

## Digital Challenge Hardware Setup

The “**Skyview 2016 Digital Communication Challenge**” will get underway on February 1st. Details about this activity will be posted here Very Soon. You do not want to miss it. It will be open to all Pittsburgh Area Amateurs, not just limited to Skyview members. You could end up with a '**major award**'.

January is devoted to getting your Digital Interface all setup/tuned up and working so that you are all ready to go on February 1st.

For those of you that do not already have a Digital Interface, you need to know that:

- The Digital Mode Software Output is magically connected to the Sound Card.
- The Sound Card Stereo Output is connected to the Digital Interface TX Input.
- The Digital Interface TX Output is connected to the Transmitter Audio Input.

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The Transmitter Audio Output is connected to the Digital Interface RX Input.

- The Digital Interface RX Output is connected to the Sound Card Audio Input.
- The Sound Card is magically connected to the Digital Mode Software Input.

There are as many ways of doing that as there are radios, radio models, and digital interfaces.

1. There are commercial full support solutions (like RigBlaster, SignalLink, ZLP, etc) which are usually serve as both the Sound Card and the Digital Interface. They can be plug and play with modern transceivers that have a “Data Port”. And since the Sound Card and Digital Interface are in the same box, less wiring is needed. These can be a little more work with older transceivers that do not have a Data Port. Those full support suppliers can provide you with the necessary cabling and guidance for your particular radio. Most have their installation and setup manuals on-line for you to preview.
2. There are commercial Digital Interfaces that can be connected between your computer's existing internal Sound Card and your transceiver that does not have a Digital Port. Some may also provide audio cabling for your particular transceiver.. With others you would have to fabricate your own audio cabling. Some of these simpler Digital Interfaces may be offered by small private suppliers on eBay. There was simple and inexpensive kit that was built by some in just a few hours during a 2015 Skyview Elmer Night (Cooky can tell you where he found them). In addition to the audio connections, a PTT connection is required.
3. You can homebrew a Digital Interface and fabricate the necessary cabling to make the audio connections to your Sound Card and transceiver. You will probably find that there are lots of homebrew ideas online. A lot of them may say that they are RTTY Interfaces – RTTY is a Digital Mode, so whatever will work for RTTY will also work for the other Digital Communication Modes. In addition to the audio connections, a PTT connection is required.

The audio levels going to the transceiver and the audio levels going to the Digital Mode Software both have to be within certain ranges. They will need frequent adjustment for some of the digital modes. One advantage of the commercial solutions which serve as both the Sound Card and the Digital Interface is that they will typically have the audio level Controls on their boxes, making it an very easy job to keep the audio levels within range. Whenever you use any kind of a Digital Interface that utilizes your computer's Internal Sound Card, you will have to adjust these level settings using your computer's Sound Card Control Panel. That is a little more cumbersome to do.

I have an Icom IC-756ProIII transceiver with a Digital Port, and I opted to purchase a commercial ZLP DigiMaster Pro3 Digital Data Interface with an embedded Sound Card and the necessary Cable Set designed for my radio. So I am not a good resource for doing it any other way.

Google is your friend. Go to Google and type in something like "How do I connect a Digital Interface to my <radio-model>" and see what you get. Read whatever you can find on-line. Come up to the clubhouse on Tuesdays evenings and discuss your particular situation with the members who are there. Post your questions here on the reflector. A question like "Has anyone ever done a digital interface to a <radio-model>?" here on the reflector may get you some good advice.

Stay tuned for the "**Skyview 2016 Digital Communication Challenge**" details. [Get setup for it now !!](#)

Practicing during January is permitted :-) Even encouraged . . . .

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