

# **Cloud Application Rendering**

## **Operation Guide**

### **Product Documentation**



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# Operation Guide

## Application Management

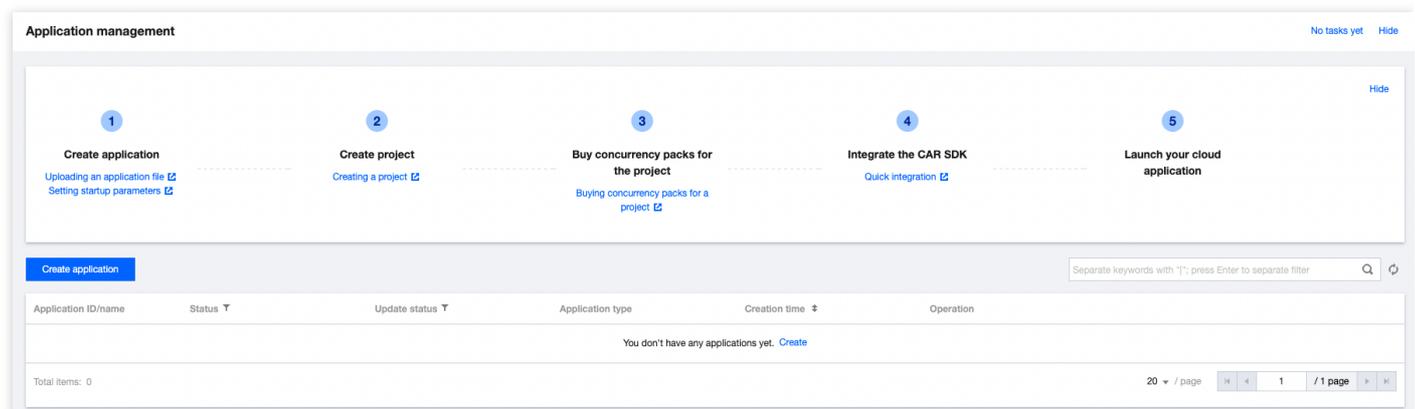
### Application Upload

Last updated : 2022-09-16 16:40:24

CAR provides the self-service application upload feature. You can package your application as a ZIP/RAR file and upload it from the local system or through a URL to deploy it as a cloud application.

## Directions

1. Go to the [CAR console](#).
2. Click **Application management** on the left sidebar and click **Create application** on the **Application management** page.



3. In the **Create application** pop-up window, select an upload method. You can select a file, drag a file, or enter a URL to upload a file.

#### Note :

The download URL must be a URL that can be accessed and trigger download directly. Download URLs of cloud disks or other URLs requiring verification are not supported.

### Create application ✕

Application name

Max 16 characters. Chinese characters, letters, numbers, and hyphens (-) are allowed.

Application type  Cloud 3D  Cloud XR

Upload file

[Click to select a file/Enter a download URL/Drag and drop](#)

Only ZIP and RAR files are supported

4. After you submit the application upload task, click **Startup parameters**.

### Your application is being uploaded ✕

Application ID: app-eiez9a5c.

Click the button below to set startup parameters for the application. You can also set them later.

**Note: Do not close the console now, or the file will fail to be uploaded.**

5. You can view the application upload progress for a selected or dragged file in **Upload task** in the top-right corner.

Application management Upload tasks in progress [Beginner's guide](#)

[Create application](#) Separate keywords with ";", press Enter to separate filter

Application ID/name	Status	Update status	Application type	Creation time	Operation
[blurred]	Normal	None	Cloud 3D	2022-09-13 20:14:18	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Normal	Ready for release	Cloud 3D	2022-09-13 20:15:08	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Startup parameters not set	None	Cloud 3D	2022-09-13 20:15:22	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 30%	Creating version	Cloud 3D	2022-09-13 20:21:41	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 0%	Creating version	Cloud 3D	2022-09-14 10:40:52	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>

Total items: 5 20 / page  1 / 1 page

An application uploaded through a URL will be downloaded on the backend. You can directly view the **application creation progress** in the upload task list on the **Application management** page.

### Upload tasks ✕

**i** Refreshing or closing this page will cancel all ongoing tasks and clear the upload history.

◀ **Uploading (0)**
**Uploaded (2)**
▶

Application creation:test.zip

✔ Completed

Application creation:test.zip

✔ Completed

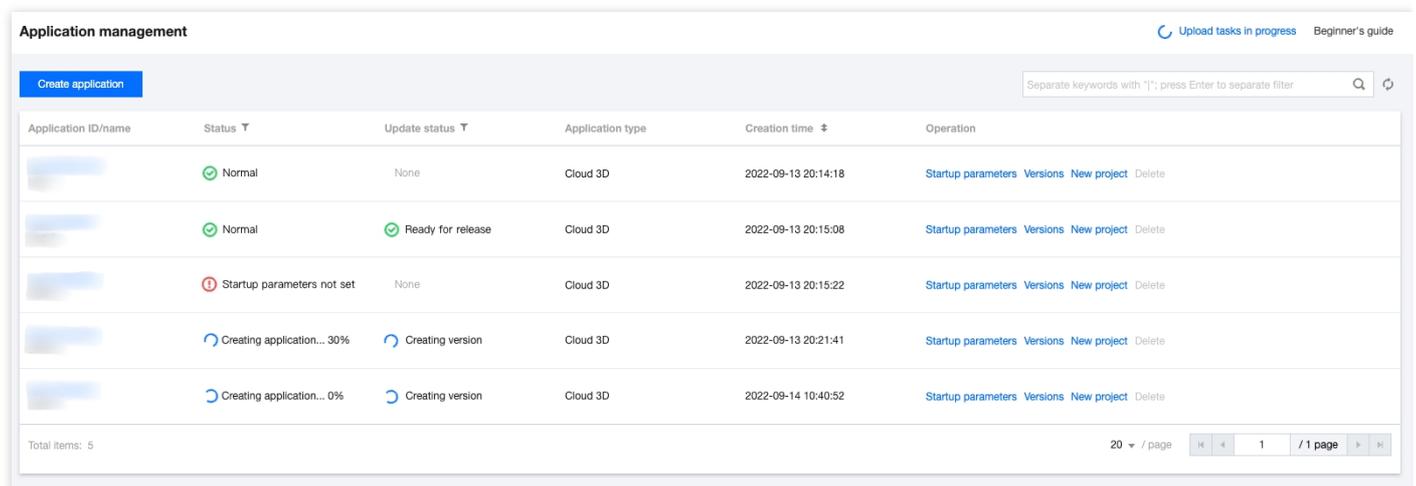
# Application Startup Parameter Configuration

Last updated : 2022-11-16 09:58:36

In CAR, you can configure your own startup parameters for your applications. A newly created cloud application can run normally in the CAR environment only after you configure its startup parameters.

## Directions

1. Enter the [CAR console](#).
2. Click **Application management** on the left sidebar, and click **Startup parameters** of the target application.



The screenshot shows the 'Application management' interface. At the top, there is a 'Create application' button and a search bar with the placeholder text 'Separate keywords with "|"; press Enter to separate filter'. Below the search bar is a table with the following columns: Application ID/name, Status, Update status, Application type, Creation time, and Operation. The table contains five rows of application data. The first row has a status of 'Normal' and 'None'. The second row has a status of 'Normal' and 'Ready for release'. The third row has a status of 'Startup parameters not set' and 'None'. The fourth and fifth rows have a status of 'Creating application... 30%' and 'Creating version'. At the bottom of the table, there is a pagination control showing 'Total items: 5' and '20 / page'.

Application ID/name	Status	Update status	Application type	Creation time	Operation
[blurred]	Normal	None	Cloud 3D	2022-09-13 20:14:18	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Normal	Ready for release	Cloud 3D	2022-09-13 20:15:08	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Startup parameters not set	None	Cloud 3D	2022-09-13 20:15:22	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 30%	Creating version	Cloud 3D	2022-09-13 20:21:41	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 0%	Creating version	Cloud 3D	2022-09-14 10:40:52	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>

3. Complete the required information:

←

## Startup parameters

---

### Application information

Application ID

Application name

Max 16 characters. Chinese characters, letters, numbers, and hyphens (-) are allowed.

---

### Basic startup parameters

Startup path \*  Browse

Processes \*

---

### Advanced startup parameters i

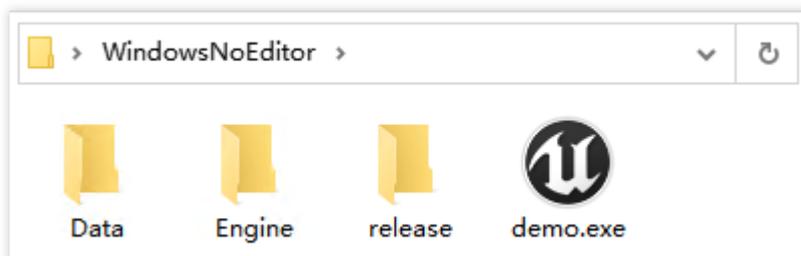
Startup parameter

Capture

Mode \*  Capture the desktop  Capture a window

Confirm
Cancel

For example, for the following application package:



The basic startup parameters should be configured as follows:

**Basic startup parameters**

Startup path \*  Browse

Processes

- **Startup path** is the full relative path to your startup application (.exe). If your application has already been created, click **Browse** to select the startup path of the .exe file. **Do not select** the startup path of processes that are not required to start the application, such as `UnityCrashHandler64.exe`.
- For stability of your applications in the cloud, we recommend you completely enter all processes to be run by the application, such as `demo.exe|Win64-Shipping.exe`. You can run the application on your local PC and open Windows Task Manager to check which processes are required.

For more information, see the table below:

Configuration item		Description
Application information	Application ID	It is generated randomly on the backend and doesn't need to be changed.
	Application name	A custom name. <b>It can contain up to 16 letters, digits, or hyphens (-).</b>
Basic startup parameters	Startup path	If your application has already been created, you can directly select the startup path of the .exe file; otherwise, enter a relative startup path, such as <code>EPIC\UE.exe</code>
	Processes	The processes to be run during application operations, such as <code>`UE.exe`</code> . You can view the details of the processes run by your application by opening the <b>Task Manager</b> . Make sure that all processes are entered completely to help maintain the application operations in the cloud.
Advanced startup parameters	Startup parameter	The startup parameter to be passed in during .exe startup Note: <b>We recommend you make the cloud application get information required by the business through the data channel.</b>
Capture	Capture the desktop	CAR will capture the cloud system desktop for users to use.

Configuration item		Description
	Capture application window	CAR will capture the window image of the cloud application for users to use. If you need to use an adaptive frontend resolution, we recommend you use this mode. You need to provide the <b>application class name</b> and <b>title</b> (the title is the window title during application startup). If the window title isn't customized during development, the window title after `Demo.exe` starts will be <code>Demo</code> . If your application is a UE application, enter <code>UnrealWindow</code> for the <b>Class name</b> .

4. After the configuration is complete, click **Confirm**.

# Application Update and Version Management

Last updated : 2022-09-16 16:38:41

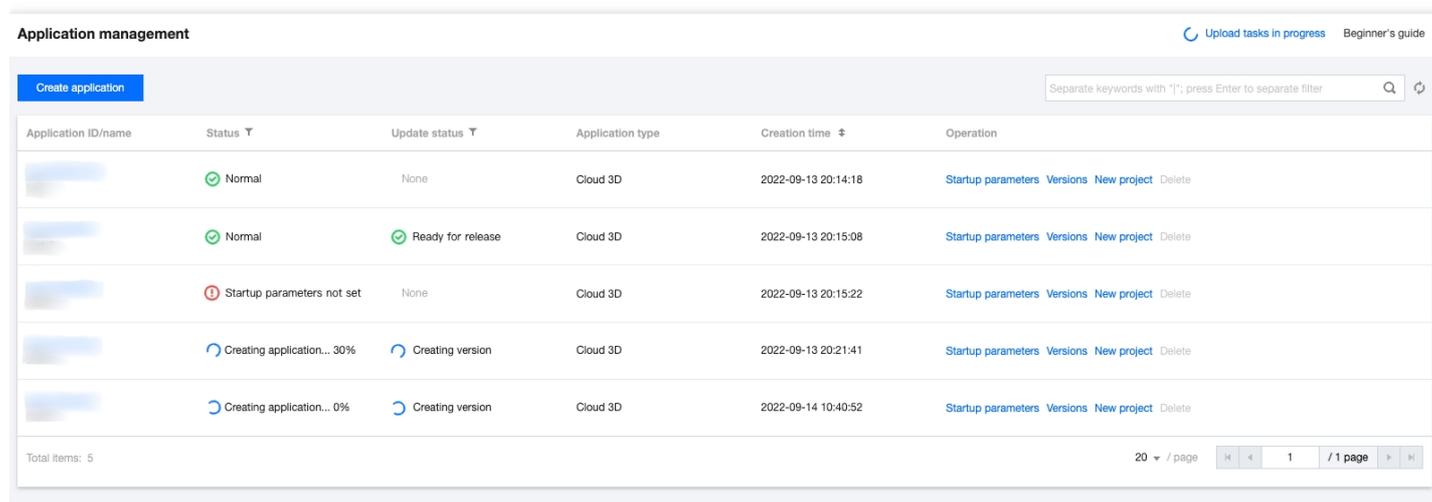
CAR offers version management capabilities. Under the same application ID, you can maintain up to **five** versions and perform operations such as new version upload and release as well as version rollback.

## Application version Update

Note :

During application update, make sure that the application startup path is the same as that of the original application package; otherwise, you need to modify the startup parameter configuration. The URL must be a URL that can be accessed and trigger download directly. Download URLs of cloud disks or other URLs requiring verification are not supported.

1. Go to the [CAR console](#).
2. Click **Application management** on the left sidebar and click **Versions** on the **Application management** page.



The screenshot shows the 'Application management' page in the Tencent Cloud console. It features a table with columns for Application ID/name, Status, Update status, Application type, Creation time, and Operation. There are five rows of data, each representing an application version. The first row is in a 'Normal' status. The second row is 'Ready for release'. The third row has a warning icon and 'Startup parameters not set'. The fourth and fifth rows are in a 'Creating' state with progress indicators.

Application ID/name	Status	Update status	Application type	Creation time	Operation
[blurred]	Normal	None	Cloud 3D	2022-09-13 20:14:18	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Normal	Ready for release	Cloud 3D	2022-09-13 20:15:08	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Startup parameters not set	None	Cloud 3D	2022-09-13 20:15:22	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 30%	Creating version	Cloud 3D	2022-09-13 20:21:41	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 0%	Creating version	Cloud 3D	2022-09-14 10:40:52	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>

3. In the **Manage application versions** pop-up window, click **Upload new version**.

### Manage application versions ✕

[Upload new version](#) ⓘ

Version ID/Name	Status	Size	Creation... ↕	Operation
[blurred]	Creating (10%)	0.00KB	2022-09-09 17:10:17	

Note: You can create at most five versions of each application. For this application, you have already created 1.

4. Select an upload method. You can select a file, drag a file, or enter a URL to upload a file.

### Upload ✕

Application ID/name [blurred]

Startup path -  
**Make sure this path is the same as the startup path of the application; otherwise, the application will fail to start after the new version is released.**

Application type **Cloud 3D**

Upload file  
[Click to select a file/Enter a download URL/Drag and drop](#)

Only ZIP and RAR files are supported

[Upload](#) [Cancel](#)

5. After submission, the application version will be created immediately. You can view the upload progress in **Manage application versions**.

### Manage application versions ✕

[Upload new version](#) ⓘ

Version ID/Name	Status	Size	Creation... ↕	Operation
[blurred]	Current version	2958.28M B	2022-09-14 20:47:33	
[blurred]	Ready for release	2958.28M B	2022-09-15 09:36:46	<a href="#">Delete</a> <a href="#">Release</a>

Note: You can create at most five versions of each application. For this application, you have already created 2.

6. After the creation, you can test the new version in the business environment based on the version ID. After the test is completed, click **Release**.

## Application version Rollback

Note :

During version rollback, make sure that the startup paths of different versions are the same; otherwise, the application will be unavailable during version switch as the startup parameter configuration doesn't match the version startup path.

1. Go to the [CAR console](#).
2. Click **Application management** on the left sidebar and click **Versions** on the **Application management** page.

Application management Upload tasks in progress [Beginner's guide](#)

[Create application](#) Separate keywords with "|"; press Enter to separate filter

Application ID/name	Status ▾	Update status ▾	Application type	Creation time ↕	Operation
[blurred]	Normal	None	Cloud 3D	2022-09-13 20:14:18	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Normal	Ready for release	Cloud 3D	2022-09-13 20:15:08	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Startup parameters not set	None	Cloud 3D	2022-09-13 20:15:22	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 30%	Creating version	Cloud 3D	2022-09-13 20:21:41	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>
[blurred]	Creating application... 0%	Creating version	Cloud 3D	2022-09-14 10:40:52	<a href="#">Startup parameters</a> <a href="#">Versions</a> <a href="#">New project</a> <a href="#">Delete</a>

Total items: 5 20 / page  1 / 1 page

3. In the **Manage application versions** pop-up window, select an earlier version and click **Revert to this version**.

### Manage application versions ✕

[Upload new version](#)

Version ID/Name	Status	Size	Creation... ↕	Operation
[blurred]	Available	2958.28M B	2022-09-14 20:47:33	<a href="#">Delete</a> <a href="#">Revert to this version</a>
[blurred]	Current version	2958.28M B	2022-09-15 09:36:46	

Note: You can create at most five versions of each application. For this application, you have already created 2.

4. In the **Confirm revert** pop-up window, confirm that everything is correct and click **Revert**.

**Confirm revert**

After reverting, this version will be used by default when the application is requested. Are you sure you want to revert to this version?

Version ID/...	Status	Size	Creation time
	Available	2958.28MB	2022-09-14 20:47:33

**Revert**

Cancel

# Using Window Capturing Mode

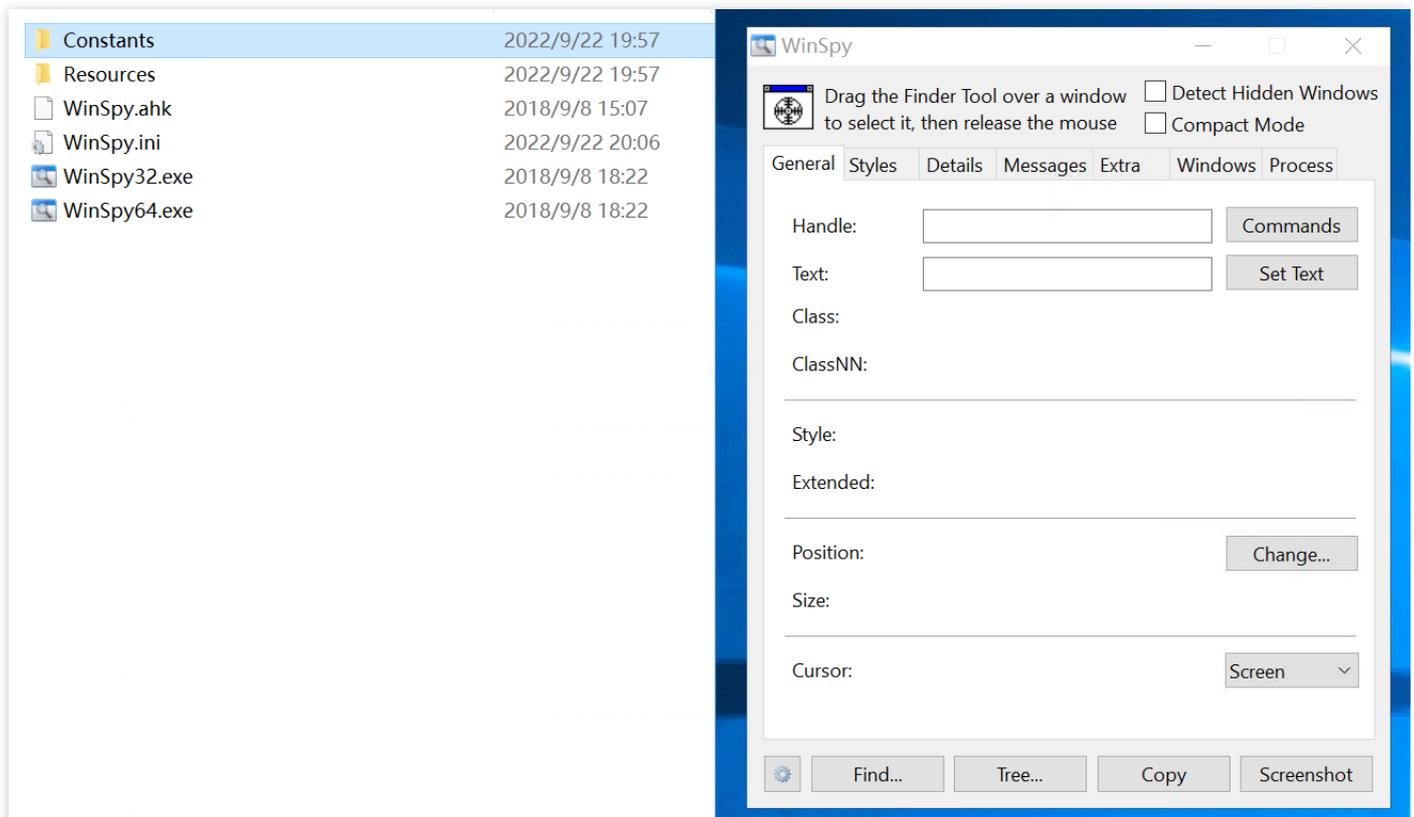
Last updated : 2022-09-29 10:12:26

CAR provides a way to capture the window image of the cloud application for users. If you need to use an adaptive frontend resolution, we recommend you use this mode. You need to provide the application class name and title (the title is the window title during application startup). If the window title isn't customized during development, the window title after `Demo.exe` starts will be `Demo`. If your application is a UE application, enter `UnrealWindow` for the **Class name**.

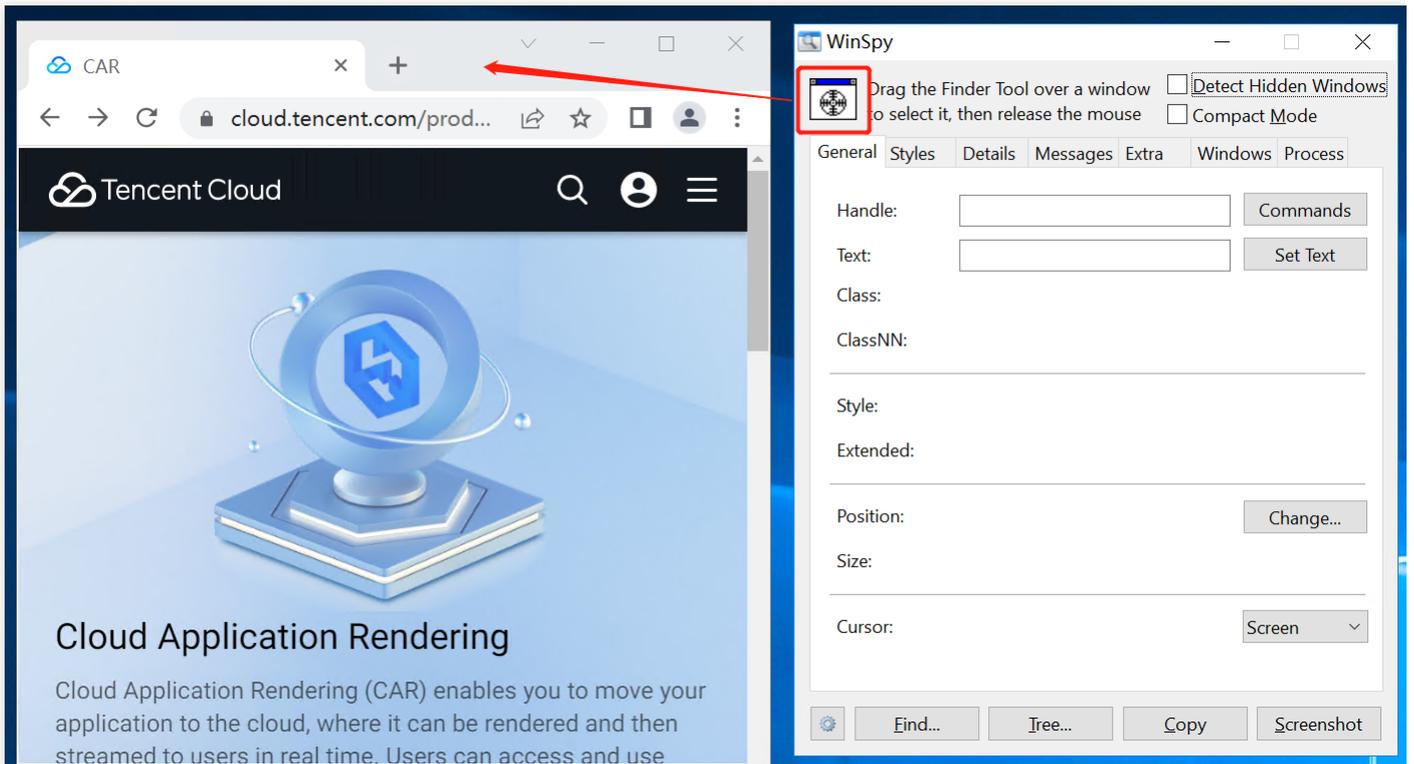
This document describes how to use WinSpy to capture the application class name and title for the startup parameter configuration.

## Directions

1. Download [WinSpy](#) to capture the window attributes.
2. Unzip WinSpy, and open WinSpy32.exe or WinSpy64.exe based on your system type.

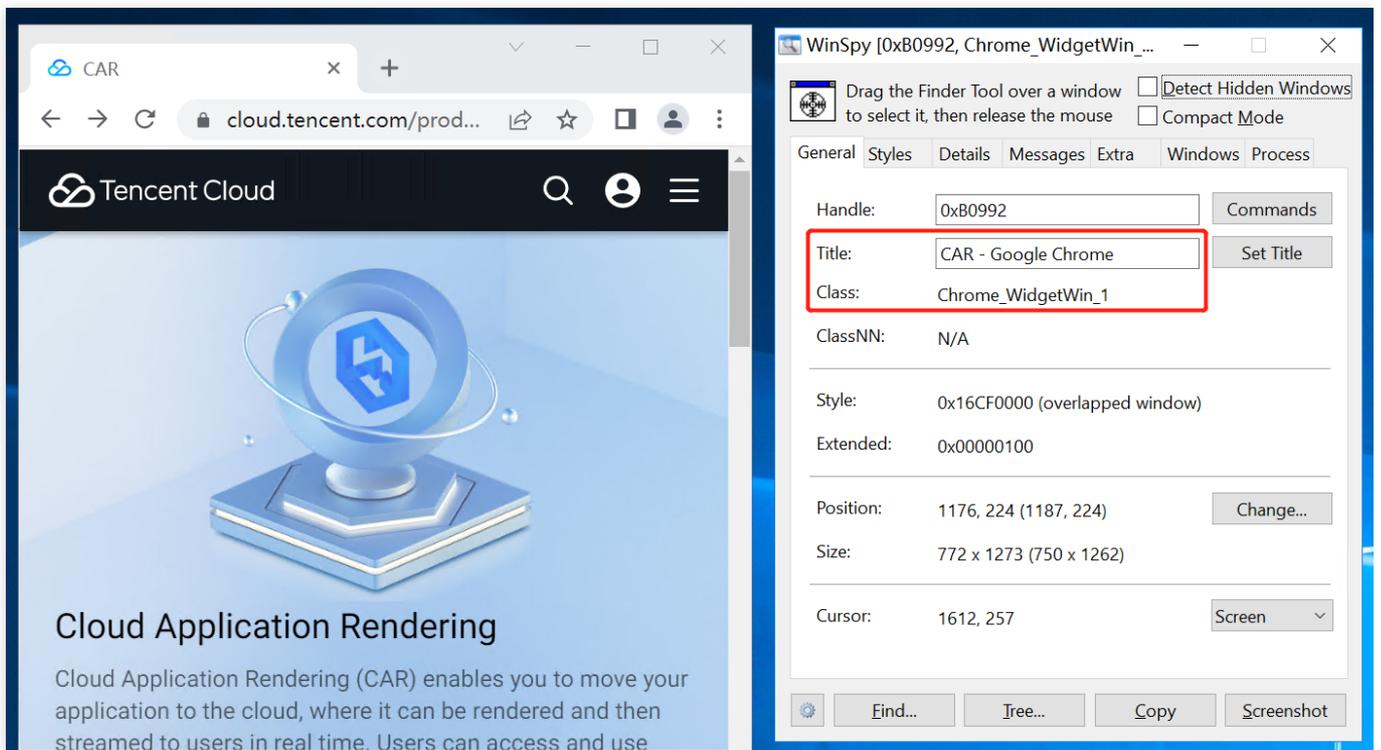


3. Open the application to capture (such as Google Chrome), click and move the Finder Tool (shown in the red box) to the application window, and release it.



4. WinSpy captures the window attributes.

- Title: Window title of your application (such as `CAR - Google Chrome` )
- Class: Application class name (such as `Chrome_WidgetWin_1` )



5. Modify the startup parameter configuration according to the captured attributes.

### Startup parameters

**Application information**

Application ID: app-yioh6xwu

Application name:  ✓

Max 16 characters. Chinese characters, letters, numbers, and hyphens (-) are allowed.

---

**Basic startup parameters**

Startup path:  Browse

Processes:

---

**Advanced startup parameters** ⓘ

Startup parameter:

Capture

Mode:  Capture the desktop  Capture a window

Window title:

Class name:

Confirm Cancel

# Project Management

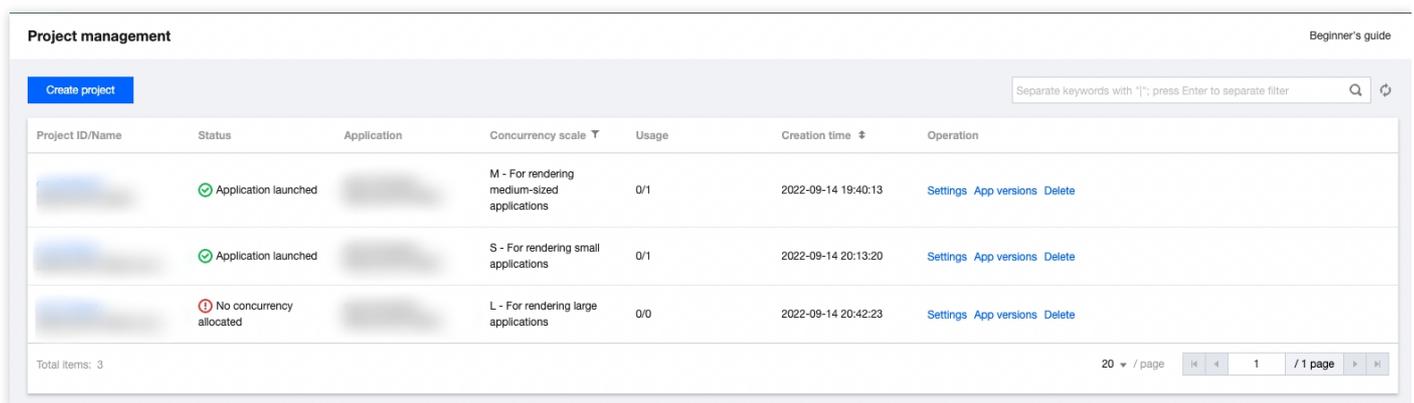
## Creating a Project

Last updated : 2022-09-16 16:54:23

A project is the unique credential for scheduling in CAR. After you have uploaded an application, you need to associate it with a project, and then you can allocate a concurrency pack (computing power) to your project, after which you can enjoy the CAR service.

## Directions

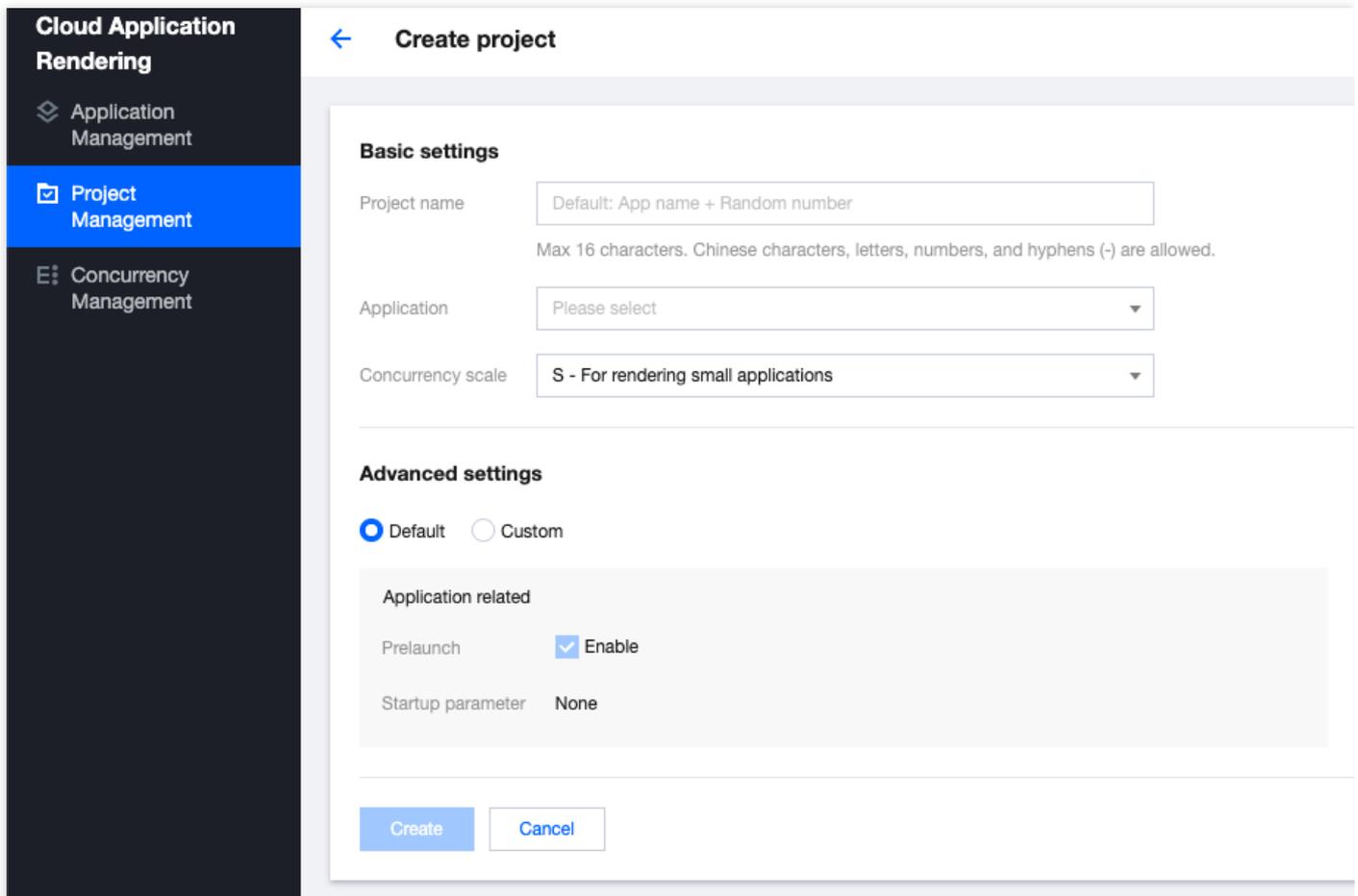
1. Go to the [CAR console](#).
2. Click **Project management** on the left sidebar and click **Create project** on the **Project management** page.



The screenshot shows the 'Project management' page in the Tencent Cloud console. It features a 'Create project' button and a search bar. Below is a table with three rows of project data. The first two rows show 'Application launched' status, while the third shows 'No concurrency allocated'. The table includes columns for Project ID/Name, Status, Application, Concurrency scale, Usage, Creation time, and Operation. At the bottom, it indicates 'Total items: 3' and a pagination control showing '20 / page' and '1 / 1 page'.

Project ID/Name	Status	Application	Concurrency scale	Usage	Creation time	Operation
[blurred]	Application launched	[blurred]	M - For rendering medium-sized applications	0/1	2022-09-14 19:40:13	Settings App versions Delete
[blurred]	Application launched	[blurred]	S - For rendering small applications	0/1	2022-09-14 20:13:20	Settings App versions Delete
[blurred]	No concurrency allocated	[blurred]	L - For rendering large applications	0/0	2022-09-14 20:42:23	Settings App versions Delete

3. On the **Create project** page, set the following configuration items:



Configuration Item		Description
Basic settings	Project name	A custom project name <b>it can contain up to 16 letters, digits, or hyphens (-)</b> .
	Application	Select an application to be associated with the project.
	Concurrency scale	Select the concurrency scale of the project.
Advanced settings	Default	If <b>Default</b> is selected, application prelaunch will be enabled, and the default application startup parameters will be used.
	Custom	If <b>Custom</b> is selected, you can enable/disable <i>application prelaunch</i> and configure the application startup parameters separately.

4. Click **Create**.

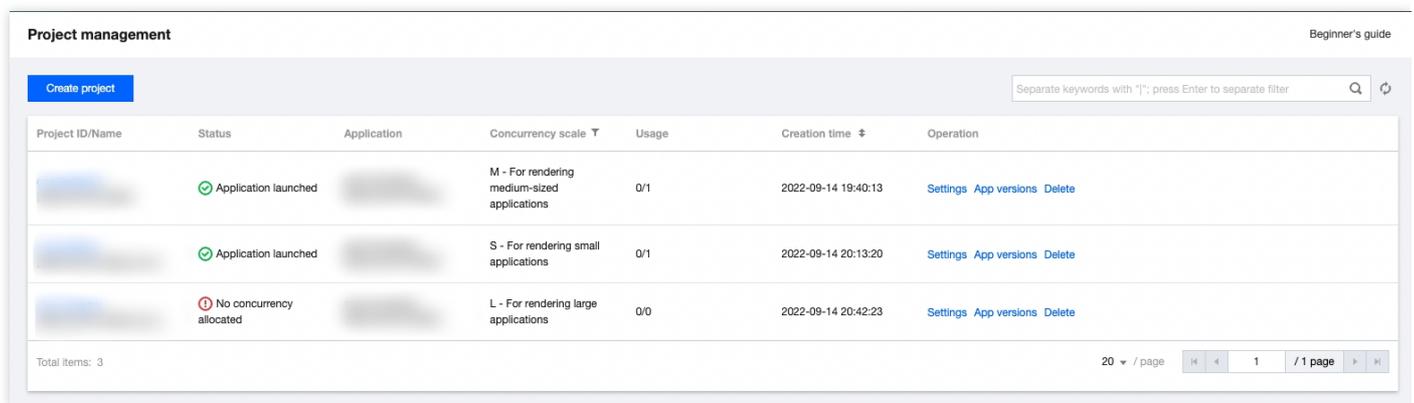
# Project Management

Last updated : 2022-09-16 16:56:43

In **Settings**, you can view and modify the project configuration and allocate a concurrency pack to the project.

## Concurrency pack allocation

1. Go to the [CAR console](#).
2. Click **Project management** on the left sidebar and click **Settings** in the list on the **Project management** page.



The screenshot shows the 'Project management' page in the Tencent Cloud console. It features a 'Create project' button, a search bar, and a table of projects. The table has columns for Project ID/Name, Status, Application, Concurrency scale, Usage, Creation time, and Operation. Three projects are listed, with the first two having a status of 'Application launched' and the third having 'No concurrency allocated'. The table also includes a pagination bar at the bottom showing 'Total items: 3' and '20 / page'.

Project ID/Name	Status	Application	Concurrency scale	Usage	Creation time	Operation
[blurred]	Application launched	[blurred]	M - For rendering medium-sized applications	0/1	2022-09-14 19:40:13	Settings App versions Delete
[blurred]	Application launched	[blurred]	S - For rendering small applications	0/1	2022-09-14 20:13:20	Settings App versions Delete
[blurred]	No concurrency allocated	[blurred]	L - For rendering large applications	0/0	2022-09-14 20:42:23	Settings App versions Delete

3. If you haven't purchased any concurrency pack with the same concurrency scale as your project, click **Buy concurrency pack** to purchase a corresponding concurrency pack. If you have already purchased a

corresponding concurrency pack, click **Allocate** to allocate it to the project.

← **Concurrency settings**

---

**Project details**

Name: [blurred]

Application: [blurred]

Status: No concurrency allocated

Concurrency scale: S - For rendering small applications

Creation time: 2022-09-13 20:16:10

Usage: 0/0

[Advanced settings](#)

---

[Buy concurrency pack](#) [Allocate](#) [Unbind](#) [Transfer](#) [Renew](#) [Terminate/Return](#)

<input type="checkbox"/>	Pack ID/Name	Status	Concurrency scale	Region	Usage	Billing mode	Operation
This project hasn't been allocated any concurrency packs yet. <a href="#">Buy now</a>							

Total items: 0 20 / page   1 / 1 page

# Concurrency Management

## Purchasing a Concurrency Pack

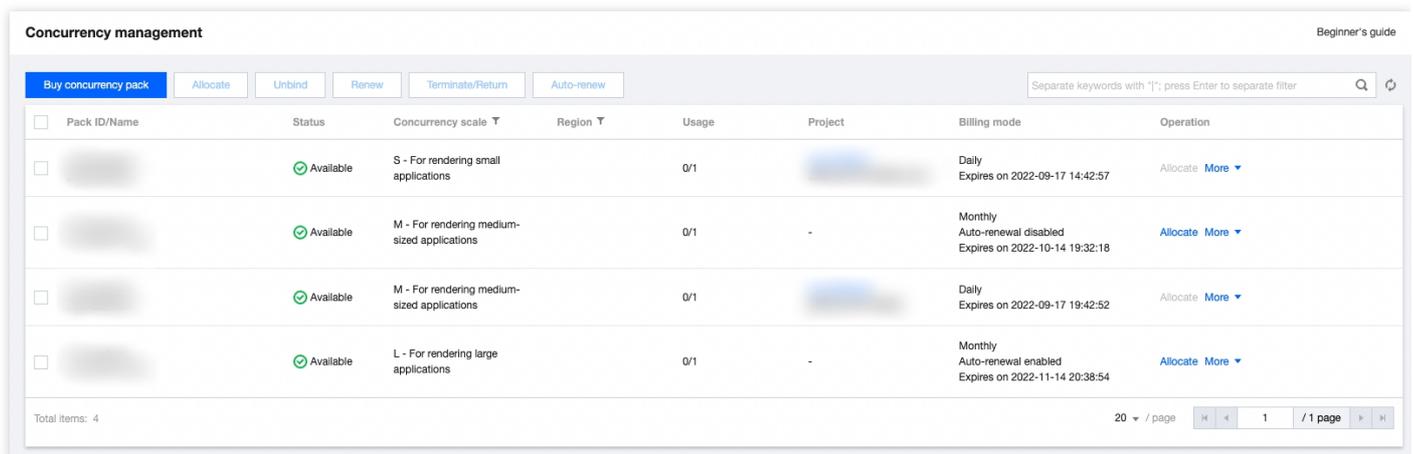
Last updated : 2022-09-16 16:15:02

In CAR, users access your application by connecting to concurrencies. Each concurrency supports access by only one user at a time. If you want your business to sustain 100 concurrent online users, you need to purchase 100 concurrencies.

To purchase and manage concurrencies for your application, you need to purchase a concurrency pack. Concurrency packs are configured with resources and concurrencies, and can then allocated to your projects.

### Directions

1. Go to the [CAR console](#).
2. Click **Concurrency management** on the left sidebar and click **Buy concurrency pack** on the **Concurrency management** page.



The screenshot shows the 'Concurrency management' interface. At the top, there are buttons for 'Buy concurrency pack', 'Allocate', 'Unbind', 'Renew', 'Terminate/Return', and 'Auto-renew'. A search bar is located on the right. Below the buttons is a table with the following columns: Pack ID/Name, Status, Concurrency scale, Region, Usage, Project, Billing mode, and Operation. The table contains four rows of data, all with a status of 'Available'. The first row is for a 'Small' scale pack, the second for a 'Medium-sized' pack, the third for another 'Medium-sized' pack, and the fourth for a 'Large' scale pack. Each row has an 'Allocate' button and a 'More' dropdown menu. At the bottom left, it says 'Total items: 4'. At the bottom right, there is a pagination control showing '20 / page' and '1 / 1 page'.

Pack ID/Name	Status	Concurrency scale	Region	Usage	Project	Billing mode	Operation
[Redacted]	Available	S - For rendering small applications	[Redacted]	0/1	[Redacted]	Daily Expires on 2022-09-17 14:42:57	Allocate More
[Redacted]	Available	M - For rendering medium-sized applications	[Redacted]	0/1	-	Monthly Auto-renewal disabled Expires on 2022-10-14 19:32:18	Allocate More
[Redacted]	Available	M - For rendering medium-sized applications	[Redacted]	0/1	[Redacted]	Daily Expires on 2022-09-17 19:42:52	Allocate More
[Redacted]	Available	L - For rendering large applications	[Redacted]	0/1	-	Monthly Auto-renewal enabled Expires on 2022-11-14 20:38:54	Allocate More

3. On the **purchase page**, set the following configuration items:

### Cloud Application Rendering

Application type Desktop

Project Unallocated ↕

Billing mode Monthly Daily

Region Japan Korea Singapore

Resources

Concurrency scale	Specification
<input checked="" type="radio"/> S – For rendering small applications	At least 4–core vCPU, 8 GB memory, 2 TF SP/30T INT GPU
<input type="radio"/> M – For rendering medium-sized applications	At least 4–core vCPU, 16 GB memory, 4 TF SP/30T INT GPU
<input type="radio"/> L – For rendering large applications	At least 10–core vCPU, 32 GB memory, 8.1 TF SP/30T INT GPU

Max concurrency - 1 + concurrencies

Max concurrency is the maximum number of users that can access your application at the same time. For example, if you purchase 100 concurrencies, up to 100 users can access your application simultaneously. Suppose each user uses your application for 10 minutes. 120 users can access your application per day for each concurrency purchased.

Duration 1 month(s) 2 month(s) 3 month(s) 4 month(s) 5 month(s) 6 month(s) 7 month(s) 8 month(s) 9 month(s) 10 month(s) 11 month(s) One year

Auto-renewal  Renew a pack automatically if your account has sufficient balance

Pack name Randomly generated if not specific

Only Chinese characters, letters, numbers, and hyphens (-) are allowed

Cost .....
Buy now

Configuration Item	Description
Project	Select the project of the concurrency pack based on your business needs. You can select <b>To be allocated</b> first and allocate the concurrency pack on the <b>Project management</b> or <b>Concurrency management</b> page later.
Billing mode	Currently, CAR concurrency packs support two prepayment modes: monthly and daily subscriptions. For more information, see <a href="#">Billing Description</a> .
Region	As cross-region CAR concurrency scheduling severely affects the operation experience, you need to select regions based where your business and users are located. Each concurrency can be used by only one user at a time. You need to select the number of concurrencies and the region based on the expected number of concurrent users in each region.

Concurrency scale	When you purchase a CAR concurrency pack, select a concurrency scale based on the concurrency scale that you specified for your project. If a project is selected, that project's concurrency scale will be selected.
Quantity	Select the number of concurrencies you want to purchase. You can purchase up to 100 concurrencies at a time.
Pack duration	Select the duration for the concurrency pack based on your business needs.
Auto-renew	If you enable <b>Auto-renew</b> , the concurrency pack will be automatically renewed monthly upon expiration if your Tencent Cloud account balance is sufficient. <b>Only monthly subscription supports automatic renewal.</b>
Pack name	Name the concurrency pack. If the pack contains multiple concurrencies, a number will be added to the end of the name of each CAR concurrency for identification.

4. Click **Buy Now** and confirm the information on the order details page.