

RCode

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Available as of Camel Extra 2.11

The rcode component supports the integration of the statistics environment R via [Rserve](#)

Dependency

```
<dependency>
  <groupId>org.apache-extras.camel-extra</groupId>
  <artifactId>camel-rcode</artifactId>
  <version>2.12.0</version>
</dependency>
```

URI format

```
rcode://host[:port]/operationId[?options]
```

There are several operations available to integrate Java with R. The current component has implemented the following subset of operations:

operationId	Description
ASSIGN_CONTENT	Assigns a string value to a symbol in R. The symbol is created if it does not already exist. An exchange object passed to an endpoint configured with the assign_content operation must contain an object of type <i>Entry<String,String></i> where the first String denotes the symbol name and the second contains the value.
ASSIGN_EXPRESSION	Assigns a content of a R Expression (<i>REXP</i>) to a symbol in R. The assignment of the symbol takes place when passing an object of type <i>Entry<String,REXP></i> via the message exchange.
EVAL	Evaluates a given R command and retrieves the result. The R command is transported as <i>String</i> object via the exchange.
PARSE_AND_EVAL	Parses and evaluates a given R command and retrieves the result. The R command is transported as <i>String</i> object via the exchange.
VOID_EVAL	Evaluates a given R command, but does not fetch the result. The R command is passed as <i>String</i> object within the exchange. This operation is useful for assignments or for plots having a defined file as output.

The following example should clarify the component's interaction style:

Configuring an endpoint that evaluates a given R command.

```
from("direct:rcode")
  .to("rcode:localhost:6311/eval?user=test&password=test123&bufferSize=4194304")
  .to("mock:test");
```

Sending an R command to the endpoint. For a full list of possible command, please refer to the [R Language Definition](#)

```
ProducerTemplate template;
template.sendBody("direct:rcode", "c <- sqrt(2^2 + 2^2);");
```

Options

Name	Type	Default	Description
user	String	null	Configures the username to authenticate secured Rserve instances
password	String	null	Adds the password to the endpoint to access a secured R environment
bufferSize	long	2097152	Defines the buffer size for the transport between Rserve and the rcode component. The lowest possible value is 32KB, the highest value is at 1GB. Both values are bound to the available RAM.

See Also

- [Configuring Camel](#)
- [Component](#)
- [Endpoint](#)
- [Getting Started](#)