



# Compute Sanitizer

## User's Guide

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# Overview

Compute Sanitizer is a functional correctness checking suite included in the CUDA toolkit. This suite contains multiple tools that can perform different type of checks. The *memcheck* tool is capable of precisely detecting and attributing out of bounds and misaligned memory access errors in CUDA applications. The tool can also report hardware exceptions encountered by the GPU. The *racecheck* tool can report shared memory data access hazards that can cause data races. The *initcheck* tool can report cases where the GPU performs uninitialized accesses to global memory. The *synccheck* tool can report cases where the application is attempting invalid usages of synchronization primitives. This document describes the usage of these tools.

The Compute Sanitizer is delivered on supported platforms. See [Compute Sanitizer documentation](#).