Optical Character Recognition Service

SDK Reference

 Issue
 01

 Date
 2024-09-04





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OCR SDK Overview

SDK Introduction

Optical Character Recognition (OCR) detects and extracts text from images or scanned copies and converts the text into an editable format, freeing you from burdensome manual input while improving the efficiency of your business.

OCR provides services through open APIs. You can obtain inference results by accessing and calling APIs in real time, significantly improving the efficiency of your business.

OCR SDK encapsulates RESTful APIs provided by OCR to simplify development. You can directly call API functions provided by OCR SDKs to use OCR.

The developer guides for SDKs in various programming languages are as follows:

Programming Language	Developer Guide
Java	Java SDK Developer Guide
Python	Python SDK Developer Guide
Node.js	Node.js SDK Developer Guide
РНР	PHP SDK Developer Guide
C++	C++ SDK Developer Guide
Go	Go SDK Developer Guide
NET	NET SDK Developer Guide

 Table 1-1 Developer guides for SDKs in various programming languages

Automatic Generation of Sample SDK Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code. In addition, you can build, debug, and run code in CloudIDE.



HUAWEI CLOUD				Selarch Q, Billing Resource Service Enterprise Support English 💟
API Explorer	Optical Character Recognition	•	RecognizePassport ③	Documentation Debugging Result Sample Code CLI Example Mock Data
Overview	Details		POST https://ocr.ap-southeast-1.myhuaweicloud.c	Using the sample code in IDE requires SDK dependencies. To learn how to add dependencies, click 'View SDK Details'.
Debugging History	Enter an API keyword.	Q	Advanced A Default > Debug	(Java Prime Go NET Note)'s PHP C++ Blink) (7) (* Duere AK (2) Vew SDK Details
	Web Image OCR	*		
AI Products	Passport OCR	-	Required parameters only	Huawei Cloud SDK http:client Requests
My Products	RecognizePassport			1 # coding: utf-8
ServiceStage	Thailand ID Card OCR		• Region ③	From huaweicloudsdkcore.auth.credentials import BasicCredentials
Optical Character Recognition	Myanmar ID Card OCR	÷	ap-southeast-1 •	4 from huawelcloudsdkorv.vi.region.or_region import OcrRegion 5 from huawelcloudsdkore.exceptions import exceptions 6 from huawelcloudsdkorv.vi.import *
Live	Myanmar Driving License OCR		Headers	7 8 ifname == "main":
Enterprise Project Management Service	Chile ID Card OCR	*	X-Auth-Token () # AK/SK Authentication string	9 ak = "CYOUR ACC" 10 sk = "CYOUR SEC" 11
Elastic Cloud Server	Thailand Plate Number OCR	*	Enterprise-Project-Id ③	12 credentials = BasicCredentials(ak, sk) \
Domain Name Service	Hong Kong ID Card	•	string	<pre>13 14 client = OcrClient.new_builder() \ 15</pre>
Cloud Service Engines	Cambodian ID Card OCR	*	Parameters	16
DDM	Exit-Entry Permit for Traveling to an	d v	• project_id (1)	
	Mainland Travel Permit for Hong Ko	in ¥	074 *	29 request = RecognizePassportRequest() 21 request.body = PassportRequestBody(
	ID Document	*	Body	22 unl="xxxx" 23)
	Macao Resident ID Card	÷	Image: ① string uft: ② xxx	24 response - (list.rr.orgnitz_bissport(report)) 25 print(response) 26 except exception.sci 27 print(response) 28 print(response) 29 print(response) 20 print(response) 20 print(response) 20 print(response) 21 print(response) 22 print(response) 23 print(response) 24 print(response) 25 print(response) 26 print(response) 27 print(response) 28 print(response) 29 print(response) 20 print(response) 21 print(response) 22 print(response) 23 print(response) 24 print(response)

Mapping Between Services and APIs

Table 1-2 lists the mappings between OCR services and APIs.

Service	ΑΡΙ
ID Document	POST /v2/{project_id}/ocr/id-document
General Table	POST /v2/{project_id}/ocr/general- table
General Text	POST /v2/{project_id}/ocr/general-text
Web Image	POST /v2/{project_id}/ocr/web-image
Passport	POST /v2/{project_id}/ocr/passport
Thailand ID Card	POST /v2/{project_id}/ocr/thailand-id- card
Cambodian ID Card	POST /v2/{project_id}/ocr/cambodian- idcard
Myanmar ID Card	POST /v2/{project_id}/myanmar-id- card
Myanmar Driving License	POST /v2/{project_id}/ocr/myanmar- driver-license
Chile ID Card	POST /v2/{project_id}/ocr/chile-id-card
Vietnam ID Card	POST /v2/{project_id}/ocr/vietnam-id- card

Table 1-2 Mapping between services and APIs

Service	API
Thailand Plate Number	POST /v2/{project_id}/ocr/thailand- license-plate

2 Java SDK

This section describes how to use the new Java SDK to quickly develop OCR services.

Prerequisites

- You have registered a Huawei ID and enabled Huawei Cloud services. Your account cannot be in arrears or frozen.
- Java JDK 1.8 or later is available.
- You have obtained an AK and an SK on the My Credentials > Access Keys page. The AK and SK are contained in the credentials.csv file.

Figure 2-1 Creating an access key

testuser LSKM [rIZaQ _____



.

- AK SK
 You have obtained the IAM user name, account name, and the project ID of your target region on the My Credentials > API Credentials page. The
 - information will be used during service calling. Save it in advance.

Figure 2-2 My Credentials

My Credentials	API Credentials ③		
API Credentials	Learn more about Huawei Cloud accounts, UAM users, and projects.		×
PLLEA PAYA	LAM User Name	Account Name	a
	Projects		Enter a project name. Q
	Project ID 👙	Project Name 🗄	Region ©
	73	af-south-1	AF-Johannesburg
	9	ap-southeast-1	CN-Hong Kong
	•	ap-southeast-2	AP-Bangkok

Installing the SDK

Obtain and install the SDK using Maven. **Download** and **install Maven** in your operating system. Add the dependency to the **pom.xml** file of the Java project.

Before using the SDK, install **huaweicloud-sdk-core** and **huaweicloud-sdk-ocr**. Obtain the latest version of the SDK package from **SDK Center** and replace the version in the code.

<dependency>

```
<groupId>com.huaweicloud.sdk</groupId>
<artifactId>huaweicloud-sdk-core</artifactId>
<version>3.1.5</version>
</dependency>
<dependency>
<groupId>com.huaweicloud.sdk</groupId>
<artifactId>huaweicloud-sdk-ocr</artifactId>
<version>3.1.5</version>
</dependency>
```

NOTE

When a third-party library conflict occurs, for example, a Jackson or OkHttp3 version conflict, you can import the following bundle package (version later than 3.0.40-rc). This package contains all supported services and redirected third-party software on which the SDK depends to avoid conflicts with the libraries on which the service depends.

```
<dependency>
```

```
<groupId>com.huaweicloud.sdk</groupId>
<artifactId>huaweicloud-sdk-bundle</artifactId>
<version>[3.0.40-rc, 3.1.0)</version>
</dependency>
```

For details about the Jackson version requirements, see **pom.xml**.

Getting Started

1.	Import dependency modules.
	package com.huaweicloud.sdk.test;
	import com.huaweicloud.sdk.core.auth.ICredential;
	// Authenticate the user.
	// Import a request excention class
	import com.huaweicloud.sdk.core.exception.ConnectionException;
	import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
	import com.huaweicloud.sdk.core.exception.ServiceResponseException;
	// Import the OCR client.
	import com.nuaweicioud.sdk.ocr.v1.region.OcrRegion; import com huaweicioud.sdk.ocr.v1.*:
	import com.huaweicloud.sdk.ocr.v1.model.*;
2.	Configure client connection parameters.
	 Using the default configuration
	// Use the default configuration. HttpConfig.config = HttpConfig.getDefaultHttpConfig():
	 (Optional) Configuring a network proxy
	// Configure a network proxy as needed. The default protocol of the network proxy is HTTP. config.withProxyHost("proxy.huaweicloud.com")
	.withProxyPort(8080) withProxyLisorname("tost")
	.withProxyPassword("test");
	- (Ontional) Configuring the timeout
	// The default connection timeout interval is 60 seconds. You can change it as needed
	config.withTimeout(60):

- (Optional) Configuring an SSL // Configure whether to skip SSL certificate verification as needed. // If the "javax.net.ssl.SSLHandshakeException: Received fatal alert: handshake_failure" error is reported during SDK execution, add the following code to skip SSL certificate verification: config.withIgnoreSSLVerification(true);
- 3. Configure authentication information.

Configure **ak**, **sk**, and **project_id**. AK is used together with SK to sign requests cryptographically, ensuring that the requests are secret, complete, and correct. There are two authentication methods:

Initialize authentication information.
 String ak = System.getenv("HUAWEICLOUD_SDK_AK");
 String sk = System.getenv("HUAWEICLOUD_SDK_SK");

NOTE

- Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and store them in the configuration file or environment variables.
- In this example, the AK and SK are stored in environment variables for identity authentication. Before running this example, configure environment variables **HUAWEICLOUD_SDK_AK** and **HUAWEICLOUD_SDK_SK**.
- If environment variables are not set, you can skip calling the System.getenv method and directly enter the corresponding ak and sk values, for example, String ak = "ak"; String sk = "sk".
- Using a permanent AK and SK
 BasicCredentials basicCredentials = new BasicCredentials()
 .withAk(ak)
 .withSk(sk)
 .withProjectId(projectId);
- Using a temporary AK and SK
 BasicCredentials basicCredentials = new BasicCredentials()
 .withAk(ak)
 .withSk(sk)
 .withSecurityToken(securityToken)
 .withProjectId(projectId)

The authentication parameters are described as follows:

- ak and sk: access key and secrete access key. For details about how to obtain them, see Prerequisites.
- projectId: Huawei Cloud project ID. For details about how to obtain the ID, see Prerequisites.
- securityToken: security token used for temporary AK/SK authentication.
 It can be obtained through a token or an agency.
- 4. Initialize the client (using either of the following methods).
 - (Recommended) Specifying a region

```
// Add the region dependency.
import com.huaweicloud.sdk.ocr.v1.region.OcrRegion;
// Initialize the client authentication information. If the current client is used, projectId or
domainId can be left blank.
ICredential auth = new BasicCredentials()
.withAk(ak)
.withSk(sk);
// Initialize the client {Service}Client of a specified cloud service. The following uses OcrClient of
OCR as an example.
OcrClient Client = OcrClient.newBuilder()
.withHttpConfig(config)
.withCredential(auth)
.withRegion(OcrRegion.valueOf("ap-southeast-2"))
.build();
```

Specifying an endpoint for a cloud service

// Specify the endpoint for OCR, for example, AP-Bangkok. String endpoint = "https://ocr.ap-southeast-2.myhuaweicloud.com"; // Initialize the client authentication information. You need to configure projectId or domainId. The following uses BasicCredentials as an example. BasicCredentials basicCredentials = new BasicCredentials() .withAk(ak) .withSk(sk) .withProjectId(projectId); // Initialize the client {Service}Client of a specified cloud service. The following uses OcrClient of a region-level OCR as an example. OcrClient ocrClient = OcrClient.newBuilder() .withHttpConfig(config) .withCredential(basicCredentials) .withEndpoint(endpoint) .build(); endpoint indicates the endpoints for Huawei Cloud services. For details, see Regions and Endpoints. Send a request and check the response. // The following uses calling the RecognizePassport API of Passport OCR as an example. RecognizePassportRequest request = new RecognizePassportRequest(); PassportRequestBody body = new PassportRequestBody(); body.withUrl("Image URL"); request.withBody(body);

```
try {
```

5.

RecognizePassportResponse response = client.recognizePassport(request);

- System.out.println(response.toString());
- } catch (ConnectionException e) {
- e.printStackTrace(); } catch (RequestTimeoutException e) {
- e.printStackTrace();
 } catch (ServiceResponseException e) {
 e.printStackTrace();
 System.out.println(e.getHttpStatusCode());
 System.out.println(e.getErrorCode());
 System.out.println(e.getErrorMsg());

```
}
```

6. Handle the exception.

Table 2-1 Exception handling

Level-1 Category	Level-1 Category Description	Level-2 Category	Level-2 Category Description
ConnectionExcep- tion	Connection exception	HostUnreachableE xception	The network is unreachable or access is rejected.
		SslHandShakeExce ption	SSL authentication is abnormal.
RequestTimeoutEx ception	Response timeout exception	CallTimeoutExcep- tion	The server fails to respond to a single request before timeout.

Level-1 Category	Level-1 Category Description	Level-2 Category	Level-2 Category Description
		RetryOutageExcep tion	No valid response is returned after the maximum number of retries specified in the retry policy is reached.
ServiceResponseEx ception	Server response exception	ServerResponseEx- ception	Internal server error. HTTP response code: [500,].
		ClientRequestEx- ception	Invalid request parameter. HTTP response code: [400, 500).



For how to use the asynchronous client and configure logs, see **SDK Center** and **Java SDK Usage Guide**.

Automatic Generation of Sample Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code.

Figure 2-3 API Explorer

tuawei cloud				
API Explorer	Optical Character	RecognizePassport	Documentation Debugging Result Sample Code CLI Example Mick Data	
Overview	Defails	POST https://ocr.ap.southeast-1.myhuaweicloud.c	Using the sample code in IDE requires SDK dependencies. To learn how to add dependencies, click View SDK Defails/	×
Debugging History	Enter an API keyword Q	Advanced A Default > Debug	C Jana Python Co .NET NODAS PhiP C++ Ruby > () I Cowy AK	Any SDK Details
All Products	Web Image OCR .	Required parameters only	Lanual Cloud SDV Akillio Univert	
Ny Products	Passpon OCK	Encrypt sensitive parameters		
ServiceStere	RecognizePassport		1 package com. Nuavelcioud. sdk. test; 2	_
Jan Kasalaya	Thaland ID Card OCR +	• Region 🗇	3 import com.huaweicloud.sdk.core.auth.linedential; 4 import com.huaweicloud.sdk.core.auth.Basir(redentials;	
Optical Character Recognition	Nyanmar ID Card OCR	ap-coutheast-1 •	5 import com.humweicloud.sdk.core.exception.ConnectionException; 6 import com.humweicloud.sdk.core.exception.RequestTimeoutException;	
Dve	Nyanmar Driving License OCR	Headers	7 import com.huaweicloud.sdk.core.exception.ServiceResponseException; 8 import com.huaweicloud.sdk.ocr.vi.region.OcrRegion;	
Enterprise Project Management Service	Chile ID Card OCR	X-Auth-Token ACSK Authentication	<pre>9 import com.huawefcloud.sdk.ocr.vl.*; 10 import com.huawefcloud.sdk.ocr.vl.model.*;</pre>	- 1
Elastic Clevel Server	Thailand Plate Number OCR	Enterprise-Project-Id ①	12	
Domain Name Service	Hong Kong ID Card	ating .	13 public class RecognizePassportSolution { 14	
Cloud Service Engines	Cambodian ID Card OCR -	Parameters	<pre>15 public static void main(String[] args) { 16 String at = "COURT ACO"; 17 Traine at = "Court Aco"; 18 Traine at = "Court Aco"; 19 Traine at = "Court Aco"; 10 Traine</pre>	
DDM	Exit-Entry Permit for Traveling to and •	 project_id ⊙ 	18	
	Mainland Travel Permit for Hong Kon •	0747 *	29 .vitN4(ak) 29 .vitN4(ak)	
	ID Document	Body at Edit Cade	22 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	
	Nacae Resident ID Card	image: () sting uff () still	23 OCCLERT (LIGT = OCCLERT.Remailer() 24dttRegio(Corregion.valueO("ap-southeast-1")) 25dttRegio(Corregion.valueO("ap-southeast-1")) 26tulle();	
		1	27 RecognizePassportRequest request = new RecognizePassportRequest(); 28 RecognizePassportRequestDody body = new RecognizePassportRequest();	
			<pre>29 body.withUrl("xxx");</pre>	E
			30 request.uthBody(body);	
			32 BecomizePasportResponse response - client.recomizePasport(request);	
			31 System.out.println(response.toString());	
			34) catch (ConnectionException e) (

3_{Python SDK}

This section describes how to use the new Python SDK to quickly develop OCR services.

Prerequisites

- You have registered a Huawei ID and enabled Huawei Cloud services. Your account cannot be in arrears or frozen.
- Python 3 or later is available.
- You have obtained an AK and an SK on the My Credentials > Access Keys page. The AK and SK are contained in the credentials.csv file.

Figure 3-1 Creating an access key





• You have obtained the IAM user name, account name, and the project ID of your target region on the **My Credentials** > **API Credentials** page. The information will be used during service calling. Save it in advance.

Figure 3-2 My Credentials

My Credentials	API Credentials ③		
API Credentials	Learn more about Huawei Cloud accounts, VAM users, and projects.		×
ALLES FOLS	LAM User Nama	Account Name	σ
	Projects		Enter a project name. Q
	Project ID 👙	Project Name 👙	Region ©
	73	af-south-1	AF-Johannesburg
	9	ap-southeast-1	CN-Hong Kong
	•	ap-southeast-2	AP-Bangkok

Installing the SDK

Python 3 or later is supported. Run the **python** --version command to check the current Python version.

Before you use the SDK, install **huaweicloudsdkcore** and **huaweicloudsdkocr** in either of the following ways:

• Using pip

If the message "Successfully installed xxx" is displayed, the installation is successful.
Install the core library.
pip install huaweicloudsdkcore
Install the OCR service library.
pip install huaweicloudsdkocr

• Using the source code

The SDK version can be queried from SDK Center. # Install the core library. cd huaweicloudsdkcore-\${version} python setup.py install

Install the OCR service library. cd huaweicloudsdkocr-\${version} python setup.py install

Getting Started

- Import dependency modules. from huaweicloudsdkcore.auth.credentials import BasicCredentials from huaweicloudsdkcore.exceptions import exceptions from huaweicloudsdkcore.http.http_config import HttpConfig # Import the huaweicloudsdk{service} library of a specified cloud service. from huaweicloudsdkcor.v1.region.ocr_region import OcrRegion from huaweicloudsdkcor.v1 import *
- 2. Configure client connection parameters.
 - Using the default configuration
 # Use the default configuration. If the error message "'HttpConfig' is not defined" is displayed, check whether the SDK is installed correctly.
 config = HttpConfig.get_default_config()
 - (Optional) Configuring a network proxy # Configure network proxy as needed. config.proxy_protocol = 'http' config.proxy_host = 'proxy.huaweicloud.com' config.proxy_port = 80 config.proxy_user = 'username' config.proxy_password = 'password'
 - (Optional) Configuring the timeout
 # The default connection timeout interval is 60 seconds, and the read timeout interval is 120 seconds. You can set timeout to timeout or (connect timeout, read timeout).
 config.timeout = 120
 - (Optional) Configuring an SSL
 # Configure whether to skip SSL certificate verification as required.
 config.ignore_ssl_verification = True
 # Configure the server CA certificate so that the SDK can verify the server certificate.
 config.ssl_ca_cert = ssl_ca_cert

NOTE

After the client connection parameters are configured, you need to configure the code corresponding to **with_http_config(config)** in the initialized client. For details, see the code following client in **4**.

3. Configure authentication information.

Configure **ak**, **sk**, and **project_id**. AK is used together with SK to sign requests cryptographically, ensuring that the requests are secret, complete, and correct. There are two authentication methods:

Initialize authentication information.
 ak = os.environ.get("HUAWEICLOUD_SDK_AK")
 sk = os.environ.get("HUAWEICLOUD_SDK_SK")

NOTE

- Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and store them in the configuration file or environment variables.
- In this example, the AK and SK are stored in environment variables for identity authentication. Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and HUAWEICLOUD_SDK_SK.
- Using a permanent AK and SK credentials = BasicCredentials(ak, sk, project_id)
- Using a temporary AK and SK credentials = BasicCredentials(ak, sk, project_id).with_security_token(security_token)

The authentication parameters are described as follows:

- ak and sk: access key and secrete access key. For details about how to obtain them, see Prerequisites.
- project_id: Huawei Cloud project ID. For details about how to obtain the ID, see Prerequisites.
- security_token: security token used for temporary AK/SK authentication.
 It can be obtained through a token or an agency.
- 4. Initialize the client (using either of the following methods).
 - (Recommended) Specifying a region
 # Add the region dependency.
 from huaweicloudsdkocr.v1.region.ocr_region import OcrRegion

Initialize the client {Service}Client of a specified cloud service. The following uses OcrClient of OCR as an example.

```
client = OcrClient.new_builder() \
    .with_http_config(config) \
    .with_credentials(credentials) \
    .with_region(OcrRegion.value_of("ap-southeast-2")) \
    .build()
```

- Specifying an endpoint for a cloud service

Specify the endpoint for OCR, for example, AP-Bangkok. endpoint = "https://ocr.ap-southeast-2.myhuaweicloud.com"

Initialize the client {Service}Client of a specified cloud service. The following uses OcrClient of OCR as an example.

```
client = OcrClient.new_builder() \
    .with_http_config(config) \
    .with_credentials(credentials) \
    .with_endpoint(endpoint) \
    .build()
```

endpoint indicates the endpoints for Huawei Cloud services. For details, see **Regions and Endpoints**.

5. Send a request and check the response. # The following uses calling the RecognizePassport API of Passport OCR as an example. request = RecognizePassportRequest()

```
request.body = PassportRequestBody(
url="Image URL"
)
response = client.recognize_passport(request)
print(response)
```

6. Handle exceptions.

Level-1 Category	Level-1 Category Description	Level-2 Category	Level-2 Category Description
ConnectionExcep- tion	Connection exception	HostUnreachableE xception	The network is unreachable or access is rejected.
		SslHandShakeExce ption	SSL authentication is abnormal.
RequestTimeoutEx ception	Response timeout exception	CallTimeoutExcep- tion	The server fails to respond to a single request before timeout.
		RetryOutageExcep tion	No valid response is returned after the maximum number of retries specified in the retry policy is reached.
ServiceResponseEx ception	Server response exception	ServerResponseEx- ception	Internal server error. HTTP response code: [500,].
		ClientRequestEx- ception	Invalid request parameter. HTTP response code: [400, 500).

Troubleshooting

try:

- request = RecognizePassportRequest() response = client.recognize_passport(request)
- print(response)
- except exceptions.ClientResponseException as e:
 - print(e.status_code)
 - print(e.request_id)
 - print(e.error_code) print(e.error_msg)

NOTE

For how to use the asynchronous client and configure logs, see **SDK Center** and **Python SDK Usage Guide**.

Automatic Generation of Sample Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code.

Figure 3-3 API Explorer



4_{Node.js} SDK

This section describes how to use the new Node.js SDK to quickly develop OCR services.

Prerequisites

- You have registered a Huawei ID and enabled Huawei Cloud services. Your account cannot be in arrears or frozen.
- Node 10.16.1 or later is available.
- You have obtained an AK and an SK on the My Credentials > Access Keys page. The AK and SK are contained in the credentials.csv file.

Figure 4-1 Creating an access key





• You have obtained the IAM user name, account name, and the project ID of your target region on the **My Credentials** > **API Credentials** page. The information will be used during service calling. Save it in advance.

Figure 4-2 API Credentials

My Credentials	API Credentials ③			
API Credentials Access Keys	Learn more about Huawel Cloud accounts, UAM users, and projects.			×
	LAM User Name	Account Name	a	
	Projects		Enter a project	name. Q
	Project ID 💠	Project Name 👙	Region ¢	
	73	af-south-1	AF-Johannesburg	
	9	ap-southeast-1	CN-Hong Kong	
	•	ap-southeast-2	AP-Bangkok	

Installing the SDK

Before you use SDK, install **@huaweicloud/huaweicloud-sdk-core** and **@huaweicloud/huaweicloud-sdk-ocr**.

You are advised to use npm to install the SDK.

npm install @huaweicloud/huaweicloud-sdk-core npm i @huaweicloud/huaweicloud-sdk-ocr

Getting Started

- Import dependency modules. const core = require('@huaweicloud/huaweicloud-sdk-core'); const ocr = require('@huaweicloud/huaweicloud-sdk-ocr'');
- 2. Configure client connection parameters.
 - Using the default configuration const client = ocr.OcrClient.newBuilder()
 - (Optional) Configuring a network proxy
 // (Optional) Use a proxy server.
 client.withProxyAgent("http://username:password@proxy.huaweicloud.com:8080")
 - (Optional) Configuring an SSL
 // (Optional) Skip server certificate verification.
 process.env.NODE_TLS_REJECT_UNAUTHORIZED = "0"
- 3. Configure authentication information.

Configure **ak**, **sk**, and **project_id**. AK is used together with SK to sign requests cryptographically, ensuring that the requests are secret, complete, and correct.

Initialize authentication information.

```
const ak = process.env.HUAWEICLOUD_SDK_AK;
const sk = process.env.HUAWEICLOUD_SDK_SK;
const credentials = new core.BasicCredentials()
.withAk(ak)
.withSk(sk)
.withProjectId(project_id)
```

NOTE

- Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and store them in the configuration file or environment variables.
- In this example, the AK and SK are stored in environment variables for identity authentication. Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and HUAWEICLOUD_SDK_SK.

The authentication parameters are described as follows:

- ak and sk: access key and secrete access key, respectively. For how to obtain them, see Prerequisites.
- project_id: Huawei Cloud project ID. For details about how to obtain the ID, see Prerequisites.
- 4. Initialize the client.

endpoint indicates the endpoints for Huawei Cloud services. For details, see **Regions and Endpoints**.

5.

Send a request and check the response.
<pre>// The following uses calling the RecognizePassport API of Passport OCR as an example. const request = new ocr.RecognizePassportRequest(); const body = new ocr.PassportRequestBody(); body.withUrl("Image URL"); request.withBody(body); const result = client.recognizePassport(request); result.then(result => {</pre>
console.log("JSON.stringify(result)::" + JSON.stringify(result));
<pre>}).catch(ex => { console.log("exception:" + JSON.stringify(ex)); });</pre>
<i>Sh</i>

NOTE

For details about the SDK, see SDK Center and Node.js SDK Usage Guide.

Automatic Generation of Sample Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code.

Figure 4-3 API Explorer



5 PHP SDK

This section describes how to use the new PHP SDK to quickly develop OCR services.

Prerequisites

- You have registered a Huawei ID and enabled Huawei Cloud services. Your account cannot be in arrears or frozen.
- PHP 5.6 or later is available. You can run the **php** --**version** command to check the version information.
- You have obtained an AK and an SK on the My Credentials > Access Keys page. The AK and SK are contained in the credentials.csv file.

Figure 5-1 Creating an access key



• You have obtained the IAM user name, account name, and the project ID of your target region on the **My Credentials** > **API Credentials** page. The information will be used during service calling. Save it in advance.

Figure 5-2 API Credentials

My Credentials	API Credentials ③		
API Credentials	Learn more about Huawel Cloud accounts, UAM users, and projects.		×
Access Keys	MM User Name	Account Name	ø
	Projects		Enter a project name. Q
	Project ID 🗄	Project Name 🗄	Region ¢
	73	af-south-1	AF-Johannesburg
	9	ap-southeast-1	CN-Hong Kong
	•	ap-southeast-2	AP-Bangkok

Installing the SDK

You are advised to use **Composer** to install the SDK.

Composer is a dependency manager for PHP. It allows you to declare and install dependencies in a project.

// Install Composer. curl -sS https://getcomposer.org/installer | php // Install the PHP SDK. composer require huaweicloud/huaweicloud-sdk-php

After the installation is complete, you need to import the autoload file of Composer.

require 'path/to/vendor/autoload.php';

Getting Started

1. Import dependency modules.

<?php namespace HuaweiCloud\SDK\Ocr\V1\Model; require_once "vendor/autoload.php"; use HuaweiCloud\SDK\Core\Auth\BasicCredentials; use HuaweiCloud\SDK\Core\Http\HttpConfig; use HuaweiCloud\SDK\Core\Exceptions\ConnectionException; use HuaweiCloud\SDK\Core\Exceptions\RequestTimeoutException; use HuaweiCloud\SDK\Core\Exceptions\ServiceResponseException; use HuaweiCloud\SDK\Core\Exceptions\ServiceResponseException; use HuaweiCloud\SDK\Core\Exceptions

- 2. Configure client connection parameters.
 - Using the default configuration // Use the default configuration. \$config = HttpConfig::getDefaultConfig();
 - (Optional) Configuring a network proxy
 // Use a proxy server.
 \$config->setProxyProtocol('http');
 \$config->setProxyHost('proxy.huawei.com');
 \$config->setProxyOort(8080);
 \$config->setProxyUser('username');
 \$config->setProxyPassword('password');
 - (Optional) Configuring the timeout
 // The default connection timeout interval is 60 seconds, and the default read timeout interval is 120 seconds. You can change the default values as needed.
 \$config->setTimeout(120);
 \$config->setConnectionTimeout(60);
 - (Optional) Configuring an SSL
 // Skip server certificate verification.
 \$config->setIgnoreSslVerification(true);
 // Configure the server CA certificate so that the SDK can verify the server certificate.
 \$config->setCertFile("{yourCertFile}");

3. Configure authentication information.

Configure **ak**, **sk**, and **projectId**. AK is used together with SK to sign requests cryptographically, ensuring that the requests are secret, complete, and correct. // Specify the endpoint for OCR, for example, **AP-Bangkok**.

```
$ak = getenv('HUAWEICLOUD_SDK_AK');
```

```
$sk = getenv('HUAWEICLOUD_SDK_SK');
$endpoint = "https://ocr.ap-southeast-2.myhuaweicloud.com";
```

\$projectId = getenv('PROJECT_ID');

\$credentials = new BasicCredentials(\$ak,\$sk,\$projectId);

D NOTE

- Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and store them in the configuration file or environment variables.
- In this example, the AK and SK are stored in environment variables for identity authentication. Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and HUAWEICLOUD_SDK_SK.

The authentication parameters are described as follows:

- ak and sk: access key and secrete access key, respectively. For how to obtain them, see Prerequisites.
- projectId: Huawei Cloud project ID. For details about how to obtain the ID, see Prerequisites.
- endpoint: endpoints for Huawei Cloud services. For details, see Regions and Endpoints.
- 4. Initialize the client.

Specifying an endpoint for a cloud service

```
$client = OcrClient::newBuilder(new OcrClient)
->withHttpConfig($config)
->withEndpoint($endpoint)
->withCredentials($credentials)
->build();
```

5. Send a request and check the response.

```
// The following uses calling the RecognizePassport API of Passport OCR as an example.
$request = new RecognizePassportRequest();
$body = new PassportRequestBody();
$body->setUrl("Image URL");
$request->setBody($body);
try {
 $response = $client->RecognizePassport($request);
} catch (ConnectionException $e) {
 $msg = $e->getMessage();
echo "\n". $msg ."\n";
} catch (RequestTimeoutException $e) {
 $msg = $e->getMessage();
 echo "\n". $msg ."\n";
} catch (ServiceResponseException $e) {
 echo "\n";
 echo $e->getHttpStatusCode(). "\n";
 echo $e->getErrorCode() . "\n";
 echo $e->getErrorMsg() . "\n";
echo "\n":
echo $response;
```

6. Handle the exception.

| Level-1 Category | Level-1
Category
Description | Level-2 Category | Level-2 Category
Description |
|------------------------------|------------------------------------|------------------------------|---|
| ConnectionExcep-
tion | Connection
exception | HostUnreachableE
xception | The network is
unreachable or
access is rejected. |
| | | SslHandShakeExce
ption | SSL authentication is abnormal. |
| RequestTimeoutEx
ception | Response
timeout
exception | CallTimeoutExcep-
tion | The server fails to
respond to a
single request
before timeout. |
| | | RetryOutageExcep
tion | No valid response
is returned after
the maximum
number of retries
specified in the
retry policy is
reached. |
| ServiceResponseEx
ception | Server
response
exception | ServerResponseEx-
ception | Internal server
error. HTTP
response code:
[500,]. |
| | | ClientRequestEx-
ception | Invalid request
parameter. HTTP
response code:
[400, 500). |

| Table 5 | 5-1 | Exception | handling |
|---------|-----|-----------|----------|
|---------|-----|-----------|----------|

try {

- \$response = \$client->RecognizePassport(\$request);
- } catch (ConnectionException \$e) {
- \$msg = \$e->getMessage();
- echo "\n". \$msg ."\n";
- } catch (RequestTimeoutException \$e) {
- \$msg = \$e->getMessage();
 echo "\n". \$msg ."\n";

```
} catch (ServiceResponseException $e) {
 echo "\n";
 echo $e->getHttpStatusCode(). "\n";
```

```
echo $e->getErrorCode() . "\n";
echo $e->getErrorMsg() . "\n";
```

```
}
echo "\n";
```

```
echo $response;
```

NOTE

For how to use the asynchronous client and configure logs, see SDK Center and PHP SDK Usage Guide.

Automatic Generation of Sample Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code.



Sbody -= new DassportRequestBody(); Sbody--settr('sost'); Srequest->setBody(Sbody); try { srequest->setBody(Sbody); try; echo Sresponse; echo Sresponse; cecho (Convectiontroception So) { Seq = Sa-gatNussing();

Figure 5-3 API Explorer

6 C++ SDK

This section describes how to use the new C++ SDK to quickly develop OCR services.

Prerequisites

- You have registered a Huawei ID and enabled Huawei Cloud services. Your account cannot be in arrears or frozen.
- C++ 14 or later and CMake 3.10 or later are available.
- You have obtained an AK and an SK on the My Credentials > Access Keys page. The AK and SK are contained in the credentials.csv file.

Figure 6-1 Creating an access key

testuser LSKM [rIZaQ _____



.

AK SK
 You have obtained the IAM user name, account name, and the project ID of your target region on the My Credentials > API Credentials page. The information will be used during service calling. Save it in advance.

Figure 6-2 API Credentials

| My Credentials | API Credentials ③ | | | | |
|--------------------------------|--|-------------------------|-----------------|-------------------------|--|
| API Credentials
Access Keys | Learn more about Huawei Cloud accounts, UMI users, and projects. | | | | |
| | UAM User Name
IAM User ID 27 🖉 | Account Name Account ID | Account Name | | |
| | Projects | | | Enter a project name. Q | |
| | Project ID 🗄 | Project Name 👙 | Region ¢ | | |
| | 73 | af-south-1 | AF-Johannesburg | | |
| | 9 | ap-southeast-1 | CN-Hong Kong | | |
| | 4
 | ap-southeast-2 | AP-Bangkok | | |

Installing the SDK

- Installing the SDK on a Linux VM
 - a. Obtain dependency packages.

The required third-party software packages are contained in the package management tools of most Linux OSs, for example, Debian and Ubuntu.

sudo apt-get install libcurl4-openssl-dev libboost-all-dev libssl-dev libcpprest-dev

spdlog needs to be installed using the source code. git clone https://github.com/gabime/spdlog.git cd spdlog mkdir build cd build cmake -DCMAKE_POSITION_INDEPENDENT_CODE=ON ... // Used to generate a dynamic library. make sudo make install

b. Perform compilation and installation. git clone https://github.com/huaweicloud/huaweicloud-sdk-cpp-v3.git cd huaweicloud-sdk-cpp-v3 mkdir build cd build cmake .. make sudo make install

After the operations are complete, the installation directory of the C++ SDK is **/usr/local**.

- Installing the SDK on a Windows VM
 - a. Install vcpkg and use it to install required software packages. vcpkg install curl cpprestsdk boost openssl spdlog
 - b. Use CLion for compilation.
 - i. Use CLion to open the huaweicloud-sdk-cpp-v3 directory.
 - ii. Choose File > Settings.
 - iii. Choose Build > Execution > Deployment > CMake.
 - iv. Add the following content to CMake options: -DCMAKE_TOOLCHAIN_FILE={your vcpkg install dir}/scripts/buildsystems/vcpkg.cmake
 - v. Right-click **CMakeLists.txt** and choose **Load CMake Project** from the shortcut menu.
 - vi. Choose **Build** to start compilation.
 - c. Install the C++ SDK.

After the compilation is complete, choose **Build** > Install.

After the operations are complete, the installation directory of the C++ SDK is C:\Program File (x86)\huaweicloud-sdk-cpp-v3.

Getting Started

1. Import dependency modules.

//include <cstdlib> //include <iostream> //include <string> //include <memory> //include <huaweicloud/core/exception/Exceptions.h> //include <huaweicloud/core/Client.h> //include <huaweicloud/ocr/v1/OcrClient.h> using namespace HuaweiCloud::Sdk::Ocr::V1; using namespace HuaweiCloud::Sdk::Ocr::V1::Model; using namespace HuaweiCloud::Sdk::Core; using namespace HuaweiCloud::Sdk::Core::Exception; using namespace std;

- 2. Configure client connection parameters.
 - Using the default configuration
 // Use the default configuration.
 HttpConfig httpConfig = HttpConfig();
 - (Optional) Configuring a network proxy
 // Configure network proxy as needed.
 httpConfig.setProxyProtocol("http");
 httpConfig.setProxyHost("proxy.huawei.com");
 httpConfig.setProxyPort("8080");
 httpConfig.setProxyUser("username");
 httpConfig.setProxyPassword("password");
 - (Optional) Configuring the timeout
 // The default connection timeout interval is 60 seconds, and the default read timeout interval is 120 seconds. You can change the default values as needed.
 httpConfig.setConnectTimeout(60);
 httpConfig.setReadTimeout(120);
 - (Optional) Configuring an SSL
 // Skip server certificate verification.
 httpConfig.setIgnoreSslVerification(true);
- 3. Configure authentication information.

Configure **ak**, **sk**, and **projectId**. AK is used together with SK to sign requests cryptographically, ensuring that the requests are secret, complete, and correct. string ak = getenv("HUAWEICLOUD_SDK_AK"); string projectId = getenv("HUAWEICLOUD_SDK_SK"); string projectId = getenv("PROJECT_ID"); auto auth = std::make_unique<BasicCredentials>(); auth->withAk(ak) .withSk(sk) .withProjectId(projectId);

NOTE

- Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK
 and SK and store them in the configuration file or environment variables.
- In this example, the AK and SK are stored in environment variables for identity authentication. Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and HUAWEICLOUD_SDK_SK.

The authentication parameters are described as follows:

- ak and sk: access key and secrete access key, respectively. For how to obtain them, see Prerequisites.
- projectId: Huawei Cloud project ID. For details about how to obtain the ID, see Prerequisites.
- 4. Initialize the client.

```
Specifying an endpoint for a cloud service
string endpoint = "https://ocr.cn-north-4.myhuaweicloud.com";
auto client = OcrClient::newBuilder()
    .withCredentials(std::unique_ptr<Credentials>(auth.release()))
    .withHttpConfig(httpConfig)
    .withEndPoint(endpoint)
    .build();
```

endpoint: endpoints for Huawei Cloud services. For details, see **Regions and Endpoints**.

5. Send a request and check the response.

// The following uses calling the RecognizePassport API of Passport OCR as an example. RecognizePassportRequest request; PassportRequestBody body; body.setUrl("Image URL"); request.setBody(body);

std::cout << "----begin execute request-----" << std::endl;

6. Handle the exception.

Table 6-1 Exception handling

| Level-1 Category | Level-1
Category
Description | Level-2 Category | Level-2 Category
Description |
|------------------------------|------------------------------------|------------------------------|---|
| ConnectionExcep-
tion | Connection
exception | HostUnreachableE
xception | The network is
unreachable or
access is rejected. |
| | | SslHandShakeExce
ption | SSL authentication is abnormal. |
| RequestTimeoutEx ception | Response
timeout
exception | CallTimeoutExcep-
tion | The server fails to
respond to a
single request
before timeout. |
| | | RetryOutageExcep
tion | No valid response
is returned after
the maximum
number of retries
specified in the
retry policy is
reached. |
| ServiceResponseEx
ception | Server
response
exception | ServerResponseEx-
ception | Internal server
error. HTTP
response code:
[500,]. |
| | | ClientRequestEx-
ception | Invalid request
parameter. HTTP
response code:
[400, 500). |

std::cout << "-----begin execute request------" << std::endl; try { auto reponse = client->recognizePassport(request); std::cout << reponse->getHttpBody() << std::endl; } catch (HostUnreachableException& e) { std::cout << "host unreachable:" << e.what() << std::endl; } catch (SslHandShakeException& e) { std::cout << "ssl handshake error:" << e.what() << std::endl; } catch (RetryOutageException& e) { std::cout << "retryoutage error:" << e.what() << std::endl; } catch (RetryOutageException& e) {

} catch (CallTimeoutException& e) {

- std::cout << "call timeout:" << e.what() << std::endl;
- } catch (ServiceResponseException& e) {

```
std::cout << "http status code:" << e.getStatusCode() << std::endl;
std::cout << "error code:" << e.getErrorCode() << std::endl;
std::cout << "error msg:" << e.getErrorMsg() << std::endl;
std::cout << "RequestId:" << e.getRequestId() << std::endl;
} catch (exception& e) {
std:cout << "unknown exception:" << e.what() << std::endl;
}
```

NOTE

For details about how to use the asynchronous client and configure logs, see **SDK Center** and **C++ SDK Usage Guide**.

Automatic Generation of Sample Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code.



Figure 6-3 API Explorer

7 Go SDK

This section describes how to use the Go SDK to quickly develop OCR services.

Prerequisites

- You have registered a Huawei ID and enabled Huawei Cloud services. Your account cannot be in arrears or frozen.
- Go 1.14 or later is available. You can run the **go version** command to check the version information.
- You have obtained an AK and an SK on the My Credentials > Access Keys page. The AK and SK are contained in the credentials.csv file.

Figure 7-1 Creating an access key



AK SK
 You have obtained the IAM user name, account name, and the project ID of your target region on the My Credentials > API Credentials page. The

information will be used during service calling. Save it in advance.

Figure 7-2 API Credentials

| My Credentials | API Credentials ③ | | |
|-----------------|--|----------------------------|-------------------------|
| API Credentials | Learn more about Huawel Cloud accounts, UAI users, and projects. | × | |
| Access Keys | LAM User Name
AM User 10 27 0 | Account Name
Account ID | σ |
| | Projects | | Enter a project name. Q |
| | Project ID 🔅 | Project Name 🗅 | Region © |
| | 73 | af-south-1 | AF-Johannesburg |
| | • | ap-southeast-1 | CN-Hong Kong |
| | • | ap-southeast-2 | AP-Bangkok |

Installing the SDK

Before you use the SDK, you need to install the Huawei Cloud Go SDK library.

// Install the Huawei Cloud Go SDK library. go get github.com/huaweicloud/huaweicloud-sdk-go-v3

Getting Started

 Import dependency modules. import (

```
"fmt"
"githuh com (huowci
```

"github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic" ocr "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ocr/v1" "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ocr/v1/model" region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/ocr/v1/region")

2. Configure authentication information.

Configure **ak** and **sk**. AK is used together with SK to sign requests cryptographically, ensuring that the requests are secret, complete, and correct. For details about how to obtain the AK and SK, see **Prerequisites**.

```
func main() {
    ak := os.Getenv("HUAWEICLOUD_SDK_AK")
    sk := os.Getenv("HUAWEICLOUD_SDK_SK")
    auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    Build()
}
```

NOTE

- Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and store them in the configuration file or environment variables.
- In this example, the AK and SK are stored in environment variables for identity authentication. Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and HUAWEICLOUD_SDK_SK.
- 3. Initialize the client (using either of the following methods).

```
(Recommended) Specifying a region for a cloud service
// Initialize the client New{Service}Client of a specified cloud service. The following uses the AP-
Bangkok region as an example.
func main() {
  client := ocr.NewOcrClient(
     ocr.OcrClientBuilder().
        WithRegion(region.ValueOf("ap-southeast-2")).
        WithCredential(auth).
        Build())
Specifying an endpoint for a cloud service
func main() {
  // Specify the endpoint for OCR, for example, AP-Bangkok.
  endpoint:="https://ocr.ap-southeast-2.myhuaweicloud.com"
  // If you choose to specify the endpoint, add projectId to the authentication information.
  auth := basic.NewCredentialsBuilder().
     WithAk(ak).
     WithSk(sk)
     WithProjectId(projectId).
     Build()
  // Initialize the client New{Service}Client of a specified cloud service.
  client := ocr.NewOcrClient(
     ocr.OcrClientBuilder().
        WithEndpoint(endpoint).
```

}

WithCredential(auth). Build())

endpoint indicates the endpoints for Huawei Cloud services. For details, see **Regions and Endpoints**.

- 4. Send a request and check the response.
 // The following uses calling the RecognizePassport API of Passport OCR as an example.
 request := &model.RecognizePassportRequest{}
 urlPassportRequestBody:= "Image URL"
 request.Body = &model.PassportRequestBody{
 Url: &urlPassportRequestBody,
 }
 response, err := client.RecognizePassport(request)
 if err == nil {
 fmt.Printf("%+v\n", response)
 } else {
 fmt.Println(err)
 }
- 5. Handle the exception.

Table 7-1 Exception handling

| Level-1 Category | Level-1 Category Description | |
|----------------------|--------------------------------------|--|
| ServiceResponseError | A service response exception occurs. | |
| url.Error | A URL exception occurs. | |

```
response, err := client.RecognizePassport(request)
if err == nil {
   fmt.Printf("%+v\n", response)
} else {
   fmt.Println(err)
}
```

NOTE

For the SDK, see SDK Center and Go SDK Usage Guide.

Automatic Generation of Sample Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code.

Figure 7-3 API Explorer

| 🏥 HUAWEI CLOUD | Console | | Statisth Q Billing Resource Service Entreprise Support English | |
|--|--|---|---|-----------------------|
| API Explorer | Optical Character | RecognizePassport | Documentation Debugging Result Sample Code CLI Example Mock Data | |
| Overview | Details | POST https://ocr.ap-southeast-1.myhuaweicloud.c | Using the sample code in IDE requires SDK dependencies. To learn how to add dependencies, click. View SDK Details'. | × |
| Debugging History | Enter an API keyword. Q | Advanced + Default > Default | < Izva Python Go MET Nodals FHP C++ Ruby > +++ () C Gen | AK 🔄 View SDK Details |
| All Products | Passport OCR | Required parameters only | Huseel Cloud SOK Native | 0 |
| My Products | RecognizePassport | Encrypt sensitive parameters | 1 package main | _ |
| ServiceStage | Thaland ID Card CCR | • Region ② | 2
3 import (| |
| Optical Character
Recognition | Myanmar ID Card DCR | ap-coutheast-1 • | 4 "fmt"
5 "github.com/husweicloud/husweicloud-sdk-go-v3/core/suth/basic"
6 ocr "othub.com/husweicloud/husweicloud-sdk-go-v3/core/suth/basic" | |
| Uve | Myanmar Driving License OCR | Headers | 7 "github.com/husweicloud/husweicloud-sdk-go-v3/services/acr/v1/model"
8 region "github.com/husweicloud/husweicloud-sdk-go-v3/services/acr/v1/region" | |
| Enterprise Project
Management Service | Chile ID Care OCR | | 9) 10 | |
| Elastic Cloud Server | Thailand Plate Number OCR | Enterprise-Project-Id ① | 11 THE MAD() { 12 ak := "CVUR ACS" | |
| Domain Name Service | Hong Kong ID Card | Sting . | 14 BR 1+ COURT SKS | |
| Cloud Service Engines | Cambodian ID Card OCR | Parameters | <pre>15 auto := cast: www.redevilaissiller(). 16 with&(ak).</pre> | |
| COM | Exit-Entry Permit for Traveling to and • | • project_id ③ | 17 WITTOR(W).
18 Build() | |
| | Mainland Travel Permit for Hong Kon | • | <pre>10 20 client := orr.NewCorClient(</pre> | |
| | ID Document | Body ef Edit Code | 21 cor.ucr.itertuitoer().
22 kithRegion(region.ValueOf("ap-southeast-1")).
23 kithRegion(region.ValueOf("ap-southeast-1")). | |
| | Macao Resident ID Card | image: (2) string
urt: (2) cox | 24 mulld())
25 | |
| | | country_code: ① sting | request : & konds.l.norpit.relationstip.orthogost[]
or urbangertimanito(): "xxx"
request.nds/ = konds.l.nssportEquestEds/
0 Urbangertimation/
0 }
1 response, er::=Client.tecoglisHessort(request) | |
| | | | <pre>12 if err == nll { 33</pre> | |

8.NET SDK

This section describes how to use the .NET SDK to quickly develop OCR services as needed.

Prerequisites

- You have registered a Huawei ID and enabled Huawei Cloud services. Your account cannot be in arrears or frozen.
- .NET Standard 2.0 or later and C# 4.0 or later are available.
- You have obtained an AK and an SK on the **My Credentials** > **Access Keys** page. The AK and SK are contained in the **credentials.csv** file.

Figure 8-1 Creating an access key





• You have obtained the IAM user name, account name, and the project ID of your target region on the **My Credentials** > **API Credentials** page. The information will be used during service calling. Save it in advance.

Figure 8-2 API Credentials

| My Credentials | API Credentials ③ | | | | | |
|--------------------------------|--|----------------|--------------|-----------------|-----------------------|---|
| AFI Credentials
Access Keys | Learn more about Huawel Cloud accounts, VAM users, and p | rojects. | | | | × |
| | LAM User Name | | Account have | | | |
| | Projects | | | | Enter a project name. | Q |
| | Project ID 👙 | Project Name 🗅 | | Region ¢ | | |
| | 73 | af-south-1 | | AF-Johannesburg | | |
| | 9 | ap-southeast-1 | | CN-Hong Kong | | |
| | • | ap-southeast-2 | | AP-Bangkok | | |

Installing the SDK

Before you use the SDK, install **HuaweiCloud.SDK.Core** and **HuaweiCloud.SDK.Ocr** in either of the following ways:

- Using .NET CLI dotnet add package HuaweiCloud.SDK.Core dotnet add package HuaweiCloud.SDK.Ocr
- Using Package Manager
 Install-Package HuaweiCloud.SDK.Core
 Install-Package HuaweiCloud.SDK.Ocr

Getting Started

- 1. Import dependency modules. using System; using System.Collections.Generic; using HuaweiCloud.SDK.Core; using HuaweiCloud.SDK.Core.Auth; using HuaweiCloud.SDK.Ocr; using HuaweiCloud.SDK.Ocr.V1; using HuaweiCloud.SDK.Ocr.V1.Model;
- 2. Configure client connection parameters.
 - Using the default configuration // Use the default configuration. var config = HttpConfig.GetDefaultConfig();
 - (Optional) Configuring a network proxy // Configure network proxy as needed. config.ProxyHost = "proxy.huaweicloud.com"; config.ProxyPort = 8080; config.ProxyUsername = "test"; config.ProxyPassword = "test";
 - (Optional) Configuring the timeout
 // The default connection timeout interval is 120 seconds. You can change it as needed. config.Timeout = 120;
 - (Optional) Configuring an SSL
 // Configure whether to skip SSL certificate verification as needed.
 config.lgnoreSslVerification = true;
- 3. Configure authentication information.

Configure **ak** and **sk**. AK is used together with SK to sign requests cryptographically, ensuring that the requests are secret, complete, and correct. For details about how to obtain the AK and SK, see **Prerequisites**.

```
const string ak = Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_AK");
const string sk = Environment.GetEnvironmentVariable("HUAWEICLOUD_SDK_SK");
var auth = new BasicCredentials(ak, sk);
```

NOTE

- Hard-coded or plaintext AK and SK are risky. For security purposes, encrypt your AK and SK and store them in the configuration file or environment variables.
- In this example, the AK and SK are stored in environment variables for identity authentication. Before running this example, configure environment variables HUAWEICLOUD_SDK_AK and HUAWEICLOUD_SDK_SK.
- 4. Initialize the client (using either of the following methods).
 - (Recommended) Specifying a region for a cloud service
 // Initialize the client {Service}Client of a specified cloud service. The following uses OcrClient of OCR as an example.
 var client = OcrClient.NewBuilder()

.WithCredential(auth) .WithRegion(OcrRegion.ValueOf("ap-southeast-2")) .WithHttpConfig(config) .Build();

Specifying an endpoint for a cloud service
 // Specify the endpoint for OCR, for example, AP-Bangkok.
 String endpoint = "https://ocr.ap-southeast-2.myhuaweicloud.com";

// Initialize the client authentication information. You need to enter the corresponding project ID. The following uses BasicCredentials as an example. var auth = new BasicCredentials(ak, sk, projectId);

// Initialize the client {Service}Client of a specified cloud service. The following uses OcrClient of OCR as an example.

var client = OcrClient.NewBuilder() .WithCredential(auth) .WithEndPoint(endpoint) .WithHttpConfig(config)

.Build();

endpoint indicates the endpoints for Huawei Cloud services. For details, see Regions and Endpoints.

5. Send a request and check the response.

```
// The following uses calling the RecognizePassport API of Passport OCR as an example.
var req = new RecognizePassportRequest
{
};
req.Body = new PassportRequestBody()
{
Url = "Image URL"
};
try
{
var resp = client.RecognizePassport(req);
var respStatusCode = resp.HttpStatusCode;
Console.WriteLine(respStatusCode);
}
```

6. Handle the exception.

Table 8-1 Exception handling

| Level-1 Category | Level-1
Category
Description | Level-2 Category | Level-2 Category
Description |
|-----------------------------|------------------------------------|------------------------------|--|
| ConnectionExcep-
tion | Connection
exception | HostUnreachableE
xception | The network is
unreachable or
access is rejected. |
| | | SslHandShakeExce
ption | SSL authentication is abnormal. |
| RequestTimeoutEx
ception | Response
timeout
exception | CallTimeoutExcep-
tion | The server fails to
respond to a
single request
before timeout. |

| Level-1 Category | Level-1
Category
Description | Level-2 Category | Level-2 Category
Description |
|------------------------------|------------------------------------|------------------------------|---|
| | | RetryOutageExcep
tion | No valid response
is returned after
the maximum
number of retries
specified in the
retry policy is
reached. |
| ServiceResponseEx
ception | Server
response
exception | ServerResponseEx-
ception | Internal server
error. HTTP
response code:
[500,]. |
| | | ClientRequestEx-
ception | Invalid request
parameter. HTTP
response code:
[400, 500). |



NOTE

For details about how to use the asynchronous client and configure logs, see **SDK Center** and **.NET SDK Usage Guide**.

Automatic Generation of Sample Code

API Explorer allows for API search and platform debugging, with features such as quick and comprehensive search, visual debugging, access to help documentation, and online consultation.

You only need to modify API parameters in the API Explorer to automatically generate the corresponding sample code.

Figure 8-3 API Explorer

| tuaweicloud | Cansole | | Search Q Billing Resource Service Enterprice Support English | ⊠ |
|-----------------------|---|---|--|---------|
| API Explorer | Optical Character © * | RecognizePassport ③ | Documentation Debugging Result Sample Code CLI Example Mock Data | |
| Overview | Difalls | POST https://ocr.ap-southeast-1.myhuaweicloud.c | Using the sample code in IDE requires SDK dependencies. To learn how to add dependencies, click. View SDK Details: | × |
| Debugging History | Enter an API keyword. Q | Advanced A Debut Debug | ∠ Java Pytton Go NET Nodula PHP C++ Ruby > +++ ① C Deey AK | Defails |
| All Products | Web Image OCR - | Required parameters only | | ~ |
| My Products | Passport OCR . | Encrypt sensitive parameters | Hoawer Cloud SDK RestSharp | |
| ServiceStage | ReceptizePassport | + Region (1) | 2 using System.
2 using System.Collections.Generic;
3 using Humadified.SR.Come: | 1 |
| Optical Character | Theliand ID Card OCR - | ap-southeast-1 + | 4 using Humericloud.SR.Core.Auth;
5 using Humericloud.SR.Core. | |
| Ite | Myanmar ID Card OCR - | Headers | 6 using HuaweiCloud.SDK.Ocr.VI;
7 using HuaweiCloud.SDK.Ocr.VI;hodel; | |
| Enterorise Project | Nyanmar Driving License OCR • | • X-Auth-Token ① 😄 AK/SK-Authentication | 8
9 namespace RecognizePassportSolution | |
| Management Service | Conversion Carello Conversion Carello | string | 10 (
11 class Program | |
| Elastic Cloud Server | Need Know ID Card | tring | 12 { 13 static void Hain(string[) args) 14 / | |
| Domain Name Service | Cambodian ID Card OCR | Descenter. | 15
15
16
16
16
16
16
16
16
16
16
16 | |
| Cross parence Engines | Ext-Entry Permit for Traveling In and | • project_id ① | 17
18 var config - HttpConfig.GetDefaultConfig(); | J. |
| | Nainland Travel Permit for Hans Kon | (874) · · · | 19 config.IgnereSslVerification = true;
20 var auth = new RasicOredentials(ak, sk); | |
| | ID Document + | Body at Edit Code | 21
22 var client = OcrClient.HesHullSer() | |
| | Nacio Resident ID Card - | Image: () string | 23 ALTOCHONTLAI(UUTN)
24 ALTOCHONTLAI(UUTN)
24 ALTOCHONTLAI(UUTN)
24 ALTOCHONTLAI(UUTN) | |
| | | county_code: (2) string | 26 | |
| | | , | 28 var reg = new NecogrizePassportNequest
29 { | |
| | | | <pre>30);
31 req.Body = new PassportRequestBody()</pre> | |
| | | | 12
23 (Ur1 = "soor" | |
| | | | 34 39 39 | |