

SPOCK: THE NEXT GENERATION

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WHAT WE'LL TALK ABOUT

- ✳ Help!
- ✳ Did you know that...?
- ✳ Spock Extensions
- ✳ The road ahead

HELP!

DOCUMENTATION AND
OTHER RESOURCES

SPOCK WEB CONSOLE

<http://webconsole.spockframework.org>

The screenshot shows the Spock Web Console interface. At the top, there's a browser-like header with tabs, a back/forward button, and a URL field containing "meetspock.appspot.com/edit/1003". Below this is a blue header bar with the text "Spock Web Console". The main content area contains a code editor with the following Groovy script:

```
1 class EmptyStack extends Specification {
2     def stack = new Stack()
3
4     def "size()" {
5         expect: stack.size() == 0
6     }
7
8     def "pop()" {
9         when: stack.pop()
10        then: thrown(EmptyStackException)
11    }
12
13    def "peek()" {
14        when: stack.peek()
```

To the right of the code editor is a circular logo featuring a stylized "Groovy" wordmark with a blue and white design. Below the code editor is a navigation bar with buttons for "Actions > Run Script New Script Publish Script View Recent Scripts" and a "Subscribe" button with an RSS icon. At the bottom, there are three tabs: "Result" (which is selected), "Output", and "Stack Trace".

Tips & Tricks

- To run a script, press Alt-Meta-R
- To resize the script area, drag the horizontal rule

About Spock Web Console

- Based on [Groovy Web Console](#), code hosted on [GitHub](#)
- Powered by [Groovy 1.8](#) and [Spock 0.6](#)
- Syntax highlighting provided by [CodeMirror](#) and [SyntaxHighlighter](#)

DOCUMENTATION

- ✿ Old
<http://wiki.spockframework.org>
- ✿ New
<http://docs.spockframework.org>
Check back soon!

MAVEN REPOSITORIES

- ✿ Releases

[http://repo1.maven.org/maven2/org/
spockframework/](http://repo1.maven.org/maven2/org/spockframework/)

- ✿ Snapshots

[https://oss.sonatype.org/content/repositories/
snapshots/org/spockframework/](https://oss.sonatype.org/content/repositories/snapshots/org/spockframework/)

- ✿ Separate artifacts for each major Groovy
version

spock-core-0.6-groovy-1.8.jar

OTHER RESOURCES

- ✿ Google Group
<http://forum.spockframework.org>
- ✿ Source Code
<http://github.spockframework.org>
- ✿ Issue Tracker
<http://issues.spockframework.org>
- ✿ Spock Example Project
<http://examples.spockframework.org>

DID YOU KNOW
THAT ... ?

A D V A N C E D F E A T U R E S &
H I D D E N G E M S

ADVANCED MOCKING

✳ Chaining results

```
Gr8Conf gr8conf = Mock()  
gr8conf.nextTalk()  
    >> "spock-next-generation"  
    >> "spock-extensions-anatomy"  
    >> { throw new ShowOverException("see you next year!") }
```

ADVANCED MOCKING (2)

✿ Handling method arguments

```
interface Person {  
    void greet(Person other, String greeting)  
}
```

```
Person person = Mock()  
person.greet(*_) >> { args -> println args[1] }  
person.greet(*_) >> { Person p, String g -> println g }  
person.greet(*_) >> { IMockInvocation invocation ->  
    println invocation.mockObject  
    println invocation.method  
    println invocation.arguments  
}
```

CONFIGURING SPOCK

- ✿ `~/.spock/SpockConfig.groovy`
- ✿ `SpockConfig.groovy` on class path
- ✿ `-Dspock.configuration=path/to/file`

```
runner {  
    filterStackTrace true  
    optimizeRunOrder false  
    include Database  
    exclude UI  
}
```

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Demo

```
runner {  
    filterStackTrace true  
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    include Database  
    exclude UI  
}
```

CONFIGURING SPOCK (2)

- ✿ Extensions can have their own configuration

```
database {  
    username "fred"  
    password "gr8conf"  
}
```

- ✿ Enhancements in Spock 0.7
 - ✿ Different configuration formats XML, JSON, (system) properties
 - ✿ Embed configuration in build build.gradle, pom.xml

EQUALITY COMPARISONS

- ✿ Spock helps you see the difference

EQUALITY COMPARISONS

★ Spock helps you see the difference

Demo Time

SPOCK UNDER THE HOOD

✿ You write...

```
expect: sum(a, b) == c
```

✿ Spock generates...

```
def rec = new ValueRecorder()
verifier.expect(
    rec.record(rec.record(sum(rec.record(a),
        rec.record(b)) == rec.record(c))))
```

✿ You see...

```
sum(a, b) == c
|   |   |   |
3   1   2   |   4
              false
```

SPOCK EXTENSIONS

SPOCK EXTENSIONS

✿ Learn more in Evgeny Goldin's talk!

“Spock Extensions Anatomy”

17:00, same room

BUILT-IN EXTENSIONS

- ✿ @Ignore
- ✿ @IgnoreRest
- ✿ @FailsWith
- ✿ @Timeout
- ✿ @AutoCleanup
- ✿ @Stepwise
- ✿ @ConfineMetaClassChanges
- ✿ @Rule

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Demo Time

EXTERNAL EXTENSIONS

- ✳ spock-grails
- ✳ spock-spring
- ✳ spock-guice
- ✳ spock-tapestry
- ✳ spock-utils

- ✳ spock-griffon
- ✳ spock-arquillian
- ✳ spock-extensions <http://github.com/robfletcher/spock-extensions>

GRAILS EXTENSION

- ✿ <http://grails.org/plugin/spock>
- ✿ <http://github.spockframework.org/spock-grails>
- ✿ grails install plugin spock 0.6
- ✿ Supports both Grails 1.3 and 2.0
 - ✿ UnitSpec etc. for 1.3
 - ✿ @TestFor, @Mock for 2.0

THE ROAD AHEAD

S P O C K O . 7 A N D B E Y O N D

HACKERGARTEN

@GR8CONF

- ✿ Better mock error reporting
- ✿ Localized block labels

HACKERGARTEN

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DEMO TIME

LOCALIZED BLOCK LABELS

```
class FredFeuersteinSpec extends Specification {  
    def "fred singt"() {  
        gegeben: "fred feuerstein in guter laune"  
        wenn: "fred anfaengt zu singen"  
        dann: "laufen die leute davon"  
    }  
}
```

CONDITIONS WITH SAME RECEIVER

Old

```
expect:  
person.name == "fred"  
person.age == 42  
person.sex == "male"
```

New

```
expect:  
with(person) {  
    name == "fred"  
    age == 42  
    sex == "male"  
}
```

INTERACTIONS WITH SAME RECEIVER

Old

```
Person person = Mock()
```

```
def setup() {
    person.speak() >> "Hi there!"
    person.sleep() >> "Zzzzzz..."
    1 * person.clapOn("shoulder")
}
```

New

```
Person person = Mock {
    speak() >> "Hi there!"
    sleep() >> "Zzzzzz..."
    1 * clapOn("shoulder")
}
```

SHARING COMMON CODE

- Old
- Base spec
- JUnit Rule
- Spock Extension
- New
- Mixins instead of base spec

SPEC MIXINS

```
class MessagingSupport extends SpecificationMixin {
    @Inject
    Broker broker

    String brokerUrl = "vm://localhost"

    def setup() {
        broker.start(brokerUrl)
    }

    def cleanup() {
        broker.shutDown()
    }

    void sendMessage(String msg) {
        broker.send(msg)
    }

    String receiveMessage() {
        broker.receive()
    }
}
```

SPEC MIXINS (2)

```
class MyMessagingSpec extends Specification {
    MessagingSupport messaging =
        new MessagingSupport(brokerUrl:
            "tcp://localhost:61616")
    DatabaseSupport database

    def "store message in database"() {
        def msg = receiveMessage()
        database.store(msg)
    }
}
```

SPEC MIXINS (3)

- ✿ Mix in their API
- ✿ Participate in spec lifecycle
- ✿ Describe common behavior
- ✿ Written like regular specs
- ✿ Reuse of JUnit base classes

SPEC MIXINS (4)

```
class EqualsAndHashCodeContract extends SpecificationMixin {
    Specification owner

    def setup() {
        assert !owner.object1.is(owner.object2)
        assert !owner.object1.equals(owner.object2)

        def "is equal to itself"() {
            expect:
            owner.object1.equals(owner.object1)
            owner.object2.equals(owner.object2)
        }

        def "equals is symmetric"() {
            !owner.object1.equals(owner.object2)
            !owner.object2.equals(owner.object1)
        }
    }
}
```

SPEC MIXINS (5)

```
class PersonSpec extends Specification {  
    EqualsAndHashCodeContract contract  
  
    def object1 = new Person(name: "fred", age: 42)  
    def object2 = new Person(name: "barney", age: 21)  
}
```

Q&A

- ✿ Homepage
<http://spockframework.org>
- ✿ Source Code
<http://github.spockframework.org>
- ✿ Spock Web Console
<http://webconsole.spockframework.org>
- ✿ Spock Example Project
<http://examples.spockframework.org>
- ✿ Slides and Code for this Presentation
<http://github.spockframework.org/spock-next-generation>