

Apache UIMA AlchemyAPI Annotator Documentation

Written and maintained by the Apache UIMA Development Community

Version 2.3.1

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Introduction

The AlchemyAPI Annotator is a set of annotators that wrap the AlchemyAPI (<http://www.alchemyapi.com>) services provided by Orchestr8 (<http://www.orchestr8.net>).

To use AlchemyAPI Annotator, choose which service you want to put inside your UIMA pipeline, then find the corresponding AE descriptor, put your API Key as value of the 'apikey' parameter, eventually modify the parameters' defaults and you're done.

Chapter 1. Wrapped services

This chapter describes the AlchemyAPI services wrapped inside AlchemyAPI Annotator.

1.1. Categorization

AlchemyAPI's Categorization service can be used to categorize text, HTML, or web-based content, assigning the most likely topic category (news, sports, business, etc.)

Table 1.1. Category Types

Arts and Entertainment	Arts (Drawing, Sculpting, etc.) and Entertainment (Movies, Music, etc.) News and Discussion.
Business	Business and Finance News, SEC filings, etc.
Computers and Internet	Information Technology (Computers, Internet, Mobile Phones, etc.) News and Discussion.
Culture and Politics	Political News and Discussion, and Culture / Society-related issues.
Gaming	Gaming (Computer Games, Video Games, Board Games) News and Discussion.
Health	Health (Medications, Treatments, Diseases, etc.) News.
Law and Crime	Legal and Crime-related News and Discussion.
Religion	Religious News and Discussion.
Recreation	Recreational Activities (Boating, etc.)
Science and Technology	Science (Physics, Astronomy, etc.) News and Discussion.
Sports	Sports News and Commentary.
Weather	Weather News and Discussion.

Supported languages are: *English, French, German, Italian, Portuguese, Russian, Spanish, Swedish*.

The information extracted on the category of (for example) the passed text document is stored inside a FeatureStructure of type `org.apache.uima.alchemy.ts.categorization.Category`, with text and score.

1.2. Keyword Extraction

AlchemyAPI's Keyword Extraction service can be used to extract topic keywords from HTML, text, or web-based contents. Supported languages are: *English, French, German, Italian, Portuguese, Russian, Spanish, Swedish*

Each keyword is put inside a `org.apache.uima.alchemy.ts.keywords.KeywordFS` Feature Structure with the extracted keyword as text feature.

1.3. Language Detection

AlchemyAPI's Language Detection service can be used to extract language from a text, HTML, or web-based content. AlchemyAPI identifies more of 95 languages. Supported languages:

- Afrikaans ISO-639-3: afr
- Albanian ISO-639-3: sqi
- Amharic ISO-639-3: amh
- Amuzgo Guerrero ISO-639-3: amu
- Arabic ISO-639-3: ara
- Armenian ISO-639-3: hye
- Azerbaijani ISO-639-3: aze
- Basque ISO-639-3: eus
- Breton ISO-639-3: bre
- Bulgarian ISO-639-3: bul
- Catalan ISO-639-3: cat
- Cebuano ISO-639-3: ceb
- Central K'iche' ISO-639-3: qut
- Central Mam ISO-639-3: mvc
- Chamorro ISO-639-3: cha
- Cherokee ISO-639-3: chr
- Chinese ISO-639-3: zho
- Comaltepec Chinantec ISO-639-3: cco
- Comaltepec Chinantec ISO-639-3: cco
- Croatian ISO-639-3: hrv
- Cubulco Achi' ISO-639-3: acc
- Czech ISO-639-3: ces
- Dakota ISO-639-3: dak
- Danish ISO-639-3: dan
- Dutch ISO-639-3: nld

- English ISO-639-3: eng
- Esperanto ISO-639-3: epo
- Estonian ISO-639-3: est
- Faroese ISO-639-3: fao
- Fijian ISO-639-3: fij
- Finnish ISO-639-3: fin
- French ISO-639-3: fra
- Fulfulde Adamawa ISO-639-3: fub
- Georgian ISO-639-3: kat
- German ISO-639-3: deu
- Greek ISO-639-3: ell
- Guerrero Nahuatl ISO-639-3: ngu
- Gujarti ISO-639-3: guj
- Haitian Creole ISO-639-3: hat
- Hausa ISO-639-3: hau
- Hawaiian ISO-639-3: haw
- Hebrew ISO-639-3: heb
- Hiligaynon ISO-639-3: hil
- Hindi ISO-639-3: hin
- Hungarian ISO-639-3: hun
- Icelandic ISO-639-3: isl
- Indonesian ISO-639-3: ind
- Irish ISO-639-3: gle
- Italian ISO-639-3: ita
- Jacalteco ISO-639-3: jac
- Japanese ISO-639-3: jpn
- Kabyle ISO-639-3: kab
- Kaqchikel ISO-639-3: cak
- Kirghiz ISO-639-3: kir

- Kisongye ISO-639-3: sop
- Korean ISO-639-3: kor
- Latin ISO-639-3: lat
- Latvian ISO-639-3: lav
- Lithuanian ISO-639-3: lit
- Low Saxon ISO-639-3: nds
- Macedonian ISO-639-3: mkd
- Malay ISO-639-3: msa
- Maltese ISO-639-3: mlt
- Maori ISO-639-3: mri
- Micmac ISO-639-3: mic
- Mòoré ISO-639-3: mos
- Ndebele ISO-639-3: nde
- Nepali ISO-639-3: nep
- Norwegian ISO-639-3: nor
- Ojibwa ISO-639-3: oji
- Pashto ISO-639-3: pus
- Persian ISO-639-3: fas
- Polish ISO-639-3: pol
- Portuguese ISO-639-3: por
- Q'eqchi' ISO-639-3: kek
- Romanian ISO-639-3: ron
- Romani ISO-639-3: rom
- Russian ISO-639-3: rus
- Serbian ISO-639-3: srp
- Shona ISO-639-3: sna
- Shuar ISO-639-3: jiv
- Slovak ISO-639-3: slk
- Slovenian ISO-639-3: slv
- Spanish ISO-639-3: spa

- Swahili ISO-639-3: swa
- Swedish ISO-639-3: swe
- Tagalog ISO-639-3: tgl
- Thai ISO-639-3: tha
- Todos Santos Cuchumatán ISO-639-3: mvj
- Turkish ISO-639-3: tur
- Ukrainian ISO-639-3: ukr
- Urdu ISO-639-3: urd
- Uspanteco ISO-639-3: usp
- Vietnamese ISO-639-3: vie
- Welsh ISO-639-3: cym
- Wolof ISO-639-3: wol
- Xhosa ISO-639-3: xho
- Zarma ISO-639-3: ssa

1.4. Ranked Entities Extraction

AlchemyAPI's Ranked Entities Extraction service can be exploited for identifying people, companies, organizations, cities, geographic features, and other typed entities within your HTML, text, or web-based content. To see the complete list of supported entity types see here: <http://www.alchemyapi.com/api/entity/types.html>¹ This service also exposes 'entity disambiguation' mechanism to resolve detected companies, locations, and people to a unique "instance". Such thing is stored inside the 'disambiguation' feature of all the FeatureStructures inside the package org.apache.uima.alchemy.ts.entity, except for AlchemyAnnotation. This service also provides comprehensive support for RDF and Linked Data. This is done filling some features like 'dbpedia', 'geonames' and other linked data nodes' information. In the end also advanced quotations extraction is integrated into all named entity extraction API calls, enabling the identification of utterances ("quotations") within unstructured text, this will be stored inside 'quotations' feature.

1.5. Microformats Extraction

This AlchemyAPI's service handles Microformats data standards and is capable of extracting hCard, adr, geo, and rel-* formatted content from web pages. The information is stored inside a Feature Structure called MicroformatFS under org.apache.uima.alchemy.ts.microformats package.

1.6. Annotated Entities Extraction

This service is somehow an enhancement of the Ranked Entities Extraction service, with annotation of piece of text relating to extracted entities.

¹ <http://www.alchemyapi.com/api/entity/types.html>

Note: Annotator and descriptor still live but the service underneath is not available for free API keys.

Chapter 2. Configuring parameters

This chapter describes how to configure AlchemyAPI Annotator analysis engines' parameters.

2.1. Common Parameters

- *apikey* : this parameter contains the (free or not) API key string needed to be able to call AlchemyAPI services.
- *output* : this parameter contains one of xml,json,rdf,rel-tag respectively to specify the desired output in XML, JSON, RDF or MicroFormat formats. Beware that each AE wrapping an AlchemyAPI service has a set of supported output formats that is a subset of the previous list.

2.2. Service Specific Parameters

Entity Extraction Text : see [here](#)¹

Text Categorization : see [here](#)²

Text Keyword/Term Extraction : see [here](#)³

HTML Micrformats Extraction : see [here](#)⁴

URL Micrformats Extraction : see [here](#)⁵

¹ <http://www.alchemyapi.com/api/entity/textc.html>

² <http://www.alchemyapi.com/api/categ/textc.html>

³ <http://www.alchemyapi.com/api/keyword/textc.html>

⁴ <http://www.alchemyapi.com/api/mformat/htmlc.html>

⁵ <http://www.alchemyapi.com/api/mformat/urls.html>

