DISKS CHOSEN FOR TESTING SHOWN IN GREEN														
Vendor	**Model #**	**Model Name**	**Price**	**Cache**	**Spindle**	**Media xfer (max)**	**Sustained (claimed)**	**Interface xfer (max)**	**Latency**	**Seek Time Read**	**Seek Time Write**	**Wattage (best est. avg.)**	**Warranty**	**MTBF**
Hitachi	0A35155	Deskstar 7K1000	$217.99	32MB	7200RPM	133.75MB/s		300MB/s	4.17 ms	8.5 ms	9.2 ms	10 w	3 Year	unknown
Hitachi	**0A35772**	**Ultrastar A7K1000**	**$309.99**	**32MB**	**7200RPM**	**133.75MB/s**	**85 MB/s**		**4.17 ms**	**11 ms**		**9+ w**	5 Year	1,200,000 POH
Samsung	HD103UIY	HD103UI	$165.99	32MB	5400RPM	140MB/s		300MB/s	5.52 ms	8.9 ms		6.2 w	3 Year	unknown
Samsung	HD103UJ	HD753LJ	$169.99	32MB	7200RPM	175 MB/s		300MB/s	4.17 ms	8.9 ms		8.6 w	3 Year	unknown
Samsung	**HE103UJ**	**HE103UJ**	**$239.99**	**32MB**	**7200RPM**	**175 MB/s**	**113 MB/s**	**300MB/s**	**4.17 ms**	**8.9 ms**		**8.6 w**	**3 Year**	**1,200,000 POH**
Seagate	ST31000340AS	Barracuda 7200.11	$217.99	32MB	7200RPM	150 MB/s	105 MB/s	300MB/s	4.16 ms	8.5 ms	9.5 ms	9+ w	5 Year	750,000 POH
Seagate	**ST31000340NS**	**Barracuda ES-2**	**$269.99**	**32MB**	**7200RPM**	**160.875 MB/s**	**105 MB/s**	**300MB/s**	**4.16 ms**	**8.5 ms**	**9.5 ms**	**9+ w**	**5 Year**	**1,200,000 POH**
WD	**WDGWD10EACS**	**Caviar GP**	**$199.95**	**16 MB**	**variable**	**144 MB/s**		**300MB/s**	**5.6 ms**	**8.9 ms**		**7.5 w**	**3 Year**	**unkown**
WD	WDGWD10FYPS	RE2-GP	$239.99	16 MB	variable	unknown	84 MB/s	300MB/s	unknown	8.9 ms		7.4 w	5 Year	1,200,000 POH
	WD10EACS was chosen over WD10FYPS as performance would be same but... quite honestly we didn't want to spend more money on a drive that had no hope of competing.													

DISK TEST RESULTS	Western Digital WD10EACS	Western Digital WD10EACS 32k 3@RAID0	Western Digital WD10EACS 128k 3@RAID0	Seagate ST31000340NS	Seagate ST31000340NS 32k 3@RAID0	Seagate ST31000340NS 128k 3@RAID0	Hitachi HUA721010KLA330	Hitachi HUA721010KLA330 32k 3@RAID0	Hitachi HUA721010KLA330 128k 3@RAID0	Samsung HE103UJ	Samsung HE103UJ 32k 3@RAID0	Samsung HE103UJ 128k 3@RAID0
DISK READ WRITE	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s
1280x720 10bit 1.0GB WRITE	74.0	201.8	201.5	**107.2**	**319.5**	**320.0**	83.3	252.7	251.5	**72.7**	**219.2**	**248.9**
1280x720 10bit 1.0GB READ	73.3	215.1	215.9	**107.8**	**321.1**	**319.8**	54.7	248.1	245.9	**80.0**	**310.2**	**293.3**
1280x720 10bit 4.0GB WRITE	73.2	206.6	207.4	**107.2**	**320.5**	**321.8**	82.4	247.8	248.5	**89.0**	**219.9**	**234.4**
1280x720 10bit 4.0GB READ	74.0	210.7	210.2	**107.8**	**318.4**	**318.6**	66.7	216.1	247.0	**87.9**	**315.2**	**307.3**
1920x1080 10bit 1.0GB WRITE	72.0	200.7	201.3	**107.2**	**318.4**	**317.2**	83.1	251.5	250.4	**85.4**	**239.7**	**251.7**
1920x1080 10bit 1.0GB READ	73.4	215.1	215.5	**108.4**	**321.5**	**318.6**	82.9	234.9	247.9	**93.1**	**311.2**	**286.6**
1920x1080 10bit 4.0GB WRITE	73.0	193.2	207.9	**107.3**	**319.3**	**319.7**	82.5	247.3	247.9	**89.0**	**220.9**	**239.7**
1920x1080 10bit 4.0GB READ	73.3	212.3	206.4	**107.7**	**322.0**	**322.1**	61.5	235.1	248.1	**99.0**	**297.1**	**309.8**
2048x1556 10bit RGB 1.0GB WRITE	74.1	204.1	198.1	**107.4**	**310.2**	**320.2**	83.0	252.3	251.9	**83.7**	**223.3**	**250.0**
2048x1556 10bit RGB 1.0GB READ	74.7	218.6	216.9	**106.3**	**322.5**	**319.7**	73.6	251.4	247.6	**97.2**	**259.8**	**299.9**
2048x1556 10bit RGB 4.0GB WRITE	73.7	198.5	201.6	**106.8**	**321.1**	**321.9**	80.6	248.6	248.5	**89.8**	**217.3**	**230.5**
2048x1556 10bit RGB 4.0GB READ	73.8	204.2	211.1	**107.5**	**319.9**	**319.5**	60.2	202.7	195.9	**96.2**	**287.6**	**288.3**
Average Write	73.33	200.82	202.97	**107.18**	**318.17**	**320.13**	82.48	250.03	249.78	**84.93**	**223.38**	**242.53**
Average Read	73.75	212.67	212.67	**107.58**	**320.90**	**319.72**	66.60	231.38	238.73	**92.23**	**296.85**	**297.53**
SWEEP BINARY FRAME SIZES												
256 MB File WRITE	77.0	219.0	222.2	**107.2**	**311.0**	**312.1**	84.5	264.3	269.3	**104.1**	**334.4**	**317.8**
256 MB File READ	77.9	205.4	201.4	**108.0**	**308.0**	**307.5**	82.8	199.6	237.0	**111.3**	**303.2**	**242.9**
1.0 GB File WRITE	74.6	156.0	215.6	**107.1**	**323.3**	**322.3**	82.7	248.8	252.1	**96.6**	**227.0**	**248.0**
1.0 GB File READ	73.4	217.9	214.5	**108.2**	**321.7**	**322.1**	82.9	248.0	241.8	**112.5**	**283.0**	**276.5**
4.0 GB File WRITE	73.8	206.4	210.5	**107.3**	**319.7**	**321.6**	82.5	248.6	247.6	**102.5**	**218.7**	**233.2**
4.0 GB File READ	73.7	206.3	211.4	**107.7**	**322.2**	**321.5**	63.9	238.6	227.5	**114.5**	**302.4**	**307.5**
Average Write	75.13	193.80	216.11	**107.20**	**318.00**	**318.67**	83.23	253.90	256.33	**101.07**	**260.03**	**266.33**
Average Read	75.00	209.87	209.10	**107.97**	**317.30**	**317.03**	76.53	228.73	235.43	**112.77**	**296.20**	**275.63**

Tested using AJA System Test v2.0. File system cache disabled for all tests.

Test system = Mac Pro (Quad) w/ 5GB RAM. Using SATA bays 2, 3 & 4.

Each test run only once unless result was so anomalous that outside factors may have skewed. These tests were rejected and re-run immediately.

Other less severe anomalies marked in red.

All drives are new and unused prior to testing. The results here are meant to compare the relative speeds of the disks against one another, not provide baseline benchmarks for each drive.

Bottom Line: The Seagates are still king. However, for price versus performance the Samsung's are cheaper and a very very close 2nd in performance. And if you're looking for cheap, fast storage, the non-enterprise version of the Samsung drive, with nearly identical specs, can be had for under $170. Seagate wins the race, but Samsung brings home the bang for your buck.

DISK TEST 2 RESULTS	Seagate ST31000340NS	Seagate ST31000340NS 128K 3@RAID0	Seagate ST31000340NS 128k 4@RAID0	Seagate ST31000340NS HPT 2314 e-SATA 4@H/W RAID0	Samsung HE103UJ	Samsung HE103UJ 128K 3@RAID0	Samsung HE103UJ 128K 4@RAID0	Samsung HE103UJ HPT 2314 e-SATA 4@H/W RAID0
DISK READ WRITE	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s	MB/s
1280x720 10bit 1.0GB WRITE	107.2	320.0	416.7	313.0	72.7	248.9	339.0	240.6
1280x720 10bit 1.0GB READ	107.8	319.8	430.5	374.9	80.0	293.3	361.4	352.6
1280x720 10bit 4.0GB WRITE	107.2	321.8	417.3	310.0	89.0	234.4	306.4	220.5
1280x720 10bit 4.0GB READ	107.8	318.6	418.9	370.0	87.9	307.3	398.8	381.9
1920x1080 10bit 1.0GB WRITE	107.2	317.2	432.0	308.9	85.4	251.7	324.2	242.1
1920x1080 10bit 1.0GB READ	108.4	318.6	431.9	387.7	93.1	286.6	384.2	362.3
1920x1080 10bit 4.0GB WRITE	107.3	319.7	428.1	308.1	89.0	239.7	300.7	267.7
1920x1080 10bit 4.0GB READ	107.7	322.1	429.2	391.4	99.0	309.8	398.6	388.6
2048x1556 10bit RGB 1.0GB READ	106.3	320.2	433.3	311.2	97.2	250.0	340.9	253.4
2048x1556 10bit RGB 1.0GB WRITE	106.3	319.7	432.5	381.7	97.2	299.9	347.8	366.6
2048x1556 10bit RGB 4.0GB WRITE	106.8	321.9	428.6	306.0	89.8	230.5	289.8	221.0
2048x1556 10bit RGB 4.0GB READ	107.5	319.5	429.8	393.8	96.2	288.3	381.8	390.7
Average Write	107.00	320.13	426.00	309.53	87.18	242.53	316.83	240.88
Average Read	107.58	319.72	428.80	383.25	92.23	297.53	378.77	373.78
SWEEP BINARY FRAME SIZES								
256 MB File WRITE	107.2	312.1	408.8	296.0	104.1	334.4	455.6	367.7
256 MB File READ	108.0	307.5	421.5	382.1	111.3	303.2	398.1	310.4
1.0 GB File WRITE	107.1	322.3	428.8	305.0	96.6	227.0	322.5	254.8
1.0 GB File READ	108.2	322.1	432.4	389.5	112.5	283.0	381.3	346.0
4.0 GB File WRITE	107.3	321.6	429.7	305.4	102.5	218.7	306.6	224.8
4.0 GB File READ	107.7	321.5	423.6	387.8	114.5	302.4	394.4	384.1
Average Write	107.20	318.67	422.43	302.13	101.07	260.03	361.57	282.43
Average Read	107.97	317.03	425.83	386.47	112.77	296.20	391.27	346.83

Tested using AJA System Test v2.0. File system cache disabled for all tests. 128k block size used as most even playing field (best performance for both drives intersects at this block size).

Test system = Mac Pro (Quad) w/ 5GB RAM. Using SATA bays 2, 3 & 4 (except e-SATA tests, which used external enclosures).

Each test run only once unless result was so anomalous that outside factors may have skewed. These tests were rejected and re-run immediately. Any other less severe anomalies marked in red.

e-SATA tests run using hardware RAID0 via a RocketRaid 2314 card. (For thos interested, using the 2314 to put 4 drives in a RAID1+0 configuration results in speeds that are approximately 95% of (S x 2) x .95 where S is the speed of a single disk .)