| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/lang/Runnable.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
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| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/lang//class-useRunnable.html)    [**NO FRAMES**](http://docs.google.com/Runnable.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

**Uses of Interface**

**java.lang.Runnable**

| Packages that use [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
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| [**java.awt**](#3znysh7) | Contains all of the classes for creating user interfaces and for painting graphics and images. |
| [**java.awt.event**](#2et92p0) | Provides interfaces and classes for dealing with different types of events fired by AWT components. |
| [**java.awt.image.renderable**](#tyjcwt) | Provides classes and interfaces for producing rendering-independent images. |
| [**java.lang**](#3dy6vkm) | Provides classes that are fundamental to the design of the Java programming language. |
| [**java.util**](#1t3h5sf) | Contains the collections framework, legacy collection classes, event model, date and time facilities, internationalization, and miscellaneous utility classes (a string tokenizer, a random-number generator, and a bit array). |
| [**java.util.concurrent**](#4d34og8) | Utility classes commonly useful in concurrent programming. |
| [**javax.net.ssl**](#2s8eyo1) | Provides classes for the secure socket package. |
| [**javax.swing**](#17dp8vu) | Provides a set of "lightweight" (all-Java language) components that, to the maximum degree possible, work the same on all platforms. |
| [**javax.swing.text**](#3rdcrjn) | Provides classes and interfaces that deal with editable and noneditable text components. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [java.awt](http://docs.google.com/java/awt/package-summary.html) | |
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| Methods in [java.awt](http://docs.google.com/java/awt/package-summary.html) with parameters of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
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| static void | **EventQueue.**[**invokeAndWait**](http://docs.google.com/java/awt/EventQueue.html#invokeAndWait(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) runnable)            Causes runnable to have its run method called in the dispatch thread of [the system EventQueue](http://docs.google.com/java/awt/Toolkit.html#getSystemEventQueue()). |
| static void | **EventQueue.**[**invokeLater**](http://docs.google.com/java/awt/EventQueue.html#invokeLater(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) runnable)            Causes runnable to have its run method called in the dispatch thread of [the system EventQueue](http://docs.google.com/java/awt/Toolkit.html#getSystemEventQueue()). |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [java.awt.event](http://docs.google.com/java/awt/event/package-summary.html) | |
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| Fields in [java.awt.event](http://docs.google.com/java/awt/event/package-summary.html) declared as [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
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| protected  [Runnable](http://docs.google.com/java/lang/Runnable.html) | **InvocationEvent.**[**runnable**](http://docs.google.com/java/awt/event/InvocationEvent.html#runnable)            The Runnable whose run() method will be called. |

| Constructors in [java.awt.event](http://docs.google.com/java/awt/event/package-summary.html) with parameters of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| [**InvocationEvent**](http://docs.google.com/java/awt/event/InvocationEvent.html#InvocationEvent(java.lang.Object,%20int,%20java.lang.Runnable,%20java.lang.Object,%20boolean))([Object](http://docs.google.com/java/lang/Object.html) source, int id, [Runnable](http://docs.google.com/java/lang/Runnable.html) runnable, [Object](http://docs.google.com/java/lang/Object.html) notifier, boolean catchThrowables)            Constructs an InvocationEvent with the specified source and ID which will execute the runnable's run method when dispatched. |
| [**InvocationEvent**](http://docs.google.com/java/awt/event/InvocationEvent.html#InvocationEvent(java.lang.Object,%20java.lang.Runnable))([Object](http://docs.google.com/java/lang/Object.html) source, [Runnable](http://docs.google.com/java/lang/Runnable.html) runnable)            Constructs an InvocationEvent with the specified source which will execute the runnable's run method when dispatched. |
| [**InvocationEvent**](http://docs.google.com/java/awt/event/InvocationEvent.html#InvocationEvent(java.lang.Object,%20java.lang.Runnable,%20java.lang.Object,%20boolean))([Object](http://docs.google.com/java/lang/Object.html) source, [Runnable](http://docs.google.com/java/lang/Runnable.html) runnable, [Object](http://docs.google.com/java/lang/Object.html) notifier, boolean catchThrowables)            Constructs an InvocationEvent with the specified source which will execute the runnable's run method when dispatched. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [java.awt.image.renderable](http://docs.google.com/java/awt/image/renderable/package-summary.html) | |
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| Classes in [java.awt.image.renderable](http://docs.google.com/java/awt/image/renderable/package-summary.html) that implement [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| class | [**RenderableImageProducer**](http://docs.google.com/java/awt/image/renderable/RenderableImageProducer.html)            An adapter class that implements ImageProducer to allow the asynchronous production of a RenderableImage. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [java.lang](http://docs.google.com/java/lang/package-summary.html) | |
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| Classes in [java.lang](http://docs.google.com/java/lang/package-summary.html) that implement [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
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| class | [**Thread**](http://docs.google.com/java/lang/Thread.html)            A *thread* is a thread of execution in a program. |

| Constructors in [java.lang](http://docs.google.com/java/lang/package-summary.html) with parameters of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
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| [**Thread**](http://docs.google.com/java/lang/Thread.html#Thread(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) target)            Allocates a new Thread object. |
| [**Thread**](http://docs.google.com/java/lang/Thread.html#Thread(java.lang.Runnable,%20java.lang.String))([Runnable](http://docs.google.com/java/lang/Runnable.html) target, [String](http://docs.google.com/java/lang/String.html) name)            Allocates a new Thread object. |
| [**Thread**](http://docs.google.com/java/lang/Thread.html#Thread(java.lang.ThreadGroup,%20java.lang.Runnable))([ThreadGroup](http://docs.google.com/java/lang/ThreadGroup.html) group, [Runnable](http://docs.google.com/java/lang/Runnable.html) target)            Allocates a new Thread object. |
| [**Thread**](http://docs.google.com/java/lang/Thread.html#Thread(java.lang.ThreadGroup,%20java.lang.Runnable,%20java.lang.String))([ThreadGroup](http://docs.google.com/java/lang/ThreadGroup.html) group, [Runnable](http://docs.google.com/java/lang/Runnable.html) target, [String](http://docs.google.com/java/lang/String.html) name)            Allocates a new Thread object so that it has target as its run object, has the specified name as its name, and belongs to the thread group referred to by group. |
| [**Thread**](http://docs.google.com/java/lang/Thread.html#Thread(java.lang.ThreadGroup,%20java.lang.Runnable,%20java.lang.String,%20long))([ThreadGroup](http://docs.google.com/java/lang/ThreadGroup.html) group, [Runnable](http://docs.google.com/java/lang/Runnable.html) target, [String](http://docs.google.com/java/lang/String.html) name, long stackSize)            Allocates a new Thread object so that it has target as its run object, has the specified name as its name, belongs to the thread group referred to by group, and has the specified *stack size*. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [java.util](http://docs.google.com/java/util/package-summary.html) | |
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| Classes in [java.util](http://docs.google.com/java/util/package-summary.html) that implement [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| class | [**TimerTask**](http://docs.google.com/java/util/TimerTask.html)            A task that can be scheduled for one-time or repeated execution by a Timer. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) | |
| --- | --- |

| Subinterfaces of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) | |
| --- | --- |
| interface | [**RunnableFuture<V>**](http://docs.google.com/java/util/concurrent/RunnableFuture.html)            A [Future](http://docs.google.com/java/util/concurrent/Future.html) that is [Runnable](http://docs.google.com/java/lang/Runnable.html). |
| interface | [**RunnableScheduledFuture<V>**](http://docs.google.com/java/util/concurrent/RunnableScheduledFuture.html)            A [ScheduledFuture](http://docs.google.com/java/util/concurrent/ScheduledFuture.html) that is [Runnable](http://docs.google.com/java/lang/Runnable.html). |

| Classes in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) that implement [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| class | [**FutureTask<V>**](http://docs.google.com/java/util/concurrent/FutureTask.html)            A cancellable asynchronous computation. |

| Methods in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) that return types with arguments of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| [BlockingQueue](http://docs.google.com/java/util/concurrent/BlockingQueue.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> | **ScheduledThreadPoolExecutor.**[**getQueue**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#getQueue())()            Returns the task queue used by this executor. |
| [BlockingQueue](http://docs.google.com/java/util/concurrent/BlockingQueue.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> | **ThreadPoolExecutor.**[**getQueue**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#getQueue())()            Returns the task queue used by this executor. |
| [List](http://docs.google.com/java/util/List.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> | **ScheduledThreadPoolExecutor.**[**shutdownNow**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#shutdownNow())()            Attempts to stop all actively executing tasks, halts the processing of waiting tasks, and returns a list of the tasks that were awaiting execution. |
| [List](http://docs.google.com/java/util/List.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> | **ThreadPoolExecutor.**[**shutdownNow**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#shutdownNow())()            Attempts to stop all actively executing tasks, halts the processing of waiting tasks, and returns a list of the tasks that were awaiting execution. |
| [List](http://docs.google.com/java/util/List.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> | **ExecutorService.**[**shutdownNow**](http://docs.google.com/java/util/concurrent/ExecutorService.html#shutdownNow())()            Attempts to stop all actively executing tasks, halts the processing of waiting tasks, and returns a list of the tasks that were awaiting execution. |

| Methods in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) with parameters of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| protected  void | **ThreadPoolExecutor.**[**afterExecute**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#afterExecute(java.lang.Runnable,%20java.lang.Throwable))([Runnable](http://docs.google.com/java/lang/Runnable.html) r, [Throwable](http://docs.google.com/java/lang/Throwable.html) t)            Method invoked upon completion of execution of the given Runnable. |
| protected  void | **ThreadPoolExecutor.**[**beforeExecute**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#beforeExecute(java.lang.Thread,%20java.lang.Runnable))([Thread](http://docs.google.com/java/lang/Thread.html) t, [Runnable](http://docs.google.com/java/lang/Runnable.html) r)            Method invoked prior to executing the given Runnable in the given thread. |
| static [Callable](http://docs.google.com/java/util/concurrent/Callable.html)<[Object](http://docs.google.com/java/lang/Object.html)> | **Executors.**[**callable**](http://docs.google.com/java/util/concurrent/Executors.html#callable(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) task)            Returns a [Callable](http://docs.google.com/java/util/concurrent/Callable.html) object that, when called, runs the given task and returns null. |
| static   | <T> [Callable](http://docs.google.com/java/util/concurrent/Callable.html)<T> | | --- | | **Executors.**[**callable**](http://docs.google.com/java/util/concurrent/Executors.html#callable(java.lang.Runnable,%20T))([Runnable](http://docs.google.com/java/lang/Runnable.html) task, T result)            Returns a [Callable](http://docs.google.com/java/util/concurrent/Callable.html) object that, when called, runs the given task and returns the given result. |
| protected   | <V> [RunnableScheduledFuture](http://docs.google.com/java/util/concurrent/RunnableScheduledFuture.html)<V> | | --- | | **ScheduledThreadPoolExecutor.**[**decorateTask**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#decorateTask(java.lang.Runnable,%20java.util.concurrent.RunnableScheduledFuture))([Runnable](http://docs.google.com/java/lang/Runnable.html) runnable, [RunnableScheduledFuture](http://docs.google.com/java/util/concurrent/RunnableScheduledFuture.html)<V> task)            Modifies or replaces the task used to execute a runnable. |
| void | **ScheduledThreadPoolExecutor.**[**execute**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#execute(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) command)            Executes command with zero required delay. |
| void | **ThreadPoolExecutor.**[**execute**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#execute(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) command)            Executes the given task sometime in the future. |
| void | **Executor.**[**execute**](http://docs.google.com/java/util/concurrent/Executor.html#execute(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) command)            Executes the given command at some time in the future. |
| protected   | <T> [RunnableFuture](http://docs.google.com/java/util/concurrent/RunnableFuture.html)<T> | | --- | | **AbstractExecutorService.**[**newTaskFor**](http://docs.google.com/java/util/concurrent/AbstractExecutorService.html#newTaskFor(java.lang.Runnable,%20T))([Runnable](http://docs.google.com/java/lang/Runnable.html) runnable, T value)            Returns a RunnableFuture for the given runnable and default value. |
| [Thread](http://docs.google.com/java/lang/Thread.html) | **ThreadFactory.**[**newThread**](http://docs.google.com/java/util/concurrent/ThreadFactory.html#newThread(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) r)            Constructs a new Thread. |
| void | **ThreadPoolExecutor.CallerRunsPolicy.**[**rejectedExecution**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.CallerRunsPolicy.html#rejectedExecution(java.lang.Runnable,%20java.util.concurrent.ThreadPoolExecutor))([Runnable](http://docs.google.com/java/lang/Runnable.html) r, [ThreadPoolExecutor](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html) e)            Executes task r in the caller's thread, unless the executor has been shut down, in which case the task is discarded. |
| void | **ThreadPoolExecutor.AbortPolicy.**[**rejectedExecution**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.AbortPolicy.html#rejectedExecution(java.lang.Runnable,%20java.util.concurrent.ThreadPoolExecutor))([Runnable](http://docs.google.com/java/lang/Runnable.html) r, [ThreadPoolExecutor](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html) e)            Always throws RejectedExecutionException. |
| void | **ThreadPoolExecutor.DiscardPolicy.**[**rejectedExecution**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.DiscardPolicy.html#rejectedExecution(java.lang.Runnable,%20java.util.concurrent.ThreadPoolExecutor))([Runnable](http://docs.google.com/java/lang/Runnable.html) r, [ThreadPoolExecutor](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html) e)            Does nothing, which has the effect of discarding task r. |
| void | **ThreadPoolExecutor.DiscardOldestPolicy.**[**rejectedExecution**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.DiscardOldestPolicy.html#rejectedExecution(java.lang.Runnable,%20java.util.concurrent.ThreadPoolExecutor))([Runnable](http://docs.google.com/java/lang/Runnable.html) r, [ThreadPoolExecutor](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html) e)            Obtains and ignores the next task that the executor would otherwise execute, if one is immediately available, and then retries execution of task r, unless the executor is shut down, in which case task r is instead discarded. |
| void | **RejectedExecutionHandler.**[**rejectedExecution**](http://docs.google.com/java/util/concurrent/RejectedExecutionHandler.html#rejectedExecution(java.lang.Runnable,%20java.util.concurrent.ThreadPoolExecutor))([Runnable](http://docs.google.com/java/lang/Runnable.html) r, [ThreadPoolExecutor](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html) executor)            Method that may be invoked by a [ThreadPoolExecutor](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html) when [execute](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#execute(java.lang.Runnable)) cannot accept a task. |
| boolean | **ScheduledThreadPoolExecutor.**[**remove**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#remove(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) task) |
| boolean | **ThreadPoolExecutor.**[**remove**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#remove(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) task)            Removes this task from the executor's internal queue if it is present, thus causing it not to be run if it has not already started. |
| [ScheduledFuture](http://docs.google.com/java/util/concurrent/ScheduledFuture.html)<?> | **ScheduledThreadPoolExecutor.**[**schedule**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#schedule(java.lang.Runnable,%20long,%20java.util.concurrent.TimeUnit))([Runnable](http://docs.google.com/java/lang/Runnable.html) command, long delay, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit) |
| [ScheduledFuture](http://docs.google.com/java/util/concurrent/ScheduledFuture.html)<?> | **ScheduledExecutorService.**[**schedule**](http://docs.google.com/java/util/concurrent/ScheduledExecutorService.html#schedule(java.lang.Runnable,%20long,%20java.util.concurrent.TimeUnit))([Runnable](http://docs.google.com/java/lang/Runnable.html) command, long delay, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit)            Creates and executes a one-shot action that becomes enabled after the given delay. |
| [ScheduledFuture](http://docs.google.com/java/util/concurrent/ScheduledFuture.html)<?> | **ScheduledThreadPoolExecutor.**[**scheduleAtFixedRate**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#scheduleAtFixedRate(java.lang.Runnable,%20long,%20long,%20java.util.concurrent.TimeUnit))([Runnable](http://docs.google.com/java/lang/Runnable.html) command, long initialDelay, long period, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit) |
| [ScheduledFuture](http://docs.google.com/java/util/concurrent/ScheduledFuture.html)<?> | **ScheduledExecutorService.**[**scheduleAtFixedRate**](http://docs.google.com/java/util/concurrent/ScheduledExecutorService.html#scheduleAtFixedRate(java.lang.Runnable,%20long,%20long,%20java.util.concurrent.TimeUnit))([Runnable](http://docs.google.com/java/lang/Runnable.html) command, long initialDelay, long period, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit)            Creates and executes a periodic action that becomes enabled first after the given initial delay, and subsequently with the given period; that is executions will commence after initialDelay then initialDelay+period, then initialDelay + 2 \* period, and so on. |
| [ScheduledFuture](http://docs.google.com/java/util/concurrent/ScheduledFuture.html)<?> | **ScheduledThreadPoolExecutor.**[**scheduleWithFixedDelay**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#scheduleWithFixedDelay(java.lang.Runnable,%20long,%20long,%20java.util.concurrent.TimeUnit))([Runnable](http://docs.google.com/java/lang/Runnable.html) command, long initialDelay, long delay, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit) |
| [ScheduledFuture](http://docs.google.com/java/util/concurrent/ScheduledFuture.html)<?> | **ScheduledExecutorService.**[**scheduleWithFixedDelay**](http://docs.google.com/java/util/concurrent/ScheduledExecutorService.html#scheduleWithFixedDelay(java.lang.Runnable,%20long,%20long,%20java.util.concurrent.TimeUnit))([Runnable](http://docs.google.com/java/lang/Runnable.html) command, long initialDelay, long delay, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit)            Creates and executes a periodic action that becomes enabled first after the given initial delay, and subsequently with the given delay between the termination of one execution and the commencement of the next. |
| [Future](http://docs.google.com/java/util/concurrent/Future.html)<?> | **ScheduledThreadPoolExecutor.**[**submit**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#submit(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) task) |
| [Future](http://docs.google.com/java/util/concurrent/Future.html)<?> | **ExecutorService.**[**submit**](http://docs.google.com/java/util/concurrent/ExecutorService.html#submit(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) task)            Submits a Runnable task for execution and returns a Future representing that task. |
| [Future](http://docs.google.com/java/util/concurrent/Future.html)<?> | **AbstractExecutorService.**[**submit**](http://docs.google.com/java/util/concurrent/AbstractExecutorService.html#submit(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) task) |
| | <T> [Future](http://docs.google.com/java/util/concurrent/Future.html)<T> | | --- | | **ScheduledThreadPoolExecutor.**[**submit**](http://docs.google.com/java/util/concurrent/ScheduledThreadPoolExecutor.html#submit(java.lang.Runnable,%20T))([Runnable](http://docs.google.com/java/lang/Runnable.html) task, T result) |
| | <T> [Future](http://docs.google.com/java/util/concurrent/Future.html)<T> | | --- | | **ExecutorService.**[**submit**](http://docs.google.com/java/util/concurrent/ExecutorService.html#submit(java.lang.Runnable,%20T))([Runnable](http://docs.google.com/java/lang/Runnable.html) task, T result)            Submits a Runnable task for execution and returns a Future representing that task. |
| | <T> [Future](http://docs.google.com/java/util/concurrent/Future.html)<T> | | --- | | **AbstractExecutorService.**[**submit**](http://docs.google.com/java/util/concurrent/AbstractExecutorService.html#submit(java.lang.Runnable,%20T))([Runnable](http://docs.google.com/java/lang/Runnable.html) task, T result) |
| [Future](http://docs.google.com/java/util/concurrent/Future.html)<[V](http://docs.google.com/java/util/concurrent/ExecutorCompletionService.html)> | **ExecutorCompletionService.**[**submit**](http://docs.google.com/java/util/concurrent/ExecutorCompletionService.html#submit(java.lang.Runnable,%20V))([Runnable](http://docs.google.com/java/lang/Runnable.html) task, [V](http://docs.google.com/java/util/concurrent/ExecutorCompletionService.html) result) |
| [Future](http://docs.google.com/java/util/concurrent/Future.html)<[V](http://docs.google.com/java/util/concurrent/CompletionService.html)> | **CompletionService.**[**submit**](http://docs.google.com/java/util/concurrent/CompletionService.html#submit(java.lang.Runnable,%20V))([Runnable](http://docs.google.com/java/lang/Runnable.html) task, [V](http://docs.google.com/java/util/concurrent/CompletionService.html) result)            Submits a Runnable task for execution and returns a Future representing that task. |

| Constructors in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) with parameters of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| [**CyclicBarrier**](http://docs.google.com/java/util/concurrent/CyclicBarrier.html#CyclicBarrier(int,%20java.lang.Runnable))(int parties, [Runnable](http://docs.google.com/java/lang/Runnable.html) barrierAction)            Creates a new CyclicBarrier that will trip when the given number of parties (threads) are waiting upon it, and which will execute the given barrier action when the barrier is tripped, performed by the last thread entering the barrier. |
| [**FutureTask**](http://docs.google.com/java/util/concurrent/FutureTask.html#FutureTask(java.lang.Runnable,%20V))([Runnable](http://docs.google.com/java/lang/Runnable.html) runnable, [V](http://docs.google.com/java/util/concurrent/FutureTask.html) result)            Creates a FutureTask that will upon running, execute the given Runnable, and arrange that get will return the given result on successful completion. |

| Constructor parameters in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) with type arguments of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
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| [**ThreadPoolExecutor**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#ThreadPoolExecutor(int,%20int,%20long,%20java.util.concurrent.TimeUnit,%20java.util.concurrent.BlockingQueue))(int corePoolSize, int maximumPoolSize, long keepAliveTime, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit, [BlockingQueue](http://docs.google.com/java/util/concurrent/BlockingQueue.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> workQueue)            Creates a new ThreadPoolExecutor with the given initial parameters and default thread factory and rejected execution handler. |
| [**ThreadPoolExecutor**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#ThreadPoolExecutor(int,%20int,%20long,%20java.util.concurrent.TimeUnit,%20java.util.concurrent.BlockingQueue,%20java.util.concurrent.RejectedExecutionHandler))(int corePoolSize, int maximumPoolSize, long keepAliveTime, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit, [BlockingQueue](http://docs.google.com/java/util/concurrent/BlockingQueue.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> workQueue, [RejectedExecutionHandler](http://docs.google.com/java/util/concurrent/RejectedExecutionHandler.html) handler)            Creates a new ThreadPoolExecutor with the given initial parameters and default thread factory. |
| [**ThreadPoolExecutor**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#ThreadPoolExecutor(int,%20int,%20long,%20java.util.concurrent.TimeUnit,%20java.util.concurrent.BlockingQueue,%20java.util.concurrent.ThreadFactory))(int corePoolSize, int maximumPoolSize, long keepAliveTime, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit, [BlockingQueue](http://docs.google.com/java/util/concurrent/BlockingQueue.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> workQueue, [ThreadFactory](http://docs.google.com/java/util/concurrent/ThreadFactory.html) threadFactory)            Creates a new ThreadPoolExecutor with the given initial parameters and default rejected execution handler. |
| [**ThreadPoolExecutor**](http://docs.google.com/java/util/concurrent/ThreadPoolExecutor.html#ThreadPoolExecutor(int,%20int,%20long,%20java.util.concurrent.TimeUnit,%20java.util.concurrent.BlockingQueue,%20java.util.concurrent.ThreadFactory,%20java.util.concurrent.RejectedExecutionHandler))(int corePoolSize, int maximumPoolSize, long keepAliveTime, [TimeUnit](http://docs.google.com/java/util/concurrent/TimeUnit.html) unit, [BlockingQueue](http://docs.google.com/java/util/concurrent/BlockingQueue.html)<[Runnable](http://docs.google.com/java/lang/Runnable.html)> workQueue, [ThreadFactory](http://docs.google.com/java/util/concurrent/ThreadFactory.html) threadFactory, [RejectedExecutionHandler](http://docs.google.com/java/util/concurrent/RejectedExecutionHandler.html) handler)            Creates a new ThreadPoolExecutor with the given initial parameters. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [javax.net.ssl](http://docs.google.com/javax/net/ssl/package-summary.html) | |
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| Methods in [javax.net.ssl](http://docs.google.com/javax/net/ssl/package-summary.html) that return [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| abstract  [Runnable](http://docs.google.com/java/lang/Runnable.html) | **SSLEngine.**[**getDelegatedTask**](http://docs.google.com/javax/net/ssl/SSLEngine.html#getDelegatedTask())()            Returns a delegated Runnable task for this SSLEngine. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) | |
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| Classes in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) that implement [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| class | [**SwingWorker<T,V>**](http://docs.google.com/javax/swing/SwingWorker.html)            An abstract class to perform lengthy GUI-interacting tasks in a dedicated thread. |

| Methods in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) with parameters of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| static void | **SwingUtilities.**[**invokeAndWait**](http://docs.google.com/javax/swing/SwingUtilities.html#invokeAndWait(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) doRun)            Causes doRun.run() to be executed synchronously on the AWT event dispatching thread. |
| static void | **SwingUtilities.**[**invokeLater**](http://docs.google.com/javax/swing/SwingUtilities.html#invokeLater(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) doRun)            Causes *doRun.run()* to be executed asynchronously on the AWT event dispatching thread. |

| Uses of [Runnable](http://docs.google.com/java/lang/Runnable.html) in [javax.swing.text](http://docs.google.com/javax/swing/text/package-summary.html) | |
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| Classes in [javax.swing.text](http://docs.google.com/javax/swing/text/package-summary.html) that implement [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| class | [**AsyncBoxView.ChildState**](http://docs.google.com/javax/swing/text/AsyncBoxView.ChildState.html)            A record representing the layout state of a child view. |

| Methods in [javax.swing.text](http://docs.google.com/javax/swing/text/package-summary.html) that return [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| protected  [Runnable](http://docs.google.com/java/lang/Runnable.html) | **LayoutQueue.**[**waitForWork**](http://docs.google.com/javax/swing/text/LayoutQueue.html#waitForWork())()            Used by the worker thread to get a new task to execute |

| Methods in [javax.swing.text](http://docs.google.com/javax/swing/text/package-summary.html) with parameters of type [Runnable](http://docs.google.com/java/lang/Runnable.html) | |
| --- | --- |
| void | **LayoutQueue.**[**addTask**](http://docs.google.com/javax/swing/text/LayoutQueue.html#addTask(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) task)            Add a task that is not needed immediately because the results are not believed to be visible. |
| void | **AbstractDocument.**[**render**](http://docs.google.com/javax/swing/text/AbstractDocument.html#render(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) r)            This allows the model to be safely rendered in the presence of currency, if the model supports being updated asynchronously. |
| void | **Document.**[**render**](http://docs.google.com/javax/swing/text/Document.html#render(java.lang.Runnable))([Runnable](http://docs.google.com/java/lang/Runnable.html) r)            Allows the model to be safely rendered in the presence of concurrency, if the model supports being updated asynchronously. |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/lang/Runnable.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/lang//class-useRunnable.html)    [**NO FRAMES**](http://docs.google.com/Runnable.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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