

ROpenCL

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buildProgram	<i>Build the OpenCL program</i>
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Description

buildProgram builds the OpenCL kernel

Details

It calls `clBuildProgram`

References

<http://www.khronos.org/opencv/>

<code>createBuffer</code>	<i>Creates the right OpenCL buffer given an R Object</i>
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Description

Creates the right OpenCL buffer given an R Object

Details

Depending on the input it calls different methods in `ROpenCL`

References

<http://www.khronos.org/opencv/>

<code>createBufferFloatVector</code>	<i>Creates a Vector of Floats for OpenCL to use as buffer</i>
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Description

Creates a Vector of Floats for OpenCL to use as buffer. This method is for internal use, users are encouraged to use `createBuffer` instead.

Details

Calls `clCreateBuffer` for an array of floats.

References

<http://www.khronos.org/opencv/>

`createBufferIntegerVector`*Creates a Vector of Integers for OpenCL to use as buffer*

Description

Creates a Vector of Integers for OpenCL to use as buffer. This method is for internal use, users are encouraged to use `createBuffer` instead.

Details

Calls `clCreateBuffer` for an array of integers.

References

<http://www.khronos.org/opencv/>

`createCommandQueue`*Creates the OpenCL command queue*

Description

Creates the OpenCL command queue

Details

Calls `clCreateCommandQueue` using specified context and device id.

References

<http://www.khronos.org/opencv/>

`createContext`*Creates an OpenCL context*

Description

Creates an OpenCL context

Details

Calls `clCreateContext` using specified device id.

References

<http://www.khronos.org/opencv/>

createContextFromType *Creates an OpenCL context for a given device type*

Description

Creates an OpenCL context

Details

Calls clCreateContextFromType using specified device type.

References

<http://www.khronos.org/opencv/>

createKernel *Creates an OpenCL kernel*

Description

Creates an OpenCL kernel

Details

Calls clCreateKernel using specified OpenCL program and kernel name.

References

<http://www.khronos.org/opencv/>

createProgram *Creates an OpenCL program.*

Description

Creates and OpenCL program given context, kernelSrc, kernelName, and parameters.

Details

High level wrapper to make creating an OpenCL program easier.

References

<http://www.khronos.org/opencv/>

createProgramWithSource
Creates an OpenCL program

Description

Creates an OpenCL program

Details

Calls clCreateProgramWithSource using specified OpenCL context and source code (as String).

References

<http://www.khronos.org/opencv/>

enqueueNDRangeKernel *Enqueues an NDRangeKernel*

Description

Enqueues an NDRangeKernel

Details

Calls clEnqueueNDRangeKernel using specified queue, kernel global work size and local work size.

References

<http://www.khronos.org/opencv/>

enqueueReadBuffer *Enqueues a read buffer*

Description

Enqueues a read buffer, depending on the class of the object.

Details

Calls the right enqueueReadBuffer function for the class of the object that was passed as the argument.

References

<http://www.khronos.org/opencv/>

enqueueReadBufferFloatVector

Enqueues a read buffer for a vector of floats.

Description

Enqueues a read buffer for a vector of floats.

Details

Calls `clEnqueueReadBuffer` function for the object that was passed as the argument. This method is for internal use, users are encouraged to use `enqueueReadBuffer` instead.

References

<http://www.khronos.org/opencv/>

enqueueReadBufferIntegerVector

Enqueues a read buffer for a vector of integers.

Description

Enqueues a read buffer for a vector of integers.

Details

Calls `clEnqueueReadBuffer` function for the object that was passed as the argument. This method is for internal use, users are encouraged to use `enqueueReadBuffer` instead.

References

<http://www.khronos.org/opencv/>

enqueueWriteBuffer *Enqueues a write buffer*

Description

Enqueues a write buffer, depending on the class of the object.

Details

Calls the right `enqueueWriteBuffer` function for the class of the object that was passed as the argument.

References

<http://www.khronos.org/opencv/>

`enqueueWriteBufferFloatVector`*Enqueues a write buffer for a vector of floats.*

Description

Enqueues a write buffer for a vector of floats.

Details

Calls the right enqueueWriteBuffer function for the class of the object that was passed as the argument. This method is for internal use, users are encouraged to use enqueueWriteBuffer instead.

References

<http://www.khronos.org/opencv/>

`enqueueWriteBufferIntegerVector`*Enqueues a write buffer for a vector of integers.*

Description

Enqueues a write buffer for a vector of integers.

Details

Calls the right enqueueWriteBuffer function for the class of the object that was passed as the argument. This method is for internal use, users are encouraged to use enqueueWriteBuffer instead.

References

<http://www.khronos.org/opencv/>

`getContextInfo`*Retrieves information of the OpenCL context.*

Description

Retrieves information of the OpenCL context.

Details

Calls clGetContextInfo, currently only CL_CONTEXT_NUM_DEVICES is supported.

References

<http://www.khronos.org/opencv/>

getDeviceIDs	<i>Retreives the different IDs of the available OpenCL devices.</i>
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Description

Retreives the different IDs of the available OpenCL devices.

Details

Calls clGetDeviceIDs and returns a list of device IDs which can be used later on.

References

<http://www.khronos.org/opencvl/>

getPlatformIDs	<i>Retreives the different IDs of the available OpenCL platforms.</i>
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Description

Retreives the different IDs of the available OpenCL platforms.

Details

Calls clGetPlatformIDs and returns a list of platform IDs which can be used later on.

References

<http://www.khronos.org/opencvl/>

getPlatformName	<i>Retreives the name of the given OpenCL platform.</i>
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Description

Retreives the name of the given OpenCL platform.

Details

Calls clGetPlatformInfo and returns a the name of the platform as a character string.

References

<http://www.khronos.org/opencvl/>

getProgramInfo	<i>Retreives information about the given OpenCL program.</i>
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Description

Retreives information about the given OpenCL program.

Details

Calls `clGetProgramInfo` and returns the information about the OpenCL program as a character string. Currently, only `CL_PROGRAM_SOURCE` is supported.

References

<http://www.khronos.org/opencvl/>

ROpenCL	<i>Provide an easy interface to OpenCL computing.</i>
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Description

ROpenCL tries to bridge OpenCL and R. It allows you to use OpenCL from within R. It also provides was to transparently send R objects to OpenCL and retrieve R objects back.

Details

Package:	ROpenCL
Type:	Package
Version:	0.1
Date:	2011-09-06
License:	GPL-3
LazyLoad:	yes

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References

<http://www.khronos.org/opencvl/>

setKernelArgInt	<i>Sets a kernel argument with an integer value.</i>
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Description

Sets a kernel argument with an integer value.

Details

Calls `clSetKernelArg` to set an integer kernel argument.

References

<http://www.khronos.org/opencv/>

setKernelArgMem	<i>Sets a kernel argument with a given buffer.</i>
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Description

Sets a kernel argument with a given buffer.

Details

Calls `clSetKernelArg` to set a kernel argument using a given buffer object.

References

<http://www.khronos.org/opencv/>

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