

Benchmark	Time ( l ref )	Cur / first	Cur / pre	note
small	9.74	1.000	1.000	We already used -O2 during HW6
large	247.30	1.000	1.000	
# of inst	40,827,315,814			
small	6.53	0.670	0.670	eliminated bitpack.c dependency
large	191.10	0.707	0.707	
# of inst	27,402,047,280			
small	3.50	0.359	0.536	data structure overhaul; changed to simpler struct of 2d array; changed order of operations in cycle by frequency of use; removed some asserts
large	87.54	0.354	0.502	
# of inst	17,019,724,990			
small	2.82	0.290	0.808	removed more asserts; Removed uexecute dependency;
large	71.47	0.289	0.814	
# of inst	14,484,308,995			
small	0.96	0.099	0.341	made bitpack func macro; Removed uinterpret.c dependency;
large	24.24	0.098	0.339	
# of inst	4,126,657,534			
small	0.84	0.089	0.903	structs to global variable; enhanced data structure so that a **uint32_t is used as memory; Moved most functions into main, made the rest inline/macros; Changed read in method and file no longer uses any hanson structures; used switch case instead of if-else;
large	22.26	0.090	0.918	
# of inst	3,802,283,665			
small	0.41	0.043	0.808	Added -Ofast to Cflag in Makefile; Made all malloc calloc;
large	10.12	0.041	0.814	
# of inst	2,682,524,545			
small	0.35	0.036	0.808	Reduced indirect access by

large	9.03	0.037	0.814	making a custom pointer; reduced unnecessary operations in free and map;
# of inst	2,514,447,222			