

valgrind

Wrapper for a set of expert tools for profiling, optimizing and debugging programs.
Commonly used tools include memcheck, cachegrind, callgrind, massif, helgrind, and drd.

- Use the (default) Memcheck tool to show a diagnostic of memory usage by program:

```
valgrind {{program}}
```

- Use Memcheck to report all possible memory leaks of program in full detail:

```
valgrind --leak-check=full --show-leak-kinds=all {{program}}
```

- Use the Cachegrind tool to profile and log CPU cache operations of program:

```
valgrind --tool=cachegrind {{program}}
```

- Use the Massif tool to profile and log heap memory and stack usage of program:

```
valgrind --tool=massif --stacks=yes {{program}}
```