# Spring 3 MVC and JSR303 @Valid example

By mkyong (http://www.mkyong.com/author/mkyong/) | July 29, 2011 | Updated : August 29, 2012 | Viewed : 277,798 times +727 pv/w

In Spring 3, you can enable "mvc:annotation-driven (http://static.springsource.org/spring/docs/3.0.x/spring-framework-reference/html/mvc.html#mvc-annotation-driven)" to support JSR303 bean validation (http://jcp.org/en/jsr/detail?id=303) via @valid annotation, if any JSR 303 validator framework on the classpath.

#### Note

Hibernate Validator is the reference implementation for JSR 303

In this tutorial, we show you how to integrate Hibernate validator with Spring MVC, via @valid annotation, to perform bean validation in a HTML form.

Technologies used:

- 1. Spring 3.0.5.RELEASE
- 2. Hibernate Validator 4.2.0.Final
- 3. JDK 1.6
- 4. Eclipse 3.6
- 5. Maven 3

# 1. Project Dependencies

Hibernate validator is available at JBoss public repository.

```
<repositories>
   <repository>
       <id>JBoss repository</id>
       <url>http://repository.jboss.org/nexus/content/groups/public/</url>
    </repository>
</repositories>
cproperties>
   <spring.version>3.0.5.RELEASE</spring.version>
</properties>
<dependencies>
   <!-- Spring 3 dependencies -->
    <dependency>
       <groupId>org.springframework</groupId>
       <artifactId>spring-core</artifactId>
       <version>${spring.version}</version>
   </dependency>
    <dependency>
       <groupId>org.springframework</groupId>
       <artifactId>spring-web</artifactId>
        <version>${spring.version}</version>
   </dependency>
   <dependency>
        <groupId>org.springframework</groupId>
        <artifactId>spring-webmvc</artifactId>
        <version>${spring.version}</version>
   </dependency>
   <!-- Hibernate Validator -->
   <dependency>
        <groupId>org.hibernate
       <artifactId>hibernate-validator</artifactId>
       <version>4.2.0.Final
    </dependency>
</dependencies>
```

### 2. JSR303 Bean Validation

A simple POJO, annotated with Hibernate validator annotation.

#### Note

Refer to this Hibernate validator documentation (http://docs.jboss.org/hibernate/validator/4.2/reference/en-US/html/) for detail explanation

```
package com.mkyong.common.model;
import org.hibernate.validator.constraints.NotEmpty;
import org.hibernate.validator.constraints.Range;
public class Customer {
    @NotEmpty //make sure name is not empty
    String name;
    @Range(min = 1, max = 150) //age need between 1 and 150
    int age;
    //getter and setter methods
}
```

### 3. Controller + @Valid

For validation to work, just annotate the "JSR annotated model object" via @valid. That's all, other stuff is just a normal Spring MVC form handling.

```
package com.mkyong.common.controller;
import javax.validation.Valid;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap;
import org.springframework.validation.BindingResult;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import com.mkyong.common.model.Customer;
@Controller
@RequestMapping("/customer")
public class SignUpController {
    @RequestMapping(value = "/signup", method = RequestMethod.POST)
    public String addCustomer(@Valid Customer customer, BindingResult result) {
        if (result.hasErrors()) {
            return "SignUpForm";
        } else {
            return "Done";
   }
    @RequestMapping(method = RequestMethod.GET)
    public String displayCustomerForm(ModelMap model) {
        model.addAttribute("customer", new Customer());
        return "SignUpForm";
    }
}
```

### 4. Error Message

By default, if validation failed.

- 1. @NotEmpty will display "may not be empty"
- 2. @Range will display "must be between 1 and 150"

You can override it easily, create a properties with "key" and message. To know which @annotation bind to which key, just debug it and view value inside "BindingResult result". Normally, the key is "@Annotation Name.object.fieldname".

File: messages.properties

```
NotEmpty.customer.name = Name is required!
Range.customer.age = Age value must be between 1 and 150
```

# 5. mvc:annotation-driven

Enable "mvc:annotation-driven" to make Spring MVC supports JSR303 validator via @Valid, and also bind your properties file.

```
<beans xmlns="http://www.springframework.org/schema/beans"</pre>
   xmlns:context="http://www.springframework.org/schema/context"
    xmlns:mvc="http://www.springframework.org/schema/mvc"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="
       http://www.springframework.org/schema/beans
        http://www.springframework.org/schema/beans/spring-beans-3.0.xsd
       http://www.springframework.org/schema/context
       http://www.springframework.org/schema/context/spring-context-3.0.xsd
        http://www.springframework.org/schema/mvc
       http://www.springframework.org/schema/mvc/spring-mvc-3.0.xsd">
   <context:component-scan base-package="com.mkyong.common.controller" />
         <!-- support JSR303 annotation if JSR 303 validation present on classpath -->
    <mvc:annotation-driven />
    <bean id="viewResolver"</pre>
       class="org.springframework.web.servlet.view.InternalResourceViewResolver">
        cproperty name="prefix">
           <value>/WEB-INF/pages/</value>
        </property>
        cproperty name="suffix">
            <value>.jsp</value>
        </property>
    </bean>
       <!-- bind your messages.properties -->
    <bean class="org.springframework.context.support.ResourceBundleMessageSource"</pre>
        id="messageSource">
        roperty name="basename" value="messages" />
    </bean>
</beans>
```

# 6. JSP Pages

Last one, normal JSP page with Spring form tag library.

File: SignUpForm.jsp

```
<%@ taglib prefix="form" uri="http://www.springframework.org/tags/form"%>
<head>
<style>
.error {
   color: #ff0000;
}
.errorblock {
   color: #000;
   background-color: #ffEEEE;
   border: 3px solid #ff0000;
   padding: 8px;
   margin: 16px;
}
</style>
</head>
<body>
   <h2>Customer SignUp Form - JSR303 @Valid example</h2>
   <form:form method="POST" commandName="customer" action="customer/signup">
      <form:errors path="*" cssClass="errorblock" element="div" />
       Customer Name :
             <form:input path="name" />
             <form:errors path="name" cssClass="error" />
          Customer Age :
             <form:input path="age" />
             <form:errors path="age" cssClass="error" />
          <input type="submit" />
          </form:form>
</body>
</html>
```

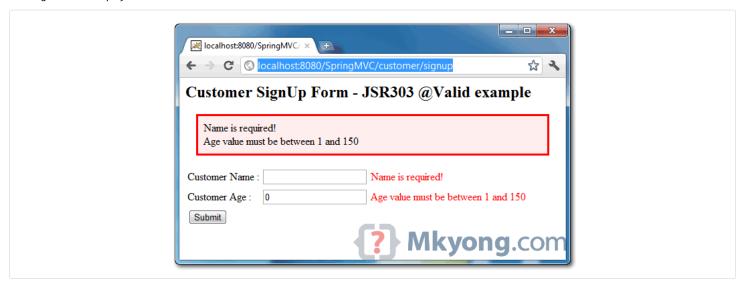
#### File: Done.jsp

#### 6. Demo

URL: http://localhost:8080/SpringMVC/customer - Customer form page, with 2 text boxes for name and age.



URL: http://localhost:8080/SpringMVC/customer/signup — If you didn't fill in the form and click on the "submit" button, your customized validation error messages will be displayed.



### Download Source Code

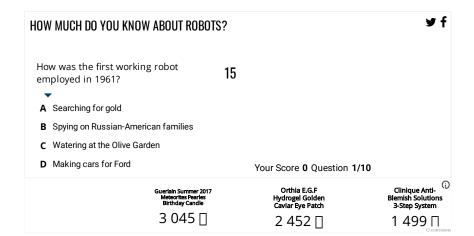
#### References

- Spring JSR303 validation documentation (http://static.springsource.org/spring/docs/3.0.x/spring-framework-reference/html/validation.html#validation-mvc-jsr303)
- 2. JSR303 bean validation (http://jcp.org/en/jsr/detail?id=303)
- 3. Hibernate Validator (http://www.hibernate.org/subprojects/validator.html)

Tags: spring mvc (http://www.mkyong.com/tag/spring-mvc/) spring3 (http://www.mkyong.com/tag/spring3/) validation (http://www.mkyong.com/tag/validation/)

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# About the Author



# mkyong

Founder of Mkyong.com (http://mkyong.com), love Java and open source stuff. Follow him on Twitter (https://twitter.com/mkyong), or befriend him on Facebook (http://www.facebook.com/java.tutorial) or Google Plus (https://plus.google.com/110948163568945735692? rel=author). If you like my tutorials, consider make a donation to these charities (http://www.mkyong.com/blog/donate-to-charity/).

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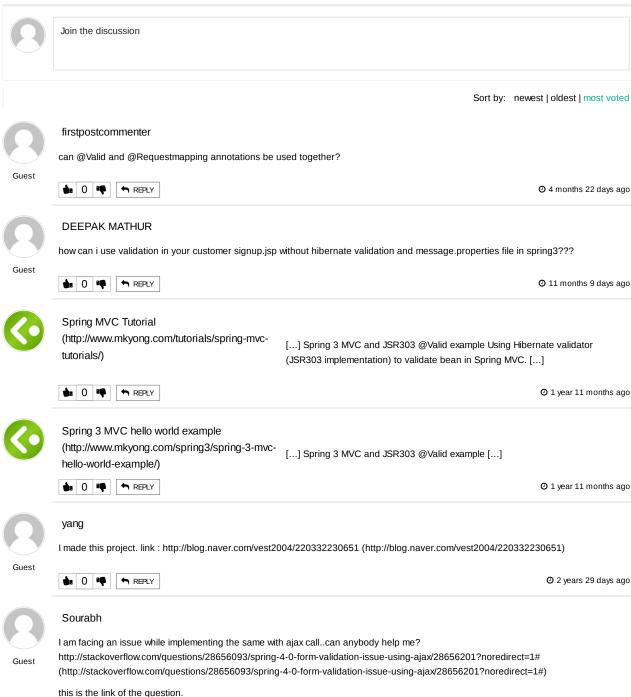
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#### Leave a Reply





2 years 2 months ago



Guest

# Manoj Sawant

Hi mkYong, I have one question, In Validation Examples you creating references of Customer Model class in. -1) controllers POST() @Valid Customer customer, here reference is customer. -2) in controllers GET() ,model.addAttribute("customer", new Customer()); here key is customer. -3) in messages.property file in another example you created NotEmpty.customer.age = age is required, here also we found customer. -4) In SignUpForm.jsp you mentioned commandName="customer", I am confusing about that command name "customer". i am not getting to whom that command name pointing? And most important question is: Will i have to match all the references of Customer with the... Read more »



O 2 years 4 months ago



#### ravi mca

this code is not working it gives 404 status code after clicking the submit button in customer page.

Guest

please help me any one how to resolve this problem.



② 2 years 4 months ago



#### Jose

I tried to follow your example but can't get to work with SpringFramework 4.0.2 in JBoss 7.1.1. Final.

Guest BindingResult always returns false.

Could you please, help?



② 2 years 9 months ago



Guest

#### Abbas Zoher Attarwala

(http://mygeekyexplorations.blogspot.com)

Is there a way the validation for one parameter could be dependent on the

validation of another parameter?



② 2 years 11 months ago



#### Arjun Mukherjee

Hi MK,

Guest

Thanks for the above example.

My application uses only @RequestParam instead of a command class.

Suppose the above example the request is like below:

@RequestMapping(value = "/signup", method = RequestMethod.POST)

public ModelAndView addCustomer(@RequestParam("name") String custName,@RequestParam("age") String custAge,BindingResult result){

}

How would you validate the request params and display the errors in the input page.

Note: Inorder to get the Input page (/someinoutaction.do) is expensive and calls Web Services.



② 3 years 4 months ago



#### Arjun Mukherjee

Hi MK,

Guest

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How would you validate the requestparams and display the errors in the input page.

Note: Inorder to get the Input page (/someinoutaction.do) is expensive and calls Web Services.



② 3 years 4 months ago



Philip

Just a quick thank you for your great tutorials. You help many people with them I'm sure :-)

Guest



② 3 years 6 months ago



Spring Form Validation, showing error in overlay | BlogoSfera

(http://www.blogosfera.co.uk/2013/09/springform-validationshowing-error-in-overlay/)

[...] Suppose I have a some abc.Jsp page Under that I have created AddButton,Which opens the overlay for filling data into Form, On Clicking the Submit Button the data goes to controller where Data getting Validate,if any

validation error occur it render back to the page and shows error, Its Working fine but the Actual problem is when page is renderd,the overlay get hide, How do i keep overlay open After Submitting data and showing error on Overlay. I did In this Way http://www.mkyong.com/spring-mvc/spring-3-mvc-and-jsr303-valid-example/ (http://www.mkyong.com/spring-mvc/spring-3-mvc-and-jsr303-valid-example/) [...]



2 3 years 7 months ago



#### venkatram

Thanks alot! I was actually looking for replacing message string in jpa entity with property file value. I have Tried with injecting apache commonconfig bean to entity through aop. But they gave me errors like we cannot inject any new class as property in entity if it is not a column in the associated table. Then I tried with static resource bundle, getting value from the bundle. But, the message attribute needed constant expression. Finally I have seen your example. How do you know that we can override the default message? What would you made to think like that? Please guide... Read more »



② 3 years 8 months ago



#### avatar42 (http://dea42.com)

After wasting hours trying to find an example of how to make the error messages for @Valid friendly / custom I thought I should add it here. The trick is to but your key in {} as in @NotEmpty(message = "{err.msg}") Otherwise it returns the key instead of the text for the translated key.



② 3 years 8 months ago 🔥



### avatar42 (http://dea42.com)

pre tag lost in reply. Trying escaped.

Guest

Note for the custom error message keys to work, if you do not have already, you will need to add:

<br/>bean id="messageSource"

class = "org.spring framework.context.support. Reloadable Resource Bundle Message Source" > 1000 Grant Gra

cproperty name="basename"

value="WEB-INF/classes/messages" />

cproperty name="defaultEncoding" value="UTF-8" />

</bean>

<bean id="validator" class="org.springframework.validation.beanvalidation.LocalValidatorFactoryBean">

cproperty name="validationMessageSource" ref="messageSource" />

</bean>

<mvc:annotation-driven validator="validator" />

To your servlet.xml



#### DEEPAK MATHUR

◆ REPLY

hi avatar,

**1** 0 ■

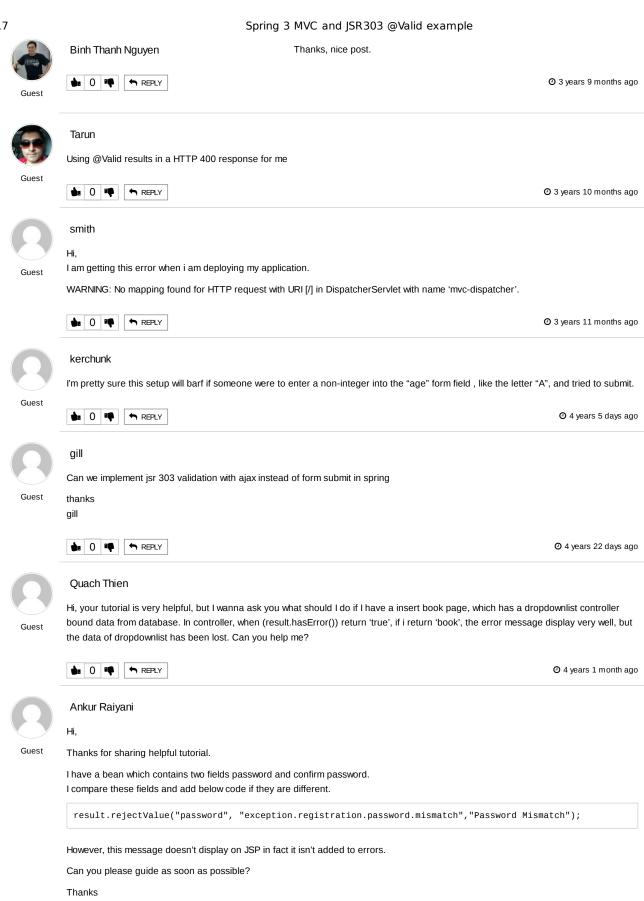
Guest

how can i use validation in your customer signup.jsp without hibernate validation and message.properties file in spring3??? can u solve such type of requirement???



② 11 months 9 days ago

② 3 years 8 months ago 🔥



🖦 0 📭

# Ankur

Problem Resolved !! :)

REPLY

Guest

② 4 years 1 month ago



② 4 years 1 month ago



Guest

#### Juzer Ali

Its not mentioned that this example would require a validations-api jar as well. After looking at the Pom.xml I thought this is all what is needed and spent a couple of hours trying to figure out why my project is showing error.



② 4 years 1 month ago



#### Ramath (http://shyamu.in@gmail.com)

Is there a option to this Hibernate validation or any annotated validation framework in standalone Java application using Spring 3.0 framework. Thanks.



② 4 years 2 months ago



#### Sunil

I have down loaded same project and imported into eclipse.

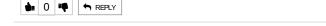
But I'm not getting any errors for bad inputs also. Can any body help me on this.

The following code always returning false.

```
if (result.hasErrors())
```

#### Thanks

Sunil



② 4 years 3 months ago



# Sunil

sorry!,

Guest

After coping hibernate jar into server lib, working fine.

Anyway Thanks MkYoung :-)



② 4 years 3 months ago



#### David Cook

I have the validation working to the point it validates and generates error, but I can't get it back to my jsp page. If I just return a reference to the page it gives me a 404. If I return a redirect to the page it goes to the page but with no errors. This is in applying your tutorial to my own project.

The start of the function in my controller is as follows

```
@RequestMapping(value = "/createProject", method = RequestMethod.POST)
    public String createProject(HttpServletRequest request, HttpServletResponse response, @Valid Proje
    {
        if(result.hasErrors())
        {
             //request.setAttribute("errors", errors);
            return "project/creatProject";
        }
}
```



**1** 0

#### David Cook

REPLY

Never mind got it sorted out. Typo in createProject.

Guest



② 4 years 4 months ago

O 4 years 4 months ago



David Cook

Of note I am using an internal Resource View Resolver in my xml. Can it be

Guest

done with that view resolver?

2 4 years 4 months ago



#### this url

(http://www.vilago21.com/event/Strategies+For+Having+Folks+Serious+About+Your+Technology+Website/1755050/profile) Wonderful work! That is the kind of information that are supposed to be shared

Guest

across the net.

Disgrace on the seek engines for no longer positioning this submit higher! Come on over and discuss with my site . Thanks =)



2 4 years 5 months ago



article-stack » Spring 3 MVC Form Handling covering all aspects - Theory apart - Part 2 part-2.amty)

[...] If you google "spring 3 mvc form validation", you'll surely get many good (http://article-stack.com/education/spring-3-mvc-tutorials. So why to increase data redundancy over internet. Here I am just  $form-hand ling-covering-all-aspects-theory-apart-\\ explaining setup \ require \ for \ validation \ and \ summary \ of \ required \ annotations.$ You'll have to go through my first article quick jump with spring 3 MVC for project setup. You can also refer a good tutorial at mkyong [...]



② 4 years 7 months ago



#### ColorAnt

Hi, thanks for you example.

Let one comment.

When me print (example)

Name: a Age: 180

I'm redirect to "http://localhost:8080/customer/customer/signup" with "Error 404 The requested resource is not available."

(sorry for my english)



⊕ 4 years 2 months ago
 ∧



Guest

#### David Hildebrandt

I get the same result as ColorAnt. The first time pressing 'Submit Query' on the SignUpForm.jsp, the subsequent URL and mapping to the controller is fine. The first time, the URL is: http://localhost:8080/customer/signup (http://localhost:8080/customer/signup).

The second time, if I purposefully input incorrect data again, and press 'Submit Query' on the SignUpForm.jsp again, the URL is http://localhost:8080/customer/customer/signup (http://localhost:8080/customer/customer/signup).

And I have not spent too long a time trying to figure out a solution.



#### David Hildebrandt

🕇 REPLY

This worked:

0

Guest

<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%> <%@ taglib prefix="form" uri="http://www.springframework.org/tags/form"%>

And then, set the URL for the action this way:

<c:url value="/customer/signup" var="theAction" /> <form:form method="POST" commandName="customer" action="\${theAction}">

For certain, not an elegant solution – but one that works.



