

Assignment 3

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1 Odd Even Transposition Sorting Network

Phase	Index							
	0	1	2	3	4	5	6	7
Start	8	7	6	5	4	3	2	1
Phase 1 (Odd)	8	6	7	4	5	2	3	1
Phase 2 (Even)	6	8	4	7	2	5	1	3
Phase 3 (Odd)	6	4	8	2	7	1	5	3
Phase 4 (Even)	4	6	2	8	1	7	3	5
Phase 5 (Odd)	4	2	6	1	8	3	7	5
Phase 6 (Even)	2	4	1	6	3	8	5	7
Phase 7 (Odd)	2	1	4	3	6	5	8	7
Phase 8 (Even)	1	2	3	4	5	6	7	8

Figure 1: Odd Even Parallel Sorting Algorithm Trace

2 Output from OSC

```
[tekulvw@o0715 chapter03]$ nvcc enum_gpu.cu
[tekulvw@o0715 chapter03]$ ./a.out
--- General Information for device 0 ---
Name:  Tesla P100-PCIE-16GB
Compute capability:  6.0
Clock rate:  1328500
Device copy overlap:  Enabled
Kernel execution timeout :  Disabled
--- Memory Information for device 0 ---
Total global mem:  17071734784
Total constant Mem:  65536
Max mem pitch:  2147483647
Texture Alignment:  512
--- MP Information for device 0 ---
Multiprocessor count:  56
```

Shared mem per mp: 49152
Registers per mp: 65536
Threads in warp: 32
Max threads per block: 1024
Max thread dimensions: (1024, 1024, 64)
Max grid dimensions: (2147483647, 65535, 65535)