

## 1 Overview

Note that this sample is essentially the same as the DeviceFission11Ext sample, except that this sample uses the OpenCL 1.2 device fission functionality; the DeviceFission11Ext sample uses OpenCL 1.1 and the `cl_ext_device_fission` extension.

**1.1 Location** `$(AMDAPPSDKSAMPLESROOT)\samples\opencl\cl\app`

**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 default executables are placed in `$(AMDAPPSDKSAMPLESROOT)\samples\opencl\bin\x86` for 32-bit builds and `$(AMDAPPSDKSAMPLESROOT)\samples\opencl\bin\x86_64` for 64-bit builds.

Type the following command(s).

1. `DeviceFission`  
This tests the kernel execution on multi-devices asynchronously.
2. `DeviceFission -h`  
This prints the help message.

**1.3 Command Line Options** Table 1 lists, and briefly describes, the command line options.

**Table 1 Command Line Options**

Short Form	Long Form	Description
-h	--help	Shows all command options and their respective meaning.
	--device	Devices on which the program is to be run. Acceptable values are <code>cpu</code> or <code>gpu</code> .
-q	--quiet	Quiet mode. Suppresses all text output.
-e	--verify	Verify results against reference implementation.
-t	--timing	Print timing.
	--dump	Dump binary image for all devices.
	--load	Load binary image, and execute on device.
	--flags	Specify compiler flags to build the kernel.
-p	--platformId	Select platformId to be used (0 to N-1, where N is the number of available platforms).

Short Form	Long Form	Description
-v	--version	AMD APP SDK version string.
-x	--length	Length of the input array.
-d	--deviceId	Select deviceId to be used (0 to N-1, where N is the number of available devices).

## 2 Introduction

The Device Fission extension is supported only on the CPU. In this sample, the root device is partitioned into sub-devices by using `CL_DEVICE_PARTITION_EQUALLY_EXT`. The kernel is enqueued first on the root device, then on sub-devices, in order.

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