

# Kokkos live at Compiler Explorer

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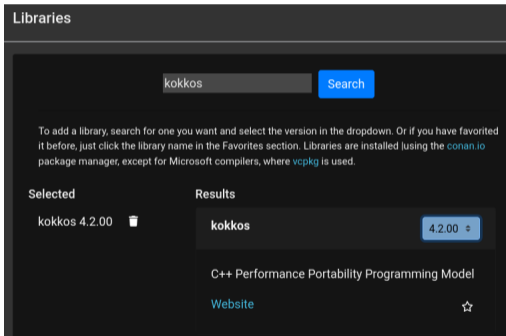
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## How to use Kokkos at [godbolt.org](https://godbolt.org)

- ▶ Go to [Compiler Explorer](#)
- ▶ Search for kokkos in **Libraries**



- ▶ Select **Execute the code** from **Output...** if needed

## Hello World example

- ▶ Try a mandatory [Hello World](#) example :)
- ▶ Note: `print_configuration` tells us that only `Serial` backend is enabled

```
Default Device: N6Kokkos6SerialE
GPU architecture: none
(...)
KOKKOS_ENABLE_SERIAL: yes
```

## Behind the scenes

- ▶ [Kokkos configuration at Compiler Explorer](#) boils down to:

```
kokkos:  
  build_type:  cmake  
  make_targets:  
    -all  
  package_install:  true
```

- ▶ It is possible to provide `extra_cmake_arg`, so we might expand the configuration in the future

## What if it doesn't work?

- ▶ If you step away from gcc and clang, chances are you will see:  
fatal error: 'Kokkos\_Core.hpp' file not found
- ▶ In case your favorite compiler does not work you can check [failed builds](#)
- ▶ Since Kokkos is built with the simplest, default configuration on Compiler Explorer builds will fail for example [on x86](#) (this needs `-m32 -DKOKKOS_IMPL_32BIT`)

## What else can be done?

- ▶ Enabling more backends:
  - ▶ OpenMP has the highest chance of working
  - ▶ CUDA C++ is available as a language, but it probably requires more effort
- ▶ We are currently working on adding Compiler Explorer links to our documentation
- ▶ This way users can run examples and code snippets live at [godbolt.org](https://godbolt.org)

## Questions, remarks?

- ▶ Reach out to us as usual, via [Slack](#) and [GitHub](#)
- ▶ Thanks [@mattgobolt](#) and [@partouf](#) for help on the Compiler Explorer side