

Processor	Base	Boost	Cores / Threads Used	Results	Seconds	Gain / thread	Faster / Slower Processor	Base	Boost	Cores / Threads Used	Results	Seconds	Gain / thread
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		1 0h48m16s (2896 seconds)	2896		BASE SPEED	353 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	1 0h54m9s (3249 seconds)	3249	BASE SPEED
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		2 0h25m24s (1524 seconds)	1524	1372		201 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	2 0h28m45s (1725 seconds)	1725	1524
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		3 0h17m21s (1041 seconds)	1041	483		139 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	3 0h19m40s (1180 seconds)	1180	545
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		4 0h13m22s (802 seconds)	802	239		106 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	4 0h15m8s (908 seconds)	908	272
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		5 0h10m58s (658 seconds)	658	144		85 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	5 0h12m23s (743 seconds)	743	165
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		6 0h9m22s (562 seconds)	562	96		77 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	6 0h10m39s (639 seconds)	639	104
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		7 0h8m24s (504 seconds)	504	58		70 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	7 0h9m34s (574 seconds)	574	65
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		8 0h7m34s (454 seconds)	454	50		66 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	8 0h8m40s (520 seconds)	520	54
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		9 0h6m54s (414 seconds)	414	40		46 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	9 0h7m40s (460 seconds)	460	60
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		10 0h6m27s (387 seconds)	387	27		39 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	10 0h7m6s (426 seconds)	426	34
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		11 0h5m54s (354 seconds)	354	33		44 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	11 0h6m38s (398 seconds)	398	28
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		12 0h5m25s (325 seconds)	325	29		39 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	12 0h6m4s (364 seconds)	364	34
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		13 0h5m18s (318 seconds)	318	7		42 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	13 0h6m0s (360 seconds)	360	4
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		14 0h5m12s (312 seconds)	312	6		32 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	14 0h5m44s (344 seconds)	344	16
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		15 0h4m46s (286 seconds)	286	26		39 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	15 0h5m25s (325 seconds)	325	19
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		16 0h4m38s (278 seconds)	278	8		36 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	16 0h5m14s (314 seconds)	314	11
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		17 0h4m38s (278 seconds)	278	0		30 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	17 0h5m8s (308 seconds)	308	6
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		18 0h4m34s (274 seconds)	274	4		27 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	18 0h5m1s (301 seconds)	301	7
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		19 0h4m33s (273 seconds)	273	1		24 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	19 0h4m57s (297 seconds)	297	4
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		20 0h4m27s (267 seconds)	267	6		24 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	20 0h4m51s (291 seconds)	291	6
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		21 0h4m27s (267 seconds)	267	0		16 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	21 0h4m43s (283 seconds)	283	8
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		22 0h4m16s (256 seconds)	256	11		10 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	22 0h4m26s (266 seconds)	266	17
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		23 0h4m18s (258 seconds)	258	-2		11 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	23 0h4m29s (269 seconds)	269	-3
AMD Ryzen 3900X (12 core / 24 thread) CPU	3.8 Ghz	4.6 Ghz		24 0h4m8s (248 seconds)	248	10		20 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	24 0h4m28s (268 seconds)	268	1
								15 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	25 0h4m23s (263 seconds)	263	5
								17 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	26 0h4m25s (265 seconds)	265	-2
								6 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	27 0h4m14s (254 seconds)	254	11
								1 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	28 0h4m9s (249 seconds)	249	5
								-1 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	29 0h4m7s (247 seconds)	247	2
								4 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	30 0h4m12s (252 seconds)	252	-5
								23 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	31 0h4m31s (271 seconds)	271	-19
								-8 AMD Ryzen 3950X (16 core / 32 thread) CPU	3.5 Ghz	4.7 Ghz	32 0h4m00s (240 seconds)	240	31

Total Time Benchmarking: HR:MM:SS Seconds Times Faster

03:40:36 13,236 11.6774193548

Total Time Benchmarking: HR:MM:SS Seconds Times Faster

04:40:53 16,853 13.5375

Case Study: Parallel processing

