

GPU-Programing Lab3 Report

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Origin Poisson Editing takes 20000 iterations and about 20 seconds to converge.
I implement hierarchy method which down sample to $1/8x$ and iterate 200 times
than up sample to $1/4x$ $1/2x$ $1x$ and iterate 20 times respectively.
By the way, the down sample and up sample function also implement by cuda.
Because the all input images have already been put in GPU memory, Down/Up
sampling with GPU will be extremely fast.

Total computation time consumed(hierarchy): 45501 us (nVidia Quadro K600)
The computation time only takes 25% time of total procedure(169804us), so it is less
efficient to do any other acceleration. The output image is below.



Another case:

With input target 200×150 background 614×461 and offset 150 200

Time consumed:19852us



Output

