

Lab 4 - Threads

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I used 2-dimension blocks and grid:

```
1 dim3 blockSize = dim3(32, 32);  
2 dim3 gridSize = dim3(inputImage->width / 32 + 1, inputImage->  
    height / 32 + 1);
```

and find the global thread ID as follow:

```
1 int globalIdX = threadIdx.x + blockIdx.x * blockDim.x;  
2 int globalIdY = threadIdx.y + blockIdx.y * blockDim.y;  
3 int globalId = globalIdX + globalIdY * gridDim.x * blockDim.x  
    ;
```

Here is the time comparision between different block sizes:

Block size	1024x1	1x1024	16x16	16x32	32x16	32x32
Time (ms)	Error!	3750	430	500	310	350