

How to use Taiwan Computing Cloud?

Train YOLOv9 as an example

Shih-Hsin Chen, Associate
Professor

Department of Computer Science
and Information Engineering

Tamkang University

Content

1. User interface of TWCC
2. Preparation of YOLOv9 and Dataset
3. Interactive container
4. Scheduled container
5. How to download files from TWCC
6. Query existing Interactive containers and delete them

1. User interface of TWCC

You can view storage and resource usage here.
(For PPT page19)

The screenshot displays the TWCC (Taiwan Cloud Computing) user interface. The top navigation bar is teal and contains the TWCC logo, the text "TAIWAN COMPUTING CLOUD", a dropdown menu for "整合方向性YOLOV...", a "SERVICES" dropdown, and user profile information for "余紫綾".

The main content area is divided into two sections:

- Project Information:** This section features a user profile card on the left for "余紫綾" (Yu Zile) with the role "Tenant User". To the right, under the heading "整合方向性YOLOv7演算法與背景分類資訊檢測肺高壓心臟超音波影像 Credits Information", it shows "Personal Available Credits" as 6,831. Below this, it lists "Duration" (redacted), "System Code" (redacted), "Wallet Type: 母錢包", and "Wallet Owner: 陳世興". A red box highlights a "VIEW DETAILS >" button, which is pointed to by an arrow from the text above.
- TWCC Services:** This section includes a "My Favorite Services" area with a message: "You have no favorite service now. Add favorites by clicking on the star next to the service name." Below this is an "All Services" section with four categories: "Compute" (Interactive Container), "Storage" (Cloud Object Storage), "Networking & Security" (Virtual Network), and "Artificial Intelligence" (OneAI). Each category has a star icon next to it.

2. Preparation of YOLOv9 and Dataset

- We use YOLOv9 as an example, which is a well-known object detection algorithm
- Roboflow provides extensive datasets in image classification, object detection, segmentation, and so on.

2.1 Download YOLOv9 from GitHub

Download yolov9 in zip form.

<https://github.com/WongKinYiu/yolov9>

The screenshot shows the GitHub repository page for WongKinYiu/yolov9. The repository is public and has 54 watchers, 1.3k forks, and 8.5k stars. The 'Code' button is highlighted with a red box, and the 'Download ZIP' option in the dropdown menu is also highlighted with a red box. The repository contains a file tree with folders like classify, data, figure, models, panoptic, scripts, segment, tools, and utils, and files like LICENSE.md and README.md. The 'About' section on the right provides information about the repository, including the README, license (GPL-3.0), activity, and releases.

WongKinYiu / yolov9

Type to search

<> Code Issues 280 Pull requests 38 Actions Projects Security Insights

yolov9 Public

Watch 54 Fork 1.3k Star 8.5k

main 5 Branches 1 Tags

Go to file

Add file <> Code

Local Codespaces

Clone

HTTPS SSH GitHub CLI

https://github.com/WongKinYiu/yolov9.git

Clone using the web URL.

Open with GitHub Desktop

Download ZIP

WongKinYiu Create gelan-tyaml

File/Folder	Action	Time
classify	Add files via upload	
data	Update coco.yaml	
figure	Add files via upload	
models	Create gelan-tyaml	
panoptic	Update train.py	
scripts	Add files via upload	
segment	Create val_dual.py	3 months ago
tools	Add files via upload	last month
utils	Create coco_utils.py	4 months ago
LICENSE.md	Create LICENSE.md	5 months ago
README.md	Update README.md	last month

About

Implementation of paper - YOLOv9: Learning What You Want to Learn Using Programmable Gradient Information

yolov9

Readme

GPL-3.0 license

Activity

8.5k stars

54 watching

1.3k forks

Report repository

Releases 1

v0.1 Latest on Feb 22

Packages

2.2 Object Detection Dataset

- A football player dataset from <https://universe.roboflow.com/roboflow-jvuqo/football-players-detection-3zvbc/dataset/20>

Universe Search 500,000+ Open Source Computer Vision Projects...

← Back

football-players-...
Object Detection

GENERAL

Overview

DATA

Images 372

Dataset 19

Analytics

DEPLOY

Model 17

</> API Docs

Versions

rf-detr-m ✓

v20 372 Medium

yolo11m ✓

v19 372 Medium

COCO

rf-detr-s ✓

v18 372 Small

yolo11s ✓

v17 372 Accurate

COCO

rf-detr-n ✓

v18 372 Nano

yolo11n ✓

v15 372 Fast COCO

2025-03-27 5:42pm

Use this Dataset Use this Model

v20 rf-detr-m
Generated on Aug 2, 2025

[Download Dataset](#)









Popular Download Formats

YOLOv11 YOLOv9 YOLOv8 YOLOv5 YOLOv7

COCO JSON YOLO Darknet Pascal VOC XML TFRecord PaliGemma

CreateML JSON Other Formats

372 Total Images [View All Images →](#)

Dataset Split

TRAIN SET 298 Images 80%	VALID SET 49 Images 13%	TEST SET 25 Images 7%
--------------------------------	-------------------------------	-----------------------------

3. Interactive container

Click on development container

TWCC

TAIWAN
COMPUTING
CLOUD

整合方向性YOLOV... ▾

SERVICES ▾

⚙️

📞

❓

👤 余紫綾

Please refer to [iService](#) for more detailed and accurate information.













VIEW DETAILS >

TWCC Services

^ My Favorite Services

You have no favorite service now.
Add favorites by clicking on the star next to the service name.

^ All Services

Compute		Storage		Networking & Security		Artificial Intelligence	
 Interactive Container	☆	 Cloud Object Storage	☆	 Virtual Network	☆	 OneAI	☆
 Virtual Compute Service	☆	 Cloud File Service	☆	 Load Balancing Service	☆	 AI²CS	☆
 Scheduled Container	☆	 Virtual Disk Service	☆	 Auto Scaling	☆		
 HPC Job	☆						

3. Interactive container

Since yolov9 uses PyTorch for image recognition, we chose PyTorch.

The screenshot shows the TWCC (Taiwan Computing Cloud) web interface for creating an interactive container. The top navigation bar includes the TWCC logo, a dropdown menu for '整合方向性YOLOV...', a 'SERVICES' dropdown, and user profile information for '余紫綾'. The left sidebar contains links for 'Interactive Container', 'Image Request History', 'Image', and 'Monitoring'. The main content area is titled 'Create Interactive Container' and includes a breadcrumb trail: 'Home > Interactive Container > Create'. Below the title is a 'Choose Image Type' section with a search bar. The 'Recent Used' section displays two cards: 'PyTorch' and 'TensorFlow'. The 'Image Type' section displays five cards: 'TensorFlow', 'PyTorch' (highlighted with a red border), 'CUDA', 'Matlab (BYOL)', and 'TensorRT'. Each card features a hexagonal icon, a title, and a brief description of the environment provided.

TWCC TAIWAN COMPUTING CLOUD

整合方向性YOLOV... SERVICES

Home > Interactive Container > Create

Create Interactive Container

Choose Image Type ⓘ

Q Search Name

Recent Used

- PyTorch ⓘ**
TWCC provides pay-as-you-go working environment of NGC optimized PyTorch. PyTorch is a GPU accelerated tensor computation...
- TensorFlow ⓘ**
TWCC provides pay-as-you-go working environment of NGC optimized Tensorflow. TensorFlow is an open source software libra...

Image Type

- TensorFlow ⓘ**
TWCC provides pay-as-you-go working environment of NGC optimized Tensorflow. TensorFlow is an open source software libra...
- PyTorch ⓘ**
TWCC provides pay-as-you-go working environment of NGC optimized PyTorch. PyTorch is a GPU accelerated tensor computation...
- CUDA ⓘ**
TWCC provides pay-as-you-go working environment of NGC's CUDA. CUDA® is a parallel computing platform and application pr...
- Matlab (BYOL) ⓘ**
TWCC provides pay-as-you-go working environment of [NGC optimized MATLAB](https://man.twcc.ai/@twccdocs/ccs-concept-imag...
- TensorRT ⓘ**
TWCC provides pay-as-you-go working environment of NGCs TensorRT. NVIDIA TensorRT is a C++ library that facilitates high...
- Triton Inference Server(TensorRT) ⓘ**
TWCC provides pay-as-you-go working environment of NGCs TensorRT Inference Server. The TensorRT inference server provide...

3. Interactive container

The latest version of the image file is not necessarily the most suitable for yolov9 , but **pytorch-22.08-py3:latest** is currently the most suitable, so this version is selected.

Home > Interactive Container > Create

Create Interactive Container

BASICS STORAGE ENVIRONMENT VARIABLES INITIAL SCRIPTS REVIEW & CREATE

Name * ctr1718501610857

Description Interactive Container Description

Image * pytorch-22.08-py3:latest

Basic Configuration * [View Available Quota](#)

All Types

Type	GPUs ↑ (Pcs)	CPU Cores (Cores)	Memory (GB)	Shared Memory (GB)	Cost Estimate (NTD/Hour)
<input type="radio"/> c.super	1	4	90	-	86.10 NTD / Hour
<input checked="" type="radio"/> cm.super	1	4	60	30	86.10 NTD / Hour

REVIEW & CREATE BACK NEXT : STORAGE> CANCEL

For yolov5, one GPU model is enough for detection, so the **cm.super** model is selected.

3. Interactive container

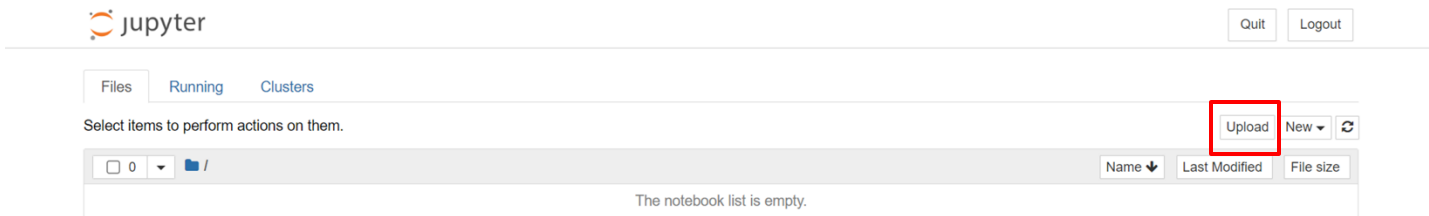
Open Jupyter, we can use Jupyter to upload the data and input commands required for yolov9 recognition.

The screenshot displays the TWCC (Taiwan Cloud Computing Cloud) interface for an Interactive Container. The top navigation bar includes the TWCC logo, a dropdown menu for '整合方向性YOLOV...', and a 'SERVICES' dropdown. The left sidebar shows navigation options: 'Interactive Container', 'Image Request History', 'Image', and 'Monitoring'. The main content area is titled 'Interactive Container Details' and features two tabs: 'CONFIGURATIONS' and 'MONITORING'. Under 'CONFIGURATIONS', there are buttons for 'IMAGE', 'DELETE', and 'REFRESH'. The 'Basics' section provides details about the container, including its ID (4748322), Name (ctr1719197267292), Image (pytorch-22.08-py3:latest), and State (Ready). A 'CONTAINER LOG' button is also present. The 'Networks & Connection' section includes a link 'How to SSH into a Container' and a table with details such as Name, Network Type, Public IP, and Port. A red box highlights the 'LAUNCH' button, and an arrow points to it from the text 'For PPT page28 YOUR_ACCOUNT'.

Interactive Container Details			
CONFIGURATIONS		MONITORING	
<div>IMAGE DELETE REFRESH</div>			
Basics			
ID	4748322	Image	pytorch-22.08-py3:latest
Name	ctr1719197267292	Deletion Protection	
Description		State	Ready
Basic Configuration	1 GPU + 04 cores + 060GB memory + 030GB share memory		Log
			CONTAINER LOG
Networks & Connection How to SSH into a Container			
Name	cc72nkctr1719197267292	Jupyter	
Network Type	LoadBalancer	SSH	ssh- r1513733 @203.145.216.206 -p 58152
Public IP	203.145.216.206	Service Port	ASSOCIATE DISSOCIATE
Port	Target Port: 22 (ssh)		

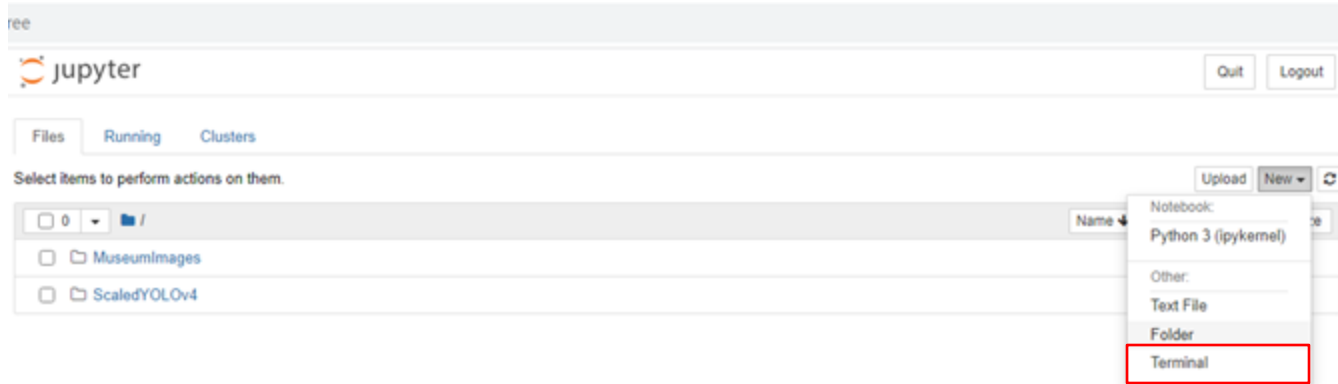
For PPT page28
YOUR_ACCOUNT

3. Interactive container



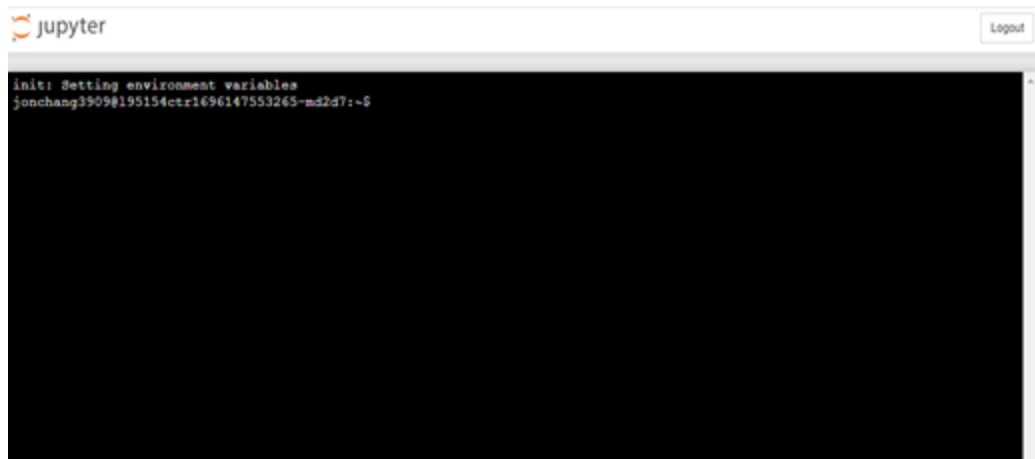
Upload yolov9-main.zip and dataset

3. Interactive container



Open the terminal

3. Interactive container





A screenshot of a Jupyter terminal window. The window has a title bar with the Jupyter logo and a 'Logout' button. The terminal text shows the initialization of environment variables and the user's login shell prompt.

```
init: Setting environment variables
jonchang3909@195154ctr1696147553265-md2d7:~$
```



Files Running Clusters

Select items to perform actions on them.

<input type="checkbox"/>	0		 /
<input type="checkbox"/>			yolov9-main
<input type="checkbox"/>			football-players-detection.v9i.yolov9.zip
<input type="checkbox"/>			yolov9-main.zip

You can enter your commands here.

Unzip yolov9-main.zip and dataset.zip

- `unzip yolov9-main.zip`
- `unzip YOUR_DATASET.zip -d ~/yolov9-main`

3. Interactive container

- What is the content of data.yaml?
- A relative path of the three folders. Please modify the ../ to ./

jupyter data.yaml ✓ 2023年12月21日

File Edit View Language

```
1 train: ../train/images
2 val: ../valid/images
3 test: ../test/images
4
5 nc: 4
6 names: ['ball', 'goalkeeper', 'player', 'referee']
7
8 roboflow:
9   workspace: roboflow-jvuqo
10  project: football-players-detection-3zvbc
11  version: 2
12  license: CC BY 4.0
13  url: https://universe.roboflow.com/roboflow-jvuqo/
```

jupyter data.yaml ✓ 1 分鐘前

File Edit View Language

```
1 train: ./train/images
2 val: ./valid/images
3 test: ./test/images
4
5 nc: 4
6 names: ['ball', 'goalkeeper', 'player', 'referee']
7
8 roboflow:
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10  project: football-players-detection-3zvbc
11  version: 2
12  license: CC BY 4.0
13  url: https://universe.roboflow.com/roboflow-jvuqo/
```

3. Interactive container

Install the packages required for identification and then train the model

- `cd ~/yolov9-main`
- `wget -P ./weights -q https://github.com/WongKinYiu/yolov9/releases/download/v0.1/yolov9-c.pt`
- `wget -P ./weights -q https://github.com/WongKinYiu/yolov9/releases/download/v0.1/yolov9-e.pt`
- `wget -P ./weights -q https://github.com/WongKinYiu/yolov9/releases/download/v0.1/gelan-c.pt`
- `wget -P ./weights -q https://github.com/WongKinYiu/yolov9/releases/download/v0.1/gelan-e.pt`

```
u1513733@gvns8xctr1720416049770-gt28n:~$  
u1513733@gvns8xctr1720416049770-gt28n:~$  
u1513733@gvns8xctr1720416049770-gt28n:~$ cd ~/yolov9-main  
u1513733@gvns8xctr1720416049770-gt28n:~/yolov9-main$ wget -P ./weights -q https://github.com/WongKinYiu/yolov9/releases/download/v0.1/gelan-c.pt  
--2024-07-08 13:55:23-- http://xn--q-5gn/  
Resolving xn--q-5gn (xn--q-5gn)... failed: Name or service not known.  
wget: unable to resolve host address 'xn--q-5gn'  
--2024-07-08 13:55:23-- https://github.com/WongKinYiu/yolov9/releases/download/v0.1/gelan-c.pt  
Resolving github.com (github.com)... 20.27.177.113  
Connecting to github.com (github.com)|20.27.177.113|:443... connected.
```

3. Interactive container

Install the packages required for identification and then train the model

- `sudo apt-get update && sudo apt-get install libgl1 -y && pip install seaborn && python train.py --batch 64 --epochs 5 --img 416 --device 0 --min-items 0 --close-mosaic 15 --data ./data.yaml --weights ./weights/gelan-c.pt --cfg models/detect/gelan-c.yaml --hyp hyp.scratch-high.yaml`

```
u1513733@gvns8xctr1720416049770-gt28n:~/yolov9-main$ sudo apt-get update && sudo apt-get install libgl1 -y && python train.py --batch 64 --epochs 5 --img 416 --device 0 --min-items 0 --close-mosaic 15 --data ./data.yaml --weights ./weights/gelan-c.pt --cfg models/detect/gelan-c.yaml --hyp hyp.scratch-high.yaml
Hit:1 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu focal InRelease
Get:3 http://archive.ubuntu.com/ubuntu focal-updates InRelease [128 kB]
Hit:4 http://archive.ubuntu.com/ubuntu focal-backports InRelease
Fetched 128 kB in 2s (68.3 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree
Reading state information... Done
libgl1 is already the newest version (1.3.2-1~ubuntu0.20.04.2).
0 upgraded, 0 newly installed, 0 to remove and 164 not upgraded.
train: weights=./weights/gelan-c.pt, cfg=models/detect/gelan-c.yaml, data=./data.yaml, hyp=hyp.scratch-high.yaml, epochs=5,
```


3. Interactive container

```
Validating runs/train/exp4/weights/best.pt...
Fusing layers...
gelan-c summary: 387 layers, 25230172 parameters, 0 gradients, 101.8 GFLOPs
```

Class	Images	Instances	P	R	mAP50	mAP50-95: 100%	1/1 00:00
all	43	1025	0.711	0.204	0.186	0.101	
ball	43	39	1	0	0	0	
goalkeeper	43	32	1	0	0	0	
player	43	853	0.634	0.798	0.708	0.384	
referee	43	101	0.209	0.0184	0.037	0.0209	

```
Results saved to runs/train/exp4
u1513733@gvns8xctr1720416049770-gt28n:~/yolov9-main$
```

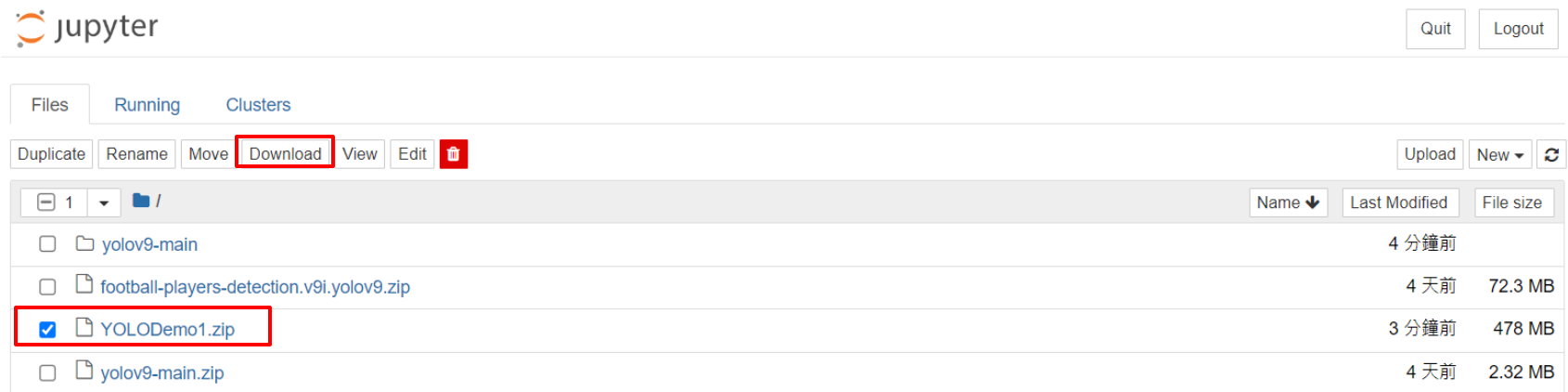
Training result storage location

Compressed archive

- `sudo apt-get install zip gzip tar && zip -r YOLODemo1.zip /home/YOUR_ACCOUNT/yolov9-main/runs/train/exp4`

```
u1513733@gvns8xctr1720416049770-gt28n:~$ sudo apt-get install zip gzip tar && zip -r YOLODemo1.zip /home/u1513733/yolov9-main/runs/train/exp4
Reading package lists... Done
Building dependency tree
Reading state information... Done
zip is already the newest version (3.0-11build1).
```

3. Interactive container



The image shows the JupyterLab interface. At the top left is the Jupyter logo. At the top right are 'Quit' and 'Logout' buttons. Below the logo are tabs for 'Files', 'Running', and 'Clusters'. A toolbar contains buttons for 'Duplicate', 'Rename', 'Move', 'Download' (highlighted with a red box), 'View', 'Edit', and a trash icon. To the right of the toolbar are 'Upload', 'New' (with a dropdown arrow), and a refresh icon. The main area displays a file browser for the root directory '/'. It has columns for 'Name', 'Last Modified', and 'File size'. The file list includes:

	Name	Last Modified	File size
<input type="checkbox"/>	folder yolov9-main	4 分鐘前	
<input type="checkbox"/>	file football-players-detection.v9i.yolov9.zip	4 天前	72.3 MB
<input checked="" type="checkbox"/>	file YOLODemo1.zip	3 分鐘前	478 MB
<input type="checkbox"/>	file yolov9-main.zip	4 天前	2.32 MB

Check and download the results of completed training

3. Interactive container

Home > Interactive Container

Interactive Container Management [Learn more](#)

[+ CREATE](#) [DELETE](#) [REFRESH](#)

Search

1 Item(s) Last Updated 2024-06-24 10:52:34

<input type="checkbox"/>	ID ↓	Name	Public IP	State	Delete protection	Created at	Created by
<input type="checkbox"/>	4748322	ctr1719197267292	203.145.216.206	Ready		2024-06-24 10:49:31	余紫綾

< 1 / 1 >

[DELETE](#)

Most important don't forget to delete the container after you finished!!!

4. Scheduled container

Click on the task container

The screenshot shows the TWCC (Taiwan Cloud Computing) Services page. The header includes the TWCC logo, navigation links for '整合方向性YOLOV...' and 'SERVICES', and user information '余紫綾'. A message box at the top states: 'Please refer to [iService](#) for more detailed and accurate information.' with a 'VIEW DETAILS >' button.

The main content area is titled 'TWCC Services' and is divided into two sections: 'My Favorite Services' and 'All Services'.

My Favorite Services

You have no favorite service now.
Add favorites by clicking on the star next to the service name.

All Services

Compute	Storage	Networking & Security	Artificial Intelligence
Interactive Container ☆	Cloud Object Storage ☆	Virtual Network ☆	OneAI ☆
Virtual Compute Service ☆	Cloud File Service ☆	Load Balancing Service ☆	AI²CS ☆
Scheduled Container ☆	Virtual Disk Service ☆	Auto Scaling ☆	
HPC Job ☆			

4. Scheduled

- `sudo apt-get update && sudo apt-get install libgl1 -y && pip install pandas && pip install seaborn && pip install pillow==9.5.0 && cd ~/yolov9-main/ && python train.py --batch 64 --epochs 100 --img 416 --device 0 --min-items 0 --close-mosaic 15 --data ./data.yaml --weights ./weights/gelan-c.pt --cfg models/detect/gelan-c.yaml --hyp hyp.scratch-high.yaml`

Home > Scheduled Container > Create

Create Scheduled Container

BASICS STORAGE SCHEDULE REVIEW & CREATE

Name *

Image *

Basic Configuration * [View Available Quota](#)

	Type	GPUs ↑ (Pcs)	CPU Cores (Cores)	Memory (GB)	Cost Estimate (NTD/Hour)
<input type="radio"/>	c.super	1	4	90	86.10 NTD / Hour
<input checked="" type="radio"/>	cm.super	1	4	60	86.10 NTD / Hour
<input type="radio"/>	c.xsuper	2	8	180	172.20 NTD / Hour
<input type="radio"/>	cm.xsuper	2	8	120	172.20 NTD / Hour
<input type="radio"/>	c.2xsuper	4	16	360	344.40 NTD / Hour

Command *

[REVIEW & CREATE](#) [BACK](#) [NEXT : STORAGE>](#) [CANCEL](#)

After setting your parameters enter your commands here

You have to manually start the container

4. Scheduled container

The screenshot displays the 'Scheduled Container Management' page in the TWCC (Taiwan Computing Cloud) interface. The page includes a sidebar with 'Scheduled Container' and 'Monitoring' options. The main content area features a search bar, a table of scheduled containers, and a set of action buttons at the top: '+ CREATE', '▶ START', '■ STOP', '🗑 DELETE', and '🔄 REFRESH'. The table lists four containers, all with the state 'Inactive'. The first row is highlighted, and its actions column contains a red box around the 'START' button. An arrow points from the text 'You have to manually start the container' to this button.

<input type="checkbox"/>	ID ↓	Name	State	Created at	Created by	
<input type="checkbox"/>	244773	job1718337275250	● Inactive	2024-06-14 11:54:52	余紫綾	<div><div>START</div><div>STOP</div><div>DELETE</div></div>
<input type="checkbox"/>	244770	job1718337187771	● Inactive	2024-06-14 11:53:18	余紫綾	
<input type="checkbox"/>	244767	job1718336937694	● Inactive	2024-06-14 11:49:21	余紫綾	
<input type="checkbox"/>	244764	job1718336117638	● Inactive	2024-06-14 11:36:03	余紫綾	

4. Scheduled container

The screenshot shows the 'Scheduled Container Details' page. The 'JOBS' tab is selected. A table displays the following data:

ID ↑	Job Started at	Job Ended at	Created at	State	
1	2024-06-14 11:49	2024-06-14 11:49	2024-06-14 11:49	Finished	VIEW LOG
2				Queueing	VIEW LOG

Click to view progress

4. Scheduled container

The screenshot shows the TWCC (Taiwan Computing Cloud) interface. The top navigation bar includes the TWCC logo, a dropdown menu for '整合方向性YOLOV...', and a 'SERVICES' dropdown. The user's name '余紫綾' is in the top right. The left sidebar shows 'Scheduled Container' and 'Monitoring'. The main content area is titled 'Scheduled Container Details' and has tabs for 'CONFIGURATIONS' and 'JOBS'. A 'REFRESH' button is present. The 'JOBS' tab shows a table with columns: ID, Job Started at, Job Ended at, Created at, and State. Two jobs are listed, both with a 'Finished' state. A 'Job Log' modal is open, displaying a URL to download the log file. The modal text is: '您的 log 已按存放到 https://s3.twcc.ai/ccsjoblogs/MST112353/job_244767_2_1719198332.log?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Expires=604800&X-Amz-SignedHeaders=host&X-Amz-Signature=fefec5a8d754710cd4a8952eb6e44acf923822cdefb7950did65c2821da06c4c&X-Amz-Date=20240624T030710Z&X-Amz-Credential=EPNT9XOFZL8VS67ZG6DU%2F20240624%2Fus-east-1%2Fs3%2Faws4_request, 請自行下載'. Below the modal, a text box says 'Copy the URL to download'.

Copy the URL to download

4. Scheduled container: Example Commands

A. Multiple training

```
cd /work/jonchang3909/yolov5/ && sudo apt-get update && sudo apt-get install libgl1 -y && pip install pandas && pip install seaborn && pip install pillow==9.5.0 &&
```

```
python train.py --img 416 --batch 72 --epochs 300 --data ../MuseumImages/1505/data.yaml --cfg ./models/yolov5l.yaml --weights " " --name 1505V5L -- cache &&
```

```
python train.py --img 416 --batch 72 --epochs 300 --data ../MuseumImages/1510/data.yaml --cfg ./models/yolov5l.yaml --weights " " --name 1510V5L -- cache &&
```

```
python train.py --img 416 --batch 72 --epochs 300 --data ../MuseumImages/1515/data.yaml --cfg ./models/yolov5m.yaml --weights " " --name 1515V5m -- cache &&
```

```
python train.py --img 416 --batch 72 --epochs 300 --data ../MuseumImages/1520/data.yaml --cfg ./models/yolov5s.yaml --weights " " --name 1520V5s --cache
```

B. Scripting

```
./train123.sh
```

C. Zip result folder

```
sudo apt-get install zip gzip tar && zip -r Yolov5Test0305-2.zip '/home/u1513733/yolov5-master/runs/train/test0305-2'
```

5. How to download files from TWCC

Download filezilla

<https://filezilla-project.org/>

FileZilla The free FTP solution

Home

FileZilla

- Features
- Screenshots
- Download
- Documentation
- FileZilla Pro

FileZilla Server

- Download

Community

- Forum
- Wiki

General

- FAQ
- Support
- Contact
- License
- Privacy Policy
- Trademark Policy

Development

- Source code
- Nightly builds
- Translations
- Version history
- Changelog
- Issue tracker

Other projects

- libfilezilla
- Octochess

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FileZilla® Pro
The Best FTP Solution

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Overview

Welcome to the homepage of FileZilla®, the free FTP solution. The *FileZilla Client* not only supports FTP, but also FTP over TLS (FTPS) and SFTP. It is open source software distributed under the Public License.

We are also offering [FileZilla Pro](#), with additional protocol support for WebDAV, Amazon S3, Backblaze B2, Dropbox, Microsoft OneDrive, Google Drive, Microsoft Azure Blob and File Storage. Last but not least, *FileZilla Server* is a free open source FTP and FTPS Server.

Support is available through our [forums](#), the [wiki](#) and the [bug and feature request trackers](#).

In addition, you will find documentation on how to compile FileZilla and nightly builds for multiple platforms in the development section.

Quick download links

Download FileZilla Client
All platforms

Download FileZilla Server
All platforms

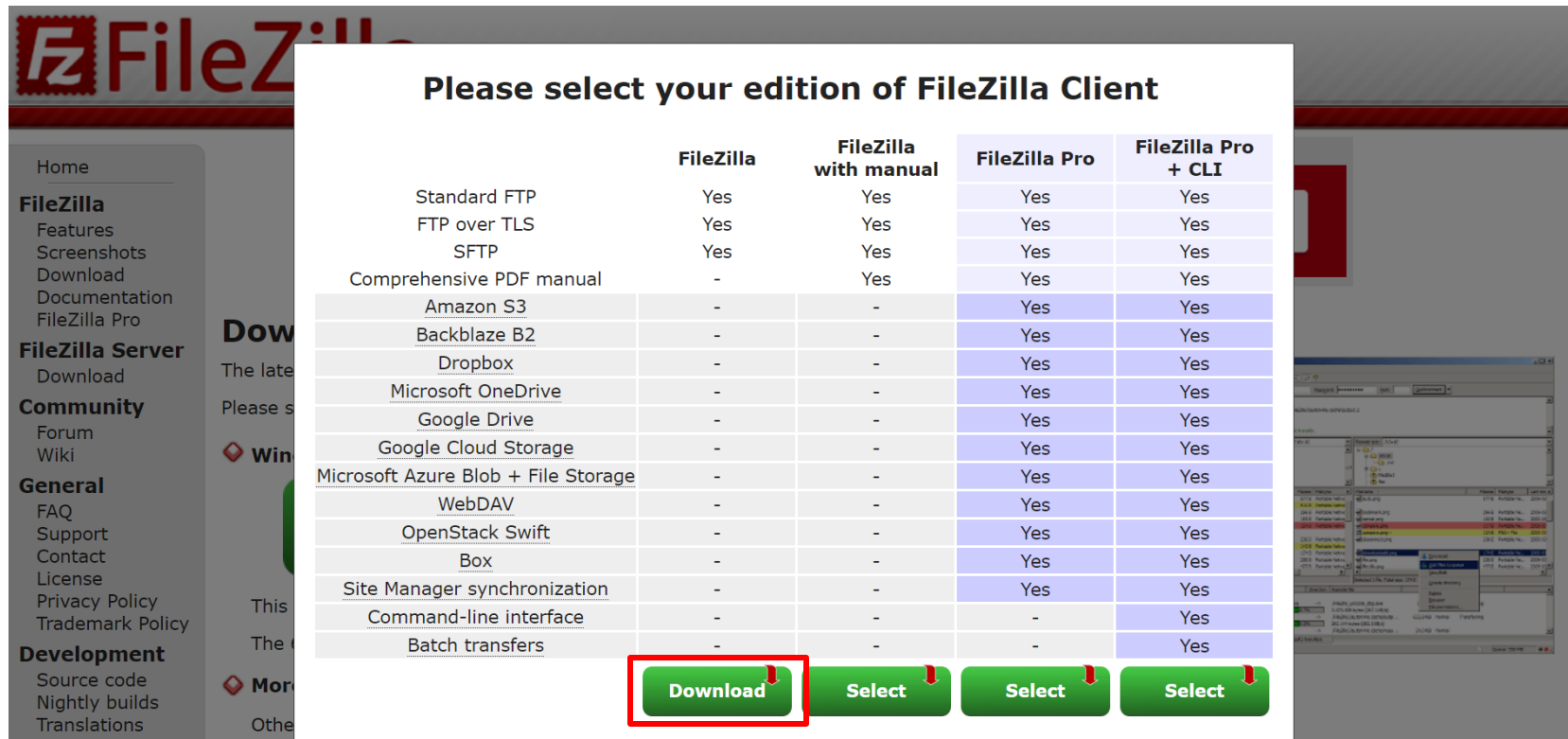
Pick the Client if you want to transfer files. Get the server if you want to make files available for others.

News

2023-09-11 - FileZilla Server 1.7.3 released

Fixed vulnerabilities:

5. How to download files from TWCC



Please select your edition of FileZilla Client

	FileZilla	FileZilla with manual	FileZilla Pro	FileZilla Pro + CLI
Standard FTP	Yes	Yes	Yes	Yes
FTP over TLS	Yes	Yes	Yes	Yes
SFTP	Yes	Yes	Yes	Yes
Comprehensive PDF manual	-	Yes	Yes	Yes
Amazon S3	-	-	Yes	Yes
Backblaze B2	-	-	Yes	Yes
Dropbox	-	-	Yes	Yes
Microsoft OneDrive	-	-	Yes	Yes
Google Drive	-	-	Yes	Yes
Google Cloud Storage	-	-	Yes	Yes
Microsoft Azure Blob + File Storage	-	-	Yes	Yes
WebDAV	-	-	Yes	Yes
OpenStack Swift	-	-	Yes	Yes
Box	-	-	Yes	Yes
Site Manager synchronization	-	-	Yes	Yes
Command-line interface	-	-	-	Yes
Batch transfers	-	-	-	Yes

[Download](#) [Select](#) [Select](#) [Select](#)

5. How to download files from TWCC

Obtain the private key

Option 1: Create an interactive container and open the terminal



Open the Terminal

5. How to download files from TWCC

The 3 commands create and obtain key file:

```
ssh-keygen -t rsa -b 4096 -N "" -f ~/.ssh/id_rsa
cat >> ~/.ssh/authorized_keys < ~/.ssh/id_rsa.pub
cat ~/.ssh/id_rsa
```

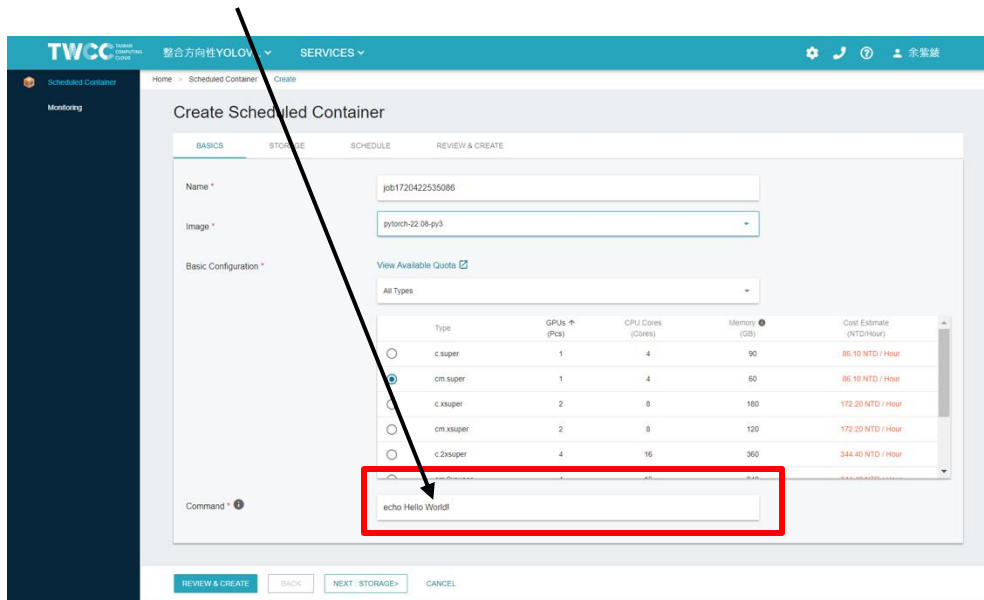
Copy the text contained in the entire **red box**, paste it into notepad, and change the attachment name to **【.ppk】**, for example, test1.ppk

This red area is a key file, including BEGIN/END.

```
jupyter
init: Setting environment variables
u1513733@h9tg3wctr1708572166345-w771s:~$ cat ~/.ssh/id_rsa
-----BEGIN DSA PRIVATE KEY-----
[Redacted Private Key Content]
-----END DSA PRIVATE KEY-----
u1513733@h9tg3wctr1708572166345-w771s:~$
```

5. How to download files from TWCC

- Option 2: Input the following commands under the schedule container
- `cd ~/ && ssh-keygen -t rsa -b 4096 -N " -f ~/.ssh/id_rsa && cat >> ~/.ssh/authorized_keys < ~/.ssh/id_rsa.pub && cat ~/.ssh/id_rsa`



The screenshot shows the 'Create Scheduled Container' form in the TWCC interface. The form has four tabs: 'BASICS', 'STORAGE', 'SCHEDULE', and 'REVIEW & CREATE'. The 'BASICS' tab is active. The 'Name' field contains 'job172042535086'. The 'Image' field contains 'pytorch-22-08-py3'. The 'Basic Configuration' section has a 'View Available Quota' link and a dropdown menu set to 'All Types'. Below this is a table of available container types:

Type	GPUs (Pcs)	CPU Cores (Cores)	Memory (GB)	Cost Estimate (NTD/Hour)
c.super	1	4	90	86.10 NTD / Hour
cm.super	1	4	60	86.10 NTD / Hour
c.xsuper	2	8	180	172.20 NTD / Hour
cm.xsuper	2	8	120	172.20 NTD / Hour
c2super	4	16	360	344.40 NTD / Hour

The 'Command' field is highlighted with a red box and contains the text 'echo Hello World!'. An arrow points from the red box to the command text in the list above.

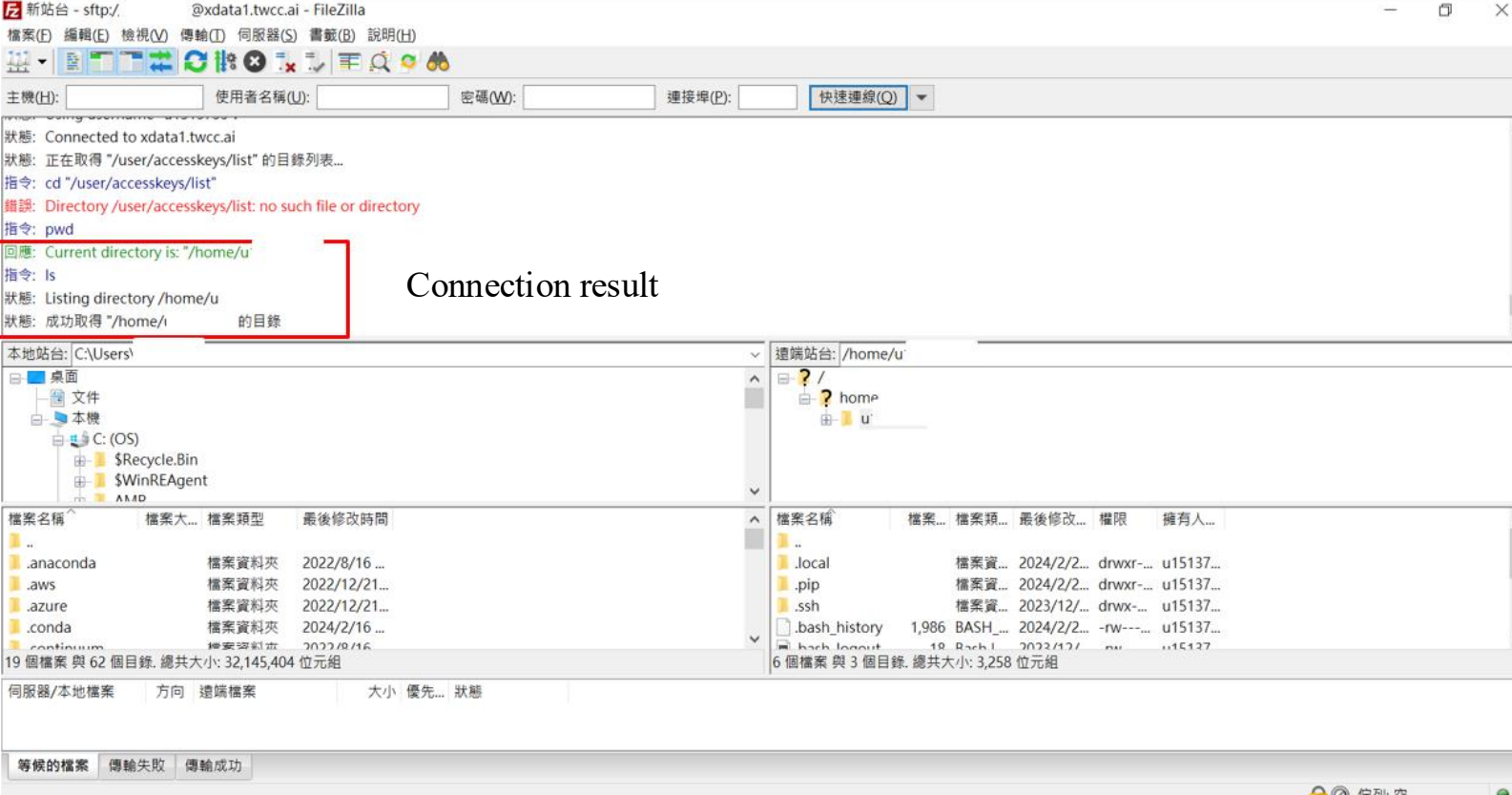
1



4

Key file : (PPT page 27)

5. How to download files from TWCC



The screenshot shows the FileZilla interface with the following details:

- Local Site:** C:\Users\...
- Remote Site:** /home/u/
- Terminal Output:**
 - 狀態: Connected to xdata1.twcc.ai
 - 狀態: 正在取得 "/user/accesskeys/list" 的目錄列表...
 - 指令: `cd "/user/accesskeys/list"`
 - 錯誤: `Directory /user/accesskeys/list: no such file or directory`
 - 指令: `pwd`
 - 回應: `Current directory is: "/home/u"`
 - 指令: `ls`
 - 狀態: Listing directory /home/u
 - 狀態: 成功取得 "/home/u" 的目錄
- Local File List:**

檔案名稱	檔案大...	檔案類型	最後修改時間
..			
.anaconda		檔案資料夾	2022/8/16 ...
.aws		檔案資料夾	2022/12/21...
.azure		檔案資料夾	2022/12/21...
.conda		檔案資料夾	2024/2/16 ...
.continuum		檔案資料夾	2022/8/16 ...

19 個檔案 與 62 個目錄, 總共大小: 32,145,404 位元組
- Remote File List:**

檔案名稱	檔案...	檔案類...	最後修改...	權限	擁有人...
..					
.local		檔案資...	2024/2/2...	drwxr-...	u15137...
.pip		檔案資...	2024/2/2...	drwxr-...	u15137...
.ssh		檔案資...	2023/12/...	drwx-...	u15137...
.bash_history	1,986	BASH_...	2024/2/2...	-rw-...	u15137...
.bash_logout	18	Bash...	2023/12/...	-rw-...	u15137...

6 個檔案 與 3 個目錄, 總共大小: 3,258 位元組

5. How to download files from TWCC



Home > Storage and Resource Usage

Storage and Resource Usage

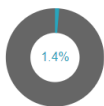
Account: Storage Usage - Hyper File System (HFS)

The storage statistics are for reference only. Click [ADJUST STORAGE](#) on the right to see the real-time usage and credit information.

[HFS PORTAL](#)

Home Directory

Latest Updated: 2024-06-24 10:47



Used

1.36 GiB

Available

98.64 GiB

Total Storage

100 GiB

Work Directory

Latest Updated: 2024-06-24 10:55



Used

0 Byte

Available

1.5 TiB

Total Storage

1.5 TiB

Project: Compute, Analytics & Database

Interactive Container
0

Scheduled Container
4

HPC Job
0

VCS Instance
0

Project: Networking & Security

Virtual Network
0

Load Balancer
0

Auto Scaling
0

Here are the storage capacities for the home directory and the work directory. We can choose the larger capacity of the work directory to execute larger-scale program computations in the scheduled container.

6. Query existing Interactive containers and delete them

```
u1513733@j08huectr1712558772428-2gxj4:~$ twcccli config version
[TWCCCLI] This version is 0.5.21
u1513733@j08huectr1712558772428-2gxj4:~$ pip install -U TWCC-CLI
Requirement already satisfied: TWCC-CLI in /opt/conda/lib/python3.8/site-packages (0.5.21)
Collecting TWCC-CLI
  Downloading TWCC_CLI-0.6.1-py3-none-any.whl.metadata (13 kB)
Requirement already satisfied: sphinx-click in /opt/conda/lib/python3.8/site-packages (from TWCC-CLI) (3.0.1)
Requirement already satisfied: myst-parser in /opt/conda/lib/python3.8/site-packages (from TWCC-CLI) (0.15.2)
Collecting docutils==0.18 (from TWCC-CLI)
  Downloading docutils-0.18-py2.py3-none-any.whl.metadata (2.9 kB)
Requirement already satisfied: loguru in /opt/conda/lib/python3.8/site-packages (from TWCC-CLI) (0.5.3)
Requirement already satisfied: jmespath in /opt/conda/lib/python3.8/site-packages (from TWCC-CLI) (0.10.0)
Requirement already satisfied: netaddr in /opt/conda/lib/python3.8/site-packages (from TWCC-CLI) (0.8.0)
Requirement already satisfied: pytz in /opt/conda/lib/python3.8/site-packages (from TWCC-CLI) (2021.1)
```

In Jupyter of Interactive containers,
Look for Query the TWCC CLI version and update it.

- `twcccli config version`
- `pip install -U TWCC-CLI`

6. Query existing Interactive containers and delete them



Logou

```
u1513733@j08huectr1712558772428-2gxj4:~$ twccli config init
Please enter TWCC Project Code: MST112353
Please enter TWCC APIKEY: 8f986fc8-5fcb-4bdf-a500-5c851355eacf
```

Enter the following command

- `twccli config init`

Enter the **TWCC APIKEY** and **TWCC Project Code** to log in to the TWCC CLI.
(Refer to PPT page33)

6. Query existing Interactive containers and delete them

The screenshot displays the TWCC API Key Management interface. On the left sidebar, the 'API Key' menu item is highlighted with a red box. The main content area shows a table with one API key entry. The 'API Key' column has a value masked with asterisks and is highlighted with a yellow box. The 'Project' column has a value masked with asterisks and is highlighted with a green box. Below the table, two labels are shown: 'TWCC APIKEY' in yellow and 'TWCC Project Code' in green.

Name	API Key	Project	Master Key	Created at	Expired at	Valid
59dff30c	*****	*****	✓	2023-12-08 09:41:39	2024-12-09 13:25:07	✓

TWCC APIKEY **TWCC Project Code**

Click API key management,
And copy **TWCC Project Code** and **TWCC APIKEY**. (For PPT page32)

6. Query existing Interactive containers and delete them

TWCC CLI login results

```
ul513733@j08huectr1712558772428-2gxj4:~$ twcccli config init
Do you agree we use the collection of the information by GA to improve user experience? [Y/n]: y
Please enter TWCC Project Code: 
Please enter TWCC APIKEY: 
Hi! 余紫綾, welcome to TWCC!
Add language setting to `~/.bashrc`.
+ parameters -----+
| key                | value                                     |
+-----+-----+
| _TWCC_API_KEY_     |                                           |
| _TWCC_PROJECT_CODE_|                                           |
| session_created_time | 2024-04-08 16:16:55                     |
| twcc_cli_version    | 0.6.1                                   |
| twcc_apikey_owner   | 余紫綾                                   |
| twcc_data_path      | /home/ul513733/.twcc_data               |
| package_yaml        | /home/ul513733/.local/lib/python3.8/site-packages/twcccli/yaml/TWCC_API.yaml |
| twcc_file_session   | /home/ul513733/.twcc_data/credential    |
| twcc_file_resources | /home/ul513733/.twcc_data/resources     |
+-----+-----+
ul513733@j08huectr1712558772428-2gxj4:~$
```

6. Query existing Interactive containers and delete them

CCS_ID **Username**

```
u1513733@e2dhafctr1712726646001-587bq:~$ twccli ls ccs
+ CCS Info. -----+-----+-----+
| id      | name                | create_time          | status |
+-----+-----+-----+-----+
| 4556466 | ctr1712726646001   | 2024-04-10 13:24:47 | Ready  |
+-----+-----+-----+-----+
u1513733@e2dhafctr1712726646001-587bq:~$ vi auto.sh
```

View the currently used Interactive container ID

- `twccli ls ccs`

Enter the following command to edit the automation script

- `vi auto.sh`

6. Query existing Interactive containers and delete them

Enter i Enter editing mode and copy and paste the following example script into auto.sh. The content can be modified according to your algorithm.

```
TWCC_CLI_CMD=/home/<USERNAME>/local/bin/twcccli
#<USERNAME>: Host account
echo "1. Perform operations"
#Input the executable file of the calculation program
echo "2. Delete the development container"
$ TWCC_CLI_CMD rm ccs -f -s <CCS_ID>
#<CCS_ID>: Container ID of Step 3
```

<https://man.twcc.ai/@twccdocs/doc-cli-main-zh/https%3A%2F%2Fman.twcc.ai%2F%40twccdocs%2Fhowto-cli-ccs-automate-compute-delete-with-twcccli-zh>

6. Query existing Interact

Please replace it with your **Username** (Refer to PPT page35)
For example, TWCC_CLI_CMD = /home/u1513733/.local/bin/twccli

```
TWCC_CLI_CMD=/home/<USERNAME>/.local/bin/twccli
```

```
#<USERNAME>: 主機帳號
```

```
echo "1. 執行運算"
```

```
#輸入運算程式的執行檔
```

```
echo "2. 刪除開發型容器"
```

```
$TWCC_CLI_CMD rm ccs -f -s <CCS_ID>
```

```
#<CCS_ID>: Step 3 的容器 ID
```

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```
-- INSERT --
```

You can enter commands below the echo 1

Please replace the **CCS_ID** which you want to delete after performing the operation,

For example,

```
$ TWCC_CLI_CMD rm ccs -f -s 4556466
```

(Refer to PPT page35)

Press the Esc key and enter **:wq !**
to save and exit the editing interface.

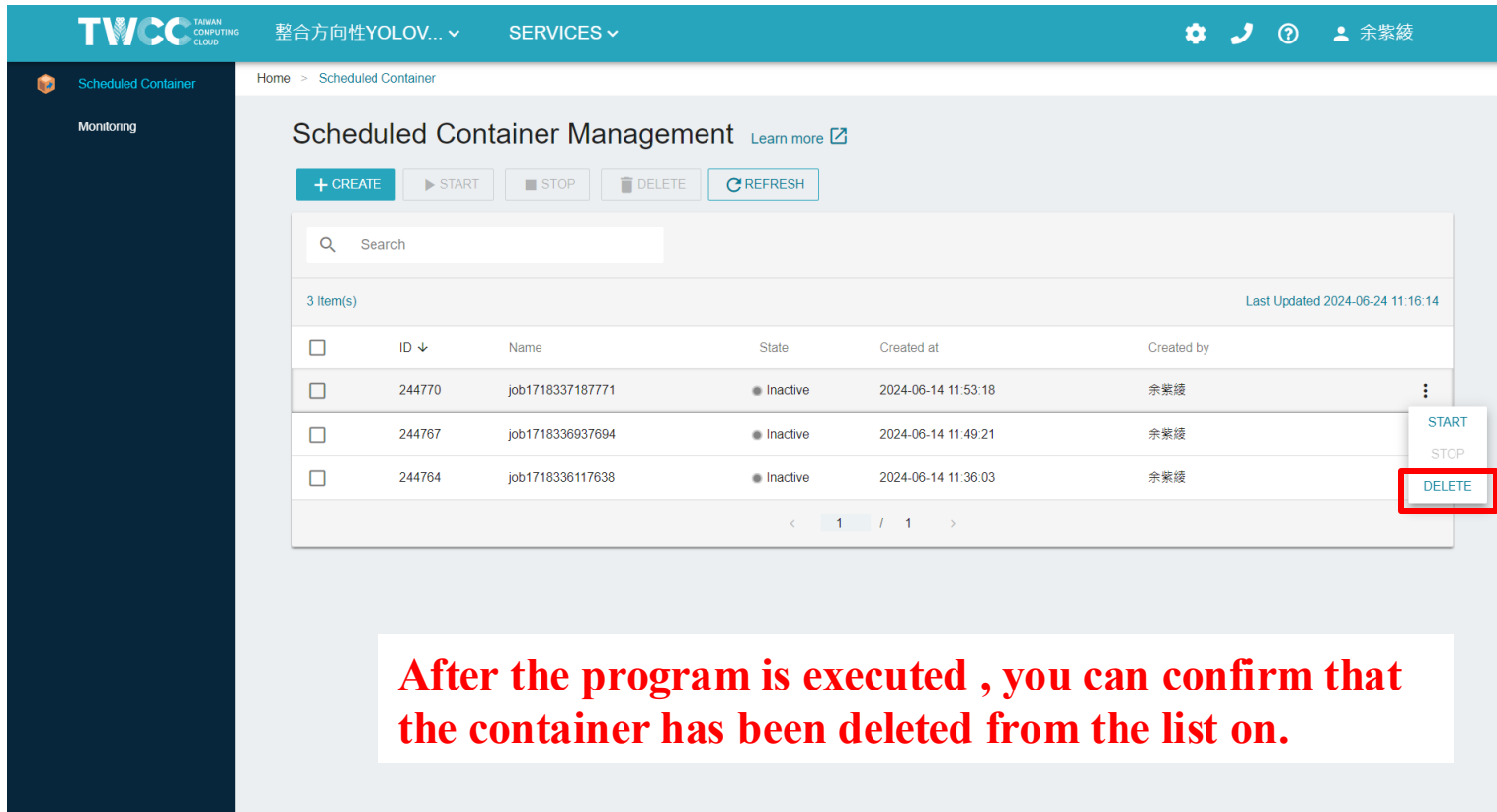
6. Query existing Interactive containers and delete them

```
init: Setting environment variables
u1513733@e2dhafctr1712726646001-587bq:~$ twccli ls ccs
+ CCS Info. -----+-----+-----+
| id      | name                | create_time          | status |
+-----+-----+-----+-----+
| 4556466 | ctr1712726646001   | 2024-04-10 13:24:47 | Ready  |
+-----+-----+-----+-----+
u1513733@e2dhafctr1712726646001-587bq:~$ vi auto.sh
u1513733@e2dhafctr1712726646001-587bq:~$ bash auto.sh
1. 執行運算
2. 刪除開發型容器
u1513733@e2dhafctr1712726646001-587bq:~$ █
```

Execute automation script

- bash auto.sh

6. Query existing Interactive containers and delete them



The screenshot displays the TWCC (Taiwan Computing Cloud) interface for Scheduled Container Management. The top navigation bar includes the TWCC logo, a dropdown menu for '整合方向性YOLOV...', a 'SERVICES' dropdown, and user information for '余紫綾'. The left sidebar shows 'Scheduled Container' and 'Monitoring' options. The main content area is titled 'Scheduled Container Management' and includes a search bar, a table of containers, and action buttons (+ CREATE, START, STOP, DELETE, REFRESH). The table lists three containers, all in an 'Inactive' state. A context menu is open for the first container, showing 'START', 'STOP', and 'DELETE' options, with the 'DELETE' option highlighted by a red box.

ID	Name	State	Created at	Created by
244770	job1718337187771	Inactive	2024-06-14 11:53:18	余紫綾
244767	job1718336937694	Inactive	2024-06-14 11:49:21	余紫綾
244764	job1718336117638	Inactive	2024-06-14 11:36:03	余紫綾

After the program is executed , you can confirm that the container has been deleted from the list on.