Lift Compiler

≪C++≫
Cuda-Executer

Headers

Headers

+names() : const char**
+size() : int
+insert(string const &path) : void
+insert(Header) : void

1...* ◇ 1...*

Header

-_path : string
-_content : string

+name() : const char*
+length() : size_t
+content() : const char *

0...1 — 1...*

Kompilierungsstufen

Source

-kernel_string : string

+program(const string &kernel_name) : Program

1 — * create

Program

-m_template_parameters : vector<string>
-kernel_name : string
-m_name_expression : string
-m_log : string
-m_prog : shared_ptr<nvrtcProgram>

template <typename T, typename... TS>
+instantiate(T type, TS... types) : &Program

0...* — use — 1

Options

-m_options : vector<string>
-m_chOptions : vector<const char*>

+insert(const string &op) : void
+insert(const string &name, const string &value) : void
template <typename T>
+insertOptions(const T &t) : void
template <typename T, typename... TS>
+insertOptions(const T &t, const TS &... ts) : void
+options() : const char **
+numOptions() : auto

1 — * create

Args

KernelArgs

-m_chArgs : vector<const void *>

+upload() : float
+download() : float
+content() : const void **
+size() : size_t

1...* ◇ 0...*

KernelArg

-m_hdata : const void *
-m_size : const size_t
-m_ddata : CUdeviceptr
-m_download : const bool
-m_copy : const bool
-m_upload : const bool

+content() : void*
+deviceptr() : CUdeviceptr
+upload() : void
+download() : void
+size() : const size_t

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Kernel

-m_ptx : shared_ptr<char[]>
-m_demangled_name : string
-m_grid : dim3
-m_block : dim3
-m_context : CUcontext
-m_module : CUmodule
-m_kernel : CUfunction

+configure(dim3 grid, dim3 block) : &Kernel
+launch(vector<KernelArg> program_args, Device device) : KernelTime

0...* — use — 1

Device

-m_minor : int
-m_major : int
-m_name : string
-m_device : CUdevice
-m_memory : size_t

+minor() : int
+major() : int
+name() : string
+get() : CUdevice
+total_memory() : size_t
-set_device_properties : void