



# 1. Nvidia 그래픽드라이버 확인 방법

#### A. # nvidia-smi

				Version: 440.64		
GPU Name   Fan Temp	Perf	Persist Pwr:Usa	ence-M  age/Cap	Bus-Id Disp.A Memory-Usage	Volatile   GPU-Util	Uncorr. ECC   Compute M.
0 Quad:	o RTX P8	6000 11W /	On   250W	00000000:00:06.0 Off 0MiB / 22698MiB	   0%	0   Default
1 Quad:   N/A 26C	o RTX P8	6000 12W /	On   250W	00000000:00:07.0 Off 0MiB / 22698MiB	   0%	0   Default
+						+
Processes   GPU 	PID			name		GPU Memory   Usage   ======

- 위 이미지와 같이 출력된다면 그래픽드라이버 상태는 정상

```
abuntu@____.~$ nvidia-smi
NVIDIA-SMI has failed because it couldn't communicate with the NVIDIA driver. Make sure that the latest NVIDIA driver
```

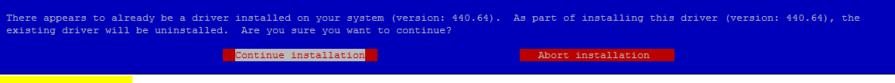
- 위 이미지와 같이 출력된다면 그래픽 드라이버 재설치 필요
- NVIDIA-SMI has failed because it couldn't communicate with the NVIDIA driver. Make sure that the latest NVIDIA driver is installed and running.





# 2. Nvidia 그래픽드라이버 재설치 방법

- A. 서버의 root 권한으로 전환 #sudo su -
- B. Run 파일을 이용하여 설치
  - # wget http://kr.download.nvidia.com/XFree86/Linux-x86\_64/440.64/NVIDIA-Linux-x86\_64-440.64.run
  - # sh NVIDIA-Linux-x86\_64-440.64.run
- 1. There appears to already be a driver installed on your system (version: 440.64). As part of installing this driver (version: 440.64), the existing driver will be uninstalled. Are you sure you want to continue?



#### Continue installation

2. WARNING: nvidia-installer was forced to guess the X library path '/usr/lib' and X module path

WARNING: nvidia-installer was forced to guess the X library path '/usr/lib' and X module path '/usr/lib/xorg/modules'; these paths were not queryable from the system. If X fails to find the NVIDIA X driver module, please install the 'pkg-config' utility and the X.Org SDK/development package for your distribution and reinstall the driver.

OK

3. WARNING: Unable to find a suitable destination to install 32-bit compatibility libraries.





WARNING: Unable to find a suitable destination to install 32-bit compatibility libraries. Your system may not be set up for 32-bit compatibility. 32-bit compatibility files will not be installed; if you wish to install them, re-run the installation and set a valid directory with the --compat32-libdir option.

OK

4. Installation of the kernel module for the NVIDIA Accelerated Graphics Driver for Linux-x86\_64 (version 440.64) is now complete.

Installation of the kernel module for the NVIDIA Accelerated Graphics Driver for Linux-x86\_64 (version 440.64) is now complete.

OK

OK

5. nvidia-smi 로 복구 확인

NVIDIA-SMI 440.64 Driver Version: 440.64 CUDA Version: 10.2 Persistence-M| Bus-Id Disp.A | Volatile Uncorr. ECC Fan Temp Perf Pwr:Usage/Cap| Quadro RTX 6000 Off 00000000:00:06.0 Off | 0 27C P0 52W / 250W OMiB / 22698MiB | 0% Default 1 Quadro RTX 6000 00000000:00:07.0 Off | Off 0 OMiB / 22698MiB | N/A 28C P043W / 250W 0% Default GPU Memory Processes: Type GPU  $_{\mathtt{PID}}$ Process name Usage No running processes found





6. nvidia 튜닝 추가 진행

## nvidia-smi -pm 1

# Set persistence mode: 0/DISABLED, 1/ENABLED

```
root@Magnatum 00113:~# nvidia-smi -pm 1
Enabled persistence mode for GPU 00000000:00:06.0.
Enabled persistence mode for GPU 00000000:00:07.0.
All done.
```

### nvidia-smi -acp 0

# Toggles permission requirements for -ac and -rac commands: 0/UNRESTRICTED, 1/RESTRICTED

```
root@ Total -011:-# nvidia-smi -acp 0
Applications clocks commands have been set to UNRESTRICTED for GPU 00000000:00:06.0
Applications clocks commands have been set to UNRESTRICTED for GPU 00000000:00:07.0
All done.
```

### nvidia-smi -ac "6501,1620"

# MAX Mem, Graphics





# 7. nvidia-smi 로 설정 변경 확인

NVID	IA-SMI 440.6		Version: 440.64 (				
	Temp Perf	Persistence-M  Pwr:Usage/Cap	Bus-Id Disp.A Memory-Usage	Volatile Uncorr. ECC     GPU-Util Compute M.			
	Quadro RTX	6000 On	00000000:00:06.0 Off 0MiB / 22698MiB				
			00000000:00:07.0 Off 0MiB / 22698MiB				
+			· 				
Proc	esses: PID	Type Process	3 name	GPU Memory   Usage			
No running processes found 							