文字识别

服务端 API 文档

产品文档

腾讯云

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History

最近更新时间：2024-05-16 17:00:38

Release 18

Release time: 2024-05-16 17:00:17

Release updates:

Improvement to existing documentation.

New APIs:

- RecognizeMainlandIDCardOCR

Release 17

Release time: 2024-04-08 16:35:36

Release updates:

Improvement to existing documentation.

Modified APIs:

- MLIDPassportOCR
  - New input parameters:ImageUrl
  - **Modified input parameters:** ImageBase64
  - New output parameters:Type, PassportRecognizeInfos

New data structures:

- PassportRecognizeInfos

Release 16

Release time: 2023-06-25 15:59:03

Release updates:

Improvement to existing documentation.

New APIs:

- HmtResidentPermitOCR
- IDCardOCR
- LicensePlateOCR
- MainlandPermitOCR
- PermitOCR
- RecognizeGeneralInvoice
- RecognizeTableAccurateOCR
- RecognizeThaiIDCardOCR
- SealOCR
- VinOCR

New data structures:

- AirTransport
- BusInvoice
- FlightItem
- GeneralMachineItem
- InvoiceItem
- LicensePlateInfo
- MachinePrintedInvoice
- MedicalInvoice
- MotorVehicleSaleInvoice
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- VatInvoiceInfo
- VatInvoiceItemInfo
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- VatRollItem

Release 15

Release time: 2023-05-31 11:02:19

Release updates:

Improvement to existing documentation.

New APIs:

- RecognizePhilippinesUMIDOCR

Release 14

Release time: 2023-05-29 10:10:53

Release updates:

Improvement to existing documentation.

New APIs:

- RecognizeKoreanDrivingLicenseOCR
- RecognizeKoreanIDCardOCR

Modified data structures:

- Key
  - New members:ConfigName

Release 13

Release time: 2023-05-19 14:59:13

Release updates:

Improvement to existing documentation.

New APIs:

- SmartStructuralOCRV2

New data structures:

- GroupInfo
- ItemInfo
- Key
- LineInfo
- Polygon
- Value
- WordItem

Release 12

Release time: 2023-04-23 15:20:02

Release updates:

Improvement to existing documentation.

New APIs:

- RecognizeIndonesiaIDCardOCR
- RecognizePhilippinesDrivingLicenseOCR
- RecognizePhilippinesSssIDOCR
- RecognizePhilippinesTinIDOCR
- RecognizePhilippinesVoteIDOCR

New data structures:

- TextDetectionResult

Release 11

Release time: 2023-03-21 17:20:44

Release updates:

Improvement to existing documentation.

Modified APIs:

- MLIDPassportOCR
  - New output parameters:Surname, GivenName

Release 10

Release time: 2022-08-19 11:15:22

Release updates:

Improvement to existing documentation.

New APIs:

- MLIDCardOCR

Release 9

Release time: 2022-08-02 10:32:11

Release updates:

Improvement to existing documentation.

Deleted APIs:

- MLIDCardOCR

Release 8

Release time: 2022-04-01 10:12:28

Release updates:

Improvement to existing documentation.

Modified APIs:

- MLIDPassportOCR
  - New output parameters:CodeSet, CodeCrc

Release 7

Release time: 2021-11-19 18:46:19

Release updates:

Improvement to existing documentation.

Modified APIs:

- GeneralAccurateOCR
  - New input parameters:IsPdf, PdfPageNumber

Release 6

Release time: 2021-10-13 16:08:36

Release updates:

Improvement to existing documentation.

Modified APIs:

- GeneralAccurateOCR
  - New input parameters:EnableDetectSplit

Release 5

Release time: 2021-07-07 11:25:32

Release updates:

Improvement to existing documentation.

Modified APIs:

- BankCardOCR
  - New input parameters:EnableQualityValue
  - New output parameters:QualityValue
- GeneralAccurateOCR

  - New input parameters:IsWords
- GeneralBasicOCR
  - New input parameters:IsWords

New data structures:

- DetectedWordCoordPoint
- DetectedWords

Modified data structures:

- TextDetection
  - New members:Words, WordCoordPoint

Release 4

Release time: 2021-01-27 15:26:16

Release updates:

Improvement to existing documentation.

Modified APIs:

- BankCardOCR
  - New output parameters:CardType, CardName, BorderCutImage, CardNoImage, WarningCode

Release 3

Release time: 2021-01-18 15:18:26

Release updates:

Improvement to existing documentation.

Modified APIs:

- BankCardOCR
  - New input parameters:RetBorderCutImage, RetCardNoImage, EnableCopyCheck, EnableReshootCheck, EnableBorderCheck

Release 2

Release time: 2020-09-10 17:01:40

Release updates:

Improvement to existing documentation.

New APIs:

- GeneralAccurateOCR
- TableOCR

Modified APIs:

- GeneralBasicOCR
  - New input parameters:IsPdf, PdfPageNumber
  - New output parameters:PdfPageSize
- MLIDCardOCR
  - New output parameters:Birthday

New data structures:

- TextTable

Existing Release

Release time: 2020-08-06 19:48:59

Existing APIs/data structures are as follows:

Improvement to existing documentation.

Existing APIs:

- BankCardOCR
- GeneralBasicOCR
- HKIDCardOCR
- MLIDCardOCR
- MLIDPassportOCR

Existing data structures:

- Coord

- ItemCoord
- TextDetection

Introduction

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Based on Tencent Cloud's self-developed deep learning technology and massive data, Optical Character Recognition (OCR) offers text recognition service for various cases, where printed and handwritten text on cards and documents can be recognized and custom templates are available, greatly improving the information input efficiency and reducing users' costs.

API Category

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Industry-Specific Document OCR APIs

API Name	Feature	Frequency Limit (maximum requests per second)
GeneralBasicOCR	Recognizes general print.	-
GeneralAccurateOCR	Recognizes general print (high-precision)	-
RecognizeTableAccurateOCR	Recognizes a table (v3)	-

Card and Document OCR APIs

API Name	Feature	Frequency Limit (maximum requests per second)
IDCardOCR	Recognizes an ID card	-
RecognizeMainlandIDCardOCR	Mainland ID Card OCR	20
BankCardOCR	Recognizes a bank card	-
MLIDPassportOCR	Recognizes a non-Mainland China passport	-
PermitOCR	Recognizes an exit/entry permit for traveling to and from Hong Kong, Macao, or Taiwan	-
MainlandPermitOCR	Recognizes a mainland travel permit for Hong Kong, Macao, or Taiwan residents	-
HmtResidentPermitOCR	Recognizes a residence permit for Hong Kong, Macao, or Taiwan residents	-
HKIDCardOCR	Recognizes Hong Kong (China) identity card	5

TableOCR	Form OCR (v1)	-
MLIDCardOCR	Recognizes a Malaysian identity card	5
RecognizeIndonesiaIDCardOCR	Recognizes an Indonesian identity card	-
RecognizeKoreanDrivingLicenseOCR	Recognizes a South Korean driver's license	20
RecognizeKoreanIDCardOCR	Recognizes a South Korean ID card	20
RecognizePhilippinesDrivingLicenseOCR	Recognizes a Philippine driver's license	20
RecognizePhilippinesSssIDOCR	Recognizes a Philippine SSSID/UMID card	20
RecognizePhilippinesTinIDOCR	Recognizes a Philippine TIN ID card	20
RecognizePhilippinesUMIDOCR	Recognizes a Philippine UMID card	20
RecognizePhilippinesVoteIDOCR	Recognizes a Philippine voters ID card	20
RecognizeThaiIDCardOCR	Recognizes a Thai identity card	-

Invoice and Ticket OCR APIs

API Name	Feature	Frequency Limit (maximum requests per second)
RecognizeGeneralInvoice	Recognizes a general invoice (advanced)	-

Vehicle Scene OCR APIs

API Name	Feature	Frequency Limit (maximum requests per second)
LicensePlateOCR	Recognizes a vehicle license plate	-
VinOCR	Recognizes a vehicle identification number (VIN)	10
SealOCR	Recognizes a seal	-

Smart Structured Information OCR APIs

API Name	Feature	Frequency Limit (maximum requests per second)
SmartStructuralOCRV2	Smart Structured Information OCR V2	-

Making API Requests
Request Structure

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1. Service Address

The API supports access from either a nearby region (at ocr.tencentcloudapi.com) or a specified region (at ocr.ap-guangzhou.tencentcloudapi.com for Guangzhou, for example).

We recommend using the domain name to access the nearest server. When you call an API, the request is automatically resolved to a server in the region **nearest** to the location where the API is initiated. For example, when you initiate an API request in Guangzhou, this domain name is automatically resolved to a Guangzhou server, the result is the same as that of specifying the region in the domain like "ocr.ap-guangzhou.tencentcloudapi.com".

Note: For latency-sensitive businesses, we recommend that you specify the region in the domain name.

Tencent Cloud currently supports the following regions:

Hosted region	Domain name
Local access region (recommended, only for non-financial availability zones)	ocr.tencentcloudapi.com
South China (Guangzhou)	ocr.ap-guangzhou.tencentcloudapi.com
East China (Shanghai)	ocr.ap-shanghai.tencentcloudapi.com
North China (Beijing)	ocr.ap-beijing.tencentcloudapi.com
Southwest China (Chengdu)	ocr.ap-chengdu.tencentcloudapi.com
Southwest China (Chongqing)	ocr.ap-chongqing.tencentcloudapi.com
Hong Kong, Macao, Taiwan (Hong Kong, China)	ocr.ap-hongkong.tencentcloudapi.com
Southeast Asia (Singapore)	ocr.ap-singapore.tencentcloudapi.com
Southeast Asia (Bangkok)	ocr.ap-bangkok.tencentcloudapi.com

South Asia (Mumbai)	ocr.ap-mumbai.tencentcloudapi.com
Northeast Asia (Seoul)	ocr.ap-seoul.tencentcloudapi.com
Northeast Asia (Tokyo)	ocr.ap-tokyo.tencentcloudapi.com
U.S. East Coast (Virginia)	ocr.na-ashburn.tencentcloudapi.com
U.S. West Coast (Silicon Valley)	ocr.na-siliconvalley.tencentcloudapi.com
North America (Toronto)	ocr.na-toronto.tencentcloudapi.com
Europe (Frankfurt)	ocr.eu-frankfurt.tencentcloudapi.com

2. Communications Protocol

All the Tencent Cloud APIs communicate via HTTPS, providing highly secure communication tunnels.

3. Request Methods

Supported HTTP request methods:

- POST (recommended)
- GET

The Content-Type types supported by POST requests:

- application/json (recommended). The TC3-HMAC-SHA256 signature algorithm must be used.
- application/x-www-form-urlencoded. The HmacSHA1 or HmacSHA256 signature algorithm must be used.
- multipart/form-data (only supported by certain APIs). You must use TC3-HMAC-SHA256 to calculate the signature.

The size of a GET request packet is up to 32 KB. The size of a POST request is up to 1 MB when the HmacSHA1 or HmacSHA256 signature algorithm is used, and up to 10 MB when TC3-HMAC-SHA256 is used.

4. Character Encoding

Only UTF-8 encoding is used.

Common Params

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Common parameters are used for all APIs authenticating requestors. Common parameters must be included in all API requests, and they will not be described in individual API documents.

The exact contents of the common parameters will vary depending on the version of the signature method you use.

Common parameters for Signature Algorithm v3

When the TC3-HMAC-SHA256 algorithm is used, the common parameters should be uniformly placed in the HTTP request header, as shown below:

Parameter Name	Type	Required	Description
X-TC-Action	String	Yes	The name of the API for the desired operation. For the specific value, see description of common parameter `Action` in the input parameters in r documentation. For example, the API for querying the CVM instance list i `DescribeInstances` .
X-TC-Region	String	Yes	Region parameter, which is used to identify the region to which the data y work with belongs. For values supported for an API, see the description c parameter `Region` in the input parameters in related API documentati parameter is not required for some APIs (which will be indicated in relate documentation), and will not take effect even it is passed.
X-TC-Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request for example, 1529223702. Note: If the difference between the UNIX times server time is greater than 5 minutes, a signature expiration error may oc
X-TC-Version	String	Yes	API version of the action. For the valid values, see the description of the c parameter `Version` in the API documentation. For example, the versi 2017-03-12.
Authorization	String	Yes	The HTTP authentication request header, for example: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/Date/service/tc3_requ SignedHeaders=content-type;host, Signature=fe5f80f77d5fa3beca038a248ff027d0445342fe2855ddc96317 Here: - TC3-HMAC-SHA256: Signature method, currently fixed as this value; - Credential: Signature credential; AKIDEXAMPLE is the SecretId; Date i UTC time, and this value must match the value of X-TC-Timestamp (a co

			parameter) in UTC time format; service is the name of the product/service generally a domain name prefix. For example, a domain name cvm.tencen refers to the CVM product and the value would be cvm; - SignedHeaders: The headers that contains the authentication informatic type and host are the required headers; - Signature: Signature digest.
X-TC-Token	String	No	The token used for a temporary certificate. It must be used with a tempor can obtain the temporary key and token by calling a CAM API. No token i a long-term key.

Assuming you want to query the list of Cloud Virtual Machine instances in the Guangzhou region, the request structure in the form of request URL, request header and request body may be as follows:

Example of an HTTP GET request structure:

```
https://cvm.tencentcloudapi.com/?Limit=10&Offset=0

Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3EXAMPLE/20
18-10-09/cvm/tc3_request, SignedHeaders=content-type;host, Signature=5da7a33f6993
f0614b047e5df4582db9e9bf4672ba50567dba16c6ccf174c474
Content-Type: application/x-www-form-urlencoded
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1539084154
X-TC-Region: ap-guangzhou
```

The following example shows you how to structure an HTTP POST (application/json) request:

```
https://cvm.tencentcloudapi.com/

Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request,
SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
Content-Type: application/json
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

{"Offset":0,"Limit":10}
```

Example of an HTTP POST (multipart/form-data) request structure (only supported by specific APIs):

```
https://cvm.tencentcloudapi.com/

Authorization: TC3-HMAC-SHA256 Credential=AKIDEXAMPLE/2018-05-30/cvm/tc3_request,
SignedHeaders=content-type;host, Signature=582c400e06b5924a6f2b5d7d672d79c15b1316
2d9279b0855cfba6789a8edb4c
Content-Type: multipart/form-data; boundary=58731222010402
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1527672334
X-TC-Region: ap-guangzhou

--58731222010402
Content-Disposition: form-data; name="Offset"

0
--58731222010402
Content-Disposition: form-data; name="Limit"

10
--58731222010402--
```

Common parameters for Signature Algorithm v1

To adopt the HmacSHA1 and HmacSHA256 signature methods, common parameters must be put into the request string, as shown below:

Parameter Name	Type	Required	Description
Action	String	Yes	The name of the API for the desired operation. For the specific value, see the description of common parameter `Action` in the input parameters in related API documentation. For example, the API for querying the CVM instance list is `DescribeInstances`.
Region	String	Yes	Region parameter, which is used to identify the region to which the data you want to work with belongs. For values supported for an API, see the description of common parameter `Region` in the input parameters in related API documentation. Note: This parameter is not required for some APIs (which will be indicated in related API documentation), and will not take effect even if it is passed.

Timestamp	Integer	Yes	The current UNIX timestamp that records the time when the API request was initiated, for example, 1529223702. If the difference between the value and the current system time is too large, a signature expiration error may occur.
Nonce	Integer	Yes	A random positive integer used along with `Timestamp` to prevent replay attacks.
SecretId	String	Yes	The identifying SecretId obtained on the Cloud API Key page. A SecretId corresponds to a unique SecretKey which is used to generate the request signature (Signature).
Signature	String	Yes	Request signature used to verify the validity of this request. This is calculated based on the actual input parameters. For more information about how this is calculated, see the API authentication documentation.
Version	String	Yes	API version of the action. For the valid values, see the description of the common input parameter `Version` in the API documentation. For example, the version of CVM is 2017-03-12.
SignatureMethod	String	No	Signature method. Currently, only HmacSHA256 and HmacSHA1 are supported. The HmacSHA256 algorithm is used to verify the signature only when this parameter is specified as HmacSHA256. In other cases, the signature is verified with HmacSHA1.
Token	String	No	The token used for a temporary certificate. It must be used with a temporary key. You can obtain the temporary key and token by calling a CAM API. No token is required for a long-term key.

Assuming you want to query the list of Cloud Virtual Machine instances in the Guangzhou region, the request structure in the form of request URL, request header and request body may be as follows:

Example of an HTTP GET request structure:

```
https://cvm.tencentcloudapi.com/?Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb459b1bbee224158d66e7ae5fcadb70b2d181d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE

Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded
```

Example of an HTTP POST request structure:

```
https://cvm.tencentcloudapi.com/

Host: cvm.tencentcloudapi.com
Content-Type: application/x-www-form-urlencoded

Action=DescribeInstances&Version=2017-03-12&SignatureMethod=HmacSHA256&Timestamp=
1527672334&Signature=37ac2f4fde00b0ac9bd9eadeb459b1bbee224158d66e7ae5fcadb70b2d18
1d02&Region=ap-guangzhou&Nonce=23823223&SecretId=AKIDEXAMPLE
```

Signature v3

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TencentCloud API authenticates every single request, i.e., the request must be signed using the security credentials in the designated steps. Each request has to contain the signature information (Signature) in the common request parameters and be sent in the specified way and format.

Applying for Security Credentials

The security credential used in this document is a key, which includes a SecretId and a SecretKey. Each user can have up to two pairs of keys.

- SecretId: Used to identify the API caller, which is just like a username.
- SecretKey: Used to authenticate the API caller, which is just like a password.
- **You must keep your security credentials private and avoid disclosure; otherwise, your assets may be compromised. If they are disclosed, please disable them as soon as possible.**

You can apply for the security credentials through the following steps:

1. Log in to the Tencent Cloud Console.
2. Go to the TencentCloud API Key console page.
3. On the TencentCloud API Key page, click **Create** to create a SecretId/SecretKey pair.

Using the Resources for Developers

TencentCloud API comes with SDKs for seven commonly used programming languages, including Python, Java, PHP, Go, NodeJS and .NET. In addition, it provides API Explorer which enables online call, signature verification, and SDK code generation. If you have any troubles calculating a signature, consult these resources.

TC3-HMAC-SHA256 Signature Algorithm

Compatible with the previous HmacSHA1 and HmacSHA256 signature algorithms, the TC3-HMAC-SHA256 signature algorithm is more secure and supports larger requests and JSON format with better performance. We recommend using TC3-HMAC-SHA256 to calculate the signature.

TencentCloud API supports both GET and POST requests. For the GET method, only the Content-Type: application/x-www-form-urlencoded protocol format is supported. For the POST method, two protocol formats,

Content-Type: application/json and Content-Type: multipart/form-data, are supported. The JSON format is supported by default for all business APIs, and the multipart format is supported only for specific business APIs. In this case, the API cannot be called in JSON format. See the specific business API documentation for more information. The POST method is recommended, as there is no difference in the results of both the methods, but the GET method only supports request packets up to 32 KB.

The following uses querying the list of CVM instances in the Guangzhou region as an example to describe the steps of signature splicing. We chose this API because:

1. CVM is activated by default, and this API is often used;
2. It is read-only and does not change the status of existing resources;
3. It covers many types of parameters, which allows it to be used to demonstrate how to use arrays containing data structures.

In the example, we try to choose common parameters and API parameters that are prone to mistakes. When you actually call an API, please use parameters based on the actual conditions. The parameters vary by API. Do not copy the parameters and values in this example.

Assuming that your SecretId and SecretKey are `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******` and `Gu5t9xGARNpq86cd98joQYCN3*******`, respectively, if you want to view the status of the instance in the Guangzhou region whose CVM instance name is "unnamed" and have only one data entry returned, then the request may be:

```
curl -X POST https://cvm.tencentcloudapi.com \
-H "Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3******
*/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e4
1437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff" \
-H "Content-Type: application/json; charset=utf-8" \
-H "Host: cvm.tencentcloudapi.com" \
-H "X-TC-Action: DescribeInstances" \
-H "X-TC-Timestamp: 1551113065" \
-H "X-TC-Version: 2017-03-12" \
-H "X-TC-Region: ap-guangzhou" \
-d '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}'
```

The signature calculation process is explained in detail below.

1. Concatenating the CanonicalRequest String

Concatenate the canonical request string (CanonicalRequest) in the following pseudocode format:

```
CanonicalRequest =
HTTPRequestMethod + '\n' +
CanonicalURI + '\n' +
```

```
CanonicalQueryString + '\n' +
CanonicalHeaders + '\n' +
SignedHeaders + '\n' +
HashedRequestPayload
```

Field Name	Explanation
HTTPRequestMethod	HTTP request method (GET or POST). This example uses `POST` .
CanonicalURI	URI parameter. Slash ("/") is used for API 3.0.
CanonicalQueryString	The query string in the URL of the originating HTTP request. This is always an empty st “” for POST requests, and is the string after the question mark (?) for GET requests. Fo example: Limit=10&Offset=0。 Note: `CanonicalQueryString` must be URL-encoded, referencing RFC3986, the UTF8 character set. We recommend using the programming language library. All speci characters must be encoded and capitalized.
CanonicalHeaders	Header information for signature calculation, including at least two headers of `host` `content-type` . Custom headers can be added to participate in the signature proce improve the uniqueness and security of the request. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase with the lead and trailing spaces removed, so they are concatenated in the format of key:value\n format; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase). The calculation result in this example is `content-type:application/json; charset=utf-8\nhost:cvm.tencentcloudapi.com\n` . Note: `content-type` must match the actually sent content. In some programming languages, a charset value would be added even if it is not specified. In this case, the request sent is different from the one signed, and the sever will return an error indicating signature verification failed.
SignedHeaders	Header information for signature calculation, indicating which headers of the request participate in the signature process (they must each individually correspond to the heac in CanonicalHeaders). `Content-type` and `host` are required headers. Concatenation rules: 1. Both the key and value of the header should be converted to lowercase; 2. If there are multiple headers, they should be sorted in ASCII ascending order by the header keys (lowercase) and separated by semicolons (;). The value in this example is `content-type;host`
HashedRequestPayload	Hash value of the request payload (i.e., the body, such as `{"Limit": 1, "Filter`

	`[{"Values": ["unnamed"], "Name": "instance-name"}]` in this exampl The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(RequestPayload))) by SHA256 hashing the pay of the HTTP request, performing hexadecimal encoding, and finally converting the enco string to lowercase letters. For GET requests, `RequestPayload` is always an empt string. The calculation result in this example is `99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b49`

According to the rules above, the `CanonicalRequest` string obtained in the example is as follows:

```
POST
/

content-type:application/json; charset=utf-8
host:cvm.tencentcloudapi.com

content-type;host
99d58dfbc6745f6747f36bfca17dee5e6881dc0428a0a36f96199342bc5b4907
```

2. Concatenating the String to Be Signed

The string to sign is concatenated as follows:

```
StringToSign =
Algorithm + \n +
RequestTimestamp + \n +
CredentialScope + \n +
HashedCanonicalRequest
```

Field Name	Explanation
Algorithm	Signature algorithm, which is currently always `TC3-HMAC-SHA256`.
RequestTimestamp	Request timestamp, i.e., the value of the common parameter `X-TC-Timestamp` in request header, which is the UNIX timestamp of the current time in seconds, such as `1551113065` in this example.
CredentialScope	Scope of the credential in the format of `Date/service/tc3_request`, including date, requested service and termination string (tc3_request). **`Date` is a date in UT time, whose value should match the UTC date converted by the common parameter `X-TC-Timestamp`;** `service` is the product name, which should m the domain name of the product called. The calculation result in this example is `2019-02-25/cvm/tc3_request`.

HashedCanonicalRequest	Hash value of the CanonicalRequest string concatenated in the steps above. The pseudocode for calculation is Lowercase(HexEncode(Hash.SHA256(CanonicalRequ The calculation result in this example is `2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3ad`

Note:

1. Date has to be calculated from the timestamp "X-TC-Timestamp" and the time zone is UTC+0. If you add the system's local time zone information (such as UTC+8), calls can succeed both day and night but will definitely fail at 00:00. For example, if the timestamp is 1551113065 and the time in UTC+8 is 2019-02-26 00:44:25, the UTC+0 date in the calculated Date value should be 2019-02-25 instead of 2019-02-26.
2. Timestamp must be the same as your current system time, and your system time and standard time must be synced; if the difference between Timestamp and your current system time is larger than five minutes, the request will fail. If your system time is out of sync with the standard time for a while, the request will fail and return a signature expiration error.

According to the preceding rules, the string to be signed obtained in the example is as follows:

```
TC3-HMAC-SHA256
1551113065
2019-02-25/cvm/tc3_request
2815843035062fffda5fd6f2a44ea8a34818b0dc46f024b8b3786976a3adda7a
```

3. Calculating the Signature

1. Calculate the derived signature key with the following pseudocode:

```
SecretKey = "Gu5t9xGARNpq86cd98joQYCN3*******"
SecretDate = HMAC_SHA256("TC3" + SecretKey, Date)
SecretService = HMAC_SHA256(SecretDate, Service)
SecretSigning = HMAC_SHA256(SecretService, "tc3_request")
```

Field Name	Explanation
SecretKey	The original SecretKey, i.e., `Gu5t9xGARNpq86cd98joQYCN3*******` .
Date	The Date field information in `Credential` , such as `2019-02-25` in this example.

Service	Value in the Service field in `Credential`, such as `cvm` in this example.

2. Calculate the signature with the following pseudocode:

```
Signature = HexEncode(HMAC_SHA256(SecretSigning, StringToSign))
```

4. Concatenating the Authorization

The Authorization is concatenated as follows:

```
Authorization =
Algorithm + ' ' +
'Credential=' + SecretId + '/' + CredentialScope + ', ' +
'SignedHeaders=' + SignedHeaders + ', ' +
'Signature=' + Signature
```

Field Name	Explanation
Algorithm	Signature algorithm, which is always `TC3-HMAC-SHA256`.
SecretId	The SecretId in the key pair, i.e., `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******`.
CredentialScope	Credential scope (see above). The calculation result in this example is `2019-02-25/cvm/tc3_request`.
SignedHeaders	Header information for signature calculation (see above), such as `content-type;host` in this example.
Signature	Signature value. The calculation result in this example is `c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff`.

According to the rules above, the value obtained in the example is:

```
TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
```

The following example shows a finished authorization header:

```
POST https://cvm.tencentcloudapi.com/
Authorization: TC3-HMAC-SHA256 Credential=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******/2019-02-25/cvm/tc3_request, SignedHeaders=content-type;host, Signature=c492e8e41437e97a620b728c301bb8d17e7dc0c17eeabce80c20cd70fc3a78ff
```

```
Content-Type: application/json; charset=utf-8
Host: cvm.tencentcloudapi.com
X-TC-Action: DescribeInstances
X-TC-Version: 2017-03-12
X-TC-Timestamp: 1551113065
X-TC-Region: ap-guangzhou

{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-name"}]}
```

5. Signature Demo

When calling API 3.0, you are recommended to use the corresponding Tencent Cloud SDK 3.0 which encapsulates the signature process, enabling you to focus on only the specific APIs provided by the product when developing. See SDK Center for more information. Currently, the following programming languages are supported:

- Python
- Java
- PHP
- Go
- NodeJS
- .NET

To further explain the signing process, we will use a programming language to implement the process described above. The request domain name, API and parameter values in the sample are used here. This goal of this example is only to provide additional clarification for the signature process, please see the SDK for actual usage.

The final output URL might be: https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Signature=EliP9YW3pW28FpsEdkXt%2F%2BWcGeI%3D&Timestamp=1465185768&Version=2017-03-12.

Note: The key in the example is fictitious, and the timestamp is not the current time of the system, so if this URL is opened in the browser or called using commands such as curl, an authentication error will be returned: Signature expired. In order to get a URL that can work properly, you need to replace the SecretId and SecretKey in the example with your real credentials and use the current time of the system as the Timestamp.

Note: In the example below, even if you use the same programming language, the order of the parameters in the URL may be different for each execution. However, the order does not matter, as long as all the parameters are included in the URL and the signature is calculated correctly.

Note: The following code is only applicable to API 3.0. It cannot be directly used in other signature processes. Even with an older API, signature calculation errors may occur due to the differences in details. Please refer to the corresponding documentation.

Java

```
import java.nio.charset.Charset;
import java.nio.charset.StandardCharsets;
import java.security.MessageDigest;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.TimeZone;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;

public class TencentCloudAPITC3Demo {
private final static Charset UTF8 = StandardCharsets.UTF_8;
private final static String SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
private final static String SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";
private final static String CT_JSON = "application/json; charset=utf-8";

public static byte[] hmac256(byte[] key, String msg) throws Exception {
Mac mac = Mac.getInstance("HmacSHA256");
SecretKeySpec secretKeySpec = new SecretKeySpec(key, mac.getAlgorithm());
mac.init(secretKeySpec);
return mac.doFinal(msg.getBytes(UTF8));
}

public static String sha256Hex(String s) throws Exception {
MessageDigest md = MessageDigest.getInstance("SHA-256");
byte[] d = md.digest(s.getBytes(UTF8));
return DatatypeConverter.printHexBinary(d).toLowerCase();
}

public static void main(String[] args) throws Exception {
String service = "cvm";
String host = "cvm.tencentcloudapi.com";
String region = "ap-guangzhou";
String action = "DescribeInstances";
String version = "2017-03-12";
String algorithm = "TC3-HMAC-SHA256";
String timestamp = "1551113065";
//String timestamp = String.valueOf(System.currentTimeMillis() / 1000);
SimpleDateFormat sdf = new SimpleDateFormat("yyyy-MM-dd");
// Pay attention to the time zone; otherwise, errors may occur
sdf.setTimeZone(TimeZone.getTimeZone("UTC"));
String date = sdf.format(new Date(Long.valueOf(timestamp + "000")));

// ************ Step 1: Concatenate the CanonicalRequest string ************
```

```
String httpRequestMethod = "POST";
String canonicalUri = "/";
String canonicalQueryString = "";
String canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "hos
t:" + host + "\n";
String signedHeaders = "content-type;host";

String payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}";
String hashedRequestPayload = sha256Hex(payload);
String canonicalRequest = httpRequestMethod + "\n" + canonicalUri + "\n" + canoni
calQueryString + "\n"
+ canonicalHeaders + "\n" + signedHeaders + "\n" + hashedRequestPayload;
System.out.println(canonicalRequest);

// ************* Step 2: Concatenate the string to sign *************
String credentialScope = date + "/" + service + "/" + "tc3_request";
String hashedCanonicalRequest = sha256Hex(canonicalRequest);
String stringToSign = algorithm + "\n" + timestamp + "\n" + credentialScope +
"\n" + hashedCanonicalRequest;
System.out.println(stringToSign);

// ************* Step 3: Calculate the signature *************
byte[] secretDate = hmac256(("TC3" + SECRET_KEY).getBytes(UTF8), date);
byte[] secretService = hmac256(secretDate, service);
byte[] secretSigning = hmac256(secretService, "tc3_request");
String signature = DatatypeConverter.printHexBinary(hmac256(secretSigning, string
ToSign)).toLowerCase();
System.out.println(signature);

// ************* Step 4: Concatenate the Authorization *************
String authorization = algorithm + " " + "Credential=" + SECRET_ID + "/" + creden
tialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", " + "Signature=" + signature;
System.out.println(authorization);

TreeMap<String, String> headers = new TreeMap<String, String>();
headers.put("Authorization", authorization);
headers.put("Content-Type", CT_JSON);
headers.put("Host", host);
headers.put("X-TC-Action", action);
headers.put("X-TC-Timestamp", timestamp);
headers.put("X-TC-Version", version);
headers.put("X-TC-Region", region);

StringBuilder sb = new StringBuilder();
sb.append("curl -X POST https://").append(host)
```

```
.append(" -H \"Authorization: ").append(authorization).append("\"")
.append(" -H \"Content-Type: application/json; charset=utf-8\"")
.append(" -H \"Host: ").append(host).append("\"")
.append(" -H \"X-TC-Action: ").append(action).append("\"")
.append(" -H \"X-TC-Timestamp: ").append(timestamp).append("\"")
.append(" -H \"X-TC-Version: ").append(version).append("\"")
.append(" -H \"X-TC-Region: ").append(region).append("\"")
.append(" -d '").append(payload).append("'");
System.out.println(sb.toString());
}
}
```

Python

```
# -*- coding: utf-8 -*-
import hashlib, hmac, json, os, sys, time
from datetime import datetime

# Key Parameters
secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"

service = "cvm"
host = "cvm.tencentcloudapi.com"
endpoint = "https://" + host
region = "ap-guangzhou"
action = "DescribeInstances"
version = "2017-03-12"
algorithm = "TC3-HMAC-SHA256"
#timestamp = int(time.time())
timestamp = 1551113065
date = datetime.utcfromtimestamp(timestamp).strftime("%Y-%m-%d")
params = {"Limit": 1, "Filters": [{"Name": "instance-name", "Values": ["unnamed"
]}]}

# ************* Step 1: Concatenate the CanonicalRequest string *************
http_request_method = "POST"
canonical_uri = "/"
canonical_querystring = ""
ct = "application/json; charset=utf-8"
payload = json.dumps(params)
canonical_headers = "content-type:%s\nhost:%s\n" % (ct, host)
signed_headers = "content-type;host"
hashed_request_payload = hashlib.sha256(payload.encode("utf-8")).hexdigest()
canonical_request = (http_request_method + "\n" +
canonical_uri + "\n" +
```

```
canonical_querystring + "\n" +
canonical_headers + "\n" +
signed_headers + "\n" +
hashed_request_payload)
print(canonical_request)

# ************* Step 2: Concatenate the string to sign *************
credential_scope = date + "/" + service + "/" + "tc3_request"
hashed_canonical_request = hashlib.sha256(canonical_request.encode("utf-8")).hexd
igest()
string_to_sign = (algorithm + "\n" +
str(timestamp) + "\n" +
credential_scope + "\n" +
hashed_canonical_request)
print(string_to_sign)


# ************* Step 3: Calculate the Signature *************
# Function for computing signature digest
def sign(key, msg):
return hmac.new(key, msg.encode("utf-8"), hashlib.sha256).digest()
secret_date = sign(("TC3" + secret_key).encode("utf-8"), date)
secret_service = sign(secret_date, service)
secret_signing = sign(secret_service, "tc3_request")
signature = hmac.new(secret_signing, string_to_sign.encode("utf-8"), hashlib.sha2
56).hexdigest()
print(signature)

# ************* Step 4: Concatenate the Authorization *************
authorization = (algorithm + " " +
"Credential=" + secret_id + "/" + credential_scope + ", " +
"SignedHeaders=" + signed_headers + ", " +
"Signature=" + signature)
print(authorization)

print('curl -X POST ' + endpoint
+ ' -H "Authorization: ' + authorization + '"'
+ ' -H "Content-Type: application/json; charset=utf-8"'
+ ' -H "Host: ' + host + '"'
+ ' -H "X-TC-Action: ' + action + '"'
+ ' -H "X-TC-Timestamp: ' + str(timestamp) + '"'
+ ' -H "X-TC-Version: ' + version + '"'
+ ' -H "X-TC-Region: ' + region + '"'
+ " -d '" + payload + "'")
```

Golang

```
package main

import (
"crypto/hmac"
"crypto/sha256"
"encoding/hex"
"fmt"
"time"
)

func sha256hex(s string) string {
b := sha256.Sum256([]byte(s))
return hex.EncodeToString(b[:])
}

func hmacsha256(s, key string) string {
hashed := hmac.New(sha256.New, []byte(key))
hashed.Write([]byte(s))
return string(hashed.Sum(nil))
}

func main() {
secretId := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secretKey := "Gu5t9xGARNpq86cd98joQYCN3*******"
host := "cvm.tencentcloudapi.com"
algorithm := "TC3-HMAC-SHA256"
service := "cvm"
version := "2017-03-12"
action := "DescribeInstances"
region := "ap-guangzhou"
//var timestamp int64 = time.Now().Unix()
var timestamp int64 = 1551113065

// step 1: build canonical request string
httpRequestMethod := "POST"
canonicalURI := "/"
canonicalQueryString := ""
canonicalHeaders := "content-type:application/json; charset=utf-8\n" + "host:" +
host + "\n"
signedHeaders := "content-type;host"
payload := `{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-na
me"}]}`
hashedRequestPayload := sha256hex(payload)
canonicalRequest := fmt.Sprintf("%s\n%s\n%s\n%s\n%s\n%s",
httpRequestMethod,
canonicalURI,
```

```
canonicalQueryString,
canonicalHeaders,
signedHeaders,
hashedRequestPayload)
fmt.Println(canonicalRequest)

// step 2: build string to sign
date := time.Unix(timestamp, 0).UTC().Format("2006-01-02")
credentialScope := fmt.Sprintf("%s/%s/tc3_request", date, service)
hashedCanonicalRequest := sha256hex(canonicalRequest)
string2sign := fmt.Sprintf("%s\n%d\n%s\n%s",
algorithm,
timestamp,
credentialScope,
hashedCanonicalRequest)
fmt.Println(string2sign)

// step 3: sign string
secretDate := hmacsha256(date, "TC3"+secretKey)
secretService := hmacsha256(service, secretDate)
secretSigning := hmacsha256("tc3_request", secretService)
signature := hex.EncodeToString([]byte(hmacsha256(string2sign, secretSigning)))
fmt.Println(signature)

// step 4: build authorization
authorization := fmt.Sprintf("%s Credential=%s/%s, SignedHeaders=%s, Signature=%
s",
algorithm,
secretId,
credentialScope,
signedHeaders,
signature)
fmt.Println(authorization)

curl := fmt.Sprintf(`curl -X POST https://%s\
-H "Authorization: %s"\
-H "Content-Type: application/json; charset=utf-8"\
-H "Host: %s" -H "X-TC-Action: %s"\
-H "X-TC-Timestamp: %d"\
-H "X-TC-Version: %s"\
-H "X-TC-Region: %s"\
-d '%s'`, host, authorization, host, action, timestamp, version, region, payload)
fmt.Println(curl)
}
```

PHP

```php
<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*******";
$host = "cvm.tencentcloudapi.com";
$service = "cvm";
$version = "2017-03-12";
$action = "DescribeInstances";
$region = "ap-guangzhou";
// $timestamp = time();
$timestamp = 1551113065;
$algorithm = "TC3-HMAC-SHA256";

// step 1: build canonical request string
$httpRequestMethod = "POST";
$canonicalUri = "/";
$canonicalQueryString = "";
$canonicalHeaders = "content-type:application/json; charset=utf-8\n"."host:".$hos
t."\n";
$signedHeaders = "content-type;host";
$payload = '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-na
me"}]}';
$hashedRequestPayload = hash("SHA256", $payload);
$canonicalRequest = $httpRequestMethod."\n"
.$canonicalUri."\n"
.$canonicalQueryString."\n"
.$canonicalHeaders."\n"
.$signedHeaders."\n"
.$hashedRequestPayload;
echo $canonicalRequest.PHP_EOL;

// step 2: build string to sign
$date = gmdate("Y-m-d", $timestamp);
$credentialScope = $date."/".$service."/tc3_request";
$hashedCanonicalRequest = hash("SHA256", $canonicalRequest);
$stringToSign = $algorithm."\n"
.$timestamp."\n"
.$credentialScope."\n"
.$hashedCanonicalRequest;
echo $stringToSign.PHP_EOL;

// step 3: sign string
$secretDate = hash_hmac("SHA256", $date, "TC3".$secretKey, true);
$secretService = hash_hmac("SHA256", $service, $secretDate, true);
$secretSigning = hash_hmac("SHA256", "tc3_request", $secretService, true);
$signature = hash_hmac("SHA256", $stringToSign, $secretSigning);
echo $signature.PHP_EOL;
```

```php
// step 4: build authorization
$authorization = $algorithm
." Credential=".$secretId."/".$credentialScope
.", SignedHeaders=content-type;host, Signature=".$signature;
echo $authorization.PHP_EOL;

$curl = "curl -X POST https://".$host
.' -H "Authorization: '.$authorization.'"'
.' -H "Content-Type: application/json; charset=utf-8"'
.' -H "Host: '.$host.'"'
.' -H "X-TC-Action: '.$action.'"'
.' -H "X-TC-Timestamp: '.$timestamp.'"'
.' -H "X-TC-Version: '.$version.'"'
.' -H "X-TC-Region: '.$region.'"'
." -d '".$payload."'";
echo $curl.PHP_EOL;
```

Ruby

```ruby
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'digest'
require 'json'
require 'time'
require 'openssl'

# Key Parameters
secret_id = 'AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******'
secret_key = 'Gu5t9xGARNpq86cd98joQYCN3*******'

service = 'cvm'
host = 'cvm.tencentcloudapi.com'
endpoint = 'https://' + host
region = 'ap-guangzhou'
action = 'DescribeInstances'
version = '2017-03-12'
algorithm = 'TC3-HMAC-SHA256'
# timestamp = Time.now.to_i
timestamp = 1551113065
date = Time.at(timestamp).utc.strftime('%Y-%m-%d')

# ************* Step 1: Concatenate the CanonicalRequest string *************
http_request_method = 'POST'
canonical_uri = '/'
canonical_querystring = ''
```

```
canonical_headers = "content-type:application/json; charset=utf-8\nhost:#{host}
\n"
signed_headers = 'content-type;host'
# params = { 'Limit' => 1, 'Filters' => [{ 'Name' => 'instance-name', 'Values' =>
['unnamed'] }] }
# payload = JSON.generate(params, { 'ascii_only' => true, 'space' => ' ' })
# json will generate in random order, to get specified result in example, we hard
-code it here.
payload = '{"Limit": 1, "Filters": [{"Values": ["unnamed"], "Name": "instance-nam
e"}]}'
hashed_request_payload = Digest::SHA256.hexdigest(payload)
canonical_request = [
http_request_method,
canonical_uri,
canonical_querystring,
canonical_headers,
signed_headers,
hashed_request_payload,
].join("\n")

puts canonical_request

# ************* Step 2: Concatenate the string to sign *************
credential_scope = date + '/' + service + '/' + 'tc3_request'
hashed_request_payload = Digest::SHA256.hexdigest(canonical_request)
string_to_sign = [
algorithm,
timestamp.to_s,
credential_scope,
hashed_request_payload,
].join("\n")
puts string_to_sign

# ************* Step 3: Calculate the Signature *************
digest = OpenSSL::Digest.new('sha256')
secret_date = OpenSSL::HMAC.digest(digest, 'TC3' + secret_key, date)
secret_service = OpenSSL::HMAC.digest(digest, secret_date, service)
secret_signing = OpenSSL::HMAC.digest(digest, secret_service, 'tc3_request')
signature = OpenSSL::HMAC.hexdigest(digest, secret_signing, string_to_sign)
puts signature

# ************* Step 4: Concatenate the Authorization *************
authorization = "#{algorithm} Credential=#{secret_id}/#{credential_scope}, Signed
Headers=#{signed_headers}, Signature=#{signature}"
puts authorization

puts 'curl -X POST ' + endpoint \
```

```
+ ' -H "Authorization: ' + authorization + '"' \
+ ' -H "Content-Type: application/json; charset=utf-8"' \
+ ' -H "Host: ' + host + '"' \
+ ' -H "X-TC-Action: ' + action + '"' \
+ ' -H "X-TC-Timestamp: ' + timestamp.to_s + '"' \
+ ' -H "X-TC-Version: ' + version + '"' \
+ ' -H "X-TC-Region: ' + region + '"' \
+ " -d '" + payload + "'"
```

DotNet

```
using System;
using System.Collections.Generic;
using System.Security.Cryptography;
using System.Text;

public class Application
{
public static string SHA256Hex(string s)
{
using (SHA256 algo = SHA256.Create())
{
byte[] hashbytes = algo.ComputeHash(Encoding.UTF8.GetBytes(s));
StringBuilder builder = new StringBuilder();
for (int i = 0; i < hashbytes.Length; ++i)
{
builder.Append(hashbytes[i].ToString("x2"));
}
return builder.ToString();
}
}
public static byte[] HmacSHA256(byte[] key, byte[] msg)
{
using (HMACSHA256 mac = new HMACSHA256(key))
{
return mac.ComputeHash(msg);
}
}

public static Dictionary<String, String> BuildHeaders(string secretid,
string secretkey, string service, string endpoint, string region,
string action, string version, DateTime date, string requestPayload)
{
string datestr = date.ToString("yyyy-MM-dd");
DateTime startTime = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc);
long requestTimestamp = (long)Math.Round((date - startTime).TotalMilliseconds, Mi
```

```
dpointRounding.AwayFromZero) / 1000;
// ************* Step 1: Concatenate the CanonicalRequest string *************
string algorithm = "TC3-HMAC-SHA256";
string httpRequestMethod = "POST";
string canonicalUri = "/";
string canonicalQueryString = "";
string contentType = "application/json";
string canonicalHeaders = "content-type:" + contentType + "; charset=utf-8\n" +
"host:" + endpoint + "\n";
string signedHeaders = "content-type;host";
string hashedRequestPayload = SHA256Hex(requestPayload);
string canonicalRequest = httpRequestMethod + "\n"
+ canonicalUri + "\n"
+ canonicalQueryString + "\n"
+ canonicalHeaders + "\n"
+ signedHeaders + "\n"
+ hashedRequestPayload;
Console.WriteLine(canonicalRequest);
Console.WriteLine("-----------------------------------");

// ************* Step 2: Concatenate the string to sign *************
string credentialScope = datestr + "/" + service + "/" + "tc3_request";
string hashedCanonicalRequest = SHA256Hex(canonicalRequest);
string stringToSign = algorithm + "\n" + requestTimestamp.ToString() + "\n" + cre
dentialScope + "\n" + hashedCanonicalRequest;
Console.WriteLine(stringToSign);
Console.WriteLine("-----------------------------------");

// ************* Step 3: Calculate the signature *************
byte[] tc3SecretKey = Encoding.UTF8.GetBytes("TC3" + secretkey);
byte[] secretDate = HmacSHA256(tc3SecretKey, Encoding.UTF8.GetBytes(datestr));
byte[] secretService = HmacSHA256(secretDate, Encoding.UTF8.GetBytes(service));
byte[] secretSigning = HmacSHA256(secretService, Encoding.UTF8.GetBytes("tc3_requ
est"));
byte[] signatureBytes = HmacSHA256(secretSigning, Encoding.UTF8.GetBytes(stringTo
Sign));
string signature = BitConverter.ToString(signatureBytes).Replace("-", "").ToLower
();
Console.WriteLine(signature);
Console.WriteLine("-----------------------------------");

// ************* Step 4: Concatenate the Authorization *************
string authorization = algorithm + " "
+ "Credential=" + secretid + "/" + credentialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", "
+ "Signature=" + signature;
Console.WriteLine(authorization);
```

```
Console.WriteLine("-----------------------------------");

Dictionary<string, string> headers = new Dictionary<string, string>();
headers.Add("Authorization", authorization);
headers.Add("Host", endpoint);
headers.Add("Content-Type", contentType + "; charset=utf-8");
headers.Add("X-TC-Timestamp", requestTimestamp.ToString());
headers.Add("X-TC-Version", version);
headers.Add("X-TC-Action", action);
headers.Add("X-TC-Region", region);
return headers;
}
public static void Main(string[] args)
{
// SecretID and SecretKey
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";

string service = "cvm";
string endpoint = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";

// The timestamp `2019-02-26 00:44:25` used here is only for reference. In a proj
ect, use the following parameter:
// DateTime date = DateTime.UtcNow;
// Enter the correct time zone. We recommend using UTC timestamp to avoid errors.
DateTime date = new DateTime(1970, 1, 1, 0, 0, 0, 0, DateTimeKind.Utc).AddSeconds
(1551113065);
string requestPayload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"\\u672a\\u5
47d\\u540d\"], \"Name\": \"instance-name\"}]}";

Dictionary<string, string> headers = BuildHeaders(SECRET_ID, SECRET_KEY, service
, endpoint, region, action, version, date, requestPayload);

Console.WriteLine("POST https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine();
Console.WriteLine(requestPayload);
}
}
```

NodeJS

```
const crypto = require('crypto');

function sha256(message, secret = '', encoding) {
const hmac = crypto.createHmac('sha256', secret)
return hmac.update(message).digest(encoding)
}
function getHash(message, encoding = 'hex') {
const hash = crypto.createHash('sha256')
return hash.update(message).digest(encoding)
}
function getDate(timestamp) {
const date = new Date(timestamp * 1000)
const year = date.getUTCFullYear()
const month = ('0' + (date.getUTCMonth() + 1)).slice(-2)
const day = ('0' + date.getUTCDate()).slice(-2)
return `${year}-${month}-${day}`
}
function main(){

const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
const SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******"

const endpoint = "cvm.tencentcloudapi.com"
const service = "cvm"
const region = "ap-guangzhou"
const action = "DescribeInstances"
const version = "2017-03-12"
//const timestamp = getTime()
const timestamp = 1551113065
const date = getDate(timestamp)

// ************* Step 1: Concatenate the CanonicalRequest string *************
const signedHeaders = "content-type;host"

const payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}"

const hashedRequestPayload = getHash(payload);
const httpRequestMethod = "POST"
const canonicalUri = "/"
const canonicalQueryString = ""
const canonicalHeaders = "content-type:application/json; charset=utf-8\n" + "hos
t:" + endpoint + "\n"

const canonicalRequest = httpRequestMethod + "\n"
```

```
+ canonicalUri + "\n"
+ canonicalQueryString + "\n"
+ canonicalHeaders + "\n"
+ signedHeaders + "\n"
+ hashedRequestPayload
console.log(canonicalRequest)
console.log("----------------------------")

// ************* Step 2: Concatenate the string to sign *************
const algorithm = "TC3-HMAC-SHA256"
const hashedCanonicalRequest = getHash(canonicalRequest);
const credentialScope = date + "/" + service + "/" + "tc3_request"
const stringToSign = algorithm + "\n" +
timestamp + "\n" +
credentialScope + "\n" +
hashedCanonicalRequest
console.log(stringToSign)
console.log("----------------------------")

// ************* Step 3: Calculate the signature *************
const kDate = sha256(date, 'TC3' + SECRET_KEY)
const kService = sha256(service, kDate)
const kSigning = sha256('tc3_request', kService)
const signature = sha256(stringToSign, kSigning, 'hex')
console.log(signature)
console.log("----------------------------")

// ************* Step 4: Concatenate the Authorization *************
const authorization = algorithm + " " +
"Credential=" + SECRET_ID + "/" + credentialScope + ", " +
"SignedHeaders=" + signedHeaders + ", " +
"Signature=" + signature
console.log(authorization)
console.log("----------------------------")

const Call_Information = 'curl -X POST ' + "https://" + endpoint
+ ' -H "Authorization: ' + authorization + '"'
+ ' -H "Content-Type: application/json; charset=utf-8"'
+ ' -H "Host: ' + endpoint + '"'
+ ' -H "X-TC-Action: ' + action + '"'
+ ' -H "X-TC-Timestamp: ' + timestamp.toString() + '"'
+ ' -H "X-TC-Version: ' + version + '"'
+ ' -H "X-TC-Region: ' + region + '"'
+ " -d '" + payload + "'"
console.log(Call_Information)
}
main()
```

C++

```
#include <iostream>
#include <iomanip>
#include <sstream>
#include <string>
#include <stdio.h>
#include <time.h>
#include <openssl/sha.h>
#include <openssl/hmac.h>

using namespace std;

string get_data(int64_t &timestamp)
{
string utcDate;
char buff[20] = {0};
// time_t timenow;
struct tm sttime;
sttime = *gmtime(&timestamp);
strftime(buff, sizeof(buff), "%Y-%m-%d", &sttime);
utcDate = string(buff);
return utcDate;
}
string int2str(int64_t n)
{
std::stringstream ss;
ss << n;
return ss.str();
}
string sha256Hex(const string &str)
{
char buf[3];
unsigned char hash[SHA256_DIGEST_LENGTH];
SHA256_CTX sha256;
SHA256_Init(&sha256);
SHA256_Update(&sha256, str.c_str(), str.size());
SHA256_Final(hash, &sha256);
std::string NewString = "";
for(int i = 0; i < SHA256_DIGEST_LENGTH; i++)
{
snprintf(buf, sizeof(buf), "%02x", hash[i]);
NewString = NewString + buf;
}
return NewString;
```

```
}
string HmacSha256(const string &key, const string &input)
{
unsigned char hash[32];

HMAC_CTX *h;
#if OPENSSL_VERSION_NUMBER < 0x10100000L
HMAC_CTX hmac;
HMAC_CTX_init(&hmac);
h = &hmac;
#else
h = HMAC_CTX_new();
#endif

HMAC_Init_ex(h, &key[0], key.length(), EVP_sha256(), NULL);
HMAC_Update(h, ( unsigned char* )&input[0], input.length());
unsigned int len = 32;
HMAC_Final(h, hash, &len);

#if OPENSSL_VERSION_NUMBER < 0x10100000L
HMAC_CTX_cleanup(h);
#else
HMAC_CTX_free(h);
#endif

std::stringstream ss;
ss << std::setfill('0');
for (int i = 0; i < len; i++)
{
ss << hash[i];
}

return (ss.str());
}
string HexEncode(const string &input)
{
static const char* const lut = "0123456789abcdef";
size_t len = input.length();

string output;
output.reserve(2 * len);
for (size_t i = 0; i < len; ++i)
{
const unsigned char c = input[i];
output.push_back(lut[c >> 4]);
output.push_back(lut[c & 15]);
}
```

```
return output;
}

int main()
{
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";

string service = "cvm";
string host = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";
int64_t timestamp = 1551113065;
string date = get_data(timestamp);

// ************* Step 1: Concatenate the CanonicalRequest string *************
string httpRequestMethod = "POST";
string canonicalUri = "/";
string canonicalQueryString = "";
string canonicalHeaders = "content-type:application/json; charset=utf-8\nhost:" +
host + "\n";
string signedHeaders = "content-type;host";
string payload = "{\"Limit\": 1, \"Filters\": [{\"Values\": [\"unnamed\"], \"Name
\": \"instance-name\"}]}";
string hashedRequestPayload = sha256Hex(payload);
string canonicalRequest = httpRequestMethod + "\n" + canonicalUri + "\n" + canoni
calQueryString + "\n"
+ canonicalHeaders + "\n" + signedHeaders + "\n" + hashedRequestPayload;
cout << canonicalRequest << endl;
cout << "-----------------------" << endl;

// ************* Step 2: Concatenate the string to sign *************
string algorithm = "TC3-HMAC-SHA256";
string RequestTimestamp = int2str(timestamp);
string credentialScope = date + "/" + service + "/" + "tc3_request";
string hashedCanonicalRequest = sha256Hex(canonicalRequest);
string stringToSign = algorithm + "\n" + RequestTimestamp + "\n" + credentialScop
e + "\n" + hashedCanonicalRequest;
cout << stringToSign << endl;
cout << "-----------------------" << endl;

// ************* Step 3: Calculate the signature ***************
string kKey = "TC3" + SECRET_KEY;
string kDate = HmacSha256(kKey, date);
string kService = HmacSha256(kDate, service);
string kSigning = HmacSha256(kService, "tc3_request");
```

```
string signature = HexEncode(HmacSha256(kSigning, stringToSign));
cout << signature << endl;
cout << "-----------------------" << endl;

// ************* Step 4: Concatenate the Authorization *************
string authorization = algorithm + " " + "Credential=" + SECRET_ID + "/" + creden
tialScope + ", "
+ "SignedHeaders=" + signedHeaders + ", " + "Signature=" + signature;
cout << authorization << endl;
cout << "-----------------------" << endl;

string headers = "curl -X POST https://" + host + "\n"
+ " -H \"Authorization: " + authorization + "\n"
+ " -H \"Content-Type: application/json; charset=utf-8\"" + "\n"
+ " -H \"Host: " + host + "\n"
+ " -H \"X-TC-Action: " + action + "\n"
+ " -H \"X-TC-Timestamp: " + RequestTimestamp + "\n"
+ " -H \"X-TC-Version: " + version + "\n"
+ " -H \"X-TC-Region: " + region + "\n"
+ " -d '" + payload;
cout << headers << endl;
return 0;
};
```

Signature Failure

The following situational error codes for signature failure may occur. Please resolve the errors accordingly.

Error Code	Description
AuthFailure.SignatureExpire	Signature expired. Timestamp and server time cannot differ by more than five minutes.
AuthFailure.SecretIdNotFound	The key does not exist. Please go to the console to check whether it is disabled or you copied fewer or more characters.
AuthFailure.SignatureFailure	Signature error. It is possible that the signature was calculated incorrectly, the signature does not match the content actually sent, or the SecretKey is incorrect.
AuthFailure.TokenFailure	Temporary certificate token error.
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).

Signature

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Tencent Cloud API authenticates each access request, i.e. each request needs to include authentication information (Signature) in the common parameters to verify the identity of the requester.
The Signature is generated by the security credentials which include SecretId and SecretKey. If you don't have the security credentials yet, go to the TencentCloud API Key page to apply for them; otherwise, you cannot invoke the TencentCloud API.

1. Applying for Security Credentials

Before using the TencentCloud API for the first time, go to the TencentCloud API Key page to apply for security credentials.
Security credentials consist of SecretId and SecretKey:

- SecretId is used to identify the API requester.
- SecretKey is used to encrypt the signature string and verify it on the server.
- **You must keep your security credentials private and avoid disclosure.**

You can apply for the security credentials through the following steps:

1. Log in to the Tencent Cloud Console.
2. Go to the TencentCloud API Key page.
3. On the API Key Management page, click **Create Key** to create a SecretId/SecretKey pair.

Note: Each account can have up to two pairs of SecretId/SecretKey.

2. Generating a Signature

With the SecretId and SecretKey, a signature can be generated. The following describes how to generate a signature:

Assume that the SecretId and SecretKey are:

- SecretId: `AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******`
- SecretKey: `Gu5t9xGARNpq86cd98joQYCN3*******`

Note: This is just an example. For actual operations, please use your own SecretId and SecretKey.

Take the Cloud Virtual Machine's request to view the instance list (DescribeInstances) as an example. When you invoke this API, the request parameters may be as follows:

Parameter name	Description	Parameter value
Action	Method name	DescribeInstances
SecretId	Key ID	`AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******`
Timestamp	Current timestamp	1465185768
Nonce	Random positive integer	11886
Region	Region where the instance is located	ap-guangzhou
InstanceIds.0	ID of the instance to query	ins-09dx96dg
Offset	Offset	0
Limit	Allowed maximum output	20
Version	API version number	2017-03-12

2.1. Sorting Parameters

First, sort all the request parameters in an ascending lexicographical order (ASCII code) by their names. Notes: (1) Parameters are sorted by their names instead of their values; (2) The parameters are sorted based on ASCII code, not in an alphabetical order or by values. For example, InstanceIds.2 should be arranged after InstanceIds.12. You can complete the sorting process using a sorting function in a programming language, such as the ksort function in PHP. The parameters in the example are sorted as follows:

```
{
'Action' : 'DescribeInstances',
'InstanceIds.0' : 'ins-09dx96dg',
'Limit' : 20,
'Nonce' : 11886,
'Offset' : 0,
'Region' : 'ap-guangzhou',
'SecretId' : 'AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******',
'Timestamp' : 1465185768,
'Version': '2017-03-12',
}
```

When developing in another programming language, you can sort these sample parameters and it will work as long as you obtain the same results.

2.2. Concatenating a Request String

This step generates a request string.

Format the request parameters sorted in the previous step into the form of "parameter name"="parameter value". For example, for the Action parameter, its parameter name is "Action" and its parameter value is "DescribeInstances", so it will become Action=DescribeInstances after formatted.

Note: The "parameter value" is the original value but not the value after URL encoding.

Then, concatenate the formatted parameters with "&". The resulting request string is as follows:

```
Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0
&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Timestamp=1465
185768&Version=2017-03-12
```

2.3. Concatenating the Signature Original String

This step generates a signature original string.

The signature original string consists of the following parameters:

1. HTTP method: POST and GET modes are supported, and GET is used here for the request. Please note that the method name should be in all capital letters.
2. Request server: the domain name of the request to view the list of instances (DescribeInstances) is cvm.tencentcloudapi.com. The actual request domain name varies by the module to which the API belongs. For more information, see the instructions of the specific API.
3. Request path: The request path in the current version of TencentCloud API is fixed to /.
4. Request string: the request string generated in the previous step.

The concatenation rule of the signature original string is: Request method + request host + request path + ? + request string

The concatenation result of the example is:

```
GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&L
imit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WF
kmLPx3*******&Timestamp=1465185768&Version=2017-03-12
```

2.4. Generating a Signature String

This step generates a signature string.

First, use the HMAC-SHA1 algorithm to sign the **signature original string** obtained in the previous step, and then

encode the generated signature using Base64 to obtain the final signature.

The specific code is as follows with the PHP language being used as an example:

```
$secretKey = 'Gu5t9xGARNpq86cd98joQYCN3*******';
$srcStr = 'GETcvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Timestamp=1465185768&Version=2017-03-12';
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));
echo $signStr;
```

The final signature is:

```
zmmjn35mikh6pM3V7sUEuX4wyYM=
```

When developing in another programming language, you can sign and verify the original in the example above and it works as long as you get the same results.

3. Encoding a Signature String

The generated signature string cannot be directly used as a request parameter and must be URL encoded.

For example, if the signature string generated in the previous step is zmmjn35mikh6pM3V7sUEuX4wyYM=, the final signature string request parameter (Signature) is zmmjn35mikh6pM3V7sUEuX4wyYM%3D, which will be used to generate the final request URL.

Note: If your request method is GET, or the request method is POST and the Content-Type is application/x-www-form-urlencoded, then all the request parameter values need to be URL encoded (except the parameter key and the symbol of =) when sending the request. Non-ASCII characters need to be encoded with UTF-8 before URL encoding.

Note: The network libraries of some programming languages automatically URL encode all parameters, in which case there is no need to URL encode the signature string; otherwise, two rounds of URL encoding will cause the signature to fail.

Note: Other parameter values also need to be encoded using RFC 3986. Use %XY in percent-encoding for special characters such as Chinese characters, where "X" and "Y" are hexadecimal characters (0-9 and uppercase A-F), and using lowercase will cause an error.

4. Signature Failure

The following situational error codes for signature failure may occur. Please resolve the errors accordingly.

Error code	Error description
AuthFailure.SignatureExpire	The signature is expired
AuthFailure.SecretIdNotFound	The key does not exist
AuthFailure.SignatureFailure	Signature error
AuthFailure.TokenFailure	Token error
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type)

5. Signature Demo

When calling API 3.0, you are recommended to use the corresponding Tencent Cloud SDK 3.0 which encapsulates the signature process, enabling you to focus on only the specific APIs provided by the product when developing. See SDK Center for more information. Currently, the following programming languages are supported:

- Python
- Java
- PHP
- Go
- NodeJS
- .NET

To further explain the signing process, we will use a programming language to implement the process described above. The request domain name, API and parameter values in the sample are used here. This goal of this example is only to provide additional clarification for the signature process, please see the SDK for actual usage.

The final output URL might be: `https://cvm.tencentcloudapi.com/?Action=DescribeInstances&InstanceIds.0=ins-09dx96dg&Limit=20&Nonce=11886&Offset=0&Region=ap-guangzhou&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******&Signature=zmmjn35mikh6pM3V7sUEuX4wyYM%3D&Timestamp=1465185768&Version=2017-03-12` .

Note: The key in the example is fictitious, and the timestamp is not the current time of the system, so if this URL is opened in the browser or called using commands such as curl, an authentication error will be returned: Signature expired. In order to get a URL that can work properly, you need to replace the SecretId and SecretKey in the example with your real credentials and use the current time of the system as the Timestamp.

Note: In the example below, even if you use the same programming language, the order of the parameters in the URL may be different for each execution. However, the order does not matter, as long as all the parameters are included in the URL and the signature is calculated correctly.

Note: The following code is only applicable to API 3.0. It cannot be directly used in other signature processes. Even with an older API, signature calculation errors may occur due to the differences in details. Please refer to the corresponding documentation.

Java

```
import java.io.UnsupportedEncodingException;
import java.net.URLEncoder;
import java.util.Random;
import java.util.TreeMap;
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
import javax.xml.bind.DatatypeConverter;

public class TencentCloudAPIDemo {
private final static String CHARSET = "UTF-8";

public static String sign(String s, String key, String method) throws Exception {
Mac mac = Mac.getInstance(method);
SecretKeySpec secretKeySpec = new SecretKeySpec(key.getBytes(CHARSET), mac.getAlg
orithm());
mac.init(secretKeySpec);
byte[] hash = mac.doFinal(s.getBytes(CHARSET));
return DatatypeConverter.printBase64Binary(hash);
}

public static String getStringToSign(TreeMap<String, Object> params) {
StringBuilder s2s = new StringBuilder("GETcvm.tencentcloudapi.com/?");
// When signing, the parameters need to be sorted in lexicographical order. TreeM
ap is used here to guarantee the correct order.
for (String k : params.keySet()) {
s2s.append(k).append("=").append(params.get(k).toString()).append("&");
}
return s2s.toString().substring(0, s2s.length() - 1);
}

public static String getUrl(TreeMap<String, Object> params) throws UnsupportedEnc
odingException {
StringBuilder url = new StringBuilder("https://cvm.tencentcloudapi.com/?");
// There is no requirement for the order of the parameters in the actual request
URL.
for (String k : params.keySet()) {
```

```
// The request string needs to be URL encoded. As the Key is all in English lette
rs, only the value is URL encoded here.
url.append(k).append("=").append(URLEncoder.encode(params.get(k).toString(), CHAR
SET)).append("&");
}
return url.toString().substring(0, url.length() - 1);
}

public static void main(String[] args) throws Exception {
TreeMap<String, Object> params = new TreeMap<String, Object>(); // TreeMap enable
s automatic sorting
// A random number should be used when actually calling, for example: params.put
("Nonce", new Random().nextInt(java.lang.Integer.MAX_VALUE));
params.put("Nonce", 11886); // Common parameter
// The current time of the system should be used when actually calling, for examp
le: params.put("Timestamp", System.currentTimeMillis() / 1000);
params.put("Timestamp", 1465185768); // Common parameter
params.put("SecretId", "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"); // Common paramet
er
params.put("Action", "DescribeInstances"); // Common parameter
params.put("Version", "2017-03-12"); // Common parameter
params.put("Region", "ap-guangzhou"); // Common parameter
params.put("Limit", 20); // Business parameter
params.put("Offset", 0); // Business parameter
params.put("InstanceIds.0", "ins-09dx96dg"); // Business parameter
params.put("Signature", sign(getStringToSign(params), "Gu5t9xGARNpq86cd98joQYCN3*
******", "HmacSHA1")); // Common parameter
System.out.println(getUrl(params));
}
}
```

Python

Note: If running in a Python 2 environment, the following requests dependency package must be installed first: `pip install requests`.

```
# -*- coding: utf8 -*-
import base64
import hashlib
import hmac
import time

import requests

secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"
```

```
def get_string_to_sign(method, endpoint, params):
s = method + endpoint + "/?"
query_str = "&".join("%s=%s" % (k, params[k]) for k in sorted(params))
return s + query_str

def sign_str(key, s, method):
hmac_str = hmac.new(key.encode("utf8"), s.encode("utf8"), method).digest()
return base64.b64encode(hmac_str)

if __name__ == '__main__':
endpoint = "cvm.tencentcloudapi.com"
data = {
'Action' : 'DescribeInstances',
'InstanceIds.0' : 'ins-09dx96dg',
'Limit' : 20,
'Nonce' : 11886,
'Offset' : 0,
'Region' : 'ap-guangzhou',
'SecretId' : secret_id,
'Timestamp' : 1465185768, # int(time.time())
'Version': '2017-03-12'
}
s = get_string_to_sign("GET", endpoint, data)
data["Signature"] = sign_str(secret_key, s, hashlib.sha1)
print(data["Signature"])
# An actual invocation would occur here, which may incur fees after success
# resp = requests.get("https://" + endpoint, params=data)
# print(resp.url)
```

Golang

```
package main

import (
"bytes"
"crypto/hmac"
"crypto/sha1"
"encoding/base64"
"fmt"
"sort"
)

func main() {
secretId := "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secretKey := "Gu5t9xGARNpq86cd98joQYCN3*******"
```

```
params := map[string]string{
"Nonce": "11886",
"Timestamp": "1465185768",
"Region": "ap-guangzhou",
"SecretId": secretId,
"Version": "2017-03-12",
"Action": "DescribeInstances",
"InstanceIds.0": "ins-09dx96dg",
"Limit": "20",
"Offset": "0",
}

var buf bytes.Buffer
buf.WriteString("GET")
buf.WriteString("cvm.tencentcloudapi.com")
buf.WriteString("/")
buf.WriteString("?")

// sort keys by ascii asc order
keys := make([]string, 0, len(params))
for k, _ := range params {
keys = append(keys, k)
}
sort.Strings(keys)

for i := range keys {
k := keys[i]
buf.WriteString(k)
buf.WriteString("=")
buf.WriteString(params[k])
buf.WriteString("&")
}
buf.Truncate(buf.Len() - 1)

hashed := hmac.New(sha1.New, []byte(secretKey))
hashed.Write(buf.Bytes())

fmt.Println(base64.StdEncoding.EncodeToString(hashed.Sum(nil)))
}
```

PHP

```
<?php
$secretId = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
$secretKey = "Gu5t9xGARNpq86cd98joQYCN3*******";
$param["Nonce"] = 11886;//rand();
```

```php
$param["Timestamp"] = 1465185768;//time();
$param["Region"] = "ap-guangzhou";
$param["SecretId"] = $secretId;
$param["Version"] = "2017-03-12";
$param["Action"] = "DescribeInstances";
$param["InstanceIds.0"] = "ins-09dx96dg";
$param["Limit"] = 20;
$param["Offset"] = 0;

ksort($param);

$signStr = "GETcvm.tencentcloudapi.com/?";
foreach ( $param as $key => $value ) {
$signStr = $signStr . $key . "=" . $value . "&";
}
$signStr = substr($signStr, 0, -1);

$signature = base64_encode(hash_hmac("sha1", $signStr, $secretKey, true));
echo $signature.PHP_EOL;
// need to install and enable curl extension in php.ini
// $param["Signature"] = $signature;
// $url = "https://cvm.tencentcloudapi.com/?".http_build_query($param);
// echo $url.PHP_EOL;
// $ch = curl_init();
// curl_setopt($ch, CURLOPT_URL, $url);
// $output = curl_exec($ch);
// curl_close($ch);
// echo json_decode($output);
```

Ruby

```ruby
# -*- coding: UTF-8 -*-
# require ruby>=2.3.0
require 'time'
require 'openssl'
require 'base64'

secret_id = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
secret_key = "Gu5t9xGARNpq86cd98joQYCN3*******"

method = 'GET'
endpoint = 'cvm.tencentcloudapi.com'
data = {
'Action' => 'DescribeInstances',
'InstanceIds.0' => 'ins-09dx96dg',
'Limit' => 20,
```

```
'Nonce' => 11886,
'Offset' => 0,
'Region' => 'ap-guangzhou',
'SecretId' => secret_id,
'Timestamp' => 1465185768, # Time.now.to_i
'Version' => '2017-03-12',
}
sign = method + endpoint + '/?'
params = []
data.sort.each do |item|
params << "#{item[0]}=#{item[1]}"
end
sign += params.join('&')
digest = OpenSSL::Digest.new('sha1')
data['Signature'] = Base64.encode64(OpenSSL::HMAC.digest(digest, secret_key, sig
n))
puts data['Signature']

# require 'net/http'
# uri = URI('https://' + endpoint)
# uri.query = URI.encode_www_form(data)
# p uri
# res = Net::HTTP.get_response(uri)
# puts res.body
```

DotNet

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Security.Cryptography;
using System.Text;

public class Application {
public static string Sign(string signKey, string secret)
{
string signRet = string.Empty;
using (HMACSHA1 mac = new HMACSHA1(Encoding.UTF8.GetBytes(signKey)))
{
byte[] hash = mac.ComputeHash(Encoding.UTF8.GetBytes(secret));
signRet = Convert.ToBase64String(hash);
}
return signRet;
}
public static string MakeSignPlainText(SortedDictionary<string, string> requestPa
rams, string requestMethod, string requestHost, string requestPath)
```

```
{
string retStr = "";
retStr += requestMethod;
retStr += requestHost;
retStr += requestPath;
retStr += "?";
string v = "";
foreach (string key in requestParams.Keys)
{
v += string.Format("{0}={1}&", key, requestParams[key]);
}
retStr += v.TrimEnd('&');
return retStr;
}

public static void Main(string[] args)
{
string SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******";
string SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******";

string endpoint = "cvm.tencentcloudapi.com";
string region = "ap-guangzhou";
string action = "DescribeInstances";
string version = "2017-03-12";
double RequestTimestamp = 1465185768;
// long timestamp = ToTimestamp() / 1000;
// string requestTimestamp = timestamp.ToString();
Dictionary<string, string> param = new Dictionary<string, string>();
param.Add("Limit", "20");
param.Add("Offset", "0");
param.Add("InstanceIds.0", "ins-09dx96dg");
param.Add("Action", action);
param.Add("Nonce", "11886");
// param.Add("Nonce", Math.Abs(new Random().Next()).ToString());

param.Add("Timestamp", RequestTimestamp.ToString());
param.Add("Version", version);

param.Add("SecretId", SECRET_ID);
param.Add("Region", region);
SortedDictionary<string, string> headers = new SortedDictionary<string, string>(p
aram, StringComparer.Ordinal);
string sigInParam = MakeSignPlainText(headers, "GET", endpoint, "/");
Console.WriteLine(sigInParam);
string sigOutParam = Sign(SECRET_KEY, sigInParam);
```

```
Console.WriteLine("GET https://cvm.tencentcloudapi.com");
foreach (KeyValuePair<string, string> kv in headers)
{
Console.WriteLine(kv.Key + ": " + kv.Value);
}
Console.WriteLine("Signature" + ": " + WebUtility.UrlEncode(sigOutParam));
Console.WriteLine();

string result = "https://cvm.tencentcloudapi.com/?";
foreach (KeyValuePair<string, string> kv in headers)
{
result += WebUtility.UrlEncode(kv.Key) + "=" + WebUtility.UrlEncode(kv.Value) +
"&";
}
result += WebUtility.UrlEncode("Signature") + "=" + WebUtility.UrlEncode(sigOutPa
ram);
Console.WriteLine("GET " + result);
}
}
```

NodeJS

```
const crypto = require('crypto');

function get_req_url(params, endpoint){
params['Signature'] = escape(params['Signature']);
const url_strParam = sort_params(params)
return "https://" + endpoint + "/?" + url_strParam.slice(1);
}

function formatSignString(reqMethod, endpoint, path, strParam){
let strSign = reqMethod + endpoint + path + "?" + strParam.slice(1);
return strSign;
}
function sha1(secretKey, strsign){
let signMethodMap = {'HmacSHA1': "sha1"};
let hmac = crypto.createHmac(signMethodMap['HmacSHA1'], secretKey || "");
return hmac.update(Buffer.from(strsign, 'utf8')).digest('base64')
}

function sort_params(params){
let strParam = "";
let keys = Object.keys(params);
keys.sort();
for (let k in keys) {
//k = k.replace(/_/g, '.');
```

```
strParam += ("&" + keys[k] + "=" + params[keys[k]]);
}
return strParam
}

function main(){
const SECRET_ID = "AKIDz8krbsJ5yKBZQpn74WFkmLPx3*******"
const SECRET_KEY = "Gu5t9xGARNpq86cd98joQYCN3*******"

const endpoint = "cvm.tencentcloudapi.com"
const Region = "ap-guangzhou"
const Version = "2017-03-12"
const Action = "DescribeInstances"
const Timestamp = 1465185768
// const Timestamp = Math.round(Date.now() / 1000)
const Nonce = 11886
//const nonce = Math.round(Math.random() * 65535)

let params = {};
params['Action'] = Action;
params['InstanceIds.0'] = 'ins-09dx96dg';
params['Limit'] = 20;
params['Offset'] = 0;
params['Nonce'] = Nonce;
params['Region'] = Region;
params['SecretId'] = SECRET_ID;
params['Timestamp'] = Timestamp;
params['Version'] = Version;

strParam = sort_params(params)

const reqMethod = "GET";
const path = "/";
strSign = formatSignString(reqMethod, endpoint, path, strParam)
console.log(strSign)
console.log("-----------------------")

params['Signature'] = sha1(SECRET_KEY, strSign)
console.log(params['Signature'])
console.log("-----------------------")

const req_url = get_req_url(params, endpoint)
console.log(params['Signature'])
console.log("-----------------------")
console.log(req_url)
}
main()
```

Responses

最近更新时间：2024-04-08 16:35:47

Response for Successful Requests

For example, when calling CAM API (version: 2017-03-12) to view the status of instances (DescribeInstancesStatus), if the request has succeeded, you may see the response as shown below:

```
{
"Response": {
"TotalCount": 0,
"InstanceStatusSet": [],
"RequestId": "b5b41468-520d-4192-b42f-595cc34b6c1c"
}
}
```

- The API will return `Response`, which contains `RequestId`, as long as it processes the request. It does not matter if the request is successful or not.
- RequestId is the unique ID of an API request. Contact us with this ID when an exception occurs.
- Except for the fixed fields, all fields are action-specified. For the definitions of action-specified fields, see the corresponding API documentation. In this example, `TotalCount` and `InstanceStatusSet` are the fields specified by the API `DescribeInstancesStatus`. 0 `TotalCount` means that the requester owns 0 CVM instance so the `InstanceStatusSet` is empty.

Response for Failed Requests

If the request has failed, you may see the response as shown below:

```
{
"Response": {
"Error": {
"Code": "AuthFailure.SignatureFailure",
"Message": "The provided credentials could not be validated. Please ensure your s
ignature is correct."
},
"RequestId": "ed93f3cb-f35e-473f-b9f3-0d451b8b79c6"
}
}
```

- The presence of the `Error` field indicates that the request has failed. A response for a failed request will include `Error`, `Code` and `Message` fields.
- `Code` is the code of the error that helps you identify the cause and solution. There are two types of error codes so you may find the code in either common error codes or API-specified error codes.
- Message explains the cause of the error. Note that the returned messages are subject to service updates. The information the messages provide may not be up-to-date and should not be the only source of reference.
- RequestId is the unique ID of an API request. Contact us with this ID when an exception occurs.

Common Error Codes

If there is an Error field in the response, it means that the API call failed. The Code field in Error indicates the error code. The following table lists the common error codes that all actions can return.

Error Code	Description
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).
AuthFailure.MFAFailure	MFA failed.
AuthFailure.SecretIdNotFound	The key does not exist.
AuthFailure.SignatureExpire	Signature expired.
AuthFailure.SignatureFailure	Signature error.
AuthFailure.TokenFailure	Token error.
AuthFailure.UnauthorizedOperation	The request does not have CAM authorization.
DryRunOperation	DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.
FailedOperation	Operation failed.
InternalError	Internal error.
InvalidAction	The API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
LimitExceeded	Quota limit exceeded.
MissingParameter	A parameter is missing.

NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
ResourceInUse	Resource is in use.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resource is unavailable.
UnauthorizedOperation	Unauthorized operation.
UnknownParameter	Unknown parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedProtocol	HTTPS request method error. Only GET and POST requests are supported.
UnsupportedRegion	API does not support the requested region.

Card and Document OCR APIs
MainlandIDCardOCR

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1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize all fields on the front and back sides of a second-generation resident identity card for the Chinese mainland: name, gender, ethnicity, date of birth, domicile, identification number, issuing authority, and validity period, with a recognition accuracy of over 99%.

In addition, this API supports multiple value-added capabilities to meet the needs of different scenarios. It can crop ID card photos and profile photos, and provide warnings for nine cases, as detailed below.

Capability	Description
Cropping	Crops the ID card photo (by removing extra edges outside the ID card and automatically correcting the shooting angle).
	Crops the profile photo (by automatically cutting out the face area in the ID card).
Warning	Warns about invalid ID card validity periods.
	Warns about incomplete ID card borders.
	Warns about photocopied images.
	Warns about spoofed images.
	Warns about border and frame occlusions.
	Warns about temporary ID cards.
	Warns about photoshopped images.
	Warns about blurry ID card images (blurriness can be determined based on the image quality score).

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: IDCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of an image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 500 x 800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupy more than 2/3 area of the image. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, `ImageUrl` is used.
ImageUrl	No	String	The URL of the image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 500 x 800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupy more than 2/3 area of the image. We recommend that you store the image in Tencent Cloud for higher download speed and stability.
CardSide	No	String	`FRONT` : The side with the profile photo. `BACK` : The side with the national emblem. If this parameter is not specified, the system will automatically determine the ID card side.

Parameter Name	Required	Type	Description
Config	No	String	The following parameters are all of `bool` type and default to `false`: `CropIdCard`: Crops the ID card photo (by removing extra edges outside the ID card and automatically correcting the shooting angle). `CropPortrait`: Crops the profile photo (by automatically cutting out the face area in the ID card). `CopyWarn`: Warns about photocopied images. `BorderCheckWarn`: Warns about border and frame occlusions. `ReshootWarn`: Warns about spoofed images. `DetectPsWarn`: Warns about photoshopped images. `TempIdWarn`: Warns about temporary ID cards. `InvalidDateWarn`: Warns about invalid ID card validity periods. `Quality`: Gets the image quality score (by evaluating the blurriness of the image). `MultiCardDetect`: Enables multi-card detection. `ReflectWarn`: Enables glare detection. Parameter setting method via SDK: Config = Json.stringify({"CropIdCard":true,"CropPortrait":true}) Parameter setting method via API 3.0 Explorer: Config = {"CropIdCard":true,"CropPortrait":true}

3. Output Parameters

Parameter Name	Type	Description
Name	String	Name (profile photo side)
Sex	String	Gender (profile photo side)
Nation	String	Ethnicity (profile photo side)
Birth	String	Date of birth (profile photo side)
Address	String	Address (profile photo side)
IdNum	String	ID number (profile photo side)
Authority	String	Issuing authority (national emblem side)

Parameter Name	Type	Description
ValidDate	String	Validity period (national emblem side)
AdvancedInfo	String	Extended information, which will be returned only when requested. For the input parameters, please see example 3 and example 4. `IdCard` : Base64-encoded content of the cropped ID card photo, which will be returned if `Config.CropIdCard` is set to `true` . `Portrait` : Base64-encoded content of the ID photo on the card, which will be returned if `Config.CropPortrait` is set to `true` . `Quality` : Image quality score, which will be returned if `Config.Quality` is set to `true` . Value range: 0–100. The lower the score, the blurrier the image. The recommended threshold is ≥ 50. `BorderCodeValue` : Warning threshold score for incomplete ID card borders, which will be returned if `Config.BorderCheckWarn` is set to `true` . Value range: 0–100. The lower the score, the lower the probability of border occlusion. The recommended threshold value is ≤ 50. `WarnInfos` : Warning information. Warning codes and descriptions are as follows: -9100: The ID card validity period is invalid. -9101: The ID card borders are incomplete. -9102: The ID card image is photocopied. -9103: The ID card image is spoofed. -9104: The ID card is a temporary one. -9105: The ID card frame is occluded. -9106: The ID card image is photoshopped. -9107: The ID card image has glares.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing the front side of a Chinese mainland identity card Debugging tool

This example shows you how to recognize the front side of a Chinese mainland identity card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: IDCardOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg",
"CardSide": "FRONT"
}
```

Output Example

```
{
"Response": {
"Name": "",
"Sex": "",
"Nation": "",
"Birth": "1987/1/1",
"Address": "",
"IdNum": "440524198701010014",
"Authority": "",
"ValidDate": "",
"AdvancedInfo": "{}",
"RequestId": "ab2c132e-9e1c-43d3-b0ef-9b4d80f00330"
}
}
```

Example2 Recognizing the back side of a Chinese mainland identity card Debugging tool

This example shows you how to recognize the back side of a Chinese mainland identity card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: IDCardOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg",
"CardSide": "BACK"
}
```

Output Example

```
{
"Response": {
"Name": "",
"Sex": "",
"Nation": "",
"Birth": "",
"Address": "",
"IdNum": "",
"Authority": "",
"ValidDate": "2010.07.21-2020.07.21",
"AdvancedInfo": "{}",
"RequestId": "0d394478-6d4d-48fc-8b19-552415bf46de"
}
}
```

Example3 Cropping the ID card photo and profile photo Debugging tool

This example shows you how to crop the ID card photo and profile photo.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: IDCardOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg",
"Config": "{\"CropIdCard\":true,\"CropPortrait\":true}",
"CardSide": "FRONT"
}
```

Output Example

```
{
"Response": {
"Name": "",
"Sex": "",
"Nation": "",
"Birth": "1987/1/1",
"Address": "",
"IdNum": "440524198701010014",
```

```
"Authority": "",
"ValidDate": "",
"AdvancedInfo": "{\"IdCard\":\"/9j/4AAA.........\",\"Portrait\":\"/9j/4AAQSkZJRBA
=..........\"}",
"RequestId": "97c323da-5fd3-4fe6-b0b3-1cf10b04422c"
}
}
```

Example4 Recognizing a temporary Chinese mainland identity card Debugging tool

This example shows you how to recognize a temporary ID card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: IDCardOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg",
"Config": "{\"TempIdWarn\":true}",
"CardSide": "FRONT"
}
```

Output Example

```
{
"Response": {
"Name": "",
"Sex": "",
"Nation": "",
"Birth": "",
"Address": "",
"IdNum": "",
"Authority": "",
"ValidDate": "",
"AdvancedInfo": "{\"WarnInfos\":[-9104]}",
"RequestId": "sd33222eqd1dqq948487"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.CardSideError	The CardSide type of the ID card is incorrect.
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.IdCardInfoIllegal	The ID card information (ID number, name, etc.) is invalid.
FailedOperation.IdCardTooSmall	The resolution of the image is too low or the proportion of the ID card in the image is too small.
FailedOperation.ImageBlur	The image is blurry.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoIdCard	No ID card is detected in the image.

Error Code	Description
FailedOperation.ImageSizeTooLarge	The image is too large. Please see the description of image size limit in the output parameters.
FailedOperation.MultiCardError	There are multiple cards in the photo.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.ConfigFormatError	Config is not in valid JSON format.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

RecognizeMainlandIDCardOCR

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1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This interface supports the identification of all fields on the front and back of the second-generation ID card for mainland Chinese residents.Including name, gender, ethnicity, date of birth, address, citizen ID number, issuing authority, and validity period, the identification accuracy reaches more than 99%.In addition, this interface also supports a variety of value-added capabilities to meet the needs of different scenarios. Such as the cropping function of ID card photos and portrait photos, and also has 5 alarm functions.
As shown in the table below.

Value-added ability	Ability items
Alarm function	ID card copy warning
	ID card copy warning
	Alarm for occlusion in the ID card frame
	ID card reflective warning
	Blurry picture warning

Default interface request frequency limit: 20 times/second

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizeMainlandIDCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64 value of the image. The image is required to be no larger than 7M after Base64 encoding, and the resolution is recommended to be 500*800 or above. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupies at least 2/3 of the picture. One of ImageUrl and ImageBase64 of the image must be provided. If both are provided, only ImageUrl will be used.
ImageUrl	No	String	The URL address of the image. The image is required to be no larger than 7M after Base64 encoding, and the resolution is recommended to be 500*800 or above. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupies at least 2/3 of the picture. It is recommended that images be stored in Tencent Cloud to ensure higher download speed and stability.
CardSide	No	String	FRONT: The side of the ID card with the photo (portrait side), BACK: The side of the ID card with the national emblem (national emblem side). If this parameter is not filled in, the front and back of the ID card will be automatically determined for you.
CropPortrait	No	Boolean	Whether to return the ID card portrait, the default is false
CropIdCard	No	Boolean	Whether to enable ID card photo cropping (removing excess edges outside the ID, automatically correcting the shooting angle), the default value is false

3. Output Parameters

Parameter Name	Type	Description
Name	String	Name((portrait side))
Sex	String	Sex((portrait side))

Nation	String	Nation((portrait side))
Birth	String	Brithday((portrait side))
Address	String	Address(portrait side)
IdNum	String	ID number (portrait side)
Authority	String	Card authority(national emblem side)
ValidDate	String	Card valid date (national emblem side)
WarnCardInfos	Array of Integer	Card Warning Information -9101 Alarm for covered certificate, -9102 Alarm for photocopied certificate, -9103 Alarm for photographed certificate, -9107 Alarm for reflective certificate, -9108 Alarm for blurry image, -9109 This capability is not enabled.
PortraitImage	String	Portrait image base64
IdCardImage	String	ID card photo cropping results base64
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 大陆身份证示例

大陆身份证示例

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizeMainlandIDCardOCR
<common request parameters>

{
"ImageBase64": "/9j/4AAQSkZJRgABAQEAAQABAAD/2wBDAAgGBgcGBQgHBwcJCQgKDBQNDAsLDBkSE
```

w8UHRofHh0aHBwgJC4nICIsIxwcKDcpLDAxNDQ0Hyc5PTgyPC4zNDL/2wBDAQkJCQwLDBgNDRgyIRwhMj
IyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjIyMjL/wgARCAEAAY8DASI
AAhEBAxEB/8QAGwAAAgMBAQEAAAAAAAAAAAAAAAQIAAwQFBgf/xAAYAQEBAQEBAAAAAAAAAAAAAAAAQID
BP/aAAwDAQACEAMQAAAB7JcaiFgAlyoWKBbwVywCRhNLGEpDq1CJAjFUjgUsbFDwWEgJFIHRADEELXNZc
JWXczmwlE0Azi+FF4MM4OpIQQEqFKhYAMQQSoaYrJbAC0DJKzK6BLEIwA0VgKy1IFCCqSLLHisySpsjKo
8WQWAGQlFJAxBqU28rU6Fn06BVbx+pVnM6vHxoJXVE6Xne7LRXjtX07CxpY8WQEUFJZCQMsR0IoBgLDEQ
rVZec+dnozjLXbnE2JvKNFiNAhXpQa5GsR7FDraHDFMdRqmaK1uMuW28LhTfJolQtsrKmLJXgiGBhYwEh
BIFpknIuaeDnTWdNVYRyhGuzk9X2fn/so6kR4kIEV4kdTqHHr5+pouw6ii31760c/fwOeuh1OB25TaoWq
qurc30aOPnXVqGaXTs4XdzpmgpoAkhVRIoAWMXjvT+S1ijSnejm4/Uce65UIvNoVG6XLaPotvP6MpVhYo
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8Kqh1DAaY/MZHyTuADlsvP3LGrV7YhRw8kAAwXY6hQ2WuyUXzyrcRoxeeWEYMunMs0+0rEvjDD1Q8cwRN
8EyUa4wSy2xoZbShnfUVeTkBEttqjx6OReYLJXgym1omhZcKhbQ9w9iOxcIcXJ0/wCxIALmm8P13Lu2y+
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b1KjTTQf8AcwONFV9pLbsPTYOz9RCBiqLd1qEm3NCfJSH+G5gAaPGJrOQEoxAwci6bHB4lxwQybV2Su6Q
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fG6Jtdw2NhTgW4ICbpVa6hwdw2rsysUGvL6e4YmyHVFXGw1dO936hW6YGUZR8VCQQKPAOfMVrurF1FCl9
i9D+0EUsHFGq41CkXgyFwP3EVAwAT9kWo6DNtnzGuL7leB6mJJGl+K/UtkNCYA5D0QL243LWgeJbhQ66c
wXrTcNZ83Dzlr+UrUHnEGlKbm1XhBEQBYLqCkqlzTEhXhmWF1cAI45uWG+TdS0qdpVs1DG7GrhSBE0299
x8loizD8QpyaHh1UFZB45ROE9mfmY9LCNfMbVk4P+TahWgsv+WUZnOE/uJb8YizaGP8qNgqOeG0DG4DpI
E1bacYVUcOtrAfmal0nV9pz8xxFgNdJnUQUi8F1EU0QOh8RBkLRSv2y6gseTxAopkHyeIUCEUMUSpJuV2
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hbo3ADDIGvD5mHGqf9llgxh618QHCvDb+5Zs/U/UdxQX3iXpLf2+4IWF9dQogxm7jZI1ReXLKANZ6gpjT
eXiG2brFy9wQkEu3keKmnyNylmWv1LFMhyTDTYWWxbLLM95TWQyECmVC8PETimuO42oFCAA29bCBBW0Ye
SOBtzyJSzDp1ETM/BlAs7OoC1qzCeEa4cMQNnYQPFOxEbS7xiV3CI3BQMjglGN+cShbPBiZHUclyjC7gA
Y79zOJRnMQS5vARZ2K2k2KvRUGkaTCeISUpvjmIGsC8GWBbhejcerbRrOJsadG/iISUJy6gUWlfH+xKMs
HBogxYX+YiC0scTJ0zgILQMVgIgT6rmYuvB1MBytZg1o5xL2AreITApRY9K7mm8sZgQDbzHJkDMCw8IgE
yxyFpmMFpbjLsmsJK5VQZTcakWuVRxV0q/7iOJ6Q6aOzYwcNP0lLlcSEL4hAMZoZVVSnUDCIyXGkYtm4R
LYxiF2ueKimm9dVzA1t71WK/wDI5VZwGvySiCR4f9R903++IWjHzv8AqLq7KT/Kgt1qhypHgxq4GBjHGe
BmFb7YCMUccsqDat3n+6Xfw4PzMJgfZ+YsF8eX9o1i696PzGrmnLj+4FT23WP7l8Fx4P7nKEvgf3BqIjj
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b16oPZSXaP4sQLC26F/ULcL5TBRQ7zlY8AmCNPU4ULhdh4iBQ+EncBMjqVQ1vDCpVX3PCHcCygtaGAjXd
V+Yz4L3Ho8T/9k="
}
```


Output Example

```
{
"Response": {
"Name": "abc",
"Sex": "abc",
"Nation": "abc",
"Birth": "abc",
"Address": "abc",
"IdNum": "abc",
"Authority": "abc",
"ValidDate": "abc",
"WarnCardInfos": [
0
],
"PortraitImage": "abc",
"IdCardImage": "abc",
"RequestId": "abc"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.CardSideError	The CardSide type of the ID card is incorrect.
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.IdCardInfoIllegal	The ID card information (ID number, name, etc.) is invalid.
FailedOperation.IdCardTooSmall	The resolution of the image is too low or the proportion of the ID card in the image is too small.
FailedOperation.ImageBlur	The image is blurry.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoIdCard	No ID card is detected in the image.
FailedOperation.ImageSizeTooLarge	The image is too large. Please see the description of image size limit in the output parameters.
FailedOperation.MultiCardError	There are multiple cards in the photo.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
FailedOperation.WarningServiceFailed	
InvalidParameter.ConfigFormatError	Config is not in valid JSON format.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.ResourcePackageRunOut	The account resource package is exhausted.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

MLIDPassportOCR

最近更新时间：2024-04-08 16:35:47

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a passport issued in Hong Kong/Macao/Taiwan (China) or other countries/regions. Recognizable fields include passport ID, name, date of birth, gender, expiration date, issuing country/region, and nationality. It has the features of cropping identity photos and alarming for photographed or photocopied documents.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: MLIDPassportOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	Base64-encoded value of image. The image cannot exceed 7 MB in size after being Base64-encoded. A resolution above 500x800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupies more than 2/3 area of the image.
RetImage	No	Boolean	Whether to return an image. Default value: false.
ImageUrl	No	String	URL address of image. (This field is not supported outside Chinese mainland)

			Supported image formats: PNG, JPG, JPEG. GIF is currently not supported. Supported image size: the downloaded image cannot exceed 7 MB after being Base64-encoded. The download time of the image cannot exceed 3 seconds. We recommend you store the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.

3. Output Parameters

Parameter Name	Type	Description
ID	String	Passport ID
Name	String	Name
DateOfBirth	String	Date of birth
Sex	String	Gender (F: female, M: male)
DateOfExpiration	String	Expiration date
IssuingCountry	String	Issuing country
Nationality	String	Country/region code
Warn	Array of Integer	Alarm codes -9102 Alarm for photocopy on a paper document (including black & white and color ones) -9103 Alarm for photocopy on an electronic device -9106 Alarm for covered card
Image	String	Identity photo

AdvancedInfo	String	Extended field:
		{
		ID:{
		Confidence:0.9999
		},
		Name:{
		Confidence:0.9996
		}
		}

CodeSet	String	The first row of the machine-readable zone (MRZ) at the bottom
CodeCrc	String	The second row of the MRZ at the bottom
Surname	String	The surname. Note: This field may return null, indicating that no valid values can be obtained.
GivenName	String	The given name. Note: This field may return null, indicating that no valid values can be obtained.
Type	String	Type (in Machine Readable Zone)
PassportRecognizeInfos	PassportRecognizeInfos	Document content in Information Zone
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

debugging-tool)">

Example1 Recognizing a non-Chinese mainland passport (debugging tool)

This example shows you how to recognize a non-Chinese mainland passport.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: MLIDPassportOCR
<Common request parameters>

{
"ImageBase64": "base64 encoding"
}
```

Output Example

```
{
"Response": {
"AdvancedInfo": "{\"IssuingCountry\":{\"Confidence\":\"0.9500\"},\"Name\":{\"Confidence\":\"0.9500\"},\"ID\":{\"Confidence\":\"0.9500\"},\"Nationality\":{\"Confidence\":\"0.9500\"},\"DateOfBirth\":{\"Confidence\":\"0.9500\"},\"Sex\":{\"Confidence\":\"0.9500\"},\"DateOfExpiration\":{\"Confidence\":\"0.9500\"},\"Surname\":{\"Confidence\":\"0.9500\"},\"GivenName\":{\"Confidence\":\"0.9500\"},\"CodeSet\":{\"Confidence\":\"0.9995\"},\"CodeCrc\":{\"Confidence\":\"0.9997\"}}",
"CodeCrc": "4567123452USA9004117F2107268713843748<708026",
"CodeSet": "P<USACARTER<<ESTHER<<<<<<<<<<<<<<<<<<<<<<<<",
"DateOfBirth": "19900411",
"DateOfExpiration": "20210726",
"GivenName": "ESTHER",
"ID": "456712345",
"Image": "",
"IssuingCountry": "USA",
"Name": "CARTER ESTHER",
"Nationality": "USA",
"RequestId": "9c42cdcf-53df-445d-b45b-ea3eaaf2bb70",
"Sex": "F",
"Surname": "CARTER",
"Warn": [
-9102
]
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.NoPassport	Not a passport.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourceUnavailable.InArrears	
ResourceUnavailable.ResourcePackageRunOut	
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

HmtPermitOCR

最近更新时间：2023-09-05 15:28:10

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize the fields on an exit/entry permit (card) for traveling to and from Hong Kong, Macao, or Taiwan, including place of issuance, issuing authority, validity period, gender, date of birth, name in English, name in Chinese, and document number.

A maximum of 10 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: PermitOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.

3. Output Parameters

Parameter Name	Type	Description
Name	String	Name
EnglishName	String	Name in English
Number	String	ID number
Sex	String	Gender
ValidDate	String	Validity period
IssueAuthority	String	Issuing authority
IssueAddress	String	Place of issue
Birthday	String	Date of birth
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing an exit/entry permit for traveling to and from Hong Kong, Macao, or Taiwan

This example shows you how to recognize an exit/entry permit for traveling to and from Hong Kong, Macao, or Taiwan.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: PermitOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg "
}
```

Output Example

```
{
"Response": {
"Name": "",
"EnglishName": "LIMING",
"Number": "C00000000",
"Sex": "",
"ValidDate": "2018.10.09-2028.10.08",
"IssueAuthority": "",
"IssueAddress": "",
"Birthday": "1981.08.03",
"RequestId": "3090debe-3662-4ef1-8784-6ef2fb59f75e"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go

- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

MainlandPermitOCR

最近更新时间：2023-06-25 16:08:55

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize all fields on the front of a mainland travel permit for Hong Kong, Macao, or Taiwan residents: name in Chinese, name in English, gender, date of birth, issuing authority, validity period, document number, place of issuance, number of issues, and document type.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: MainlandPermitOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.

Parameter Name	Required	Type	Description
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
RetProfile	No	Boolean	Whether to return the ID photo. By default, the ID photo is not returned.

3. Output Parameters

Parameter Name	Type	Description
Name	String	Name in Chinese
EnglishName	String	Name in English
Sex	String	Gender
Birthday	String	Date of birth
IssueAuthority	String	Issuing authority
ValidDate	String	Validity period
Number	String	ID number

Parameter Name	Type	Description
IssueAddress	String	Place of issue
IssueNumber	String	Number of issues
Type	String	Document type
Profile	String	Base64-encoded profile photo, which is returned only when `RetProfile` is set to `True`
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a mainland travel permit for Hong Kong, Macao, or Taiwan residents

This example shows you how to recognize a mainland travel permit for Hong Kong, Macao, or Taiwan residents.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: MainlandPermitOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg",
"RetProfile": "False"
}
```

Output Example

```
{
"Response": {
"Name": "",
"EnglishName": "LIMING",
"Number": "C00000000",
"Sex": "",
"ValidDate": "2018.10.09-2028.10.08",
"IssueAuthority": "",
```

```
"IssueAddress": "",
"Birthday": "1981.08.03",
"IssueNumber": "02",
"Type": "",
"Profile": "",
"RequestId": "3090debe-3662-4ef1-8784-6ef2fb59f75e"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.

Error Code	Description
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

HmtResidentPermitOCR

最近更新时间：2023-06-25 16:07:26

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize key fields on the front and back sides of a residence permit for Hong Kong, Macao, or Taiwan residents, including name, gender, date of birth, address, ID number, issuing authority, validity period, number of issues, and permit number. It can be used for residence permit OCR in scenarios such as bank account opening and user registration.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: HmtResidentPermitOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.

Parameter Name	Required	Type	Description
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
CardSide	No	String	`FRONT` : The side with the profile photo. `BACK` : The side with the national emblem. If this parameter is not specified, the system will automatically determine the ID card side.

3. Output Parameters

Parameter Name	Type	Description
Name	String	Name
Sex	String	Gender
Birth	String	Date of birth
Address	String	Address
IdCardNo	String	ID card number
CardType	Integer	0: Front side. 1: Back side.

Parameter Name	Type	Description
ValidDate	String	Validity period
Authority	String	Issuing authority
VisaNum	String	Number of issues
PassNo	String	Permit number
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a residence permit for Hong Kong, Macao, or Taiwan residents

This example shows you how to recognize a residence permit for Hong Kong, Macao, or Taiwan residents.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: HmtResidentPermitOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg",
"CardSide": "FRONT"
}
```

Output Example

```
{
"Response": {
"Name": "",
"Sex": "",
"Birth": "1997/6/2",
"Address": "",
"IdCardNo": "830000199706020042",
"CardType": 0,
"ValidDate": "",
```

```
"Authority": "",
"VisaNum": "0",
"PassNo": "000",
"RequestId": "f72e7048-f1e0-42f3-b0bf-f8730d48bb5c"
}
}
```

Example2 Recognizing a residence permit for Hong Kong, Macao, or Taiwan residents

This example shows you how to recognize a residence permit for Hong Kong, Macao, or Taiwan residents.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: HmtResidentPermitOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Response": {
"Name": "",
"Sex": "",
"Birth": "",
"Address": "",
"IdCardNo": "",
"CardType": 1,
"ValidDate": "2018.09.06-2023.09.06",
"Authority": "",
"VisaNum": "0",
"PassNo": "000",
"RequestId": "182abb0c-b0bd-403a-ab11-3dba21ae89d0"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoText	No text is detected in the image.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

ThaiIDCardOCR

最近更新时间：2023-09-05 15:28:30

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize the fields on a Thai identity card, including name in Thai, name in English, address, date of birth, identification number, date of issue, and date of expiry.
Currently, this API is not generally available. For more information, please contact your sales rep.

A maximum of 10 requests can be initiated per second for this API.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizeThaiIDCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of an image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 500 x 800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupy more than 2/3 area of the image. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, `ImageUrl` is used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 500 x 800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupy more than 2/3 area of the image. We recommend that you store the image in Tencent Cloud for higher download speed and stability.
CropPortrait	No	Boolean	Whether to crop the profile photo. The default value is `false`, meaning not to return the Base64-encoded value of the profile photo on the Thai identity card. When this parameter is set to `true`, the Base64-encoded value of the profile photo on the Thai identity card after rotation correction is returned.

3. Output Parameters

Parameter Name	Type	Description
ID	String	ID card number
ThaiName	String	Name in Thai
EnFirstName	String	Name in English
Address	String	Address
Birthday	String	Date of birth
IssueDate	String	Date of issue
ExpirationDate	String	Expiration date
EnLastName	String	Name in English
PortraitImage	String	Identity photo
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a Thai identity card

This example shows you how to recognize a Thai identity card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizeThaiIDCardOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Response": {
"ID": "3102001968756",
"ThaiName": "นาย ธนกฤต บุญโญปกรุณ์",
"EnFirstName": "Mr. Thanakit",
"Address": "Boonyopakron",
"Birthday": "ที่อยู่21/19หมู่ที่3ต.บางคูครัดอ.บางบัวทอง",
"IssueDate": "14ธ.ค.2509",
"ExpirationDate": "9ธ.ค.2559",
"EnLastName": "Boonyopakron",
"PortraitImage": "oiuu",
"RequestId": "98f8fcbf-933a-4e95-ac48-6f1a9308fs51"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.ImageBlur	The image is blurry.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoSpecifiedCard	The card in the image is not of the specified type.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

BankCardOCR

最近更新时间：2023-05-29 10:27:30

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to detect and recognize key fields such as the card number, bank information, and expiration date on mainstream bank cards in Mainland China.

This API is not fully available for the time being. For more information, please contact your Tencent Cloud sales rep.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: BankCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	Base64-encoded value of the image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 500 x 800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupy more than 2/3 area of the image. Either the `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` will be used.

ImageUrl	No	String	URL address of image. (This field is not supported outside Chinese mainland) Supported image formats: PNG, JPG, JPEG. GIF is currently not supported. Supported image size: the downloaded image cannot exceed 7 MB after being Base64-encoded. The download time of the image cannot exceed 3 seconds. We recommend you store the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
RetBorderCutImage	No	Boolean	Whether to return the bank card image data after preprocessing (precise cropping and alignment). Default value: `false`
RetCardNoImage	No	Boolean	Whether to return the card number image data after slicing. Default value: `false`
EnableCopyCheck	No	Boolean	Whether to enable photocopy check. If the input image is a bank card photocopy, an alarm will be returned. Default value: `false`
EnableReshootCheck	No	Boolean	Whether to enable photograph check. If the input image is a bank card photograph, an alarm will be returned. Default value: `false`
EnableBorderCheck	No	Boolean	Whether to enable obscured border check. If the input image is a bank card with obscured border, an alarm will be returned. Default value: `false`
EnableQualityValue	No	Boolean	Whether to return the image quality value, which measures how clear an image is. Default value: `false`

3. Output Parameters

Parameter Name	Type	Description
CardNo	String	Card number
BankInfo	String	Bank information

ValidDate	String	Expiration date. Format: 07/2023
CardType	String	Card type
CardName	String	Card name
BorderCutImage	String	Sliced image data Note: this field may return `null` , indicating that no valid values can be obtained.
CardNoImage	String	Card number image data Note: this field may return `null` , indicating that no valid values can be obtained.
WarningCode	Array of Integer	Warning code: -9110: the bank card date is invalid. -9111: the bank card border is incomplete. -9112: the bank card image is reflective. -9113: the bank card image is a photocopy. -9114: the bank card image is a photograph. Multiple warning codes may be returned at a time. Note: this field may return `null` , indicating that no valid values can be obtained.
QualityValue	Integer	Image quality value, which is returned when `EnableQualityValue` is set to `true` . The smaller the value, the less clear the image is. Value range: 0–100 (a threshold greater than or equal to 50 is recommended.) Note: This field may return `null` , indicating that no valid values can be obtained.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a bank card

Input Example

```
https://ocr.tencentcloudapi.com/?Action=BankCardOCR
&ImageUrl=https://xx/a.jpg
&<Common request parameters>
```

Output Example

```
{
"Response": {
"CardNo": "6225760088888888",
"BankInfo": "China Merchants Bank (03080000)",
"ValidDate": "08/2022",
"RequestId": "46ab2e62-11e3-4d04-9fab-0abe18e7c927"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.IllegalBankCardError	Invalid bank card information.
FailedOperation.ImageDecodeFailed	Image decoding failed.

FailedOperation.NoBankCardError	No bank card found.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

HKIDCardOCR

最近更新时间：2023-10-12 16:33:21

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize key fields on the photo side of a Hong Kong (China) identity card, including name in Chinese, name in English, telecode for name, date of birth, gender, document symbol, date of the first issue, date of the last receipt, identity card number, and permanent residency attribute.

This API is not fully available for the time being. For more information, please contact your Tencent Cloud sales rep.

A maximum of 5 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: HKIDCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
DetectFake	Yes	Boolean	Whether to check for authenticity.
ReturnHeadImage	Yes	Boolean	Whether to return identity photo.

Parameter Name	Required	Type	Description
ImageBase64	No	String	Base64 string of the image Supported image formats: PNG, JPG, JPEG. GIF is not supported yet. Supported image size: The downloaded image cannot exceed 7 MB after being Base64-encoded, and it cannot take longer than 3 seconds to download the image.
ImageUrl	No	String	URL address of image. (This field is not supported outside Chinese mainland) Supported image formats: PNG, JPG, JPEG. GIF is currently not supported. Supported image size: the downloaded image cannot exceed 3 MB after being Base64-encoded. The download time of the image cannot exceed 3 seconds. We recommend you store the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.

3. Output Parameters

Parameter Name	Type	Description
CnName	String	Name in Chinese
EnName	String	Name in English
TelexCode	String	Telecode for the name in Chinese
Sex	String	Gender. Valid values: Male, Female
Birthday	String	Date of birth
Permanent	Integer	Permanent identity card. 0: non-permanent; 1: permanent; -1: unknown.
IdNum	String	Identity card number
Symbol	String	Document symbol, i.e., the symbol under the date of birth, such as "***AZ"

Parameter Name	Type	Description
FirstIssueDate	String	First issue date
CurrentIssueDate	String	Last receipt date
FakeDetectResult	Integer	Authenticity check. 0: unable to judge (because the image is blurred, incomplete, reflective, too dark, etc.); 1: forged; 2: authentic. Note: this field may return null, indicating that no valid values can be obtained.
HeadImage	String	Base64-encoded identity photo Note: this field may return null, indicating that no valid values can be obtained.
WarningCode	Array of Integer	Multiple alarm codes. If the ID card is spoofed, photocopied, or photoshopped, the corresponding alarm code will be returned. -9102: Alarm for photocopied document -9103: Alarm for spoofed document
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing Hong Kong (China) identity card

Input Example

```
https://ocr.tencentcloudapi.com/?Action=HKIDCardOCR
&ImageUrl=https://xx/a.jpg &DetectFake=true&ReturnHeadImage=false
&<Common request parameters>
```

Output Example

```
{
"Response": {
"CnName": "",
"EnName": "SAN, Nan",
"TelexCode": "300000000000",
"Sex": "Female",
"Birthday": "01-01-2001",
"Permanent": 1,
```

```
"IdNum": "C000000(E)",
"Symbol": "***AZ",
"FirstIssueDate": "(09-99)",
"CurrentIssueDate": "23-09-10",
"FakeDetectResult": 1,
"WarningCode": [
-9102,
-9103
],
"RequestId": "fba1c9ad-aeb3-4418-9ecf-80ab1b5fc875"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Java
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- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.

Error Code	Description
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.NoHKIDCard	Not a Hong Kong identity card.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

MLIDCardOCR

最近更新时间：2023-05-29 10:27:30

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a Malaysian identity card, including identity card number, name, gender, and address. It is also used to crop identity photos and give alarms for photographed or photocopied certificates.

This API is not fully available for the time being. For more information, contact your Tencent Cloud sales rep.

A maximum of 5 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: MLIDCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of an image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s.
ImageUrl	No	String	The URL of an image. (This field is not available outside the Chinese mainland.)

			Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. For a non-Tencent Cloud URL, the download speed and stability may be low.
RetImage	No	Boolean	Whether to return an image. Default value: `false` .

3. Output Parameters

Parameter Name	Type	Description
ID	String	ID number
Name	String	Full name
Address	String	Address
Sex	String	Gender
Warn	Array of Integer	Alarm codes -9103 Alarm for photographed certificate -9102 Alarm for photocopied certificate -9106 Alarm for covered certificate -9107 Alarm for blurry image
Image	String	Identity photo

AdvancedInfo	String	This is an extended field,
		with the confidence of a field recognition result returned in the following format.
		{
		Field name:{
		Confidence:0.9999
		}
		}

Type	String	Certificate type MyKad ID card MyPR Permanent resident card MyTentera Military identity card

		MyKAS Temporary ID card POLIS Police card IKAD Work permit MyKid Kid card
Birthday	String	Date of birth. This field is available only for work permits (i-Kad) and ID cards (MyKad).
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a Malaysian identity card

Input Example

```
https://ocr.tencentcloudapi.com/?Action=MLIDCardOCR
&ImageUrl=https://xx/a.jpg
&<Common request parameters>
```

Output Example

```
{
"Response": {
"Name": "KAVIN ONG KHI MN",
"ID": "710716-08-6085",
"Address": "NO 11 PERSIARN PERAJRIT 4 TAMA PERAK 31400 IPOH ERAK",
"Sex": "LEAKI",
"Birthday": "",
"Warn": [],
"Image": "",
"AdvancedInfo": "{\"ID\":{\"Confidence\":\"1.0000\"},\"Name\":{\"Confidence
\":\"0.9996\"},\"Address\":{\"Confidence\":\"0.9997\"},\"Sex\":{\"Confidence
\":\"0.9999\"}}",
"Type": "MyKad",
"RequestId": "c969da05-54e3-4d0a-a55d-b3ef90d4ebf5"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.NoMASIDCard	Non-Malaysian ID cards.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

PhilippinesDrivingLicenseOCR

最近更新时间：2023-09-05 15:21:12

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a Philippine driver's license.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizePhilippinesDrivingLicenseOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of an image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either the `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` will be used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. For a non-Tencent Cloud URL, the download speed and stability may be affected.
ReturnHeadImage	No	Boolean	Whether to return the identity photo.

3. Output Parameters

Parameter Name	Type	Description
HeadPortrait	TextDetectionResult	The Base64-encoded identity photo.
Name	TextDetectionResult	The full name.
LastName	TextDetectionResult	The last name.
FirstName	TextDetectionResult	The first name.
MiddleName	TextDetectionResult	The middle name.
Nationality	TextDetectionResult	The nationality.
Sex	TextDetectionResult	The gender.
Address	TextDetectionResult	The address.
LicenseNo	TextDetectionResult	The license No.
ExpiresDate	TextDetectionResult	The expiration date.
AgencyCode	TextDetectionResult	The agency code.
Birthday	TextDetectionResult	The date of birth.

Parameter Name	Type	Description
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a Philippine driver's license

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizePhilippinesDrivingLicenseOCR
<Common request parameters>

{
"ReturnHeadImage": "true",
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Response": {
"Address": {
"Polygon": [
{
"X": "442",
"Y": "489"
},
{
"X": "529",
"Y": "489"
},
{
"X": "529",
"Y": "506"
},
{
"X": "442",
```

```
"Y": "506"
}
],
"Value": "28 PAYAPA ST BAGONG DIWA"
},
"AgencyCode": {
"Polygon": [],
"Value": ""
},
"Birthday": {
"Polygon": [],
"Value": ""
},
"ExpiresDate": {
"Polygon": [],
"Value": ""
},
"FirstName": {
"Polygon": [],
"Value": ""
},
"HeadPortrait": {
"Polygon": [],
"Value": ""
},
"LastName": {
"Polygon": [],
"Value": ""
},
"LicenseNo": {
"Polygon": [],
"Value": ""
},
"MiddleName": {
"Polygon": [],
"Value": ""
},
"Name": {
"Polygon": [],
"Value": ", "
},
"Nationality": {
"Polygon": [],
"Value": ""
},
"RequestId": "1234-1234-1234-1234",
"Sex": {
```

```
"Polygon": [],
"Value": ""
}
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.

Error Code	Description
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

PhilippinesSssIDOCR

最近更新时间：2023-09-05 15:21:42

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a Philippine SSSID/UMID card.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizePhilippinesSssIDOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ReturnHeadImage	Yes	Boolean	Whether to return the identity photo.
ImageBase64	No	String	The Base64-encoded value of an image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either the `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` will be used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. For a non-Tencent Cloud URL, the download speed and stability may be affected.

3. Output Parameters

Parameter Name	Type	Description
HeadPortrait	TextDetectionResult	The Base64-encoded identity photo.
LicenseNumber	TextDetectionResult	The common reference number (CRN).
FullName	TextDetectionResult	The full name.
Birthday	TextDetectionResult	The date of birth.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a Philippine SSSID/UMID card

This example shows you how to recognize a Philippine SSSID/UMID card.

Input Example

```
https://ocr.tencentcloudapi.com/?Action=RecognizePhilippinesSssIDOCR
&ImageUrl=https://xx/a.jpg
&ReturnHeadImage=false
&<Common request parameters>
```

Output Example


```
{
"Response": {
"Birthday": {
"Polygon": [
{
"X": 543,
"Y": 805
},
{
"X": 754,
"Y": 805
},
{
"X": 754,
"Y": 842
},
{
"X": 543,
"Y": 842
}
],
"Value": "JULY 7,1980"
},
"FullName": {
"Polygon": [
{
"X": 540,
"Y": 609
},
{
"X": 1094,
"Y": 609
},
{
"X": 1094,
"Y": 664
},
{
"X": 540,
"Y": 664
}
],
"Value": "JEFFREY"
},
"HeadPortrait": {
```

```
"Polygon": [],
"Value": ""
},
"LicenseNumber": {
"Polygon": [
{
"X": 533,
"Y": 736
},
{
"X": 1014,
"Y": 739
},
{
"X": 1014,
"Y": 816
},
{
"X": 533,
"Y": 813
}
],
"Value": "33-111111-1"
},
"RequestId": "11111-11111-11111-11111"
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

PhilippinesTinIDOCR

最近更新时间：2023-09-05 15:22:04

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a Philippine TIN ID card.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizePhilippinesTinIDOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ReturnHeadImage	Yes	Boolean	Whether to return the identity photo.
ImageBase64	No	String	The Base64-encoded value of an image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either the `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` will be used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. For a non-Tencent Cloud URL, the download speed and stability may be affected.

3. Output Parameters

Parameter Name	Type	Description
HeadPortrait	TextDetectionResult	The Base64-encoded identity photo.
LicenseNumber	TextDetectionResult	The tax identification number (TIN).
FullName	TextDetectionResult	The name.
Address	TextDetectionResult	The address.
Birthday	TextDetectionResult	The birth date.
IssueDate	TextDetectionResult	The issue date.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a Philippine TIN ID card

Input Example

```
https://ocr.tencentcloudapi.com/?Action=RecognizePhilippinesTinIDOCR
&ImageUrl=https://xx/a.jpg
```

```
&ReturnHeadImage=false
&<Common request parameters>
```

Output Example


```
{
"Response": {
"Address": {
"Polygon": [],
"Value": "18 A KATIPUNAN ST."
},
"Birthday": {
"Polygon": [
{
"X": 665,
"Y": 737
},
{
"X": 997,
"Y": 737
},
{
"X": 997,
"Y": 787
},
{
"X": 665,
"Y": 787
}
],
"Value": "August 17,1902"
},
"FullName": {
"Polygon": [],
"Value": "VERGARA,AMALIA ALBIOR"
},
"HeadPortrait": {
"Polygon": [],
"Value": ""
},
"IssueDate": {
"Polygon": [
{
"X": 665,
"Y": 737
},
```

```
{
"X": 997,
"Y": 737
},
{
"X": 997,
"Y": 787
},
{
"X": 665,
"Y": 787
}
],
"Value": "August 17,1902"
},
"LicenseNumber": {
"Polygon": [
{
"X": 505,
"Y": 522
},
{
"X": 897,
"Y": 522
},
{
"X": 897,
"Y": 572
},
{
"X": 505,
"Y": 572
}
],
"Value": "497-881-123-123"
},
"RequestId": "11111-11111-11111-11111"
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

PhilippinesVoteIDOCR

最近更新时间：2023-09-05 15:20:43

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a Philippine voters ID card. It can recognize fields such as first name, family name, date of birth, civil status, citizenship, address, precinct, and voter's identification number (VIN).

The API request rate is limited to 20 requests/sec by default.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizePhilippinesVoteIDOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ReturnHeadImage	Yes	Boolean	Whether to return the identity photo.

Parameter Name	Required	Type	Description
ImageBase64	No	String	The Base64-encoded value of an image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either the `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` will be used.
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. For a non-Tencent Cloud URL, the download speed and stability may be affected.

3. Output Parameters

Parameter Name	Type	Description
HeadPortrait	TextDetectionResult	The Base64-encoded identity photo.
VIN	TextDetectionResult	The voter's identification number (VIN).
FirstName	TextDetectionResult	The first name.
LastName	TextDetectionResult	The last name.
Birthday	TextDetectionResult	The date of birth.
CivilStatus	TextDetectionResult	The civil status.
Citizenship	TextDetectionResult	The citizenship.
Address	TextDetectionResult	The address.

Parameter Name	Type	Description
PrecinctNo	TextDetectionResult	The precinct.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a Philippine voters ID card

This example shows you how to recognize a Philippine voters ID card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizePhilippinesVoteIDOCR
<Common request parameters>

{
"ReturnHeadImage": "false",
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Response": {
"Address": {
"Polygon": [
{
"X": "276",
"Y": "337"
},
{
"X": "351",
"Y": "337"
},
{
"X": "351",
"Y": "357"
```

```
},
{
"X": "276",
"Y": "357"
}
],
"Value": " IPIL,ZAMBOANGA CITY"
},
"Birthday": {
"Polygon": [
{
"X": "406",
"Y": "257"
},
{
"X": "552",
"Y": "257"
},
{
"X": "552",
"Y": "279"
},
{
"X": "406",
"Y": "279"
}
],
"Value": "March 13,1985"
},
"Citizenship": {
"Polygon": [
{
"X": "405",
"Y": "311"
},
{
"X": "492",
"Y": "311"
},
{
"X": "492",
"Y": "331"
},
{
"X": "404",
"Y": "331"
}
```

```
],
"Value": "Filipino"
},
"CivilStatus": {
"Polygon": [
{
"X": "407",
"Y": "285"
},
{
"X": "485",
"Y": "285"
},
{
"X": "485",
"Y": "304"
},
{
"X": "407",
"Y": "304"
}
],
"Value": "Single"
},
"FirstName": {
"Polygon": [
{
"X": "276",
"Y": "173"
},
{
"X": "344",
"Y": "173"
},
{
"X": "344",
"Y": "195"
},
{
"X": "276",
"Y": "195"
}
],
"Value": "ROYO"
},
"HeadPortrait": {
"Polygon": [],
```

```
"Value": ""
},
"LastName": {
"Polygon": [
{
"X": "276",
"Y": "214"
},
{
"X": "376",
"Y": "213"
},
{
"X": "376",
"Y": "238"
},
{
"X": "276",
"Y": "239"
}
],
"Value": "TUDTUD"
},
"PrecinctNo": {
"Polygon": [
{
"X": "459",
"Y": "415"
},
{
"X": "520",
"Y": "415"
},
{
"X": "520",
"Y": "434"
},
{
"X": "459",
"Y": "434"
}
],
"Value": "0398B"
},
"RequestId": "1234-1234-1234-1234",
"VIN": {
"Polygon": [
```

```
{
"X": "253",
"Y": "128"
},
{
"X": "652",
"Y": "128"
},
{
"X": "652",
"Y": "153"
},
{
"X": "253",
"Y": "153"
}
],
"Value": "7502-0398B-G0987ANT10000"
}
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

PhilippinesUMIDOCR

最近更新时间：2023-09-05 15:22:27

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a Philippine Unified Multi-Purpose ID (UMID) card.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizePhilippinesUMIDOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
ReturnHeadImage	No	Boolean	Whether to return the identity photo.

3. Output Parameters

Parameter Name	Type	Description
Surname	TextDetectionResult	The surname.
MiddleName	TextDetectionResult	The middle name.
GivenName	TextDetectionResult	The given name.
Address	TextDetectionResult	The address.
Birthday	TextDetectionResult	The date of birth.
CRN	TextDetectionResult	The common reference number (CRN).
Sex	TextDetectionResult	The gender.
HeadPortrait	TextDetectionResult	The Base64-encoded identity photo.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a Philippine UMID card

This example shows you how to recognize a Philippine UMID card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizePhilippinesUMIDOCR
<Common request parameters>

{
"ImageBase64": "abc",
"ImageUrl": "abc",
"ReturnHeadImage": true
}
```

Output Example

```
{
"Response": {
"Address": {
"Polygon": [
{
"X": 29,
"Y": 98
},
{
"X": 67,
"Y": 98
},
{
"X": 67,
"Y": 103
},
{
"X": 24,
"Y": 102
}
],
"Value": "19 MOLAVE ST. ROSA-ROSARIOH PHL 4023"
},
"Birthday": {
"Polygon": [
{
"X": 41,
"Y": 14
```

```
},
{
"X": 91,
"Y": 14
},
{
"X": 52,
"Y": 98
},
{
"X": 41,
"Y": 98
}
],
"Value": "1996/06/20"
},
"CRN": {
"Polygon": [
{
"X": 449,
"Y": 73
},
{
"X": 653,
"Y": 73
},
{
"X": 65,
"Y": 754
},
{
"X": 44,
"Y": 754
}
],
"Value": "CRN-8884732-0"
},
"GivenName": {
"Polygon": [
{
"X": 26,
"Y": 81
},
{
"X": 41,
"Y": 83
},
```

```
{
"X": 41,
"Y": 84
},
{
"X": 26,
"Y": 83
}
],
"Value": "ARMAINE"
},
"HeadPortrait": {
"Polygon": [
{
"X": 16,
"Y": 73
},
{
"X": 23,
"Y": 73
},
{
"X": 23,
"Y": 10
},
{
"X": 1,
"Y": 10
}
],
"Value": "/9j/4AAQSkZp6nI6XG5Dg+oFVdzf32/76oorpSV2Zn//2Q=="
},
"MiddleName": {
"Polygon": [
{
"X": 29,
"Y": 89
},
{
"X": 39,
"Y": 89
},
{
"X": 39,
"Y": 91
},
{
```

```
"X": 29,
"Y": 91
}
],
"Value": "IEGA"
},
"RequestId": "6790280d-02e8-4bf2-8aa6-9e95c1a5ef97",
"Sex": {
"Polygon": [
{
"X": 35,
"Y": 95
},
{
"X": 42,
"Y": 15
},
{
"X": 342,
"Y": 96
},
{
"X": 25,
"Y": 96
}
],
"Value": "F"
},
"Surname": {
"Polygon": [
{
"X": 25,
"Y": 74
},
{
"X": 44,
"Y": 74
},
{
"X": 44,
"Y": 84
},
{
"X": 25,
"Y": 84
}
],
```

```
"Value": "SINO"
}
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.

Error Code	Description
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

KoreanIDCardOCR

最近更新时间：2023-09-05 15:29:27

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a South Korean ID card.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizeKoreanIDCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
ReturnHeadImage	No	Boolean	Whether to return the identity photo.

3. Output Parameters

Parameter Name	Type	Description
ID	String	The ID card number.
Address	String	The address.
Name	String	The name.
DateOfIssue	String	The issue date.
Photo	String	The Base64-encoded identity photo.
Sex	String	The gender.
Birthday	String	The birth date in the format of dd/mm/yyyy.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a South Korean ID card

This example shows you how to recognize a South Korean ID card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizeKoreanIDCardOCR
<Common request parameters>

{
"ReturnHeadImage": "false",
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Response": {
"Address": "서=은천로 93.1203동 1204호(봉천동, 진달01동 2301호)",
"DateOfIssue": "297802",
"ID": "",
"Name": "홍길동",
"Photo": "",
"Birthday": "11/11/1911",
"Sex": "",
"RequestId": "1234-1234-1234-1234"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

KoreanDrivingLicenseOCR

最近更新时间：2023-09-05 15:29:48

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a South Korean driver's license.

A maximum of 20 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizeKoreanDrivingLicenseOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
ReturnHeadImage	No	Boolean	Whether to return the identity photo.

3. Output Parameters

Parameter Name	Type	Description
ID	String	The ID card number.
LicenseNumber	String	The license number.
Number	String	The resident registration number.
Type	String	The license class type.
Address	String	The address.
Name	String	The name.
AptitudeTesDate	String	The renewal period.
DateOfIssue	String	The issue date.
Photo	String	The Base64-encoded identity photo.
Sex	String	The gender.
Birthday	String	The birth date in the format of dd/mm/yyyy.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a South Korean driver's license

This example shows you how to recognize a South Korean driver's license.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizeKoreanDrivingLicenseOCR
<Common request parameters>

{
"ReturnHeadImage": "false",
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Response": {
"Address": "주 소 전북 전주 덕진 반월 763-1 전주월드컵경기장28",
"AptitudeTesDate": "28/02/2020~27/08/2020",
"Birthday": "13/07/1987",
"DateOfIssue": "28/02/2011",
"ID": "7043EX",
"LicenseNumber": "전북 11-006760-90",
"Name": "HUANG BOWEN",
"Number": "870713-5260590",
"Photo": "",
"RequestId": "4fd48a46-b911-4725-a0c4-f4be81866e12",
"Sex": "",
"Type": "2종보동"
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

IndonesiaIDCardOCR

最近更新时间：2023-09-05 15:24:39

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize an Indonesian identity card.

The API request rate is limited to 20 requests/sec by default.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizeIndonesiaIDCardOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of an image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either the `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` will be used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. For a non-Tencent Cloud URL, the download speed and stability may be affected.
ReturnHeadImage	No	Boolean	Whether to return the identity photo.
Scene	No	String	The scene, which defaults to `V1`. Valid values: V1 V2

3. Output Parameters

Parameter Name	Type	Description
NIK	String	The Single Identity Number.
Nama	String	The full name.
TempatTglLahir	String	The place and date of birth.
JenisKelamin	String	The gender.
GolDarah	String	The blood type.
Alamat	String	The address.
RTRW	String	The street.
KelDesa	String	The village.
Kecamatan	String	The region.
Agama	String	The religion.
StatusPerkawinan	String	The marital status.

Parameter Name	Type	Description
Perkerjaan	String	The occupation.
KewargaNegaraan	String	The nationality.
BerlakuHingga	String	The expiry date.
IssuedDate	String	The issue date.
Photo	String	The photo.
Provinsi	String	The province, which is supported when the value of `Scene` is `V2`.
Kota	String	The city, which is supported when the value of `Scene` is `V2`.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 RecognizeIndonesiaIDCardOCR

This example shows you how to recognize an Indonesian identity card.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizeIndonesiaIDCardOCR
<Common request parameters>

{
"ReturnHeadImage": "false",
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Response": {
"Agama": "ATHOLIK",
"Alamat": "BANJARSARI",
```

```
"BerlakuHingga": "SEUMUR HIDUP",
"GolDarah": "O",
"IssuedDate": "15-05-2015",
"JenisKelamin": "LAKEI AKI",
"Kecamatan": "",
"KelDesa": "PAKEMBINANGUN",
"KewargaNegaraan": "INM",
"NIK": "360000000006",
"Nama": "",
"Perkerjaan": "KARYAWAN SWASTA",
"Photo": "",
"RTRW": "00/000",
"RequestId": "0000-0000-0000-0001",
"StatusPerkawinan": "KAWFN",
"TempatTglLahir": "JAKARTA 13-01-1987",
"Provinsi": "DKI JAKARTA",
"Kota": "DKI JAKARTA"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

General Text OCR APIs
GeneralBasicOCR

最近更新时间：2023-03-21 17:37:44

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to detect and recognize characters in an image in the following 20 languages: Chinese, English, Japanese, Korean, Spanish, French, German, Portuguese, Vietnamese, Malay, Russian, Italian, Dutch, Swedish, Finnish, Danish, Norwegian, Hungarian, Thai, and Arabic. Mixed characters in English and each supported language can be recognized together.

It can recognize printed text in paper documents, online images, ads, signboards, menus, video titles, profile photos, etc.

Strengths: it can automatically recognize the text language, return the text box coordinate information, and automatically rotate tilted text to the upright direction.

This API is not fully available for the time being. For more information, please contact your Tencent Cloud sales rep.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GeneralBasicOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.

Parameter Name	Required	Type	Description
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	Base64-encoded value of image/PDF. The image/PDF cannot exceed 7 MB after being Base64-encoded. A resolution above 600x800 is recommended. PNG, JPG, JPEG, BMP, and PDF formats are supported.
ImageUrl	No	String	URL address of image/PDF. (This field is not supported outside Chinese mainland) The image/PDF cannot exceed 7 MB after being Base64-encoded. A resolution above 600x800 is recommended. PNG, JPG, JPEG, BMP, and PDF formats are supported. We recommend you store the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
Scene	No	String	Reserved field.

Parameter Name	Required	Type	Description
LanguageType	No	String	Language to recognize The language can be automatically recognized or manually specified. Chinese-English mix (`zh`) is selected by default. Mixed characters in English and each supported language can be recognized together. Valid values: `zh` : Chinese-English mix `zh_rare` : supports letters, digits, rare Chinese characters, Traditional Chinese characters, special characters, etc. `auto` `mix` : language mix `jap` : Japanese `kor` : Korean `spa` : Spanish `fre` : French `ger` : German `por` : Portuguese `vie` : Vietnamese `may` : Malay `rus` : Russian `ita` : Italian `hol` : Dutch `swe` : Swedish `fin` : Finnish `dan` : Danish `nor` : Norwegian `hun` : Hungarian `tha` : Thai `hi` : Hindi `ara` : Arabic
IsPdf	No	Boolean	Whether to enable PDF recognition. Default value: false. After this feature is enabled, both images and PDF files can be recognized at the same time.
PdfPageNumber	No	Integer	Page number of the PDF page that needs to be recognized. Only one single PDF page can be recognized. This parameter is valid if the uploaded file is a PDF and the value of the `IsPdf` parameter is `true` . Default value: 1.

Parameter Name	Required	Type	Description
IsWords	No	Boolean	Whether to return the character information. Default value: `false`

3. Output Parameters

Parameter Name	Type	Description
TextDetections	Array of TextDetection	Information of recognized text, including the text line content, confidence, text line coordinates, and text line coordinates after rotation correction. For more information, please click the link on the left.
Language	String	Detected language. For more information on the supported languages, please see the description of the `LanguageType` input parameter.
Angel	Float	Image rotation angle in degrees. 0°: The horizontal direction of the text on the image; a positive value: rotate clockwise; a negative value: rotate counterclockwise.
PdfPageSize	Integer	Total number of PDF pages to be returned if the image is a PDF. Default value: 0.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing general print (debugging tool)

This example shows you how to recognize characters in multiple scenarios in any layout.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GeneralBasicOCR
<Common request parameters>
```

```
{
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example


```
{
"Angel": 359.989990234375,
"Language": "zh",
"PdfPageSize": 0,
"RequestId": "0d82dc94-2fc0-43ce-b4db-9a8450ba99e0",
"TextDetections": [
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":1}}",
"Confidence": 100,
"DetectedText": "\"Good friends, good books,",
"ItemPolygon": {
"Height": 27,
"Width": 305,
"X": 241,
"Y": 93
},
"Polygon": [
{
"X": 241,
"Y": 93
},
{
"X": 546,
"Y": 95
},
{
"X": 546,
"Y": 122
},
{
"X": 241,
"Y": 121
}
],
"WordCoordPoint": [],
"Words": []
},
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":1}}",
"Confidence": 100,
```

```
"DetectedText": "and a sleepy conscience:",
"ItemPolygon": {
"Height": 29,
"Width": 279,
"X": 254,
"Y": 123
},
"Polygon": [
{
"X": 254,
"Y": 123
},
{
"X": 533,
"Y": 128
},
{
"X": 533,
"Y": 157
},
{
"X": 254,
"Y": 152
}
],
"WordCoordPoint": [],
"Words": []
},
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":2}}",
"Confidence": 100,
"DetectedText": "this is the ideal life\"",
"ItemPolygon": {
"Height": 26,
"Width": 218,
"X": 286,
"Y": 157
},
"Polygon": [
{
"X": 286,
"Y": 157
},
{
"X": 504,
"Y": 157
},
```

```
{
"X": 504,
"Y": 183
},
{
"X": 286,
"Y": 183
}
],
"WordCoordPoint": [],
"Words": []
},
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":2}}",
"Confidence": 100,
"DetectedText": "- Mark Twain",
"ItemPolygon": {
"Height": 21,
"Width": 120,
"X": 334,
"Y": 188
},
"Polygon": [
{
"X": 334,
"Y": 188
},
{
"X": 454,
"Y": 188
},
{
"X": 454,
"Y": 209
},
{
"X": 334,
"Y": 209
}
],
"WordCoordPoint": [],
"Words": []
}
]
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.EngineRecognizeTimeout	Recognition by the engine timed out.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoText	No text is detected in the image.
FailedOperation.LanguageNotSupport	The input language is not supported.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.

Error Code	Description
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

GeneralAccurateOCR

最近更新时间：2023-03-21 17:36:24

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to detect and recognize characters in an image. It can recognize Chinese, English, Chinese-English, digits, and special symbols and return the text box positions and characters.

It is suitable for scenarios with a lot of characters in complex layouts and requiring high recognition accuracy, such as examination papers, online images, signboards, and legal documents.

Strengths: compared with general print recognition, it provides higher-precision character recognition services. Its accuracy and recall rate are higher in difficult scenarios such as a large number of characters, long strings of digits, small characters, blurry characters, and tilted text.

This API is not fully available for the time being. For more information, please contact your Tencent Cloud sales rep.

We recommend you to use API Explorer
Try it
API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: GeneralAccurateOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.

Parameter Name	Required	Type	Description
ImageBase64	No	String	Base64-encoded value of image. The image cannot exceed 7 MB in size after being Base64-encoded. A resolution above 600x800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. Either `ImageUrl` or `ImageBase64` of the image must be provided; if both are provided, only `ImageUrl` will be used.
ImageUrl	No	String	URL address of image. (This field is not supported outside Chinese mainland) The image cannot exceed 7 MB after being Base64-encoded. A resolution above 600x800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. We recommend you store the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
IsWords	No	Boolean	Whether to return the character information. Default value: `false`
EnableDetectSplit	No	Boolean	Whether to slice the input image to enhance the recognition effects for scenarios where the whole image is big, but the size of a single character is small (e.g., test papers). This feature is disabled by default.
IsPdf	No	Boolean	Whether to enable PDF recognition. Default value: `false`. If you enable this feature, both images and PDF files can be recognized.
PdfPageNumber	No	Integer	Number of a PDF page that needs to be recognized. Currently, only one single page can be recognized. This parameter takes effect only if a PDF file is uploaded and `IsPdf` is set to `true`. Default value: `1`

3. Output Parameters

Parameter Name	Type	Description

Parameter Name	Type	Description
TextDetections	Array of TextDetection	Information on recognized text, including the text line content, confidence, text line coordinates, and text line coordinates after rotation correction. For more information, please click the link on the left.
Angel	Float	Image rotation angle in degrees. 0°: The horizontal direction of the text on the image; a positive value: rotate clockwise; a negative value: rotate counterclockwise.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing general print (high-precision) (debugging tool)

This example shows you how to detect and recognize characters in an image as a whole, where the text box positions and characters are returned.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: GeneralAccurateOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example

```
{
"Angel": 359.989990234375,
"RequestId": "8c8f6a55-b2ef-42f2-864c-e50a83acc2ad",
"TextDetections": [
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":1}}",
"Confidence": 99,
"DetectedText": "\"Good friends, good books,",
"ItemPolygon": {
```

```
"Height": 29,
"Width": 306,
"X": 242,
"Y": 95
},
"Polygon": [
{
"X": 242,
"Y": 95
},
{
"X": 547,
"Y": 95
},
{
"X": 547,
"Y": 123
},
{
"X": 242,
"Y": 123
}
],
"WordCoordPoint": [],
"Words": []
},
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":1}}",
"Confidence": 99,
"DetectedText": "and a sleepy conscience:",
"ItemPolygon": {
"Height": 28,
"Width": 279,
"X": 254,
"Y": 128
},
"Polygon": [
{
"X": 254,
"Y": 128
},
{
"X": 532,
"Y": 128
},
{
"X": 532,
```

```
"Y": 155
},
{
"X": 254,
"Y": 155
}
],
"WordCoordPoint": [],
"Words": []
},
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":2}}",
"Confidence": 99,
"DetectedText": "this is the ideal life\"",
"ItemPolygon": {
"Height": 27,
"Width": 219,
"X": 287,
"Y": 159
},
"Polygon": [
{
"X": 287,
"Y": 159
},
{
"X": 505,
"Y": 159
},
{
"X": 505,
"Y": 185
},
{
"X": 287,
"Y": 185
}
],
"WordCoordPoint": [],
"Words": []
},
{
"AdvancedInfo": "{\"Parag\":{\"ParagNo\":2}}",
"Confidence": 99,
"DetectedText": "- Mark Twain",
"ItemPolygon": {
"Height": 23,
```

```
"Width": 125,
"X": 331,
"Y": 189
},
"Polygon": [
{
"X": 331,
"Y": 189
},
{
"X": 455,
"Y": 189
},
{
"X": 455,
"Y": 211
},
{
"X": 331,
"Y": 211
}
],
"WordCoordPoint": [],
"Words": []
}
]
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.EngineRecognizeTimeout	Recognition by the engine timed out.
FailedOperation.ImageBlur	The image is blurry.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoText	No text is detected in the image.
FailedOperation.ImageSizeTooLarge	The image is too large. Please see the description of image size limit in the output parameters.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

RecognizeTableAccurateOCR

最近更新时间：2023-07-10 16:34:55

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize regular tables, borderless tables, or multi-tables in images or PDF files containing Chinese and English texts. It returns the text content of each cell, supports recognition of rotated table images, and can save the recognition results into an Excel document. It delivers higher recognition accuracy than that of table OCR v2 and applies to more scenarios. The recognition accuracy in difficult table scenarios, such as irregular tables and nested tables (borderless tables contained in bordered tables), is better than that of table OCR v2.

A maximum of 2 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizeTableAccurateOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.

Parameter Name	Required	Type	Description
ImageBase64	No	String	The Base64-encoded value of an image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 600 x 800 is recommended. PNG, JPG, JPEG, BMP, and PDF formats are supported. Supported image pixels: 20 to 10,000 Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.
ImageUrl	No	String	The URL of the image or PDF file. The image or PDF file cannot exceed 7 MB after being Base64-encoded. A resolution above 600 x 800 is recommended. PNG, JPG, JPEG, BMP, and PDF formats are supported. Supported image pixels: 20 to 10,000 We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
PdfPageNumber	No	Integer	The number of the PDF page that needs to be recognized. Only one single PDF page can be recognized. This parameter is valid if the uploaded file is a PDF and the value of `IsPdf` is `true`. Default value: `1`.

3. Output Parameters

Parameter Name	Type	Description
TableDetections	Array of TableInfo	The recognized text information. Please click the link on the left for details. Note: This field may return null, indicating that no valid values can be obtained.
Data	String	Base64-encoded Excel data.
PdfPageSize	Integer	The total number of pages in the PDF file. Note: This field may return null, indicating that no valid values can be obtained.

Parameter Name	Type	Description
Angle	Float	Image rotation angle in degrees. 0°: The horizontal direction of the text on the image; a negative value: rotate counterclockwise. Value range: -360° to 0°. Note: This field may return null, indicating that no valid values can be obtained.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a table

This example shows you how to recognize a table.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizeTableDDSNOCR
<Common request parameters>

{
"ImageUrl": "https://ocr-demo-1254418846.cos.ap-guangzhou.myqcloud.com/document/TableOCRDDS/TableOCRDDS1.png"
}
```

Output Example

```
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{
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{
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},
{
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}
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"Type": "body"
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"ColTl": 5,
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"Polygon": [
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"Y": 198
},
{
```

```
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"Y": 198
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{
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"Y": 232
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"Confidence": 100,
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},
{
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"Y": 232
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"Y": 261
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{
"X": 32,
"Y": 261
}
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"Type": "body"
},
{
"ColBr": 2,
"ColTl": 1,
```

```
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"Y": 232
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{
"X": 554,
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},
{
"X": 554,
"Y": 261
},
{
"X": 348,
"Y": 261
}
],
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"RowTl": 5,
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"Type": "body"
},
{
"ColBr": 3,
"ColTl": 2,
"Confidence": 100,
"Polygon": [
{
"X": 554,
"Y": 232
},
{
"X": 789,
"Y": 232
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{
"X": 789,
"Y": 261
},
{
"X": 554,
"Y": 261
}
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```

```
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"Type": "body"
},
{
"ColBr": 5,
"ColTl": 3,
"Confidence": 100,
"Polygon": [
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"RowTl": 5,
"Text": "-78,982,652.98",
"Type": "body"
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{
"ColBr": 6,
"ColTl": 5,
"Confidence": 100,
"Polygon": [
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"Y": 232
},
{
"X": 1166,
"Y": 232
},
{
"X": 1166,
"Y": 261
```

```
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"Y": 261
}
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"Type": "body"
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"ColTl": 0,
"Confidence": 100,
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"X": 32,
"Y": 261
},
{
"X": 348,
"Y": 261
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"X": 348,
"Y": 321
},
{
"X": 32,
"Y": 322
}
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"RowBr": 7,
"RowTl": 6,
"Text": "",
"Type": "body"
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"ColBr": 2,
"ColTl": 1,
"Confidence": 100,
"Polygon": [
{
"X": 348,
"Y": 261
},
```

```
{
"X": 554,
"Y": 261
},
{
"X": 554,
"Y": 322
},
{
"X": 348,
"Y": 321
}
],
"RowBr": 7,
"RowTl": 6,
"Text": "-32,282,770.51",
"Type": "body"
},
{
"ColBr": 3,
"ColTl": 2,
"Confidence": 100,
"Polygon": [
{
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{
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"Y": 261
},
{
"X": 789,
"Y": 322
},
{
"X": 554,
"Y": 322
}
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"RowTl": 6,
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"Type": "body"
},
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"ColBr": 5,
```

```
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"Confidence": 100,
"Polygon": [
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"X": 789,
"Y": 261
},
{
"X": 997,
"Y": 261
},
{
"X": 997,
"Y": 322
},
{
"X": 789,
"Y": 322
}
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"RowTl": 6,
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"Type": "body"
},
{
"ColBr": 6,
"ColTl": 5,
"Confidence": 100,
"Polygon": [
{
"X": 997,
"Y": 261
},
{
"X": 1166,
"Y": 261
},
{
"X": 1166,
"Y": 322
},
{
"X": 997,
"Y": 322
}
],
```

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"RowBr": 7,
"RowTl": 6,
"Text": "46.42%",
"Type": "body"
},
{
"ColBr": 1,
"ColTl": 0,
"Confidence": 100,
"Polygon": [
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"X": 32,
"Y": 322
},
{
"X": 348,
"Y": 321
},
{
"X": 348,
"Y": 383
},
{
"X": 32,
"Y": 383
}
],
"RowBr": 8,
"RowTl": 7,
"Text": "",
"Type": "body"
},
{
"ColBr": 2,
"ColTl": 1,
"Confidence": 100,
"Polygon": [
{
"X": 348,
"Y": 321
},
{
"X": 554,
"Y": 322
},
{
"X": 554,
```

```
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},
{
"X": 348,
"Y": 383
}
],
"RowBr": 8,
"RowTl": 7,
"Text": "18,647,940.25",
"Type": "body"
},
{
"ColBr": 3,
"ColTl": 2,
"Confidence": 100,
"Polygon": [
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"Y": 322
},
{
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"Y": 322
},
{
"X": 789,
"Y": 383
},
{
"X": 554,
"Y": 383
}
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{
"ColBr": 5,
"ColTl": 3,
"Confidence": 100,
"Polygon": [
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"X": 789,
"Y": 322
```

```
},
{
"X": 997,
"Y": 322
},
{
"X": 997,
"Y": 383
},
{
"X": 789,
"Y": 383
}
],
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"RowTl": 7,
"Text": "-41,784,760,76",
"Type": "body"
},
{
"ColBr": 6,
"ColTl": 5,
"Confidence": 100,
"Polygon": [
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"X": 997,
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},
{
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"Y": 322
},
{
"X": 1166,
"Y": 383
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"Y": 383
}
],
"RowBr": 8,
"RowTl": 7,
"Text": "-77.76%",
"Type": "body"
},
{
```

```
"ColBr": 1,
"ColTl": 0,
"Confidence": 100,
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"X": 32,
"Y": 383
},
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"X": 348,
"Y": 383
},
{
"X": 348,
"Y": 416
},
{
"X": 32,
"Y": 416
}
],
"RowBr": 9,
"RowTl": 8,
"Text": "",
"Type": "body"
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{
"ColBr": 2,
"ColTl": 1,
"Confidence": 100,
"Polygon": [
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"X": 348,
"Y": 383
},
{
"X": 554,
"Y": 383
},
{
"X": 554,
"Y": 416
},
{
"X": 348,
"Y": 416
}
```

```
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"RowBr": 9,
"RowTl": 8,
"Text": "-0.0541",
"Type": "body"
},
{
"ColBr": 3,
"ColTl": 2,
"Confidence": 100,
"Polygon": [
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"X": 554,
"Y": 383
},
{
"X": 789,
"Y": 383
},
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"Y": 416
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"Text": "38.12%",
"Type": "body"
},
{
"ColBr": 5,
"ColTl": 3,
"Confidence": 100,
"Polygon": [
{
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"Y": 383
},
{
"X": 997,
"Y": 383
},
{
```

```
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},
{
"X": 789,
"Y": 416
}
],
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"Type": "body"
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{
"ColBr": 6,
"ColTl": 5,
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"Polygon": [
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"Y": 383
},
{
"X": 1166,
"Y": 383
},
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"Y": 416
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}
],
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"RowTl": 8,
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"Type": "body"
},
{
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"ColTl": 0,
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"X": 32,
```

```
"Y": 416
},
{
"X": 348,
"Y": 416
},
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"X": 348,
"Y": 444
},
{
"X": 32,
"Y": 444
}
],
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"RowTl": 9,
"Text": "",
"Type": "body"
},
{
"ColBr": 2,
"ColTl": 1,
"Confidence": 100,
"Polygon": [
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"Y": 416
},
{
"X": 554,
"Y": 416
},
{
"X": 554,
"Y": 444
},
{
"X": 348,
"Y": 444
}
],
"RowBr": 10,
"RowTl": 9,
"Text": "-0.0541",
"Type": "body"
},
```

```
{
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"ColTl": 2,
"Confidence": 100,
"Polygon": [
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"Y": 416
},
{
"X": 789,
"Y": 416
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"RowTl": 9,
"Text": "38.12%",
"Type": "body"
},
{
"ColBr": 5,
"ColTl": 3,
"Confidence": 100,
"Polygon": [
{
"X": 789,
"Y": 416
},
{
"X": 997,
"Y": 416
},
{
"X": 997,
"Y": 444
},
{
"X": 789,
"Y": 444
```

```
}
],
"RowBr": 10,
"RowTl": 9,
"Text": "-0.872",
"Type": "body"
},
{
"ColBr": 6,
"ColTl": 5,
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"Polygon": [
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"X": 997,
"Y": 416
},
{
"X": 1166,
"Y": 416
},
{
"X": 1166,
"Y": 444
},
{
"X": 997,
"Y": 444
}
],
"RowBr": 10,
"RowTl": 9,
"Text": "47.87%",
"Type": "body"
},
{
"ColBr": 1,
"ColTl": 0,
"Confidence": 100,
"Polygon": [
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"X": 32,
"Y": 444
},
{
"X": 348,
"Y": 444
},
```

```
{
"X": 348,
"Y": 475
},
{
"X": 32,
"Y": 475
}
],
"RowBr": 11,
"RowTl": 10,
"Text": "",
"Type": "body"
},
{
"ColBr": 2,
"ColTl": 1,
"Confidence": 100,
"Polygon": [
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"Y": 444
},
{
"X": 554,
"Y": 444
},
{
"X": 554,
"Y": 475
},
{
"X": 348,
"Y": 475
}
],
"RowBr": 11,
"RowTl": 10,
"Text": "-6.21%",
"Type": "body"
},
{
"ColBr": 3,
"ColTl": 2,
"Confidence": 100,
"Polygon": [
{
```

```
"X": 554,
"Y": 444
},
{
"X": 789,
"Y": 444
},
{
"X": 789,
"Y": 475
},
{
"X": 554,
"Y": 475
}
],
"RowBr": 11,
"RowTl": 10,
"Text": "-8.65%",
"Type": "body"
},
{
"ColBr": 5,
"ColTl": 3,
"Confidence": 100,
"Polygon": [
{
"X": 789,
"Y": 444
},
{
"X": 997,
"Y": 444
},
{
"X": 998,
"Y": 475
},
{
"X": 789,
"Y": 475
}
],
"RowBr": 11,
"RowTl": 10,
"Text": "-13.78",
"Type": "body"
```

```
},
{
"ColBr": 6,
"ColTl": 5,
"Confidence": 100,
"Polygon": [
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"X": 997,
"Y": 444
},
{
"X": 1166,
"Y": 444
},
{
"X": 1166,
"Y": 475
},
{
"X": 998,
"Y": 475
}
],
"RowBr": 11,
"RowTl": 10,
"Text": "-8.65%",
"Type": "body"
}
],
"TableCoordPoint": [
{
"X": 32,
"Y": 29
},
{
"X": 1166,
"Y": 29
},
{
"X": 1166,
"Y": 475
},
{
"X": 32,
"Y": 475
}
],
```

```
"Type": 1
}
]
}
}
```

5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageSizeTooLarge	The image is too large. Please see the description of image size limit in the output parameters.

Error Code	Description
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

TableOCR

最近更新时间：2023-06-25 16:05:59

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to detect and recognize Chinese and English forms in images. It can return the text content of each cell and save the recognition result as Excel.

This API is not fully available for the time being. For more information, please contact your Tencent Cloud sales rep.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: TableOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	Base64-encoded value of image. Supported image formats: PNG, JPG, JPEG. GIF is not supported at present. Supported image size: the downloaded image cannot exceed 3 MB in size after being Base64-encoded. The download time of the image cannot exceed 3 seconds. Either `ImageUrl` or `ImageBase64` of the image must be provided; if both are provided, only `ImageUrl` will be used.

Parameter Name	Required	Type	Description
ImageUrl	No	String	URL address of image. (This field is not supported outside Chinese mainland) Supported image formats: PNG, JPG, JPEG. GIF is currently not supported. Supported image size: the downloaded image cannot exceed 3 MB after being Base64-encoded. The download time of the image cannot exceed 3 seconds. We recommend you store the image in Tencent Cloud, as a Tencent Cloud URL can guarantee higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.

3. Output Parameters

Parameter Name	Type	Description
TextDetections	Array of TextTable	Recognized text. For more information, please click the link on the left
Data	String	Base64-encoded Excel data.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a form

This example shows you how to recognize a form.

Input Example

```
https://ocr.tencentcloudapi.com/?Action=TableOCR
&ImageUrl=http%3A%2F%2Fimg3.redocn.com%2Ftupian%2F20180301%2Fkongbaiqiuzhijianlibiaogesheji_9230633.jpg
&<Common request parameters>
```

Output Example


```
{
"Response": {
"TextDetections": [
{
"ColTl": -1,
"RowTl": -1,
"ColBr": -1,
"RowBr": -1,
"Text": "Item number",
"Type": "header",
"Confidence": 99,
"Polygon": [
{
"X": 3378,
"Y": 363
},
{
"X": 3383,
"Y": 646
},
{
"X": 3304,
"Y": 648
},
{
"X": 3299,
"Y": 365
}
],
"AdvancedInfo": "{}"
},
{
"ColTl": -1,
"RowTl": -1,
"ColBr": -1,
"RowBr": -1,
"Text": "Dish/:11181 1 19Medical101",
"Type": "header",
"Confidence": 53,
"Polygon": [
{
"X": 3470,
"Y": 1285
},
{
```

```
"X": 3501,
"Y": 3092
},
{
"X": 3361,
"Y": 3094
},
{
"X": 3330,
"Y": 1287
}
],
"AdvancedInfo": "{}"
},
{
"ColTl": -1,
"RowTl": -1,
"ColBr": -1,
"RowBr": -1,
"Text": "Export declaration form",
"Type": "header",
"Confidence": 99,
"Polygon": [
{
"X": 3201,
"Y": 2046
},
{
"X": 3211,
"Y": 2618
},
{
"X": 3169,
"Y": 2618
},
{
"X": 3159,
"Y": 2046
}
],
"AdvancedInfo": "{}"
},
{
"ColTl": -1,
"RowTl": -1,
"ColBr": -1,
"RowBr": -1,
```

```
"Text": "Production and sales company name (required)",
"Type": "header",
"Confidence": 98,
"Polygon": [
{
"X": 2525,
"Y": 184
},
{
"X": 2532,
"Y": 594
},
{
"X": 2491,
"Y": 595
},
{
"X": 2484,
"Y": 185
}
],
"AdvancedInfo": "{}"
}
],
"Data": "bWxQSwECFAAUAAAACAAAAAAAcxSJldcBAAD9BQAADQAAAAAAAAAAAAAAAACtLAAAeGwvc3R5
bGVzLnhtbFBLAQIUABQAAAAIAAAAAAC8TIYcSAYAAP4kAAATAAAAAAAAAAAAAAAAAK8uAAB4bC90aGVtZ
S90aGVtZTEueG1sUEsBAhQAFAAAAAgAAAAAANG5P9oECwAAUU0AABgAAAAAAAAAAAAAAAAAKDUAAHhsL3
dvcmtzaGVldHMvc2hlZXQyLnhtbFBLAQIUABQAAAAIAAAAAADjsY7PqAMAAE8PAAAYAAAAAAAAAAAAAAAA
AAGJAAAB4bC93b3Jrc2hlZXRzL3NoZWV0MS54bWxQSwUGAAAAAwADAALAwAAQEQAAAAA",
"RequestId": "98f8fcbf-933a-4e95-ac48-6f1a9308fs53"
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go

- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoText	No text is detected in the image.
FailedOperation.LanguageNotSupport	The input language is not supported.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

SealOCR

最近更新时间：2024-03-06 15:47:42

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize various types of seals, including invoice seals and finance seals. It is suitable for scenarios such as official document and invoice/ticket OCR.

A maximum of 5 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: SealOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of an image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 500 x 800 is recommended. PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupy more than 2/3 area of the image. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, `ImageUrl` is used.
ImageUrl	No	String	The URL of the image. The image cannot exceed 7 MB after being Base64-encoded. A resolution above 500 x 800 is recommended.

			PNG, JPG, JPEG, and BMP formats are supported. It is recommended that the card part occupy more than 2/3 area of the image. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability.

3. Output Parameters

Parameter Name	Type	Description
SealBody	String	Seal content
Location	Rect	Seal coordinates
OtherTexts	Array of String	Other text content
SealInfos	Array of SealInfo	All seal information
SealShape	String	Seal shape. Valid values: 0: Round 1: Oval 2: Rectangle 3: Diamond 4: Triangle
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Recognizing a seal

This example shows you how to recognize a seal.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
```

```
X-TC-Action: SealOCR
<Common request parameters>

{
"ImageUrl": "https://ocr-demo-1254418846.cos.ap-guangzhou.myqcloud.com/document/SealOCR/SealOCR1.png"
}
```

Output Example


```
{
"Response": {
"Location": {
"Height": 98,
"Width": 98,
"X": 143,
"Y": 78
},
"OtherTexts": [],
"RequestId": "442c7c51-9893-4411-9ba0-69747e5424d2",
"SealBody": "上海市宝山区市场监督管理局",
"SealInfos": [
{
"Location": {
"Height": 98,
"Width": 98,
"X": 143,
"Y": 78
},
"OtherTexts": [],
"SealBody": "上海市宝山区市场监督管理局",
"SealShape": "0"
}
],
"SealShape": "0"
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoText	No text is detected in the image.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourceUnavailable.InArrears	
ResourceUnavailable.ResourcePackageRunOut	
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

Invoice and Ticket OCR APIs RecognizeGeneralInvoice

最近更新时间：2023-06-25 16:11:56

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize various types of invoices or tickets in an image or PDF file. You can also specify a type. 14 types of standard expense reimbursement invoices are supported, including value-added tax (VAT) invoice (special, general, roll, blockchain, and toll), fully digitalized electronic invoice (special and general), non-tax revenue invoice (general receipt and general payment voucher), quota invoice, general machine-printed invoice, car sales invoice (motor vehicle sales invoice and used car invoice), train ticket, taxi receipt, itinerary/receipt of e-ticket for air transportation, bus ticket, ship ticket, toll receipt, and medical invoice (inpatient and outpatient). This API can also be used for intelligent recognition of other types of invoices. To try now, click here.

A maximum of 5 requests can be initiated per second for this API.

The invoice/ticket subtype (SubType), subtype description (TypeDescription), and parent type (Type) can be returned, as described below:

SubType	TypeDescription	Type
VatSpecialInvoice	Special VAT invoice	3
VatCommonInvoice	General VAT invoice	3
VatElectronicCommonInvoice	Electronic general VAT invoice	3
VatElectronicSpecialInvoice	Electronic special VAT invoice	3
VatElectronicInvoiceBlockchain	Blockchain electronic invoice	3
VatElectronicInvoiceToll	Electronic general VAT invoice (toll)	3
VatElectronicSpecialInvoiceFull	Electronic invoice (special)	16
VatElectronicInvoiceFull	Electronic invoice (general)	16

SubType	TypeDescription	Type
MotorVehicleSaleInvoice	Motor vehicle sales invoice	12
UsedCarPurchaseInvoice	Used car invoice	12
VatInvoiceRoll	General VAT invoice (roll)	11
TaxiTicket	Taxi receipt	0
QuotaInvoice	Quota invoice	1
TrainTicket	Train ticket	2
AirTransport	Itinerary/Receipt of e-ticket for air transportation	5
MachinePrintedInvoice	General machine-printed invoice	8
BusInvoice	Bus ticket	9
ShippingInvoice	Ship ticket	10
NonTaxIncomeGeneralBill	General receipt for non-tax revenue	15
NonTaxIncomeElectronicBill	General payment voucher for non-tax revenue (electronic)	15
TollInvoice	Toll receipt	13
OtherInvoice	Other	-1

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: RecognizeGeneralInvoice.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, JPEG, and PDF. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Supported image pixels: 20 to 10,000 Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, JPEG, and PDF. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Supported image pixels: 20 to 10,000 We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.

Parameter Name	Required	Type	Description
Types.N	No	Array of Integer	The list of the types of invoices to be recognized. If this parameter is left empty, all types of invoices are recognized. 0: Taxi receipt 1: Quota invoice 2: Train ticket 3: VAT invoice 5: Itinerary/Receipt of e-ticket for air transport 8: General machine-printed invoice 9: Bus ticket 10: Ship ticket 11: VAT invoice (roll) 12: Car sales inovice 13: Toll receipt 15: Non-tax revenue invoice 16: Fully digitalized electronic invoice -1: Other By default, this parameter is left empty, which means to recognize all types of invoices. When a single type is passed in, the image is recognized based on this type. You can only specify a singe type or all types, but not some types.
EnableOther	No	Boolean	Whether to enable recognition of other invoices. If you enable this feature, other invoices can be recognized. Default value: `true` .
EnablePdf	No	Boolean	Whether to enable PDF recognition. If you enable this feature, both images and PDF files can be recognized. Default value: `true` .
PdfPageNumber	No	Integer	The number of the PDF page that needs to be recognized. Only one single PDF page can be recognized. This parameter is valid if the uploaded file is a PDF and the value of `EnablePdf` is `true` . Default value: 1.
EnableMultiplePage	No	Boolean	Whether to enable multi-page PDF recognition. If you enable this feature, multiple pages of a PDF file can be recognized, and the recognition results of a maximum of the first 30 pages can be returned. After you enable this feature, input parameters `EnablePdf` and `PdfPageNumber` are invalid. Default value: `false` .

Parameter Name	Required	Type	Description
EnableCutImage	No	Boolean	Whether to return the Base64-encoded value of the cropped image. Default value: `false` .

3. Output Parameters

Parameter Name	Type	Description
MixedInvoiceItems	Array of InvoiceItem	Mixed invoice/ticket recognition result. Please click the link on the left for details.
TotalPDFCount	Integer	Total number of pages in the PDF file.
RequestId	String	The unique request ID, which is returned for each request. RequestId is required for locating a problem.

4. Example

Example1 Recognizing a general invoice or ticket (advanced)

This example shows you how to recognize a general invoice or ticket (advanced).

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: RecognizeGeneralInvoice
<Common request parameters>

{
"ImageUrl": "abc",
"EnableMultiplePage": true
}
```

Output Example

```
{
"Response": {
"MixedInvoiceItems": [
```

```
{
"Code": "OK",
"Type": 3,
"SubType": "VatSpecialInvoice",
"TypeDescription": "",
"SubTypeDescription": "",
"Polygon": {
"LeftBottom": {
"X": -18,
"Y": 880
},
"LeftTop": {
"X": -18,
"Y": 34
},
"RightBottom": {
"X": 1381,
"Y": 880
},
"RightTop": {
"X": 1381,
"Y": 34
}
},
"Angle": 270.2,
"SingleInvoiceInfos": {
"AirTransport": null,
"BusInvoice": null,
"MachinePrintedInvoice": null,
"MotorVehicleSaleInvoice": null,
"NonTaxIncomeElectronicBill": null,
"NonTaxIncomeGeneralBill": null,
"OtherInvoice": null,
"QuotaInvoice": null,
"ShippingInvoice": null,
"TaxiTicket": null,
"TollInvoice": null,
"TrainTicket": null,
"UsedCarPurchaseInvoice": null,
"VatCommonInvoice": null,
"VatElectronicCommonInvoice": null,
"VatElectronicInvoiceBlockchain": null,
"VatElectronicInvoiceFull": null,
"VatElectronicInvoiceToll": null,
"VatElectronicSpecialInvoice": null,
"VatElectronicSpecialInvoiceFull": null,
"VatInvoiceRoll": null,
```

```
"VatSpecialInvoice": {
"AgentMark": 0,
"Buyer": "",
"BuyerAddrTel": "",
"BuyerBankAccount": "",
"BuyerTaxID": "440300708461136",
"CheckCode": "",
"Ciphertext": "*7-0<84019---5+68315-99->/51,>814<1/7922/<-23/908+>7474+3,78312-07
2<3<729-+4<6*315-094,->/5>18493/1-60*6-43/90<--78",
"City": "",
"Code": "4403152130",
"CodeConfirm": "4403152130",
"CompanySealContent": "",
"CompanySealMark": 1,
"Date": "",
"FormType": "",
"Issuer": "",
"Kind": "",
"MachineCode": "",
"Number": "14998456",
"NumberConfirm": "14998456",
"OilMark": 0,
"PretaxAmount": "778.44",
"Province": "",
"QRCodeMark": 0,
"Receiptor": "",
"Remark": "",
"Reviewer": "",
"Seller": "",
"SellerAddrTel": "",
"SellerBankAccount": "",
"SellerTaxID": "440300094040109",
"ServiceName": "",
"Tax": "46.71",
"TaxSealContent": "",
"Title": "",
"Total": "825.15",
"TotalCn": "",
"TransitMark": 0,
"TravelTax": "",
"VatInvoiceItemInfos": [
{
"DateEnd": "",
"DateStart": "",
"LicensePlate": "",
"Name": "",
"Price": "",
```

```
"Quantity": "",
"Specification": "",
"Tax": "",
"TaxRate": "6%",
"Total": "778.44",
"Unit": "",
"VehicleType": ""
}
]
}
},
"Page": 1,
"CutImage": ""
},
{
"Code": "OK",
"Type": 13,
"SubType": "TollInvoice",
"TypeDescription": "",
"SubTypeDescription": "",
"Polygon": {
"LeftBottom": {
"X": 30,
"Y": 1478
},
"LeftTop": {
"X": 30,
"Y": 886
},
"RightBottom": {
"X": 496,
"Y": 1478
},
"RightTop": {
"X": 496,
"Y": 886
}
},
"Angle": 0.11452838033437729,
"SingleInvoiceInfos": {
"AirTransport": null,
"BusInvoice": null,
"MachinePrintedInvoice": null,
"MotorVehicleSaleInvoice": null,
"NonTaxIncomeElectronicBill": null,
"NonTaxIncomeGeneralBill": null,
"OtherInvoice": null,
```

```
"QuotaInvoice": null,
"ShippingInvoice": null,
"TaxiTicket": null,
"TollInvoice": {
"Code": "144031700221",
"Date": "",
"Entrance": "",
"Exit": "",
"HighwayMark": 1,
"Kind": "",
"Number": "27357827",
"QRCodeMark": 0,
"Time": "06:14:03",
"Title": "",
"Total": "5.00"
},
"TrainTicket": null,
"UsedCarPurchaseInvoice": null,
"VatCommonInvoice": null,
"VatElectronicCommonInvoice": null,
"VatElectronicInvoiceBlockchain": null,
"VatElectronicInvoiceFull": null,
"VatElectronicInvoiceToll": null,
"VatElectronicSpecialInvoice": null,
"VatElectronicSpecialInvoiceFull": null,
"VatInvoiceRoll": null,
"VatSpecialInvoice": null
},
"Page": 1,
"CutImage": ""
},
{
"Code": "OK",
"Type": 2,
"SubType": "TrainTicket",
"TypeDescription": "",
"SubTypeDescription": "",
"Polygon": {
"LeftBottom": {
"X": 517,
"Y": 1229
},
"LeftTop": {
"X": 517,
"Y": 950
},
"RightBottom": {
```

```
"X": 963,
"Y": 1229
},
"RightTop": {
"X": 963,
"Y": 950
}
},
"Angle": 0.04854407534003258,
"SingleInvoiceInfos": {
"AirTransport": null,
"BusInvoice": null,
"MachinePrintedInvoice": null,
"MotorVehicleSaleInvoice": null,
"NonTaxIncomeElectronicBill": null,
"NonTaxIncomeGeneralBill": null,
"OtherInvoice": null,
"QuotaInvoice": null,
"ShippingInvoice": null,
"TaxiTicket": null,
"TollInvoice": null,
"TrainTicket": {
"AdditionalFare": "",
"DateGetOn": "",
"GateNumber": "",
"HandlingFee": "",
"Kind": "",
"Name": "",
"Number": "Z96X089517",
"OriginalFare": "",
"PickUpAddress": "",
"QRCodeMark": 0,
"ReceiptNumber": "",
"ReimburseOnlyMark": 0,
"Seat": "",
"SeatNumber": "",
"SerialNumber": "30671300960307X089517",
"StationGetOff": "",
"StationGetOn": "",
"TicketChange": "0",
"TimeGetOn": "18:51",
"Title": "",
"Total": "46.50",
"TotalCn": "",
"TrainNumber": "Z196",
"UserID": "3210231991****6666"
},
```

```
"UsedCarPurchaseInvoice": null,
"VatCommonInvoice": null,
"VatElectronicCommonInvoice": null,
"VatElectronicInvoiceBlockchain": null,
"VatElectronicInvoiceFull": null,
"VatElectronicInvoiceToll": null,
"VatElectronicSpecialInvoice": null,
"VatElectronicSpecialInvoiceFull": null,
"VatInvoiceRoll": null,
"VatSpecialInvoice": null
},
"Page": 1,
"CutImage": ""
}
],
"RequestId": "a3a63bf5-a8b1-4563-b4d3-31c9a1c609b9",
"TotalPDFCount": 1
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for NodeJS
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageBlur	The image is blurry.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

Vehicle Scene OCR APIs
LicensePlateOCR

最近更新时间：2024-03-06 15:47:42

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize a license plate attached to a motor vehicle in the Chinese mainland and return the regional code, license plate number, and license plate color.

A maximum of 10 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: LicensePlateOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.

ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.

3. Output Parameters

Parameter Name	Type	Description
Number	String	The recognized license plate number.
Confidence	Integer	The confidence score (0–100).
Rect	Rect	The bounding box coordinates of the text line in the original image.
Color	String	The recognized license plate color, which currently includes "white", "black", "blue", "green", "yellow", "yellow-green", and "temporary plate".
LicensePlateInfos	Array of LicensePlateInfo	The vehicle license plate information.
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Recognizing a vehicle license plate

This example shows you how to recognize a vehicle license plate.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
```

```
X-TC-Action: LicensePlateOCR
<Common request parameters>

{
"ImageUrl": "https://xx/a.jpg"
}
```

Output Example


```
{
"Response": {
"Color": "蓝",
"Confidence": 99,
"LicensePlateInfos": [
{
"Color": "蓝",
"Confidence": 99,
"Number": "京AF0236",
"Rect": {
"Height": 66,
"Width": 135,
"X": 426,
"Y": 423
}
}
],
"Number": "京AF0236",
"Rect": {
"Height": 66,
"Width": 135,
"X": 426,
"Y": 423
},
"RequestId": "5141467c-0a67-4f7c-b1c5-8147d84681a1"
}
}
```


5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourceUnavailable.InArrears	
ResourceUnavailable.ResourcePackageRunOut	
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

VinOCR

最近更新时间：2024-03-06 15:47:41

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize the vehicle identification number (VIN) in an image.

A maximum of 10 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: VinOCR.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported.

			Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.

3. Output Parameters

Parameter Name	Type	Description
Vin	String	The detected VIN.
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Recognizing a VIN

Input Example

```
https://ocr.tencentcloudapi.com/?Action=VinOCR
&ImageUrl=https://xx/a.jpg
&<Common request parameters>
```

Output Example

```
{
"Response": {
"Vin": "LBV2B25G2E5069977",
"RequestId": "c59d9002-6c8c-426d-b57f-a8837dee2c7c"
}
}
```

5. Developer Resources

SDK

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- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourceUnavailable.InArrears	
ResourceUnavailable.ResourcePackageRunOut	
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

Smart Structured Information OCR APIs SmartStructuralOCRV2

最近更新时间：2024-03-07 18:42:41

1. API Description

Domain name for API request: ocr.tencentcloudapi.com.

This API is used to recognize fields from cards, documents, bills, forms, contracts, and other structured information. It is flexible and efficient to use, without any configuration required. This API is suitable for recognizing structured information.

A maximum of 10 requests can be initiated per second for this API.

We recommend you to use API Explorer

Try it

API Explorer provides a range of capabilities, including online call, signature authentication, SDK code generation, and API quick search. It enables you to view the request, response, and auto-generated examples.

2. Input Parameters

The following request parameter list only provides API request parameters and some common parameters. For the complete common parameter list, see Common Request Parameters.

Parameter Name	Required	Type	Description
Action	Yes	String	Common Params. The value used for this API: SmartStructuralOCRV2.
Version	Yes	String	Common Params. The value used for this API: 2018-11-19.
Region	No	String	Common Params. This parameter is not required for this API.
ImageUrl	No	String	The URL of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s.

			We recommend that you store the image in Tencent Cloud for higher download speed and stability. The download speed and stability of non-Tencent Cloud URLs may be low.
ImageBase64	No	String	The Base64-encoded value of the image. Supported image formats: PNG, JPG, and JPEG. GIF is currently not supported. Supported image size: The downloaded image after Base64 encoding can be up to 7 MB. The download time of the image cannot exceed 3s. Either `ImageUrl` or `ImageBase64` of the image must be provided. If both are provided, only `ImageUrl` is used.
IsPdf	No	Boolean	Whether to enable PDF recognition. Default value: `false`. If you enable this feature, both images and PDF files can be recognized.
PdfPageNumber	No	Integer	The number of the PDF page that needs to be recognized. Only one single PDF page can be recognized. This parameter is valid if the uploaded file is a PDF and the value of `IsPdf` is `true`. Default value: `1`.
ItemNames.N	No	Array of String	The names of the fields you want to return for the structured information recognition. For example, if you want to return only the recognition result of the "Name" and "Gender" fields, set this parameter as follows: ItemNames=["Name","Gender"]
ReturnFullText	No	Boolean	Whether to enable recognition of all fields.

3. Output Parameters

Parameter Name	Type	Description
Angle	Float	The rotation angle (degrees) of the text on the image. 0: The text is horizontal. Positive value: The text is rotated clockwise. Negative value: The text is rotated counterclockwise.
StructuralList	Array of GroupInfo	The structural information (key-value).
WordList	Array of	The recognized text information.

	WordItem	
RequestId	String	The unique request ID, generated by the server, will be returned for every request (if the request fails to reach the server for other reasons, the request will not obtain a RequestId). RequestId is required for locating a problem.

4. Example

Example1 Recognizing structured information

This example shows you how to use the new API for smart structured information OCR.

Input Example

```
POST / HTTP/1.1
Host: ocr.tencentcloudapi.com
Content-Type: application/json
X-TC-Action: SmartStructuralOCRV2
<Common request parameters>

{
"ImageUrl": "https://ocr-demo-1254418846.cos.ap-guangzhou.myqcloud.com/document/SmartStructuralOCR/SmartStructuralOCRV2.jpg"
}
```

Output Example

```
{
"Response": {
"Angle": 0,
"StructuralList": [
{
"Groups": [
{
"Lines": [
{
"Key": {
"AutoName": "abc"
},
"Value": {
"AutoContent": "abc",
"Coord": {
"LeftTop": {
"X": 0,
```

```
"Y": 0
},
"RightTop": {
"X": 0,
"Y": 0
},
"RightBottom": {
"X": 0,
"Y": 0
}
}
}
}
]
}
]
}
],
"WordList": [
{
"DetectedText": "abc",
"Coord": {}
}
],
"RequestId": "abc"
}
}
```


5. Developer Resources

SDK

TencentCloud API 3.0 integrates SDKs that support various programming languages to make it easier for you to call APIs.

- Tencent Cloud SDK 3.0 for Python
- Tencent Cloud SDK 3.0 for Java
- Tencent Cloud SDK 3.0 for PHP
- Tencent Cloud SDK 3.0 for Go
- Tencent Cloud SDK 3.0 for Node.js
- Tencent Cloud SDK 3.0 for .NET
- Tencent Cloud SDK 3.0 for C++

Command Line Interface

- Tencent Cloud CLI 3.0

6. Error Code

The following only lists the error codes related to the API business logic. For other error codes, see Common Error Codes.

Error Code	Description
FailedOperation.DownLoadError	File download failed.
FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourceUnavailable.InArrears	
ResourceUnavailable.ResourcePackageRunOut	
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.

Data Types

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AirTransport

Itinerary/Receipt of e-ticket for air transportation

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Number	String	E-ticket No.
CheckCode	String	Check code
SerialNumber	String	Serial number
Date	String	Date of issue
AgentCode	String	Agent code
AgentCodeFirst	String	First line of the agent code
AgentCodeSecond	String	Second line of the agent code
UserName	String	Name
UserID	String	ID card number
Issuer	String	Issuer
Fare	String	Fare
Tax	String	Tax
FuelSurcharge	String	Fuel surcharge
AirDevelopmentFund	String	Aviation Development Fund
Insurance	String	Insurance
Total	String	Total amount (in figures)
Kind	String	Invoice type

DomesticInternationalTag	String	Domestic or international tag
DateStart	String	Not-valid-before date
DateEnd	String	Not-valid-after date
Endorsement	String	Endorsements/Restrictions
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
FlightItems	Array of FlightItem	Items

BusInvoice

Bus ticket

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
Number	String	Invoice number
Code	String	Invoice code
Date	String	Date of issue
TimeGetOn	String	Departure time
DateGetOn	String	Departure date
StationGetOn	String	Departure station
StationGetOff	String	Destination
Total	String	Fare
UserName	String	Name
Kind	String	Consumption type
UserID	String	ID card number
Province	String	Province

City	String	City
PlaceGetOn	String	Departure place
GateNumber	String	Check-in gate
TicketType	String	Fare category
VehicleType	String	Vehicle type
SeatNumber	String	Seat No.
TrainNumber	String	Fleet number

Coord

Coordinates

Used by actions: GeneralAccurateOCR, GeneralBasicOCR, RecognizeGeneralInvoice, RecognizePhilippinesDrivingLicenseOCR, RecognizePhilippinesSssIDOCR, RecognizePhilippinesTinIDOCR, RecognizePhilippinesUMIDOCR, RecognizePhilippinesVoteIDOCR, RecognizeTableAccurateOCR, SmartStructuralOCRV2, TableOCR.

Name	Type	Description
X	Integer	Horizontal coordinate
Y	Integer	Vertical coordinate

DetectedWordCoordPoint

Coordinates of a word's four corners in a clockwise order on the input image, starting from the upper-left corner

Used by actions: GeneralAccurateOCR, GeneralBasicOCR.

Name	Type	Description
WordCoordinate	Array of Coord	Coordinates of a word's four corners in a clockwise order on the input image, starting from the upper-left corner

DetectedWords

Information about a character detected, including the character itself and its confidence

Used by actions: GeneralAccurateOCR, GeneralBasicOCR.

Name	Type	Description
Confidence	Integer	Confidence. Value range: 0–100
Character	String	A possible character

FlightItem

Flight items

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
TerminalGetOn	String	Departure terminal
TerminalGetOff	String	Arrival terminal
Carrier	String	Carrier
FlightNumber	String	Flight number
Seat	String	Class
DateGetOn	String	Departure date
TimeGetOn	String	Departure time
StationGetOn	String	Departure city
StationGetOff	String	Arrival city
Allow	String	Baggage allowance
FareBasis	String	Fare category

GeneralMachineItem

Items of a general machine-printed invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Name	String	Item name
Specification	String	Specification
Unit	String	Unit
Quantity	String	Quantity
Price	String	Unit price
Total	String	Amount
TaxRate	String	Tax rate
Tax	String	Tax amount

GroupInfo

The sequence number of an element group in the image

Used by actions: SmartStructuralOCRV2.

Name	Type	Description
Groups	Array of LineInfo	The elements in each line.

InvoiceItem

Recognition information of a single invoice/ticket among multiple types of invoices/tickets

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Code	String	The recognition result. `OK` : Recognition is successful. `FailedOperation.UnsupportedInvoice` : Recognition is not supported. `FailedOperation.UnKnowError` : Recognition failed. For the information about other error codes, see the OCR API description for each invoice/ticket.

Type	Integer	The type of invoice/ticket to which the recognized image belongs. -1: Unknown 0: Taxi receipt 1: Quota invoice 2: Train ticket 3: VAT invoice 5: Itinerary/Receipt of e-ticket for air transportation 8: General machine-printed invoice 9: Bus ticket 10: Ship ticket 11: VAT invoice (roll) 12: Car sales invoice 13: Toll receipt 15: Non-tax revenue invoice 16: Fully digitalized electronic invoice
Polygon	Polygon	The coordinates of the four vertices of the rotated image.
Angle	Float	The rotation angle of the recognized image in the image with multiple types of invoices/tickets.
SingleInvoiceInfos	SingleInvoiceItem	The recognized content.
Page	Integer	The number of the page on which the recognized invoice is in the image or PDF file, starting from 1 by default.
SubType	String	The detailed invoice type. See the description of `SubType`.
TypeDescription	String	The invoice description. See the description of `TypeDescription`.
CutImage	String	The image file after cropping, encoded in Base64. This is returned if `EnableCutImage` is set to `true`.
SubTypeDescription	String	The description of the detailed invoice type. See the description of `SubType`.

ItemCoord

Pixel coordinates of the text line in the image after rotation correction, which is in the format of `(X-coordinate of top-left point, Y-coordinate of top-left point, width, height)`.

Used by actions: GeneralAccurateOCR, GeneralBasicOCR.

Name	Type	Description

X	Integer	X-coordinate of top-left point.
Y	Integer	Y-coordinate of top-left point.
Width	Integer	Width
Height	Integer	Height

ItemInfo

Structured element group

Used by actions: SmartStructuralOCRV2.

Name	Type	Description
Key	Key	The key information. Note: This field may return null, indicating that no valid values can be obtained.
Value	Value	The value information. Note: This field may return null, indicating that no valid values can be obtained.

Key

Key information

Used by actions: SmartStructuralOCRV2.

Name	Type	Description
AutoName	String	The name of the recognized field.
ConfigName	String	The name of a defined field (the key passed in). Note: This field may return null, indicating that no valid values can be obtained.

LicensePlateInfo

Vehicle license plate information

Used by actions: LicensePlateOCR.

Name	Type	Description
Number	String	The recognized license plate number.
Confidence	Integer	The confidence score (0–100).
Rect	Rect	The bounding box coordinates of the text line in the original image.
Color	String	The recognized license plate color, which currently includes "white", "black", "blue", "green", "yellow", "yellow-green", and "temporary plate".

LineInfo

Line number

Used by actions: SmartStructuralOCRV2.

Name	Type	Description
Lines	Array of ItemInfo	The elements in a line

MachinePrintedInvoice

General machine-printed invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
Code	String	Invoice code
Number	String	Invoice number
Date	String	Date of issue
Time	String	Time
CheckCode	String	Check code
Ciphertext	String	Ciphertext

Category	String	Category
PretaxAmount	String	Amount before tax
Total	String	Total amount (in figures)
TotalCn	String	Total amount (in words)
Tax	String	Tax
IndustryClass	String	Industry
Seller	String	Seller's name
SellerTaxID	String	Seller's taxpayer identification number
SellerAddrTel	String	Seller's address and phone number
SellerBankAccount	String	Seller's bank account number
Buyer	String	Buyer's name
BuyerTaxID	String	Buyer's taxpayer identification number
BuyerAddrTel	String	Buyer's address and phone number
BuyerBankAccount	String	Buyer's bank account number
Kind	String	Invoice type
Province	String	Province
City	String	City
CompanySealMark	Integer	Whether there is a company seal (0: No, 1: Yes)
ElectronicMark	Integer	Whether it is a general machine-printed invoice issued by Zhejiang or Guangdong province (0: No, 1: Yes)
Issuer	String	Issuer
Receiptor	String	Payee
Reviewer	String	Reviewer
Remark	String	Remarks
PaymentInfo	String	Operator's payment information
TicketPickupUser	String	Operator-assigned invoice pickup user

MerchantNumber	String	Operator's merchant number
OrderNumber	String	Operator's order number
GeneralMachineItems	Array of GeneralMachineItem	Items

MedicalInvoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	
Code	String	
Number	String	
Total	String	
TotalCn	String	
Date	String	
CheckCode	String	
Place	String	
Reviewer	String	

MotorVehicleSaleInvoice

Motor vehicle sales invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Code	String	Invoice code
Number	String	Invoice number

Date	String	Date of issue
PretaxAmount	String	Amount before tax
Total	String	Total amount (in figures)
TotalCn	String	Total amount (in words)
Seller	String	Seller's name
SellerTaxID	String	Seller's company code
SellerTel	String	Seller's phone number
SellerAddress	String	Seller's address
SellerBank	String	Seller's account opening bank
SellerBankAccount	String	Seller's bank account number
Buyer	String	Buyer's name
BuyerTaxID	String	Buyer's taxpayer identification number
BuyerID	String	Buyer's ID number/organization code
TaxAuthorities	String	Tax authority
TaxAuthoritiesCode	String	Code of the tax authority
VIN	String	VIN
VehicleModel	String	Vehicle model
VehicleEngineCode	String	Engine No.
CertificateNumber	String	No. of the certificate of conformity
InspectionNumber	String	Inspection No.
MachineID	String	Machine No.
VehicleType	String	Vehicle type
Kind	String	Invoice type
Province	String	Province
City	String	City

Tax	String	Tax
TaxRate	String	Tax rate
CompanySealMark	Integer	Whether there is a company seal (0: No, 1: Yes)
Tonnage	String	Tonnage
Remark	String	Remarks
FormType	String	Form type
FormName	String	Form name
Issuer	String	Issuer
TaxNum	String	Tax payment voucher number
MaxPeopleNum	String	Passenger capacity
Origin	String	Origin
MachineCode	String	Machine-printed invoice code
MachineNumber	String	Machine-printed invoice number
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)

NonTaxIncomeBill

Non-tax revenue

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Number	String	Invoice number
Code	String	Invoice code
CheckCode	String	Check code
Date	String	Date of issue
Total	String	Total amount (in figures)

TotalCn	String	Total amount (in words)
Buyer	String	Payer's name
BuyerTaxID	String	Payer's taxpayer identification number
Seller	String	Payee's name
SellerCompany	String	Payee's company name
Remark	String	Remarks
CurrencyCode	String	Currency
Reviewer	String	Reviewer
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
OtherInfo	String	Other information
PaymentCode	String	Payment code
ReceiveUnitCode	String	Collecting organization's code
Receiver	String	Collecting organization's name
Operator	String	Operator
PayerAccount	String	Payer's account
PayerBank	String	Payer's account opening bank
ReceiverAccount	String	Payee's account
ReceiverBank	String	Payee's account opening bank
NonTaxItems	Array of NonTaxItem	Items

NonTaxItem

Non-tax revenue items

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
ItemID	String	Item code

Name	String	Item name
Unit	String	Unit
Quantity	String	Quantity
Standard	String	Standard
Total	String	Amount

OtherInvoice

Other invoices

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Total	String	Amount
OtherInvoiceListItems	Array of OtherInvoiceItem	List
OtherInvoiceTableItems	Array of OtherInvoiceList	Table

OtherInvoiceItem

Items of other invoices

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Name	String	Field name
Value	String	Field value

OtherInvoiceList

Table of other invoices

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
OtherInvoiceItemList	Array of OtherInvoiceItem	List

PassportRecognizeInfos

Used by actions: MLIDPassportOCR.

Name	Type	Description
Type	String	
IssuingCountry	String	
PassportID	String	
Surname	String	
GivenName	String	
Name	String	
Nationality	String	
DateOfBirth	String	
Sex	String	
DateOfIssuance	String	
DateOfExpiration	String	
Signature	String	
IssuePlace	String	
IssuingAuthority	String	

Polygon

The coordinates of the four vertices of the text

Note: This field may return null, indicating that no valid values can be obtained.

Used by actions: RecognizeGeneralInvoice, SmartStructuralOCRV2.

Name	Type	Description
LeftTop	Coord	The coordinates of the upper-left vertex.
RightTop	Coord	The coordinates of the upper-right vertex.
RightBottom	Coord	The coordinates of the lower-left vertex.
LeftBottom	Coord	The coordinates of the lower-right vertex.

QuotaInvoice

Quota invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Code	String	Invoice code
Number	String	Invoice number
Total	String	Total amount (in figures)
TotalCn	String	Total amount (in words)
Kind	String	Invoice type
Province	String	Province
City	String	City
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
CompanySealMark	Integer	Whether there is a company seal (0: No, 1: Yes)

Rect

Coordinates

Used by actions: LicensePlateOCR, SealOCR.

Name	Type	Description
X	Integer	X-coordinate of top-left point
Y	Integer	Y-coordinate of top-left point
Width	Integer	Width
Height	Integer	Height

SealInfo

Seal information

Used by actions: SealOCR.

Name	Type	Description
SealBody	String	Seal body information
Location	Rect	Seal coordinates
OtherTexts	Array of String	Other text content
SealShape	String	Seal shape. Valid values: 0: Round 1: Oval 2: Rectangle 3: Diamond 4: Triangle

ShippingInvoice

Ship ticket

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)

Code	String	Invoice code
Number	String	Invoice number
UserName	String	Name
Date	String	Date
Time	String	Time
StationGetOn	String	Departure station
StationGetOff	String	Destination
Total	String	Fare
Kind	String	Invoice type
Province	String	Province
City	String	City
CurrencyCode	String	Currency

SingleInvoiceItem

Content of a single invoice/ticket among multiple types of invoices/tickets

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
VatSpecialInvoice	VatInvoiceInfo	Special VAT invoice Note: This field may return null, indicating that no valid values can be obtained.
VatCommonInvoice	VatInvoiceInfo	General VAT invoice Note: This field may return null, indicating that no valid values can be obtained.
VatElectronicCommonInvoice	VatInvoiceInfo	Electronic general VAT invoice Note: This field may return null, indicating that no valid values can be obtained.
VatElectronicSpecialInvoice	VatInvoiceInfo	Electronic special VAT invoice Note: This field may return null, indicating that

		no valid values can be obtained.
VatElectronicInvoiceBlockchain	VatInvoiceInfo	Blockchain electronic invoice Note: This field may return null, indicating that no valid values can be obtained.
VatElectronicInvoiceToll	VatInvoiceInfo	Electronic general VAT invoice (toll) Note: This field may return null, indicating that no valid values can be obtained.
VatElectronicSpecialInvoiceFull	VatElectronicInfo	Electronic invoice (special) Note: This field may return null, indicating that no valid values can be obtained.
VatElectronicInvoiceFull	VatElectronicInfo	Electronic invoice (general) Note: This field may return null, indicating that no valid values can be obtained.
MachinePrintedInvoice	MachinePrintedInvoice	General machine-printed invoice Note: This field may return null, indicating that no valid values can be obtained.
BusInvoice	BusInvoice	Bus ticket Note: This field may return null, indicating that no valid values can be obtained.
ShippingInvoice	ShippingInvoice	Ship ticket Note: This field may return null, indicating that no valid values can be obtained.
TollInvoice	TollInvoice	Toll receipt Note: This field may return null, indicating that no valid values can be obtained.
OtherInvoice	OtherInvoice	Other invoice Note: This field may return null, indicating that no valid values can be obtained.
MotorVehicleSaleInvoice	MotorVehicleSaleInvoice	Motor vehicle sales invoice Note: This field may return null, indicating that no valid values can be obtained.
UsedCarPurchaseInvoice	UsedCarPurchaseInvoice	Used car invoice Note: This field may return null, indicating that no valid values can be obtained.
VatInvoiceRoll	VatInvoiceRoll	General VAT invoice (roll) Note: This field may return null, indicating that

		no valid values can be obtained.
TaxiTicket	TaxiTicket	Taxi receipt Note: This field may return null, indicating that no valid values can be obtained.
QuotaInvoice	QuotaInvoice	Quota invoice Note: This field may return null, indicating that no valid values can be obtained.
AirTransport	AirTransport	Itinerary/Receipt of e-ticket for air transportation Note: This field may return null, indicating that no valid values can be obtained.
NonTaxIncomeGeneralBill	NonTaxIncomeBill	Non-tax revenue general receipt Note: This field may return null, indicating that no valid values can be obtained.
NonTaxIncomeElectronicBill	NonTaxIncomeBill	Non-tax revenue unified payment voucher Note: This field may return null, indicating that no valid values can be obtained.
TrainTicket	TrainTicket	Train ticket Note: This field may return null, indicating that no valid values can be obtained.
MedicalOutpatientInvoice	MedicalInvoice	
MedicalHospitalizedInvoice	MedicalInvoice	

TableCellInfo

Cell data

Used by actions: RecognizeTableAccurateOCR.

Name	Type	Description
ColTl	Integer	Column index of the upper-left corner of the cell
RowTl	Integer	Row index of the upper-left corner of the cell
ColBr	Integer	Column index of the lower-right corner of the cell
RowBr	Integer	Row index of the lower-right corner of the cell

Text	String	Recognized string text within the cell. If there are multiple lines, they are separated by "\n".
Type	String	Cell type
Confidence	Float	Cell confidence
Polygon	Array of Coord	Four-point coordinates of the cell in the image

TableInfo

Recognized table information

Used by actions: RecognizeTableAccurateOCR.

Name	Type	Description
Cells	Array of TableCellInfo	Cell content Note: This parameter may return null, indicating that no valid values can be obtained.
Type	Integer	Type of text in the image. Valid values: 0: Non-table text 1: Text in a bordered table 2: Text in a borderless table Note: This parameter may return null, indicating that no valid values can be obtained.
TableCoordPoint	Array of Coord	The coordinates of the four vertices (upper-left, upper-right, lower-right, and lower-left) of the table body. Note: This field may return null, indicating that no valid values can be obtained.

TaxiTicket

Taxi receipt

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title

QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
Code	String	Invoice code
Number	String	Invoice number
Date	String	Date of issue
TimeGetOn	String	Start time
TimeGetOff	String	End time
Price	String	Unit price
Mileage	String	Distance
Total	String	Total amount
Place	String	Invoice place
Province	String	Province
City	String	City
Kind	String	Invoice type
LicensePlate	String	License plate number
FuelFee	String	Fuel surcharge
BookingCallFee	String	Booking fee
CompanySealMark	Integer	Whether there is a company seal (0: No, 1: Yes)

TextDetection

OCR result.

Used by actions: GeneralAccurateOCR, GeneralBasicOCR.

Name	Type	Description
DetectedText	String	Recognized text line content.
Confidence	Integer	Confidence. Value range: 0–100.
Polygon	Array of Coord	Text line coordinates, which are represented as 4 vertex

		coordinates. Note: this field may return null, indicating that no valid values can be obtained.
AdvancedInfo	String	Extended field. The paragraph information `Parag` returned by the `GeneralBasicOcr` API contains `ParagNo`.
ItemPolygon	ItemCoord	Pixel coordinates of the text line in the image after rotation correction, which is in the format of `(X-coordinate of top-left point, Y-coordinate of top-left point, width, height)`.
Words	Array of DetectedWords	Information about a character, including the character itself and its confidence. Supported APIs: `GeneralBasicOCR`, `GeneralAccurateOCR`
WordCoordPoint	Array of DetectedWordCoordPoint	Coordinates of a word's four corners on the input image. Supported APIs: `GeneralBasicOCR`, `GeneralAccurateOCR`

TextDetectionResult

Recognition result

Used by actions: RecognizePhilippinesDrivingLicenseOCR, RecognizePhilippinesSssIDOCR, RecognizePhilippinesTinIDOCR, RecognizePhilippinesUMIDOCR, RecognizePhilippinesVoteIDOCR.

Name	Type	Description
Value	String	The recognized text line content.
Polygon	Array of Coord	The coordinates, represented in the coordinates of the four points.

TextTable

Form recognition result.

Used by actions: TableOCR.

Name	Type	Description
ColTl	Integer	Column index of the top-left corner of the cell.

RowTl	Integer	Row index of the top-left corner of the cell.
ColBr	Integer	Column index of the bottom-right corner of the cell.
RowBr	Integer	Row index of the bottom-right corner of the cell.
Text	String	Cell text
Type	String	Cell type. Valid values: body, header, footer
Confidence	Integer	Confidence. Value range: 0–100
Polygon	Array of Coord	Text line coordinates, which are represented as 4 vertex coordinates.
AdvancedInfo	String	Extended field

TollInvoice

Toll receipt

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Code	String	Invoice code
Number	String	Invoice number
Total	String	Total amount (in figures)
Kind	String	Invoice type
Date	String	Date
Time	String	Time
Entrance	String	Entrance
Exit	String	Exit
HighwayMark	Integer	Highway mark (0: No, 1: Yes)
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)

TrainTicket

Train ticket

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Number	String	Invoice number
DateGetOn	String	Departure date
TimeGetOn	String	Departure time
Name	String	Passenger's name
StationGetOn	String	Departure station
StationGetOff	String	Destination
Seat	String	Seat class
Total	String	Total amount
Kind	String	Invoice type
SerialNumber	String	Serial number
UserID	String	ID card number
GateNumber	String	Check-in gate
TrainNumber	String	Fleet number
HandlingFee	String	Handling fee
OriginalFare	String	Original ticket price
TotalCn	String	Total amount (in words)
SeatNumber	String	Seat No.
PickUpAddress	String	Ticket pickup address
TicketChange	String	Ticket change information
AdditionalFare	String	Additional fare

ReceiptNumber	String	Receipt No.
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
ReimburseOnlyMark	Integer	Whether it is for reimbursement only (0: No, 1: Yes)

UsedCarPurchaseInvoice

Used car sales invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
Code	String	Invoice code
Number	String	Invoice number
Date	String	Date of issue
Total	String	Total amount (in figures)
TotalCn	String	Total amount (in words)
Seller	String	Seller's name
SellerTel	String	Seller's phone number
SellerTaxID	String	Seller's company code/personal ID card number
SellerAddress	String	Seller's address
Buyer	String	Buyer's name
BuyerID	String	Buyer's company code/personal ID card number
BuyerAddress	String	Buyer's address
BuyerTel	String	Buyer's phone number
CompanyName	String	Company (used car market) name
CompanyTaxID	String	Company's taxpayer identification number

CompanyBankAccount	String	Company's account opening bank and account number
CompanyTel	String	Company's phone number
CompanyAddress	String	Company's address
TransferAdministrationName	String	Name of the transfer-to department of motor vehicles
LicensePlate	String	License plate number
RegistrationNumber	String	Registration certificate No.
VIN	String	VIN
VehicleModel	String	Vehicle model
Kind	String	Invoice type
Province	String	Province
City	String	City
VehicleType	String	Vehicle type
Remark	String	Remarks
FormType	String	Form type
FormName	String	Form name
CompanySealMark	Integer	Whether there is a company seal (0: No, 1: Yes)

Value

Value information

Used by actions: SmartStructuralOCRV2.

Name	Type	Description
AutoContent	String	The value of the recognized field.
Coord	Polygon	The coordinates of the four vertices. Note: This field may return null, indicating that no valid values can be obtained.

VatElectronicInfo

Return values for an electronic invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Number	String	Invoice number
Date	String	Date of issue
PretaxAmount	String	Amount before tax
Tax	String	Tax
Total	String	Total amount (in figures)
TotalCn	String	Total amount (in words)
Seller	String	Seller's name
SellerTaxID	String	Seller's taxpayer identification number
Buyer	String	Buyer's name
BuyerTaxID	String	Buyer's taxpayer identification number
Issuer	String	Issuer
Remark	String	Remarks
SubTotal	String	Subtotal amount
SubTax	String	Subtotal tax
VatElectronicItems	Array of VatElectronicItemInfo	Detailed items of an electronic invoice

VatElectronicItemInfo

Detailed items of an electronic invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Name	String	Item name
Quantity	String	Quantity
Specification	String	Specification
Price	String	Unit price
Total	String	Amount
TaxRate	String	Tax rate
Tax	String	Tax amount
Unit	String	Unit
VehicleType	String	Vehicle type
VehicleBrand	String	Vehicle No.
DeparturePlace	String	Departure place
ArrivalPlace	String	Destination
TransportItemsName	String	Name of the transported goods. It is returned only for a goods transport service invoice.
PlaceOfBuildingService	String	Location of the construction service. It is returned only for a construction invoice.
BuildingName	String	Name of the construction project. It is returned only for a construction invoice.
EstateNumber	String	Property or real estate ownership certificate No. It is returned only for a real estate operation and leasing service invoice.
AreaUnit	String	Unit of area. It is returned only for a real estate operation and leasing service invoice.

VatInvoiceInfo

Return values for a VAT invoice

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
CheckCode	String	Check code
FormType	String	Form type
TravelTax	String	Vehicle and vessel tax
BuyerAddrTel	String	Buyer's address and phone number
BuyerBankAccount	String	Buyer's bank account number
CompanySealContent	String	Company seal content
TaxSealContent	String	Tax authority seal content
ServiceName	String	Service type
City	String	City
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
AgentMark	Integer	Whether there is an agent (0: No, 1: Yes)
TransitMark	Integer	Whether there is a toll (0: No, 1: Yes)
OilMark	Integer	Whether there is refined oil (0: No, 1: Yes)
Title	String	Invoice title
Kind	String	Invoice type
Code	String	Invoice code
Number	String	Invoice number
NumberConfirm	String	Machine-printed invoice number
Date	String	Date of issue
Total	String	Total amount (in figures)
TotalCn	String	Total amount (in words)
PretaxAmount	String	Amount before tax
Tax	String	Tax
MachineCode	String	Machine No.

Ciphertext	String	Ciphertext
Remark	String	Remarks
Seller	String	Seller's name
SellerTaxID	String	Seller's taxpayer identification number
SellerAddrTel	String	Seller's address and phone number
SellerBankAccount	String	Seller's bank account number
Buyer	String	Buyer's name
BuyerTaxID	String	Buyer's taxpayer identification number
CompanySealMark	Integer	Whether there is a company seal (0: No, 1: Yes)
Issuer	String	Issuer
Reviewer	String	Reviewer
Province	String	Province
VatInvoiceItemInfos	Array of VatInvoiceItemInfo	Information about VAT invoice items
CodeConfirm	String	Machine-printed invoice code
Receiptor	String	Payee
ElectronicFullMark	Integer	
ElectronicFullNumber	String	
FormName	String	

VatInvoiceItemInfo

Information about VAT invoice items

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Name	String	Item name
Specification	String	Specification

Unit	String	Unit
Quantity	String	Quantity
Price	String	Unit price
Total	String	Amount
TaxRate	String	Tax rate
Tax	String	Tax amount
DateStart	String	Start date
DateEnd	String	End date
LicensePlate	String	License plate number
VehicleType	String	Vehicle type

VatInvoiceRoll

General VAT invoice (roll)

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Title	String	Invoice title
Code	String	Invoice code
Number	String	Invoice number
NumberConfirm	String	Machine-printed invoice number
Date	String	Date of issue
CheckCode	String	Check code
Seller	String	Seller's name
SellerTaxID	String	Seller's taxpayer identification number
Buyer	String	Buyer's name
BuyerTaxID	String	Buyer's taxpayer identification number

Category	String	Category
Total	String	Total amount (in figures)
TotalCn	String	Total amount (in words)
Kind	String	Invoice type
Province	String	Province
City	String	City
CompanySealMark	Integer	Whether there is a company seal (0: No, 1: Yes)
QRCodeMark	Integer	Whether there is a QR code (0: No, 1: Yes)
ServiceName	String	Service type
CompanySealContent	String	Company seal content
TaxSealContent	String	Tax authority seal content
VatRollItems	Array of VatRollItem	Items

VatRollItem

Items of a general VAT invoice (roll)

Used by actions: RecognizeGeneralInvoice.

Name	Type	Description
Name	String	Item name
Quantity	String	Quantity
Price	String	Unit price
Total	String	Amount

WordItem

The recognized text information.

Used by actions: SmartStructuralOCRV2.

Name	Type	Description
DetectedText	String	The text content.
Coord	Polygon	The coordinates of the four vertices.

Error Codes

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Feature Description

If there is an Error field in the response, it means that the API call failed. For example:

```
{
"Response": {
"Error": {
"Code": "AuthFailure.SignatureFailure",
"Message": "The provided credentials could not be validated. Please check your signature is correct."
},
"RequestId": "ed93f3cb-f35e-473f-b9f3-0d451b8b79c6"
}
}
```

Code in Error indicates the error code, and Message indicates the specific information of the error.

Error Code List

Common Error Codes

Error Code	Description
ActionOffline	This API has been deprecated.
AuthFailure.InvalidAuthorization	`Authorization` in the request header is invalid.
AuthFailure.InvalidSecretId	Invalid key (not a TencentCloud API key type).
AuthFailure.MFAFailure	MFA failed.
AuthFailure.SecretIdNotFound	Key does not exist. Check if the key has been deleted or disabled in the console, and if not, check if the key is correctly entered. Note that whitespaces should not exist before or after the key.
AuthFailure.SignatureExpire	Signature expired. Timestamp and server time cannot differ by more than five minutes. Please

	ensure your current local time matches the standard time.
AuthFailure.SignatureFailure	Invalid signature. Signature calculation error. Please ensure you've followed the signature calculation process described in the Signature API documentation.
AuthFailure.TokenFailure	Token error.
AuthFailure.UnauthorizedOperation	The request is not authorized. For more information, see the CAM documentation.
DryRunOperation	DryRun Operation. It means that the request would have succeeded, but the DryRun parameter was used.
FailedOperation	Operation failed.
InternalError	Internal error.
InvalidAction	The API does not exist.
InvalidParameter	Incorrect parameter.
InvalidParameterValue	Invalid parameter value.
InvalidRequest	The multipart format of the request body is incorrect.
IpInBlacklist	Your IP is in uin IP blacklist.
IpNotInWhitelist	Your IP is not in uin IP whitelist.
LimitExceeded	Quota limit exceeded.
MissingParameter	A parameter is missing.
NoSuchProduct	The product does not exist.
NoSuchVersion	The API version does not exist.
RequestLimitExceeded	The number of requests exceeds the frequency limit.
RequestLimitExceeded.GlobalRegionUinLimitExceeded	Uin exceeds the frequency limit.
RequestLimitExceeded.IPLimitExceeded	The number of ip requests exceeds the frequency limit.
RequestLimitExceeded.UinLimitExceeded	The number of uin requests exceeds the frequency

	limit.
RequestSizeLimitExceeded	The request size exceeds the upper limit.
ResourceInUse	Resource is in use.
ResourceInsufficient	Insufficient resource.
ResourceNotFound	The resource does not exist.
ResourceUnavailable	Resource is unavailable.
ResponseSizeLimitExceeded	The response size exceeds the upper limit.
ServiceUnavailable	Service is unavailable now.
UnauthorizedOperation	Unauthorized operation.
UnknownParameter	Unknown parameter.
UnsupportedOperation	Unsupported operation.
UnsupportedProtocol	HTTP(S) request protocol error; only GET and POST requests are supported.
UnsupportedRegion	API does not support the requested region.

Service Error Codes

Error Code	Description
FailedOperation.CardSideError	The CardSide type of the ID card is incorrect.
FailedOperation.DownLoadError	File download failed.
FailedOperation.EmptyImageError	The image is empty.
FailedOperation.EngineRecognizeTimeout	Recognition by the engine timed out.
FailedOperation.IdCardInfoIllegal	The ID card information (ID number, name, etc.) is invalid.
FailedOperation.IdCardTooSmall	The resolution of the image is too low or the proportion of the ID card in the image is too small.
FailedOperation.IllegalBankCardError	Invalid bank card information.
FailedOperation.ImageBlur	The image is blurry.

FailedOperation.ImageDecodeFailed	Image decoding failed.
FailedOperation.ImageNoIdCard	No ID card is detected in the image.
FailedOperation.ImageNoSpecifiedCard	The card in the image is not of the specified type.
FailedOperation.ImageNoText	No text is detected in the image.
FailedOperation.ImageSizeTooLarge	The image is too large. Please see the description of image size limit in the output parameters.
FailedOperation.LanguageNotSupport	The input language is not supported.
FailedOperation.MultiCardError	There are multiple cards in the photo.
FailedOperation.NoBankCardError	No bank card found.
FailedOperation.NoHKIDCard	Not a Hong Kong identity card.
FailedOperation.NoMASIDCard	Non-Malaysian ID cards.
FailedOperation.NoPassport	Not a passport.
FailedOperation.OcrFailed	OCR failed.
FailedOperation.UnKnowError	Unknown error.
FailedOperation.UnOpenError	The service is not activated.
FailedOperation.WarningServiceFailed	
InvalidParameter.ConfigFormatError	Config is not in valid JSON format.
InvalidParameter.EngineImageDecodeFailed	Image decoding failed.
InvalidParameterValue.InvalidParameterValueLimit	Incorrect parameter value.
LimitExceeded.TooLargeFileError	The file is too large.
ResourceUnavailable.InArrears	The account is in arrears.
ResourceUnavailable.ResourcePackageRunOut	The account resource package is exhausted.
ResourcesSoldOut.ChargeStatusException	Exceptional billing status.