



NICE & Google Analytics Integration

Highlights & Benefits

- Uncover insights such as sentiment, entities and key phrases in unstructured text

Leave it to NEVA to Discover Insights

Natural Language uses machine learning to reveal the structure and meaning of text. You can extract information about people, places, and events, to better understand social media sentiment and customer conversations. Natural Language enables you to analyze text.

How it works together

NICE's unattended robots submit requests to Google Text Analytics to process input text and provide Sentiment Analysis, Entity Recognition, Entity Sentiment Analysis, Text Translation, and Content Classification functions.

Some of the available services are as follows:

1. Text translation requests

Example

This example requests translation of the following text from English to Spanish.

Good morning. I would like to order five kilograms of cheese.

The workflow is shown below. The result is stored in the variable `TranslationResponse`.

```
graph LR; Start((Start)) --> PerformTextTranslation[Perform Text Translation]; PerformTextTranslation --> End((End))
```

The results are shown below.

TranslationResponse	Buenos días. Me gus...	10:16:02
TranslationAPIKey	AlzaSyCONxQPMP	Buenos días. Me gustaría pedir cinco kilogramos de queso.

2. Requests for specific text be classified according to Google's list of content categories

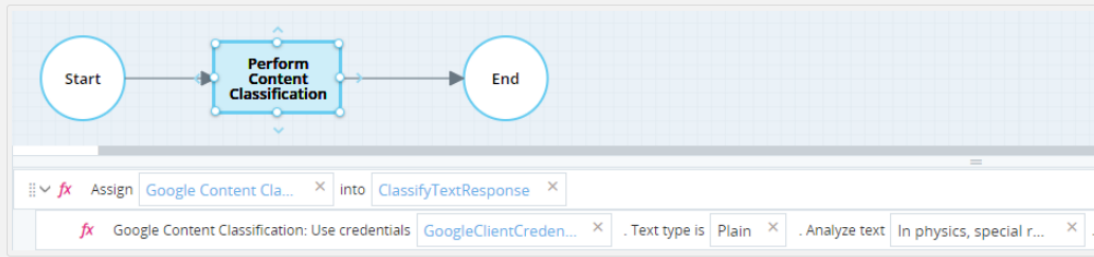
Example

This example requests content classification on the following text:

In physics, special relativity (also known as the special theory of relativity) is the generally accepted and experimentally confirmed physical theory regarding the relationship between space and time.

Attribution: [Wikipedia, Creative Commons](#)

The workflow is shown below. The result is stored in the variable `ClassifyTextResponse`.



The results are shown below.

Variables	
GoogleClientCredential	Google Client Credential
SentimentResponse	Google Sentiment Response
EntityResponse	Google Entity Response
EntitySentimentResponse	Google Entity Response
ClassifyTextResponse	Google Classify Text Response
Categories	1
Is Empty	false
123 Number of Elements	1
Element 1	Google Text Classification Category
123 Confidence	1
Aa Name	/Science/Physics
Aa Result in JSON	{ "categories": [{ "name": "/Science...

Note the following:

- Only one content category (element) was identified.
- The text was assigned the category Science/Physics.
- The level of confidence in the category assignment was 1 (very high).

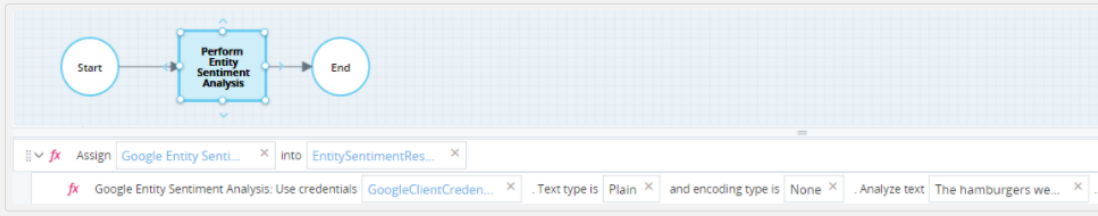
3. Requests for entity sentiment analysis of specified text to identify named entities present in the text and obtain a sentiment score for each

Example

This example requests entity sentiment analysis on the following text:

The hamburgers were delicious. The manager, Elaine, was extremely helpful. However, our waiter, Fred, was very slow and unpleasant.

The workflow is shown below. The result is stored in the variable **EntitySentimentResponse**.



The results are shown below.

EntitySentimentResponse	Google Entity Response	09:43:18
Entities	3	
Is Empty	false	09:43:18
Number of Elements	3	09:43:18
Element 1	Google Entity	09:43:18
Element 2	Google Entity	09:43:18
Entity Mentions	1	
Entity Sentiment	Google Sentiment	09:43:18
Magnitude	0.8999999761581421	09:43:18
Score	0.8999999761581421	09:43:18
Entity Type	Other	09:43:18
Name	hamburgers	09:43:18
Saliency	0.37893834710121155	09:43:18
Element 3	Google Entity	09:43:18
Entity Mentions	2	
Entity Sentiment	Google Sentiment	09:43:18
Magnitude	1.2999999523162842	09:43:18
Score	-0.6000000238418579	09:43:18
Entity Type	Person	09:43:18
Name	Fred	09:43:18
Saliency	0.08939207345247269	09:43:18
Language	en	09:43:18
Result in JSON	{ "entities": [{ "name": ...	09:43:18

Note the following:

- Three entities were identified (Elaine, the hamburger, and Fred).
- Hamburgers were mentioned once and have a sentiment score of 0.89 (very positive).
- Fred was mentioned once and has a sentiment score of -0.6 (very negative).

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