

The Executor (thread pool)

执行器（线程池）：用来处理具体的请求

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Introduction

表示一个线程池，可以在Tomcat的组件之间共享。

The **Executor** represents a thread pool that can be shared between components in Tomcat. Historically there has been a thread pool per connector created but this allows you to share a thread pool, between (primarily) connector but also other components when those get configured to support executors 历史原因，每个连接器都会创建一个线程池。但这个元素允许你共享一个线程池

The executor has to implement the `org.apache.catalina.Executor` interface.

The executor is a nested element to the **Service** element. And in order for it to be picked up by the connectors, the Executor element has to appear prior to the **Connector** element in `server.xml`

Attributes

Common Attributes

All implementations of **Executor** support the following attributes:

Attribute	Description
className	The class of the implementation. The implementation has to implement the <code>org.apache.catalina.Executor</code> interface. This interface ensures that the object can be referenced through its name attribute and that implements Lifecycle , so that it can be started and stopped with the container. The default value for the className is <code>org.apache.catalina.core.StandardThreadExecutor</code>
线程池名称 name	The name used to reference this pool in other places in <code>server.xml</code> . The name is required and must be unique.

Standard Implementation

The default implementation supports the following attributes:

Attribute	Description
threadPriority	(int) The thread priority for threads in the executor, the default is <u>5</u> (the value of the <u>Thread.NORM_PRIORITY</u> constant)
daemon	(boolean) Whether the threads should be <u>daemon threads</u> or not, the default is <u>true</u>
namePrefix	(String) <u>The name prefix for each thread</u> created by the executor. The <u>thread name</u> for an individual thread will be <u>namePrefix+threadNumber</u>
<u>maxThreads</u> 最大的活跃线程数	(int) <u>The max number of active threads</u> in this pool, default is <u>200</u>
<u>minSpareThreads</u> 最小的存活线程数	(int) <u>The minimum number of threads always kept alive</u> , default is <u>25</u>
<u>maxIdleTime</u> 一个空闲线程关闭前等待的毫秒数	(int) <u>The number of milliseconds before an idle thread shutdown</u> , unless the number of active threads are less or equal to minSpareThreads. Default value is <u>60000(1 minute)</u>
<u>maxQueueSize</u> 最大的可运行任务数	(int) <u>The maximum number of runnable tasks that can queue up awaiting execution before we reject them</u> . Default value is <u>Integer.MAX_VALUE</u>
prestartminSpareThreads	(boolean) Whether minSpareThreads should be started when starting the Executor or not, the default is <u>false</u>
threadRenewalDelay	(long) If a <u>ThreadLocalLeakPreventionListener</u> is <u>configured</u> , it <u>will notify this executor about stopped contexts</u> . After a context is stopped, threads in the pool are renewed. To avoid renewing all threads at the same time, this option <u>sets a delay between renewal of any 2 threads</u> . The value is in ms, default value is <u>1000 ms</u> . If value is negative, threads are not renewed.