

Testing Grails

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Topics

Running Grails tests

Unit tests

- Controllers

- Domain Classes

- Services

Integration tests

Functional tests

Spock

Plugins

Grails Tests

See Grails User Guide, Chapter 10

<http://grails.org/doc/latest/guide/testing.html>

Grails 1.3 or earlier:

Subclasses of `GrailsUnitTestCase`

Grails 2.0+:

Test mixins

Interactive Console

Much improved in Grails 2+

```
grails> test-app [args...]
```

```
grails> open test-report
```

Faster than other options

Types and Phases

grails test-app *phase:type*

type:

unit, integration, functional, *other*
state of Grails app

phase:

unit, integration
testing mechanism

Running Tests

```
grails test-app unit:
```

```
grails test-app :spock
```

```
grails test-app unit:spock
```

Annotations

`@TestFor`

Defines the class being tested

Instantiates class with default name
(controllers and services only)

`@TestFor(BookController)`

--> "controller" field

Annotations

@Mock

Used on domain class,
adds GORM methods
uses in-memory
ConcurrentHashMap

Mocking Collaborators

```
mockFor(class, loose = false)
```

Like Groovy MockFor / StubFor

Loose expectations

order of method calls doesn't matter

GrailsUnitTestMixin

Adds helpful methods:

`mockFor`

`mockForConstraintsTests`

`shouldFail`

`defineBeans`

DomainClassUnitTestMixin

Add mocks for:

- GORM methods

- Dynamic finders

- Criteria queries

- Validation

- Data binding

ControllerUnitTestMixin

More helpful methods and properties

```
request, response, servletContext  
getSession(), getFlash()  
getParams(), getModel()
```

ServiceUnitTestMixin

Adds mocked service to
application context

Available for dependency injection

Integration tests

Uses Grails infrastructure

Transactional services

tx rolls back by default (like Spring)

Methods requiring DB

Functional Tests

Done through plugins

Canoo Webtest

Geb

Selenium-RC

WebDriver

Spock

Sweet testing framework

```
test ":spock:0.6"
```


Spock Tests

Uses same annotations

Make test extend

`spock.lang.Specification`

Test name ends with Spec
(or Specification)

Plugins

build-test-data

Many available

Quality varies dramatically

Summary

New test mixins

Triggered by annotations

Testing controllers and services easy

Mock domain objects for constraints testing

Integration tests use Grails

Functional tests done through plugins

Making Java Groovy

Manning Early Access Program (MEAP)

<http://manning.com/kousen>

