# **OpenCL Service**

# 1 Overview

## 1.1 Location \$<APPSDKSamplesInstallPath>\samples\opencl\cl\

### 1.2 How to Run

See the Getting Started guide for how to build samples. You first must compile the sample.

Use the command line to change to the directory where the executable is located. The precompiled sample executable is at  $$<APPSDKSamplesInstallPath>\samples\opencl\bin\x86\for 64-bit builds, and <math>$<APPSDKSamplesInstallPath>\samples\opencl\bin\x86_64\for 64-bit builds.$ 

For the sample to work in as expected, enter the following commands in the order indicated. Note that running this sample requires administrative privileges. The status of the execution is logged in the <code>OpenCLService.txt</code> file.

- OpenCLService -i
   This installs an OpenCL executable as service.
- 2. OpenCLService -s
  This starts/runs the OpenCL executable as service.
- 3. OpenCLService -k
  This kills/stops the OpenCL executable as service.
- OpenCLService -u
   This uninstalls the OpenCL executable as service.

To print the help options for the sample, type OpenCLService -h .

# 1.3 Command Line Options

Table 1 lists, and briefly describes, the command line options.

Table 1 Command Line Options

Long Form	Description
help	Shows all command options and their respective meaning.
	Install the service.
	Start the service.
	Kill the service.
	Uninstall the service.

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### 2 Overview

This sample demonstrates how an OpenCL executable program can be run as a Windows service. The selected executable runs in the background and does not pop up any window while executing. This kind of applications can be used in situations when no user interaction is required for an application. By default, the sample runs <code>MatrixMultiplication.exe</code> in the background. You can verify that the OpenCL executable has been added in the service table in the Windows Task Manager.

This Sample has been implemented using the standard Windows API for installing the service, starting the service, killing the service, and uninstalling the service. The ideal application is for distributed computing, such as Folding@Home, SETI, etc.

### 3 References

- 1. http://en.wikipedia.org/wiki/Windows\_service
- 2. http://msdn.microsoft.com/en-us/library/d56de412%28v=vs.80%29.aspx
- 3. http://www.codeproject.com/KB/system/Sund\_WindowService.aspx

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