			92.280.013	542.869.941	501.846.538	338.914.222	582.182.218	489.857.886	369.181.487	39.307.816	244.203.549	.4	win32	4	13-Apr-2008	Russia	LZMA	6,04
	PPMNKM 1.00b1+ -M:50 -MT1 M. Smirnov	132,29712			108.202.032	565.908.423	499.625.063	318.266.371	586.462.954	485.444.737	370.821.320	38.854.482	214.663.204	.ppmnkm	win32	1	10-Aug-2002	Russia	PPM	11,71
132	QC 0.50 (2006) e -8 Denis Kyznetsov	132,38643			108.656.636	543.280.782	509.650.622	336.645.753	583.354.739	489.757.415	343.944.646	39.507.499	222.572.448	.qc	win32	1	17-Sep-2006	Russia	LZ + PPM	7,61
	GUI BioArchiver 1.9 hyper, automatic	132,57251			110.194.789	558.320.196	488.536.455	323.205.052	598.609.391	489.624.805	367.267.801	41.905.788	200.324.625	.bio	win32	1	7-Oct-2001	United States	LZ + PPM	12,56
134	GUI B1 Free Archiver 1.4.67 (2013) smart	132,61957	2.729		101.371.338	541.028.511	502.790.035	343.730.280	587.069.279	489.132.534	366.782.307	39.783.290	225.788.556	.b1	win32	2	11-Oct-2013	United States	LZMA	0,54
	LZPM 0.11 (02.09.07) -9 Ilya Muravyov	132,66529			105.981.478	562.837.930	499.029.440	321.461.252	589.834.526	488.307.108	378.438.292	38.779.655	218.313.307	.lzpm	win32	1	2-Sep-2007	Russia	LZ77 + PPM	6,65
136	TarsaLZP Interim (21.08.07) Piotr Tarsa	132,83739			111.877.078	541.620.909	501.567.082	319.754.089	581.460.403	488.286.686	363.360.613	42.566.306	209.645.440	.tzr	win32	1	21-Aug-2007	Poland	order-3 LZP + order-2 PPM	6,68
	Packet 1.0 -s -r -mx6 Francesco Nania	132,85296	31.157		99.077.272	496.401.192	524.928.911	335.141.349	579.155.168	487.690.587	351.050.107	44.197.176	240.966.863	.packet	win32	1	4-Aug-2013	Italy	LZ77 + Huffman + filter	0,73
138	BALZ 1.15 Mode ex (2008) Ilya Muravyov	132,98143			97.836.059	564.089.154	500.270.017	332.803.843	591.055.612	491.168.091	374.473.809	38.914.555	233.336.593	.balz	win64	1	8-Jul-2008	Russia	LZ77 (greedy parsing)	5,80
	ZZIP 0.36 -56m -mm -mx Damien Debin	133,11868	3.027		123.336.683	438.292.318	484.427.499	328.148.602	589.735.432	486.426.165	316.830.908	54.023.607	202.807.804	.zz	win32	1	14-Nov-2002	France	BWT	11,45
140	COMPROLZ 0.10.0 -b250 -F -f Zhang Li	133,15819	3.180		103.283.915	553.885.305	535.105.797	322.560.032	588.229.478	490.041.425	390.529.976	40.415.543	207.170.626	.comprolz	win32	2	17-Dec-2012	China	LZ77 + ARI	1,36
	PAQ 1 / KGB Archiver (2002) Matt Mahoney	133,24468			111.691.347	558.968.216	497.779.801	325.078.597	623.224.719	508.596.589	345.728.180	41.450.794	202.348.850	.paq1	win32	1	22-Jan-2002	United States	Predictive arithmetic Coding	12,26
142	FBC 1.0 300MB blocksize David Catt	133,29826	2.080		121.472.516	549.068.294	520.721.113	315.675.051	606.380.453	497.258.374	339.035.221	42.970.451	188.782.715	.fbc	win32	1	29-Feb-2012	Canada + Russia	BWT (DifSufSort Lite) + ARI	2,16
	GUI CTXf 0.69 ('03) (Superb) -me -b L. Nikita	133,34803			117.485.136	594.118.349	522.877.780	321.300.315	592.810.691	489.285.713	310.995.994	37.513.145	223.904.096	.cxf	win32	1	12-Mar-2003	Belarus	PPM-II + filter	11,13
144	GUI Stuffit 9.0 - 9.5/10 arsenic (sitx) (Allume)	133,43942			132.483.665	555.103.236	500.965.387	292.111.030	585.659.904	464.478.633	359.126.052	37.202.616	217.629.314	.sitx	win32	1	28-Mar-2005	United States	ATOM™ (arsenic)	9,08
	SZIP 1.12a -b41 -o50 Michael Schindler	133,57105	9.981		117.749.972	553.406.495	490.359.935	322.617.848	596.678.998	490.228.358	336.655.210	41.283.298	219.783.245	.sz	win32	1	3-Mar-2000	Austria	BWT (ST6)	14,15
146	TC 5.1 Dev 6 (2006) Ilya Muravyov	133,60071			117.485.822	533.694.947	476.848.083	358.511.710	583.842.755	484.655.640	338.963.036	38.706.701	230.731.198	.tc	win32	1	21-Nov-2006	Russia	LZ + CM	7,43
	CMM 17.09.2007 Christopher Mattern	133,72549			109.098.390	577.182.253	503.636.404	319.122.704	619.656.890	509.076.696	355.077.076	40.147.922	209.938.100	.cmm	win32	1	17-Sep-2007	Germany	Context Mixing	6,61
148	RZIP 2.1 -9 -L9 (2006) Andrew Tridgell	133,81779			110.869.723	554.530.289	497.277.050	322.003.694	577.999.596	487.619.593	353.559.564	40.773.343	235.134.104	.rz	win32	1	4-Dec-2006	United States	BWT + filter	7,40
	SZIP 1.12a -b41 -o10 Michael Schindler	134,03232	2.617		118.265.223	553.408.878	490.378.418	323.627.864	596.725.401	490.228.655	336.738.043	42.120.765	220.140.448	.sz	win32	1	3-Mar-2000	Austria	BWT (ST6)	14,15
150	GUI PIM 2.01 (PPMd) (2007) Ilya Muravyov	134,22287			110.430.818	554.300.084	483.264.629	321.530.074	591.545.645	486.662.941	346.090.379	49.784.479	203.090.900	.pim	win32	1	14-Jun-2007	Russia	PPMd + filter	6,87
	UFA 0.04 β 1 -mx -mu32 -s -mg Igor Pavlov	134,53032			102.719.665	513.118.775	513.069.462	343.802.663	589.974.074	489.721.065	375.101.598	40.194.727	249.399.841	.ufa	win32	1	1-Mar-1998	Russia	LZ77 + ARI + filter	16,16
152	GRZIP-II 0.2.4 -b8m -l -m4 Ilya Grebnov	134,57999			116.084.065	552.379.360	485.807.422	328.621.553	591.539.735	488.607.350	329.115.175	43.421.921	231.513.058	.grz	win32	1	12-Feb-2004	Russia	LZP + BWT + AWFC + MTF + ARI	10,21
	Disintegrator 0.9b -mg -4 c ('98) T. Guglielmi	135,07307			114.362.276	445.542.140	533.919.363	342.106.542	586.814.539	486.559.188	403.704.171	43.088.775	226.317.389	.dst	win32	1	23-May-1998	Italy	LZ77 + PPM + DHUF	15,93
154	ECP 0.e.s. (2000) -b127 Michael Semikov	135,18173			121.950.876	561.177.708	498.174.723	326.837.528	588.953.840	486.279.803	342.462.021	42.696.633	217.369.080	.ecp	win32	1	18-Aug-2000	Russia	LZP + BWT + MTF + ARI	13,69
	BruteCM 0.1c (2008) VCORE	135,21325			110.651.611	568.453.994	507.597.894	335.409.915	616.539.883	507.825.102	342.211.788	42.130.986	218.846.099	.bcm	win32	1	29-Feb-2008	Taiwan	Context Mixing	6,16
156	PreComp 0.4.3 Christian Schneider	135,56429	4.787		117.288.997	554.026.701	485.444.925	300.983.585	593.540.724	465.869.981	354.012.393	44.537.348	244.389.366	.pcf	win32	1	1-Sep-2012	Germany	lzw/zlib/jpeg recompressor + bzip2	1,66
	PPMX 0.08 (2012) Ilya Muravyov	135,56833	2.460		115.083.530	568.891.134	509.693.152	316.240.073	594.994.125	490.815.079	384.428.359	42.842.857	208.583.207	.ppmx	win32	1	1-Jan-2012	Russia	PPMX	2,32
158	M99 2.2.1 -m 128m Michael A. Maniscalco	135,57137			129.072.891	538.384.498	494.571.779	304.145.889	591.972.098	484.739.970	311.474.285	57.000.521	178.185.035	.m99	win32	1	17-Jul-2008	United States	BWT + MSufSort3.1 + ARI	5,78
	Tornado 0.5 (fsbench) -11 Bulat Ziganshin	135,57360			100.081.335	524.447.517	527.069.916	333.150.702	578.726.025	489.265.917	430.726.087	41.730.836	230.205.985	.tor	win32	1	unknown	Russia	LZ + ARI	######
160	GUI WinIMP 1.2 max Alg. 1/2, 1020, 16mb	135,65196			106.320.489	497.307.336	495.905.291	348.857.758	586.746.309	487.311.676	353.434.522	46.968.355	247.354.226	.imp	win32	1	13-Jun-2002	Australia	LZ77 + BWT	11,87
	QUAD 1.12 Final -x (2007) Ilya Muravyov	135,65665			105.751.232	550.179.090	497.208.340	343.638.380	585.087.868	484.798.415	375.780.413	41.277.843	244.639.021	.quad	win32	1	7-Apr-2007	Russia	filter + LZ + PPM (ROLZ)	7,06
162	TinyCM 0.2 option 8 (2012) David Catt	135,73630	4.779		117.552.921	572.626.534	486.574.278	314.517.710	588.200.518	483.635.881	355.771.296	44.865.372	223.246.172	.tinycm	win32	1	13-Oct-2012	Canada	order 1-2-3-6 context mixing	1,54
	GUI 7-ZIP 2.3 β 28 solid max (2003) Igor Pavlov	135,78211			93.620.276	541.634.196	502.878.621	330.433.967	587.404.096	490.515.110	366.121.355	53.677.513	224.464.582	.7z	win32	1	15-Feb-2003	Russia	LZMA PPMD	11,20
164	FreeHOOK 0.2 option c 912-2-1-6 F. Nania	135,96776			116.859.167	555.345.940	525.993.776	310.283.217	597.006.214	494.438.297	364.732.516	43.173.815	221.543.869	.hook	win32	1	7-Apr-2007	Italia / United States	LZP + DMC + filter	7,06
	Chile 0.3d (2005) -c -v=2 -b=2048	136,27015			121.804.591	554.438.005	494.732.211	328.120.116	591.260.535	485.881.030	344.544.403	42.286.988	235.936.103	.chile	win32	1	13-Nov-2005	Romania	BWT + filter	8,46
166	M99 2.2.1 -m 32m Michael A. Maniscalco	136,29053			129.072.891	538.330.557	483.483.006	306.652.298	591.788.579	484.766.539	313.902.785	57.000.521	188.852.254	.m99	win32	1	17-Jul-2008	United States	BWT + MSufSort3.1 + ARI	5,78
	COMPROLZ 0.1.0 -b256 (2012) Zhang Li	136,39393	3.149		116.283.646	553.885.305	535.147.189	322.006.084	594.798.165	495.920.231	384.531.089	41.063.234	218.838.927	.comprolz	win32	2	7-Oct-2012	China	ROLZ + ARI	1,56
168	GUI WinTurtle 1.6.0 (2008) Francesco Nania	136,44853	1.266		124.993.854	418.843.361	508.385.494	344.526.816	611.175.419	494.243.780	365.008.774	44.959.664	243.161.834	.tur	win32	1	1-Jan-2008	Italy	FPPM, 512 MB buffer, solid	6,32
	PPMX 0.07 (2011) Ilya Muravyov	136,97813	2.435		116.994.050	568.031.507	508.711.593	318.456.169	594.163.111	489.788.534	381.166.142	44.562.877	216.863.053	.ppmx	win32	1	20-Feb-2011	Russia	order-5 PPM	3,19
170	CAB (LZX21 max) Microsoft Corporation	136,99946			103.658.331	569.143.638	511.361.656	341.841.938	583.442.111	487.054.444	402.468.499	40.793.090	242.351.676	.cab	win32	1	1-Jan-2000	United States	LZX + Huffman + Shannon-Fano	14,32
	Transform 1.02 (maximum) M. Bone	137,03060			122.777.093	562.200.718	502.823.742	333.646.422	589.605.126	489.332.334	351.560.742	43.248.341	224.368.029	.tfm	win32	1	12-Nov-2002	- unknown -	Huffman + BWT + MFT + RLE	11,46
172	CM1 (2013) Nauful	137,08649	3.069		117.228.862	542.814.620	512.465.506	334.962.208	589.940.645	490.040.116	359.724.248	43.937.035	234.621.686	.cm1	win32	2	9-Dec-2013	United States	Fast CM	0,38
	GUI WinTurtle 1.4.0 (2007) Francesco Nania	137,19234			133.076.772	431.582.542	501.949.621	338.321.819	608.496.736	495.738.549	363.911.429	44.561.793	238.447.455	.tur	win32	1	5-Nov-2007	Italy	FPPM, 512 MB buffer, solid	6,48
174	GUI WinRar 5.0 non-solid best 1024MB E. Roshal	137,21516	782		110.776.323	432.036.909	504.138.793	362.363.462	579.245.477	487.491.543	344.720.135	57.387.103	232.998.397	.rar	win64	8	22-Aug-2013	Russia	LZ77 + Huffman + filter	0,68
	GUI WinZip 17.0.10381 PPMd Corel Corp.	137,27019	3.340		122.423.943	557.033.652	484.872.486	322.300.682	597.005.058	490.939.923	345.595.121	51.771.948	203.200.439	.zipx	win32	1	24-Dec-2011	United States	LZH + SF + BWT + PPMd	2,34
176	BIX 1.00 β7 -s -m1 -mdq ('99) Igor Pavlov	137,53499	5.917		102.426.328	574.786.046	515.819.352	335.793.206	593.804.320	497.512.746	402.142.662	42.419.792	237.356.450	.bix	win32	1	27-Oct-1999	Russia	LZ + ARI + PPM	14,50
	Tornado 0.4 -12 (2008) Bulat Ziganshin	137,66260			101.312.258	525.637.868	522.075.646	339.203.277	581.939.211	489.462.947	435.507.523	42.056.335	248.037.330	.tor	win32	1	8-Apr-2008	Russia	LZ + ARI	6,05
178	LZXQ 0.3 (2007) Vcore	137,67806			119.946.244	561.340.638	501.587.597	329.380.316	603.767.598	497.973.199	359.619.434	44.674.648	225.006.312	.lzxq	win32	1	27-Jan-2008	Taiwan	LZP + order 4-2-1 ARI	6,25
	BWTZIP 1.0 ('03) Stephan T. Lavavej	137,78814			124.598.594	572.391.654	506.849.776	330.650.185	618.276.216	507.162.281	339.279.238	42.903.597	221.746.547	.bwtzip	win32	1	7-Mar-2003	- unknown -	BWT + MTF-2 + ZLE + Huffman	11,14
180	PreComp 0.4.2 Christian Schneider	137,81787	4.706		117.309.103	554.026.701	485.721.302	302.037.213	662.499.328	492.103.406	354.012.394	44.552.834	244.389.367	.pcf	win32	1	25-Sep-2011	Germany	lzw/zlib/jpeg recompressor + bzip2	2,59
	GUI PIM 1.25 (2006) Ilya Muravyov	137,96093			118.211.550	453.906.326	504.717.071	341.296.831	586.161.889	484.815.060	395.849.455	49.643.968	236.538.947	.pim	win32	1	25-Sep-2006	Russia	LZP + PPM	7,59
182	iTarsaLZP (2012) Piotr Tarsa	137,96340	10.920		119.138.243	565.184.095	517.385.677	328.201.681	611.353.872	509.016.843	365.060.336	46.447.306	206.667.389	.tlzp	JAVA	1	7-Sep-2012	Poland	order-3 LZP + order-2 PPM	1,64
	COMPROX 0.1.1 (10.2011) Zhang Li opt.9	138,04948	978		114.068.027	563.611.214	502.478.703	331.714.516	586.950.831	487.392.242	388.134.609	43.103.900	240.395.128	.cox	win32	2	9-Oct-2011	China	LZSS + ARI	2,55
184	Arhangel 1.40 -1 -2 -mt -mm/5/8 -l31900 G. Lyap	138,28745			127.377.151	414.109.592	505.116.350	336.801.333	596.959.683	490.765.045	307.384.341	53.043.903	268.699.942	.lg	dos16	1	18-Jan-2000	Ukraine	RLE + LZ / PPM + ARI; BMC	14,28
	BWC 0.99d Willem Monsuwe	138,41345			122.937.482	553.850.756	494.894.795	337.207.965	594.590.928	489.288.623	349.134.139	44.115.094	243.749.097	.bc	win32	1	9-Mar-2009	Netherlands	BWT	5,13
186	GUI ICE-OWS max (2002) Raphaël Mounier	138,57561			121.941.378	559.203.026	488.622.047	323.454.834	595.857.165	488.783.379	352.490.321	52.004.680	214.993.717	.ice	win32	1	19-Jan-2003	France	LZ + PPM II	11,27
	CROOK 0.1 -m1600 -O7 Juri Valdmann	138,82600	2.119		131.825.277	558.607.972	506.105.209	313.714.771	608.815.359	496.524.246	347.931.011	47.215.863	216.068.080	.crook	win32	1	9-Mar-2012	Estonia	bit-level PPM	2,13
188	GUI 12Ghosts 7.0 - 9.7 (ZIP2)	139,12219			124.368.324	554.100.949	497.374.100	338.174.458	594.566.825	488.681.118	354.067.630	44.521.755	244.109.443	.exe	win32	1	2-Feb-2005	United States	BWT	9,24
	DACT 0.8.39 (2004) Roy Keene	139,13837			124.593.889	552.939.425	497.291.626	338.484.734	589.852.305	487.908.959	354.494.617	44.566.072	245.413.944	.dact	win32	1	29-Mar-2004	United States	RLE + LZO + ZLIB + BWT	10,08
190	EXP1 Experimental Archiver 1.0 B. Ziganshin	139,15348			124.699.168	554.027.529	497.307.536	338.101.588	593.658.751	488.616.338	354.056.112	44.484.142	244.387.066	.exp	win32	1	25-Feb-1998	Russia	BZIP2 (BWT)	16,17
	GUI BZIP2 1.06 (2010) --best Julian Seward	139,16412	973	362	124.668.515	554.028.837	497.309.031	338.101.826	593.685.733	488.616.264	354.012.758	44.530.651	244.385.524	.bz2	win32	1	17-Mar-2008	- unknown -	BWT, 900kb blocks	6,11
192	PBZIP2 1.1.7 -p8 -9 J.Seward & J.Gilchrist	139,21662	268	117	124.877.894	553.971.146	497.293.620	337.931.444	593.810.122	488.639.302	353.920.282	44.588.080	244.485.873	.bz2	win32	8	11-Dec-2011	United States	Parallel BWT, 900kb blocks	2,38
	LBZIP2 0.23 -9 (2011) Laszlo Ersek	139,21797	245	172	124.885.916	553.948.496	497.286.572	337.934.874	593.766.509	488.631.277	353.929.880	44.593.389	244.481.290	.bz2	win32	8	3-Mar-2010	Hungary	Parallel BWT, 900kb blocks	4,15
194	XTREME 1.06 -m0 -s -t8 ('99) B. Sabin	139,31002			111.208.219	558.365.746	522.075.646	336.321.699	582.949.945	487.777.428	402.441.466	41.973.963	255.260.518	.xtreme	win32	1	26-Apr-1999	- unknown -	LZ77 + Huffman	15,00
	CSC3 CountrySideCompressor -9 Fu Siyuan	139,43528			101.416.893	565.068.388	507.678.278	345.657.866	586.334.524	488.417.712	405.192.167	42.347.894	270.417.982	.csc3	win32	1	11-Aug-2009	China	LZ77 + ARI + filters	4,71
196	iROLZ (2010) Andrew Polar	139,56920	1.610		106.398.059	564.181.812	501.013.479	349.841.470	592.363.258	491.381.520	380.220.211	44.141.947	264.149.135	.irolz	win32	1	4-Nov-2010	unknown	ROLZ	3,48
	LZSR 0.01 (2011) Francesco Nania	139,57927	930		111.646.859	554.783.009	494.831.432	347.265.362	586.234.137	488.704.485	373.361.345	43.118.589	271.993.931	.lzsr	win32	1	1-Oct-2011	Italia	LZP-LZ77 + SR	2,57
198	COMPROX 0.2.0 (2011) Zhang Li opt.9	139,72340	1.014		114.313.454	579.545.738	512.895.544	339.473.946	627.327.795	519.108.703	369.473.789	43.061.571	235.687.368	.comprox	win32	2	16-Oct-2011	China	LZSS + ARI	2,53
	Urban Compressor ('91) U. Koistinen	139,91079			130.268.297	547.030.119	487.528.536	329.906.597	593.307.632	484.069.428	345.297.100	48.101.506	242.196.332	.urb	dos16	1	30-Apr-1991	Sweden	(?)	22,99
200	TarsaLZP (04.08.2007) Piotr Tarsa	140,29274			119.652.270	585.613.851	528.945.788	334.446.800	638.666.005	530.428.771	365.375.109	45.421.692	210.125.221	.tzr	win32	1	4-Aug-2007	Poland	order-3 LZP + order-2 PPM	6,73
	GUI WinHKI 1.3 - 1.79 hki1 (04-06) H.P. Imp	141,08349			133.687.676	554.118.890	497.781.185	340.866.714	593.663.678	488.653.347	354.881.146	44.921.862	246.317.161	.hki	win32	1	17-Oct-2005	Germany	HKI	8,53
202	ASD 0.2.0 -m5 -mdh (1998) T. Svensson	141,23732			111.560.747	572.008.149	524.059.578	337.951.280	582.770.212	487.746.292	424.366.200	42.629.277	257.386.209	.asd	win32	1	12-Nov-1998	Sweden	LZ77	15,46
	LZAP 0.20.0 beta (1998) Mike Goldman	141,36451			129.146.242	554.252.461	487.805.169	330.832.519	590.607.127	484.425.757	354.450.063	49.494.548	249.180.676	.lza	dos16	1	25-May-1998	- unknown -	Dynamic Markov Comp.	15,92
204	GUI Stuffit 7.0-7.5 (2002) Aladdin Systems	141,57578			130.672.637	557.355.933	501.069.368	342.552.699	597.445.694	491.240.975	356.262.847	45.652.966	249.737.668	.sit	win32	1	25-Mar-2002	United States	LZ	12,09
	GUI RAR 2.00 (1996) -m5 -md1024 -mm -s	142,13492			123.846.884	411.512.894	518.224.376	379.081.389	592.456.838	488.623.941	311.642.188	51.969.434	306.134.053	.rar	dos16	1	24-May-1996	Russia	LZ77 + Huffman	17,93
206	GUI RAR 2.50 (1996) -m5 -md1024 -mm -s	142,13663			123.846.884	411.512.894	518.224.586	379.067.633	592.454.379	488.624.239	311.642.188	51.975.848	306.134.053	.rar	dos16	1	24-May-1996	Russia	LZ77 + Huffman	17,93
	FPAQ S06 (2006)	142,17783			120.143.848	549.045.312	522.779.225	352.548.930	595.333.628	497.901.902	366.717.383	47.588.867	254.714.562	.fpaq	win32	1	30-Oct-2006	Italy	LZP + PPM + OX	7,49
208	XP v5 c2 (2010) ppmcontext	142,36241	16.037		125.183.228	565.585.134	501.529.064	347.573.890	593.830.572	488.045.433	392.180.595	44.723.095	252.179.016	.xp	win32	1	30-Nov-2010	- unknown -	ROLZ	3,41
	LZPXJ 1.0e (2006) Ilya Muravyov	142,56996			117.407.689	561.407.507	501.340.307	357.220.687	583.061.343	485.907.980	389.356.487	44.425.656	275.454.598	.lzpxj	win32	1	16-Jan-2006	Russia	LZ + ARI	8,28
210	BGB-LZ2A Brendan G. Bohannon	143,08066			118.391.903	587.978.055	517.290.664	339.000.669	600.546.394	496.868.856	415.401.524	43.696.731	253.438.399	.lz2a	win32	1	1-Jun-2005	- unknown -	LZ77 + ARI	8,91
	GUI Compress 1.22 (max) Philipp Druyts	143,10485			124.668.530	553.933.155	496.902.041	338.101.671	593.259.574	488.616.423	353.509.986	55.524.899	244.341.547	.pak	win32	1	22-Mar-1998	Belgium	BWT	16,10
212	Archiver 0.2 CM2 (2014) Nauful	143,14585			117.395.622	586.439.972	519.851.911	336.169.272	602.562.869	491.848.379	368.058.188	53.793.381	236.441.474	.parc	win32	2	7-Jan-2014	United States	Fast CM	0,31
	P12 Neural Network Matt Mahoney	143,31646			130.968.096	551.120.705	495.796.654	348.975.104	614.465.598	500.612.752	349.022.585	52.523.642	235.718.663	.p12	win32	1	13-May-2000	United States	Neural Network	13,96
214	SR3 (2007) M. Mahoney & F. Nania	143,32990			127.354.058	563.285.040	503.591.684	335.791.159	587.865.519	485.890.400	391.552.435	48.644.444	251.087.995	.sr3	win32	1	27-Oct-2007	U.S.A. / Italy	Symbol Ranking + filters	6,50
	GUI PAR 2.00 build 61 (2001) Philipp Druyts	144,73279			132.287.538	553.933.463	496.902.785	340.087.849	593.250.754	488.553.083	353.496.309	56.374.428	244.342.021	.par	win32	1	28-Jan-2001	Belgium	BWT + Huffman	13,25
216	TarsaLZP (2007) Piotr Tarsa	145,16629			129.368.574	557.653.925	513.712.905	364.007.516	638.666.005	496.693.761	368.901.521	56.520.435	210.125.221	.tzr	win32	1	6-May-2007	Poland	order-3 LZP + order-2 PPM	6,98
	GUI WinZip 17.0.10381 bzip2 Corel Corp.	145,45435	921		133.681.069	553.936.207	496.905.314	340.402.679	593.253.551	488.560.067	353.509.327	57.700.074	244.341.849	.zipx	win32	1	24-Dec-2011	United States	LZ + Huffman + SF + BWT	2,34
218	LZPX 1.5b (2005) Ilya Muravyov	146,00212			121.724.441	580.882.611	514.216.038	362.877.902	606.266.486	502.969.317	392.064.549	45.641.300	276.124.207	.lzpx	win32	1	16-Nov-2005	Russia	LZ + ARI + PPM	8,45
	Tornado 0.3 default (2008) Bulat Ziganshin	146,71041			109.625.008	526.797.146	529.540.160	368.273.238	587.074.180	489.916.795	441.775.430	47.566.239	300.115.499	.tor	win32	1	2-Apr-2008	Russia	LZ + ARI	6,07
220	SR2 v2 (2008) Piotr Tarsa	146,98353			132.986.742	563.062.912	503.544.407	349.567.461	591.840.817	486.132.392	389.931.824	50.752.127	269.646.169	.sr2v2	win32	1	1-Jan-2008	Poland	Symbol Ranking	6,32
	FCM3-RC (2008) Ilya Muravyov	147,13313			123.205.230	564.307.315	499.786.180	361.191.488	592.539.694	490.983.136	371.594.131	52.384.907	287.835.697	.fcm	win32	1	18-Jun-2008	Russia	Fast CM	5,86
222	BZP 0.3 (2008) Francesco Nania	147,36647			128.641.104	561.118.105	499.721.298	353.851.100	593.412.205	487.195.849	390.370.758	50.356.677	284.875.451	.bzp	win32	1	28-Sep-2008	Italia	LZ + ARI	5,58
	SLUG X (2009) Christian Martelock	147,38406			121.119.522	579.242.558	528.982.786	364.315.442	585.896.363	489.921.518	404.632.368	46.880.770	288.321.827	.sx	win32	1	13-Jan-2009	Germany	RHSO-LZ	5,29
224	RH4 (2014) Nauful	147,47121	678		126.080.999	573.814.138	531.363.220	357.558.039	589.054.933	488.494.018	440.352.548	45.169.759	271.680.632	.rh4	win64	1	18-Feb-2014	United States	ROLZ + Huffman	0,19
	GUI WinAce 1.2 (1999) max 1024k M. Lemke	147,75164			114.984.931	573.584.209	530.284.960	363.810.029	588.684.739	488.608.806	435.273.450	46.774.447	291.792.623	.ace	win32	1	22-Dec-1999	Germany	LZ77 + Huffman	14,35
226	GUI X1 0.95 β (aum4l3d9) Stig Valentini	147,76682			135.296.235	582.648.318	503.706.006	350.127.372	609.160.738	492.148.775	354.961.760	55.851.851	253.911.382	.x	win32	1	3-May-1997	Danmark	LZ77 + BW5 + PPMZ	16,98
	GUI ACE-ARCHIVER 1.2 (maximum) M. Lemke	148,09763			113.267.053	573.588.289	530.282.802	363.814.953	588.684.449	488.608.422	435.272.370	48.497.803	291.794.075	.ace	dos16	1	1-Jul-1998	Germany	LZ77	15,82
228	4x4 0.2 Option 5 (2008) Bulat Ziganshin	148,41447			113.365.154	552.114.298	529.652.896	370.464.774	587.875.931	490.009.961	439.654.316	47.893.821	301.908.844	.4	win32	4	13-Apr-2008	Russia	LZMA	6,04
	GUI UC II r3 Pro ('95) stst Nico De Vries	149,00050			129.910.596	514.253.250	519.639.028	379.350.358	593.149.296	489.318.744	356.461.434	52.740.720	310.403.084	.uc2	dos16	1	1-Jun-1995	Netherlands	LZ77 + Huffman + filter	18,91
230	HA 0.999b (1995) a21r Harri Hirvola	149,69173	18.863		132.361.955	569.599.932	511.972.375	341.904.923	596.833.844	490.312.383	398.305.266	55.378.737	275.873.372	.ha	win32	1	12-Jan-1995	Finland	LZ77 + Huffman / PPMC order-4	19,29
	SEMONE 0.6b2 -mb/mm3 Vladimir Semenyuk	149,84420			126.987.113	572.837.639	530.765.416	379.523.449	591.417.913	487.494.148	345.286.247	52.555.563	307.212.064	.one	dos16	1	30-Jul-1999	Russia	LZ + Huffman + filter	14,74