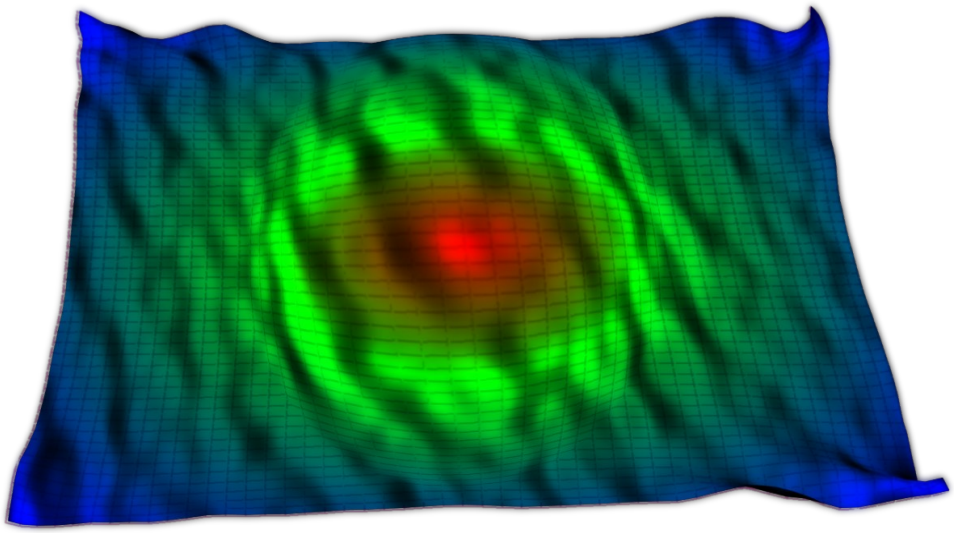


ANTIWAVE

1.0.0

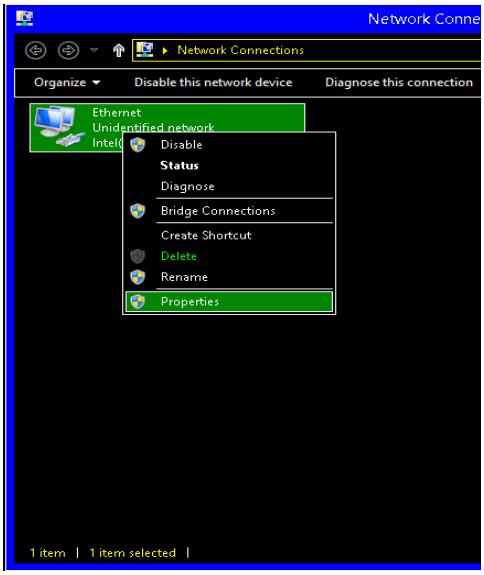
Table of Contents

1. Setup master computer.

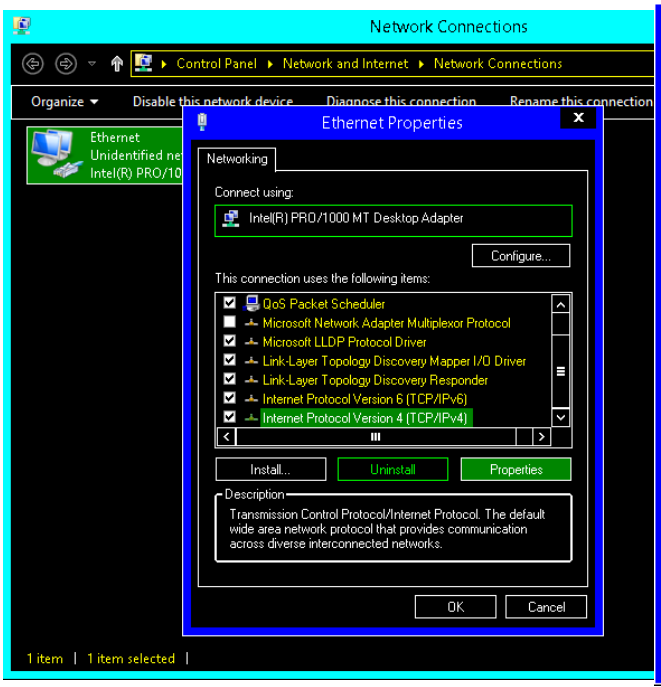
User must set the IP and the HOSTNAME of the master computer.

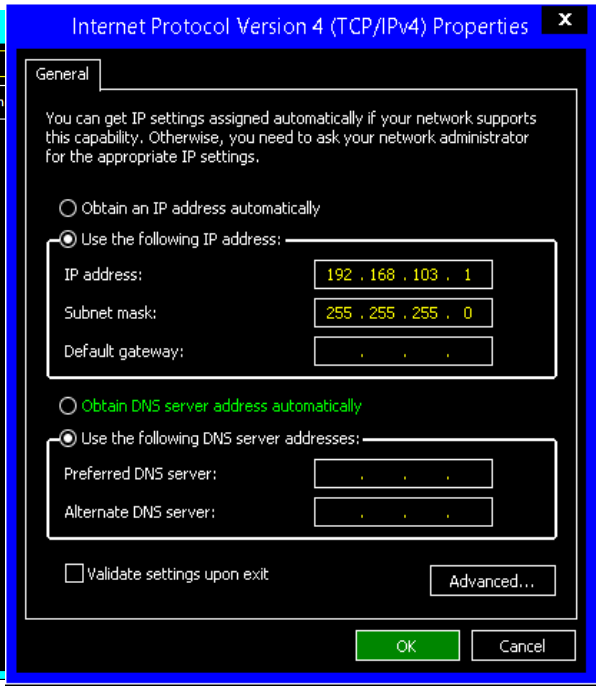
IP = 192.168.103.1

HOSTNAME = antiwave0



Right Click

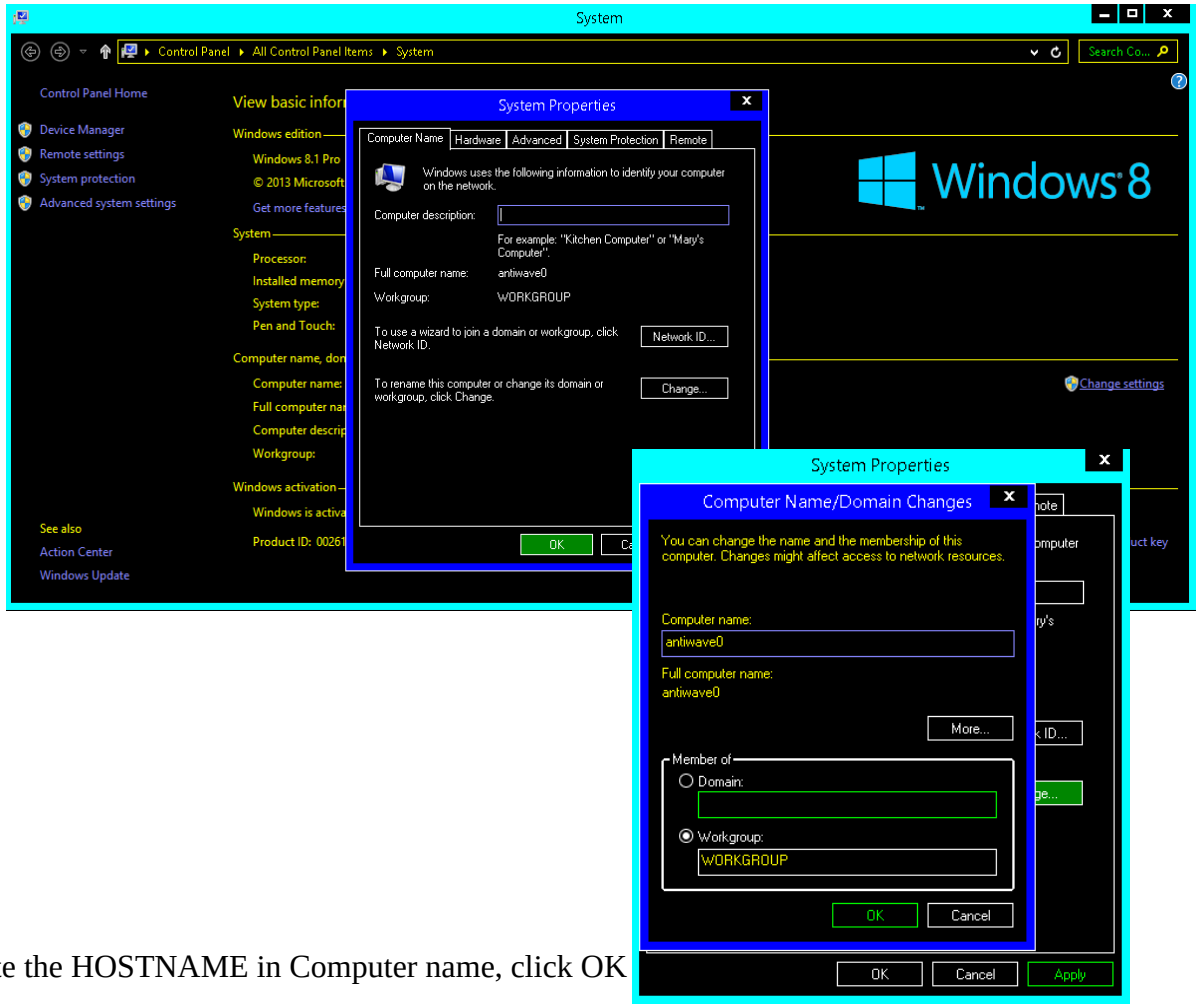




Select Internet Protocol Version 4 (TCP/IPv4)

Click on Properties button, Write the IP number

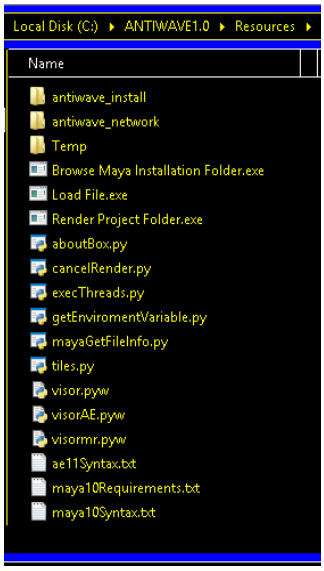
Now the HOSTNAME



Write the HOSTNAME in Computer name, click OK

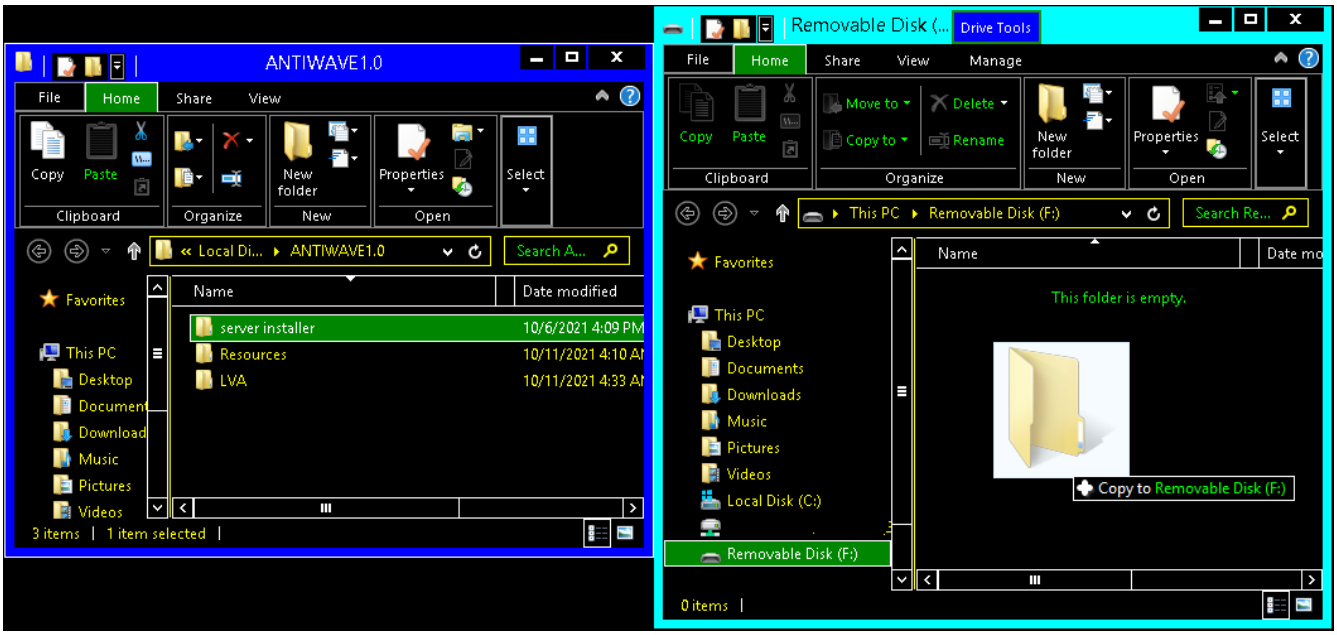
User must restart the computer after pressing OK

Copy ATIWAVE1.0 folder to C drive, explore inside of “C:\\ANTIWAVE1.0” the folder Resources for files visor.pyw(Maya Software), visorAE.pyw(After Effects), visormr.pyw(mentalray) User can open only one at time.



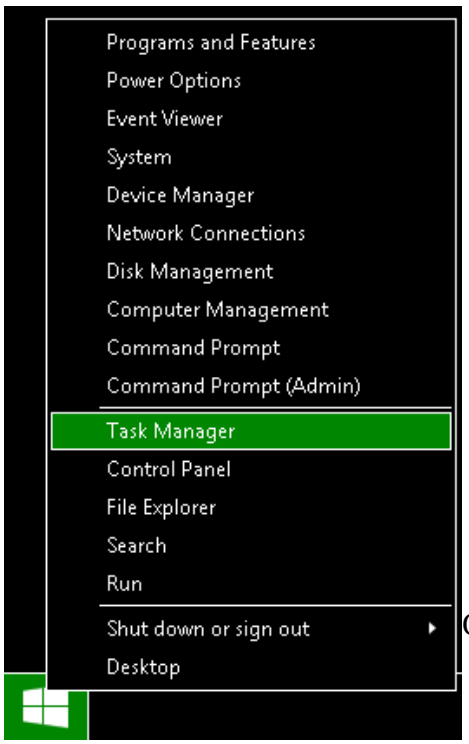
2. Setup slaves computers

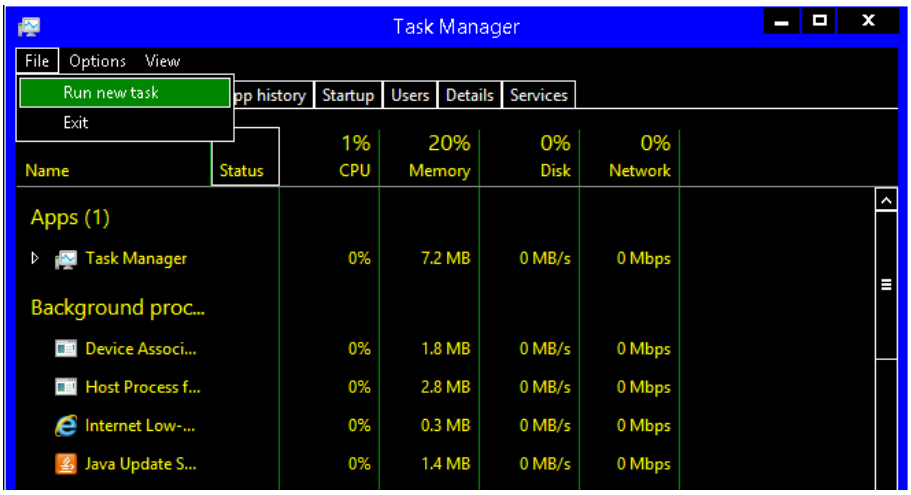
In the master computer plug an USB Drive and drag the “server install” folder to the USB Drive,



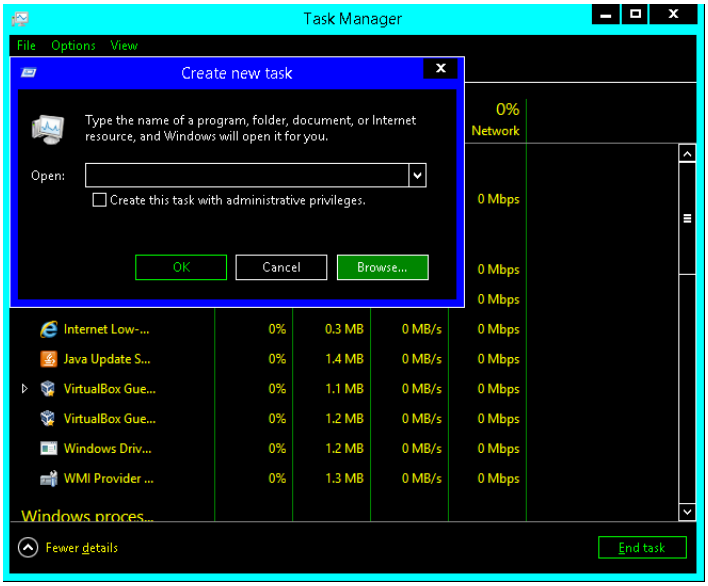
after the copy is completed unplug the USB

Plug USB in the first slave computer



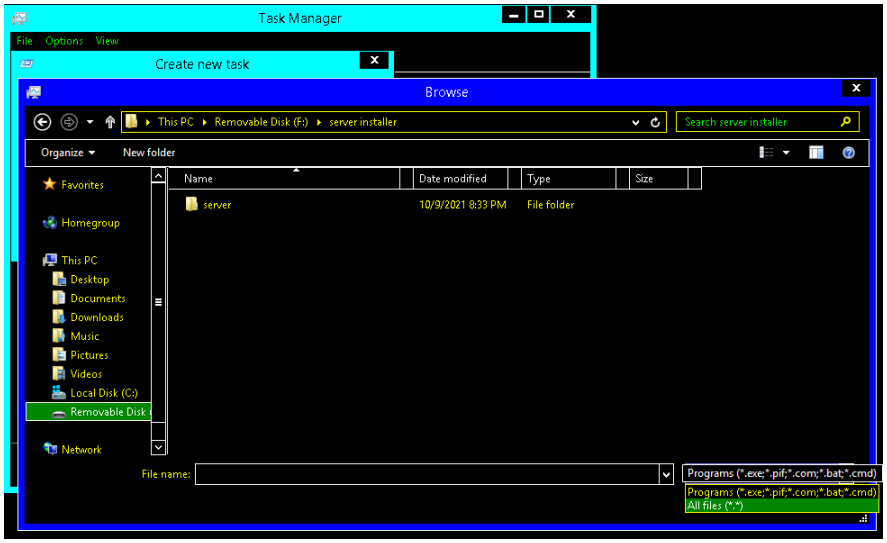


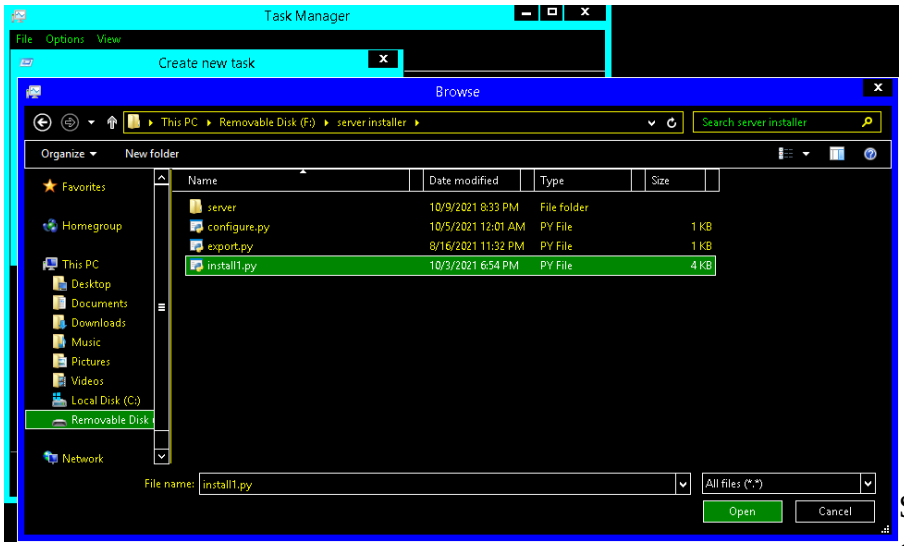
Click on File menu then Run new task



Click on Browse...

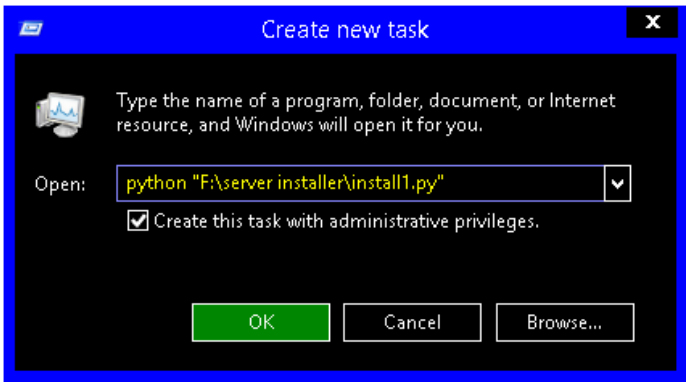
Select All files(*.*)



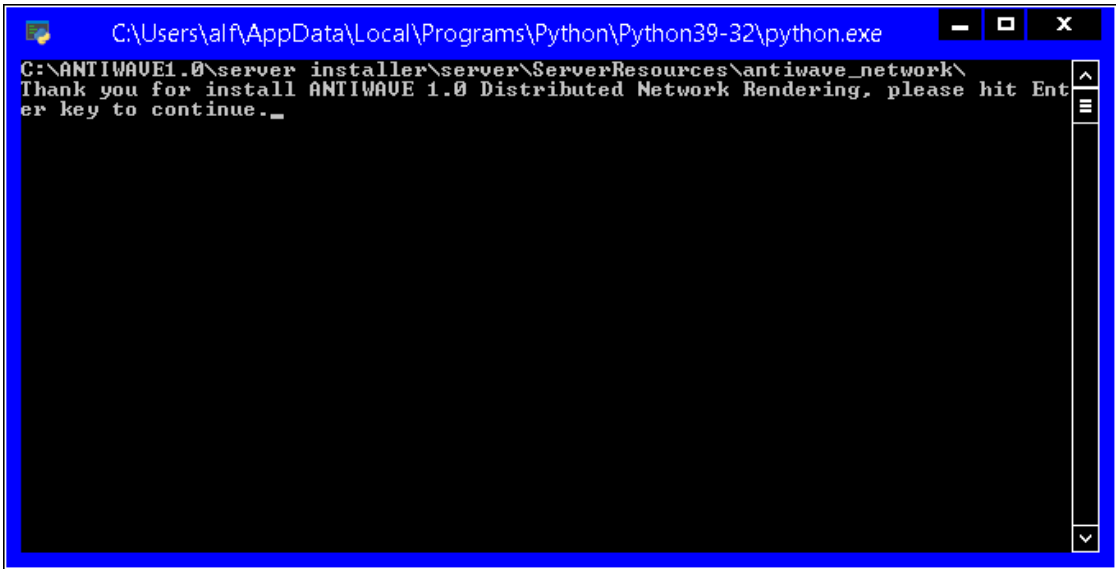


Select “install1.py” and click Open

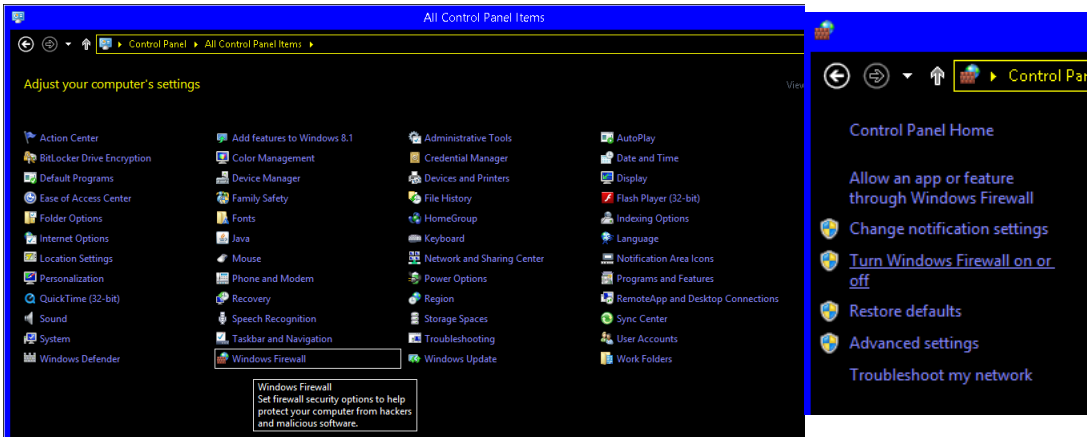
Add the python word at the beginning of the command, click on check Create this task with administrative privileges. Click OK



Press Enter to start the installation



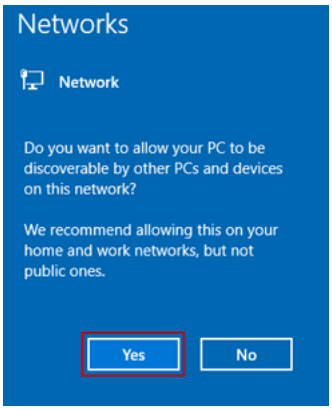
Disable Firewall



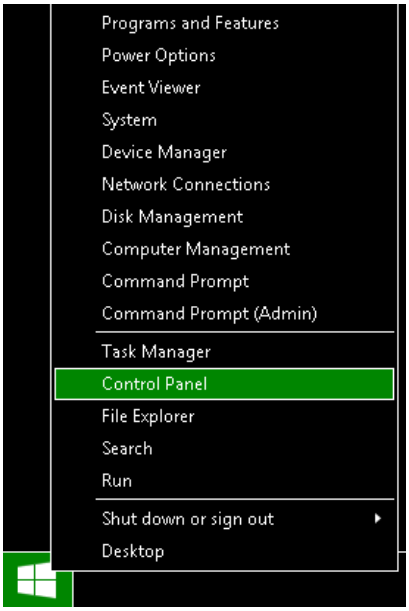
Click Windows Firewall

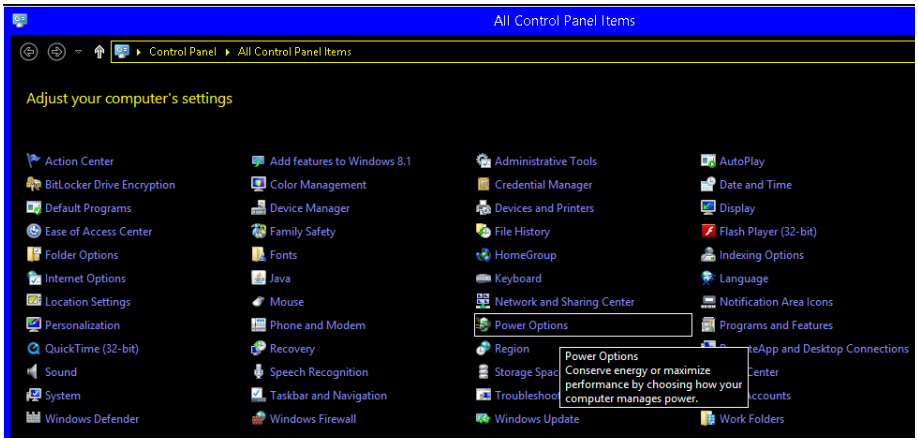
Turn it off follow instructions

Click on yes if this message is shown

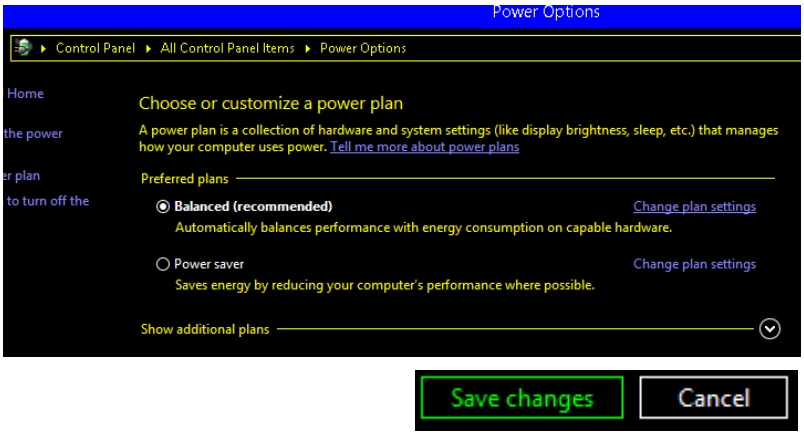


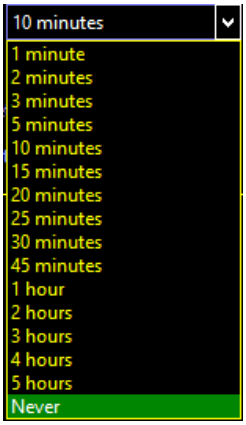
Disable suspend hard drive after minutes of no activity to save energy





Click on plan settings and follow instructions, select never at the hard drive section and click save changes.

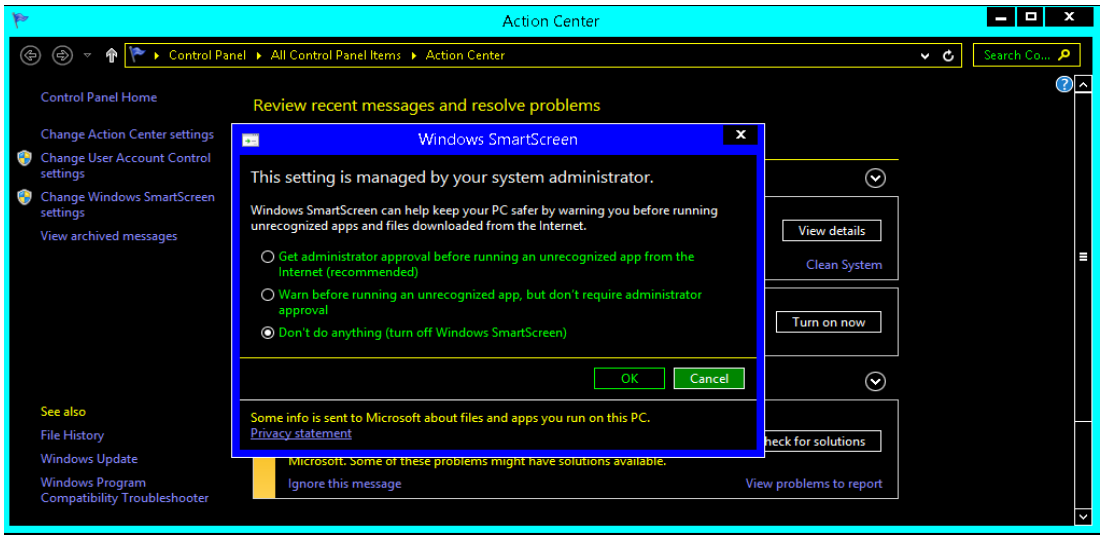




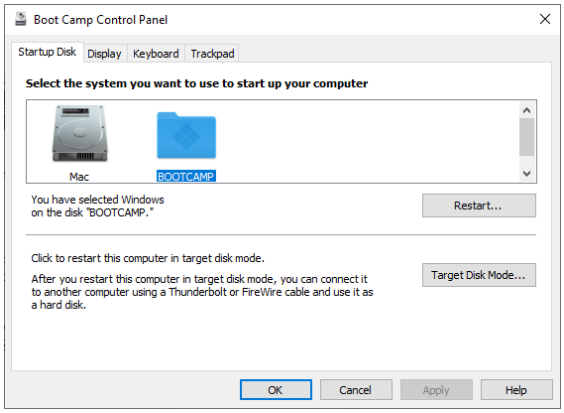
Disable Windows SmartScreen, click on change windows SmartScreen settings, follow instructions

The user Administrator login must don't have password and must be able to login without user intervention

After all this done, you must restart the slave computer, the Network Rendering will be enabled.

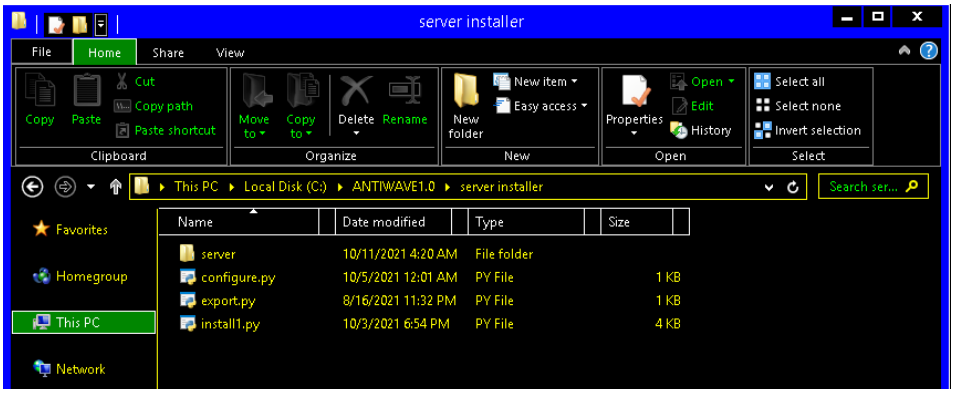


If using Bootcamp on an apple computer make default startup boot Windows



3. Synchronize USB installation

After having set up all slaves computers. User must plug the USB drive in to the master computer again and execute the file export.py inside “C:\\ANTIWAVE1.0\server installer\”, user can double click it and nothing seems to happens but this actually copies the collected information of all slaves computers silently invisible to the master computer. After that you can finally unplug your USB drive.



4.Start to render projects

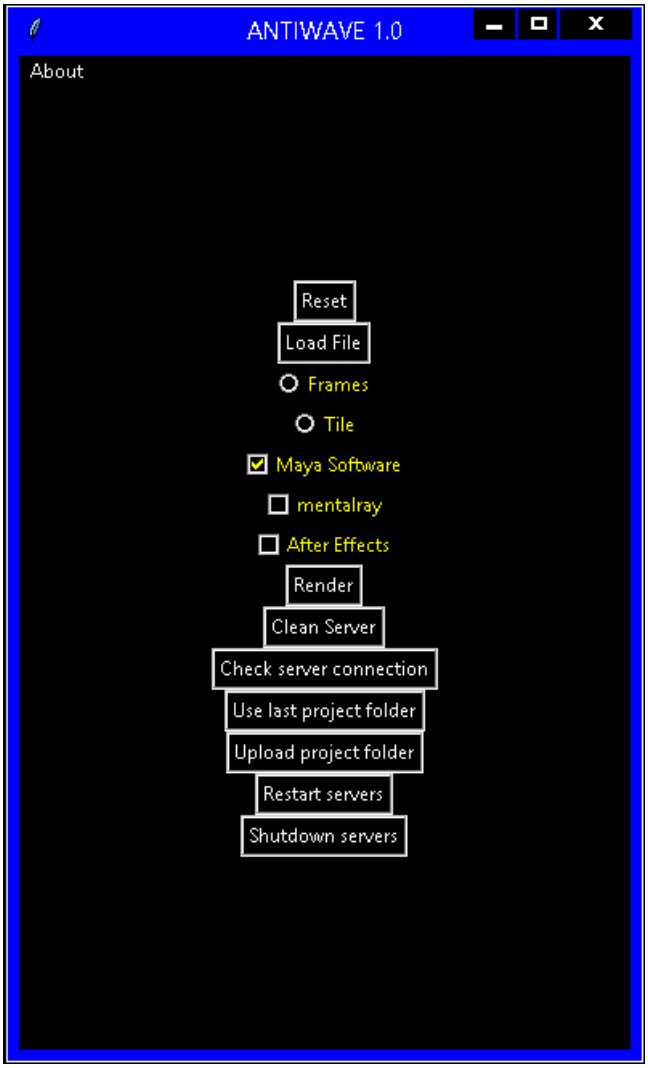
visor.pyw (Maya Software)

visormr.pyw (mentalray)

visorAE.pyw (After Effects)

User can double click one of them at time.

A console view can be enabled clicking again the check with the selection of the Render Type(if user enable this, the user must close when the render finish and reopen again if want to render more.)



Reset
Used to delete only previous scene file without erasing the project folder

Load File
Load scene file

Tile - Frame
Render modes

Render Types
Render Engines

Render
Start render

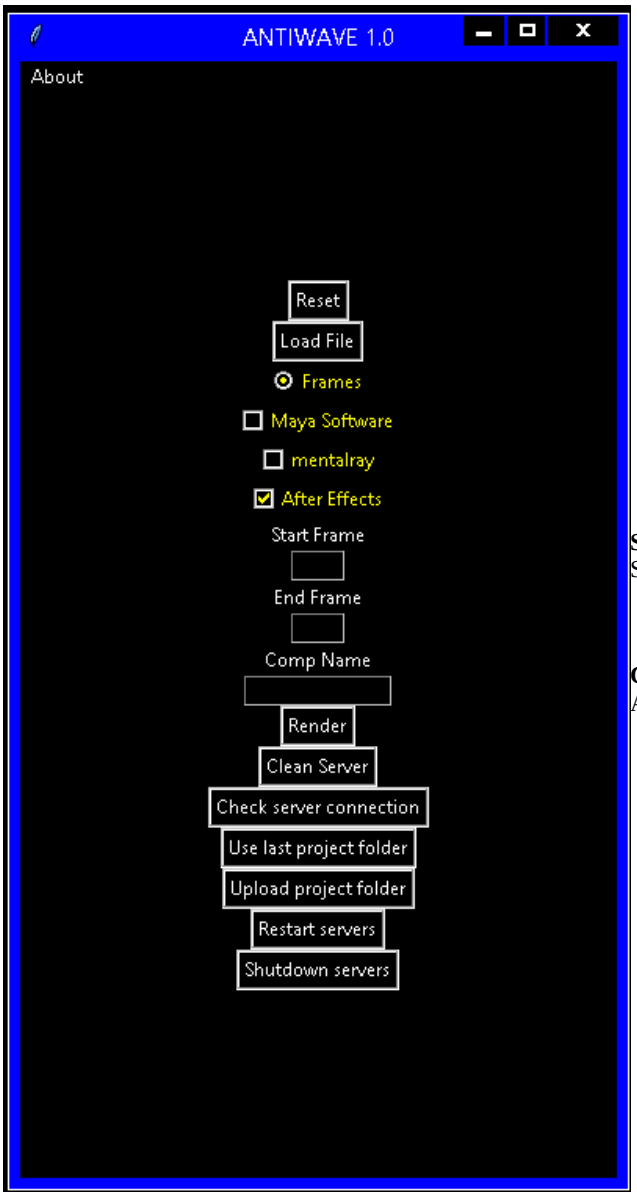
Clean Server
Deletes project folder

Check server connection
Reestablish connectivity

Use last project folder
After use reset and want to keep working in project folder with another scene file

Upload project folder
Copy project folder to each server

Shutdown – Restart
After finish of rendering you must Clean Server and shutdown or restart



Start – End Frame
Set how many frames to render

Comp Name
After Effects composition name

5. Troubleshooting

Known errors in version 1.0.0

- User must wait for slaves computers to boot properly until the slave server application is executed, if something fails user will need to reboot again and wait.
- While the render is in progress user can only see the console view. Instead of console view user can minimize all while do another thing like prepare the next render.
- Must have at least 3 slaves computers for tile mode or at least 4 slaves computers for frame mode both modes needs at least 1 master computer
- Not support for still frame render, user must be able to divide 2 frames for each slave computer.
- Sometimes user need to reboot all computers in the network because the program gets stuck
- Sometimes user needs to force to reopen again and you can shutdown or restart computers to cancel a render job
- Scene or project filename must not have spaces, must be like this: exampleOfFilename
- After finish a render job user must close and open again for another job(depending if user used console view or not)
- ANTIWAVE1.0 is not compatible with render contribution maps or layers, user must prepare a scene render for each layer
- Only supports .iff image format
- Not support multiple cameras
- The cancel button doesn’t work, also some double clicks.
- The load file button sometimes doesn’t work it should show a console window for a moment.

Recommendations

- Do not use internet during renders.
- Master computer use laptop or desktop computer. Slaves computers uses workstations, servers.
- Low specs or mid/high specs users must know how to use Tile and Frame mode.
- Mark or memorize your computers order of installation which corresponds to IP address and HOSTNAME, so user can re-install the server without rebooting the slaves machines
- User should not be residing inside ANTIWAVE installation folders.

Render layers and contribution maps

Render layers like Z-depth, Alpha, Geometry ID, UV, shadows, speculars, reflections are considered low CPU consuming

Render layers like color, normal map, displacement map, bump map, indirect light effects, refraction, glossy effects, volumetric particles are considered high CPU consuming

The only way to achieve layers in ANTIWAVE version 1.0.0 is doing a scene file for each layer, ANTIWAVE1.0 does not support render contribution maps. Render Contributions Maps are considered an enhance of the layer system, there is no need of alpha or geometry layers for example

How to render multiple cameras

If the user has animation camera work and wants to render; the user can freely create all camera that requires, at the end it must create a scene file for each camera. The user can copy the keyframes to the perspective default camera that is faster. This will be upgraded in further versions.

How to render with Tile mode

“C:\ANTIWAVE1.0\Resources\antiwave_install\weigthData.txt”

Example of a 4 slaves computers weigthData.txt

0008800*4*4836*192.168.103.2*antiwave2*

0006600*3*4129*192.168.103.3*antiwave3*

0011000*5*4672*192.168.103.4*antiwave4*

0013200*6*4000*192.168.103.5*antiwave5*

Weight *Cores* *RAM* *IP* *HOSTNAME*

for example,

mentalray requires 4GB or 8GB depending of the resolution of the render.

User must be responsible of what is doing, if this file is not set up correctly undesirable results may occur, like crashes, overloads and overheats for example. Do not exceed the initial values.

Requisites and minimal requirements

1. Python 3.9.2
2. Rarlabs Winrar
3. Microsoft Windows 8.1
4. Autodesk Maya
5. Adobe After Effects

User must have a master computer with at least 4GB of RAM, a video card and an up to date CPU recommended.

For the slaves computers must have enough RAM to store high resolution images, for example

16 megapixels are 16 millions of pixels that must be stored in RAM and in Hard drive; 16 megapixels are approximately 16 Megabytes in hard drive but in RAM is even more complex, is highly recommended to have enough RAM on each slave computer.