# Difference between applicationContext.xml and spring-servlet.xml in Spring

**QUESTION:**

Are **applicationContext.xml** and **spring-servlet.xml** related anyhow in spring framework? Will the properties files declared in **applicationContext.xml** be available to DispatcherServlet? On a related note, why do I need a *-servlet.xml at all ? Why is **applicationContext.xml** alone insufficient?

**Note:** For example, mvc-dispatcher-servlet.xml is an **spring-servlet.xml** file.

**ANSWER 1:**

Spring lets you define multiple contexts in a parent-child hierarchy.

The **applicationContext.xml** defines the beans for the "root webapp context", i.e. the context associated with the webapp.

The **spring-servlet.xml** (or whatever else you call it) defines the beans for one servlet's app context. There can be many of these in a webapp, one per Spring servlet (e.g. spring1-servlet.xml for servlet spring1, spring2-servlet.xml for servlet spring2).

Beans in **spring-servlet.xml** can reference beans in **applicationContext.xml**, but not vice versa.

All Spring MVC controllers must go in the **spring-servlet.xml** context.

In most simple cases, the **applicationContext.xml** context is unnecessary. It is generally used to contain beans that are shared between all servlets in a webapp. If you only have one servlet, then there's not really much point, unless you have a specific use for it.

**ANSWER 2**

One more point I want to add. In **spring-servlet.xml** we include component scan for Controller package. In following example we include filter annotation for controller package.

```
1   <!-- Scans for annotated @Controllers in the classpath -->
2   <context:component-scan base-package="org.test.web">
3       <context:include-filter type="annotation" expression="org.springframework.stereotype.Controller"/>
4   </context:component-scan>
```

In applicationcontext.xml we add filter for remaining package excluding controller.

```
1   <context:component-scan base-package="org.test">
2       <context:exclude-filter type="annotation"
3   expression="org.springframework.stereotype.Controller"/>
    </context:component-scan>
```

**Debate:**

why ? Why not just scan the whole thing one time ? – NimChimpsky Aug 14 '12 at 9:57

@NimChimpsky You have to scan @Controller beans in servlet context (required by Spring MVC). – Tuukka Mustonen Nov 21 '12 at 12:22

Why not can the whole thing twice? Why include/exclude? – Mike Rylander Jul 5 '13 at 16:26

One should also add use-default-filters="false" attribute in **spring-servlet.xml** – Rakesh Waghela Feb 25 '14 at 9:51

Rakesh Waghela has point. Without that attribute Controller beans will be created twice. Firstly in **appContext** and secondly in **servletContext** –