**Module** [java.base](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/module-summary.html)

**Package** [java.lang](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/package-summary.html)

**java.lang.Thread.State**

**Enclosing class:** [Thread](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.html)

**Since: 1.5**

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**public static enum Thread.State extends** [**Enum**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Enum.html)**<**[**Thread.State**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html)**>**

A thread state. A thread can be in one of the following states:

* [NEW](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html#NEW)A thread that has not yet started is in this state.
* [RUNNABLE](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html#RUNNABLE)A thread executing in the Java virtual machine is in this state.
* [BLOCKED](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html#BLOCKED)A thread that is blocked waiting for a monitor lock is in this state.
* [WAITING](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html#WAITING)A thread that is waiting indefinitely for another thread to perform a particular action is in this state.
* [TIMED\_WAITING](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html#TIMED_WAITING)A thread that is waiting for another thread to perform an action for up to a specified waiting time is in this state.
* [TERMINATED](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html#TERMINATED)A thread that has exited is in this state.

A thread can be in only one state at a given point in time. These states are virtual machine states which do not reflect any operating system thread states.

## ***Enum Constant Details***

### **NEW**

**public static final** [**Thread.State**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html) **NEW**

Thread state for a thread which has not yet started.

### **RUNNABLE**

**public static final** [**Thread.State**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html) **RUNNABLE**

Thread state for a runnable thread. A thread in the runnable state is executing in the Java virtual machine but it may be waiting for other resources from the operating system such as processor.

### **BLOCKED**

**public static final** [**Thread.State**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html) **BLOCKED**

Thread state for a thread blocked waiting for a monitor lock. A thread in the blocked state is waiting for a monitor lock to enter a synchronized block/method or reenter a synchronized block/method after calling [Object.wait](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Object.html#wait()).

### **WAITING**

**public static final** [**Thread.State**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html) **WAITING**

Thread state for a waiting thread.

A thread is in the waiting state due to calling one of the following methods:

* [Object.wait](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Object.html#wait()) with no timeout
* [Thread.join](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.html#join()) with no timeout
* [LockSupport.park](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/util/concurrent/locks/LockSupport.html#park())

A thread in the waiting state is waiting for another thread to perform a particular action. For example, a thread that has called Object.wait() on an object is waiting for another thread to call Object.notify() or Object.notifyAll() on that object. A thread that has called Thread.join() is waiting for a specified thread to terminate.

### **TIMED\_WAITING**

**public static final** [**Thread.State**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html) **TIMED\_WAITING**

Thread state for a waiting thread with a specified waiting time. A thread is in the timed waiting state due to calling one of the following methods with a specified positive waiting time:

* [Thread.sleep](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.html#sleep(long))
* [Object.wait](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Object.html#wait(long)) with timeout
* [Thread.join](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.html#join(long)) with timeout
* [LockSupport.parkNanos](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/util/concurrent/locks/LockSupport.html#parkNanos(java.lang.Object,long))
* [LockSupport.parkUntil](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/util/concurrent/locks/LockSupport.html#parkUntil(java.lang.Object,long))

### **TERMINATED**

**public static final** [**Thread.State**](https://docs.oracle.com/en/java/javase/16/docs/api/java.base/java/lang/Thread.State.html) **TERMINATED**

Thread state for a terminated thread. The thread has completed execution.