Analyze the Voice of the Customer in the Telco Industry

Readme

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1. Introduction

This document contains all essential information for the user to make full use of the Bot. This manual includes a description of the functions available and step-by-step procedures for setup & configuration of the Bot and the MeaningCloud license.

1.1 Overview

This Bot assigns one or more categories to customer feedback texts in the Telecommunications (Telco) industry. By applying a powerful semantic rule technology, it provides maximum accuracy in the classification while allowing the fastest and most efficient definition of models.

The process involved in the Bot takes the following steps:

1. Read data from text source to be analyzed.
2. Send request to MeaningCloud API.
3. Receive response from MeaningCloud API with the categorization of the text.

The taxonomy with all the categories that you may obtain in the classification is described in the MeaningCloud Voice of Customer documentation. The categories are divided into eight dimensions that analyze different aspects of the customer feedback:

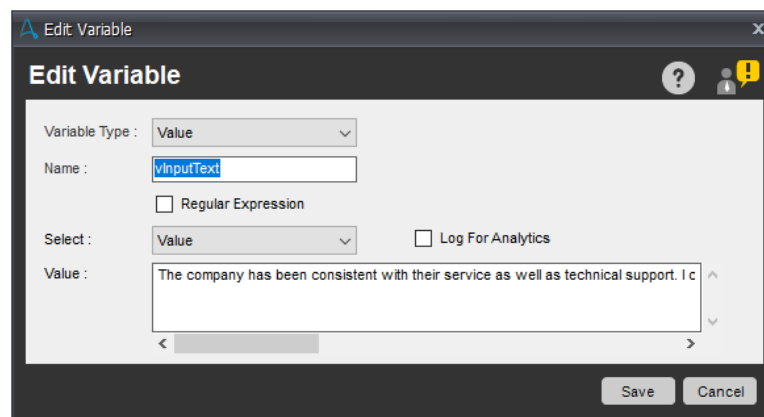| Dimension	Description	Example
Channel	This dimension refers to the channel of contact mentioned in the text analyzed.	Social network
Company	This dimension refers to the telecommunication companies mentioned in the text analyzed.	Generic provider
Condition	This dimension refers to specific conditions of the operative mentioned in the text analyzed.	Promotion
Customer service	This dimension refers to mentions of different aspects of the customer service in the text to analyze.	Incident management
Operation	This dimension refers to the operational aspects that can be expressed in the text to analyze.	Number portability
Satisfaction	This dimension refers to the global satisfaction expressed in the text to analyze.	Positive
Service	This dimension refers to the possible telecommunication services that may appear in the text to analyze.	Fiber
Quality	This dimension refers to quality aspects mentioned in the text to analyze.	Flexibility

It's also possible to append the associated polarity value of each extracted categories. The possible values are the following:

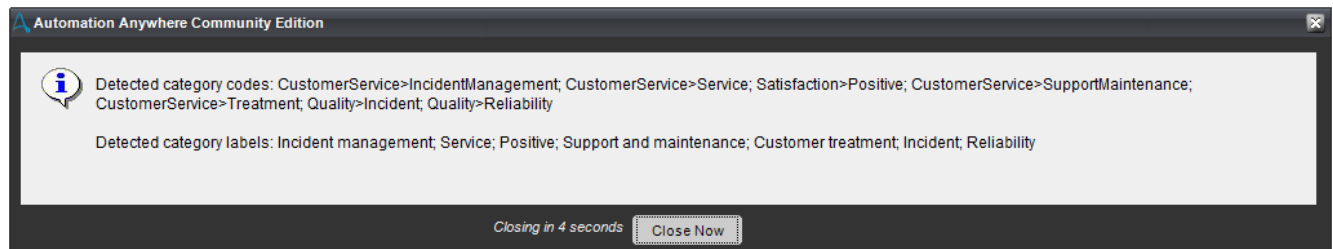| Polarity	Value
P+	Strong positive
P	Positive
NEU	Neutral
N	Negative
N+	Strong negative
NONE	Without sentiment

Visual Flow
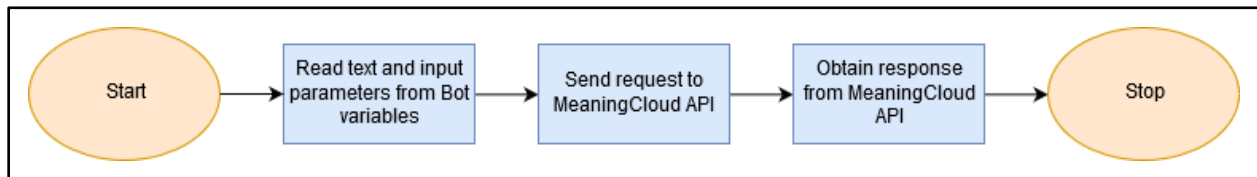
Input: Text read from vInputText AA variable

Output: Response from API

1.2 Common Use cases

Examples of some use cases include:

- Classify with great detail and precision content related to Telecommunications Industry.
- Analyze unstructured feedback generated by customers in surveys, contact centers or social media to discover their needs, perceptions and preferences.

2. Requirements & Prerequisites

2.1 System Requirements

For the PC or Server where the Bot needs to run:

✓ RAM: 8GB or higher.

✓ Processor: 3.5 GHz+ with 4 multi-cores or higher.

✓ Storage: 2GB or higher in the AA Client Installation drive

Further information is shown in Enterprise Client & Control Room system requirements.

2.2 Prerequisites

Software needed:

✓ AA Enterprise Client 11.x

✓ AA Enterprise Control Room 11.x

Accounts / License needed:

✓ MeaningCloud License Key (A MeaningCloud account is required to obtain a free key)

✓ AA Enterprise License

2.3 Security Measures

There are some security best practices recommendations that you may follow with your Bot:

- It is recommended to store the MeaningCloud license key in a secured environment like the Automation Anywhere Credential Vault.

3. Getting Started

3.1 Skill Matrix

The functionality of the Bot has been divided into a set of skills.

Below is an overview of how the TaskBots and MetaBots map to these skills:

Skill	TaskBot Files	MetaBot Files
Extracts one or more categories from a text, performing an analysis focused on the Telco industry	Analyze VoC in Telco Industry.atmx	MeaningCloudVoCTelcoMetabot.mbot

Skill	MetaBot Files
Perform requests to MeaningCloud's Deep Categorization API and retrieve the response	MeaningCloudVoCTelcoMetabot.mbot

3.2 Installation Hierarchy

Once the Bot is downloaded and installed, the installer creates the files in the folder structure as shown below:

Folder Structure on your Machine

Folder Structure	Description

<AA Application Path>
 	
• **My Tasks**
 	
    o **Bot Store**
 	
        ▪ **AnalyzeVoCTelcoIndustry-MeaningCloud**
 	
            • **My Tasks**
                o Analyze VoC in Telco Industry.atmx
 	
            • **Error Folder**
                o **Logs**
                      ▪ Error Log Day-Month-Year.txt
                o **Snapshots**
                      ▪ Error Snap Day-Month-Year HourMinuteSecond.png
• **My MetaBots**
    o MeaningCloudVoCTelcoMetabot.mbot
	<AA Application Path>is the location where AA files are stored on your machine.
	
	Bot Store folder contains all the Bots installed from the Bot Store.
	
	AnalyzeVoCTelcoIndustry-MeaningCloud contains files and folders needed for the Bot.
	
	My Tasks folder contains all the developed TaskBots.
	
	Error Folder is where logs and snapshots of screens will be placed if something goes wrong with the Bot during execution.
	
	My Metabots folder contains the developed Metabots needed for the Bot execution.

3.3 Quick Start

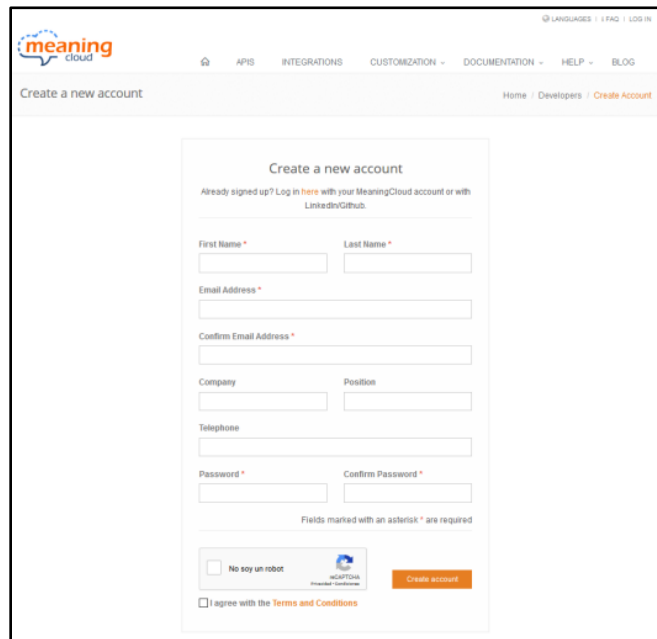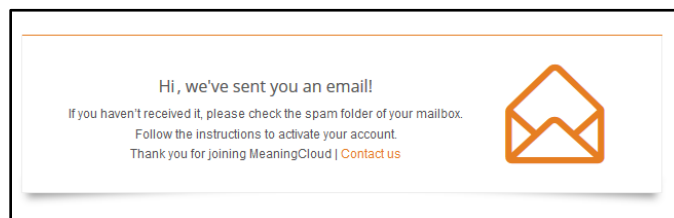### 3.3.1 Setup

Step 1: Setting up a MeaningCloud account

In order to use Bots that include MeaningCloud applications, a valid license key is needed. The first step is to create an account in MeaningCloud:
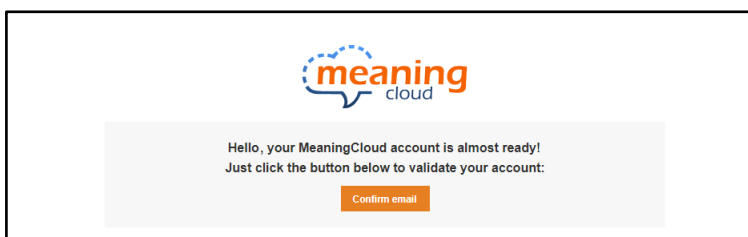
https://www.meaningcloud.com/developer/create-account

After registering, you will receive a confirmation mail in your Inbox.

Review your mail Inbox and confirm your registration in the MeaningCloud mail that has been sent.

Step 2: Obtain your free license key

Log in the Developer area (https://www.meaningcloud.com/developer/login) and click on "Subscription" at the very top of the page.

The license key is available in the "Subscriptions" section. Copy its value to the clipboard to store it in a Bot variable or in the Credential Vault.
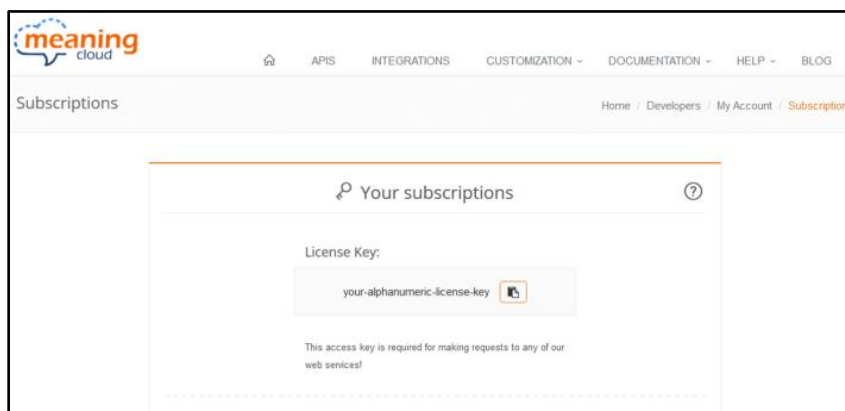
By creating an account in MeaningCloud, you are automatically subscribed to the Free plan, which enables you to make up to 20k credits per month (a credit is a request up to 125 words for this API, that is, a request for a text with 600 words, would cost 5 credits) at a rate of 2 requests per second.

Step 3: Request access to packs

There are two possible ways to do this:

- Subscribing to the pack you are interested in.
- Requesting the 30 day free trial period that we offer for all our packs.

To start the trial period of the Voice of Customer pack, log in the Developer area (https://www.meaningcloud.com/developer/login), find the tab called "Our packs" and click on the 'Start trial' button for 'Voice of the Customer' pack.
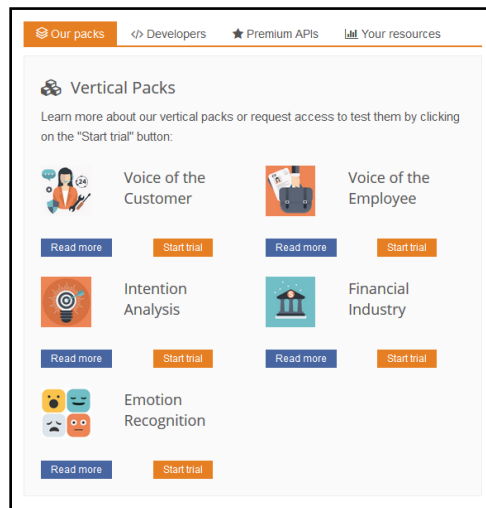
When the 'Start trial' button is pressed, a new dialog appears in order to confirm the 30-day free trial. After click in the 'Start trial' button, you will be redirected to your 'Subscriptions' section.
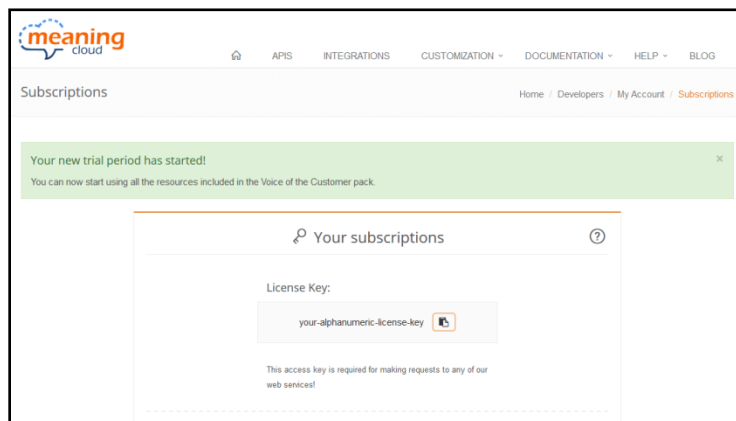

If you have already tried the pack and you want to keep using it, you will need to subscribe to it. In the same way you can choose which plan you want to subscribe depending on the credits, rate limit and resources you need, all the public packs are now included in the upgrade process.

3.3.2   Configuration

Below is a table that summarizes the input and output variables that are present inside the Bot. Mandatory input variables are necessary to run the Bot properly. A description and examples are included in the table.

INPUT VARIABLES				
Variable Name	**Type**	**Mandatory**	**Purpose**	**Example Input**
vInputLanguage	Text	Yes	It specifies the language in which the text must be analyzed. Available languages are English (en) / Spanish (es)	en
vInputText	Text	Yes	Input text that's going to be analyzed.	Interested in fiber, but I don't like the pricing plans.
vLicenseKey	Text	Yes	The license key is required for making requests to any of our web services. You can get a valid license key for free just by creating an account at https://www.meaningcloud.com.	<A license key provided by MeaningCloud.>
vDetectionThreshold	Text	No	Minimum relevance threshold of the categories detected in the text. By default, it's set to 50.	80
vOutputWithRelevance	Text	No	Appends the category relevance value in the response. By default, it's set to false.	true
vOutputWithPolarity	Text	No	Appends the category polarity in the JSON response. By default, it's set to 'n' (false)	y
vServerURL	Text	No	Address of the API server. By default it's set to our SaaS deployment. Users with an on-premises deployment can use it as the API server.	https://api.meaningcloud.com
vUserCustomDictionary	Text	No	User dictionaries allow you to include user-defined entities and concepts in the categorization.	custom_internet_plans_en

OUTPUT VARIABLES				
Variable Name	**Type**	**Mandatory**	**Purpose**	**Example Output**
vResponseJSON	Text	No	The result of the categorization in JSON format.	<JSON string>
vResponseCategoryLabel	Text	No	Category labels extracted from the text (with their corresponding relevance if configured).	Price; Negative; Fiber
vResponseCategoryCode	Text	No	Category codes extracted from the text (with their corresponding relevance if configured).	Condition>Price; Satisfaction>Negative; Service>Internet>Fiber

4.   Reports

There are no Bot Insight Reports generated for this Bot.

5.   Logs

In case of Errors, Error Logs & Screenshots are generated within Error Folder (Highlighted below in yellow)

- My Tasks
  - Bot Store
    - AnalyzeVoCTelcoIndustry-MeaningCloud
      - Error Folder
        - Logs (Folder)
          - Error Log Day-Month-Year.txt
        - Snapshots (Folder)
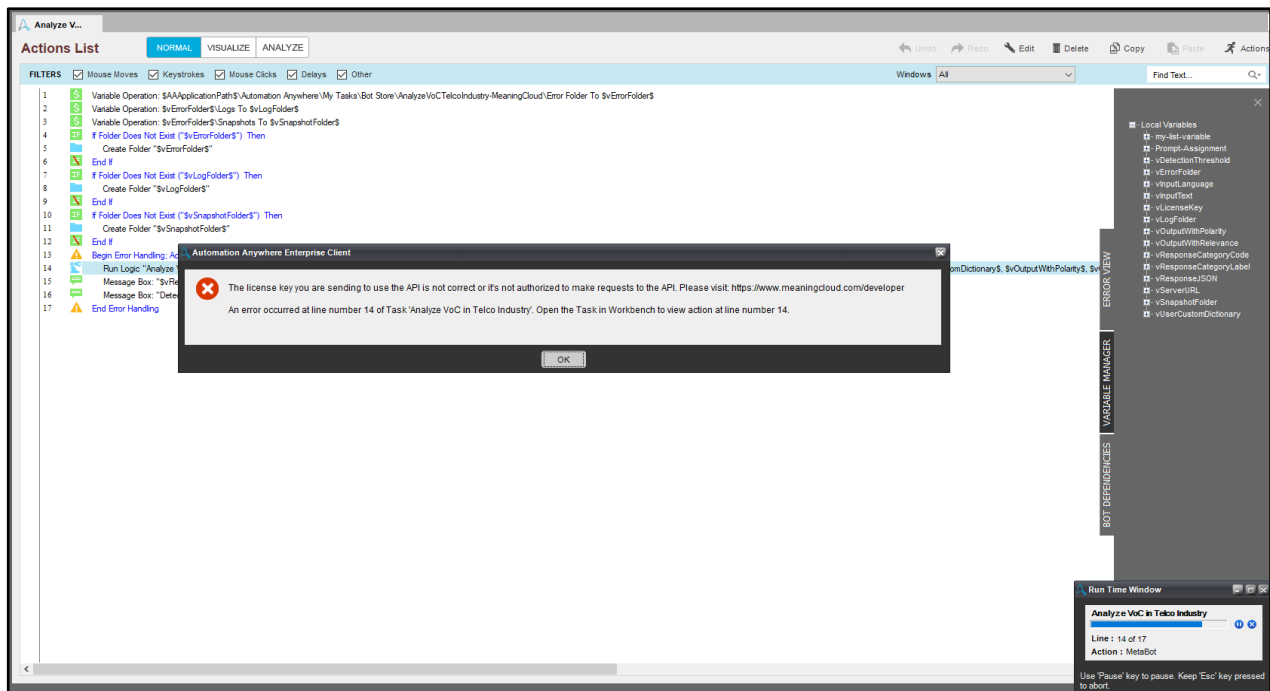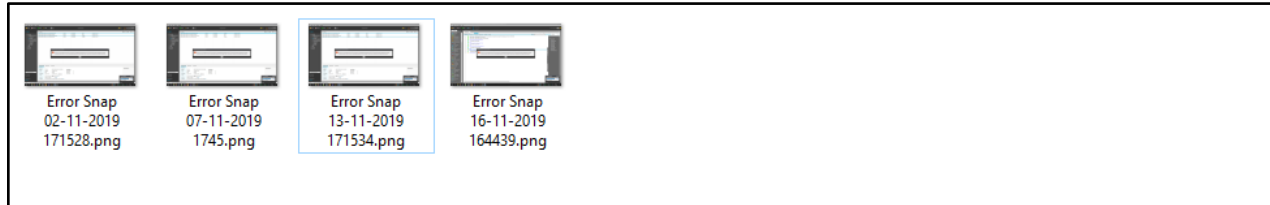   - Error Snap Day-Month-Year HourMinuteSecond.png

Error Logs will contain the below information:

- Task Name

- Error Line Number

- Error Description

- Generated Timestamp

Example of Log File:
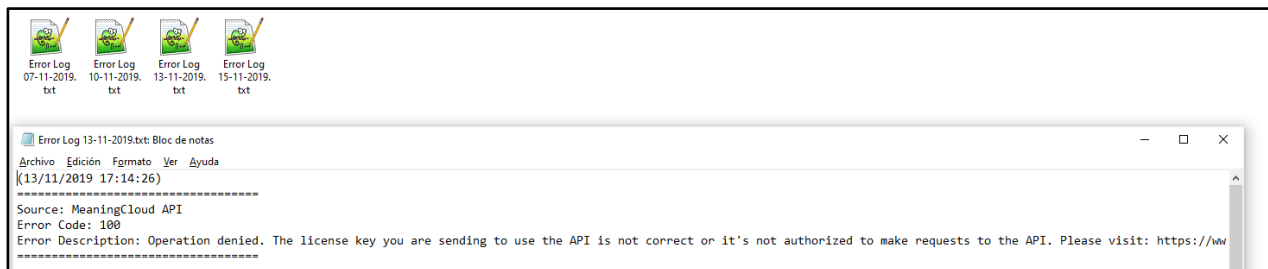
Example of Screenshot Generated Error File:

6. Troubleshooting & Support

6.1 Support

You can send us an email to support@meaningcloud.com.

Questions on Bot Functionality or Feature can also be posted to the Community site A-People.

Automation Anywhere provides a Product Documentation portal which can be accessed for more information about Automation Anywhere products and guidance on building bots and Digital Workers.

6.2 FAQs

Q: I am getting an error with the message 'The license key you are sending to use the API is not correct'.

A: Please check that the Bot variable 'vLicenseKey' contains the key license provided by MeaningCloud.

Q: How can I get a free key license to use MeaningCloud services?

A: A MeaningCloud account is required in order to obtain a free license key. Please visit the following link in order to create a new account: https://www.meaningcloud.com/developer/create-account

Q: I'm getting an error with the message 'Upgrade your plan to have a higher volume or wait for the credits to be reset when you billing month is over'.

A: By creating an account in MeaningCloud, you are automatically subscribed to the Free plan, which provides 20k credits per month. If your consumption is higher than that, just upgrade your plan to have a higher limit: https://www.meaningcloud.com/developer/account/subscriptions/upgrade

Q: I'm getting an error with the message "Resource access denied."

A: This error is returned when you don't have access to a resource or language, either because you are not subscribed to any of the packs that include it or because the trial period has finished. You can check to which pack the resource belongs in the vertical or language packs sections, and then in your subscription, check if you have access to that pack.

If you require access to the resource/s included in a pack, check our plans and pricing to subscribe to it, or just write us with your requirements to work out a solution.

Appendix A: Record of Changes

No.	Version Number	Date of Change	Author	Notes
1	1.0	28/02/2020	MeaningCloud	Version 1.0 Release

Appendix B: Acronyms

No.	Acronym	Description
1	AA	Automation Anywhere
2	JSON	JavaScript Object Notation
3	API	Application Programming Interface
4	URL	Uniform Resource Locator
5	RAM	Random Access Memory
6	PC	Personal Computer
7	OS	Operating System

Appendix C: References

No.	Topic	Reference Link
1	Create a Credential in Credential Vault	Click here
2	System Requirements – Client	Click here
3	System Requirements – Control Room	Click here
4	A-People Community Site	Click here
5	Automation Anywhere Documentation Portal	Click here
6	MeaningCloud Developer site	Click here
7	MeaningCloud Documentation: Voice of Customer (Telco)	Click here
8	MeaningCloud Deep Categorization: API Response	Click here
9	MeaningCloud Account creation	Click here
10	MeaningCloud Vertical Packs	Click here
11	MeaningCloud Language Packs	Click here
12	MeaningCloud Plans and Pricing	Click here