AMD **Accelerated**
Parallel Processing
TECHNOLOGY

1 Overview

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. `SimpleImage`
    Performs a copy operation using the GPUs texture unit (Images) to read/write data.

2. `SimpleImage -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 `cpu` or `gpu`.
`-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).
`-d`	`--deviceId`	Select deviceId to be used (0 to N-1, where N is the number of available devices).
`-v`	`--version`	AMD APP SDK version string.
`-i`	`--iterations`	Number of iterations for kernel execution.

2 Implementation Details

Any OpenCL compliant device that reports the `CL_DEVICE_IMAGE_SUPPORT` property as `true` can be used to run this sample. This sample uses the `clCreateImage` API, which was introduced in the OpenCL 1.2 specification, to create image objects.

This tutorial sample demonstrates how to use the images (`cl_image`) in OpenCL programs. The sample illustrates two primary operations:

- 2D copies: Copying data from an input 2D image to an output 2D image.
- 3D copies: Copying data from an input 3D image to an output 3D image