



高效能科學計算服務 使用者教育訓練

User Training Workshop 2023

Introduction of Storage

Introduction of Storage

You have following storage space to use:

- Home Directory
 - Not guaranteed for your data security in Home Directory
 - 100GB of free space
 - `/dicos_ui_home/{user_account}`
- Group Working Directory
 - Not guaranteed for your data security in Group Working Directory
 - 3TB of free space
 - `/ceph/work/{group_account}`
- Group long-term Directory
 - CEPH
 - Specially for your research group
 - `/ceph/project/{group_account}`

Introduction of Storage

You can check your usage on User Profile :

- <https://dicos.grid.sinica.edu.tw/profile/info>

User Profile

Username	asgcamintest01												
Group	Others												
First Name	ADMINTEST01												
Last Name	ASGC												
E-mail	<input type="text"/>												
Last Login	July 28, 2023, 7:45 a.m.												
Date Joined	July 28, 2023, 7:41 a.m.												
Storage Usage	<table><tr><td>/dicos_ui_home/asgcamintest01</td><td>Latest Update: 2023-07-28 07:42:39</td></tr><tr><td colspan="2">0.0GB/100GB</td></tr><tr><td colspan="2"><hr/></td></tr><tr><td>/ceph/work/Others</td><td>Latest Update: 2023-07-27 00:30:04</td></tr><tr><td colspan="2">0.0TB/3.0TB</td></tr><tr><td colspan="2"><hr/></td></tr></table>	/dicos_ui_home/asgcamintest01	Latest Update: 2023-07-28 07:42:39	0.0GB/100GB		<hr/>		/ceph/work/Others	Latest Update: 2023-07-27 00:30:04	0.0TB/3.0TB		<hr/>	
/dicos_ui_home/asgcamintest01	Latest Update: 2023-07-28 07:42:39												
0.0GB/100GB													
<hr/>													
/ceph/work/Others	Latest Update: 2023-07-27 00:30:04												
0.0TB/3.0TB													
<hr/>													

[Edit Profile](#) [Change Password](#)

Introduction of Home Directory

Introduction of Home Directory

Home Directory :

- We provide 100GB of free space in Home Directory.
 - /dicos_ui_home/{user_account}
- Home Directory cannot be expanded.
- If the data you store exceeds 100GB, it will not be saved.

Introduction of Home Directory

Suggestion :

- We do not back up the data on the Home Directory.
- We are not guaranteed for your data won't be lost in Home Directory.
- Do not save any important file in Home Directory.
- We suggest that save your file in Group Working Directory.
 - `/ceph/work/{group_account}`
- If possible, please download the important data to your local space to ensure that the data will not be lost.

Introduction of Group Working Directory

Introduction of Group Working Directory

Group Working Directory :

- We provide 3TB of free space in Group Working Directory .
 - /ceph/work/{group_account}
- We are not guaranteed for your data won't be lost in Group Working Directory.
- This space will be shared with all users of the group.
- Group Working Directory can be expanded.
- PI can upgrade work space If you need more than 3TB.

Introduction of Group Working Directory

Suggestion :

- Please set the program's output file archive location to Group Working Directory if your program's IO wait too heavy.
- If possible, please download the important data to your local space to ensure that the data will not be lost.

Introduction of Group Working Directory

Suggestion :

- Do not left the file in /tmp space on any worknode.
- We will clean up the data in the /tmp directory at anytime.
- Please save your data in Group Working Directory after your job finished.
- Please clear the data left in /tmp space after you save the data.

Introduction of Group Working Directory

Creating a Temporary File and Directory in Linux :

1. Create Temporary File

- `mktemp`
=> `/tmp/tmp.Dr6IfAc2HN`
- `mktemp /tmp/Ding-XXXXX`
=> `/tmp/Ding-WxWtv`

2. Create Temporary Directory

- `mktemp -d`
=> `/tmp/tmp.Dr6IfAc2HN`
- `mktemp -d /tmp/Ding-XXXXX`
=> `/tmp/Ding-WxWtv`

Introduction of Group Working Directory

Copy Temporary File :

- `wget https://raw.githubusercontent.com/ASGCOPS/Hands-on_STORAGE_2023/main/temporary_file.sh`

```
1  #!/bin/bash
2
3  # Create a temporary file with a unique name under /tmp/ directory
4  TMPFILE=$(mktemp /tmp/Workshop-XXXXX)
5
6  # Append "User Training Workshop 2023" to the temporary file
7  echo "User Training Workshop 2023" >> $TMPFILE
8
9  # Get the filename (without the path) of the temporary file
10 filename=$(basename "$TMPFILE")
11
12 # Copy the temporary file to the specified destination directory (/ceph/work/ASGC/Workshop/)
13 cp $TMPFILE /ceph/work/ASGC/Workshop/$filename
14
15 # Remove the temporary file from /tmp/ directory to clean up
16 rm $TMPFILE
17
```

Introduction of Group Working Directory

Copy Temporary Directory :

- `wget https://raw.githubusercontent.com/ASGCOPS/Hands-on_STORAGE_2023/main/temporary_directory.sh`

```
1  #!/bin/bash
2
3  # Create a temporary directory with a unique name under /tmp/ directory
4  TMPDIR=$(mktemp -d /tmp/Workshop-XXXXX)
5
6  # Append "User Training Workshop 2023" to a file named "Workshop.text" inside the temporary directory
7  echo "User Training Workshop 2023" >> $TMPDIR/Workshop.text
8
9  # Get the directory name (without the path) of the temporary directory
10 filename=$(basename "$TMPDIR")
11
12 # Recursively copy the entire temporary directory to the specified destination directory (/ceph/work/ASGC/Workshop/)|
13 cp -r $TMPDIR /ceph/work/ASGC/Workshop/$filename
14
15 # Remove the temporary directory and its contents from /tmp/ directory to clean up
16 rm -r $TMPDIR
17
```

Introduction of Group long-term Directory

Introduction of Group long-term Directory

Group long-term Directory :

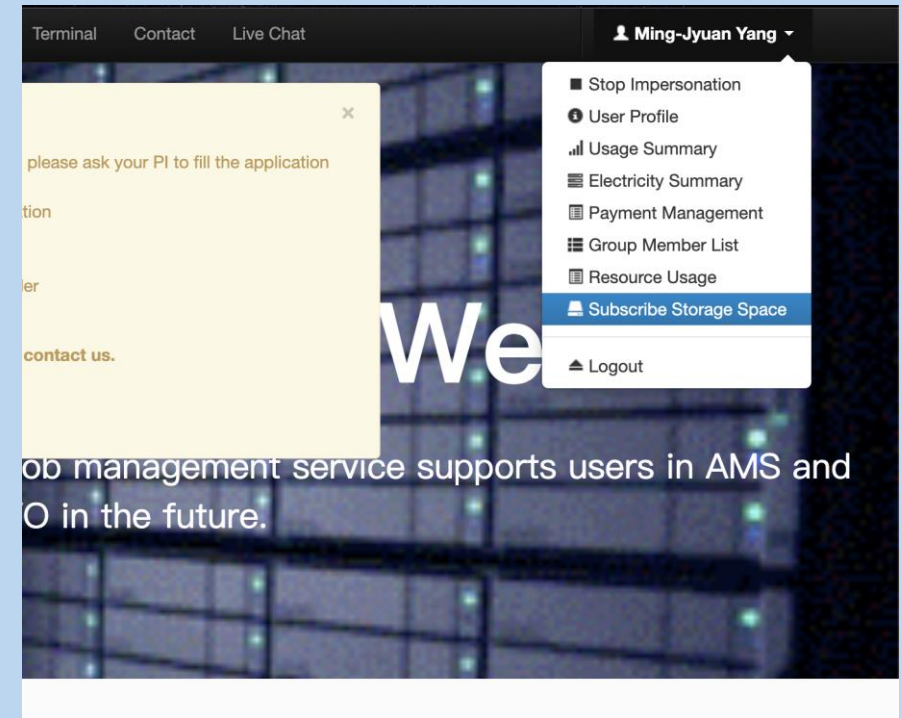
- This service is currently unavailable.
- We will announce this service when it is available.

Upgrade work space

Upgrade work space

Introduction of Subscribe Storage Space :

- Only PI can upgrade work space.
- We have two plan to subscribe:
 - Day plane NT \$5/1 day
 - Year plane NT \$1500/1 year



<https://dicos.grid.sinica.edu.tw/accounting/subscribe-storage/>

Upgrade work space

When subscribing :

- There will be a waiting period for the space to be created.
- Multiple subscription can be additional size.

加購工作短期儲存空間 Upgrade Work Space

1T = NT \$5/1 day
PATH: /ceph/work/[group]/

1	T	Subscribe
---	---	-----------

加購工作短期儲存空間：1年方案 Upgrade Work Space : 1 year plan

1T = NT \$1500/1 year
PATH: /ceph/work/[group]/

1	T	Subscribe
---	---	-----------

Upgrade work space

When subscribing :

- For the day plan, it will show on month bill.
- For the year plan, the payment will charge on current month bill.

Current Storage Space

工作短期儲存空間 **Work Space**
GROUP: ASGC
PLAN: year
PATH: /ceph/work/ASGC/
Latest Update: 2023-07-27 00:30:04

0.0/5

1 T Unsubscribe

工作短期儲存空間 **Work Space**
GROUP: ASGC
PLAN: day
PATH: /ceph/work/ASGC/
Latest Update: 2023-07-27 00:30:04

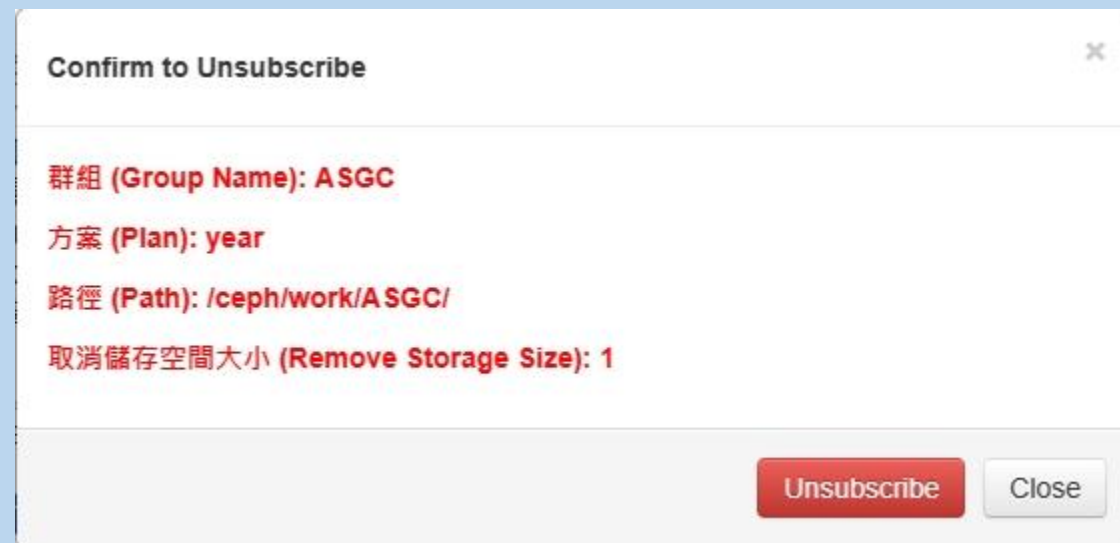
0.0/5

1 T Unsubscribe

Upgrade work space

After unsubscribe :

- For the day plan, it will be deleted the space after 1 day.
- For the year plan, the space will be deleted after 1 year.



Upgrade work space

Attention :

- If there is still some files in the subscribed space, the deletion or reduce space will delay to execute and charge the paymentent of period.
- The subscription will be unavailable after unsubscription process, please wait for the label of "Wait to Delete Storage Space..." finished.



How to use Linux command

How to use Linux command

Log in to dicos-ui.twgrid.org and transfer via ssh.

1. Login dicos-ui.twgrid.org

```
ssh username@dicos-ui.grid.sinica.edu.tw
```

2. Print work directory

```
pwd
```

3. Move file

```
mv source dest
```

4. Remove file

```
rm file-name
```

5. Remove directory

```
rm -r directory-name
```


How to use SFTP

How to use SFTP

Log in to dicos-ui.twgrid.org and transfer via SFTP.

1. Login dicos-ui.twgrid.org

```
sftp username@dicos-ui.grid.sinica.edu.tw
```

2. Upload file

```
sftp> put file-name
```

3. Download file

```
sftp> get file-name
```

How to use FileZilla

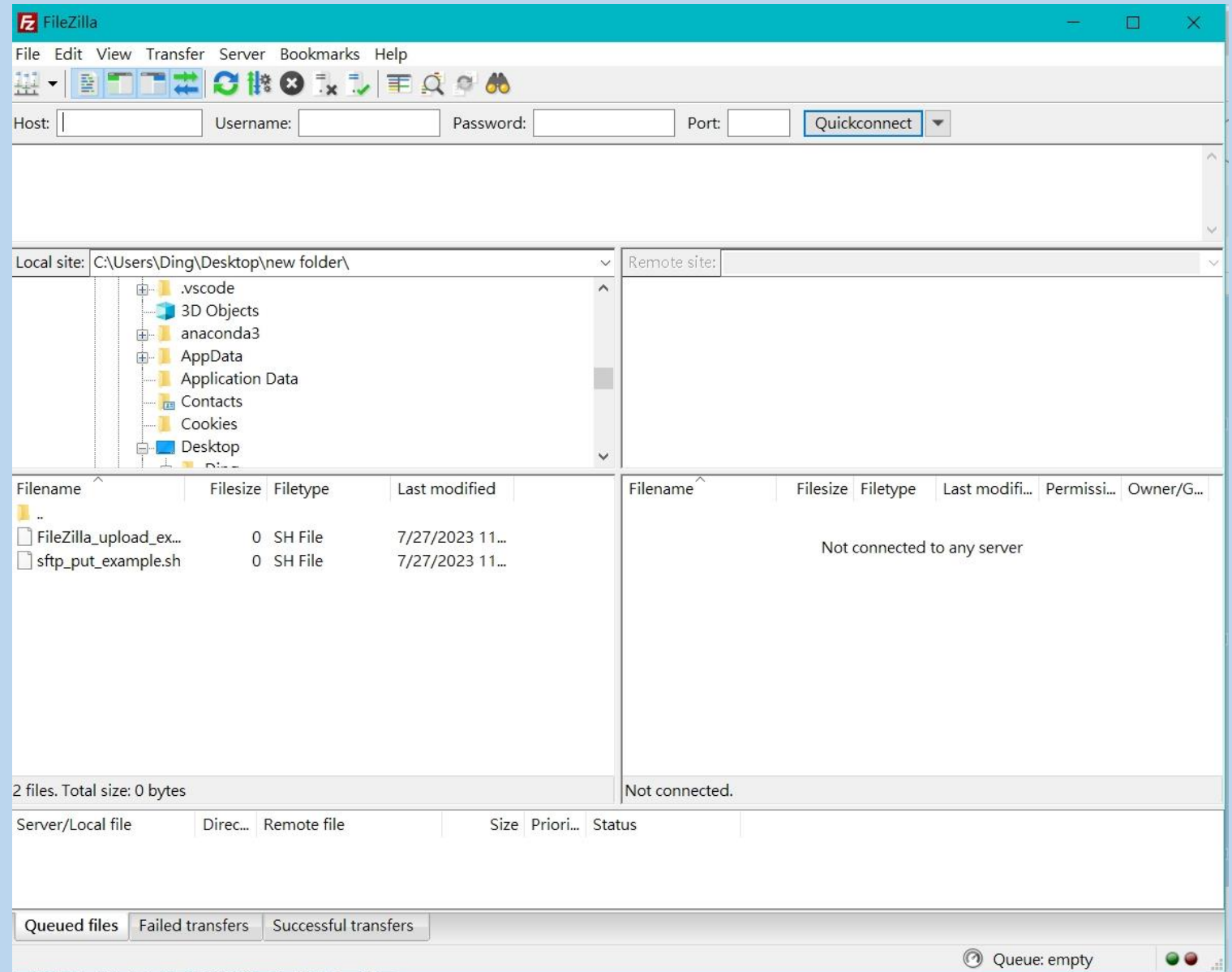
How to use FileZilla

Host : dicos-ui.grid.sinica.edu.tw

Username : Your Username

Password : Your Password

Port : 22



Download FileZilla Client: <https://filezilla-project.org/download.php?type=client>

Thank you for listening.

Q&A