# SpringSource **Tool Suite** 2.6.1.SR1

- New and Noteworthy -

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Updated for 2.6.1.SR1



# UPDATES AND ENHANCEMENTS - 2.6.1.SR1

General Updates

Spring Roo 1.1.4

STS 2.6.1.SR1 ships with the just released version 1.1.4 of Spring Roo.



# **UPDATES AND ENHANCEMENTS - 2.6.1**

## General Updates

vFabric tc Server 2.5.0

STS 2.6.1 ships with the just released vFabric tc Server developer edition 2.5.0. In addition to the updated package STS 2.6.1 added support for the new server type "vFabric tc Server 2.5".



# UPDATES AND ENHANCEMENTS - 2.6.0.SR1

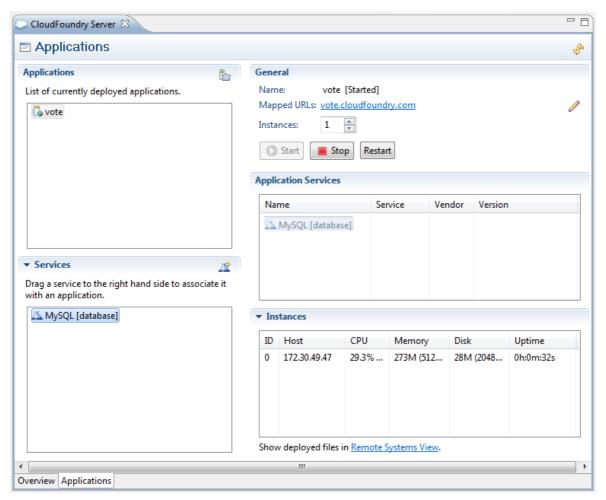
## General Updates

#### Spring Roo 1.1.3

STS 2.6.0.SR1 ships with the just released version 1.1.3 of Spring Roo.

#### Cloud Foundry Support

STS now provides direct support for the just released Cloud Foundry platform. Users can install the Cloud Foundry plugin for STS from the Extension install of the Dashboard and deploy their apps via Drag & Drop into the cloud, manage services right from within STS, access the files of the running Cloud Foundry server.and much more.





## **ENHANCEMENTS – 2.6.0**

## General Updates

#### Spring Roo 1.1.2

STS 2.6.0 ships with the just released version 1.1.2 of Spring Roo.

#### Groovy 1.7.8

The Groovy & Grails support of STS now ships with Groovy 1.7.8.

#### Grails 1.3.7

STS 2.6.0 supports Grails 1.3.7 and ships that Grails version from the Dashboards extensions install.

#### Eclipse Helios SR2 (3.6.2)

STS is now based on the freshly released second service release of Eclipse Helios and all packages of STS ship with the Eclipse IDE for Java EE Developers.

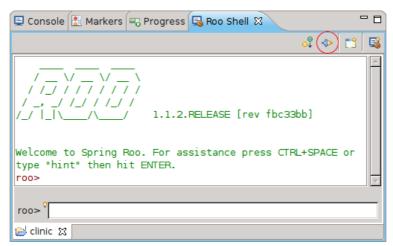
#### dm Server Tooling

The pre-build STS packages no longer contain the dm Server tooling by default. But you can easily add them to your installation via the Dashboards extension install.

## Spring Development Tools

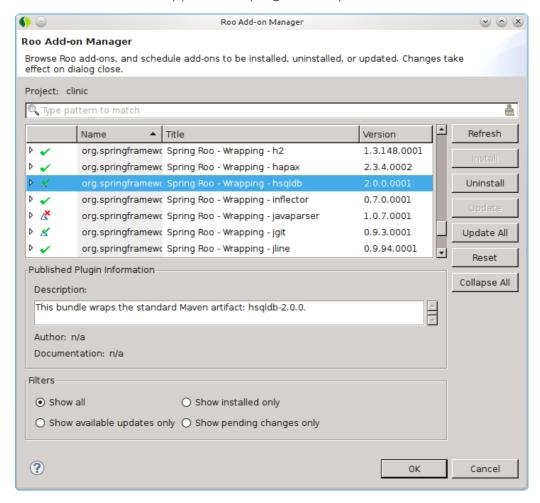
## Roo Add-on Manager

The new Roo Add-on Manager provides a convenient interface for managing Roo add-ons. It is accessible from the toolbar of the Roo Shell view and from the Spring context menu of any Roo project.





The manager dialog displays a list of installed and available add-ons. When an add-on is selected additional details are shown. The list can be filtered and searched to quickly find specific add-ons. The button bar on the right allows to select add-ons for installation, update or uninstallation. On finish all selections are applied and progress is reported in the Roo shell.

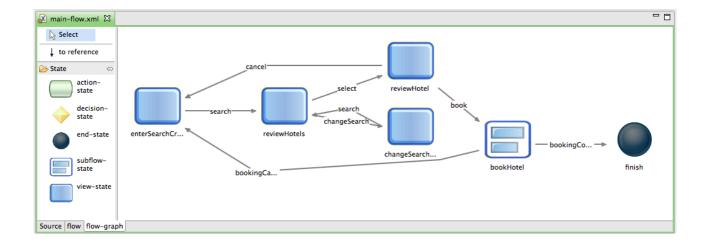


Note: The add-on manager requires Roo 1.1.2 or later and consent to the download terms of use. The status can be checked using the "download status" command in the Roo shell. If a plugin fail to install due to a verification error the corresponding PGP key needs to be added to the trust key using the "pgp trust" or "pgp automatic trust" command.

## Spring Web Flow Visual Editing

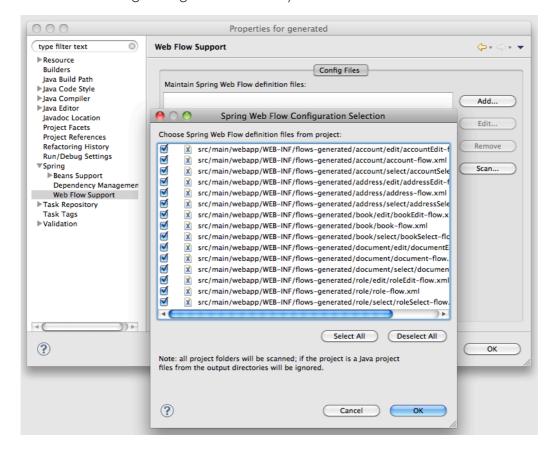
STS 2.6 introduces a new visual editing mode for Spring Web Flow configuration files. The visual editor supports creation of all state types and transitions between states, and editing of state attributes can be done through the Properties view. The Spring Web Flow visual editor can be found on the flow-graph tab of the Spring Web Flow XML editor.





#### Scan for Spring Web Flow Files

The Web Flow Support properties page has added a Scan... button that will search the project for any Spring Web Flow definition files that are currently outside of the Web Flow model. Users can select from the resulting dialog which files they would like to add to the Web Flow model.

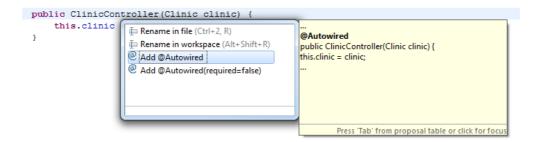




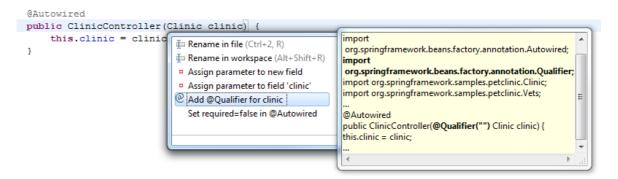
#### Content-Assist and Quick-Fixes for @Autowired and @Qualifier

It is becoming a common practice to configure spring applications using annotations. In this release we added some content assist and quick fix proposals to provider more support for editing these annotations.

@Autowired can now be quickly added to constructors, methods and fields by invoking quick fix on the declarations which brings up an option to add the @Autowired annotation.



Autowiring by type may lead to multiple candidates. There is now quick fix support for adding @Qualifier annotation, as well as content assist for matching bean names.



## Content-Assist and Quick-Fixes for @RequestMapping

Another new feature is content assist for specifying URI template variable. When editing a @RequestMapping annotation on a method declaration, content assist is available for matching method parameters, as well as adding @PathVariable to the matching parameter to indicate that the parameter should be bound to the value of a URI template variable.

```
@RequestMapping (value="/owners/{})/pets/{petId}/visits", method=RequestMethod.GET)

public ModelAndView visitsHandle
   ModelAndView mav = new Model
   mav.addObject("visits", this
   return mav;
}

@RequestMapping(value="/owners/{ownerId}/pets/{petId}/visits", method=RequestMethod.GET)
public ModelAndView visitsHandler(@PathVariable int petId, @PathVariable int ownerId) {
   ModelAndView mav = new ModelAndView("visits");
....

Press 'Ctrl+Space' to show

Press 'Tab' from proposal table or click for focus
```

We also added as you type validation which shows warnings for variable references that are not defined as well as corresponding quick fixes:

```
@RequestMapping(value="path/{date}")

public @ResponseBody String w
return "Obtained 'var' pa

Press 'F2' for focus

Press 'F2' for focus

Press 'F2' for focus

Press 'F2' for focus
```

```
@RequestMapping (value="path/{date}")
public @ResponseBody String wit
    return "Obtained 'var' path
}

Create parameter date

@RequestMapping(value="path/{date}")
public @ResponseBody String withPathVariable(@PathVariable String var, @PathVariable("date")

String date) {
    return "Obtained 'var' path variable value " + var + "";
...
```

Quick fixes are now available on method parameters to show basic annotations (@PathVariable, @RequestBody and @RequestParam) that can be added to the method parameter:

```
@RequestMapping (value="group")

public @ResponseBody String withParamGroup (JavaBean bean) {

return "Obtained parameter group " + bean;
}

## Rename in file (Ctrl+2, R)

## Rename in workspace (Alt+Shift+R)

o Assign parameter to new field

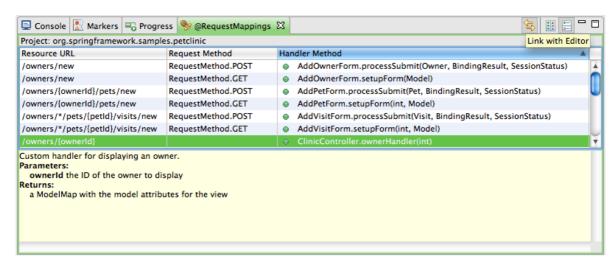
| Add @PathVariable |
| Add @RequestBody
| Add @RequestBody
| Add @RequestBody
| Add @RequestBody
| Press 'Tab' from proposal table or click for focus
```

We also added templates for creating basic method with annotations, like GET, POST and PUSH request mapping methods as well as @InitBinder and @ExceptionHandler methods. Starting typing the first few characters of the method you would like to add (for example ini... for @InitBinder method) and then hit CTRL + SPACE and you can see the template in the pop up dialog.



#### RequestMappings view improvements

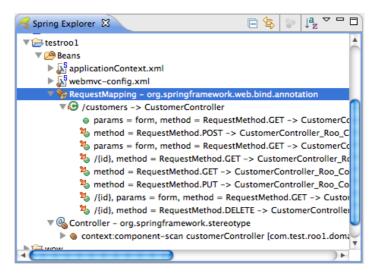
All columns in the RequestMappings view are now sortable, so users can sort the view according to URL path, RequestMethod type, or Class#method signature. Additionally, the RequestMappings view now supports Link with Editor mode. When the Link with Editor button is toggled, the view will automatically populate with all RequestMappings for the project containing the selected editor.



## Support for ITDs in Spring Explorer and Request-Mapping-View

A common situation in Roo projects is that aspects introduce standard controller methods via intertype declarations. STS 2.6.0 now supports this way of adding controller methods by visualizing them in the Spring Explorer and the Request-Mapping-View. You can also directly navigate from the Spring Explorer to the aspect by double-clicking on the mapping item.



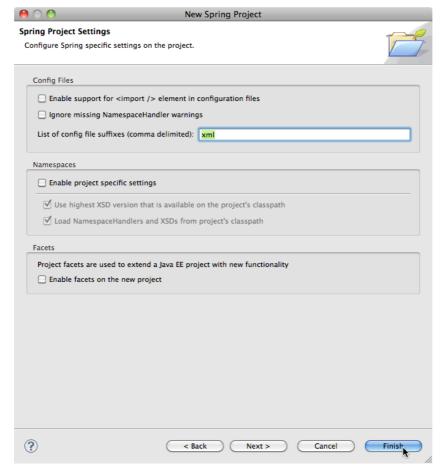


Please note, that the ITD request mappings are not shown until you rebuild the project. So if you don't see them immediately, just clean the project.

## Updated Spring Project Wizard

The Spring project wizard has been updated to function like the Java project wizard including all the options you are used to from the Java project wizard, and the Spring project settings page has been expanded to include more options.

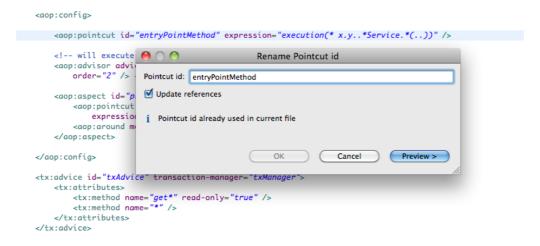




Spring project settings can be modified any time after the project has been created by going to the project properties dialog and entering the Spring section.

## Refactoring Improvements

In addition to a number of small bug fixes in this area STS 2.6.0 now supports automated renaming of Advice-IDs and Pointcut-IDs.





#### Aspect and AJDT improvements

A detailed list of improvements for the new AspectJ and AJDT versions can be found here:

http://eclipse.org/ajdt/whatsnew212/

http://eclipse.org/aspectj/doc/released/README-1611.html

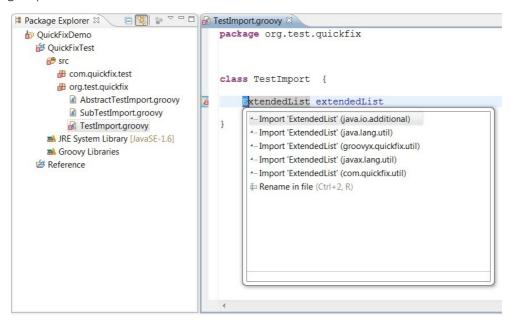
## Groovy & Grails Development Tools

#### General Updates

- Now includes Groovy 1.7.8
- Now supports Grails 1.3.7
- Basic support for Groovy++
- Headless Groovy-Eclipse feature
- Timers for ast transform operations now shown in Groovy Event Console

#### Better ordering for Quick fixes and content assist

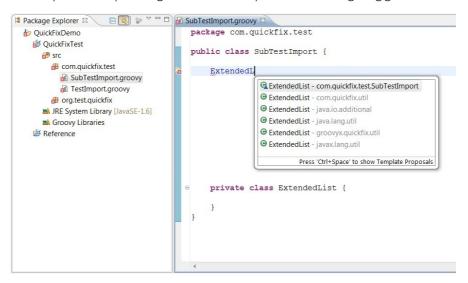
Suggested types to import in both quick fix and content assist are now ordered based on various criteria. Types imported from java.\*, groovy.\*, groovyx.\*, and javax.\* have higher priority, in that order, than types from other packages as seen in this screen shot where the type "Extended-List" is being imported:



However, if importing types from similarly named packages as well as types declared in the same top level type like a private nested type, the private nested type has higher precedence,



followed by public types from similarly named packages, followed by types from java.\*, groovy.\*, groovyx.\*, javax.\*, and finally types from other packages. The following screen shows the private type "ExtendedList" appearing first in the content assist suggestion, followed by a type from a similarly named package, followed by the remaining suggestions:



#### Wizards

There is now a 'new Filters' menu entry alongside other Grails specific 'new wizard' menu items.



## Project configuration

- grails-app/util is automatically added as a source folder to the classpath of new Grails projects.
- aid in reconfiguring projects after changing the default grails install

**Problem:** When the user configures a new default Grails install they will also have to reconfigure any existing projects that implicitly use the default install.



**Solution:** When the workspace default is changed, STS will pop up a dialog offering the user the option to upgrade affected projects.



If the user declines to upgrade the project, then the project configuration will be changed to explicitly use the non-default install.

#### GSP Support - Navigation to GSP definition

Pressing F3 or CTRL-Click on a GSP tag will now open the tag's definition. This will work for built-in tags as well as custom tags.

## GSP Support - Content assist for g:def defined variables

After using the g:def tag to define a variable in your GSP file, this variable will now be available in scriptlets that are in the scope of the tag.







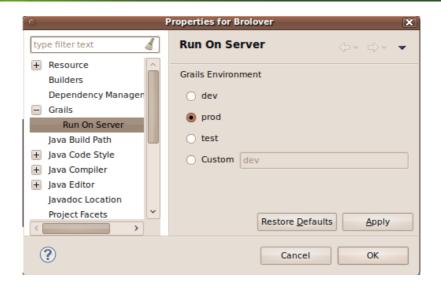
#### Groovy Editor - Code completion for autowired service fields

The types of Grails autowired services are now correctly inferred in the Groovy Editor. You can see an example of this in the screenshot below where the type of urlService is inferred to be UrlService, which is a service class in the same Grails project.

#### Support setting 'env' parameters for deploying Grails Apps on Tc server

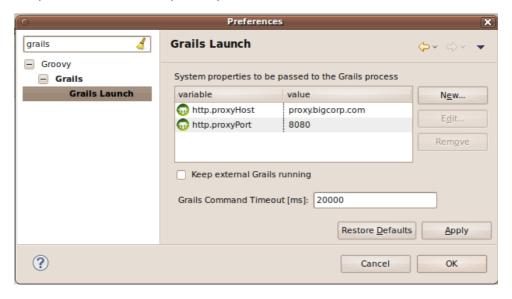
There is now a property page for Grails App projects allowing the user to set the 'env' parameter used to deploy to the embedded Tc Server instance. Right-click on a Grails project and go to "Properties >> Grails >> Run On Server".





#### UI support for setting System properties passed to Grails Commands

A preferences page under "Grails >> Launch" has been added. It allows defining system properties that will be passed automatically to any Grails command executed from within STS.



#### Upgrade Grails Projects when project settings changed

If the user changes a Grails Project's project specific settings to use different Grails install, then it is reasonable to assume they will probably also want to upgrade the project contents in accordance with the new Grails version. STS will now popup a dialog offering to run the Grails upgrade command on the user's behalf.



#### Additional Right-click functionality in project explorer

It is now possible to invoke the grails commands "generate-all", "generate-views" and "generate-controller" from the "new" context menu.



#### Context sensitive initialization of Grails Command Wizard

Many Grails related menu items (new controller, new domain class, etc.) open the grails command wizard to execute a specific grails command. The logic for initializing the dialog has been extended. Now STS will try to guess useful values to put into the dialog, based on the element selected in the project explorer. For example, when invoking "generate views" the command expects a domain class as a parameter. So if a controller class was selected, the fully qualified name of the corresponding domain class will be placed into the dialog automatically.

## Additional improvements

- Compilation of Grails projects will no longer produce warnings in the problems view for dependent plugin source files.
- Overriding the plugin install location (grails.project.plugins.dir) in a Grails project will now correctly be reflected in any linked source folders created for plugins.

#### Type inferencing for getAt

Custom getAt(String) methods will now be used to feed the inferencing engine when using '[ ]'. For example:



```
class MyTree {
    String name
    MyTree[] branches
    MyTree getAt(String branchName) {
        branches.find { it.name == branchName }
    }
    static MyTree loadTree() {
        // do something interesting
    }
}
def tree = MyTree.loadTree()
tree["is Groovy"].name

    String MyTree.name
```

In the preceeding code, notice how the reference to the name field is correctly resolved to coming from the MyTree class.

#### Better unicode support

Unicode escape sequences (e.g., \u2010uE096) now have correct offsets and lengths in the parse tree, so you can use unicode escape sequences freely in your Groovy code and source locations in your file will not be corrupted.

#### Speedier type inferencing

Where appropriate, the inferencing engine will not visit the entire file to determine the type of a single expression. Rather, it will prune the branches of the AST and only visit the method or field declaration that contains the expression to be inferred. This has a noticeable affect on content assist invocation speeds.

## Optional non-jar locking behaviour on Windows

On windows there is now an option to try and avoid Groovy-Eclipse locking jars and preventing them from being updated (or removed, in the case of attempting to uninstall a plugin in a grails project). Specify the system property -Dgreclipse.nonlocking=true when starting STS to activate the use of non locking classloaders. If no problems come up over the next few releases this may be made the default mode of operation. Locks should also be released (regardless of that system property setting) if the offending project is closed.

#### More Groovy-Eclipse improvements

A detailed list of improvements for Groovy-Eclipse can be found here:

http://groovy.codehaus.org/Groovy-Eclipse+2.1.2+New+and+Noteworthy

Some highlights are:

- Code assist performance has been improved.
- Find occurrences in groovy files (CTRL-Shift-U) now works.
- Mark occurrences now works.
- Improved syntax highlighting.
- Better type inferencing for closures inside DGM calls.



- Ability to set Method entry breakpoints.
- Fixed some issues preventing the setting of breakpoints.

## Fixed Bugs and Enhancement Requests

Here is a full list of resolved bugs and enhancement requests for the 2.6.0 release (including the 2.6.0 milestone builds):

#### **Enhancements**

- STS-1610 Ensure STS includes Grails 1.3.7
- STS-1599 As a user, I'd like to create a GSP easier from a context menu
- STS-1546 update STS to Eclipse 3.6.2
- STS-1531 Roo Plugin Manager
- STS-1524 killing grails commands due to a timeout should give the user a good idea of what happened and where to change the value
- STS-1523 Update Grails dependencies takes longer than the timeout of 15000
- STS-1514 Long Running Grails Process should support system properties set in GrailsCommand
- STS-1491 [gsps] content assist for variables
- STS-1485 Service support recognition for code assist and inferencing
- STS-1478 Handle type inferencing for inserted TagLib variables
- STS-1473 Merge the New Spring Project & New Java Project wizards
- STS-1471 Add "Scan" button to discover all Web Flow definition files in my project
- STS-1466 Parsing of updates.xml should understand platform filter
- STS-1465 @RequestMapping display improvements
- STS-1457 Collect ideas for improving the @RequestMapping view
- STS-1455 STS: Roo Shell: Tab completion does not work
- STS-1414 Hovering over gsp tags could show the available attributes
- STS-1410 Deploying Grails applications using a different environment than production using "Run on server..."
- STS-1408 [GSP] Ability to navigate to declaration of GSP tag
- STS-1315 Code completion for autowired dependencies
- STS-1272 As a user, I want an easy way to set system properties for any grails command I execute
- STS-1121 Syntax coloring issues
- STS-871 [Grails] Type inferencing of autowired fields
- IDE-1166 GRAILS Deployment should be done in DEV mode
- IDE-812 Hyperlinking for p namespace missing

#### Tasks

• STS-1403 - Right click functionality for "Domain Classes"



- STS-1355 Implement java editor tool support for @RequestMapping
- STS-1266 [Grails] Add automated tests that involve multiple grails installs

#### Sub-tasks

- STS-1625 Improve the presentation of transitions
- STS-1615 display warning when trying to enable insight on for tc Server instances that have a space in the path
- STS-1614 update discovery.jar for 2.6
- STS-1611 Extend "link with editor" to support link with selection
- STS-1603 implement a "link with editor" feature for RequestMappings view
- STS-1596 Add content assist for @RequestMapping method parameter type
- STS-1589 Add quick fix for @RequestMapping parameter
- STS-1588 Add quick fix for @ResponseBody for method with @RequestMapping
- STS-1586 Exclude standard arguments in path variable quick fix
- STS-1585 layout items according to their order in the XML
- STS-1584 Add quick fix for creating method parameter when URI template variable does not match
- STS-1579 update if transitions
- STS-1578 update transition creation tools
- STS-1571 update iconography
- STS-1570 icons should not have borders around them
- STS-1569 changing state labels should refactor the XML to keep transitions in place
- STS-1568 labels should be fixed width, and behave like the SI graph
- STS-1566 Improve @PathVariable content assist by showing all method params
- STS-1563 fix SpringIDE compile errors on Eclipse 3.7
- STS-1559 Add code template for creating @ExceptionHandler method
- STS-1558 Add code template for creating @InitBinder method
- STS-1553 Add @ExceptionHandler quick fix
- STS-1552 Add @ModelAttribute quick fix
- STS-1551 Add @InitBinder quick fix
- STS-1550 Add @RequestParam quickfix
- STS-1549 Implement @PathVariable refactoring
- STS-1525 Implement add @Controller quickfix
- STS-1482 create-filter wizard should be available where appropriate
- STS-1383 Add validation for variables in @RequestMapping
- STS-1382 Add content assist for variables in @RequestMapping
- STS-1372 Content assist for special GSP attributes
- STS-671 [grails] Ability to run grails commands in-process

#### Defects

 STS-1662 - Damaged launch configuration on Windows - affects ability to run grails commands from the prompt



- STS-1660 NPE in UAA
- STS-1659 TcServer enable insight with spaces in path warning dialog is misbehaving
- STS-1654 ArrayIndexOutOfBoundsException when opening console for application that is not running
- STS-1653 Errors running builder 'Spring Project Builder' on project. URI scheme is not "file"
- STS-1652 connection times out when authenticating proxy is specified
- STS-1651 Annotation @org.codehaus.groovy.grails.plugins.metadata.GrailsPlugin is not allowed on element ANNOTATION
- STS-1649 Visual editor selections are not updating the properties view
- STS-1644 fix platform filter for extension install
- STS-1643 fix icon in STS support editor
- STS-1630 Roo shell is inconsistent with roo.bat cmd line
- STS-1629 Update installed Roo addon with Add-on Manager
- STS-1624 Breakpoint not being installed when running with app-engine plugin installed
- STS-1623 The gsp editor does not recognize the TagLibs of plugins any longer
- STS-1621 Wrong wizard validation: tc Server requires IDK
- STS-1620 Trying to open template.mf fails with NoClassDefFoundError
- STS-1616 UAA 'Value too long' stack trace
- STS-1609 [SI graph] tcp-inbound-channel-adapter is rendered incorrectly
- STS-1608 grails-app/utils should be included in the Build Path as Source Folder
- STS-1607 STS 2.5.2 deadlocks on loading Spring XML
- STS-1604 GrailsVersion mismatch problem may arise when user changes project preferences
- STS-1601 Unexpected runtime error while computing a text hover
- STS-1598 Cannot rename non Java/Groovy files
- STS-1595 NPE when no default Roo runtime is configured
- STS-1594 reopening STS-1510 build taking a long time parsing spring bean configs
- STS-1587 move dm Server feature to Extension install
- STS-1583 Bogus validation on int:poller attribute if not the first child element in a config file
- STS-1582 Hover text of XML attribute of Batch schema uses wrong schema version?
- STS-1577 NPE when deploying VMforce applications
- STS-1573 Roo wizard should not enable Finish unless valid Roo runtime is selected
- STS-1567 Cannot complete the install because one or more required items could not be found. SpringSource Tool Suite Runtime Error Analysis Support 2.5.2.201101081000-RELEASE
- STS-1565 The overview page of the Spring config editor should display details for new/unknown namespaces.
- STS-1564 Adding a new Spring namespace using the UI corrupts schemalocation
- STS-1561 As a user, I would like to install STS on Eclipse 3.7 (Indigo)
- STS-1554 Problem with Spring IDE User Agent Analysis
- STS-1545 error dialog displayed when hovering over link in Console and internal browser is not available



- STS-1544 investigate deployment errors when connections are idle for a while
- STS-1543 Updates to jars containing new versions of Spring XSDs don't seem to pickup
- STS-1542 Spring -> Update Maven Dependencies blows away m2Eclipse projects
- STS-1539 Interactions between STS Groovy compiler and grails war command
- STS-1538 Need to find where this comes from and stop it coming out: [Fatal Error] :1:1: Premature end of file.
- STS-1530 Grails refresh dependencies (Error executing script Compile: org.apache.xerces.dom.DocumentImpl.getXmlStandalone()Z)
- STS-1528 STS 2.6.0.M1 fails to start on Mac OS X Leopard
- STS-1527 After upgrading Grails, Grails Dependencies classpath container still reference jars from the old Grails distributions
- STS-1521 Checkout an existing Grails (non eclipse) project from SVN just creates a new Grails project
- STS-1520 Grails plugin manager fails to uninstall plugin
- STS-1519 STS 2.5.2 is \*really\* slow at building
- STS-1518 Problem deploying Grails App that uses the audit-log plugin on Tc Server
- STS-1515 STS adds import statements for auto-imported packages' types also
- STS-1512 Attributes displayed with content assist for <g:remoteLink> tag don't seem correct
- STS-1511 IDF crash with STS 2.5.2
- STS-1508 NPE on startup when an editor factory fails to load
- STS-1506 installing a plugin that pulls in another plugin looks to have issues
- STS-1505 Spring Roo Project creation wizard hangs infinitely
- STS-1502 Problems with a refresh dependencies not quite getting the right answer (on first run, works on second)
- STS-1501 NPE with Beans from an external JAR
- STS-1489 [gsps] highlighting breaks down when single char reference is used
- STS-1486 UAA throws spurious exceptions from "library usage monitor"
- STS-1480 "The filename or extension is too long" Error When DataNucleus Enhancer is Run Within STS
- STS-1479 "Building workspace" takes extremely long for simple compile
- STS-1468 Constantly asked to save changes in a run config when there aren't any
- STS-1464 Can't move refactor in Grails Explorer
- STS-1463 Grails artifacts show up twice in Grails Explorer if refactored into default package
- STS-1462 Code completion on groovy is very sluggish.
- STS-1461 GC overhead limit exceeded
- STS-1459 Spurious error in GSP file with scriplets nested in comments
- STS-1458 Web flow graph UI & labelling updates
- STS-1456 STS hangs
- STS-1452 Exception thrown from usage monitor
- STS-1451 Grails Projects imported as 'linked' projects can't be deployed by "Run On Server".



- STS-1449 GrailsVersion class for parsing Grails version String doesn't handle build snapshot versions
- STS-1444 Issues in Importing Grails Projects into STS from SVN
- STS-1432 Grails version mismatch problems arise from changing default Grails install
- STS-1431 Groovy file text colors change while editing
- STS-1411 Exception logged to error log when gsp tidyup running for deleted project
- STS-1400 "Create Service..." Wizard Keyboard-ShortCut (Alt+G Alt+S) does not work
- STS-1280 Grails project displays warnings from plugin's sources
- STS-1114 Syntax highlighting of grails controller stops halfway the file
- STS-796 [grails] Grails run command and dependency calculation requires JDK
- IDE-1173 Constant reloading of Spring XML files after full build
- IDE-1171 Deadlock in bean model access
- IDE-1170 Workbench has not been created yet Error occured starting Spring UAA usage monitor
- IDE-1169 Rename ID doesn't find references in config-files that import the defining one
- IDE-1168 Classloader "previously initiated loading for a different type" error when using custom NamespaceResolvers
- IDE-1167 STS does not recognize Groovy syntax in GSPs
- IDE-1166 GRAILS Deployment should be done in DEV mode
- IDE-1164 @RequestMapping annotations don't appear in Spring Explorer or Request-Mapping view for ITD methods
- IDE-1161 Duplicates of config files when maven projects have "Project Reference"
- IDE-1159 Font Size in STS Navigation Panels Mac OSX
- IDE-998 Unable to rename advice declared with tx namepspace
- IDE-812 Hyperlinking for p namespace missing
- IDE-608 refactor support broken if you move/collapse a whole packages
- IDE-607 Refactor support for change method signature

