

# Tutorial - Runtime Error Detection

This lesson contains a set of exercises that cover application monitoring and runtime error detection. For details on performing application monitoring and runtime error detection in C++test, refer to the [Runtime Error Detection](#).

In this section:

- [Prerequisites](#)
- [Introduction to C++test Runtime Error Detection](#)
- [Introduction to C++test Application Monitoring](#)

## Prerequisites

- C++test Server 9.0 or higher must be installed and licensed for Runtime Error Detection.
- The Sensor project from C++test Examples must be available in your workspace. See [Tutorial - Creating a C++test Project](#) for details on how to create a project in C++test.

## Introduction to C++test Runtime Error Detection

C++test can perform runtime error detection at the application level or during unit test execution. C++test's runtime error detection performs a dynamic code review by analyzing the executing application, applying a set of dynamic rules, and reporting rule violations. It detects memory errors such as memory access errors, memory leaks, memory corruptions, and more. The instrumentation used to perform runtime error detection is lightweight and suitable for running on the target board for embedded testing.

## Introduction to C++test Application Monitoring

C++test can prepare an instrumented version of the application executable and then run it. Depending on the configuration selected, C++test will report coverage statistics and/or memory errors found during the application execution.