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## 1 Overview

- 1.1 Location** `$<AMDAPPSDKSamplesInstallPath>\samples\opencl\cpp_cl\1.x`
- 1.2 How to Run**
1. Before running this sample, install the latest AMD GPU driver and the latest AMD APP SDK.
  2. Compile the sample.  
Use the command line to change to the directory where the executable is located. The precompiled sample executable is in  
`$<AMDAPPSDKSamplesInstallPath>\samples\opencl\bin\x86\Intro2StaticCpp` for 32-bit builds, and  
`$<AMDAPPSDKSamplesInstallPath>\samples\opencl\bin\x86_64\Intro2StaticCpp` for 64-bit builds.

## 2 Introduction

This is an introductory sample for the OpenCL static C++ kernel language and the C++ wrapper API.

## 3 Implementation Details

An array of Rect objects, which contains the size of the various rectangles, are instantiated. This array then is transferred through a buffer from the host to the device. The kernel calculates the area of each of the rectangles.

The C++ template is used to create kernels to handle the array of Rect objects with sizes in integer values and in floating-point values.

Note that the compiler option `-x clc++` is needed to compile the kernel source code written in the OpenCL static C++ kernel language. For more information, see the OpenCL Static C++ Kernel Language Extension.

## 4 References

1. [OpenCL Specification, v 1.2](#)
2. [OpenCL C++ Wrapper API, v 1.1](#)
3. [Rosenberg, O., Gaster, B. R., Zheng, B., and Lipov, I: \*OpenCL Static C++ Kernel Language Extension\* \(2011\)](#)

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