

Comparing HFS+ vs. APFS HDD Speeds, Measured in MB/second

	1 Drive - HFS+		1 Drive - APFS		2-Drive RAID 0 HFS+		2- Drive RAID 0 APFS		4-Drive RAID 0 HFS+		4-Drive RAID 0 APFS	
	Write	Read	Write	Read	Write	Read	Write	Read	Write	Read	Write	Read
Average	279	279	272.75	274.75	544.25	550.75	469.5	354.25	1072.5	1068.5	877.75	544.25
Maximum	279	279	276	276	550	553	485	369	1084	1081	885	571
Minimum	279	279	269	274	535	549	455	340	1063	1062	873	531
St. Deviation	0.0	0.0	3.3	1.0	6.9	2.1	15.2	11.9	8.7	8.7	5.1	18.6
Test 1	279	279	271	274	535	552	455	369	1063	1062	877	571
Test 2	279	279	276	275	543	549	485	340	1070	1063	876	543
Test 3	279	279	275	276	550	553	480	355	1073	1081	885	531
Test 4	279	279	269	274	549	549	458	353	1084	1068	873	532

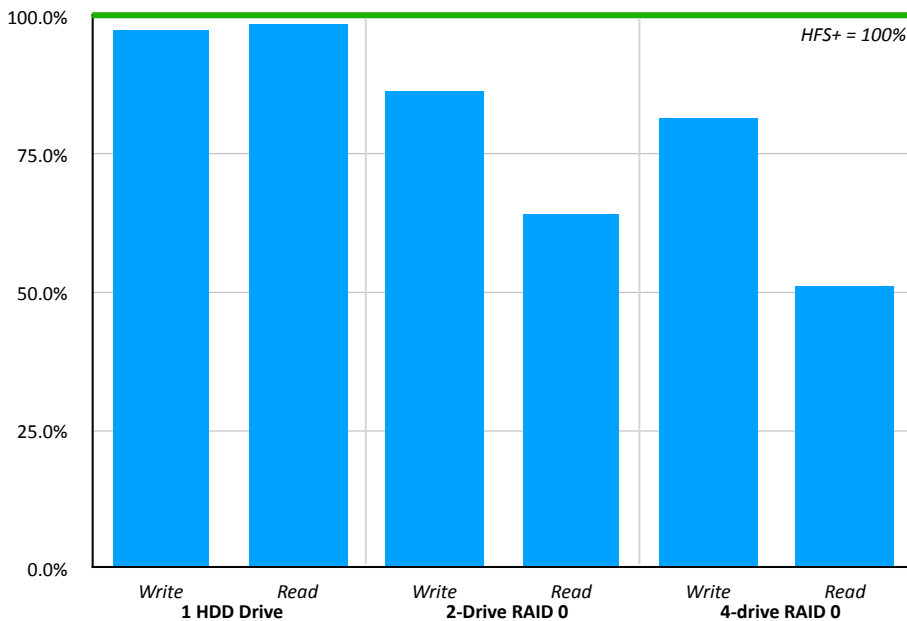
NOTES

All speeds measured in MB/second.
 These numbers represent maximum speeds under ideal conditions.
 RAID used new Seagate 16 TB IronWolf Pro SATA drives.
 Drives formatted either by Disk Utility v22.7 or SoftRAID 8.3 using 64KB chunk size.
 All speed tests measured using AJA System Test (Full - v16.2.5.2)
 All tests run on M2 Max Mac Studio (64 GB RAM, 12 CPU cores, 30 GPU cores)
 Test file: 4 GB 16-bit RGB - no codecs involved.

Percentage Conversion of Table

1 Drive		2 Drive RAID 0		4 Drive Raid 0	
Write	Read	Write	Read	Write	Read
97.8%	98.5%	86.3%	64.3%	81.8%	50.9%

How Much Slower is APFS Than HFS+ for Hard Disk Drives?



Shorter bars represent APFS speeds and are all slower than HFS+.