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CUB Overview

CUB provides state-of-the-art, reusable software components for every layer of the CUDA programming model:

► Parallel primitives
  ► Warp-wide "collective" primitives
    ▶ Cooperative warp-wide prefix scan, reduction, etc.
    ▶ Safely specialized for each underlying CUDA architecture
  ► Block-wide "collective" primitives
    ▶ Cooperative I/O, sort, scan, reduction, histogram, etc.
    ▶ Compatible with arbitrary thread block sizes and types
  ► Device-wide primitives
    ▶ Parallel sort, prefix scan, reduction, histogram, etc.
    ▶ Compatible with CUDA dynamic parallelism

► Utilities
  ► Fancy iterators
  ► Thread and thread block I/O
  ► PTX intrinsics
  ► Device, kernel, and storage management

The full CUB documentation is available on GitHub. See CUB.
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