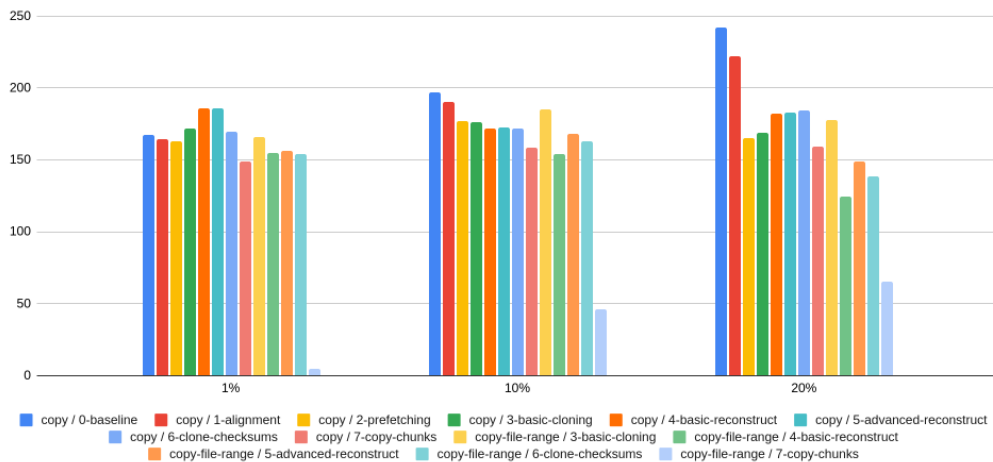


XFS / NVMe / Xeon

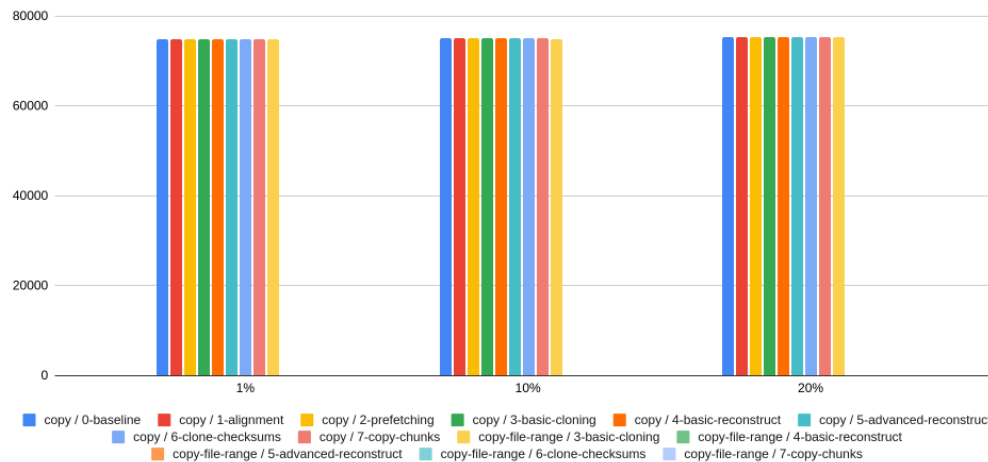
xfs / NVMe / manifest=off

timing [combinebackup in seconds]



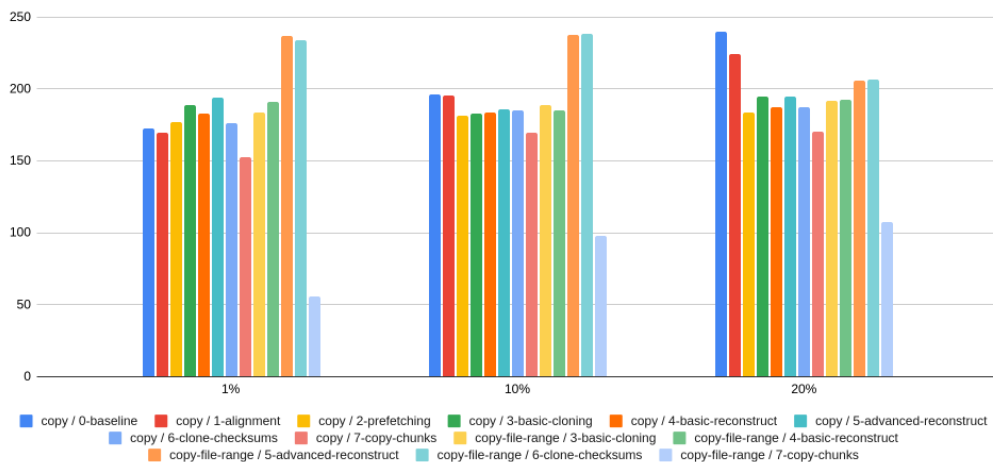
xfs / NVMe / manifest=off

size [megabytes]



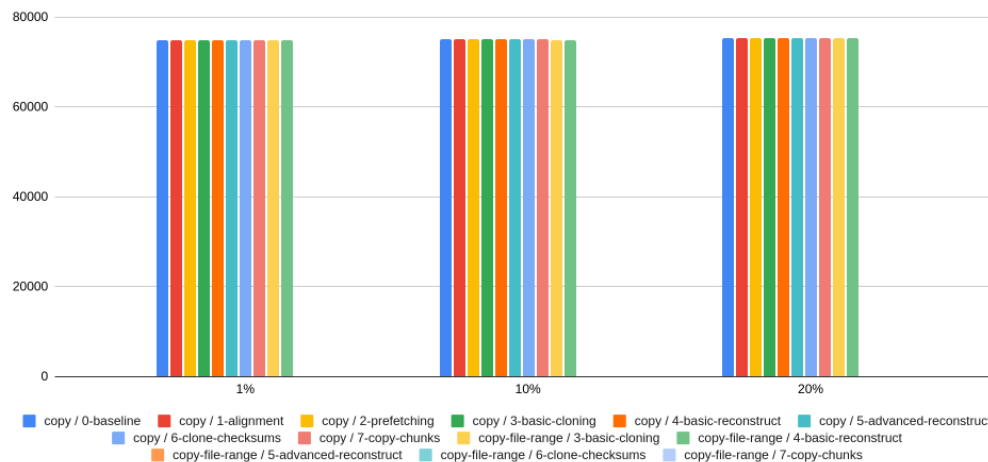
xfs / NVMe / manifest=on

timing [combinebackup in seconds]



xfs / NVMe / manifest=on

size [megabytes]



XFS / NVMe / Xeon

label	1%	10%	20%
copy / 0-baseline	167	197	242
copy / 1-alignment	164	190	222
copy / 2-prefetching	163	177	165
copy / 3-basic-cloning	172	177	169
copy / 4-basic-reconstruct	186	172	182
copy / 5-advanced-reconstruct	186	172	183
copy / 6-clone-checksums	170	172	184
copy / 7-copy-chunks	149	158	159
copy-file-range / 3-basic-cloning	166	185	178
copy-file-range / 4-basic-reconstruct	155	154	124
copy-file-range / 5-advanced-reconstruct	156	168	149
copy-file-range / 6-clone-checksums	154	163	139
copy-file-range / 7-copy-chunks	4	46	65

label	1%	10%	20%
copy / 0-baseline	74848	75052	75432
copy / 1-alignment	74847	75051	75416
copy / 2-prefetching	74847	75051	75416
copy / 3-basic-cloning	74847	75051	75416
copy / 4-basic-reconstruct	74847	75051	75416
copy / 5-advanced-reconstruct	74847	75051	75416
copy / 6-clone-checksums	74847	75051	75416
copy / 7-copy-chunks	74847	75051	75416
copy-file-range / 3-basic-cloning	74776	74921	75212
copy-file-range / 4-basic-reconstruct	19	39	80
copy-file-range / 5-advanced-reconstruct	20	22	25
copy-file-range / 6-clone-checksums	20	21	26
copy-file-range / 7-copy-chunks	19	22	27

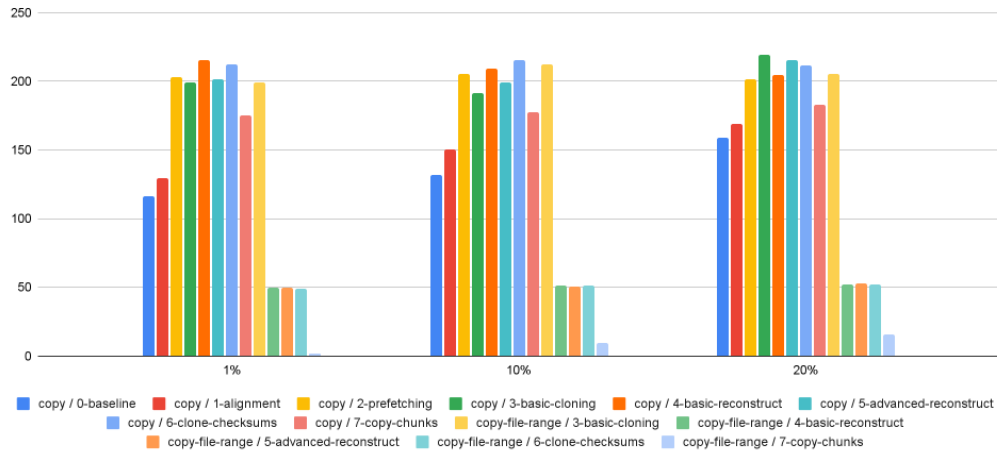
label	1%	10%	20%
copy / 0-baseline	172	196	240
copy / 1-alignment	169	196	224
copy / 2-prefetching	177	181	184
copy / 3-basic-cloning	189	183	195
copy / 4-basic-reconstruct	183	184	187
copy / 5-advanced-reconstruct	194	186	195
copy / 6-clone-checksums	176	185	187
copy / 7-copy-chunks	152	169	170
copy-file-range / 3-basic-cloning	184	189	192
copy-file-range / 4-basic-reconstruct	191	185	192
copy-file-range / 5-advanced-reconstruct	237	238	206
copy-file-range / 6-clone-checksums	234	239	206
copy-file-range / 7-copy-chunks	56	98	107

label	1%	10%	20%
copy / 0-baseline	74848	75052	75432
copy / 1-alignment	74793	75051	75416
copy / 2-prefetching	74848	75051	75416
copy / 3-basic-cloning	74792	75051	75416
copy / 4-basic-reconstruct	74793	75051	75398
copy / 5-advanced-reconstruct	74848	75051	75398
copy / 6-clone-checksums	74848	75051	75398
copy / 7-copy-chunks	74848	75051	75398
copy-file-range / 3-basic-cloning	74776	74922	75212
copy-file-range / 4-basic-reconstruct	74776	74922	75212
copy-file-range / 5-advanced-reconstruct	20	40	80
copy-file-range / 6-clone-checksums	20	39	80
copy-file-range / 7-copy-chunks	20	40	80

BTRFS / NVMe / Xeon

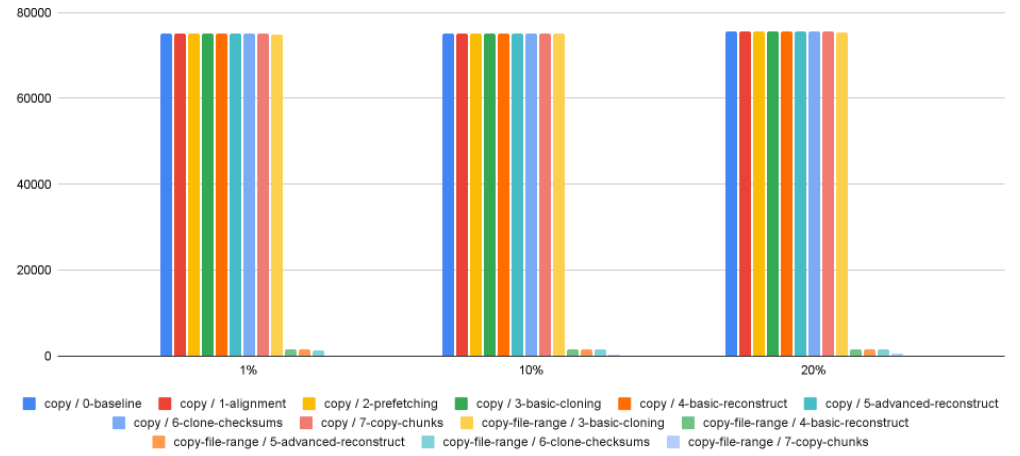
nvme / btrfs / manifest=off

timing [combinebackup in seconds]



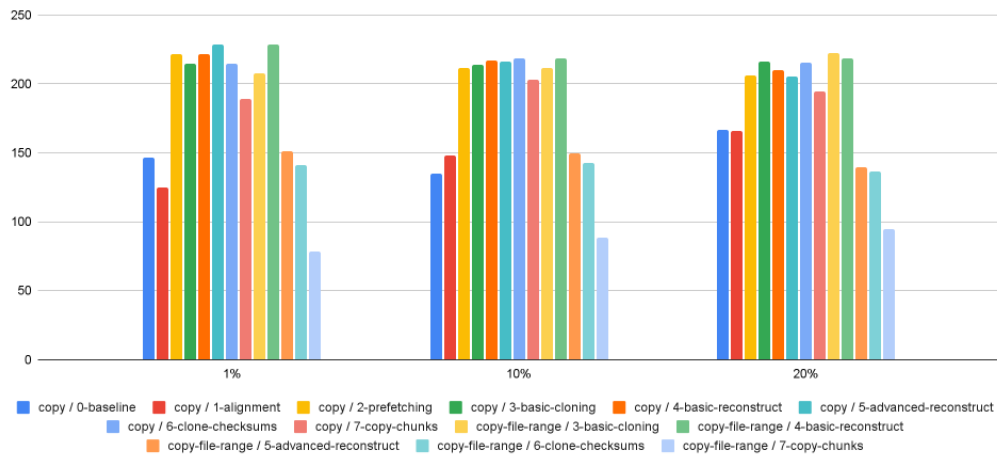
nvme / btrfs / manifest=off

size [megabytes]



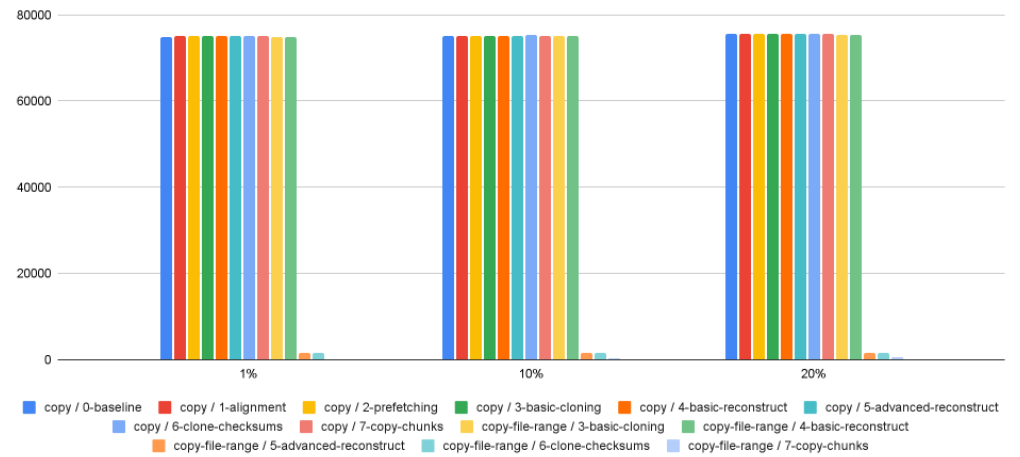
nvme / btrfs / manifest=on

timing [combinebackup in seconds]



nvme / btrfs / manifest=on

size [megabytes]



BTRFS / NVMe / Xeon

label	1%	10%	20%
copy / 0-baseline	117	132	159
copy / 1-alignment	129	150	169
copy / 2-prefetching	203	206	202
copy / 3-basic-cloning	199	191	219
copy / 4-basic-reconstruct	215	210	204
copy / 5-advanced-reconstruct	201	199	215
copy / 6-clone-checksums	213	216	211
copy / 7-copy-chunks	175	177	183
copy-file-range / 3-basic-cloning	199	212	205
copy-file-range / 4-basic-reconstruct	50	52	52
copy-file-range / 5-advanced-reconstruct	49	51	53
copy-file-range / 6-clone-checksums	49	51	52
copy-file-range / 7-copy-chunks	2	9	16

label	1%	10%	20%
copy / 0-baseline	75004	75208	75593
copy / 1-alignment	75002	75206	75575
copy / 2-prefetching	75001	75205	75579
copy / 3-basic-cloning	75000	75206	75582
copy / 4-basic-reconstruct	75001	75205	75587
copy / 5-advanced-reconstruct	75001	75204	75577
copy / 6-clone-checksums	75000	75205	75579
copy / 7-copy-chunks	75002	75205	75582
copy-file-range / 3-basic-cloning	74928	75075	75365
copy-file-range / 4-basic-reconstruct	1473	1550	1661
copy-file-range / 5-advanced-reconstruct	1473	1550	1661
copy-file-range / 6-clone-checksums	1401	1551	1661
copy-file-range / 7-copy-chunks	60	322	586

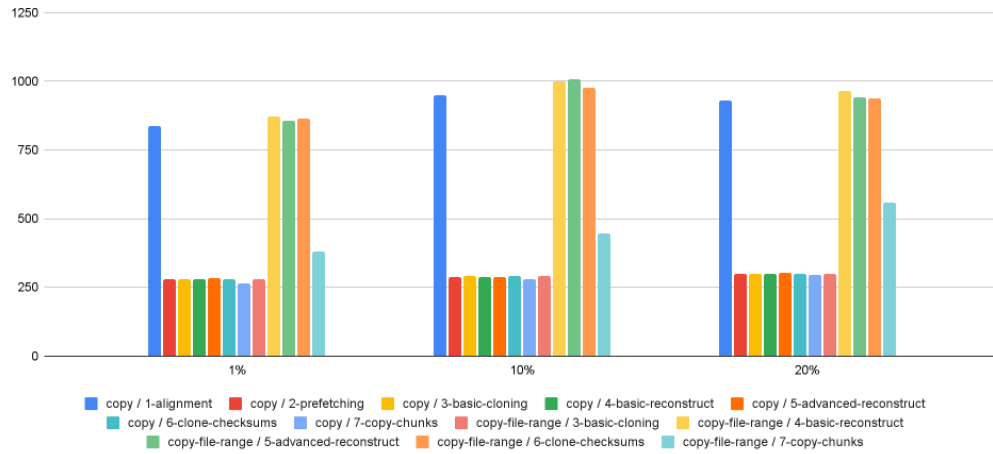
label	1%	10%	20%
copy / 0-baseline	147	135	167
copy / 1-alignment	125	148	166
copy / 2-prefetching	221	211	206
copy / 3-basic-cloning	214	214	216
copy / 4-basic-reconstruct	222	217	210
copy / 5-advanced-reconstruct	229	216	205
copy / 6-clone-checksums	215	219	216
copy / 7-copy-chunks	189	203	195
copy-file-range / 3-basic-cloning	207	211	222
copy-file-range / 4-basic-reconstruct	228	219	218
copy-file-range / 5-advanced-reconstruct	151	149	140
copy-file-range / 6-clone-checksums	141	142	137
copy-file-range / 7-copy-chunks	79	89	95

label	1%	10%	20%
copy / 0-baseline	74891	75208	75607
copy / 1-alignment	75004	75206	75590
copy / 2-prefetching	75001	75204	75578
copy / 3-basic-cloning	75001	75205	75575
copy / 4-basic-reconstruct	75001	75205	75575
copy / 5-advanced-reconstruct	75000	75205	75590
copy / 6-clone-checksums	75001	75277	75574
copy / 7-copy-chunks	75077	75207	75587
copy-file-range / 3-basic-cloning	74930	75074	75364
copy-file-range / 4-basic-reconstruct	74928	75075	75365
copy-file-range / 5-advanced-reconstruct	1473	1551	1661
copy-file-range / 6-clone-checksums	1473	1551	1661
copy-file-range / 7-copy-chunks	61	322	587

ZFS / SSD / i5

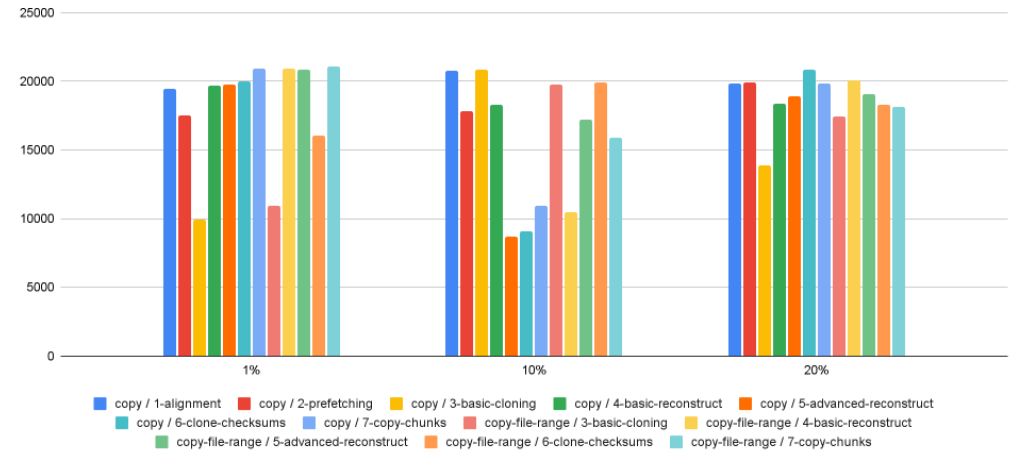
zfs / SSD / manifest=off

timing [combinebackup in seconds]



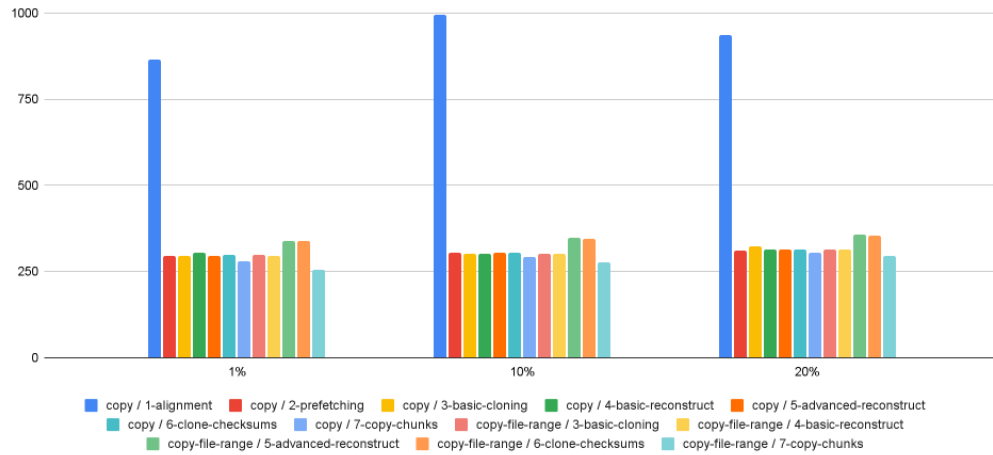
zfs / SSD / manifest=off

size [megabytes]



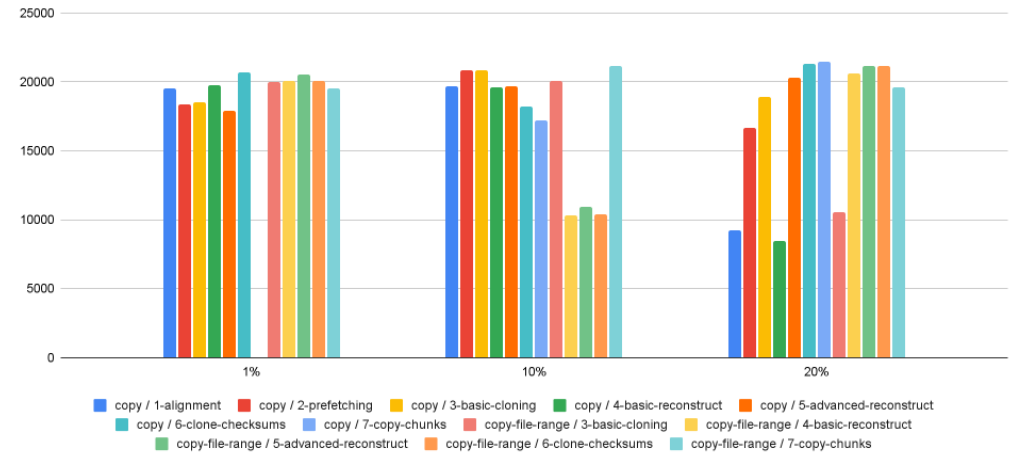
zfs / SSD / manifest=on

timing [combinebackup in seconds]



zfs / SSD / manifest=on

size [megabytes]



ZFS / SSD / i5

label	1%	10%	20%
copy / 0-baseline			
copy / 1-alignment	837	948	928
copy / 2-prefetching	280	288	299
copy / 3-basic-cloning	280	292	300
copy / 4-basic-reconstruct	280	288	300
copy / 5-advanced-reconstruct	282	288	301
copy / 6-clone-checksums	281	293	299
copy / 7-copy-chunks	263	279	294
copy-file-range / 3-basic-cloning	281	290	297
copy-file-range / 4-basic-reconstruct	871	998	963
copy-file-range / 5-advanced-reconstruct	857	1009	941
copy-file-range / 6-clone-checksums	866	978	938
copy-file-range / 7-copy-chunks	381	448	559

label	1%	10%	20%
copy / 0-baseline			
copy / 1-alignment	19465	20787	19805
copy / 2-prefetching	17509	17814	19929
copy / 3-basic-cloning	9897	20842	13891
copy / 4-basic-reconstruct	19703	18285	18357
copy / 5-advanced-reconstruct	19738	8720	18940
copy / 6-clone-checksums	20017	9109	20839
copy / 7-copy-chunks	20899	10930	19835
copy-file-range / 3-basic-cloning	10918	19745	17471
copy-file-range / 4-basic-reconstruct	20897	10460	20044
copy-file-range / 5-advanced-reconstruct	20848	17231	19097
copy-file-range / 6-clone-checksums	16025	19910	18277
copy-file-range / 7-copy-chunks	21093	15881	18158

label	1%	10%	20%
copy / 0-baseline			
copy / 1-alignment	864	994	937
copy / 2-prefetching	296	303	312
copy / 3-basic-cloning	295	302	321
copy / 4-basic-reconstruct	303	302	314
copy / 5-advanced-reconstruct	295	303	315
copy / 6-clone-checksums	297	303	312
copy / 7-copy-chunks	279	291	305
copy-file-range / 3-basic-cloning	298	303	313
copy-file-range / 4-basic-reconstruct	293	301	315
copy-file-range / 5-advanced-reconstruct	337	348	357
copy-file-range / 6-clone-checksums	338	345	354
copy-file-range / 7-copy-chunks	255	277	295

label	1%	10%	20%
copy / 0-baseline			
copy / 1-alignment	19505	19663	9250
copy / 2-prefetching	18360	20814	16678
copy / 3-basic-cloning	18513	20864	18913
copy / 4-basic-reconstruct	19785	19633	8473
copy / 5-advanced-reconstruct	17904	19696	20301
copy / 6-clone-checksums	20695	18186	21276
copy / 7-copy-chunks		17233	21428
copy-file-range / 3-basic-cloning	19958	20036	10521
copy-file-range / 4-basic-reconstruct	20064	10347	20590
copy-file-range / 5-advanced-reconstruct	20544	10950	21167
copy-file-range / 6-clone-checksums	20033	10428	21143
copy-file-range / 7-copy-chunks	19497	21180	19570