

# OVER-THE-AIR TV INSIDE "KAFFEINE" INSIDE A "ZORIN OS" OR "UBUNTU.." LINUX VIRTUAL MACHINE

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Web location for this  
presentation:

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# SUMMARY

You can use install a Hauppauge USB tuner and then connect it to the Kaffeine app running inside the free version of "Zorin OS" Linux or "Ubuntu.." Linux, running inside a free "VMware Workstation Player" virtual machine, running inside a "Windows 11" or "Windows 10" or "Linux.." host computer.

# AN OVER-THE-AIR TV INSIDE A VM

Real host computer runs "Windows 11" or "10" or Linux..

"VMware Workstation Player 16" (free for home use)

"Zorin OS" or "Ubuntu.." Linux "virtual machine"

"Kaffeine" (Free and Open Source app)

USB TV tuner  
manufactured by  
"Hauppauge Computer Works"

**REAL TV ANTENNA**

# INSTALLATION STEPS

- Step 1: Parts and software needed
- Step 2: Hardware installation of the Hauppauge TV tuner
- Step 3: Install "VMware Workstation Player 16"
- Step 4: Install Zorin or Ubuntu Linux into a virtual machine
- Step 5: Install the Kaffeine app
- Step 6: Install drivers for the TV tuner
- Step 7: Scan for TV channels

# STEP 1: PARTS AND SOFTWARE NEEDED

- Windows 10, 11, or Linux "host" computer
- Hauppauge USB Over-the-Air TV tuner
- Over-the-Air antenna for "ATSC" TV
- VMware Workstation 16 Player

# STEP 2: HARDWARE INSTALLATION OF THE TV TUNER

- Installation of a USB Hauppauge TV tuner is a trial-and-error process: Insert it into different USB ports until you find one that causes the LED lights on the tuner to light up. For an unknown reason, USB Hauppauge TV tuners do not work with some USB ports and some Thunderbolt 3 ports.

# STEP 3: INSTALL "VMWARE WORKSTATION PLAYER"

- Use a Web browser to go to <https://www.vmware.com/products/workstation-player.htm>



# STEP 4: INSTALL "ZORIN OS" OR "UBUNTU.." LINUX

- Create new new virtual machine from inside "VMware Workstation Player 16"
- Inside "Settings" for the new virtual machine, set the virtual "USB Controller" to "USB 2.0"
- Inside "Settings" for the new virtual machine, set the amount of virtual memory and virtual processes to a reasonable amount

# STEP 5: INSTALL THE "KAFFEINE" APP

- If the virtual machine is running "Ubuntu..", go to "Ubuntu Software" and install the Kaffeine app
- If the virtual machine is running "Zorin OS 16.1", go to "Software" and install both the "Kaffeine app" and the "kaffeine-player" app

# STEP 6: INSTALL DRIVERS FOR THE TV TUNER

- From inside the virtual machine, start the "Terminal " app
- From inside the virtual machine, use a Web browser to go to [https://hauppauge.com/pages/support/support\\_linux.html](https://hauppauge.com/pages/support/support_linux.html)
- From inside the virtual machine, start copying the listed command-line commands into the "Terminal" app and hit the "Enter" key each command-line command.

# STEP 6: INSTALL DRIVERS FOR THE TV TUNER (continued)

- FOR BOTH THE "ZORIN OS" AND THE "UBUNTU.." VIRTUAL MACHINES, THE \*linux-mediastream\* command line command failed to complete and I had to run it a second time after re-booting the virtual machine: Upon running it for a second time, I was prompted to run a different command line command to finish off the \*linux-mediastream\* command line command from the point where the original \*linux-mediastream\* command line command failed.

# STEP 7: SCAN FOR TV CHANNELS

- Reboot the virtual machine
- From inside the "Removable Devices" screen of the virtual machine, attach the Hauppauge TV tuner to the virtual machine
- From inside the virtual machine, start the "Kaffeine" app
- From inside the "Devices #" tab of the Kaffeine app, turn on "USA ATSC.."
- From inside the "Channels" tab of the Kaffeine app, scan for live TV channels

# STEP 7: SCAN FOR TV CHANNELS

## (continued)

- From inside the "Channels" tab of the Kaffeine app, scan for live TV channels
- After the channel scan completes, click on one of the channels that the Scan discovered

# STEP 7: SCAN FOR TV CHANNELS (continued)

- Using the keyboard of the computer, press on **Ctrl + a** to highlight all of the channels that the Scan discovered  
Click on the "Add filtered" button to add the channels to the "Channels" list

# STEP 7: SCAN FOR TV CHANNELS

(continued)

- Click on "OK" to close out the "Channels" list.  
(The "OK" button is on the lower right of the "Channels--Kaffeine" box.)



# STEP 7: SCAN FOR TV CHANNELS

## (continued)

- Close the Kaffeine app by clicking on the "x" button in the upper-right corner of the "Kaffeine" window
- Re-start the Kaffeine app
- Click on "Television" in the menu bar on the left side of the "Kaffeine" app window
- Double-click on the desired television channel in the "Channel" list

Player ▾

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Kaffeine



hauppauge.com-SatMar1920221...



New Text Document (2).txt

002-1 KCBS-HD — Kaffeine

File Playback Playlist Television Settings Help

Search:

Channel

- #0 335:10
- 002-1 KCBS-HD
- 002-2 StartTV
- 002-3 Dabi
- 002-4 FaveTV
- 004-1 NBC4-LA
- 004-2 COZI-TV
- 004-3 NBCLX
- 018-1 LA18
- 018-2 SBS
- 018-3 MBCD
- 018-4 YTV
- 018-8 CTS
- 018-9 EMT TV
- 020-1 SonLife
- 020-10 KNLA-CD
- 020-11 LAPN
- 020-12 KNLA-DT
- 020-2 MBN
- 020-20 LATINTV
- 020-3 ICCDD
- 020-4 Vizion
- 020-5 EEE
- 020-6 GTV
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