Concurrency Defects

Defects related to multitasking code

Polyspace Results

Component	File
Data race	Multiple tasks perform unprotected non-atomic operations on shared variable
Data race including atomic operations	Multiple tasks perform unprotected operations on shared variable
Data race through standard library function call	Multiple tasks make unprotected calls to thread-unsafe standard library function
Deadlock	Call sequence to lock functions cause two tasks to block each other
Destruction of locked mutex	Task tries to destroy a mutex in the locked state
Double lock	Lock function is called twice in a task without an intermediate call to unlock function
Double unlock	Unlock function is called twice in a task without an intermediate call to lock function
Missing lock	Unlock function without lock function
Missing unlock	Lock function without unlock function

Examples and How To

Set Up Multitasking Analysis Manually

This example shows how to prepare for an analysis of multitasking code.

Concepts

Bug Finder Defect Groups

These defects are related to multitasking code.

Modeling Multitasking Code

Polyspace® Bug Finder™ can analyze your multitasking code for Concurrency Defects, such as locking and data races, if Bug Finder knows how your concurrency model is set up.