

# ADAMS

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

Module: adams-twitter



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# Chapter 1

## Introduction

ADAMS is a great environment for processing data streams. Using the excellent Java library *twitter4j* [2], you can tap into Twitter's stream of tweets or query for tweets that meet certain criteria.







## Chapter 2

# Flow

The flow comes with a range of actors for accessing the Twitter API. The following standalone actors are available:

- *TwitterConnection* - here you set up your parameters, like consumer key/secret. It uses the globally defined preferences as default parameters (see chapter 3).

The following sources are available:

- *TwitterListener* - listens to the *sample* stream of tweets.<sup>1</sup>
- *TwitterQuery* - retrieves tweets that match your query.<sup>2</sup>

The following transformers are available:

- *TwitterConverter* - turns the tweets into a different format using the specified converter (e.g., text or spreadsheets).
- *TwitterFilter* - allows you to filter the stream of tweets coming through using a filter expression. Useful when generating several datasets with different subsets (in sub-branches) from the same stream of tweets.<sup>3</sup>
- *TwitterUser* - retrieves information about the user (via its screen name or ID).

The following sinks are available:

- *Tweet* - updates your status with the incoming string.

The following boolean conditions are available (can be used in *IfThenElse* or *Switch* control actors):

- *TwitterFilterExpression* - allows to perform checks on the status object passing through.<sup>4</sup>

For more information on the format of search queries used by the *TwitterQuery* source, see the following URL:

<https://dev.twitter.com/rest/public/search>

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<sup>1</sup>adams-twitter\_listener1.flow, adams-twitter\_listener2.flow

<sup>2</sup>adams-twitter\_query1.flow, adams-twitter\_query2.flow, adams-twitter\_query3.flow

<sup>3</sup>adams-twitter\_query4.flow

<sup>4</sup>adams-twitter\_query4.flow, adams-twitter\_query5.flow



## Chapter 3

# Preferences

The *TwitterConnection* standalone actor uses the globally defined twitter setup for its default settings. If you don't want to hand out your keys and secrets, you can simply configure your keys/secrets in the global settings and just use the default *TwitterConnection* configuration. Figure 3.1 shows the preferences tab for Twitter.

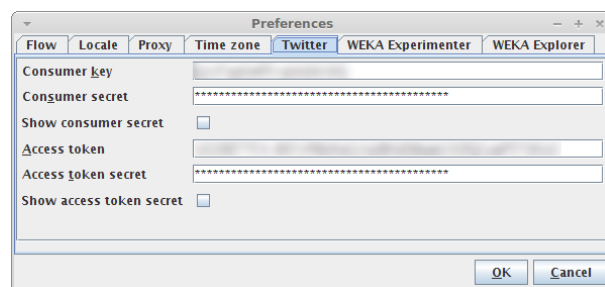


Figure 3.1: Twitter preferences



# Bibliography

- [1] *ADAMS* – Advanced Data mining and Machine learning System  
<https://adams.cms.waikato.ac.nz/>
- [2] *twitter4j* – An unofficial Java library for the Twitter API  
<http://twitter4j.org/>