alpaka Parallel Programming – Online Tutorial

Lecture 10 – The alpaka Programming Model

Lesson 11: Portable Hello World

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Prerequisites

- Followed yesterday's lecture
- alpaka is installed on your system
- Boost is installed on your system
- CMake >= 3.15 is installed on your system
- You know how to point CMake to your alpaka installation

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Accessing the Hello World example

- Clone the repository containing the examples:
  ```
  git clone https://github.com/alpaka-group/alpaka-workshop-examples.git
  ```
- Switch to the downloaded folder:
  ```
  cd alpaka-workshop-examples
  ```
- Copy the helloWorld example to a location of your choosing:
  ```
  cp -r helloWorld /some/location
  ```
- This will be our basis for today's work!

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Switching to the new code base

- Switch to the newly copied directory:
  ```
  cd /some/location/helloWorld
  ```
- Create a `build` directory:
  ```
  mkdir build
  ```
- Switch to the `build` directory:
  ```
  cd build
  ```

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Configuring and building the example

- Configure the example:
  - Standard location: `cmake -DCMAKE_BUILD_TYPE=Release ..`
  - Non-standard location (CMake): `cmake -DCMAKE_BUILD_TYPE=Release -Dalpaka_ROOT=/path/to/alpaka ..`
  - Non-standard location (Linux / macOS): `export CMAKE_PREFIX_PATH=/path/to`, then run the standard command
  - Non-standard location (Windows): `set CMAKE_PREFIX_PATH=/path/to`, then run standard command
- Build the example (note the dot):
  `cmake --build . --config Release`
- Problems? Report them here: **https://github.com/alpaka-group/alpaka/issues**

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