Testing with CamelSpringJUnit4ClassRunner

This document describes how to test camel routes using the new approach connected with CamelSpringJunit4ClassRunnerClass

Step-by-step guide

1. Create example class as below

Simple testing class

```java
//Approach valid Apache Camel 2.10 onwards
@RunWith(CamelSpringJUnit4ClassRunner.class)
@BootstrapWith(CamelTestContextBootstrapper.class) //Spring 4.1.x
onwards
@ContextConfiguration(locations =
{"classpath:META-INF/spring/runner-mock-camel-context.xml"})
public class RunnerSimpleMockTest {

    @Autowired
    private CamelContext context;

    @Autowired
    private ProducerTemplate template;

    @EndpointInject(uri = "mock:finish")
    MockEndpoint mockFinish;

    @EndpointInject(uri = "mock:first")
    MockEndpoint mockFirst;

    @EndpointInject(uri = "mock:second")
    MockEndpoint mockSecond;

    @Test
    @DirtiesContext
    //Note that we still use the @DirtiesContext annotation to ensure
that the CamelContext, routes, and mock endpoints are reinitialized
between test methods.
    public void testMockEndpoints() throws Exception {
        mockFinish.expectedMessageCount(3);
        mockFinish.expectedBodiesReceived("Funny World", "First
Value", "Second Value");

        mockFirst.expectedMessageCount(1);
        mockFirst.expectedBodiesReceived("First Value");

        mockSecond.expectedMessageCount(1);
        mockSecond.expectedBodiesReceived("Second Value");

        template.sendBody("direct:start", "Funny World");
        template.sendBodyAndHeader("direct:start", "Hello World",
"myCommand", "firstCommand");
        template.sendBodyAndHeader("direct:start", "Hate World",
"myCommand", "secondCommand");

        MockEndpoint.assertIsSatisfied(context);
    }
}
```

2. Create simple camel spring context file

Camel spring context file

```xml
<?xml version="1.0" encoding="UTF-8"?>

<beans xmlns="http://www.springframework.org/schema/beans"
       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.xsd
       http://camel.apache.org/schema/spring
http://camel.apache.org/schema/spring/camel-spring.xsd">

    <bean id="runnerMockRouteBuilder"
class="com.myproject.example.routebuilder.RunnerMockRouteBuilder"/>

    <camelContext id="runnerMockRouteContext"
xmlns="http://camel.apache.org/schema/spring">
        <routeBuilder ref="runnerMockRouteBuilder" />
    </camelContext>

</beans>
```

3. Create example route builder

Example route builder in java code

```java
public class RunnerMockRouteBuilder extends SpringRouteBuilder{

    @Override
    public void configure() throws Exception {

        from("direct:start").routeId("startRouteId")
            .log("Command name = '${header.myCommand}'")
            .choice()
                .when(header("myCommand").isEqualTo("firstCommand"))
                    .log("I am firstCommand")
                    .to("direct:first")
                .when(header("myCommand").isEqualTo("secondCommand"))
                    .log("I am secondCommand")
                    .to("direct:second")
            .end()
            .log("===")
            .to("mock:finish");

        from("direct:first").routeId("firstRouteId")
            .transform(constant("First Value"))
            .log("My body in first = '${body}'")
            .to("mock:first");

        from("direct:second").routeId("secondRouteId")
            .transform(constant("Second Value"))
            .log("My body in second = '${body}'")
            .to("mock:second");
    }
}
```

Github resources

https://github.com/pawmac24/camel-spring-testing