

# Crimp Vs. Solder

What's best, crimping or soldering. Should you use crimping? How is a good crimp done.

Below are references that address these questions.

[Wikipedia Entry](#)

[Crimping vs Soldering Advantages and Disadvantages](#)

[Good and Bad RF Crimp Connections](#)

[ARRL Instructions for Crimping RF Connectors](#)

[How to Make a Quality Crimp](#)

[More on Making a Quality Crimp \(technical\)](#)

[Molex Crimping Manual \(technical\)](#)

[TE Systems Crimp Chart](#)

Notes on crimping:

It is always best to have the right tools. Make sure you use the right connector for the cable and the right crimp die for the connector. With the right tools, RF connectors can be crimped very quickly and are very reliable. One nice advantage, is that it is easy to reuse the connector. The center pin is generally soldered (which is easy to unsolder) and the shield is crimped with a short metal "tube". Some companies sell bags of replacement "tubes" so the connectors can be reused. Follow the connector's instructions EXACTLY and you'll have a solid connection that will last forever.

If you are making outdoor connections, I recommend using N connectors as they are hermetically sealed. (PL-259s are not) For power connections, I recommend using the same connectors

that are used to connect solar panels together. They're much cheaper than Anderson Power Poles and they form a hermetic seal. For signal connectors, go to your hardware store and look in the irrigation section. They have special twist-on connectors that are meant to be underground or sit in the rain. They're pretty cheap if you buy a big bag.

Check back again in about a week and I'll have more links and references.

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## WiRES-X Automation

Yaesu does not provide a mechanism that allows the WiRES-X software to be controlled by another program, i.e., having another program switch to a certain Room when a net starts.

Windows does, however, permit another program to send events to a program. Each window, menu item, and dialog in a Windows program has a unique identifier. It is possible to use these identifiers to send "message" to the WiRES-X software.

The WiRES-X Automation Project's purpose is to bring together people who are interested in developing this technology and sharing their results.

To get things going, here are two mechanisms for automating WiRES-X:

1. AutoIT: <http://www.autoitscript.com>
2. Python – an excellent programming language found at [python.org](http://python.org)

Dave, N9TOW, provided the following information:

Packages I have installed on my WiresX system.

```
C:\Users\WiresX>pip list
```

```
comtypes (1.1.3)
```

```
pip (9.0.1)
```

```
pywin32 (220)
```

```
pywinauto (0.6.3)
```

```
setuptools (28.8.0)
```

```
six (1.10.0)
```

```
https://github.com/pywinauto/pywinauto
```

## To install

```
pip install -U pywinauto
```

## Script that executes changing channels on WiresX app

```
import time
from pywinauto import Application
app = Application().connect(path="C:\Program Files
(x86)\YAESUMUSEN\WIRES-X\wires-X.exe")
app.WiresX.menu_select("Connect(C)->Connect To(T)")
time.sleep(1.5)
app.InputID.Edit.set_edit_text("21493")
time.sleep(.5)
app.InputID.OK.click()
time.sleep(4)
dialogs = app.windows()
##app.Dialog.CloseButton.click()
```

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**DV4mini          Fusion          Monitor**

# Program

This program uses a DV4mini to monitor over-the-air Fusion signals and display the meta data (does not display voice, pictures, messages, etc.)

This version of the program will output a record when a station keys up and then another record when the station unkeys. I've done this so that the user doesn't get overwhelmed with all of the meta data that is produced.

You'll need to review the [Yaesu Digital Communication Standards](#) document to understand what the different fields mean.

Computer Requirements: Windows 7 or later

## Program Installation

1. Download the program from this link: [DV4mini YSFMonitor](#).
2. Create a directory on your Windows PC and unzip this folder into that directory.
3. Download and install the Microsoft Visual Studio 2017 redistributable for your machine

## Running the Program

1. Open a command box (type cmd) and change to the directory in which you installed the software.
2. Check the program: Type VSFRX.exe -v. It should respond with the version number.
3. User Device Manager to determine the com port of your DV4mini.
4. Enter frequency and com port as follows: VSFRX.exe com7 444525000

Note that the frequency must be entered as 9 digits.

5. A log file will be created in the same directory as the program.

Output Example from the 30-Apr-2018 Net

M: 2018-05-01 01:01:30.338 DV4mini version: V01.77  
M: 2018-05-01 01:01:30.338 YSFRX-20180430 K9EQ starting  
M: 2018-05-01 01:01:33.646  
M: 2018-05-01 01:01:33.646 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 6 SQ: 0 SC: 0  
M: 2018-05-01 01:01:33.646 Terminator, CSD1  
M: 2018-05-01 01:01:33.646 0000: 2A 2A 2A 2A 2A 48 35 35 37 56  
57 38 4F 4A 2D 20 20 20 20 20 \*\*\*\*\*H557VW80J- \*  
M: 2018-05-01 01:01:33.646 Terminator, CSD2  
M: 2018-05-01 01:01:33.646 0000: 4B 39 45 51 20 20 20 20 20 20  
57 38 4F 4A 20 20 20 20 20 20 \*K9EQ W80J \*  
M: 2018-05-01 01:01:36.748  
M: 2018-05-01 01:01:36.748 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:01:36.748 Header, CSD1  
M: 2018-05-01 01:01:36.748 0000: 2A 2A 2A 2A 2A 46 30 58 49 4B  
4B 44 38 47 52 4E 20 20 20 20 \*\*\*\*\*F0XIKKD8GRN \*  
M: 2018-05-01 01:01:36.748 Header, CSD2  
M: 2018-05-01 01:01:36.748 0000: 4B 39 45 51 20 20 20 20 20 20  
4B 44 38 46 4A 48 20 20 20 20 \*K9EQ KD8FJH \*  
M: 2018-05-01 01:01:43.742  
M: 2018-05-01 01:01:43.742 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:01:43.743 Terminator, CSD1  
M: 2018-05-01 01:01:43.744 0000: 2A 2A 2A 2A 2A 46 30 58 49 4B  
4B 44 38 47 52 4E 20 20 20 20 \*\*\*\*\*F0XIKKD8GRN \*  
M: 2018-05-01 01:01:43.745 Terminator, CSD2  
M: 2018-05-01 01:01:43.745 0000: 4B 39 45 51 20 20 20 20 20 20  
4B 44 38 46 4A 48 20 20 20 20 \*K9EQ KD8FJH \*  
M: 2018-05-01 01:01:48.921  
M: 2018-05-01 01:01:48.921 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:01:48.921 Header, CSD1  
M: 2018-05-01 01:01:48.921 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A  
57 36 5A 44 52 20 20 20 20 20 \*\*\*\*\*W6ZDR \*  
M: 2018-05-01 01:01:48.921 Header, CSD2  
M: 2018-05-01 01:01:48.921 0000: 4B 39 45 51 20 20 20 20 20 20  
44 55 31 5A 44 52 20 20 20 20 \*K9EQ DU1ZDR \*  
M: 2018-05-01 01:01:59.513  
M: 2018-05-01 01:01:59.513 FICH: FI: HC, DT: VD1, BN: 0, BT:

1, FN: 2, FT: 6 SQ: 0 SC: 0  
M: 2018-05-01 01:02:00.317  
M: 2018-05-01 01:02:00.317 FICH: FI: TC, DT: VD2, BN: 3, BT:  
1, FN: 3, FT: 3 SQ: 0 SC: 27  
M: 2018-05-01 01:02:01.717  
M: 2018-05-01 01:02:01.717 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:02:01.717 Terminator, CSD1  
M: 2018-05-01 01:02:01.717 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A  
57 36 5A 44 52 20 20 20 20 20 \*\*\*\*\*W6ZDR \*  
M: 2018-05-01 01:02:01.717 Terminator, CSD2  
M: 2018-05-01 01:02:01.717 0000: 4B 39 45 51 20 20 20 20 20 20  
44 55 31 5A 44 52 20 20 20 20 \*K9EQ DU1ZDR \*  
M: 2018-05-01 01:02:02.483  
M: 2018-05-01 01:02:02.483 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:02:04.203  
M: 2018-05-01 01:02:04.203 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:02:04.203 Terminator, CSD1  
M: 2018-05-01 01:02:04.203 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A  
4B 44 38 41 47 4F 4A 4F 48 4E \*\*\*\*\*KD8AGOJOHN\*  
M: 2018-05-01 01:02:04.203 Terminator, CSD2  
M: 2018-05-01 01:02:04.203 0000: 4B 39 45 51 20 20 20 20 20 20  
41 44 30 4D 49 20 20 20 20 20 \*K9EQ AD0MI \*  
M: 2018-05-01 01:02:09.834  
M: 2018-05-01 01:02:09.834 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 6 SQ: 0 SC: 0  
M: 2018-05-01 01:02:09.834 Header, CSD1  
M: 2018-05-01 01:02:09.834 0000: 32 31 34 39 33 47 30 32 7A 42  
41 42 38 52 4C 2D 54 4F 4D 20 \*21493G02zBAB8RL-TOM \*  
M: 2018-05-01 01:02:09.834 Header, CSD2  
M: 2018-05-01 01:02:09.834 0000: 4B 39 45 51 20 20 20 20 20 20  
41 42 38 52 4C 20 20 20 20 20 \*K9EQ AB8RL \*  
M: 2018-05-01 01:02:19.424  
M: 2018-05-01 01:02:19.424 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 6 SQ: 0 SC: 0  
M: 2018-05-01 01:02:19.424 Terminator, CSD1  
M: 2018-05-01 01:02:19.424 0000: 32 31 34 39 33 47 30 32 7A 42  
41 42 38 52 4C 2D 54 4F 4D 20 \*21493G02zBAB8RL-TOM \*  
M: 2018-05-01 01:02:19.424 Terminator, CSD2

M: 2018-05-01 01:02:19.424 0000: 4B 39 45 51 20 20 20 20 20 20  
41 42 38 52 4C 20 20 20 20 20 \*K9EQ AB8RL \*  
M: 2018-05-01 01:02:23.581  
M: 2018-05-01 01:02:23.581 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 6 SQ: 0 SC: 0  
M: 2018-05-01 01:02:23.583 Header, CSD1  
M: 2018-05-01 01:02:23.584 0000: 32 31 34 39 33 45 30 50 71 61  
4B 46 38 50 4D 2F 41 4C 41 4E \*21493E0PqaKF8PM/ALAN\*  
M: 2018-05-01 01:02:23.584 Header, CSD2  
M: 2018-05-01 01:02:23.584 0000: 4B 39 45 51 20 20 20 20 20 20  
4B 46 38 50 4D 20 20 20 20 20 \*K9EQ KF8PM \*  
M: 2018-05-01 01:02:37.296  
M: 2018-05-01 01:02:37.296 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:02:37.296 Terminator, CSD1  
M: 2018-05-01 01:02:37.298 0000: 32 31 34 39 33 45 30 50 71 61  
4B 46 38 50 4D 2F 41 4C 41 4E \*21493E0PqaKF8PM/ALAN\*  
M: 2018-05-01 01:02:37.298 Terminator, CSD2  
M: 2018-05-01 01:02:37.299 0000: 4B 39 45 51 20 20 20 20 20 20  
4B 46 38 50 4D 20 20 20 20 20 \*K9EQ KF8PM \*  
M: 2018-05-01 01:02:51.164  
M: 2018-05-01 01:02:51.165 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:02:51.166 Header, CSD1  
M: 2018-05-01 01:02:51.167 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A  
57 35 4C 4E 41 2D 4B 45 56 4E \*\*\*\*\*W5LNA-KEVN\*  
M: 2018-05-01 01:02:51.168 Header, CSD2  
M: 2018-05-01 01:02:51.169 0000: 4B 39 45 51 20 20 20 20 20 20  
57 30 4D 44 54 20 20 20 20 20 \*K9EQ W0MDT \*  
M: 2018-05-01 01:02:57.665  
M: 2018-05-01 01:02:57.665 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:02:57.667 Terminator, CSD1  
M: 2018-05-01 01:02:57.668 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A  
57 35 4C 4E 41 2D 4B 45 56 4E \*\*\*\*\*W5LNA-KEVN\*  
M: 2018-05-01 01:02:57.668 Terminator, CSD2  
M: 2018-05-01 01:02:57.669 0000: 4B 39 45 51 20 20 20 20 20 20  
57 30 4D 44 54 20 20 20 20 20 \*K9EQ W0MDT \*  
M: 2018-05-01 01:03:00.908  
M: 2018-05-01 01:03:00.908 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0

M: 2018-05-01 01:03:00.908 Header, CSD1  
M: 2018-05-01 01:03:00.908 0000: 2A 2A 2A 2A 2A 45 35 67 47 79  
4B 31 4B 43 2D 50 4F 52 54 32 \*\*\*\*\*E5gGyK1KC-PORT2\*  
M: 2018-05-01 01:03:00.908 Header, CSD2  
M: 2018-05-01 01:03:00.908 0000: 4B 39 45 51 20 20 20 20 20 20  
4B 31 4B 43 20 20 20 20 20 20 \*K9EQ K1KC \*  
M: 2018-05-01 01:03:07.414  
M: 2018-05-01 01:03:07.414 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:03:07.414 Terminator, CSD1  
M: 2018-05-01 01:03:07.414 0000: 2A 2A 2A 2A 2A 45 35 67 47 79  
4B 31 4B 43 2D 50 4F 52 54 32 \*\*\*\*\*E5gGyK1KC-PORT2\*  
M: 2018-05-01 01:03:07.414 Terminator, CSD2  
M: 2018-05-01 01:03:07.414 0000: 4B 39 45 51 20 20 20 20 20 20  
4B 31 4B 43 20 20 20 20 20 20 \*K9EQ K1KC \*  
M: 2018-05-01 01:03:29.710  
M: 2018-05-01 01:03:29.710 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:03:29.710 Header, CSD1  
M: 2018-05-01 01:03:29.710 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A  
4B 30 4F 52 4B 2D 43 48 55 4B \*\*\*\*\*K00RK-CHUK\*  
M: 2018-05-01 01:03:29.710 Header, CSD2  
M: 2018-05-01 01:03:29.710 0000: 4B 39 45 51 20 20 20 20 20 20  
57 30 4D 44 54 20 20 20 20 20 \*K9EQ W0MDT \*  
M: 2018-05-01 01:03:37.764 TIMEOUT  
M: 2018-05-01 01:04:24.355 TIMEOUT  
M: 2018-05-01 01:04:44.738 TIMEOUT  
M: 2018-05-01 01:04:53.392  
M: 2018-05-01 01:04:53.392 FICH: FI: TC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:04:53.394 Terminator, CSD1  
M: 2018-05-01 01:04:53.394 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A  
4B 30 4F 52 4B 2D 43 48 55 4B \*\*\*\*\*K00RK-CHUK\*  
M: 2018-05-01 01:04:53.395 Terminator, CSD2  
M: 2018-05-01 01:04:53.395 0000: 4B 39 45 51 20 20 20 20 20 20  
57 30 4D 44 54 20 20 20 20 20 \*K9EQ W0MDT \*  
M: 2018-05-01 01:04:55.917  
M: 2018-05-01 01:04:55.917 FICH: FI: HC, DT: VD2, BN: 0, BT:  
0, FN: 0, FT: 7 SQ: 0 SC: 0  
M: 2018-05-01 01:04:55.917 Header, CSD1  
M: 2018-05-01 01:04:55.917 0000: 2A 2A 2A 2A 2A 2A 2A 2A 2A 2A



4B 47 34 53 42 47 2D 44 45 4E \*\*\*\*\*KG4SBG-DEN\*

M: 2018-05-01 01:04:55.917 Header, CSD2

M: 2018-05-01 01:04:55.917 0000: 4B 39 45 51 20 20 20 20 20 20  
57 38 4F 4A 20 20 20 20 20 20 \*K9EQ W80J \*