

Package ‘OnassisJavaLibs’

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Type Package

Title OnassisJavaLibs, java libraries to run conceptmapper and semantic similarity

Version 1.0.0

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Description A package that contains java libraries to call conceptmapper and compute semantic similarity from R

License GPL-2

Depends R (>= 3.4)

Imports rJava

Suggests BiocStyle, rmarkdown, knitr

VignetteBuilder rmarkdown, knitr

SystemRequirements Java (>= 1.8)

Encoding UTF-8

LazyData true

biocViews ExperimentData

NeedsCompilation no

RoxygenNote 6.0.1

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OnassisJavaLibs

OnASSiSJavaLibs libraries for natural language processing and semantic similarity computation

Description

OnassisJavaLibs

Details

Is a data package containing two compiled libraries in jar format and their source code used to * create a conceptmapper pipeline aimed at finding concepts belonging to OBO ontologies in (OBO, OWL or RDF format) any type of text * compute different semantic similarity measures between two concepts or two sets of concepts

The methods for the conceptmapper pipeline have been developed and published by the Regents of the University of Colorado under BSD 3-clause license. In order to have a jar file including all the needed dependencies, the source code available in the GitHub repository <https://github.com/UCDenver-ccp/ccp-nlp>, version 3.3.2 has been compiled using maven with the following goals: `/code mvn clean compile assembly:single -Dlog4j.configuration=log4j2.properties` The methods for computing the semantic similarities instead have been developed and published by the the Ecole des mines d'Alès under the GPL-compatible CeCILL licence. In this case the source code available in the GitHub repository <https://github.com/sharispe/slib>, version 0.9.5, has been downloaded and modified in some parts to load OBO ontologies without generating an exception if a namespace is not provided. In particular, in the new version of the library the following files have been modified:

- GraphLoader_OBO_1_2.java to add the namespace when the OBO file is loaded in a graph
- SMConstants.java to add more short flags to the SIM_PAIRWISE_SHORT_FLAGS
- pom.xml in the main slib directory to change the version of the modified library

To install the library in the local repository the following command has been run from the slib directory where the pom.xml of the parent project is located: `/code mvn clean install`

A Similarity.java class has been created to compute load OBO ontologies into a graph, to configure the similarity measure and to compute the semantic similarity between two concepts (pairwise similarity) or two sets of concepts (groupwise similarity)

To create a unique jar with all the dependencies we used maven as follows: `/code mvn clean install assembly:single` This two libraries will be used in the package Onassis

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