

Log

Contents

1. Env	2
2. examples/00_basic_gemm	2
2.1. Build	2
3. examples/cute/tutorial/sgemm_1.cu	2
4. media/docs/cute/01_layout.md	2

1. Env

- Commit: 5c447dd84f8ae0e1d48ff9a2eae26ce8c4958101
- Docker: docker.io/nvidia/cuda:12.0.1-devel-ubuntu22.04
 - install cmake, python and git manually
 - export CUDACXX=\$(which nvcc)

2. examples/00_basic_gemm

2.1. Build

The example is at examples/00_basic_gemm.

```
# entry point is the root of the repository
mkdir build && cd build
# -DCUTLASS_LIBRARY_KERNELS=basic_gemm where `basic_gemm` is the name of the file (basic_gemm.cu)
cmake .. -DCUTLASS_NVCC_ARCHS=80 -DCUTLASS_LIBRARY_KERNELS=basic_gemm
cd examples/00_basic_gemm
# build the 00_basic_gemm executable
make
```

2024-04-26

3. examples/cute/tutorial/sgemm_1.cu

- Prerequisite
 - go through ../media/docs/cute/01_layout.md (Section 4)

2024-04-26

4. media/docs/cute/01_layout.md

Keywords: layout, shape, stride, coordinate

- layout = (shape, stride)
- coordinate:
 - cute::idx2crd(idx, shape) maps index/input coordinate to natural coordinate via shape
 - cute::crd2idx(crd, shape, stride) maps input coordinate/natural coordinate (an IntTuple) to index (an integer) via shape and stride