Lesson 05: Testing Your alpaka Installation
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Running the alpaka test suite

- Reconfigure your build directory (created in the previous lesson):
  cmake -DBUILD_TESTING=ON -DCMAKE_BUILD_TYPE=Release ..

- Build the test suite (note the dot). Adjust the number of parallel compilation jobs to your number of CPU cores and available RAM (requires ~2.5 GiB of free memory per job):
  cmake --build . --parallel 2 --config Release

- Run the test suite:
  ctest -C Release

- Any errors? Please report them: https://github.com/alpaka-group/alpaka/issues
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Accessing alpaka examples

- There are many examples in the `example` directory! You can build them all at once from your build directory:

  ```bash
  cmake -DAlpaka_BUILD_EXAMPLES=ON -DCMAKE_BUILD_TYPE=Release ..
  cmake --build . --config Release
  ```

- Additional examples are available at [https://github.com/alpaka-group/](https://github.com/alpaka-group/)
Advertising your alpaka installation

- Switch to the `vectorAdd` example (from the top-level source directory):
  
  ```
  cd example/vectorAdd
  mkdir build
  cd build
  ```

- If you installed alpaka to a standard location (= default `CMAKE_INSTALL_PREFIX`):
  ```
  cmake -DCMAKE_BUILD_TYPE=Release ..
  ```

- If you installed alpaka to a non-standard location:
  ```
  cmake -DCMAKE_BUILD_TYPE=Release -Dalpaka_ROOT=/path/to/installed/alpaka ..
  ```

- Alternative: Set the `CMAKE_PREFIX_PATH` environment variable (note the missing `alpaka`):
  - Linux / macOS: `export CMAKE_PREFIX_PATH=/path/to/installed`
  - Windows: `set CMAKE_PREFIX_PATH=C:\path\to\installed`
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Building the example

• Build the example (note the dot):

cmake --build . --config Release
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Executing the example

- If everything worked correctly you should see the executable somewhere in your `build` tree:
  ```
  ls
  ```
- Linux / macOS: `CMakeCache.txt CMakeFiles cmake_install.cmake Makefile vectorAdd`
- Windows: The executable should be in the `Release` subdirectory of `build`. `cd` to the `Release` directory.

- Execute the example:
  ```
  ./vectorAdd
  ```
  Expected output: Execution results correct!

- Unexpected results? Please report them: [https://github.com/alpaka-group/alpaka/issues](https://github.com/alpaka-group/alpaka/issues)