Groovy Renderer User Guide

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This page presents how to editing the route definition in groovy language through the Web Console and which DSLs have beensupported currently.

What is Groovy Renderer

Groovy Renderer is a component, which can translate a route instance in CamelContext into a route builder in groovy language. By using it, Web Console allows developers disliking prolix XML to edit or update a route using groovy.

Getting Started

Through Web Console, you can review every route in the CamelContext. After opening a route in your browser, the URL may be http://localhost:8080/routes/route1, you can choose the edit link with groovy to update it. A groovy renderer will turn the route into groovy route definition. For example, after chooseing to edit a route defined by the following XML:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<route id="route1" xmlns:ns2="http://camel.apache.org/schema/web" xmlns="http://camel.apache.org/schema/spring">
  <description>This is an example route which you can start, stop and modify</description>
  <from uri="seda:foo"/>
  <to uri="mock:results" id="to1"/>
</route>
```

The groovy renderer will translate it into a route definition as follows:

```
import org.apache.camel.language.groovy.GroovyRouteBuilder;
class GroovyRoute extends GroovyRouteBuilder {
  void configure() {
    from("seda:foo").to("mock:results")
  }
}
```

Then you can update the route by input DSLs into the configure method. For example, you can change it into a Content Based Router by updating it as follows.

```
import org.apache.camel.language.groovy.GroovyRouteBuilder;
class GroovyRoute extends GroovyRouteBuilder {
  void configure() {
    from("seda:a").choice().when(header("foo").isEqualTo("bar")).to("seda:b")
      .when(header("foo").isEqualTo("cheese")).to("seda:c").otherwise().to("seda:d")
  }
}
```

Save it and then the route will deliver the following messages by parsing its header.

API in Groovy Renderer

renderRoute

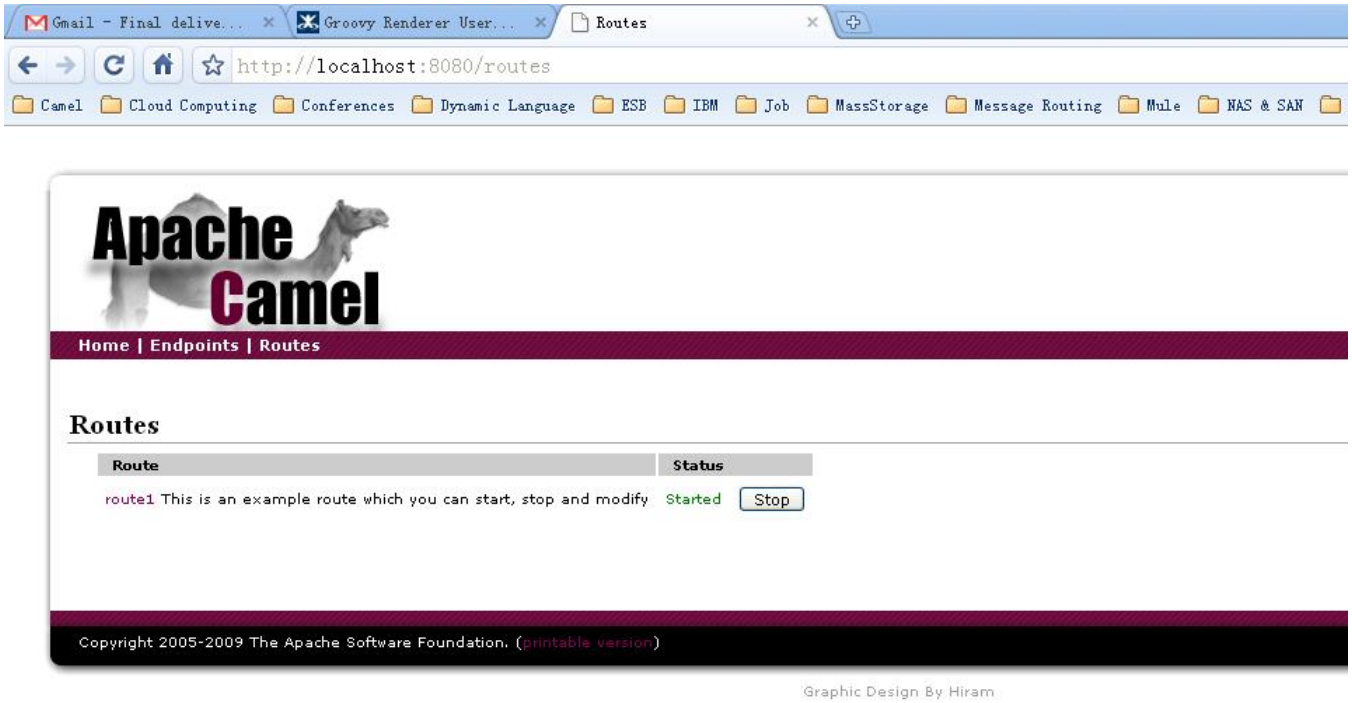
RenderRoute handles a route at a time. You can use it to revert a route for review or modification.

renderRoutes

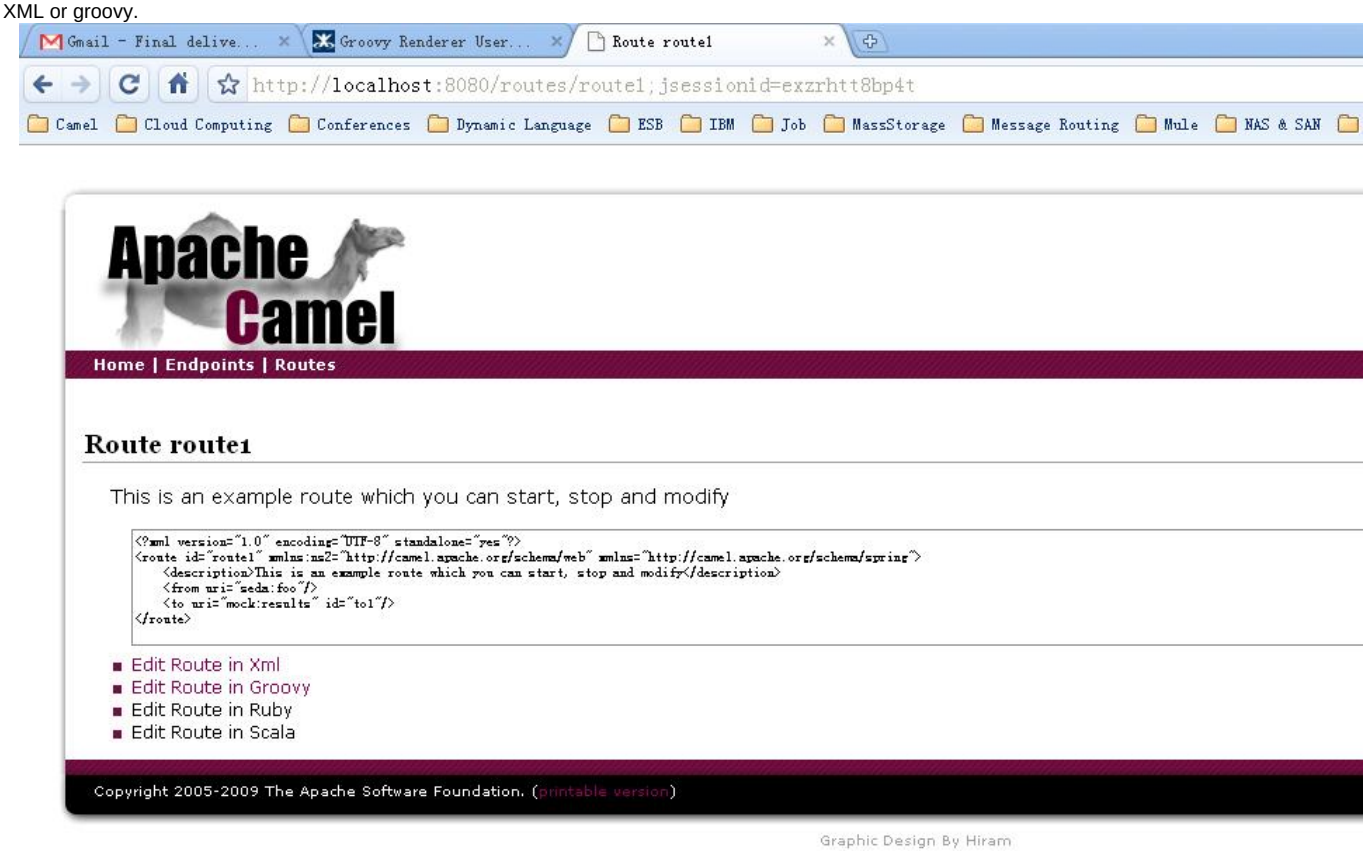
RenderRoutes can handle a collection of routes at a time. You can obtain the route list from CamelContext and then get a overview of all the route definitions by using renderRoutes method.

Web Console Editor

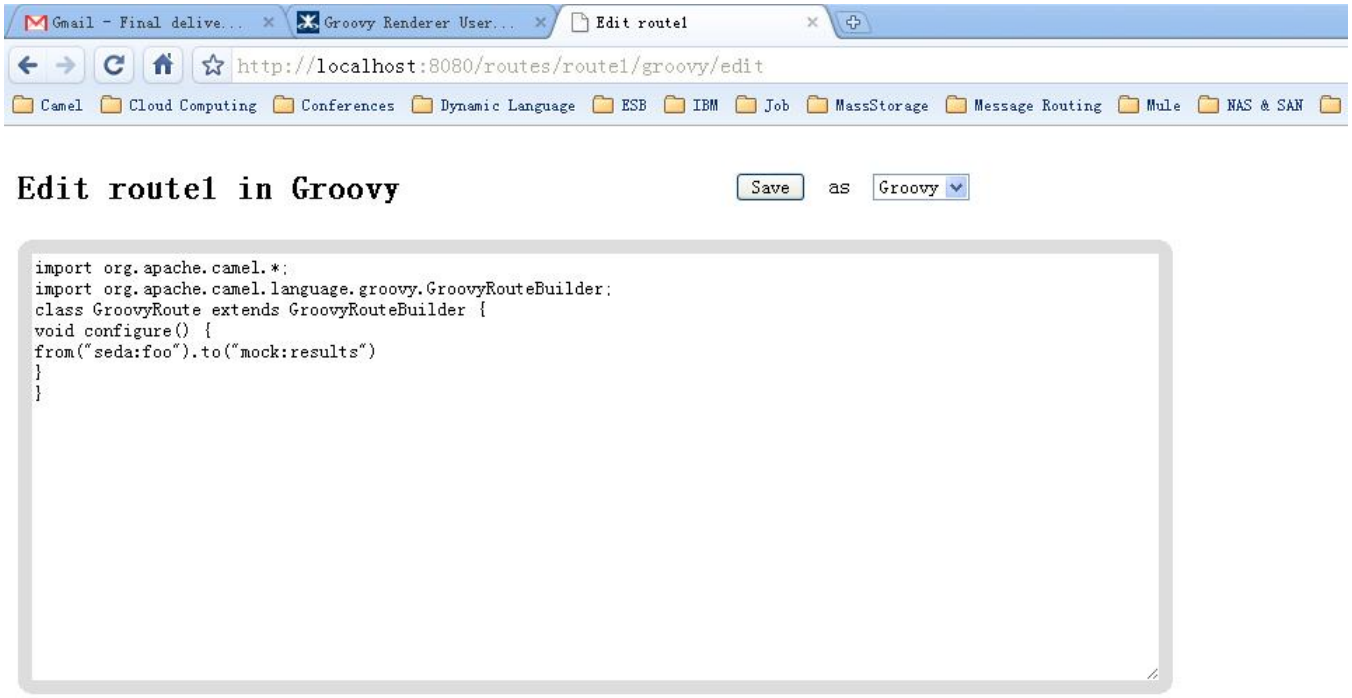
Through Web Console, you can view and edit the route. The following page lists all the routes configured in Camel Context.



By clicking the route id, you are redirected to the route view page. On this page, XML configuration is presented for view, and you can edit the route in XML or groovy.



Following gives the route editor page. You can edit the route in XML or groovy in current version.



Guide for more DSLs

Web Console focuses on providing a editor for developers to update a route at runtime, but won't try to provide a development environment with full support of DSLs. Groovy renderer can't render every details of the DSLs when opening a route though all of the DSLs can be accepted when creating it. Following is a list showing which DSLs are fully supported and which are not.

Supported DSLs

- aggregate
- aop
- beanRef
- choice
- convertBody
- deadLetter
- delay
- doTry...doCatch...doFinally
- enrich
- filter
- from
- idempotentConsumer
- intercept
- interceptFrom
- interceptSendToEndpoint
- loadBalance
- loop
- marshal
- onCompletion
- onException
- pipeline
- policy
- pollEnrich: aggregationStrategy can't be supported
- processRef
- recipientList
- removeHeader
- removeProperty
- resequence
- routeSlip
- setBody
- setExchangePattern
- setHeader
- setProperty
- sort
- split
- stop
- threads
- throttle
- to

- transacted
- transform
- wireTap
- xPath

You should read the Enterprise Integration Patterns for usage of these DSLs.

Un-supported DSLs

- bean, you may use beanRef instead.
- process, you may use processRef instead. Content Based Routing on Camel presents how to use the processRef on camel web project. Unsupported Groovy DSL Features on Web Console gives a more detailed explaination on it.

Some samples and tutorial

Content Based Routing on Camel
Load Balance for existing Messaging Service
You may want to get a bundle of DSLs for quick look on this page: DSL samples
Unsupported Groovy DSL Features on Web Console