

How to scan multiple paths using the @ComponentScan annotation?

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Asked 7 years, 3 months ago Active 6 months ago Viewed 136k times

I'm using Spring 3.1 and bootstrapping an application using the @Configuration and @ComponentScan attributes.

75 The actual start is done with

```
new AnnotationConfigApplicationContext(MyRootConfigurationClass.class);
```

26 This Configuration class is annotated with

```
@Configuration
@ComponentScan("com.my.package")
public class MyRootConfigurationClass
```

and this works fine. However I'd like to be more specific about the packages I scan so I tried.

```
@Configuration
@ComponentScan("com.my.package.first,com.my.package.second")
public class MyRootConfigurationClass
```

However this fails with errors telling me it can't find components specified using the @Component annotation.

What is the correct way to do what I'm after?

Thanks

[java](#) [spring](#) [annotations](#)

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edited May 29 '12 at 7:18

mprabhat
18.1k ● 5 ● 40 ● 61

asked May 29 '12 at 7:09

Peter Wilkinson
4,373 ● 8 ● 41 ● 52

Two correct answers given at about the same time as far as I can tell. I'll give the accept to hage just because he has less points, but thank you both. – Peter Wilkinson May 31 '12 at 1:26

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7 Answers

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oldest

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▲ @ComponentScan uses string array, like this:

136 @ComponentScan({"com.my.package.first","com.my.package.second"})

When you provide multiple package names in only one string, Spring interprets this as one package name, and thus can't find it.

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edited Dec 11 '17 at 8:20

answered May 29 '12 at 7:21

hage
4,917 ● 2 ● 36 ● 39

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There is another **type-safe** *alternative* to specifying a base-package location as a String. [See the API here](#), but I've also illustrated below:

```
@ComponentScan(basePackageClasses = {ExampleController.class, ExampleModel.class, ExmapleView.class})
```

Using the **basePackageClasses** specifier with your class references will tell Spring to scan those packages (just like the mentioned *alternatives*), but this method is both **type-safe** and adds **IDE support** for future refactoring – a huge plus in my book.

Reading from the API, Spring suggests creating a no-op marker class or interface in each package you wish to scan that serves no other purpose than to be used as a reference for/by this attribute.

IMO, I don't like the marker-classes (*but then again, they are pretty much just like the package-info classes*) but the type safety, IDE support, and drastically reducing the number of base packages needed to include for this scan is, with out a doubt, a far better option.

share improve this answer

answered Jan 24 '14 at 12:55



Prancer

2,055 ● 1 ● 21 ● 34

Could someone explain why `@ComponentScan({"com.app", "com.controllers"})` doesn't work for me but `@ComponentScan(basePackageClasses={"com.controllers"})` does work nice? I find it boring writing every class name – [xaverras](#) Oct 8 '15 at 14:19

3 You only have to specify one class in the package, for the package you want to scan. This is known as a marker class. If you need to scan a package higher in the hierarchy that has no classes, spring suggests a technique using a "spring marker" interface or final class defined in that package solely for the purpose of package scanning. – [Prancer](#) Oct 12 '15 at 11:54

add a comment

17

Provide your package name separately, it requires a [String\[\]](#) for package names.

Instead of this:

```
@ComponentScan("com.my.package.first,com.my.package.second")
```

Use this:

```
@ComponentScan({"com.my.package.first", "com.my.package.second"})
```

share improve this answer

answered May 29 '12 at 7:23



mprabhat

18.1k ● 5 ● 40 ● 61

add a comment

9

Another way of doing this is using the `basePackages` field; which is a field inside ComponentScan annotation.

```
@ComponentScan(basePackages={"com.firstpackage", "com.secondpackage"})
```

If you look into the ComponentScan annotation .class from the jar file you will see a basePackages

dependent Jar

1 @ComponentScan on external library not working

0 Autowiring component not referenced directly

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field that takes in an array of Strings

```
public @interface ComponentScan {  
    String[] basePackages() default {};  
}
```

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answered Feb 10 '16 at 14:19



shashwatZing
987 ● 1 ● 10 ● 20

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You use ComponentScan to scan multiple packages using

3

```
@ComponentScan({"com.my.package.first", "com.my.package.second"})
```



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answered Nov 24 '16 at 7:07



ksw
33 ● 3

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make sure you have added this dependency in your pom.xml

1

```
<dependency>  
    <groupId>org.springframework.boot</groupId>  
    <artifactId>spring-boot-starter-web</artifactId>  
</dependency>
```



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answered Feb 1 at 10:20



Amirtha Krishnan
16 ● 3

Thanks after spending close to half an hour this was the missing dependency – [DvixExtract](#) Jul 21 at 11:19

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You can also use @ComponentScans annotation:

0

```
@ComponentScans(value = { @ComponentScan("com.my.package.first"),  
    @ComponentScan("com.my.package.second") })
```



share improve this answer

edited Feb 21 at 7:20

answered Feb 16 at 20:48



Farouk.ch
11 ● 3

3 Please consider adding explanation to your answer – [yeya](#) Feb 16 at 21:06

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
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
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
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