# Instructions for installing VirtualBox EventMaster Simulator virtual machine



## 1. How to simulate multiple EventMaster Processors without multiple computers.

**Background:**

The EventMaster Toolset installation have an emulator of the actual hardware frame, Video Processor Simulator X.X

Because the actual frames are using several hardware specific settings and addresses for full functionality more than one Event Master Frame cannot be emulated on a single computer. A Multiple processor setup can be emulated with several computers on a single network.

This is not very practical and this QSG explains how to run a virtual computer instances and allow for several emulated processors to be run on a single Windows PC.

The VirtualBox EventMaster Simulator emulates the EventMaster video processors functionality, just as the E2/S3/EX/IP4K Processor would. This is not the case for the original emulator.

Advantages of VM simulator

- Multiple VPs on same PC
- Web app is fully functional
    - Code update works
    - Backup / Restore works
    - JSON interface works
    - "Add new Still from PNG" works
- Incorporated "Create Sim File" into web app

## 2. System requirements

The EventMaster Simulator VM is setup to require 1 GB of RAM and expand to use a max of 40GB of disk space.

- EventMaster firmware 6.5 and above.
- PC Windows 10
- Intel i5 3.2GHz or faster
- 8Gb of RAM
- 100Gb free Harddrivespace
- GPU Intel 4600 or faster

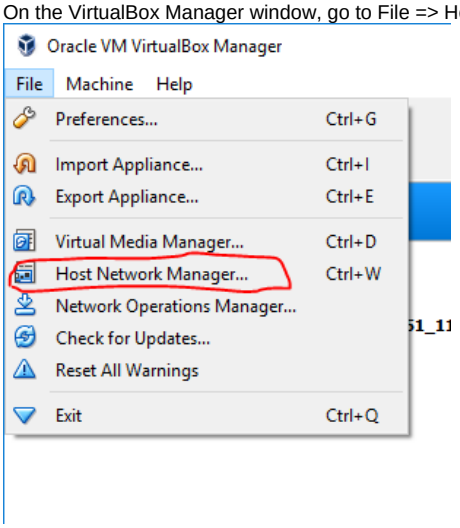
## 3. Installation steps

1. Get the .ova VM file
2. Download VirtualBox https://www.virtualbox.org/wiki/Downloads and install it.

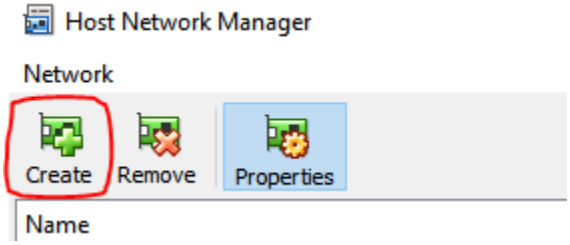
### 3.1. Create Host Only Network

**Note: After creating this Host Only Network, the Event Master Toolset "Discovered" tab can only detect the simulated VPs but will no longer discover other real VPs on the network. Use the "Manual Connect" feature to connect to real VPs.**

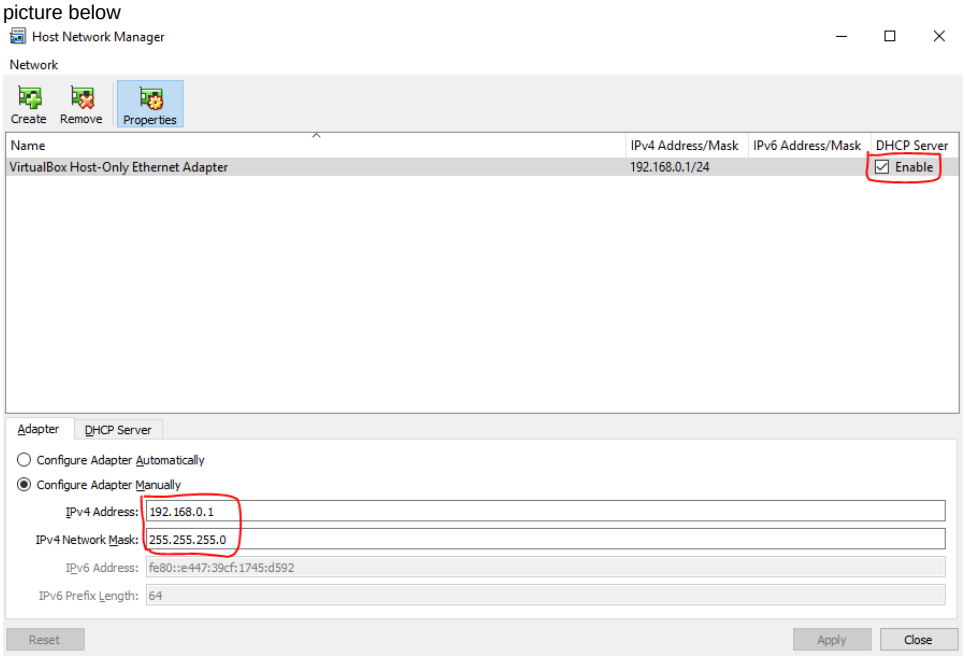
1. On the VirtualBox Manager window, go to File => Host Network Manager



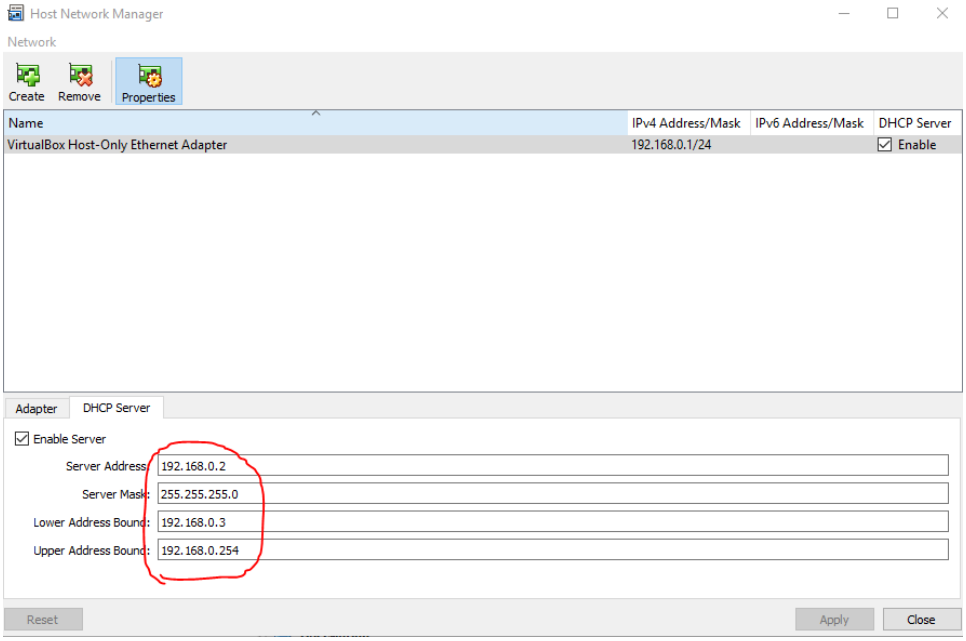

2. Click on "Create"




3. Choose to enable "DHCP" and on the "Adapter" tab, update the IPv4 Address to be "192.168.0.1" and Network Mask "255.255.255.0" as per picture below



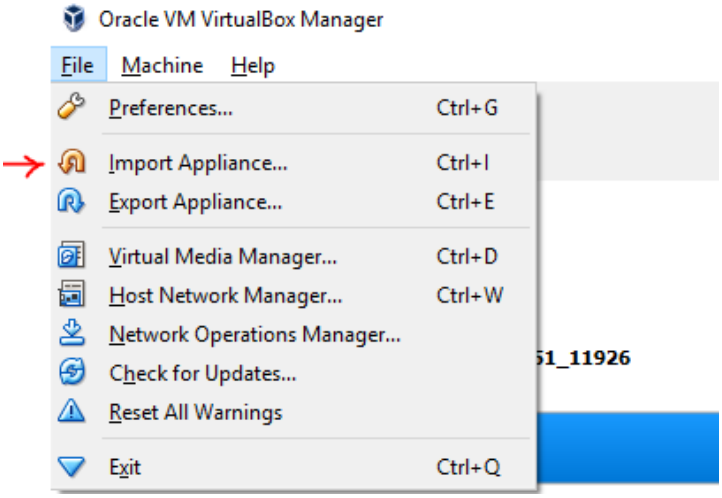
4. Click on the "DHCP Server" tab and update the fields to match the following picture



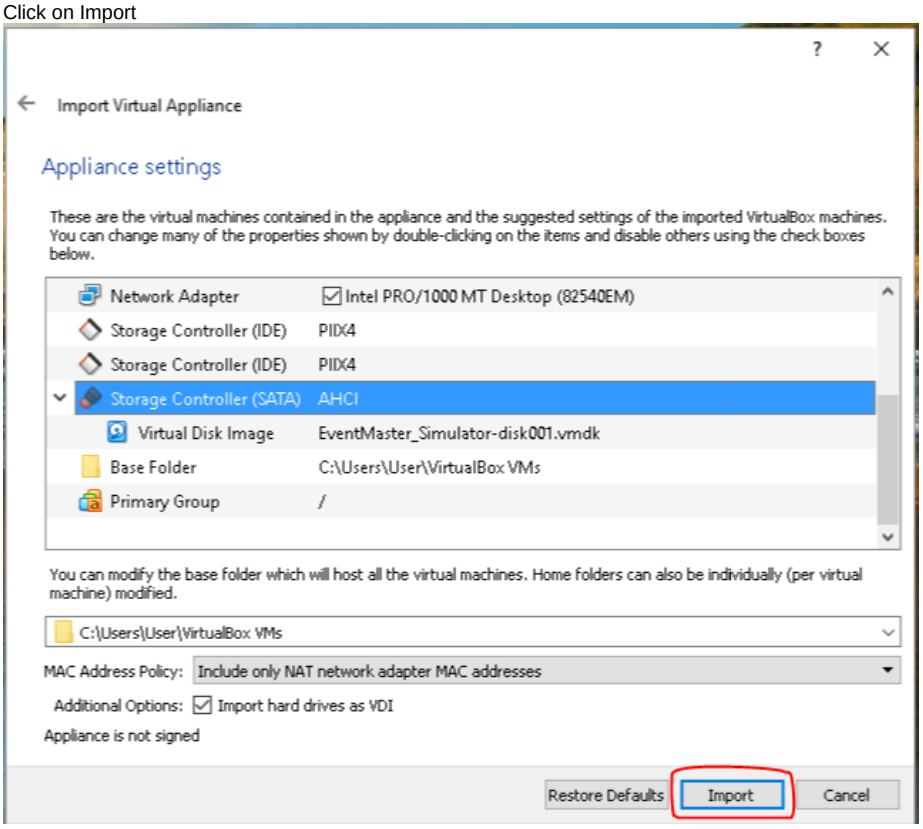

5. Close the Host Network Manager window when you are done

## 3.2. Import Event Master VM

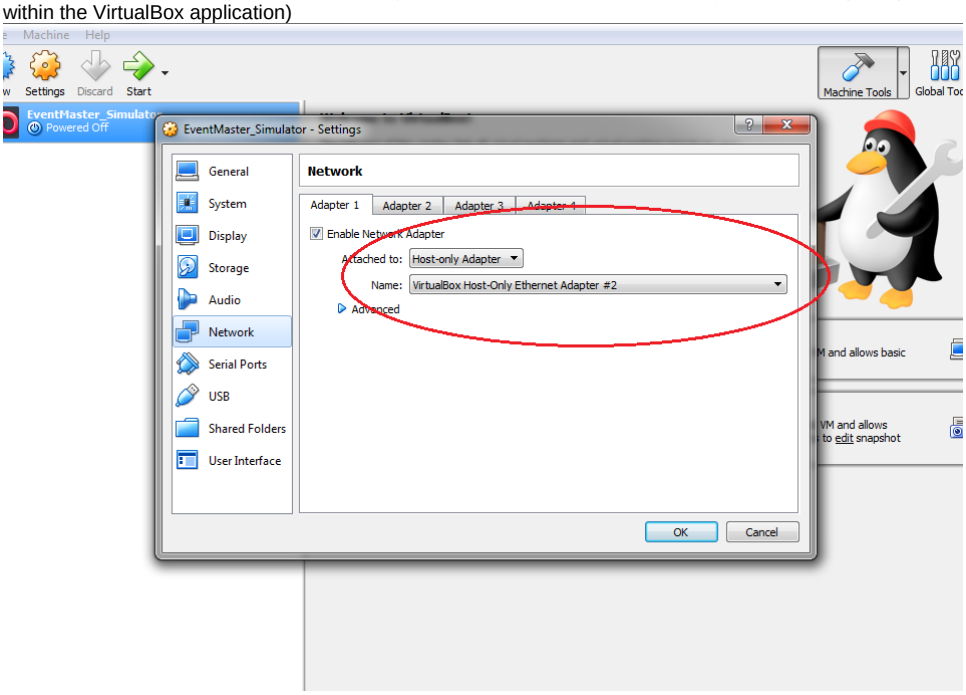
1. With Host Network setup, click on "Import Appliance" to import the .ova file



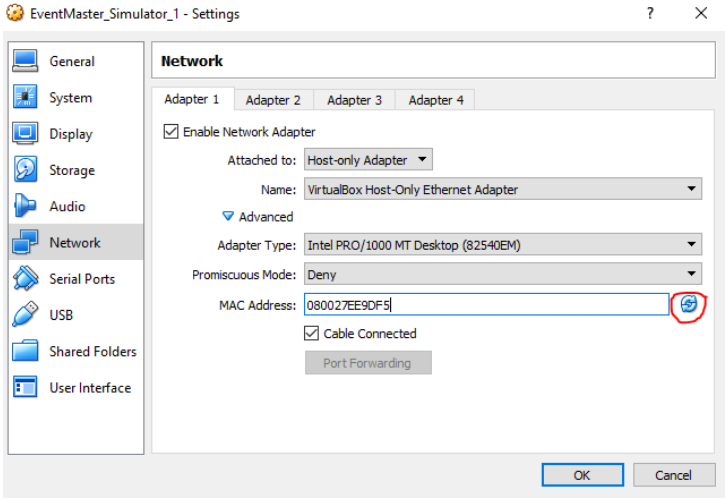
2. Click on Import



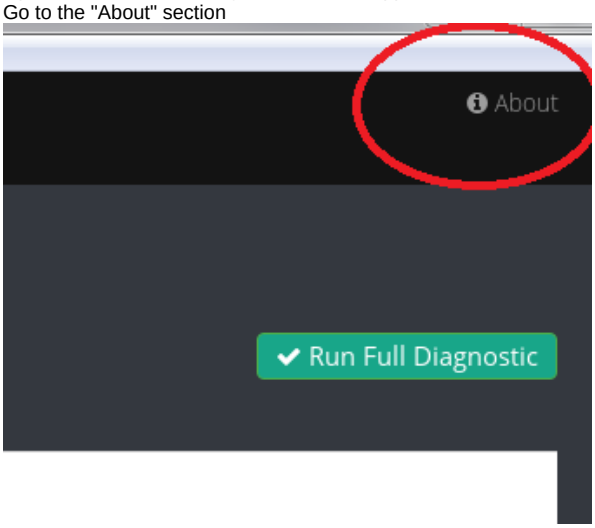

3. A new VM called "EventMaster_Simulator" will be created
4. Within the Network settings for the VM change the name to "VirtualBox Host-Only Ethernet Adapter" (or whatever the name of the adapter is within the VirtualBox application)



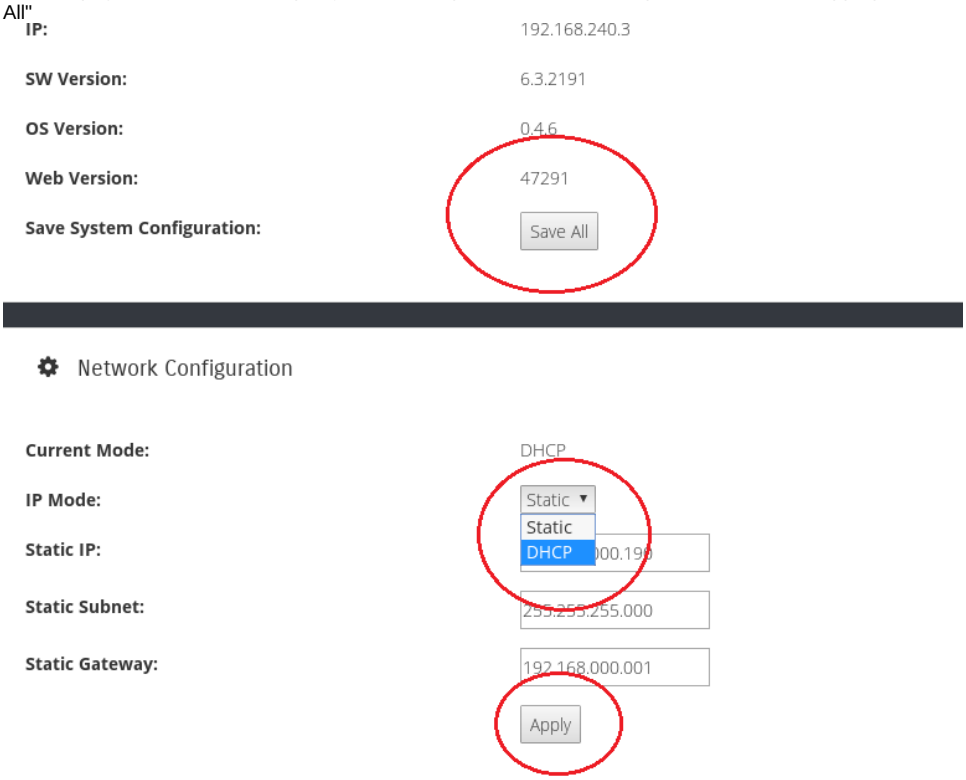
5. Click on "Advanced" and update the "MAC Address" by clicking on the refresh button



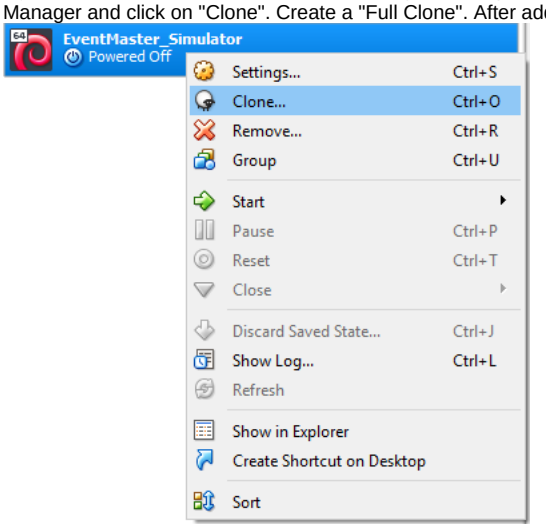

6. Start the Virtual Machine
7. Note down the MAC Address for use in the Eventmaster XML Settings
8. The first time starting up the machine, wait until the browser fully loads within VirtualBox.
9. Open a Browser and navigate to the WebApp of the VM via the IP Address.
10. Go to the "About" section



11. Use this page to do network setup. If you want to update static IP or setup DHCP, select the appropriate controls and press "Apply", then "Save All"



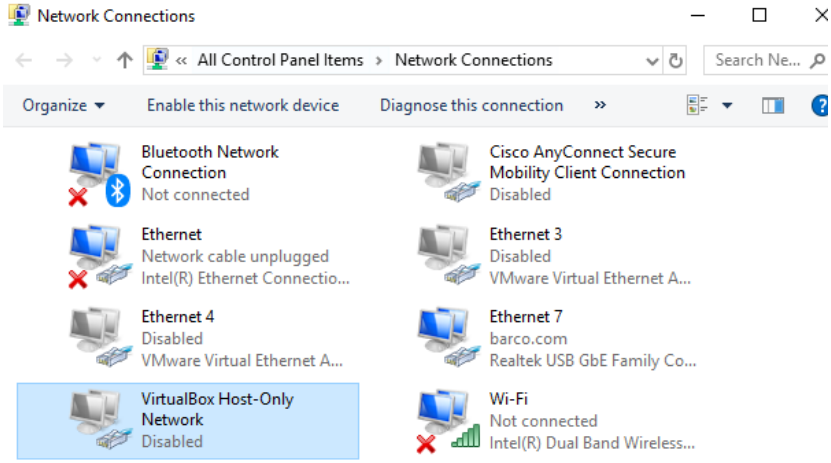

12. As the VM continues to boot, eventually the web app will appear in the VM window as well.
13. Open EventMasterToolset GUI and the VP can now be discovered on the left tab of the Configuration tab
14. If you want to simulate additional VPs, either go thru steps 1-10 again or power off the current VM and then right click on the VM in the VirtualBox Manager and click on "Clone". Create a "Full Clone". After adding the new VM,



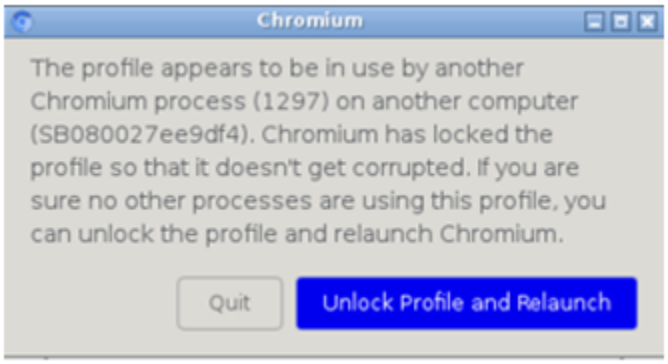

15. In order to emulate several processors the steps 1 thru 11 needs to be repeated for each processor emulated.

### 3.2.1. Troubleshooting

1. If VirtualBox detects an "Invalid settings detected" and it is a Network issue, make sure "VirtualBox Host-Only Network" is not disabled in the Network Connections



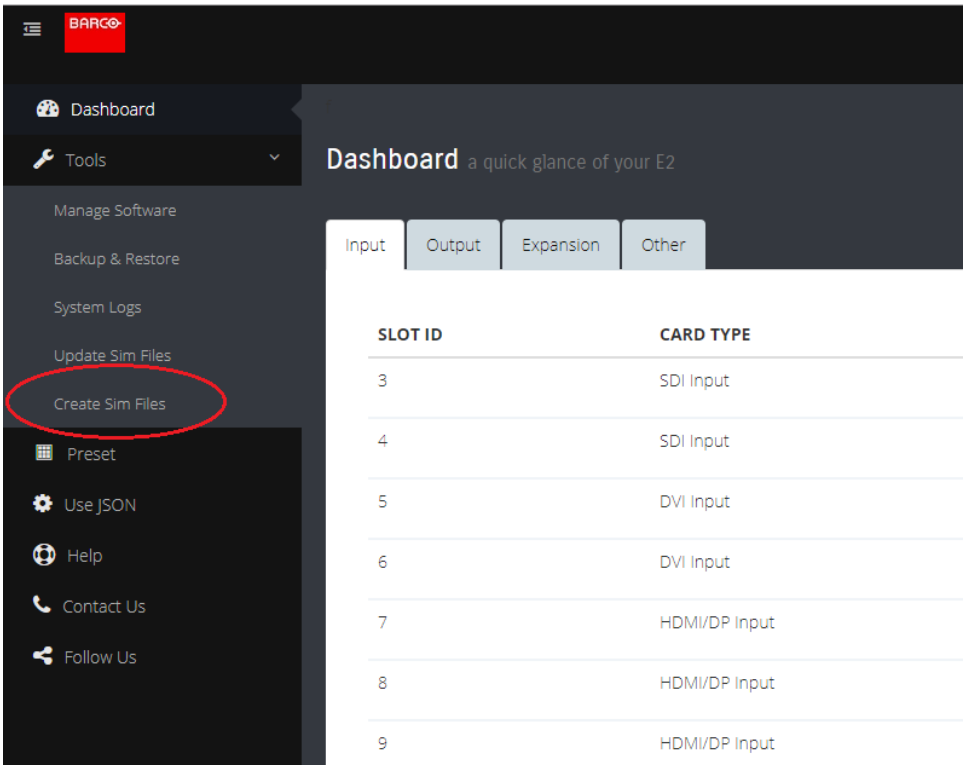

2. If you launch the VM and you see the pop up below. Please click on the "Unlock Profile and Relaunch" button in blue



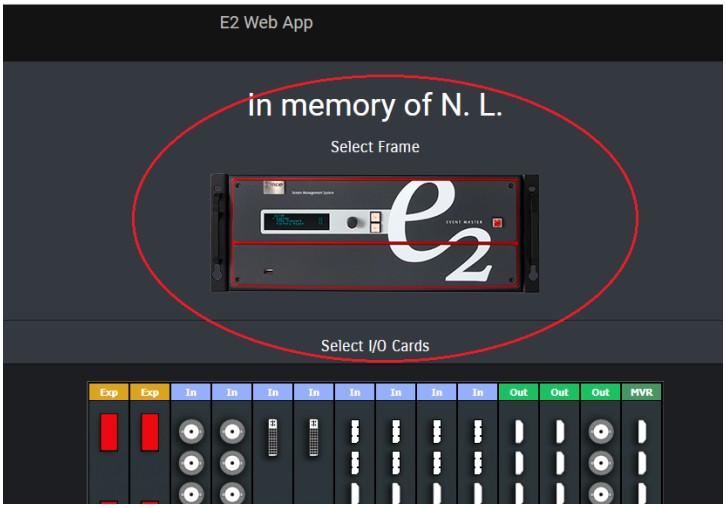

## 3.3. How to change the VP simulator configuration

1. **On the host PC, open Chrome or any web browser and type in the IP address of the simulator**
    a. **DO NOT use the Window that is opened by the VM Software to make any updates, just minimize it.**

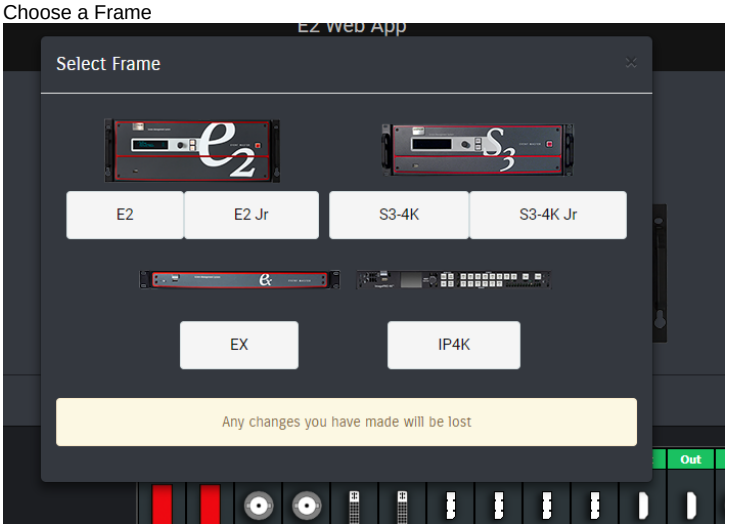
2. On the home page, click "Tools -> Create Sim Files"

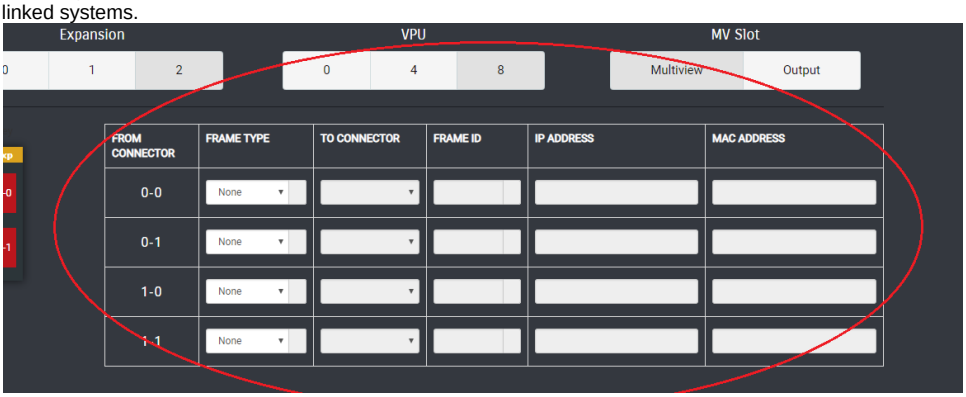


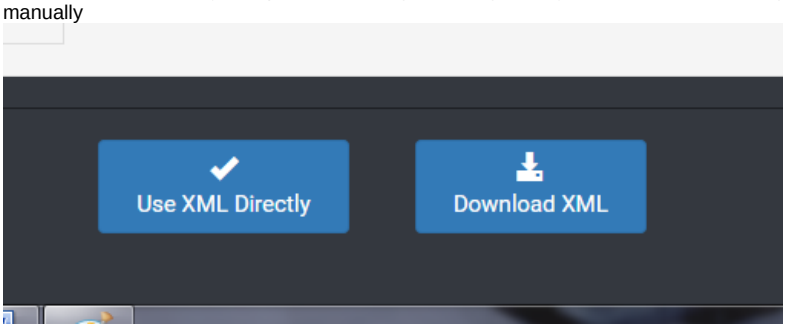

3. Click on the "e2" under "Select Frame"




4. Choose a Frame



5. Choose the configuration of the cards
6. Add any linked systems.
   a. 

7. Press "Use XML Directly" to update the configuration right away or "Download XML" to get a copy of the sim file so that it can be uploaded manually
8. 

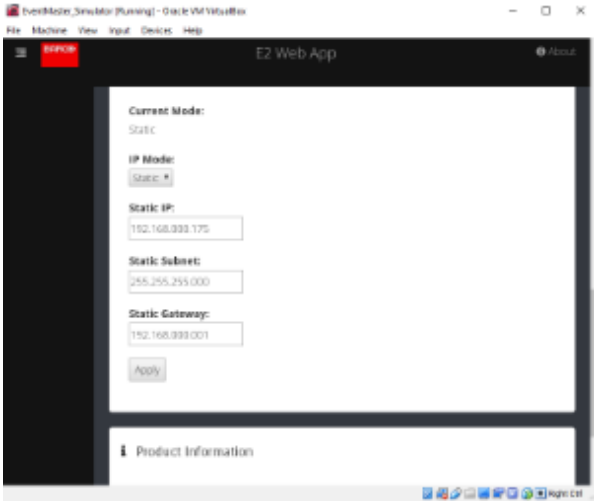

# 4. Updating firmware on the Event Master VM simulator

To update the firmware on the VM, use the "ToolsManage Software" in the web application just like the real Event Master hardware.

There is no need to update the OS at this time

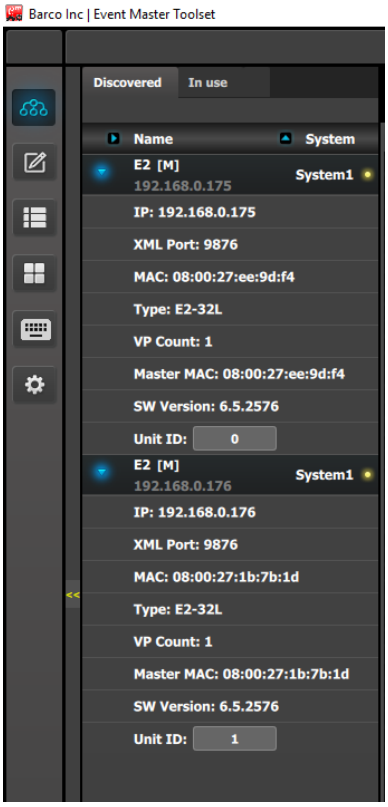
# 5. Example of Setup of a Dual E2 System

1. After using section 3.3 above, there is a EventMaster_Simulator running. Clicking on the "About" page, I see an E2 with IP address 192.168.000.175 created. Keep a note of the MAC address of this VP for later use. In my setup it is 08:00:27:ee:9d:f4

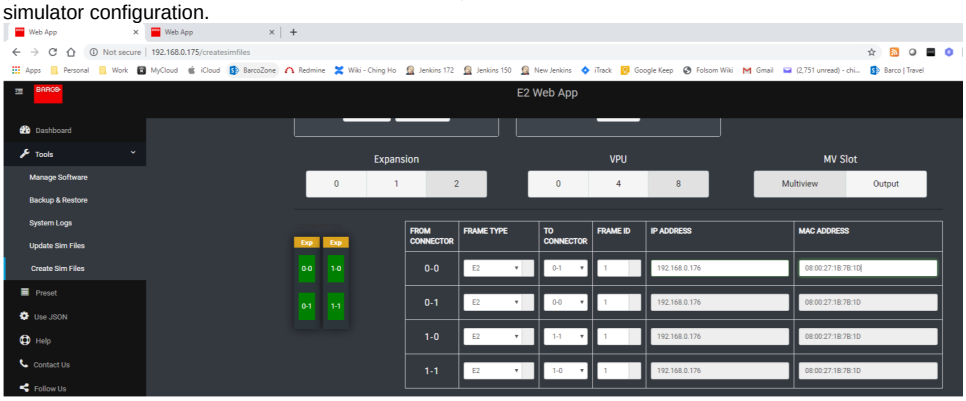



2. Using section 3.3 to clone the VM, there is a EventMaster_Simulator_Clone running. Clicking on the "About" page, I see an E2 with IP address 192.168.000.175 created. Update the IP address to 192.168.000.176 and press "Apply". Keep a note of the MAC address of this VP for later use. In my setup, it is 08:00:27:1b:7b:1d

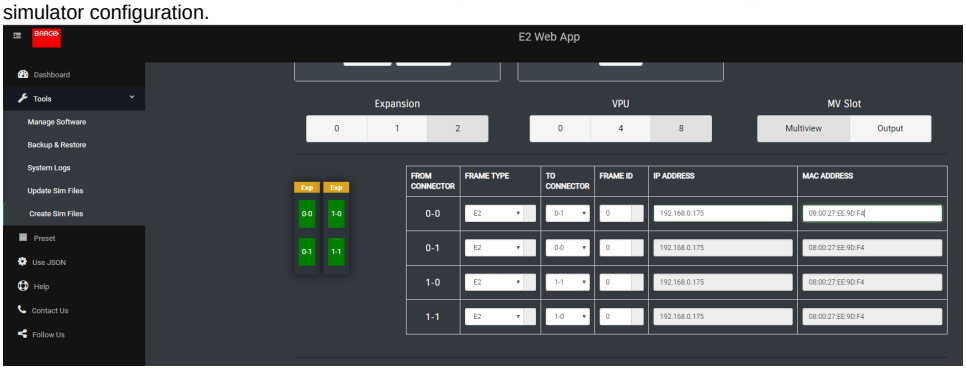
3. Open Event Master Toolset and the two E2s should appear. Expand the Discovery list and change the Unit ID of the IP address 192.168.000.176 to Unit ID = 1



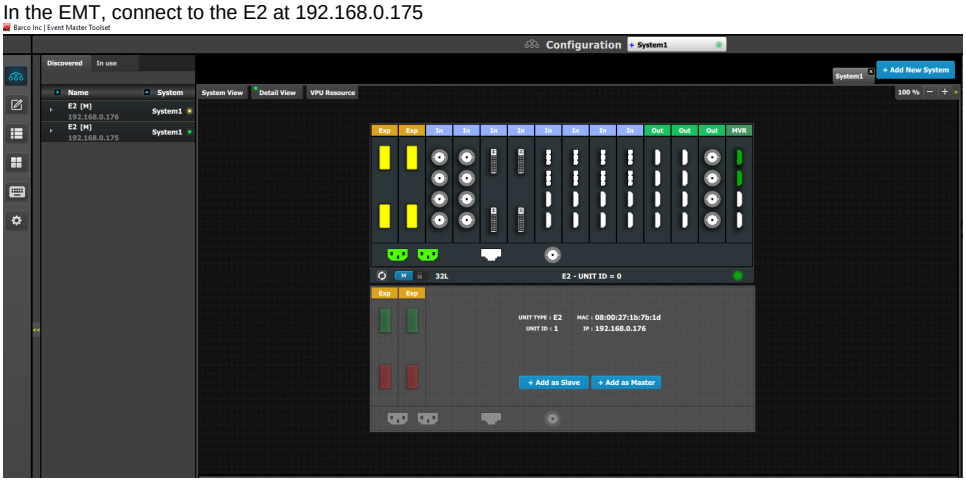

4. Open a web browser and connect to 192.168.0.175 and go to the Tools  Create Sim Files. Enter in the information of the E2 at 192.168.0.176 (Enter correct MAC address of VP at 192.168.0.176). Then click on "Use XML directly" below. The VP will reboot and will now use the new simulator configuration.



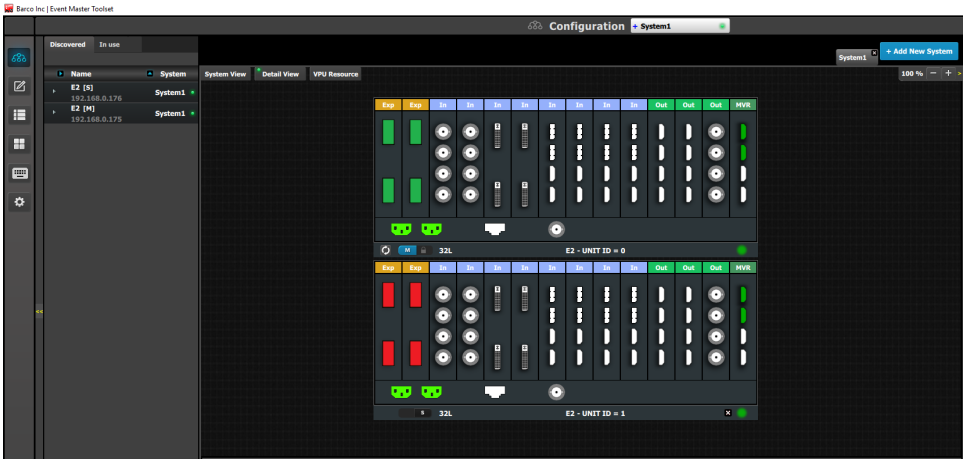

5. Open a web browser and connect to 192.168.0.176 and go to the Tools  Create Sim Files. Enter in the information of the E2 at 192.168.0.175 (Enter correct MAC address of VP at 192.168.0.175). Then click on "Use XML directly" below. The VP will reboot and will now use the new simulator configuration.



6. In the EMT, connect to the E2 at 192.168.0.175




7. Click on "Add Slave"

8. 


# 6. Known issue(s)

1. When creating a slave connection to an EX unit, the VM requires you to use both Exp link connectors from the master VP to master VP to the EX and vice versa vice versa
2. Fiber output card is currently not supported in the "Create Sim Files"
3. CXP I/O card is currently not supported in the "Create Sim Files"