

Sheet1

Multiprocessor running times (in seconds) – test1.bmp						
iterations	NoMPI	MPI 1 ST	MPI 2 ST	MPI 4 ST	MPI 8 ST	MPI 16 ST
10	50.98	48.85	25.54	13.82		
20	100.38	95.98	49.06	25.90		
40	201.40	190.91	96.22	50.37	36.83	
80		379.11	190.72	96.44	51.09	
100			238.00	120.47	64.12	54.96
200				238.25	126.30	106.123.
400				480.37	247.15	212.43
800				1000.00	495.00	414.92

Q: How come the parallel times are so good? How does it scale so well?

A: It scales well because the test picture is large. In this case the picture was sufficiently large so that the communication time is very small compared to the “number crunching” time.

Q: When should we stop adding processors?

A: At the point where the communication overhead becomes visible. In this case it's 16 processors.

