

# Connector Documentation Template

## Revision History

Revision	Date	Author	Comments
0.1	16/4/2015	Fernando Oliveto Ignacio Gamarra	First draft

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## *Redmine Connector*

### Community

The Anypoint™ Connector for Redmine allows Mule applications to retrieve and manipulate data from a Redmine project using a common integration interface known as web services.

View information at the Redmine site on [Redmine](#).

This document describes implementation examples using Anypoint Studio.

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## Introduction

Redmine is a free and open source, web-based project management and issue tracking tool. It allows users to manage multiple projects and associated subprojects. It features per project wikis and forums, time tracking, and flexible role based access control. It includes a calendar and Gantt charts to aid visual representation of projects and their deadlines. Redmine integrates with various version control systems and includes a repository browser and diff viewer.

Redmine's features include the following:

- Allows tracking of multiple projects
- Supports flexible role-based access control
- Includes an issue tracking system
- Features a Gantt chart and calendar
- Integrates News, documents & files management
- Allows web feeds & e-mail notifications.

- Supports a per-project wiki and per-project forums
- Allows simple time tracking
- Includes custom fields for issues, time-entries, projects and users
- Supports a range of SCM integration, including (SVN, CVS, Git, Mercurial, Bazaar and Darcs)
- Supports multiple LDAP authentication
- Allows user self-registration
- Supports 34 languages
- Allows multiple databases
- Allows for plugins
- Provides a REST API

## Prerequisites

Because of how closely the connector is coupled with Redmine, this document assumes you have:

- A working knowledge of Redmine.

This document assumes that you are familiar with Mule, [Anypoint Connectors](#), and the [Anypoint Studio Essentials](#), [Anypoint Studio](#) interface. To increase your familiarity with Studio, consider completing one or more [Anypoint Studio Tutorials](#). Further, this page assumes that you have a basic understanding of [Mule flows](#) and [Mule Global Elements](#).

To use the Redmine connector, you must have the following:

- **Anypoint Studio.**
- **Apache Maven 3.x:** If you don't use Maven to manage your Mule project, it may not work due to class loader issues.
- **Java 7:** Redmine connector does not work unless you are using Java 1.7.0\_x as your JRE.
- **A project configuration in Redmine:** Configuring the Redmine connector requires configuring a Project configured in Redmine, and provide the valid credentials to set the connection strategy of this connector: an **URI** and **API access key**. As optional parameters, you can set the **username** and the **password** to access the Redmine instance.

## Compatibility

Redmine Connector 1.0 is compatible with the following applications:

Application/Service	Version
Mule Runtime	3.6 or higher
Anypoint Studio	January 2015
Java	1.7.0_x

# Installing and Configuring

## Installing

You can "test drive" the Redmine connector by installing it in Anypoint Studio. Follow the instructions to [download and launch Anypoint Studio](#), then follow the steps below to install the Redmine connector.

Because this is a connector in the beta version, you can download the source code cloning the source code from: <https://github.com/EpidataSA/redmine-connector.git> and build it with [Anypoint Connector DevKit](#) to find it available on your local repository. Then you can add it to Anypoint Studio following the next steps:

1. In Anypoint Studio, to import an existing connector project, click **File > Import > Anypoint Studio > Anypoint Connector Project from External Location**, browse the path location where you have the root directory for the Redmine Connector and complete the wizard to locate and import the project..
2. Click to accept terms and conditions of the product, then click **Finish**.
3. Click **Restart Now** to complete the installation. After you install the connector and restart Studio, the PeopleSoft connector is available in the palette in the Connectors category.

## Using This Connector

Redmine Connector is an web service based connector, which means that when you add the connector to your flow, you need to configure a specific web service for the connector to perform. After you select the web service, you can use the Type field to select a method that you want to execute.

## Adding to a Flow

1. Create a New Mule Project.
2. Add any of the Mule Inbound endpoints, such as the HTTP listener, to begin with.
3. Drag the Redmine connector onto the canvas, then select it to open the properties editor.
4. Configure the connector's parameters according to the table below.

Field	Description
Display Name	Enter a unique label for the connector in your application.
Connector Configuration	Connect to a global element linked to this connector. Global elements encapsulate reusable data about the connection to the target resource or service. Select the global Redmine connector element that you just created.
Operation	Select operation from the drop-down. You can select any of the Redmine operations displayed , which allows you to execute a web service published from Redmine.

Field	Description
Params	<p>Complete the parameters needed for the operation selected.</p> <p>For example, if <b>Get Project Detail</b> operation was selected, you need to select the <b>Type</b> parameter with a GetProjectDetail operation to be executed.</p>

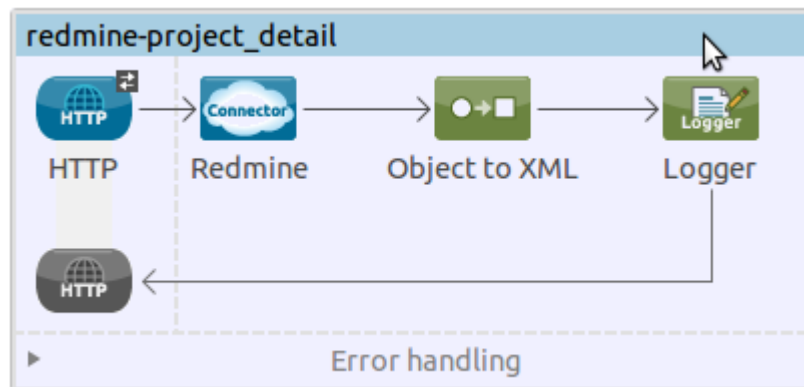
5. Click the blank space on the canvas to save your configurations.

## Example Use Case

In this example we are going to execute a Redmine operation, called **Get Project Detail** from the Redmine web service.

### Studio Visual Editor | XML Editor

Studio Visual Editor



1. Create a New Mule Project In your AnyPoint Studio.
2. Drag an HTTP endpoint into the canvas.
3. On the Message Flow canvas, double-click the HTTP icon to open the Properties panel.
4. Configure the following HTTP parameters:

Field	Value
Connector configuration	The global configuration for the HTTP connector
Path	The path for the HTTP URL

5. Drag the Redmine connector, then configure it according to the steps below:

- Add a new Redmine Global Element by clicking the plus sign next to the **Connector Configuration** field.
- Configure the global element according to the table below.

Field	Description
Name	Enter a name you prefer
Username	Enter your Redmine username
Password	Enter your Redmine password
Uri	Enter the URL of your Redmine instance.
Api Access Key	Enter the access key of your Redmine instance.

- Click **Test Connection** to confirm that Mule can connect with the Redmine instance. If the connection is successful, click **OK** to save the configurations. If unsuccessful, revise or correct any incorrect parameters, then test again.
- Back in the properties editor of the Redmine connector, configure the remaining parameters according to the table below.

Field	Value
Display Name	Testing Redmine operation (or any other name you prefer)
Connector configuration	Redmine Configuration (Enter name of the global element you have created)
Operation	Select <b>Get Project Detail</b>
Project Key	The Id of the project to be requested

6. Add a **Object to XML Transformer** after the Redmine connector.

7. Add a **Logger** scope right after the Object to XML Transformer, to print the data that is being received from the Redmine connector in the Mule Console. Configure the Logger according to the table below.

Field	Value
Display Name	Logger (or any other name you prefer)
Message	<b>#[payload]</b>
Level	INFO (Default)

8. Save and run the project as a Mule Application.



## XML Editor

1. Add a `redmine:config` global element to your project, then configure its attributes according to the table below.

```
<redmine:config-type name="Redmine_Configuration" doc:name="Redmine: Configuration type strategy" apiAccessKey="${redmine.apiAccessKey}" uri="${redmine.uri}" password="${redmine.password}" username="${redmine.username}"/>
```

Field	Description
Name	Enter a name you prefer
Api Access Key	Enter your Api Access Key
Uri	Enter the URI of your Redmine instance.
Password	Enter your Redmine password.
Username	Enter your Redmine username.

2. Begin the flow with a HTTP endpoint, configuring the endpoint according to the table below.

```
<http:listener config-ref="HTTP_Listener_Configuration" path="/get" allowedMethods="GET" doc:name="HTTP"/>
```

Field	Value
Connector configuration	The global configuration for the HTTP connector
Path	The path for the HTTP URL

3. Add the `redmine:get-project-details` element now to obtain the projects with the specified project key in your Redmine instance.

```
<redmine:get-project-detail config-ref="Redmine_Configuration" projectKey="${projectKey}" doc:name="Redmine"/>
```

4. Add a Object to XML Transformer.

```
<mulexml:object-to-xml-transformer doc:name="Object to XML"/>
```

5. Add a logger component and set message attribute value to `"#[payload]"`.

```
<logger message="#[payload]" level="INFO" doc:name="Logger"/>
```

6. Save and run the project as a Mule Application.



## Code Example

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

<mule xmlns:tracking="http://www.mulesoft.org/schema/mule/ee/tracking"
xmlns:json="http://www.mulesoft.org/schema/mule/json"
xmlns:mulexml="http://www.mulesoft.org/schema/mule/xml"
xmlns:http="http://www.mulesoft.org/schema/mule/http"
xmlns:redmine="http://www.mulesoft.org/schema/mule/redmine"
xmlns="http://www.mulesoft.org/schema/mule/core"
xmlns:doc="http://www.mulesoft.org/schema/mule/documentation"
      xmlns:spring="http://www.springframework.org/schema/beans" version="EE-3.6.1"
      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-current.xsd
http://www.mulesoft.org/schema/mule/core
http://www.mulesoft.org/schema/mule/core/current/mule.xsd
http://www.mulesoft.org/schema/mule/http http://www.mulesoft.org/schema/mule/http/current/mule-
http.xsd
http://www.mulesoft.org/schema/mule/redmine
http://www.mulesoft.org/schema/mule/redmine/current/mule-redmine.xsd
http://www.mulesoft.org/schema/mule/json http://www.mulesoft.org/schema/mule/json/current/mule-
json.xsd
http://www.mulesoft.org/schema/mule/xml http://www.mulesoft.org/schema/mule/xml/current/mule-
xml.xsd
http://www.mulesoft.org/schema/mule/ee/tracking
http://www.mulesoft.org/schema/mule/ee/tracking/current/mule-tracking-ee.xsd">
  <http:listener-config name="HTTP_Listener_Configuration" host="localhost" port="8081"
doc:name="HTTP Listener Configuration"/>
  <redmine:config-type apiKey="{redmine.apiAccessKey}" username="{redmine.username}"
password="{redmine.password}" uri="{redmine.uri}" name="Redmine"
doc:name="Redmine"></redmine:config-type>
  <flow name="redmine-project_detail">
    <http:listener config-ref="HTTP_Listener_Configuration" path="/project-detail"
doc:name="HTTP"/>
    <redmine:get-project-detail config-ref="Redmine_Configuration" projectKey="73"
doc:name="Redmine"/>
    <mulexml:object-to-xml-transformer doc:name="Object to XML"/>
    <logger message="#[payload]" level="INFO" doc:name="Logger"/>
  </flow>
```

## See Also

- Learn more about working with [Anypoint Connectors](#).
- Access PeopleSoft connector [release notes](#).