

# MEmu App Player User Manual



*January 2016*

[www.memuplay.com](http://www.memuplay.com)

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## 1 About this Document

This is the primary user document of MEmu App Player. In most cases, you will get to know everything you need about how to use this Android emulator. For any other questions, please feel free to contact us at [support@microvirt.com](mailto:support@microvirt.com).

**Official Website:** <http://www.memuplay.com>

**Online Support:** <https://www.facebook.com/memuplayer>

## 2 Getting Started

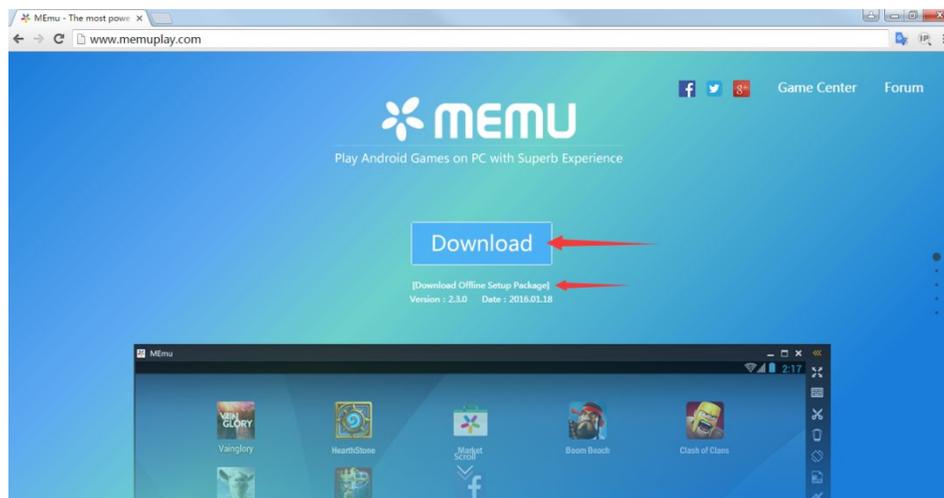
### 2.1 System Requirement

- Windows XP SP3/Windows Vista/Windows 7/Windows 8/Windows 10
- Intel or AMD CPU (with Virtualization Technology support preferred)
- GPU with OpenGL 2.0+ support (G31, G33, Q33 and Q35 are not supported)
- At least 1 GB memory
- At least 1 GB of free disk space under installation path

Note: Please do NOT try to run MEmu App Player in another virtual machine software.

### 2.2 Install & Setup

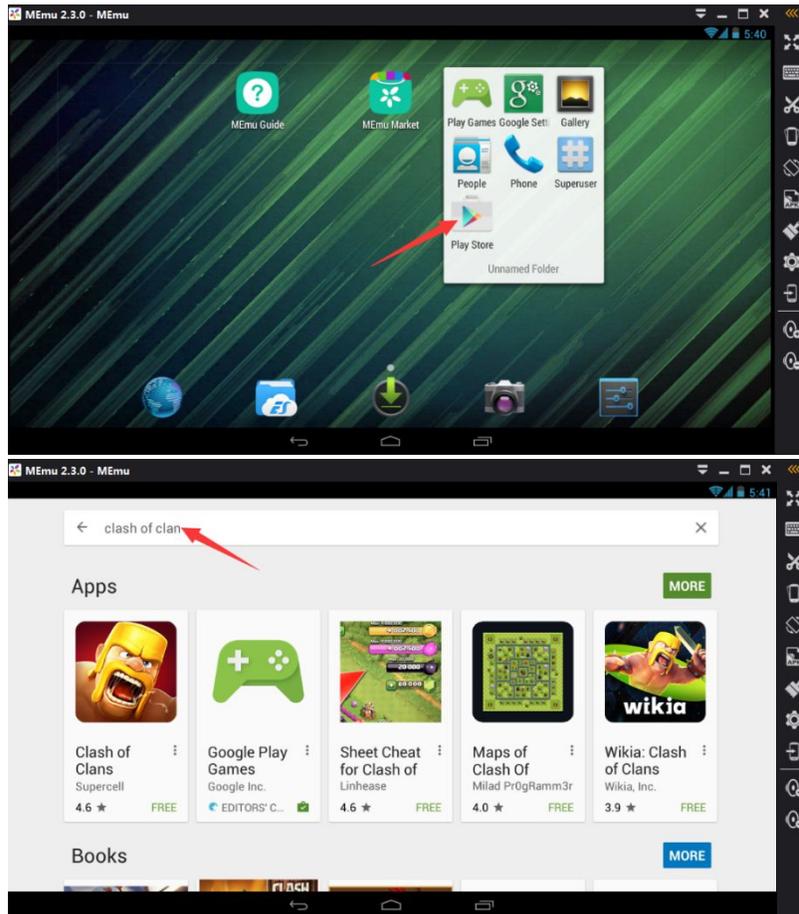
Go to MEmu official website <http://www.memuplay.com/> and click the Download button to get the latest stable version. Once download completed, double click to run the setup file. If you get an online installer, please make sure you have the internet access during the installation.



### 2.3 Install App to MEmu

There are two ways to install games or apps in MEmu App Player.

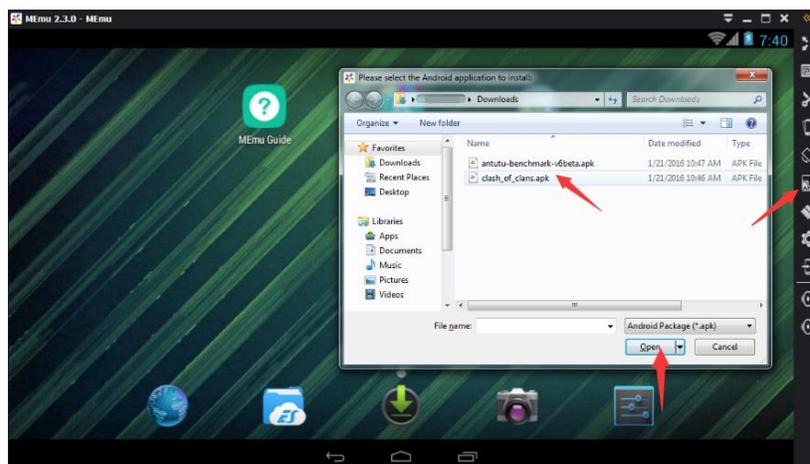
1. Start MEmu App Player, open MEmu Market or Google Play Store, search for the games or apps you want and click Install.



2. Another way, download the APK file of the game or app to your PC, click the **APK** button



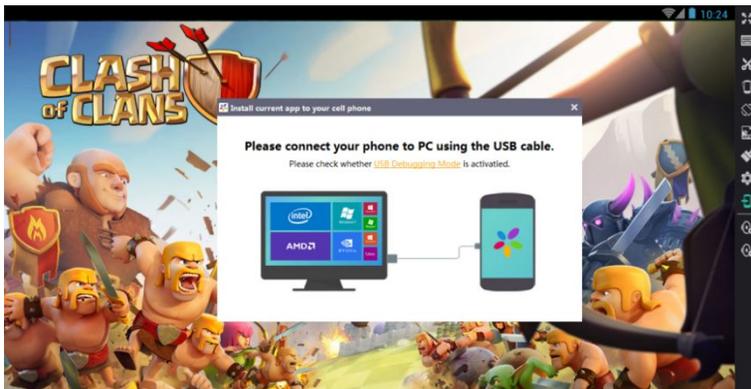
on the side bar and select the APK file from Windows to install.



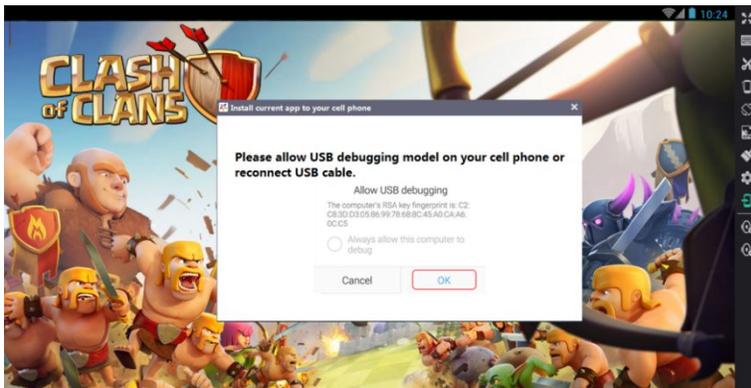
## 2.4 Install App from MEmu to Phone

If you want to sync any game or app from MEmu to your phone, please follow the steps as below.

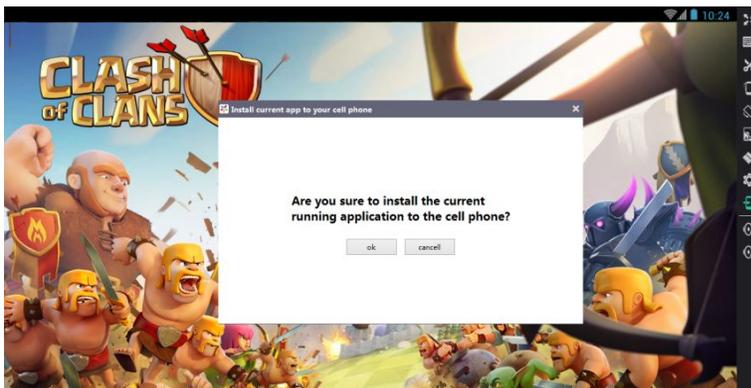
1. Enter into a certain application in the MEmu and click the *Install* button  on the side bar.



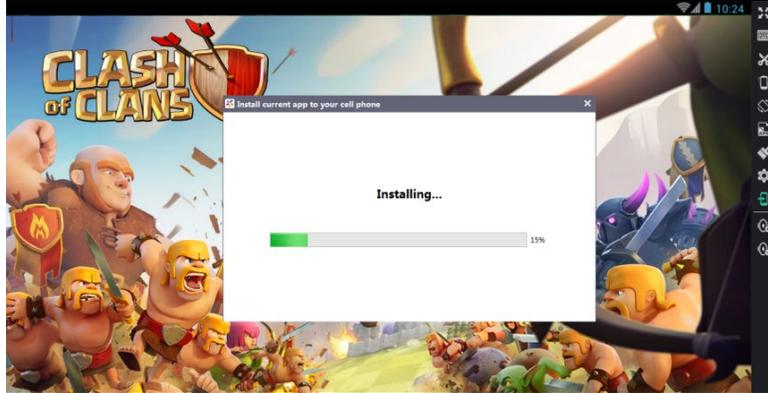
2. Enable the [USB Debugging Mode](#) of your phone and connect it to PC through a USB cable. Accept the connection when the confirmation window pops up in your phone.



3. Confirm to install the current application to your phone by Clicking the *OK* button.



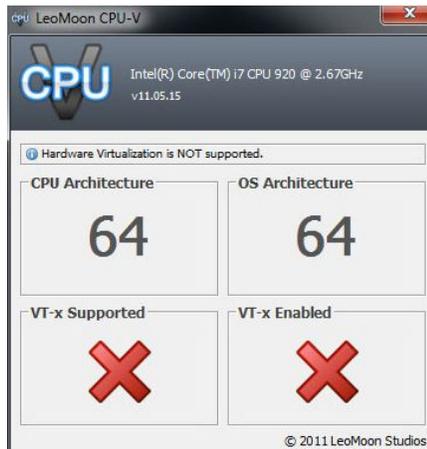
4. Then the current application will be installed to your phone very quickly.



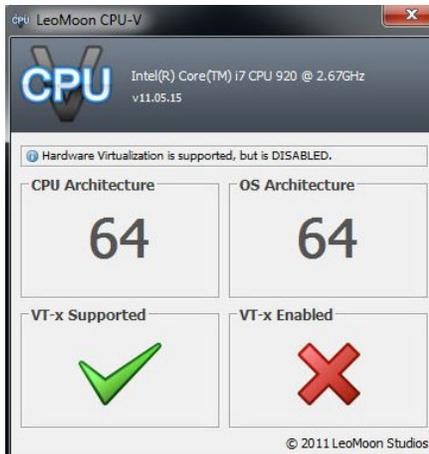
## 2.5 Enable Hardware Virtualization

MEmu App Player will have better performance if hardware virtualization is enabled on your computer. Most of mainstream Intel and AMD CPUs support hardware virtualization. However, this feature is likely to be disabled by default for some reason. Here we recommend you to enable it by following steps.

1. Check the status of hardware virtualization on your computer with a 3<sup>rd</sup>-party tool: [LeoMoon CPU-V](#).
2. If CPU does NOT support hardware virtualization, you will get the result as below. That means nothing could be done in this part.



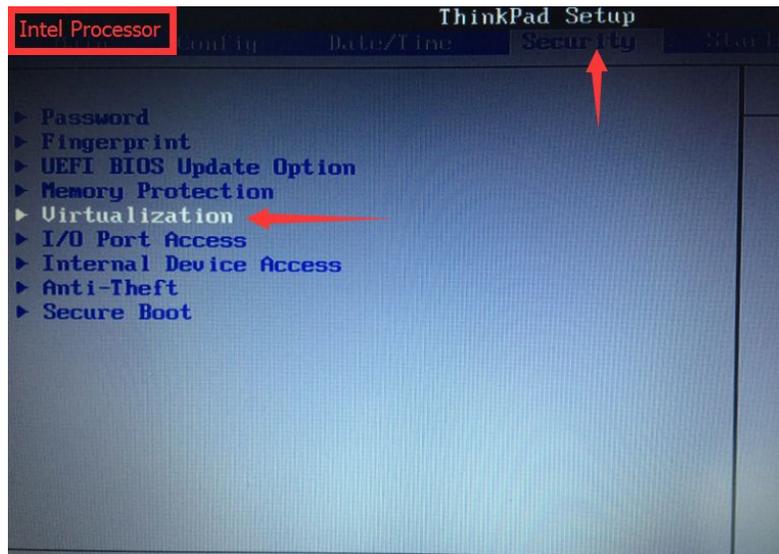
3. If CPU supports hardware virtualization but this feature is disabled, you will get the result as below.

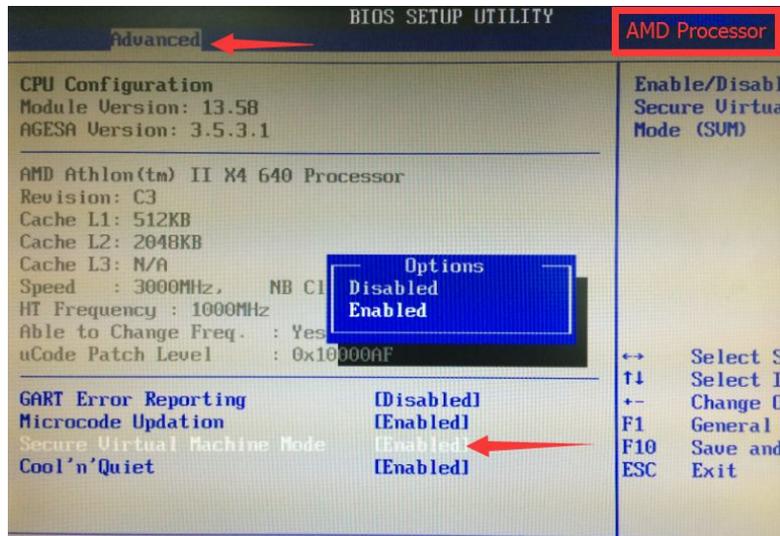


Please refer to the following steps then:

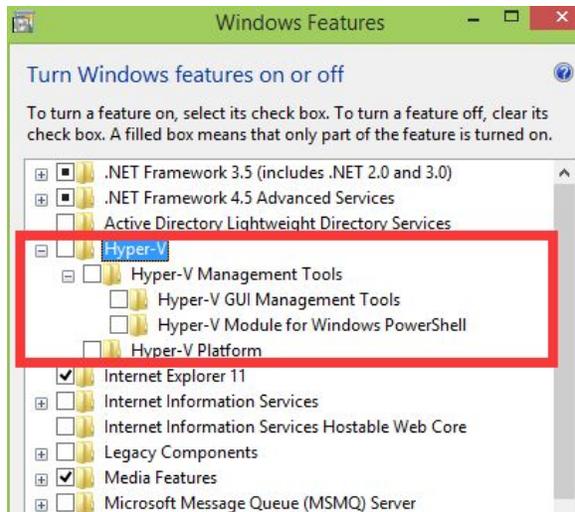
- a. You have to enable hardware virtualization in the BIOS. Press a designated key repeatedly to enter into BIOS setup page when boots up, look for Virtualization Technology (aka Intel VT or AMD-V), and then enable it. At the end, save and restart the computer to apply the change.

Note: The BIOS settings for Intel VT or AMD-V are usually in the Chipset or Processor menus. The menu names may vary from this guide, the virtualization settings may be found in Security Settings or other non standard menu names.

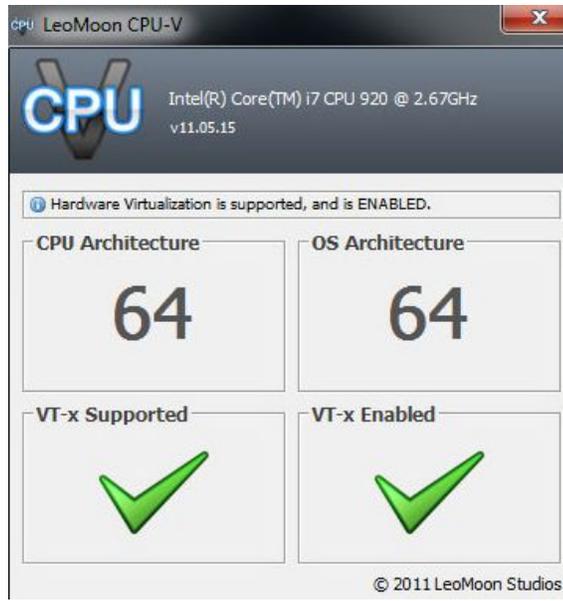




- b. If you have some other virtual machine software in Windows like Hyper-V, you'd better to make sure it's turned off. Otherwise, hardware virtualization might be occupied exclusively.



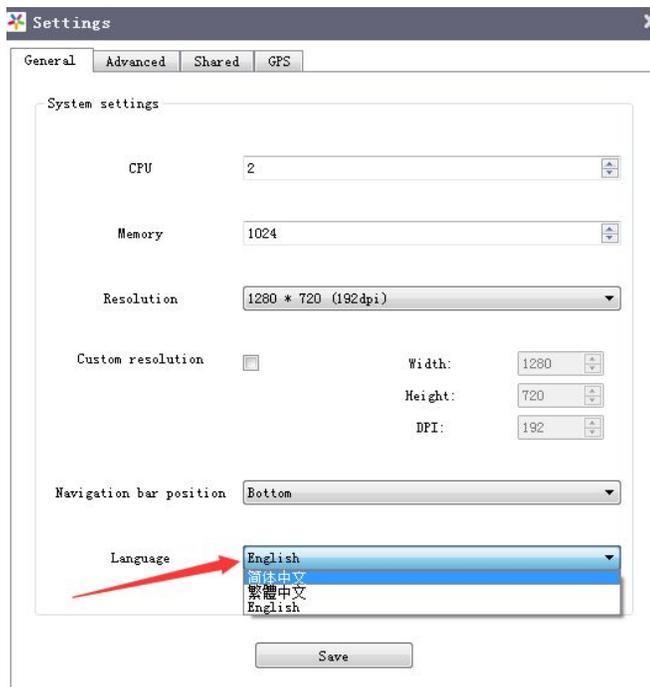
4. If you get the result as below, it's ready to go with hardware virtualization now.



### 3 Function

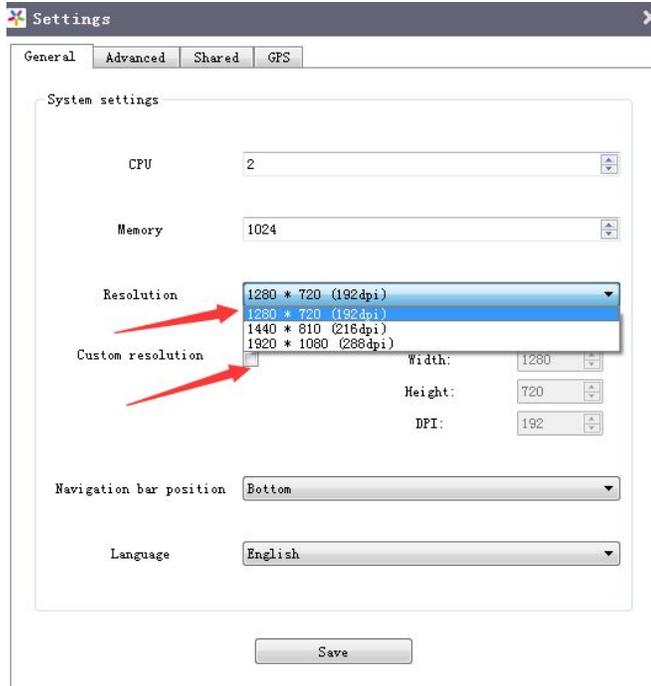
#### 3.1 Change Language

Click the *Settings* button  on the side bar and go to the *General* setting page. You can change your language preference between English/Simple Chinese/Traditional Chinese. Do not forget, click *Save* and restart MEmu to apply change.



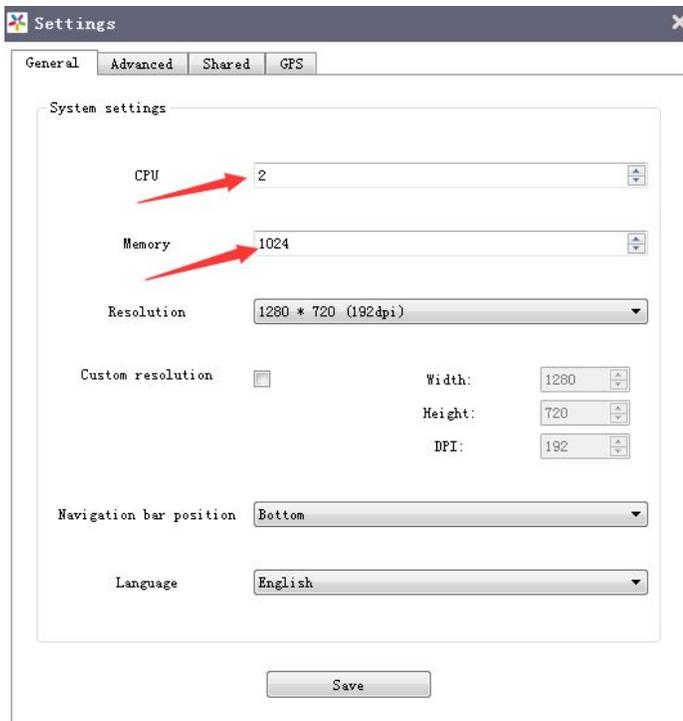
### 3.2 Customize Resolution

Click the *Settings* button  on the side bar and go to the *General* setting page. There are three frequently-used values in the drop-down box of *Resolution*. You can also change your resolution preference as you want in *Custom Resolution* Box. Do not forget, click *Save* and restart MEmu to apply change.



### 3.3 Customize CPU and Memory

Click the *Settings* button  on the side bar and go to the *General* setting page. You can set CPU core number and memory size as needed. Please note that the values shall not exceed the upper limit of the PC you have and also make sure Windows has enough memory to function properly. Do not forget, click *Save* and restart MEmu to apply change.



Note: You are allowed to increase the number of CPU core only if the hardware virtualization feature is enabled on your PC.

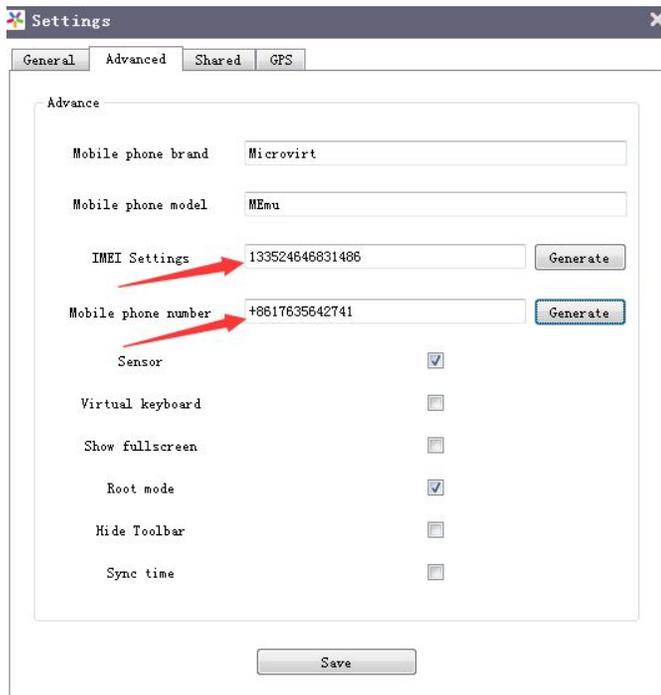
### 3.4 Customize Phone Brand and Model

Click the  *Settings* button on the side bar and go to the *Advanced* setting page. You can set phone brand and model as you want. Do not forget, click *Save* and restart MEmu to apply change.



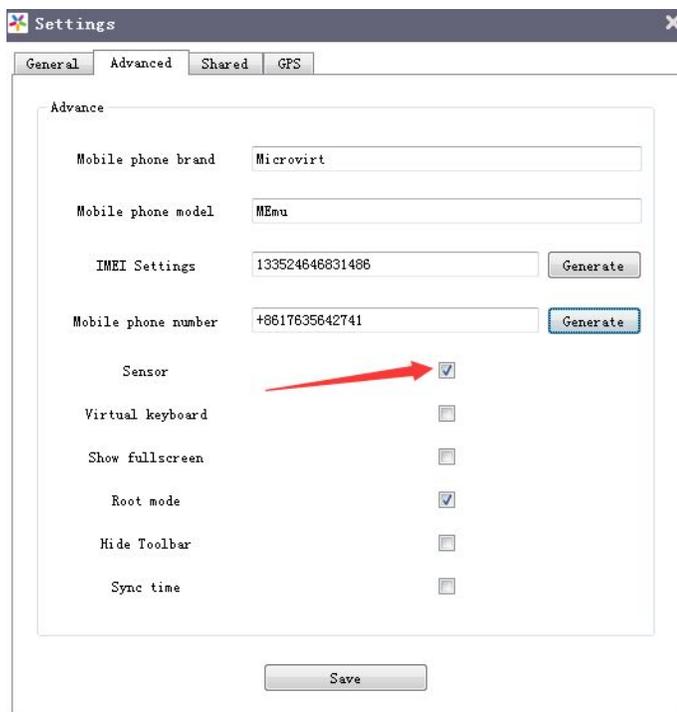
### 3.5 Customize Phone Number and IMEI

Click the *Settings* button  on the side bar and go to the *Advanced* setting page. You can set phone number and IMEI as you want. You can also click the *Generate* button to make it random. Do not forget, click *Save* and restart MEmu to apply change.



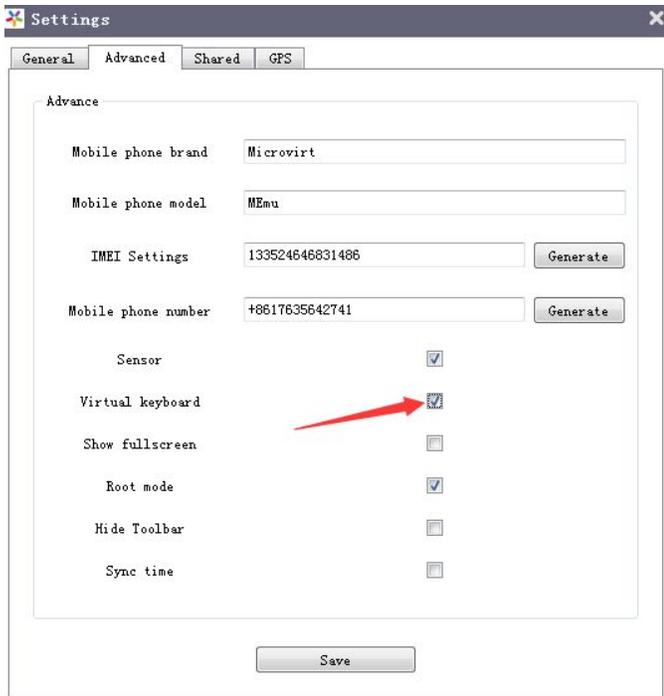
### 3.6 Enable Sensor for Windows Tablet

Click the *Settings* button  on the side bar and go to the *Advanced* setting page. You can check Sensor box, click *Save* and restart MEmu to apply change. With this function, MEmu will receive sensor information from Tablet smoothly and you can enjoy Android game on Windows tablet device.

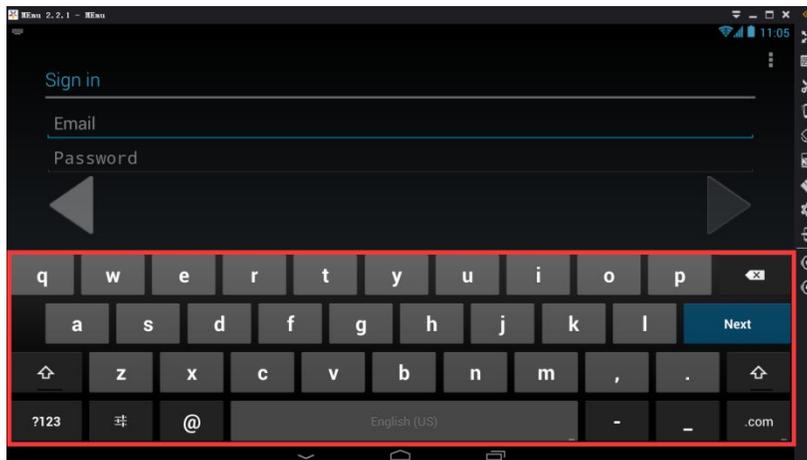


### 3.7 Enable Virtual Keyboard

Click the *Settings* button  on the side bar and go to the *Advanced* setting page. You can check virtual keyboard box, click *Save* and restart MEmu to apply change.

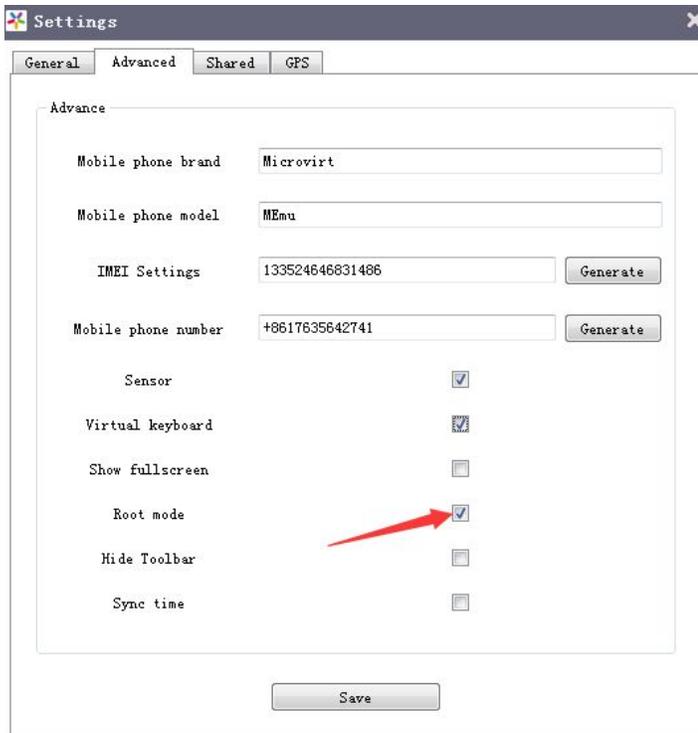


With this function, you can enter character without physical keyboard. It's very useful for Windows tablet device.



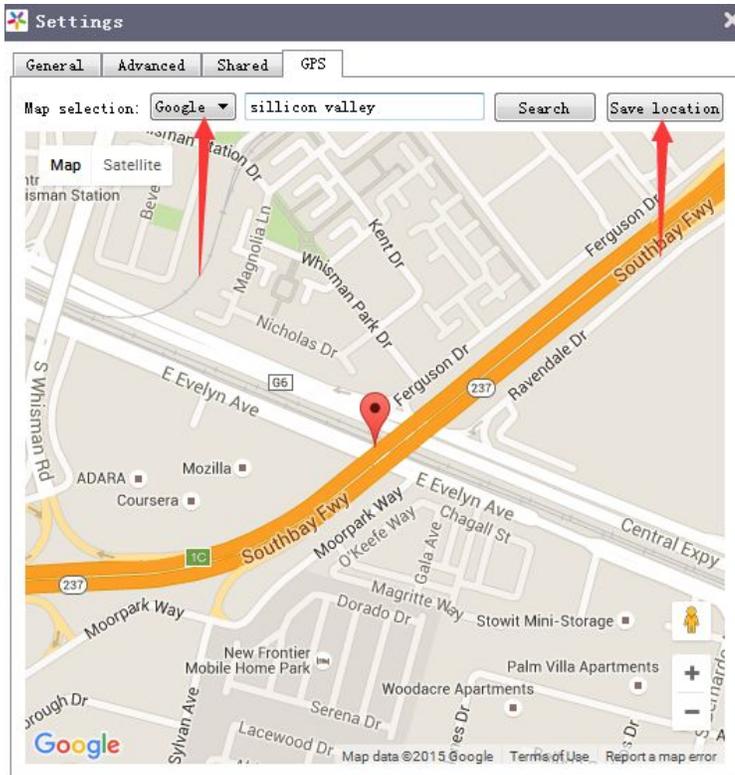
### 3.8 Enable Root Mode

Click the *Settings* button  on the side bar and go to the *Advanced* setting page. You can check root mode box, click *Save* and restart MEmu to apply change.



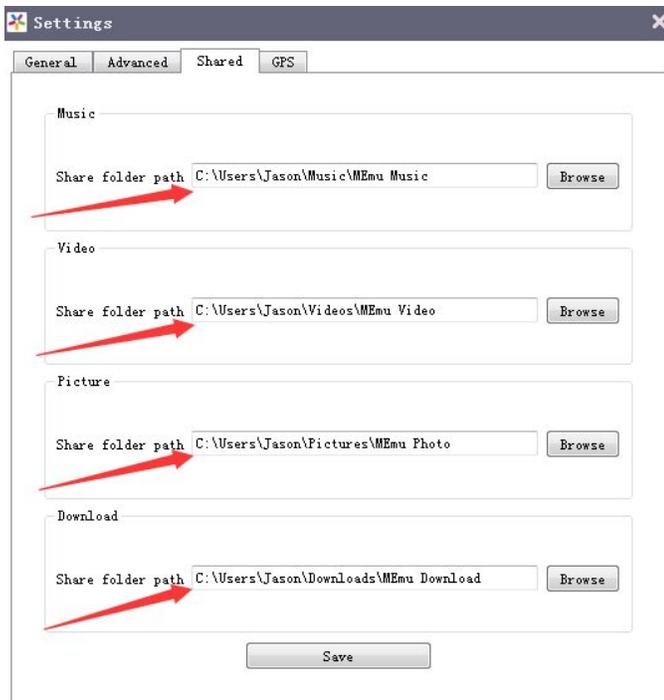
### 3.9 Change Map Location

Click the *Settings* button  on the side bar and go to the *GPS* setting page. You can set the map engine, then drag the map and click the place where you want to locate yourself, or search the destination in the *Search* field. Once located yourself to the desired place, click *Save Location*, otherwise your setting won't take effect.

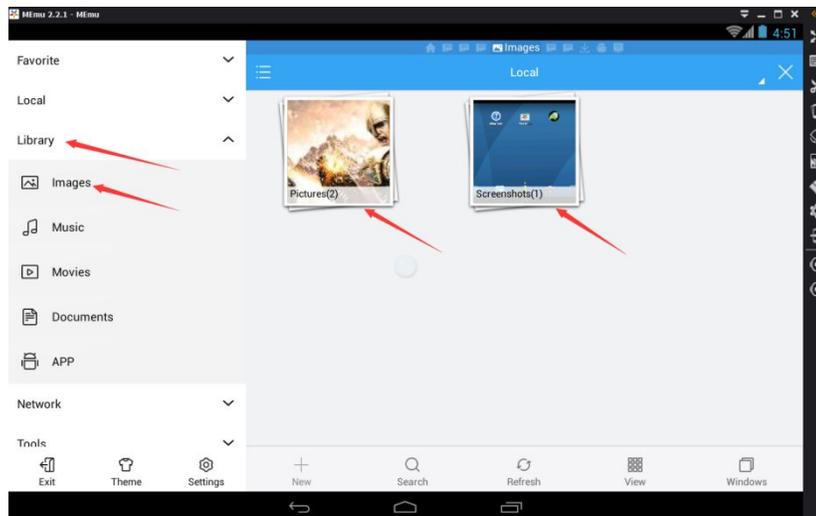


### 3.10 Change Share Folder

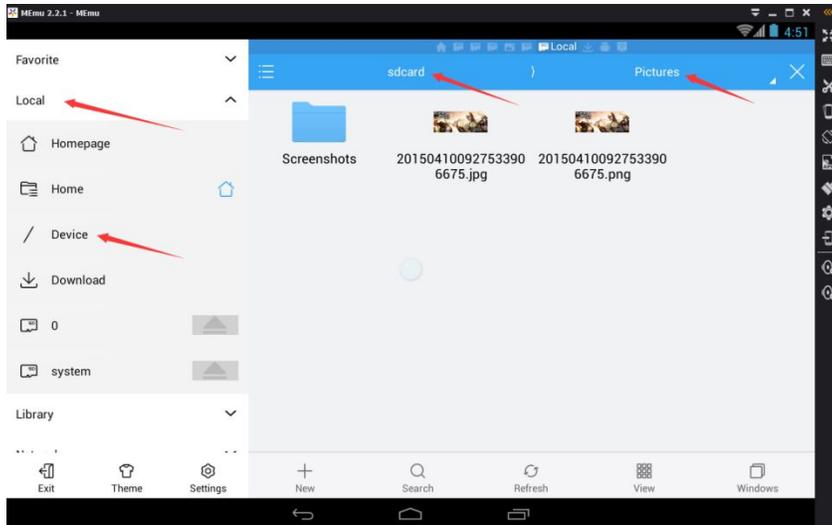
Click the *Settings* button  on the side bar and go to the *Shared* setting page. There are four different shared folders of *Music*, *Video*, *Picture* and *Download*. You set them respectively to share data between MEMu and Windows.



Once you copied files to the share folder in Windows, click the  ES icon in the home page of MEmu and then you can see the files in the corresponding library, like Images. As you can see, all the screenshots are saved there too.



In fact, you can also get these files in the corresponding directory, like /sdcard/Pictures.



### 3.11 Change Screen Orientation

Click the *Rotate* button  on the side bar to switch the orientation between landscape and portrait. Please note that MEmu App Player will adjust the orientation automatically because application may require a certain orientation.

### 3.12 Take Screen Shot

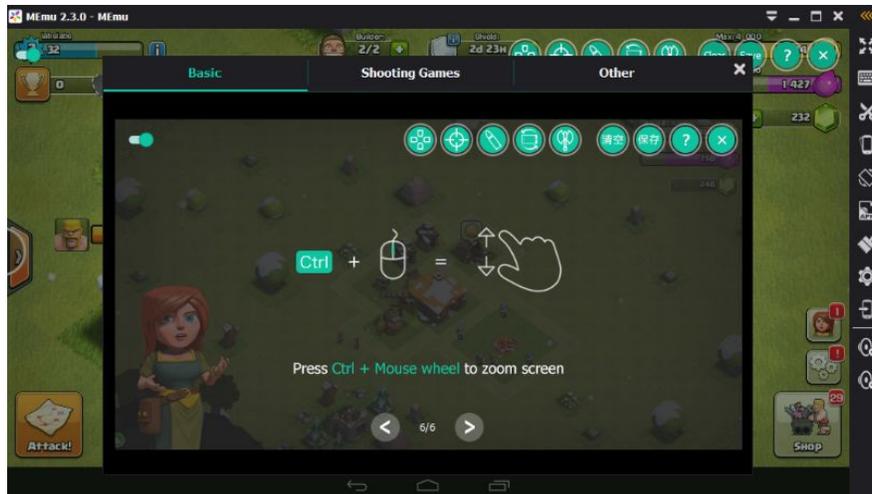
Click the *ScreenShot* button  on the side bar to take a snapshot of your phone screen. The PNG screenshots file will be automatically saved in your picture library. Also you can get it from your shared folder in Windows.

### 3.13 Shake Screen

Click the *Shake* button  on the side bar to simulate the physical shake action of your phone. This is a common function of smartphone and many apps use it as input gesture.

### 3.14 Zoom in and out (Multi-touch)

Scroll the mouse wheel while holding down the *Ctrl* key. It exactly simulates the behavior of zoom in and out. In addition, you can also try with F2 or F3.



### 3.15 Set Keyboard Mapping

Click the *Keyboard* button  on the side bar after you enter into a certain game. You may follow below steps to setup keyboard mapping for easy control.

1. Drag the *WASD* key  to the place where the movement key spot locates on the screen.
2. Drag the *Select & Attack* key  to the place where the attack key spot locates on the screen. As the name suggests, it acts as a combination of select and attack through right click your mouse. It's normally applied in ARPG game.



3. Drag the *Shoot* key  to the place where the shoot key spot locates on the screen.  
 Drag the *Shoot Perspective* key  to the place where the front sight spot locates. As

the name suggests, Shoot and Shoot Perspective keys are normally applied in shooting game. Once saved, right click mouse to activate them in the game.



4. For accelerometer control, click the *Gravity* key  and assign key to the direction of tilt. There are four directions supported and you may map them as needed.
5. For slide screen operation, hold the left mouse button down and drag the mouse pointer toward the direction of slide screen, then assign a key to map this operation. By the way, *WASD* key functions identically as slide operation in running games.



Note: When you want to type message in the game, click the switch  on the top left corner or press shortcuts "Alt + A" to avoid keyboard occupation temporarily.

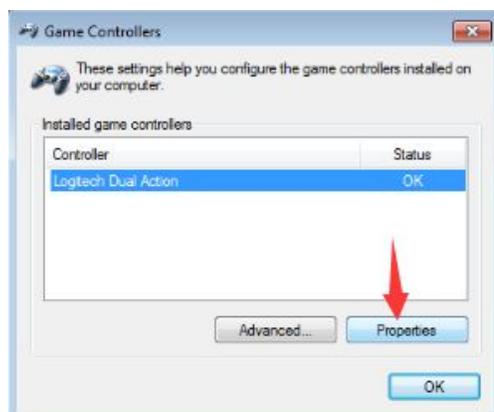
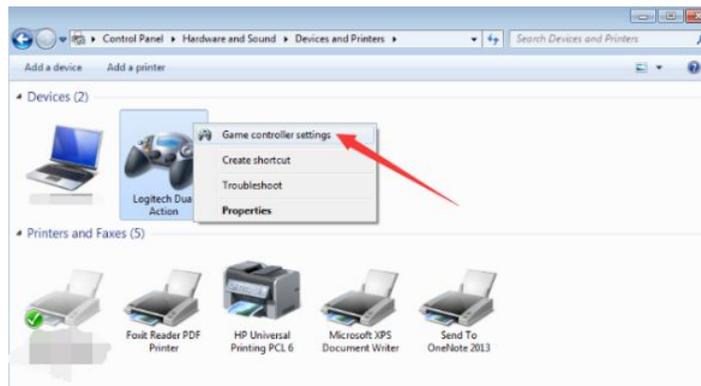
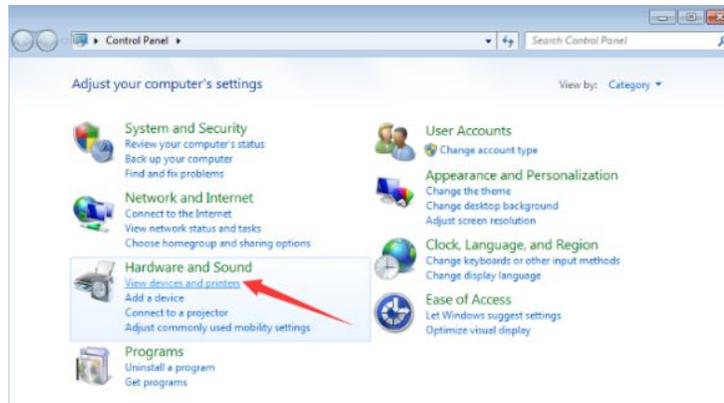
Note: You can also get help info about keyboard mapping in the MEmu by clicking the *Help*

key .

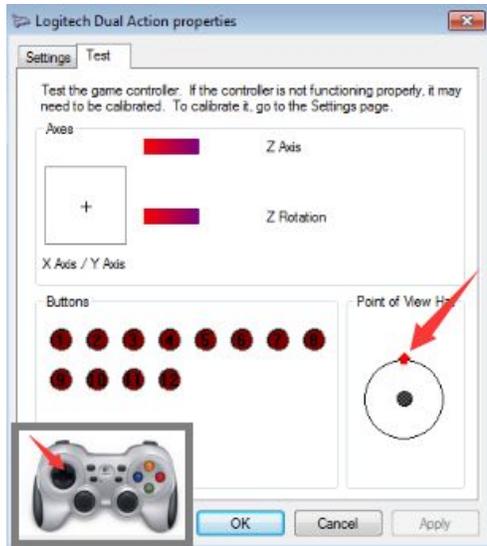
### 3.16 Set Joystick Mapping

In addition to keyboard, you can control your character with joystick easily. Please follow below steps to setup joystick mapping.

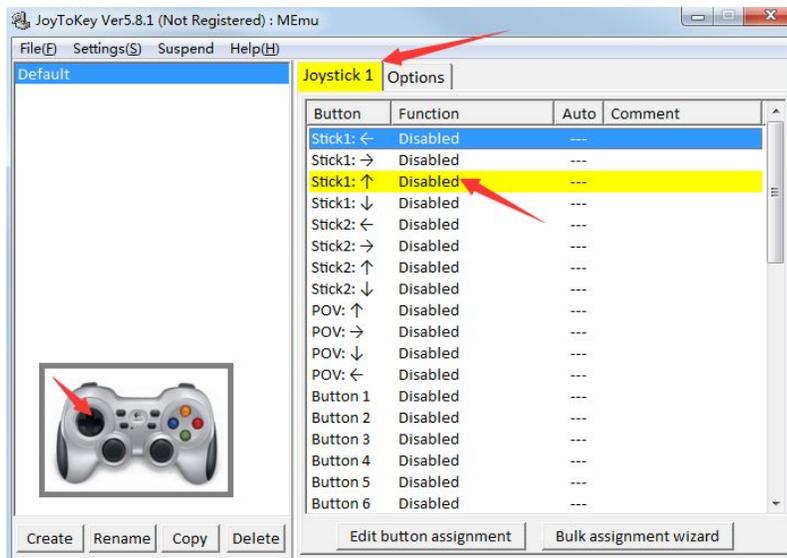
1. Connect the joystick to your PC and open the properties of this device.



2. Press the buttons of joystick and make sure they response properly in the properties page.



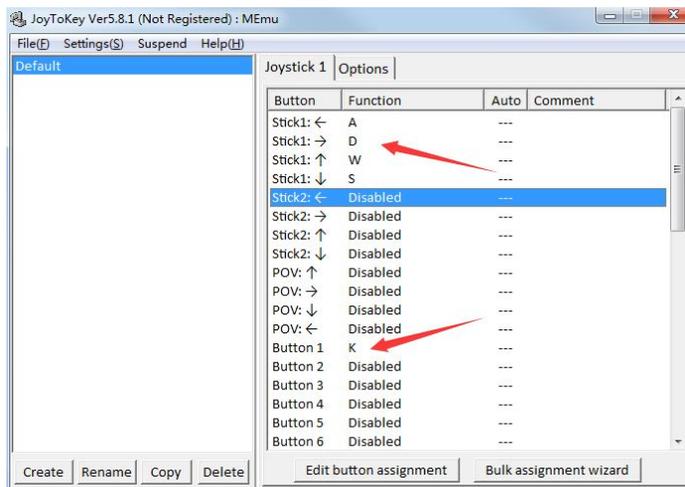
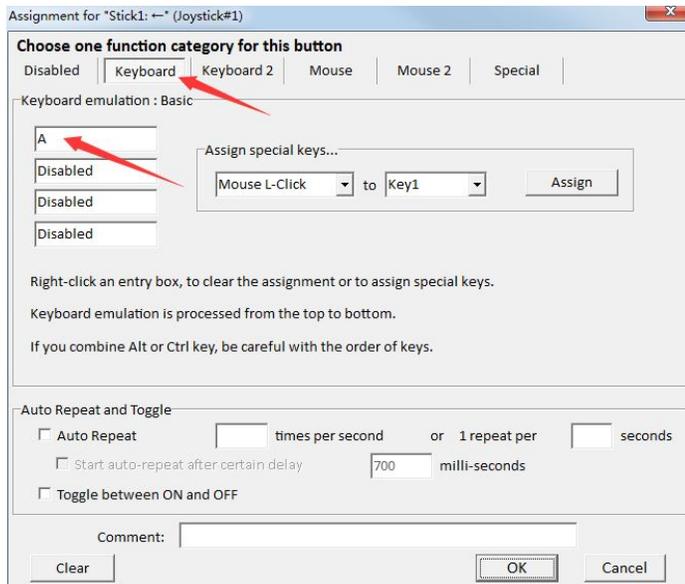
3. Download [JoyToKey en.zip](#), unzip it and open *JoyToKey.exe* with administrator privileges. Press the buttons of joystick and make sure they response properly in the Joystick 1 tab.



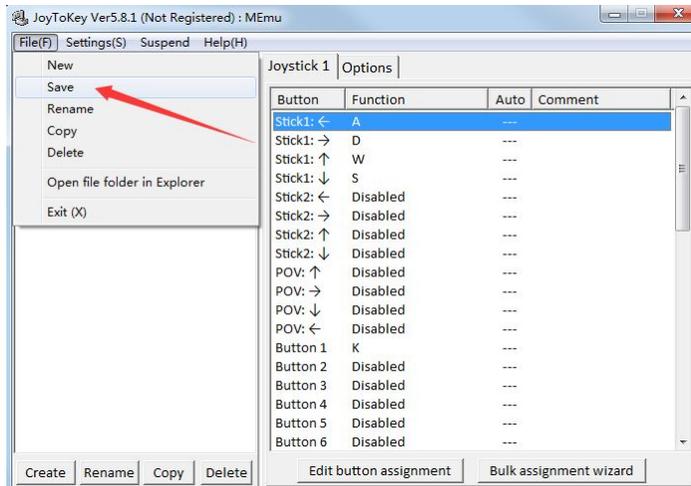
4. Enter into a certain game and set keyboard mapping as usual.



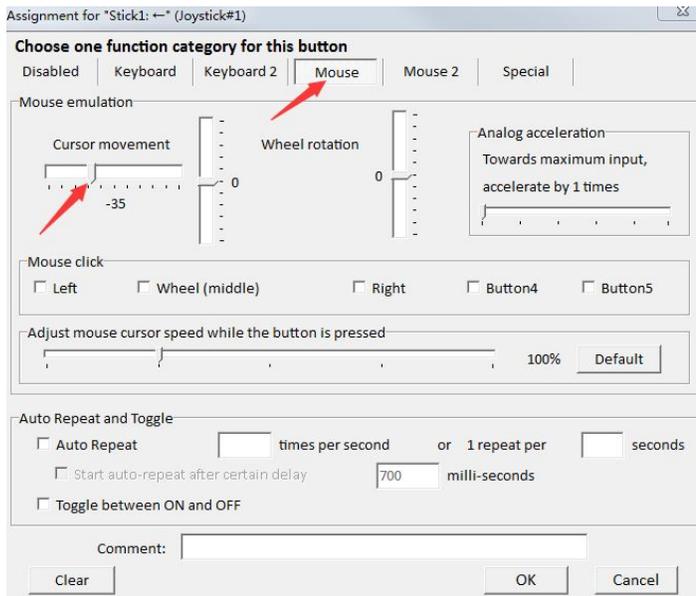
5. Assign the buttons of joystick to the keyboard mapping accordingly one by one.



6. Save the assignments at the end.



Note: You can also map mouse operations with joystick if you want. The only difference is in step 5, assign the buttons of joystick to the mouse operations.



Note: Please make sure you launch JoyToKey.exe with administrator privileges.

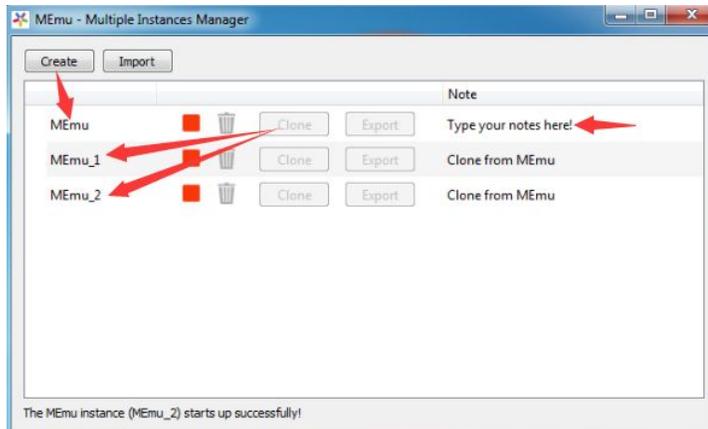
### 3.17 Cleanup Memory

Click the *Cleanup* button  on the side bar to kill all background processes in the Android to reclaim memory. You may try to speed up MEmu through this function whenever necessary.

### 3.18 Mange Multiple Instances

There are two shortcuts of MEmu App Player on your desktop after installation. One is *MEmu*, the other is *MEmu - Multiple Instances Manager*.

If you want to play multiple Android games simultaneously, double click the shortcut to start *Multiple Instances Manager*. Click the *Create* button to create several instances of MEmu and run them as you want, or you can clone an existing instance of MEmu by clicking the *Clone* button. In addition, you can type any note in the *Note* column.



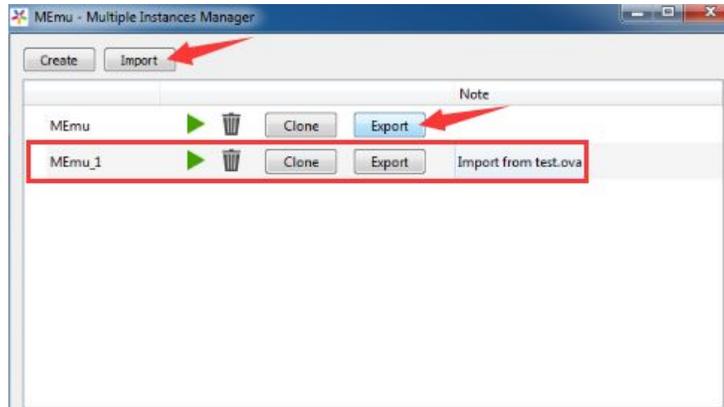
In theory, there is no limit on the number of running MEmu instances, as long as your PC's hardware resource is capable to support, especially memory size. For example, you can play Clash of Kings, Clash of Clans and Boom Beach in a big screen at the same time.



### 3.19 Import and Export Data

When re-install *MEmu App Player*, apps and user data will be refreshed along with Android image. In *Multiple Instances Manager*, you are allowed to backup/restore these data by simple two steps.

1. Click the *Export* button to backup your apps/data into a certain ova file.
2. Click the *Import* button to restore your apps/data from that specific ova file.



Note: The ova file is likely to be very large if you installed a lot of apps before, so the backup or restore process will be time-consuming.

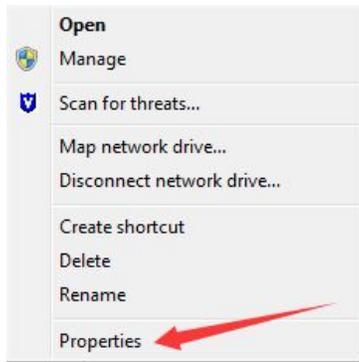
Note: The online upgrade process of MEmu will remain the apps and user data.

## 4 Optimization

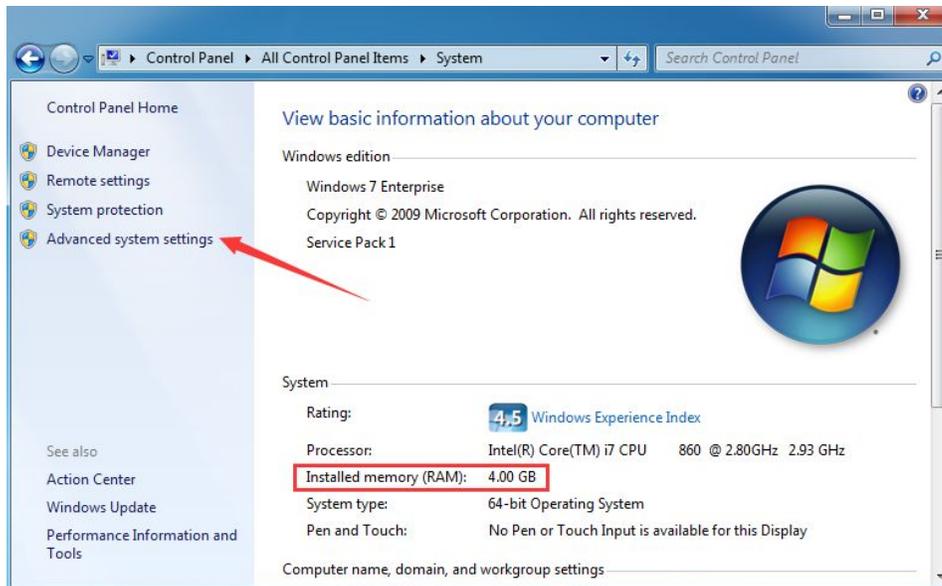
### 4.1 Virtual Memory

You can speedup MEmu App Player to some extent by enlarging virtual memory. We recommend you to optimize it by the following steps:

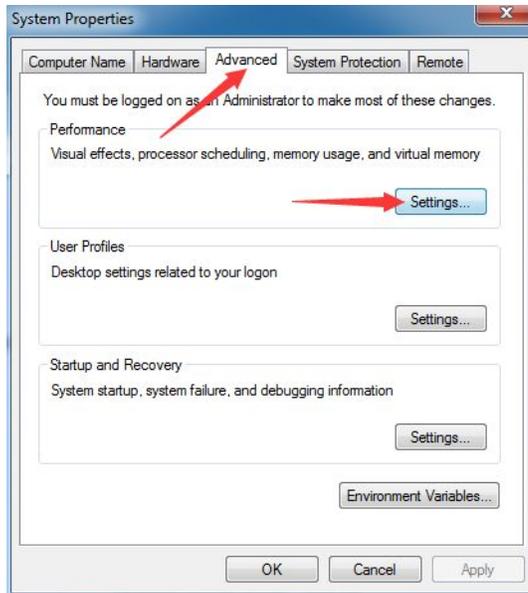
1. Right click on the *My Computer* icon on the Windows desktop and then click *Properties* from the context menu.



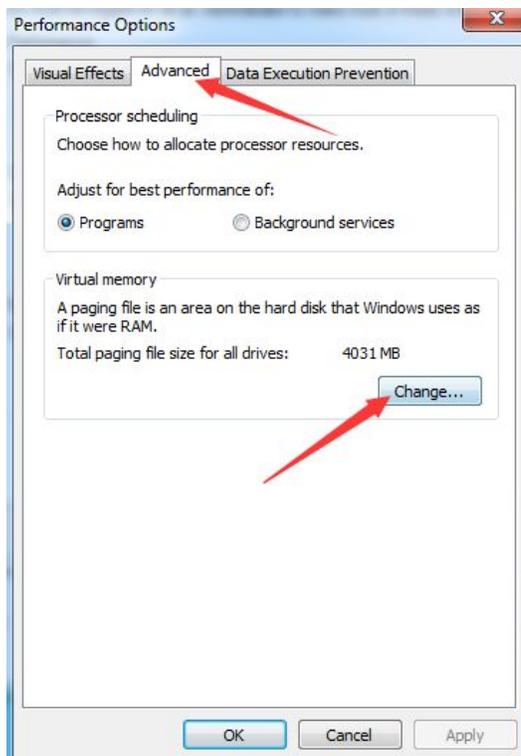
2. Click the *Advanced system settings* tab on the left panel. As you can see, there is 4GB physical memory installed in this system. We are going to enlarge virtual memory (swapped from disk) size to keep MEmu running more smoothly.



3. Choose the *Advanced* tab of System Properties panel and click the *Settings* button.

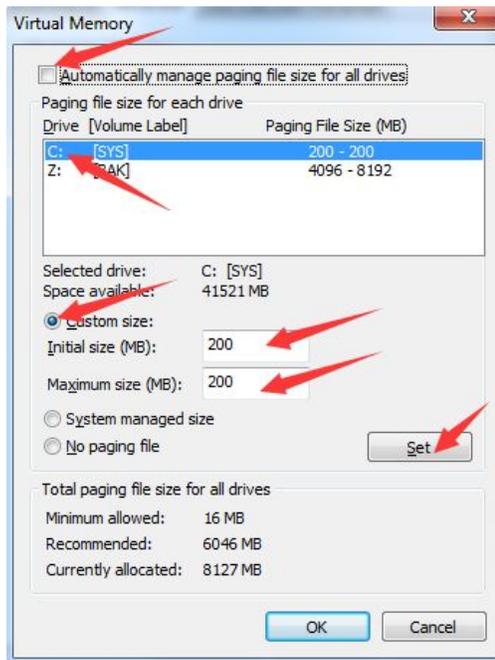


4. Choose the *Advanced* tab of Performance Options panel and click the *Change* button.

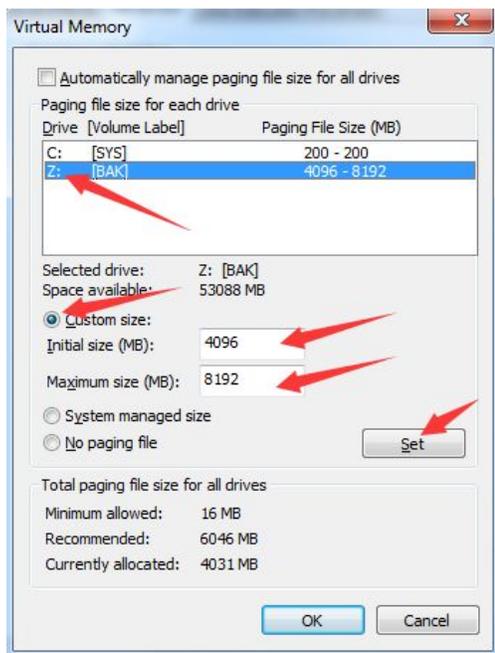


5. Uncheck the *Automatically manage paging file size for all drives* box on the top and then start to configure virtual memory (paging file) manually. As you can see, there are two disk drives in this system. Usually it's suggested to allocate twice size of physical memory of virtual memory from the non-system drive. For the sake of recording system errors, allocate a minimum size of virtual memory from system drive. It's also allowed to allocate a normal virtual memory in the system drive if there is only one drive.

6. Select system drive (C:), choose *Custom size* and input 200MB as *Initial size* and 200MB as *Maximum size* (200MB is the minimum size of virtual memory). Then click the Set button to apply.



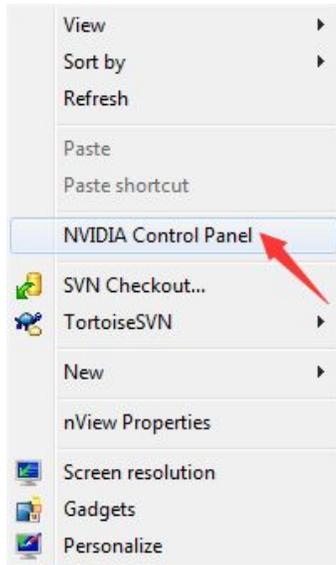
7. Select one of non-system drive (Z:), choose *Custom size* and input 4096MB as *Initial size* and 8192MB as *Maximum size* (8192MB is twice size of physical memory). Then click the Set button to apply.



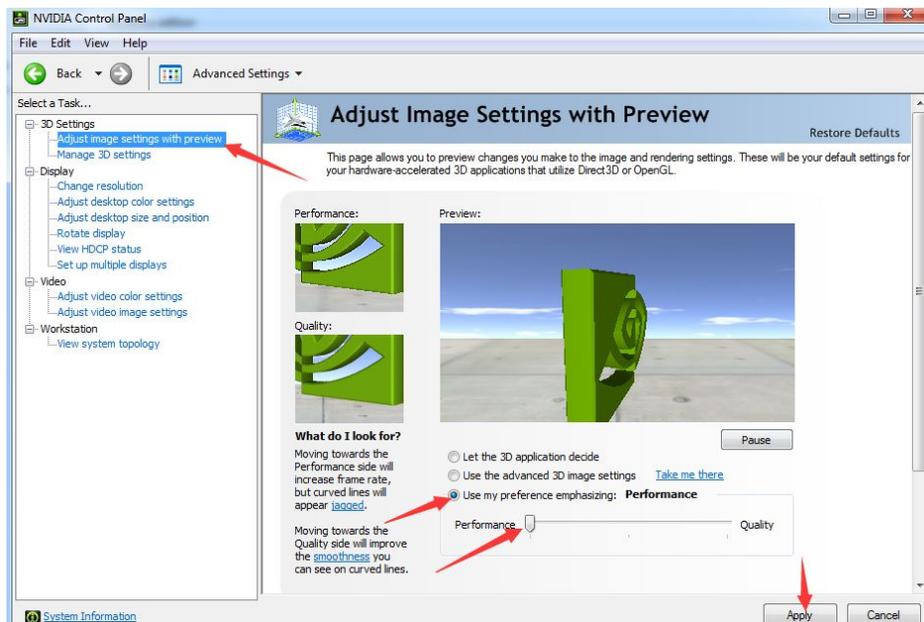
Note: Please make sure there is enough space in the disk drive for the virtual memory allocation (paging file).

## 4.2 NVIDIA Graphic Card

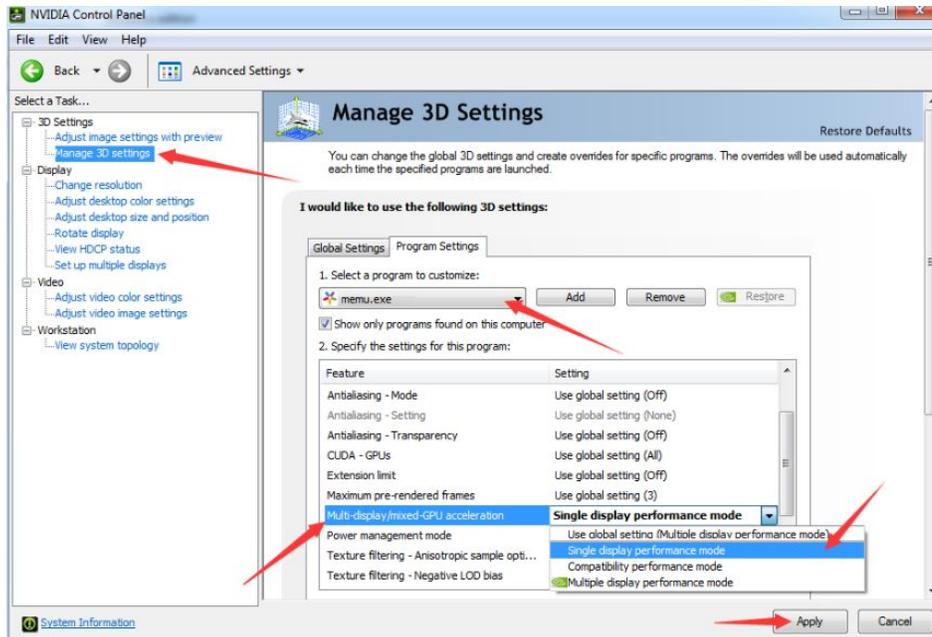
1. Right click on the Windows desktop and then click *NVIDIA Control Panel* from the context menu. Otherwise, you need to install proper NVIDIA graphic driver firstly.



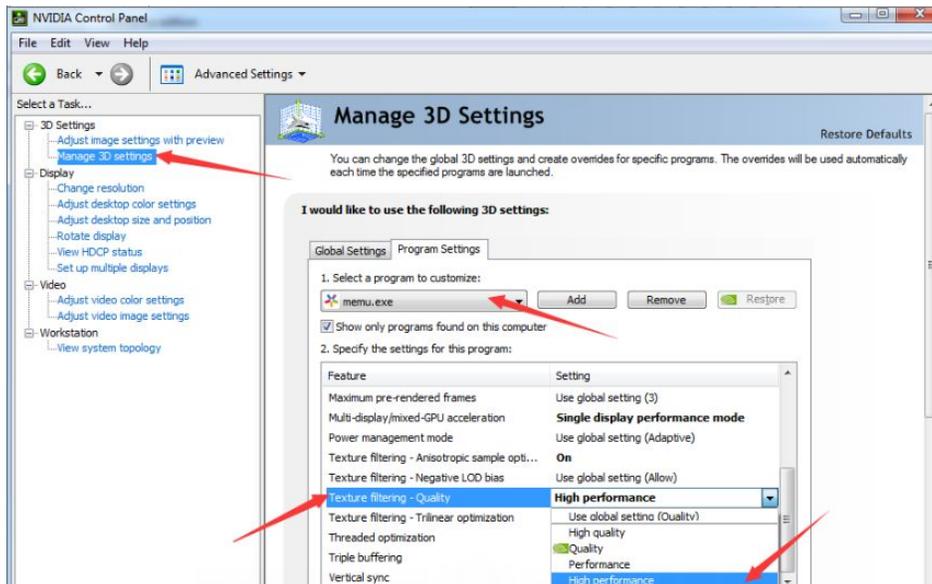
2. Go to *Adjust image settings with preview* under *3D Settings* tab as below. Select *Use my preference emphasizing* on the right panel and set it as *Performance* at the left extreme.



3. Go to *Manage 3D settings* under *3D Settings* tab as below. Click *Program Settings* tab on the right panel and add *Memu.exe* by clicking the *Add* button. Select *Multi-display/mixed-GPU acceleration feature* and choose *Single display performance mode*.

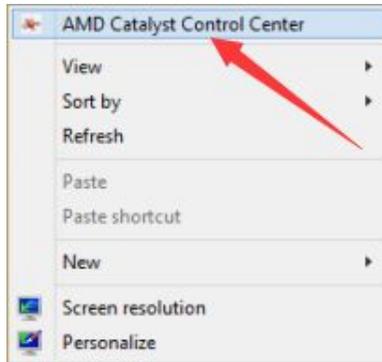


4. Then select *Texture filtering - Quality* and choose *High performance*. Finally click the *Apply* button at the bottom right hand side of the window.

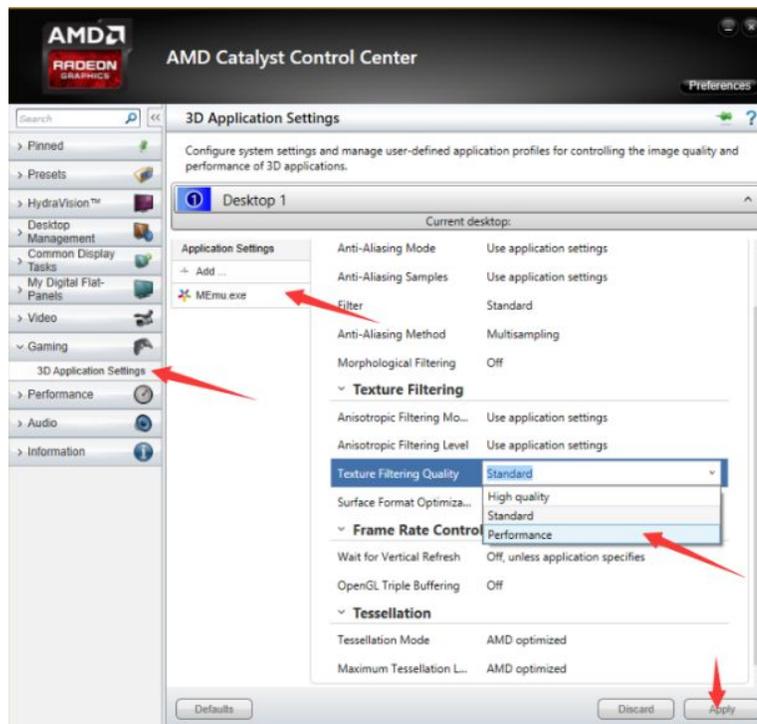


### 4.3 AMD Graphic Card

1. Right click on the Windows desktop and then click *AMD Catalyst Control Center* from the context menu. Otherwise, you need to install proper AMD graphic driver firstly.

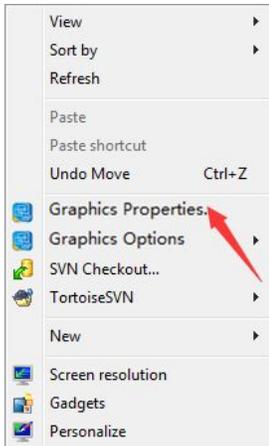


2. Go to *3D Application Settings* under the *Gaming* tab as below. Add *Memu.exe* in the column of *Application Settings*. Then select *Texture Filtering Quality* under *Texture Filtering* category and choose *Performance*. Finally click the *Apply* button at the bottom right hand side of the window.

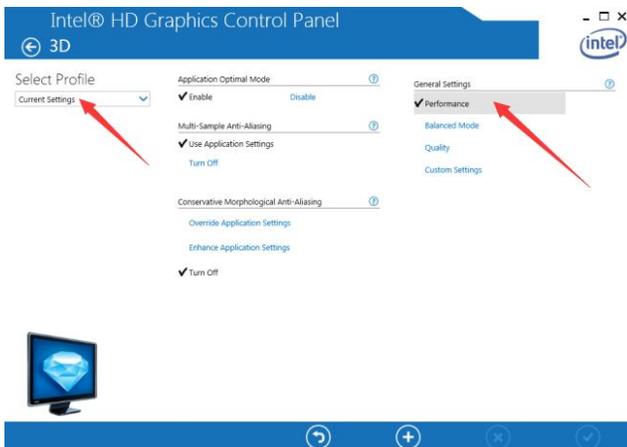
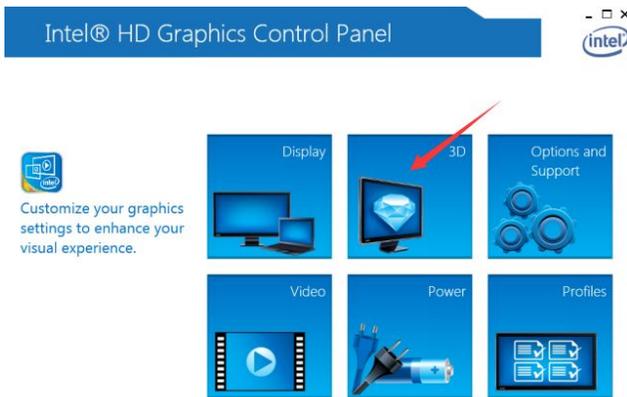


#### 4.4 Intel Integrated Graphic Card

1. Right click on the Windows desktop and then click *Graphics Properties* from the context menu. Otherwise, you need to install proper Intel integrated graphic driver firstly.



2. Go to *Current Settings* under *3D* tab as below. Then choose *Performance* in the *General Settings*. Finally click the *Apply* button at the bottom right hand side of the window.



Note: Please try to use discrete graphics instead of integrated graphics if you have multiple choices.

**End of File**