

# Sample Performance Study

High Performance Computing Facility  
University of Maryland, Baltimore County

Table 1: Performance by number of processes used with 1 process per node except for  $p = 2$  which uses 2 processes per node, and  $p = 256$  which uses 4 processes per node

(a) Wall clock time in seconds

$N$	$p = 1$	$p = 2$	$p = 4$	$p = 8$	$p = 16$	$p = 32$	$p = 64$	$p = 128$	$p = 256$
1024	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	—	—	—
2048	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	—	—	—
4096	01:08:16	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	—	—	—

Table 2: Performance by number of processes used with 2 processes per node except for  $p = 1$  which uses 1 process per node, and  $p = 256$  which uses 4 processes per node

(a) Wall clock time in seconds

$N$	$p = 1$	$p = 2$	$p = 4$	$p = 8$	$p = 16$	$p = 32$	$p = 64$	$p = 128$	$p = 256$
1024	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	00:00:16	—	—
2048	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	—	—
4096	01:08:16	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	—	—

Table 3: Performance by number of processes used with 4 processes per node except for  $p = 1$  which uses 1 process per node, and  $p = 2$  which uses 2 processes per node

(a) Wall clock time in seconds

$N$	$p = 1$	$p = 2$	$p = 4$	$p = 8$	$p = 16$	$p = 32$	$p = 64$	$p = 128$	$p = 256$
1024	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	00:00:16	00:00:08	—
2048	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	00:00:16	—
4096	01:08:16	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	—

Table 4: Performance by number of processes used with 8 processes per node except for  $p = 1$  which uses 1 process per node,  $p = 2$  which uses 2 processes per node, and  $p = 4$  which uses 4 processes per node.

(a) Wall clock time in seconds									
$N$	$p = 1$	$p = 2$	$p = 4$	$p = 8$	$p = 16$	$p = 32$	$p = 64$	$p = 128$	$p = 256$
1024	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	00:00:16	00:00:08	00:00:04
2048	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	00:00:32	00:00:16	00:00:08
4096	01:08:16	00:34:08	00:17:04	00:08:32	00:04:16	00:02:08	00:01:04	—	—