

Configuring Parallel Processing

This topic explains how to configure parallel processing settings for C++test.

Sections include:

- [Parallel Processing Overview](#)
- [Configuring Parallel Processing Settings](#)

Parallel Processing Overview

You can control the number of parallel threads that process a single job (e.g., static analysis or report generation). This allows you to optimize processing based on your priorities.

For instance, assume you have 4 central processing units (CPUs), but only 2 of them can be used by C++test (the others are intended for other processes). To prevent C++test from overloading all 4 CPUs, you can configure C++test to use a maximum of 2 parallel threads.

Now assume that with another setup, you have 8 CPUs, and only 2 of them are used by other processes. In this case, you could configure C++test to use a maximum of 6 parallel threads in order to optimize C++test's processing.

Configuring Parallel Processing Settings

To configure parallel processing settings:

1. Choose **Parasoft> Preferences** to open the Preferences panel.
2. Choose **Parallel Processing** on the left.
3. Modify settings as needed. Options are described below.

Option	Description
Mode	Determines which of the following modes is active: <ul style="list-style-type: none">• Auto: Allows C++test to control parallel processing settings.• Manual: Allows you to manually configure parallel processing settings to suit your specific needs.• Disabled: Configures C++test to use only one of the available CPUs. This can also be specified with the localsettings option <code>parallel.mode=Manual Auto Disabled</code>
Maximum number of parallel threads	<i>Available in Manual mode only</i> Specifies the maximum number of parallel threads that can be executed simultaneously. The actual number of parallel threads is determined based on the number of CPUs, available memory, and license settings. This can also be specified with the localsettings option <code>parallel.max_threads=<number></code>
Free memory limit	<i>Available in Manual mode only</i> Specifies the amount of memory that should be kept free in low memory conditions (expressed as a percentage of the total memory available for the application). This is used to ensure that free memory is available for other processes. This can also be specified with the localsettings option <code>parallel.free_memory_limit=<percentage></code>
No limit	<i>Available in Manual mode only</i> Indicates that you do not want to place any restrictions (beyond existing system limitations) on the memory available to C++test. This can also be specified with the localsettings option <code>parallel.no_memory_limit=true false</code>

Parallel processing settings can be specified using the localsettings options provided above. For more details on localsettings, see [Configuring Localsettings](#).

Here is an example of parallel processing settings in localsettings file:

```
parallel.mode=Manual
parallel.max_threads=4
parallel.free_memory_limit=25
parallel.no_memory_limit=false
```