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Assignment on Massively Parallel Algorithms - Sheet 9

Due Date 09. 07. 2014

Exercise 1 (Image Integral Sum, *10 Credits*)

`ImageIntegralSum.zip` provides a framework for displaying an image and image integral sum representation of this image when key "h" or "H" is pressed.

Your tasks are as follows:

a) Implement appropriate methods and kernels to compute the image integral sum of image provided using naive approach presented in the lecture and use these methods and kernels within the method `imageIntegralSum` in the `imageIntegralSum_kernel.cu` file.

b) Modify the above naive approach implementation with appropriate kernels and methods to generate image integral sum using high precision approach presented in the lecture.

   i) Using only the offset representation for increasing precision.

   ii) Using both `offset` and `4 different S table` steps for increasing precision.

   Hints: Please refer to comments in the framework for hints regarding implementation.