

ADAMS

Advanced **D**ata mining **A**nd **M**achine learning **S**ystem

Module: adams-rest



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Chapter 1

Introduction

REST webservices ([?]rest)) are a popular variant of webservices, that are quite often easier to implement than full-blown SOAP-based ones ([?]soap)).

ADAMS provides a general framework for accessing and implementing REST webservices.

Chapter 2

Accessing a web-service

TODO

Chapter 3

Creating a web-service

TODO

3.1 Context

If your REST service components require a context, e.g., flow context, then you have to use the following approach for setting up the service factory¹:

```
JAXRSServerFactoryBean sf = new JAXRSServerFactoryBean();
CustomerService cs = new CustomerService();
sf.setServiceBeans(cs);
sf.setAddress("http://localhost:9080/");
sf.create();
```

By instantiating the *beans* yourself rather than through the factory, you can provide them with context. You then use the *setServiceBean(s)* methods to set one or more beans.

¹<http://cxf.apache.org/docs/jaxrs-services-configuration.html>

Chapter 4

Flow

This module contains generic actors in which you can simply plug your web-services that you have implemented. In the following a short overview.

The following standalones are available:

- *RESTServer* – runs a web-service. waiting for requests¹.

The following sources are available:

- *RESTSource* – queries a web-service and forwards the received data².

The following transformers are available:

- *RESTTransformer* – sends the data it receives to a web-service and forwards the data from the response in turn³.

The following sinks are available:

- *RESTSink* – simply sends data to a web-service⁴.

¹adams-rest-server.flow

²adams-rest-echo_source.flow

³adams-rest-echo_transformer.flow

⁴adams-rest-echo_sink.flow

Bibliography

- [1] *ADAMS* – Advanced Data mining and Machine learning System
<https://adams.cms.waikato.ac.nz/>
- [2] *Web service* – a method of communication between two electronic devices over the World Wide Web
http://en.wikipedia.org/wiki/Web_service
- [3] *REST* – Representational state transfer
http://en.wikipedia.org/wiki/Representational_state_transfer
- [4] *SOAP* – Simple Object Access Protocol
<http://en.wikipedia.org/wiki/SOAP>
- [5] *Apache CXF* – an open source services framework
<http://cxf.apache.org/>
- [6] *JAX-RS* – Java API for RESTful Web Services
https://en.wikipedia.org/wiki/Java_API_for_RESTful_Web_Services