

Optical Character Recognition API Specification V1.02

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Introduction

This document aims at providing all the information you need to work with our Optical Character Recognition (OCR) API.

Scope

This document covers the various methods where each has endpoints, request parameters, API response and sample code (requests and responses). This document may be used to guide the development of custom-built applications to access the API.

Audience

This document is intended for Institutions interested in recognition of characters from images via our API. Such recognition may include but not limited to: Text from images and/or documents such as portable document formats (pdfs), Vehicle identification numbers (VIN), Pen to print (Handwriting), Identity cards and/or National Identification cards, and Driving licenses with automatic language detection.

Notice/Disclaimer

Changes may be made periodically to the information in this document. Such changes will be incorporated in new editions of the specification.

Operations

The API provides various operations or methods to be used to submit or fetch information.

Using the API

Request Submission URL

All requests to the API system must be submitted to the following URL:
<https://www.socnetsolutions.com/projects/bulk/ocr/api.php>

The webservice is a JSON based web service with a couple of webservice methods that will ONLY be accessed via the URL above. The webservice methods include the Authentication methods and Validation methods.

Prerequisites

To use the API, you must, first of all, have a **Socnet API User Account**. The API is currently ONLY available for Institution Accounts and NOT individuals. Once you have an Institution Account, you must obtain the **API credentials**. You will be able to login into the interface at:

<https://www.socnetsolutions.com/projects/ocr/>

From this interface, you can already test OCR services by going to View->Recognitions on the menu provided as shown in Figure 1. You may also obtain the API credentials from this web interface of your User Account. The API credentials are used to map all your API requests to your User Account, and for other security purposes.

Please note that during the test phase, test credits may be obtained from a Socnet user with administrative rights.

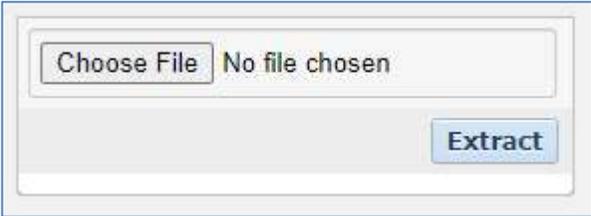


Figure 1

General Request Format

```
{
  api_key: '32-byte API key here',
  image: 'Base64 encoded binary image'
}
```

General Response Format

```
{
  "message": "response_message",
  "status": response_status_code
}
```

Description of the Response

Response Parameter	Type	Presence	Description
message	String	Always	Description of the response. Often empty for successful requests and a description of the error if request has failed
Status	integer	Always	Partial content – A paginated list of resources is returned

Status Codes

For every response, an HTTP Status Code will be added. The most common codes to be expected include the following:

Status Code	Description
0	OK – The operation was successful. This is the standard success code and default option.
1	FAIL – The operation was not successful. Something wrong with the request.
401	Invalid user credentials
403	Insufficient credit on account
404	There is no text in the image
500	Internal server error – If something unexpected breaks.
503	Service unavailable – If the endpoints cannot be reached.

Request Parameter status

ABBRV	Status	Definition
M	Mandatory	Mandatory parameters must be supplied
C	Conditional	Conditional parameters must be supplied when applicable rule is met if not supplied, request will be not be processed.
O	Optional	This can be supplied when data is available no rejections here
Str	String	Must be submitted with double quotes
Int	Integer	The fields accept only numeric values
Dec	Decimal	Numeric data with decimal point allowed after the character
AN	Alphanumeric	Letters and numbers
Bin	Binary	Binary data for images and/or documents

API Operations

Authentication

Requests made to our APIs must be authenticated by supplying the provided API Key:

Authenticating using the API Key

```
{
  'api_key': '32-byte API key here'
}
```

Successful Response using API username and password

```
{
  "text": "Recognised text",
  "status": 0
}
```

Failed Response – Wrong credentials

```
{
  "message": "Invalid user credentials",
  "status": 401,
}
```

Failed Response – Insufficient credits

```
{
  "message": "Insufficient credit (0) for transaction charge of xxx",
  "status": 403,
}
```

Failed Response – Missing parameters

```
{
  "data": null,
  "message": "The [parameter] field is required."
  "status": 400
}
```

Recognition Operations

General Success Response

```
{
  "message": "[Resource name] submitted successfully.",
  "status": 0
}
```

General Failure Response

Missing parameter

```
{
  "message": "The [parameter] field is required."
  "status": 422
}
```

Wrong format

```
{
  "message": "The [parameter] field must be [format]."
  "status": 422
}
```

Server error

```
{
  "message": "[Failure reason]",
  "status": 500
}
```

Method not allowed

```
{
  "message": "Method is not allowed for the requested route",
  "status": 405
}
```

Resource not found

```
{
  "data": null,
  "message": "[Resource] not found",
  "status": 404
}
```

Text in Images Recognition

This method recognizes/extracts text from images with very high accuracy and supports all languages.

Request Format

```
{
  'api_key': '32-byte API key here'
  "image": "Base64 encoded binary image"
}
```

Request parameters

Parameter	Type	Mandatory/Optional	Definition
Image	Bin	M	Binary image file. Must be Base64 encoded (Not URL encoded!)

Response Data parameters

Response Parameter	Status	Definition
status	Str	Status of the request
message	Str	Details of the failure
text	Str	Recognized text
detectedLanguages	Obj	Detected languages with codes and level of confidence
executionTimeMS	Int	Operation execution time in milliseconds

errorCode	Int	Status of the supplied phone number
errorMessage	Str	Description of any errors
Cost	Dec	Charge applied to SUCCESSFUL request/operation

Success Response

```
{
  "status": true,
  "text": "REPUBLIC OF UGANDA\nNATIONAL ID CARD\nSURNAME\nxxx\nGIVEN
NAME\nxxx\nNATIONALITY\nUGA\nNIN\nSEX\nM\nCM****EA\nDATE
EXPIRY\n14.02.2025\nHOLDERS SIGNATURE\nxxx\nDATE OF BIRTH\n27.11.1977\nCARD
NO.\n00***08",
  "detectedLanguages": [ { "languageCode": "en", "confidence": 0.6941987 } ],
  "executionTimeMS": 907
}
```