

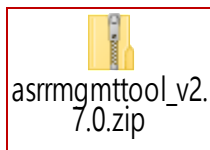


ASRockRACK TECHNICAL DOCUMENT (NOVEMBER/2024)

Q: How to adjust BIOS Setting in local and remote with mgmttool under Linux?

Preparation

Please download the Linux version of mgmttool, [asrrmgmttool_v2.7.0.zip](#)



Notice

1. To do bios_setting command,

For local :Please remember to input the **Username and Password** of your BMC

For Remote: Please remember to input the **HostIP, Username and Password** of your BMC

The following steps would show you the detail

2. To view the detail of the Server Management Utility

Please download the User Manual, [Server Management Utility](#)



Step

- 1.

To unzip the attachment, we run "**sudo unzip asrrmgmttool_v2.7.0.zip**"

- 2.

To see the commands of the tool

we run "**sudo ./mgmtcli --help**" under the attachment folder

```

tsd@tsd-GENOAD8UD-2T-X550:~/v2.7.0/linux$ sudo ./mgmtcli --help
[sudo] password for tsd:
Usage: asrrmgmttool <command> [options]

Commands:
  mgmtcli group           Group management
  mgmtcli bmc_update      Update BMC firmware
  mgmtcli cpld_update     Update CPLD firmware
  mgmtcli ipmi            Execute the ipmi command
  mgmtcli bios_update     Update BIOS firmware
  mgmtcli psu_update      Update PSU firmware
  mgmtcli power           Power control
  mgmtcli remote_vmedia   Remote Virtual media
  mgmtcli vmedia          Virtual media
  mgmtcli user            User account control
  mgmtcli network_settings Network Settings
  mgmtcli bios_settings   Bios settings
  mgmtcli smbios          SMBIOS data
  mgmtcli event           System event log
  mgmtcli system_inventory system inventory info
  mgmtcli boot_next       Select the next boot
  mgmtcli fru             fru information
  mgmtcli fantable_settings Fan table settings
  mgmtcli os_settings     Operating system settings
  mgmtcli remote_control  Remote control via Java kvm or HTML KVM
  mgmtcli fw_pswd_settings FW Password Settings
  mgmtcli backup_config   backup config file to a location of your
                           choice
  mgmtcli external_user_settings External User Settings
  mgmtcli uid             UID Control
  mgmtcli sensor          Sensor information

```

3.

Choose the command you want to use,

then add **-- help** behind your command, which would let you know the utilization of your command

If you want to get the instruction of **bios_settings**

we run **"sudo ./mgmtcli bios_settings --help"**

and **"sudo ./mgmtcli bios_settings get --help"**

```
tsd@tsd-GENOAD8UD-2T-X550:~/v2.7.0/linux$ sudo ./mgmtcli bios_settings --help
mgmtcli bios_settings

Bios settings

Commands:
  mgmtcli bios_settings get          Collect the bios attribute
  mgmtcli bios_settings quick_search Quickly search bios for available item
                                   settings
  mgmtcli bios_settings value        BIOS value to acquire
  mgmtcli bios_settings set          Set BIOS settings
  mgmtcli bios_settings apply        Apply bios settings
  mgmtcli bios_settings save         Save bios settings
  mgmtcli bios_settings restore      Restore bios settings

Options:
  --help          Show help [boolean]
  --log           Write log to file
  --logappend     Append log to existing file [boolean]
  --version       Show version number [boolean]
  -g, --group     The group to do bios settings
  -b, --begin     Begin IP address of the range [array]
  -e, --end       End IP address of the range [array]
  -h, --host      IP address list to do bios settings [array]
  -x, --exclude   IP address list to exclude [array]
  -s, --scan      Scan the IP range for servers [boolean]
  -u, --username  Username to login [required]
  -p, --password  Password to login [required]
```

```
tsd@tsd-GENOAD8UD-2T-X550:~/v2.7.0/linux$ sudo ./mgmtcli bios_settings get --help
mgmtcli bios_settings get

Collect the bios attribute

Options:
  --help          Show help [boolean]
  --log           Write log to file
  --logappend     Append log to existing file [boolean]
  --version       Show version number [boolean]
  -g, --group     The group to do bios settings
  -b, --begin     Begin IP address of the range [array]
  -e, --end       End IP address of the range [array]
  -h, --host      IP address list to do bios settings [array]
  -x, --exclude   IP address list to exclude [array]
  -s, --scan      Scan the IP range for servers [boolean]
  -u, --username  Username to login [required]
  -p, --password  Password to login [required]
  --path          file directory (the default is current path)
  --all, -a       get all bios attribute
  --query, -q     search keyword of bios attribute
                  (ex. -q keyword1 -q keyword2) [array]
  --print         print bios attribute
```

You can get all the information of BIOS by adding **--all
or just the keywords you want to check by adding **--query**
For example: You want to check the **UEFI setting**, you can add **--query UEFI** in your
command*

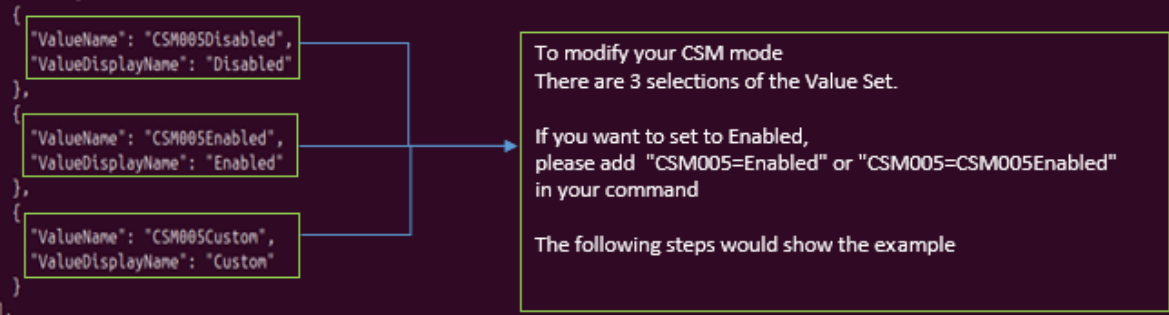
3.

For example, If you want to modify your CSM setting, first get your bios settings information

Please run:

"sudo ./mgmtcli bios_settings get -h <IP> -u <username> -p <password> --print --query CSM"

```
tsd@tsd-GENOABUD-2T-XSS0:~/v2.7.0/linux$ sudo ./mgmtcli bios_settings get -h 192.168.36.140 -u admin -p admin12345678 --print --query CSM
[sudo] password for tsd:
BIOS settings...
192.168.36.140 :
{
  {
    "DefaultValue": "Custom", CSM Default : Custom mode
    "UefiNamespaceId": "x-UEFI-AMI",
    "DisplayName": "CSM", The display name in BIOS,
    "HelpText": "Enable to launch the Compatibility Support Module. If you are using Windows 8 64-bit UEFI and all of your devices support UEFI,
    t speed.",
    "AttributeName": "CSM005", You can modify CSM mode by changing AttributeName from CSM005 to the other value below
    "Value": [
      {
        "ValueName": "CSM005Disabled",
        "ValueDisplayName": "Disabled"
      },
      {
        "ValueName": "CSM005Enabled",
        "ValueDisplayName": "Enabled"
      },
      {
        "ValueName": "CSM005Custom",
        "ValueDisplayName": "Custom"
      }
    ],
    "ReadOnly": false,
    "ResetRequired": true,
    "Type": "Enumeration"
  }
}
Total servers found: 1, done: 1, failed: 0_
```



To modify your CSM mode
There are 3 selections of the Value Set.

If you want to set to Enabled,
please add "CSM005=Enabled" or "CSM005=CSM005Enabled"
in your command

The following steps would show the example

4.

If you want to set CSM to Enabled, you can run

"sudo ./mgmtcli bios_settings set -h <IP> -u <username> -p <password> -d CSM005=Enabled"

or

"sudo ./mgmtcli bios_settings set -h <IP> -u <username> -p <password> -d CSM005=CSM005Enabled"

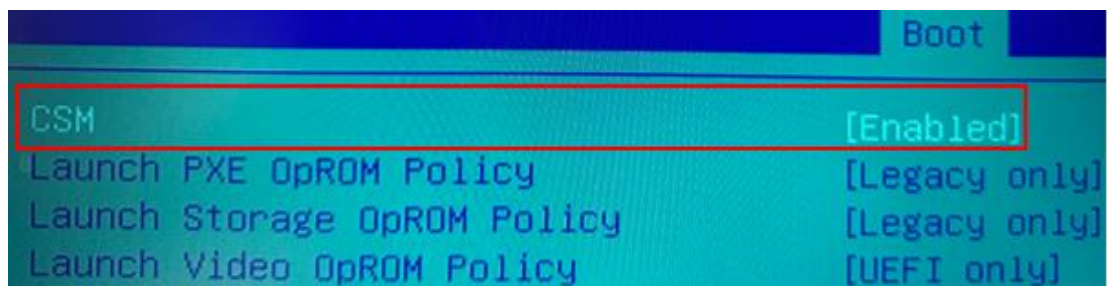
```
Set BIOS settings

Options:
  --help          Show help [boolean]
  --log           Write log to file
  --logappend     Append log to existing file [boolean]
  --version       Show version number [boolean]
  -g, --group     The group to do bios settings
  -b, --begin     Begin IP address of the range [array]
  -e, --end       End IP address of the range [array]
  -h, --host      IP address list to do bios settings [array]
  -x, --exclude   IP address list to exclude [array]
  -s, --scan      Scan the IP range for servers [boolean]
  -u, --username  Username to login [required]
  -p, --password  Password to login [required]
  --path          File directory (the default is current path)
  --dircet, -d    Bios settings example :
                  -d "AttributeName1"="ValueName1" -d
                  "AttributeName2"="ValueName2" ... or
                  -d "DisplayName1"="ValueDisplayName1" -d
                  "DisplayName2"="ValueDisplayName2" ... [array] [required]

tsd@tsd-GENOAD8UD-2T-X550:~/v2.7.0/linux$ sudo ./ngmtcli bios_settings set -h 192.168.36.140 -u admin -p admin12345678 -d CSM005=Enabled
BIOS settings...
192.168.36.140 {"Attributes": {"CSM005": "CSM005Enabled"}}
192.168.36.140 JSON : Transfer completed
192.168.36.140 JSON : you can check the bios setting in /home/tsd/v2.7.0/linux/192.168.36.140.json
Total servers found: 1, done: 1, failed: 0
```

5.

After reboot, you can check your CSM mode has been changed



Done