

Using Ham Radio Deluxe with SDRuno

Ham Radio Deluxe (HRD) is very popular with many hams who use it for logging, digital decoding and/or rig control. However, some users have had issues when they add an RSP to the mix and SDRuno software. They find they are able to control the rig with HRD or SDRuno, but have problems when they try to run both together:



The problem is cause by contention between HRD itself which tries to synchronize with the rig, and Omnirig, which is used by SDRuno to also try and synchronize the rig. The solution is to remove the contention by reconfiguring HRD to control SDRuno instead of directly controlling the rig:





Setting it up

1. SDRuno

In SDRuno, OmniRig is used to control the rig, the main setup is from the Main Settings Window, using the "ORIG" tab. Since the user has probably already set up OmniRig it will not be discussed further here.

An SDRuno VRX can be externally controlled, from the RX Settings Window, by means of the "CAT" tab. To do this we must set up a "virtual serial port pair." (see also SDRuno User Manual, Section 14)

2. Virtual Serial port

There are a number of virtual serial port packages available, for this example we have chosen VSPE from Eterlogic. This software is free for 32-bit systems and has a license fee for 64-bit systems. First visit the Eterlogic website (www.eterlogic.com) and download the software:



Follow the instructions to install the software and then run it:

| 😽 Virtual Serial Ports Emulator (Emulation starte | ed) | – 🗆 X | 📚 Virtual Serial Ports Emulator (Em | ulation started) | | - 🗆 X |
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The first step is to create a new device, click on "Device" from the menu and then "Create". Next we select that we want to create a new "Pair", and we then specify the COM ports we wish to use. We will choose to pick COM10 and COM11 to match the instructions in the SDRuno User manual, however, if for some reason you are already using these COM ports on your system for something else, then pick some other, free, COM ports.



Click "Finish" and we can see our newly created COM port pair is ready to go:

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|---|------------------------|--------|--|
| itle | Device | Status | |
| OM10 <=> COM11 | Pair | Ready | |
| | | | |
| Thursday, March 22, 2018) [COM10 <=≻ CO | OM11] InitializationOF | | |

Now, start SDRuno and go to the VRX Settings window:

| SETT. MA SDRuno MAIN | |
|--|-----------------------------|
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| 88. (MH) 01C | AGC OUT SAM/HP RDS CAT ORIG |
| LOG Point Strip 0% Strip 0% | COM DEVICE |
| 3/22/2018 5:46:37 PM Test | COM10 RX MODE CTRL |
| CENT Provide Canadian Annual Control of Cont | BAUD RATE |
| MODE AM SAM FH CW DSB LSB USS DISTING BENSS MHZ COM DEVICE | 57600 🔫 |
| VPOA A.S. B. NMM MMM EVMM State 2000 RAW 2000 State EAUD RATE VPOA MOM SMMM ZMM SMMM < | V ENABLE & CONNECT |
| VOLUME ENER SLOW TATUE NONECT | STATUS: CONNECTED |

Select COM10 to match our virtual serial port, then click on "Enable and connect" – the message "Status: Connected" will appear.



3. HRD

Start HRD and you will be prompted to set up a new connection. Or, if you already have an existing connection set up for your rig, click on "Connect" in the menu bar and then select new:

| Company: | Kenwood 🔹 Statu | s |
|-------------|--------------------------------------|-----------|
| Radio: | TS-480 💌 | |
| | | |
| COM Port: | COM11 - | |
| Speed: | 115200 💌 | |
| CI-V Add: | 00 | |
| - Flow cont | trol / Interface power | |
| 🔽 CTS | 🗆 DTR 💌 RTS | |
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| → Connect | at Always connect to this radio when | Auto Chad |

Input "Kenwood" for the company, "TS-480" for the radio, and "COM11" for the COM port we set up earlier. This will create a new preset for use with SDRuno. If you still wish to use HRD standalone, i.e. without SDRuno running, you can use your previous preset to control your rig. Now click on "Connect"

| SETT. NA SDRue | | 🗮 HRD Rig Control - [TS-480] | | - 🗆 X |
|---|---|--|---|---|
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That's it! Now when you change the tuning in HRD or SDRuno, they and the rig will synchronize.



DM780

For decoding digital modes using DM780 in HRD you will also need to set up a Virtual Audio Cable to send the output from the VRX in SDRuno to the HRD software (unless you are using audio from the rig via your soundcard). This is explained in other application notes and videos available from our website.

Video

There is a video illustrating the concepts outlined in this application note on our YouTube channel:

https://youtu.be/fIDoNpLQ3MA

For more information about SDRplay, the RSP family of receivers, other application notes, and further technical information please visit our website at <u>www.sdrplay.com</u>

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