Scheduler in Spring(Cron , Fixed)

# Maven Configuration (pom.xml)

<project xmlns=*"http://maven.apache.org/POM/4.0.0"* xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xsi:schemaLocation=*"http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd"*>

<modelVersion>4.0.0</modelVersion>

<groupId>xml-annotation-spring-scheduler</groupId>

<artifactId>xml-annotation-spring-scheduler</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>jar</packaging>

<name>xml-annotation-spring-scheduler</name>

<url>http://maven.apache.org</url>

<properties>

<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>

</properties>

<dependencies>

<dependency>

<groupId>org.quartz-scheduler</groupId>

<artifactId>quartz</artifactId>

<version>2.2.1</version>

</dependency>

<dependency>

<groupId>org.quartz-scheduler</groupId>

<artifactId>quartz-jobs</artifactId>

<version>2.2.1</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context</artifactId>

<version>4.0.6.RELEASE</version>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.3</version>

<configuration>

<source>1.7</source>

<target>1.7</target>

</configuration>

</plugin>

</plugins>

</build>

</project>

Annotation Based Cron Trigger Scheduler in Spring

# Java Code

**package** com.ddlab.rnd.spring;

**import** org.springframework.scheduling.annotation.EnableScheduling;

**import** org.springframework.scheduling.annotation.Scheduled;

**import** org.springframework.stereotype.Service;

**import** java.util.Date;

@Service

@EnableScheduling

**public** **class** AnnotationScheduler {

@Scheduled(fixedDelay = 5000)

**public** **void** runfixedDelayTask() **throws** InterruptedException {

System.***out***.println(**new** Date() + " Annotation ... This runs in a fixed delay");

}

@Scheduled(fixedRate = 6000)

**public** **void** runFixedRateTask() {

System.***out***.println(**new** Date() + " Annotation ... This runs in a fixed rate");

}

@Scheduled(fixedRate = 7000, initialDelay = 2000)

**public** **void** runFixedRateWithInitialDelayTask(){

System.***out***.println(**new** Date() + " Annotation ... This runs in a fixed delay with a initial delay");

}

@Scheduled(cron = "0/10 \* \* \* \* \*")

**public** **void** runCronTask() {

System.***out***.println(**new** Date() + " Annotation ... This runs in a cron schedule");

}

}

# Spring XML Configurations

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<beans xmlns=*"http://www.springframework.org/schema/beans"*

xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xmlns:aop=*"http://www.springframework.org/schema/aop"*

xmlns:context=*"http://www.springframework.org/schema/context"*

xmlns:task=*"http://www.springframework.org/schema/task"*

xsi:schemaLocation=*"http://www.springframework.org/schema/beans*

*http://www.springframework.org/schema/beans/spring-beans-4.0.xsd*

*http://www.springframework.org/schema/aop*

*http://www.springframework.org/schema/aop/spring-aop-3.2.xsd*

*http://www.springframework.org/schema/context*

*http://www.springframework.org/schema/context/spring-context-4.0.xsd*

*http://www.springframework.org/schema/task*

*http://www.springframework.org/schema/task/spring-task-4.0.xsd"*>

<context:component-scan base-package=*"com.ddlab.rnd.spring"* />

</beans>

# Test Program

**package** com.ddlab.rnd.spring;

**import** org.springframework.context.ApplicationContext;

**import** org.springframework.context.support.ClassPathXmlApplicationContext;

**public** **class** TestAnnotationScheduler {

**public** **static** **void** main(String[] args) {

ApplicationContext context = **new** ClassPathXmlApplicationContext("beans.xml");

}

}

XML Based Cron Trigger Scheduler in Spring

# Java Code

**package** com.ddlab.rnd.spring;

**import** java.util.Date;

**public** **class** XMLBasedScheduler {

**public** **void** xmlFixedDelayTask() {

System.***out***.println(**new** Date() + " This task runs in fixed delay by xml configuration");

}

**public** **void** xmlFixedRateTask() {

System.***out***.println(**new** Date() + " This task runs in fixed rate by xml configuration");

}

**public** **void** xmlCronTask() {

System.***out***.println(**new** Date() + " This task runs in a cron schedule by xml configuration");

}

}

# Spring XML Configuration (xml-beans.xml)

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<beans xmlns=*"http://www.springframework.org/schema/beans"*

xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xmlns:aop=*"http://www.springframework.org/schema/aop"*

xmlns:context=*"http://www.springframework.org/schema/context"*

xmlns:task=*"http://www.springframework.org/schema/task"*

xsi:schemaLocation=*"http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans/spring-beans-4.0.xsd*

*http://www.springframework.org/schema/aop http://www.springframework.org/schema/aop/spring-aop-3.2.xsd*

*http://www.springframework.org/schema/context http://www.springframework.org/schema/context/spring-context-4.0.xsd*

*http://www.springframework.org/schema/task http://www.springframework.org/schema/task/spring-task-4.0.xsd"*>

<bean id=*"xmlScheduledTasks"* class=*"com.ddlab.rnd.spring.XMLBasedScheduler"* />

<task:scheduler id=*"taskScheduler"* pool-size=*"10"* />

<task:scheduled-tasks>

<task:scheduled ref=*"xmlScheduledTasks"* method=*"xmlFixedDelayTask"* fixed-delay=*"8000"* />

<task:scheduled ref=*"xmlScheduledTasks"* method=*"xmlFixedRateTask"* fixed-rate=*"10000"* />

<task:scheduled ref=*"xmlScheduledTasks"* method=*"xmlCronTask"* cron=*"0/15 \* \* \* \* \*"* />

</task:scheduled-tasks>

</beans>

# Java Test Program

**package** com.ddlab.rnd.spring;

**import** org.springframework.context.ApplicationContext;

**import** org.springframework.context.support.ClassPathXmlApplicationContext;

**public** **class** TestXMLScheduler {

**public** **static** **void** main(String[] args) {

ApplicationContext context = **new** ClassPathXmlApplicationContext("xml-beans.xml");

}

}