



aiDAPTIV+ Pro Suite 2.0 Install guide

Preliminary 0.1

Phison Electronics Corporation

Tel: +886-37-586-896 Fax: +886-37-587-868

E-mail: sales@phison.com / support@phison.com

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REVISION HISTORY

Revision	Draft Date	History	Pro Suite Version	Author
0.1	2025/07/23	Draft version	NXUN_2.0.7T (beta version)	Sean Liou

TABLE OF CONTENTS

REVISION HISTORY	3
TABLE OF CONTENTS	4
LIST OF FIGURES.....	5
1. ENVIRONMENT PREPARATION	6
1.1. Supported OS and Nvidia driver version	6
1.2. Precautions before installation.....	6
2. INSTALLATION	8
2.1. Place Pro Suite tar file within the Linux environment.	8
2.2. Unzip Pro Suite tar file.....	8
2.3. Execute install.sh	9
2.3.1. Num 0, Install Pro Suite.....	10
3. UNINSTALLATION PROCESS.....	11
3.1. Select Num 6 to execute the uninstallation process.	11
4. UPGRADE PRO SUITE.....	12
5. OTHER ACTION.....	13
5.1. Select Num 1 to get the status of Pro Suite.....	13
5.2. Select Num 3 to start the service of Pro Suite.....	14
5.3. Select Num 4 to stop the service of Pro Suite.	15
5.4. Select Num 5 to Restart the service of Pro Suite.....	16
5.5. Select Num 7 to download LLM models from Pro Suite.....	17
5.6. Select Num 8 to enter debug mode	18
APPENDIX A – DEBUG NOTE	19

LIST OF FIGURES

Figure 2-1 Pro Suite tar file	8
Figure 2-2 Unzip Pro Suite tar file	8
Figure 2-3 Install yad package.....	9
Figure 2-4 Mainmenu	9
Figure 2-5 Mount aiDAPTIVCache	10
Figure 2-6 Pro Suite website URL.....	10
Figure 3-1 Mainmenu	11
Figure 3-2 Uninstallation process	11
Figure 4-1 Upgrade Pro Suite all service.....	12
Figure 4-2 Pro Suite website URL.....	12
Figure 5-1 Get Pro Suite status	13
Figure 5-2 The status of each container in Pro Suite	13
Figure 5-3 Start Pro Suite service.....	14
Figure 5-4 The service started successfully	14
Figure 5-5 Stop Pro Suite service	15
Figure 5-6 Stop each container of Pro Suite	15
Figure 5-7 Restart Pro Suite service.....	16
Figure 5-8 Restart Pro Suite service successfully	16
Figure 5-9 Download LLM models	17
Figure 5-10 Model lists	17
Figure 5-11 Enter debug mode	18
Figure 5-12 Enter debug mode	18

1. ENVIRONMENT PREPARATION

This program provides one-click installation.

Users only need to execute **install.sh** to complete the deployment.

Name	Version
Pro Suite	NXUN_2.0.7T
aiDAPTIVLink	aidaptiv-vNXUN_2_04_A0

1.1. Supported OS and Nvidia driver version

Category	Detail
OS	Ubuntu 24.04 LTS Desktop
GPU driver	Nvidia driver version 550 or later version
Kernel	6.8.0-41-generic

Note: Due to the current Pro Suite version only matching this kernel version, when installing the OS, **DO NOT** connect to the internet to avoid automatic updates to the kernel version.

1.2. Precautions before installation

1. Please do not use special characters in folder or file names such as [whitespace](#), , !, ?, ' , @, #, \$, %, ^, &, *, (,), +

2. TCP Port

Service Name	Port
Pro Suite Web	8899, 8799
Pro Suite Service	3019, 5432, 9400, 7017, 8000
Prometheus	3090, 9100

3. Confirm that the installation environment can connect to the **external network**.

4. If you are using SSH to remotely connect to the machine, please enter the following command enable X11 forwarding.

```
ssh -X user@remote_host
```

5. Please enter the following command in the terminal to confirm whether the system recognizes the NVIDIA GPU card.

```
user@prosuite-dev:~$ sudo lshw -c display
[sudo] password for user:
*-display
   description: VGA compatible controller
   product: NVIDIA Corporation
   vendor: NVIDIA Corporation
   physical id: 0
```

6. Please enter the following command in the terminal to confirm the current time zone of the system.

```
# Check timezone on linux
user@prosuite-dev:~$ cat /etc/timezone
Asia/Taipei
```

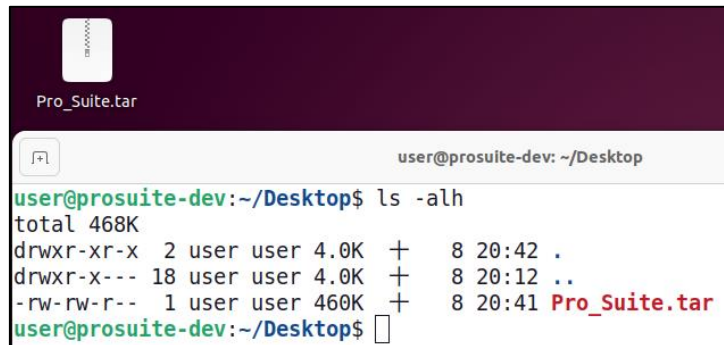
7. To change the time zone, please enter the following command in the terminal

```
# Change timezone, e.g to Asia/Taipei
user@prosuite-dev:~$ sudo timedatectl set-timezone Asia/Taipei
```

2. INSTALLATION

2.1. Place Pro Suite tar file within the Linux environment.

For example: Pro_Suite.tar



```
Pro_Suite.tar

user@prosuite-dev: ~/Desktop

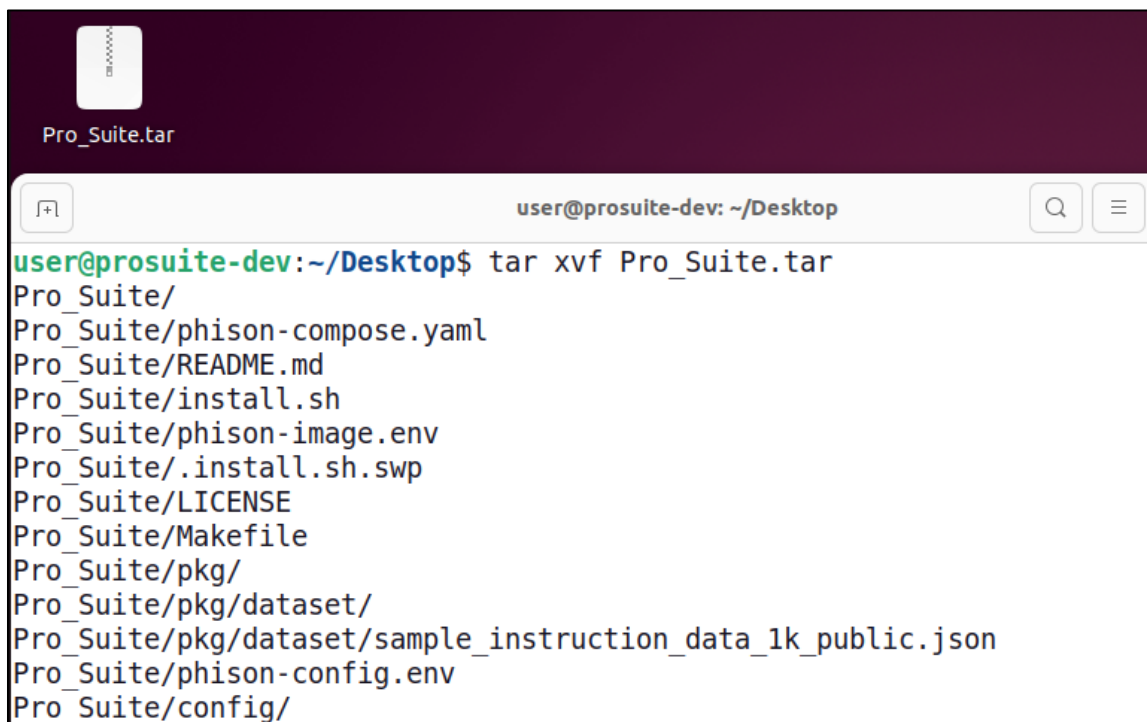
user@prosuite-dev:~/Desktop$ ls -alh
total 468K
drwxr-xr-x  2 user user 4.0K +  8 20:42 .
drwxr-x--- 18 user user 4.0K +  8 20:12 ..
-rw-rw-r--  1 user user 460K +  8 20:41 Pro_Suite.tar
user@prosuite-dev:~/Desktop$
```

Figure 2-1 Pro Suite tar file

2.2. Unzip Pro Suite tar file

Enter the following command in the terminal to decompress the Pro Suite installation package.

```
tar xvf Pro_Suite.tar
```



```
Pro_Suite.tar

user@prosuite-dev: ~/Desktop

user@prosuite-dev:~/Desktop$ tar xvf Pro_Suite.tar
Pro_Suite/
Pro_Suite/phison-compose.yaml
Pro_Suite/README.md
Pro_Suite/install.sh
Pro_Suite/phison-image.env
Pro_Suite/.install.sh.swp
Pro_Suite/LICENSE
Pro_Suite/Makefile
Pro_Suite/pkg/
Pro_Suite/pkg/dataset/
Pro_Suite/pkg/dataset/sample_instruction_data_1k_public.json
Pro_Suite/phison-config.env
Pro_Suite/config/
```

Figure 2-2 Unzip Pro Suite tar file

2.3. Execute install.sh

Enter the following command in the terminal to execute install.sh

```
cd Pro_Suite/  
sudo ./install.sh
```

If the yad package is missing, a message will pop up asking to install the yad package.
Please enter "y" to continue.



Figure 2-3 Install yad package

After executing install.sh, the main installation menu will appear.

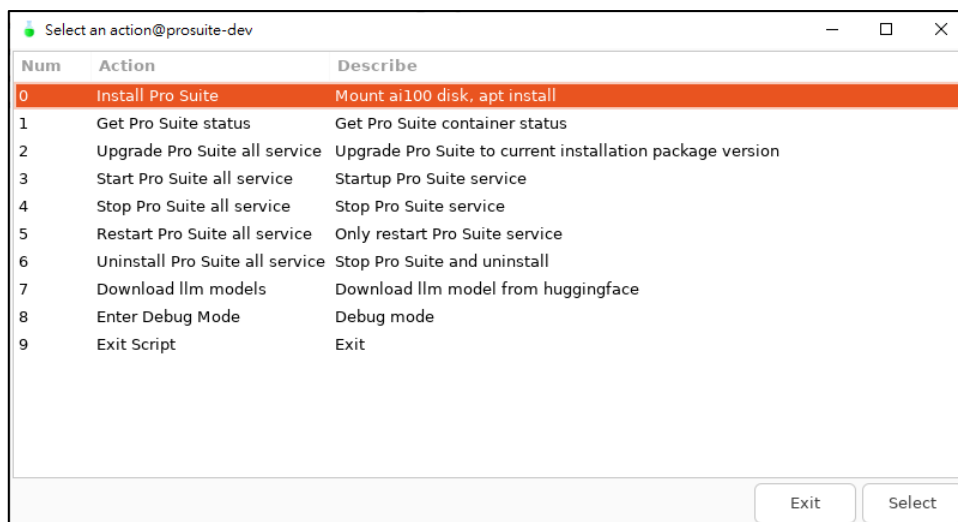


Figure 2-4 Mainmenu

2.3.1. Num 0, Install Pro Suite

- Available SSD(s) will be listed, please select the aiDAPTIVCache SSD.
- If you have already created or mounted the required LVM through Pro Suite, then the Pro Suite installation process will start directly.

Note: If you created LVM or mounted LVM yourself. Then you need to remove LVM setting first.

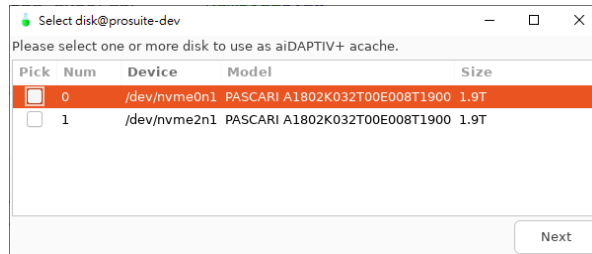


Figure 2-5 Mount aiDAPTIVCache

- Program will install apt packages and pull images

```

2024-10-30 16:19:16 : [info] Check apt package: docker-ce
2024-10-30 16:19:16 : [info] Check apt package: docker-compose-plugin
2024-10-30 16:19:16 : [info] Check apt package: nvidia-driver-550
2024-10-30 16:19:16 : [info] Check apt package: nvidia-container-runtime
2024-10-30 16:19:16 : [info] Check apt package: nvidia-smi
2024-10-30 16:19:16 : [info] Config docker /etc/docker/daemon.json
2024-10-30 16:19:16 : [info] Starting docker service
2024-10-30 16:19:16 : [info] Try docker login, attempt 1.
2024-10-30 16:19:18 : [info] Successful login docker.
2024-10-30 16:19:18 : [info] Total image is 16.
2024-10-30 16:19:18 : [info] Pulling the 1/16 docker image licensesp/aidaptiv_web:651f
2024-10-30 16:19:25 : [info] Pulling the 2/16 docker image licensesp/aidaptiv_api:NXUN
2024-10-30 16:19:27 : [info] Pulling the 3/16 docker image licensesp/km-api:NXUN_2.0.0
2024-10-30 16:19:29 : [info] Pulling the 4/16 docker image licensesp/auto-awq:v1.0.7.

```

- When the installation process has completed, program will display the Pro Suite website URL(s)

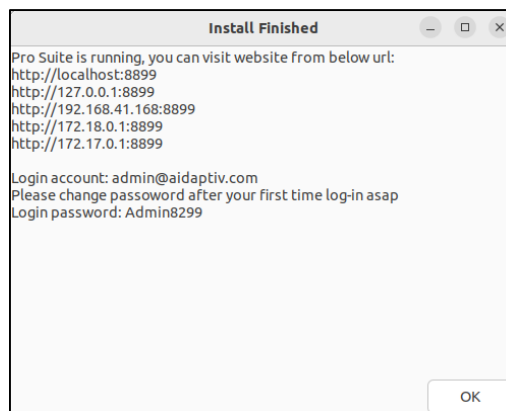


Figure 2-6 Pro Suite website URL

3. UNINSTALLATION PROCESS

3.1. Select *Num 6* to execute the uninstallation process.

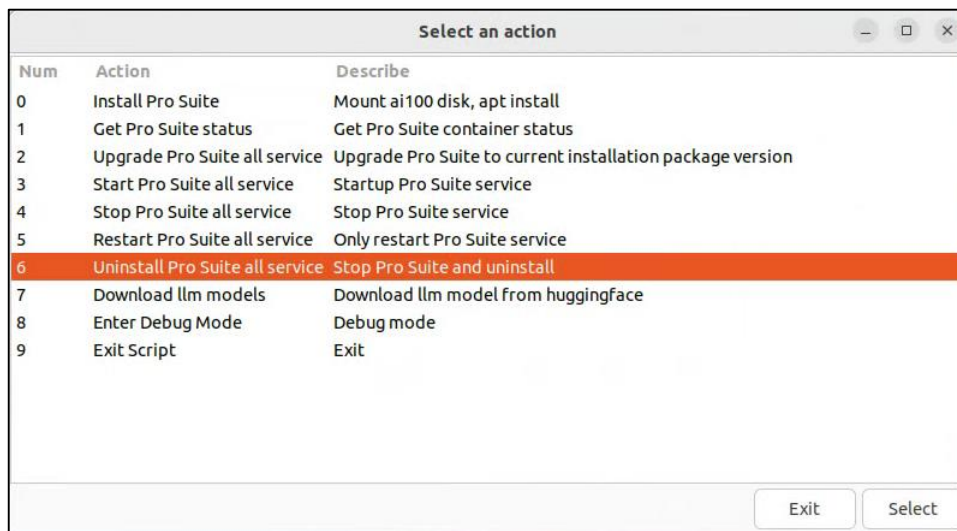


Figure 3-1 Mainmenu

- The user will be asked to confirm the following before the uninstallation process will start.
 1. Whether to remove LVM Raid0 ?
 2. Whether to remove Pro Suite docker image?
 3. Whether to remove Pro Suite data?

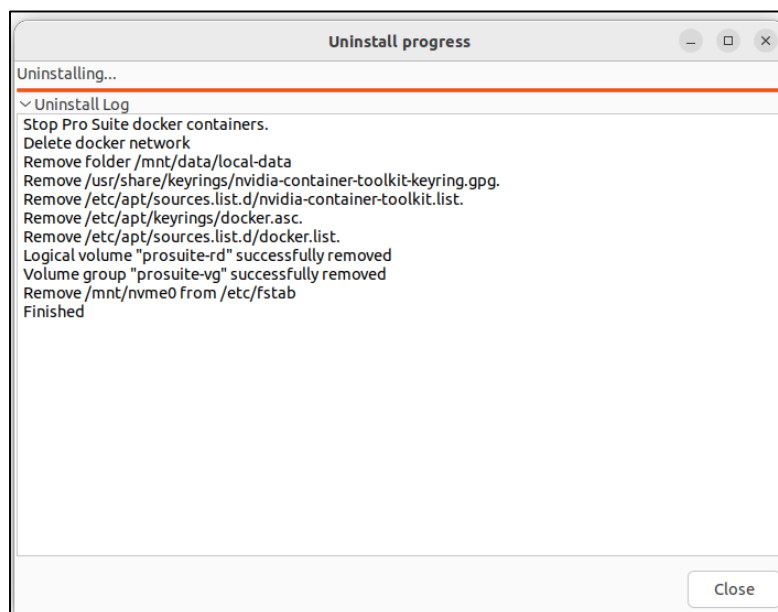


Figure 3-2 Uninstallation process

4. UPGRADE PRO SUITE

1. Execute the install.sh
2. Select Num 2 "Upgrade Pro Suite all service"

Note: Only supported on Pro Suite NXUN_2.0.X versions.

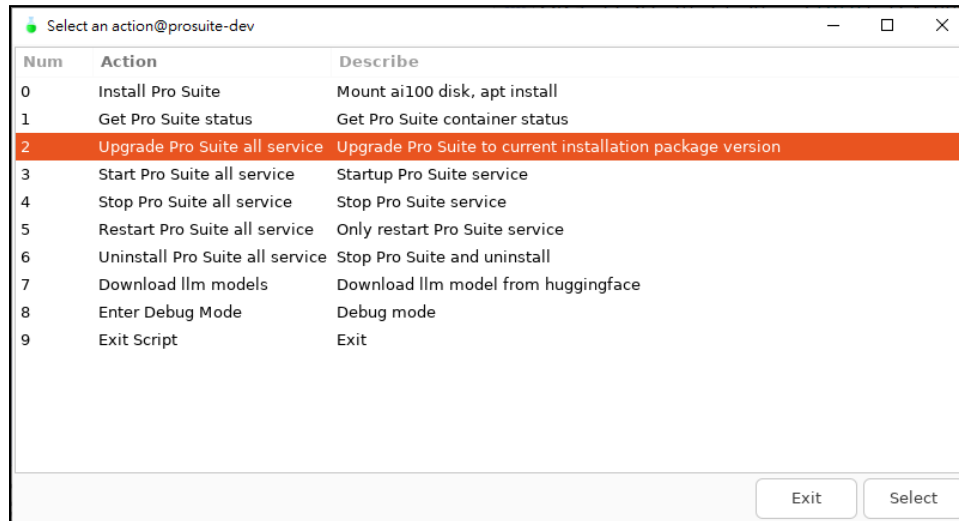


Figure 4-1 Upgrade Pro Suite all service

- Upgrade process

```
2024-11-01 18:19:28 : [Info] Stop Pro Suite services by docker compose.
[+] Running 11/11
  ✓ Container chroma Removed0.4s
  ✓ Container rabbitmq Removed1.2s
  ✓ Container hn-apt Removed10.2s
  ✓ Container device_resources Removed0.3s
  ✓ Container mongo Removed0.4s
  ✓ Container node_exporter Removed0.2s
  ✓ Container reraiser Removed10.2s
  ✓ Container aiadaptiv-frontend Removed10.3s
  ✓ Container prometheus Removed0.3s
  ✓ Container aiadaptiv-backend Removed0.2s
  ✓ Container postgresql Removed0.1s
2024-11-01 18:19:38 : [Info] Stop Pro Suite services by docker network.
2024-11-01 18:19:38 : [Info] Try docker login, attempt 1.
2024-11-01 18:19:40 : [Info] Successful login docker.
2024-11-01 18:19:40 : [Info] Total image is 16.
2024-11-01 18:19:40 : [Info] Pulling the 1/16 docker image licenses/aiadaptiv-web:65123729.
2024-11-01 18:19:42 : [Info] Pulling the 2/16 docker image licenses/aiadaptiv-apt:NXUN_2.0.0-80005.
2024-11-01 18:19:45 : [Info] Pulling the 3/16 docker image licenses/hn-apt:NXUN_2.0.0E-0002-12-gd9799fc.
2024-11-01 18:19:47 : [Info] Pulling the 4/16 docker image licenses/auto-aug/v1.0.7.
2024-11-01 18:19:49 : [Info] Pulling the 5/16 docker image licenses/device-resources:21422c7564.
2024-11-01 18:19:51 : [Info] Pulling the 6/16 docker image licenses/aiadaptiv-box:261579f.
2024-11-01 18:19:53 : [Info] Pulling the 7/16 docker image licenses/aiadaptiv-v:NXUN_2.01_00.
2024-11-01 18:19:55 : [Info] Pulling the 8/16 docker image docker:rc-0ind.
2024-11-01 18:19:57 : [Info] Pulling the 9/16 docker image mongo:7.0.8.
2024-11-01 18:19:59 : [Info] Pulling the 10/16 docker image chromadb/chroma:0.5.8.
2024-11-01 18:20:01 : [Info] Pulling the 11/16 docker image bitnami/postgresql:16.2.0-debian-12-r15.
2024-11-01 18:20:03 : [Info] Pulling the 12/16 docker image prom/prometheus:v2.51.2.
2024-11-01 18:20:05 : [Info] Pulling the 13/16 docker image quay.io/prometheus/node-exporter:v1.7.0.
2024-11-01 18:20:08 : [Info] Pulling the 14/16 docker image vllm/vllm-openai:v0.5.3.post1.
2024-11-01 18:20:10 : [Info] Pulling the 15/16 docker image rabbitmq:3.13.4.
2024-11-01 18:20:12 : [Info] Pulling the 16/16 docker image ghcr.io/huggingface/text-embeddings-inference:cpu-1.2.
[+] Running 11/11
  ✓ Container rabbitmq Started
  ✓ Container mongo Started
  ✓ Container chroma Started
```

- When the upgrade process has completed, program will display the Pro Suite website URL(s)

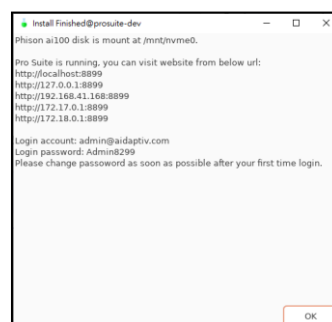


Figure 4-2 Pro Suite website URL

5. OTHER ACTION

5.1. Select *Num 1* to get the status of Pro Suite.

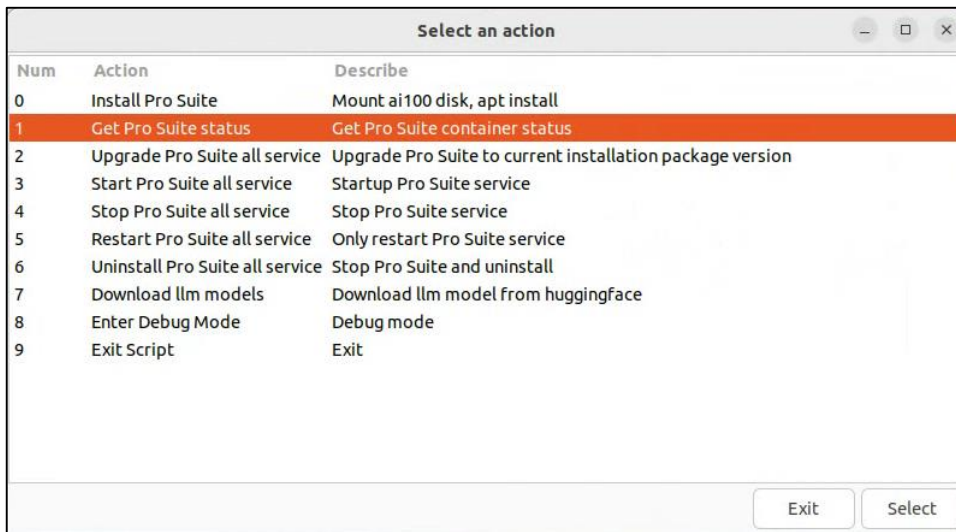


Figure 5-1 Get Pro Suite status

- Select *Num 1* to get the status of each container used in Pro Suite.

Container ID	Name	State	Status	Ports
4ca725ab741b	aidaptiv-backend	running	Up	443/tcp,8081/tcp,0.0.0.0:8799->8080/tcp,[::]:8799->8080/tcp
5a9feccbdcc	aidaptiv-frontend	running	Up	0.0.0.0:8899->80/tcp,[::]:8899->80/tcp
6edd190b1c8f	chroma	running	Up	0.0.0.0:8000->8000/tcp,:::8000->8000/tcp
d26b4168df38	device_resources	running	Up	0.0.0.0:9400->9400/tcp,:::9400->9400/tcp
3d021ed1729b	km-api	running	Up	0.0.0.0:3019->3019/tcp,:::3019->3019/tcp
52dec9acd485	mongodb	running	Up	0.0.0.0:7017->27017/tcp,[::]:7017->27017/tcp
cf32dc9cbc1e	node_exporter	running	Up	0.0.0.0:9100->9100/tcp,:::9100->9100/tcp
e59a1e0a425f	postgresql	running	Up	0.0.0.0:5432->5432/tcp,:::5432->5432/tcp
889988f78c97	prometheus	running	Up	0.0.0.0:3090->9090/tcp,[::]:3090->9090/tcp
4153339eb461	rabbitmq	running	Up	4369/tcp,5671-5672/tcp,15691-15692/tcp,25672/tcp,0.0.0.0:5672->15672/tcp
a7581f9ed459	reranker	running	Up	0.0.0.0:21345->80/tcp,[::]:21345->80/tcp

Figure 5-2 The status of each container in Pro Suite

5.2. Select *Num 3* to start the service of Pro Suite.

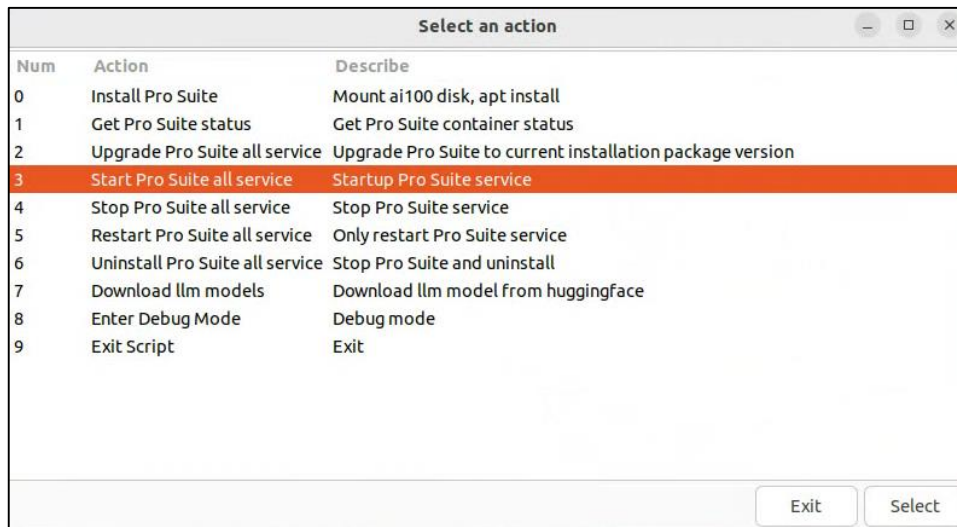


Figure 5-3 Start Pro Suite service

- If you stop the Pro Suite service, you can start the service by executing *Num 3*.

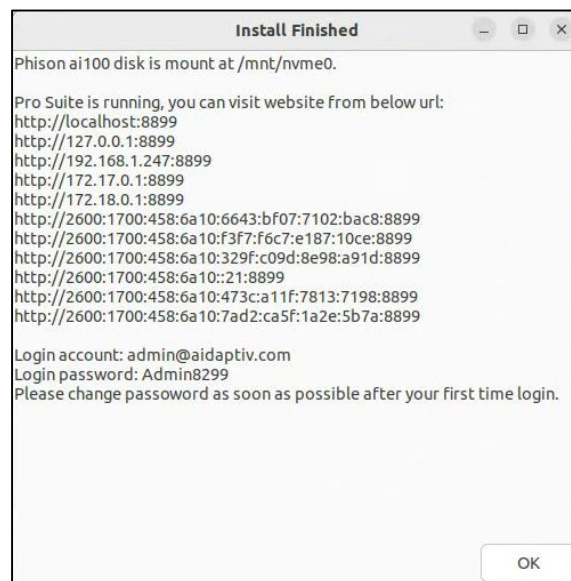


Figure 5-4 The service started successfully

5.3. Select Num 4 to stop the service of Pro Suite.

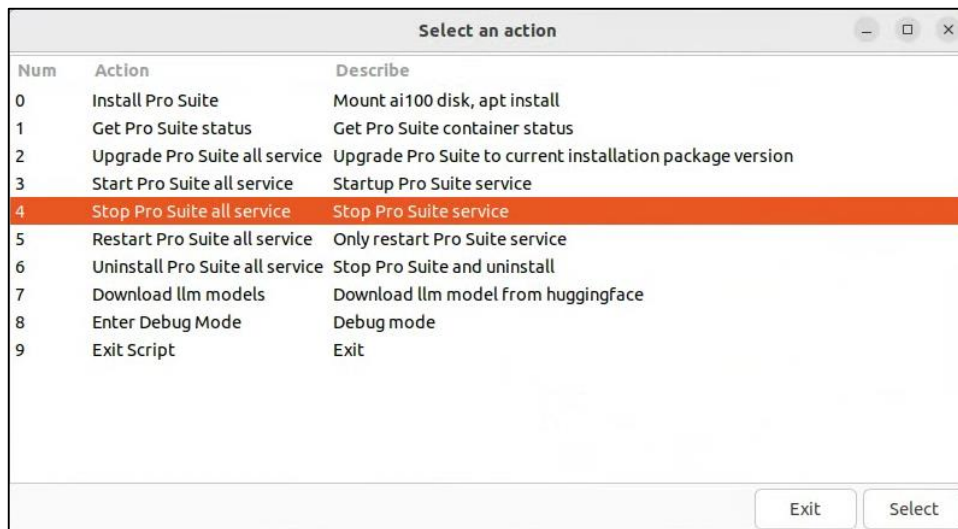


Figure 5-5 Stop Pro Suite service

- Select Num 4 to stop all of the Pro Suite services.

```
2024-11-12 19:00:16 : [info] Stop Pro Suite services by docker compose.
[+] Running 11/11
✓ Container mongodb          Removed0.4s
✓ Container rabbitmq         Removed1.3s
✓ Container km-api           Removed10.4s
✓ Container aidaptiv-frontend Removed10.4s
✓ Container node_exporter    Removed0.2s
✓ Container chroma           Removed1.0s
✓ Container reranker         Removed1.0s
✓ Container device_resources Removed0.3s
✓ Container prometheus       Removed0.4s
✓ Container aidaptiv-backend Removed0.3s
✓ Container postgresql       Removed0.2s
2024-11-12 19:00:27 : [info] Stop Pro Suite services by docker network.
2024-11-12 19:00:27 : [info] Stop docker container InferenceModel2.
2024-11-12 19:00:28 : [info] Stop docker container InferenceModel3.
```

Figure 5-6 Stop each container of Pro Suite

5.4. Select Num 5 to Restart the service of Pro Suite.

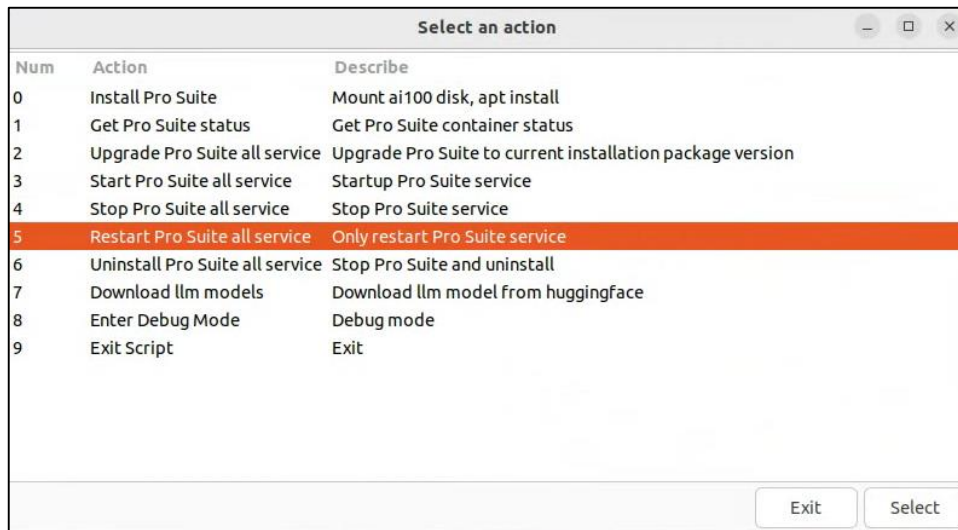


Figure 5-7 Restart Pro Suite service

- Restarting the Pro Suite service can resolve many abnormal problems. To restart the Pro Suite service, you can select Num 5.

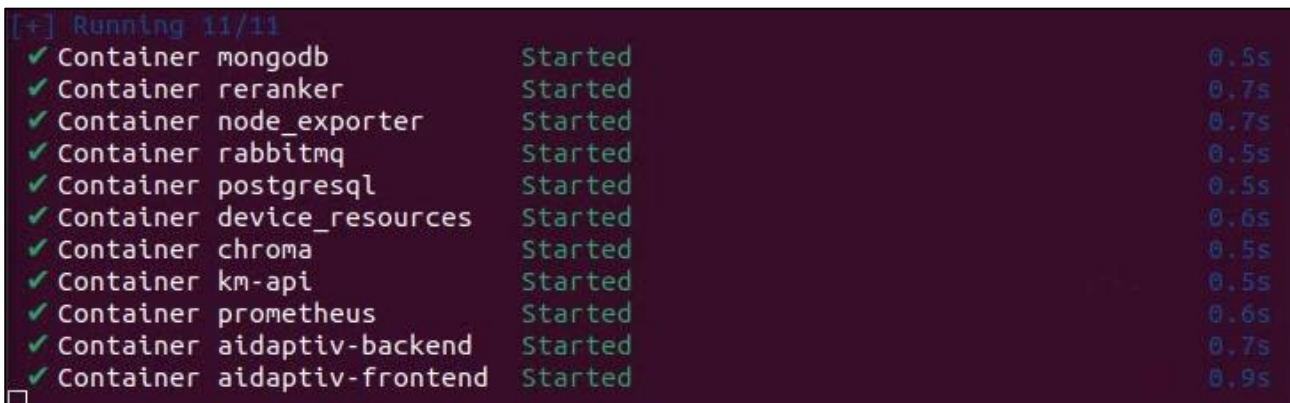


Figure 5-8 Restart Pro Suite service successfully

5.5. Select Num 7 to download LLM models from Pro Suite

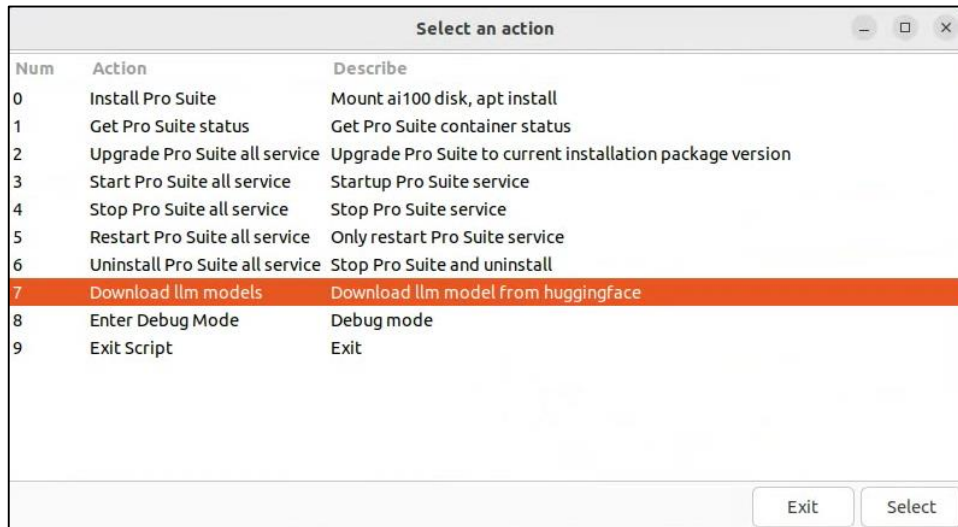


Figure 5-9 Download LLM models

- Select a model to download.

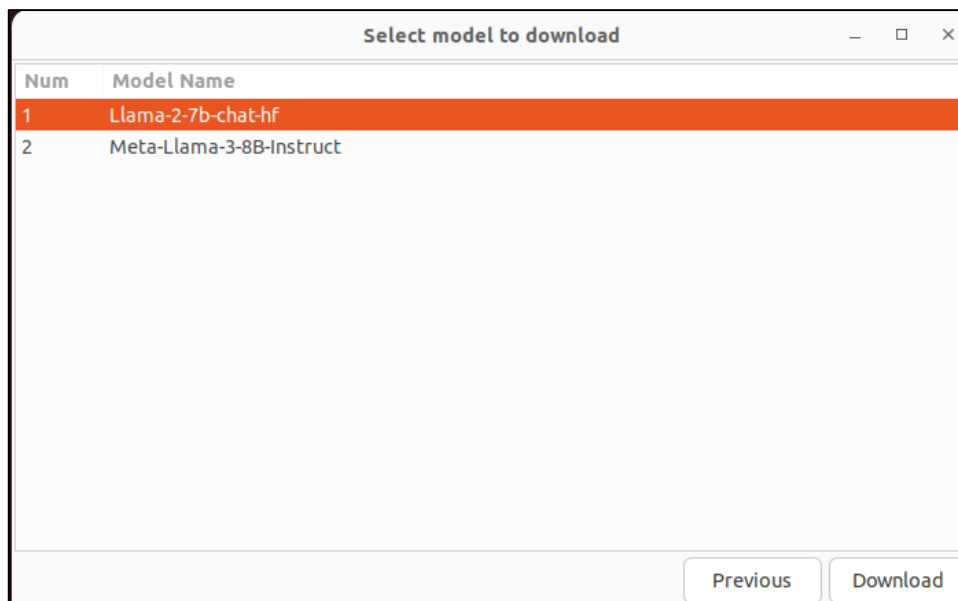


Figure 5-10 Model lists

5.6. Select *Num 8* to enter debug mode

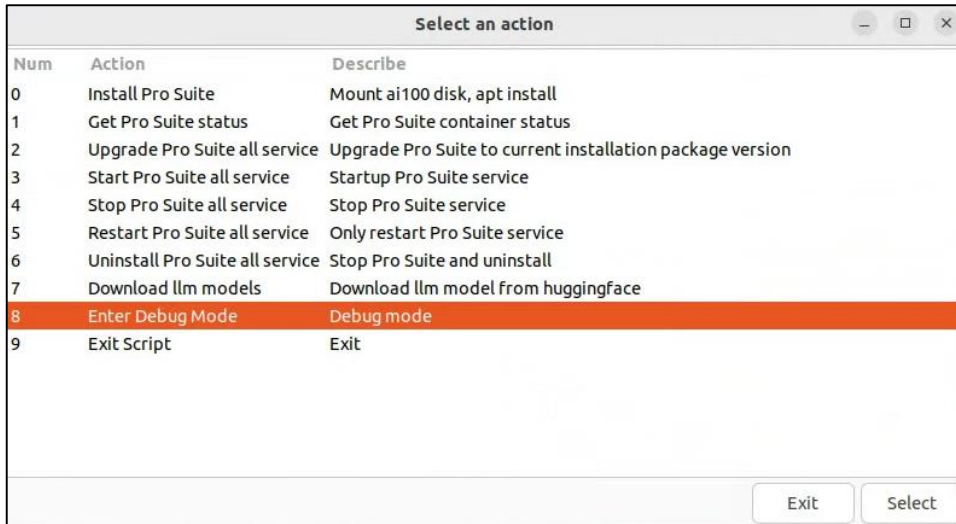


Figure 5-11 Enter debug mode

- If you need to restart a specific service for some reason, you can select *Num 1*.
- If the installation of specific docker images fails due to other abnormal reasons, you can select *Num 2* to pull and refresh the docker image(s).
- Select *Num 3* to clean memory buffer/cache.
- Select *Num 4* to create LVM.
- Select *Num 5* to update embedded model.

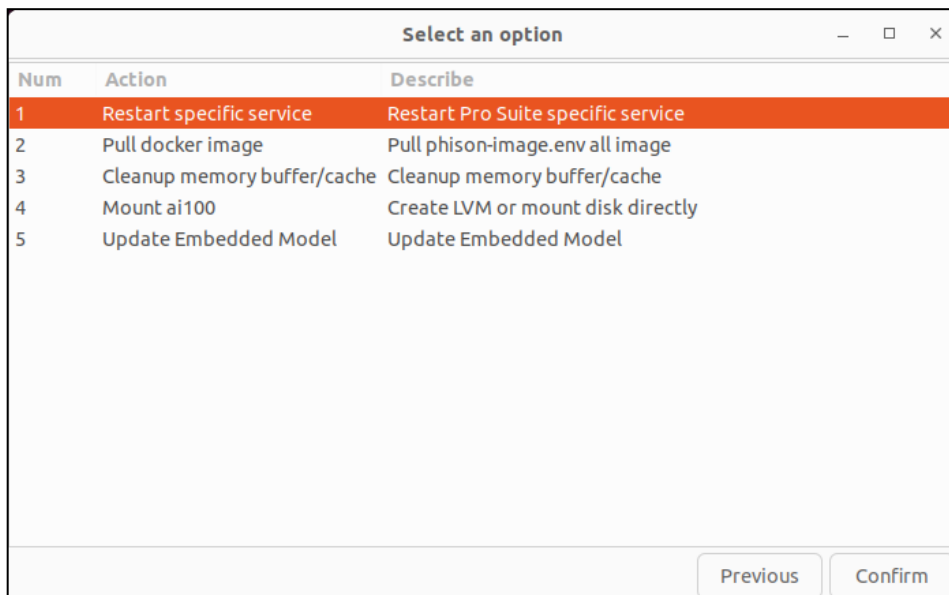


Figure 5-12 Enter debug mode

APPENDIX A – DEBUG NOTE

If you encounter issues and need assistance from Phison, please first run the `export_log.sh` file and provide the generated log to your Phison representative to improve troubleshooting efficiency.

The `export_log.sh` will collect the following information:

- Host system version information
- Motherboard information
- Processor, memory, hard drive, and PCI information
- NVIDIA version information
- Pro Suite Container information
- Pro Suite install log `/var/log/prosuite` information

Operating Instructions:

```
sudo bash export_log.sh
```

```
user@prosuite-dev:~/ProSuite$ ls -alh | grep export_log
-rwxrwxr-x 1 user user 2.4K +- 24 15:28 export_log.sh
user@prosuite-dev:~/ProSuite$ sudo bash export_log.sh
2024-10-24 15:32:29 : Get OS version and board info.
2024-10-24 15:32:29 : Get PCI, CPU, Memory, Disk info.
2024-10-24 15:32:30 : Get Pro Suite docker container state.
2024-10-24 15:32:30 : Get Pro Suite docker container logs.
2024-10-24 15:32:30 : Finish generate file export_hw_2024-10-24_1532.tar at /home/user/ProSuite.
user@prosuite-dev:~/ProSuite$ ls -alh export_hw_2024-10-24_1532.tar
-rw-r--r-- 1 root root 70K +- 24 15:32 export_hw_2024-10-24_1532.tar
```