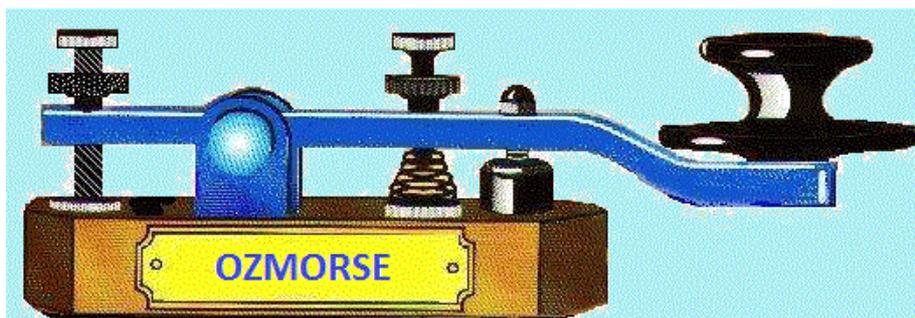


# MORSE in another way

**Connect to OZMORSE on SKYPE**



**Send / Receive CW with computer**

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HAMSPIRIT 2014

**Introduce the SKYPE-group OZMORSE**

## Introduction

Over the past 10 years I have used CWGET and CWTYPE when I start my HF station, and it can really be recommended. GWGET for CWDECODING and CWTYPE for CWTRANSMISSION, both programs developed by **Russian Sergei Podstrigailo**.

I have taught telegraphy through four winters, but still I found a need for these programs to increase my receive speed, and has managed significant, because I do not necessarily need to understand the context of what is being sent to me, but I can concentrate on writing down what my ears picks up, or better, close my eyes and just listen. If understanding is slipped, I can open my eyes, and look on the screen.

As time passes, the training of the ear increase the speed to read CW signals.

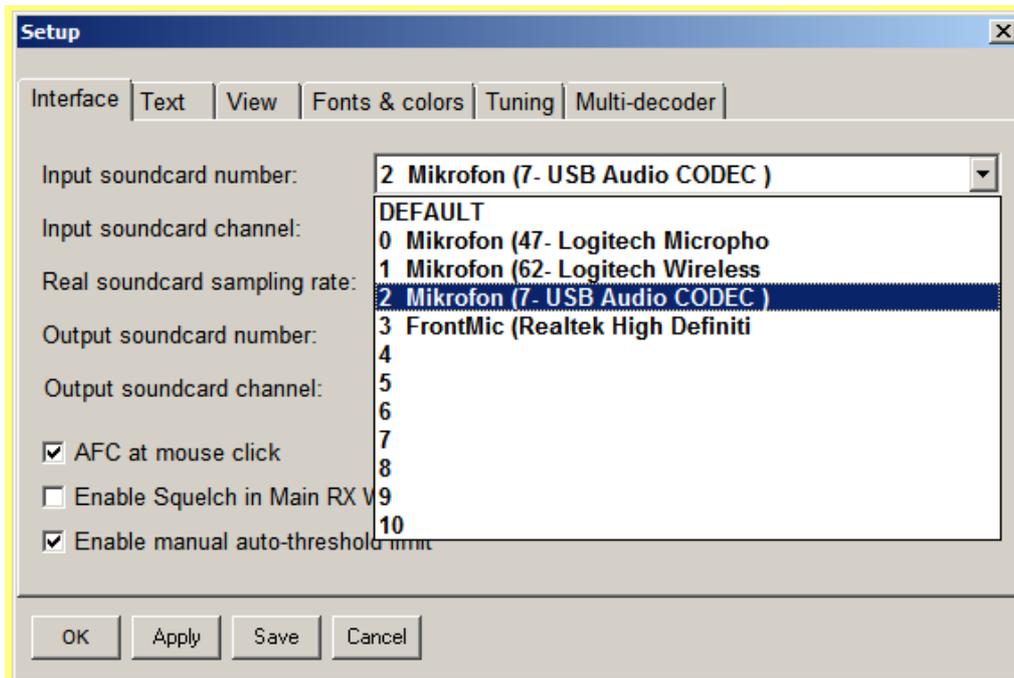
These are the ideas I'm trying to convey here.

The two programs CWGET and CWTYPE find you easily with a GOOGLE search, or **<http://www.dxsoft.com/>**.

It may seem cumbersome to setup receiving software GWGET if you have not purchased a license for 30 EURO, approximately 225 Danish kr. as it takes, to save (SAVE) its setup, but it's worth the money.

CWTYPE is license free and can be easily installed and set up, so it looks the same on the screen each time it is started up.

## CWGET SETUP is virtually seamless



It is important to understand, that in order to receive, the signals from your radio is transferred to your computer's sound card to a microphone input or with a MODEM.

This input must be configured in CWGET so the program knows where it should pick up and DECODE Morse from. Do NOT try to let the PC's microphone listen to a speaker accustic, this will impair the sound and accompanying background noise will destroy the signal to noise ratio, and will not in any way optimice performance.



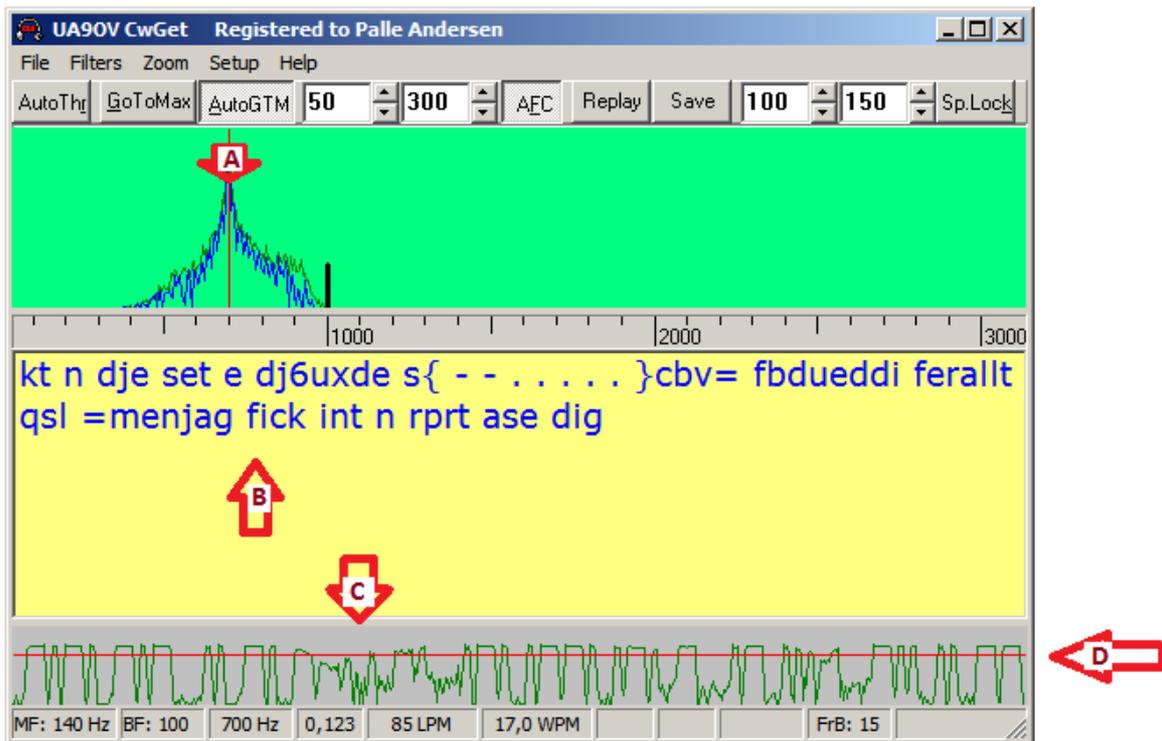
Although I use a MODEM, Signal Link USB to download CW signals into the PC, then my sound card is free use for other things, f. Exe. SKYPE, etc. But it can NOT be used in connection with the sending of CWsignals.

If you use your computer's microphone input it could be wise to insert a small 600 ohm insulation transformer, the same type used in old voice modem, to make a galvanic (DC) separation between radio and computer.

The Setup image is well stocked with options for setting up everything, and the latest version even has MULTIdecoder, which means that it can DECODE multiple CW signals simultaneously, within the receiver filter bandwidth, and putting up the PC radio operation, if it is intended to something like that, with a small additional program, which is also available on DXSOFT's website.

Also remember that a MORSE character can sometimes be quite impossible to read, even for the best ear.

Do not be disappointed if you try to read a signal sent by a HAM friend that neither have check on his letter spacing, dots or line length, or if his transmitter changing frequency and "chirper" - that even the best DECODER, as CWGET, would not read properly, so therefore there is sometimes a certain amount of guesswork involved.



There are four important points in the program you have to be aware of.

**A** is a frequency scale, showing 700 hz is the tone you listen to in the speaker, (my CW filter is 400 Hz wide), **B** is the Decoded text, **C** shows where QSB on the signal (it drops suddenly in strength ) (also note the noise that rises due to the AGC in the radio), **D** shows a red line, the amplitude of the decoder to detect and can be moved up and down with the mouse.

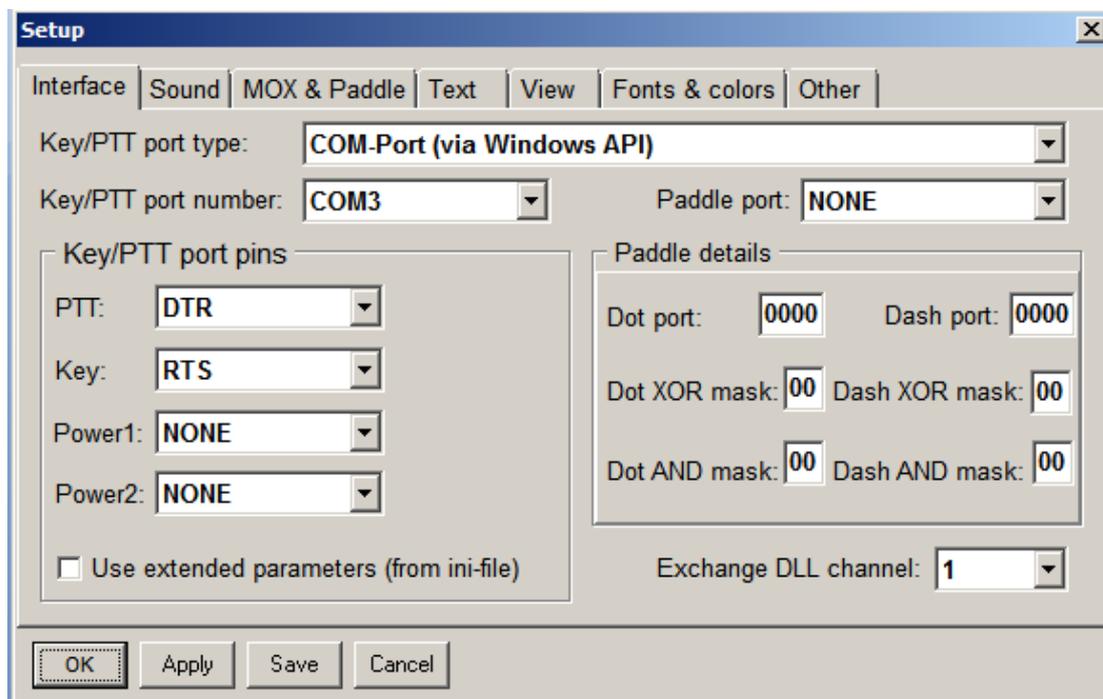
The text states that DJ6UX is in QSO with SM5CBV, but also that SM5CBV not comply with the rules for spacing between character and words.

Displays dashes and dots where signs are detected but not decoded, so the message could be read anyway.

The status bar can be seen that the programmed filter is 140 Hz, selectable - detector frequency is 700 Hz - the programmed band pass filter is 100 Hz - CW speed is 85 characters per line. my. or 17 WPM (word per. mins.).

Should setup cause you trouble then contact me at OZMORSE via SKYPE.

## CWTYPE SETUP is also trouble-free



Here MODEM not be used because the CW signal is not sent as a tone, but as a digital signal from the computer.

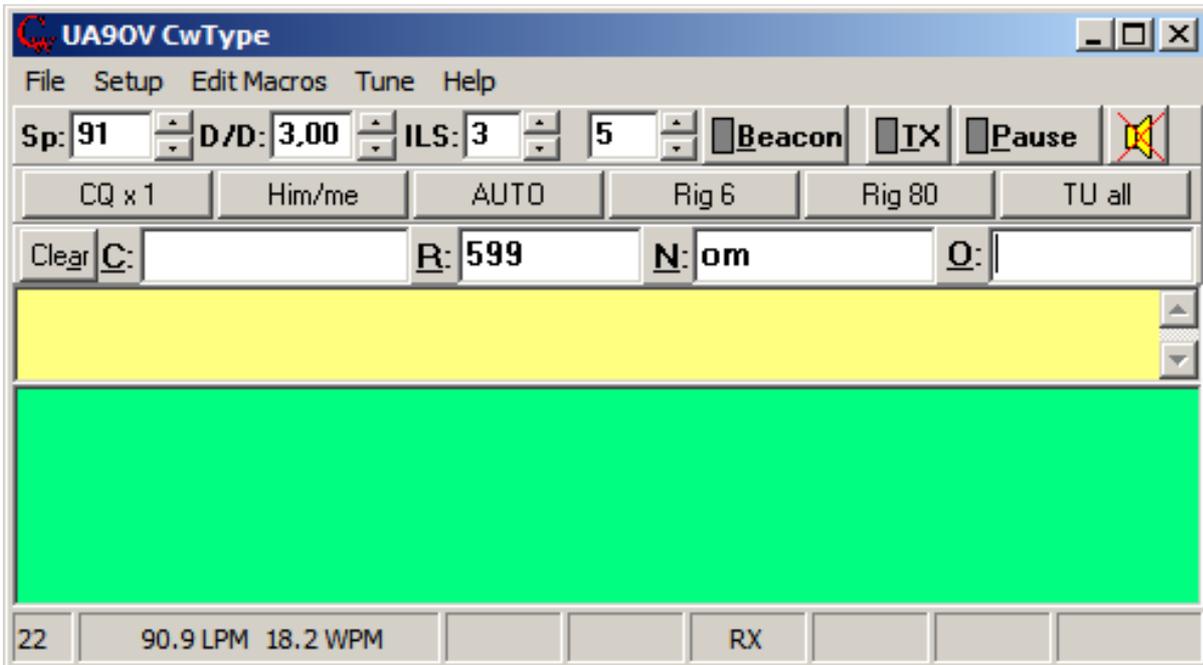
Therefore, the TX must have a COM port, called **Serial Communication port**, to key your radio.

Above shows that I use COM3, with PTT and CW configured as shown. There may be little difference in the use of port for **PTT** (push to talk) and **KEY** (the port that is used as keyer) – these, in my case are reversed relative to the application's default setup.

Most computers have a COM port, and if not, there are plenty of USB to COM port converters on the market for very little money.

Sending CW digitally means, to transfer a signal proportional to that you press a “pump” or paddlekeyer. As long as connection is established, the radio will transmit a carrier wave, and when connection is interrupted, the transmission is stopped.

You may need to define whether you use MOX or not, and with me it is enabled.



The program is provided with a number of features that addresses macros for sending standard messages, here are six defined but which can create up to 36 different macros. In addition, it is able to transferring content from CWGET to CWTYPE to predetermined fields in CWTYPE, by in GWGET, right-click on decodes text to be transferred f. Ex. **CALL**, which are then transferred to CWTYPE field **C**. Some of these fields can be defined in SETUP.

The help file for CWTYPE shows all you need to design all kinds of MACROS.

## There is a Logger to the series, AALOG

The series also contains a logger program AALOG, and all programs can work together, data can be transferred from CWTYPE to AALOG the QSO end.

**Read more on [DXSOFT.COM](http://DXSOFT.COM)**

## ARMCHAIR READING

The reason for my use of CWTYPE to send KEYBOARD-CW is that I always delivers a 100% correct CW signal, and the ability to use a typewriter keyboard on a computer, I have no problems with being able to send CW at speeds up to 200 to 250 characters per. minutes, and it's actually really fast.

The correct spacing between letters and words, every time, is praised by many fellow-hams who finds out that even though I sometimes going to send a little faster than they really normal are listen, provide the correct transmission is a much easier reading of the signals and thus better intelligibility than if only the signals sent by the SHIT FROM A PRIMING VEAL.

Too many amateurs is transmitting completely incomprehensible, and there may even the best DECODER program give up.

As training program is CWTYPE unique, with its full variable speed, the chance to listen in on computer speaker, and access for sending a message from a file.

E-mail from sister Else you just do copy into CWTYPE, and then you can sit and read the email as CW signals - it is also a way to train ...

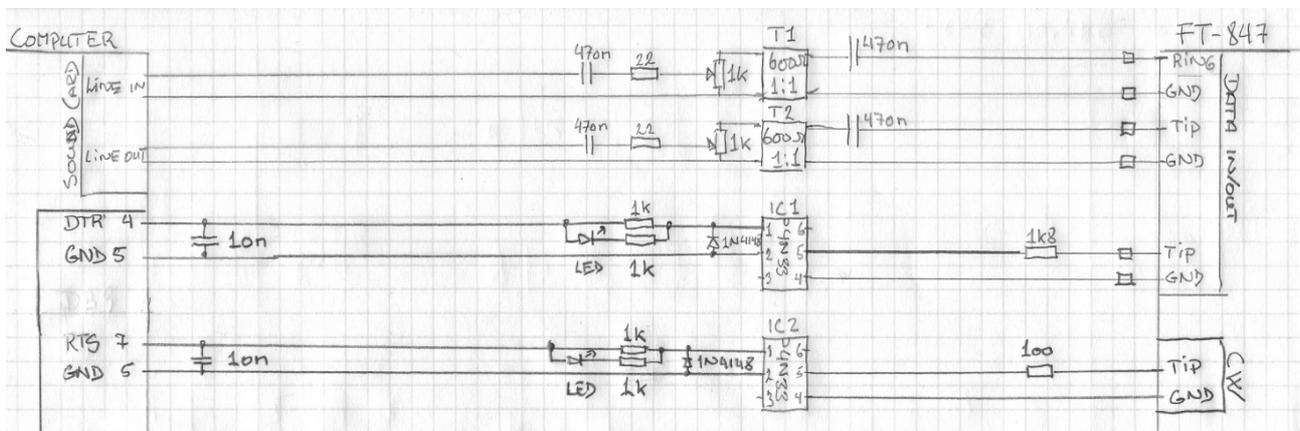
## MODEM descriptions for home builders

The help file for the program CWTYPE, has a very good diagram showing how a simple interface can be built using two transistors 2N2222 and 4 resistors and 4 diodes, and also showing the port numbers to be connected from the computer to the interface, and from the interface to the radio.

This interface requires no power supply, and work directly on the computer's digital voltage.

## OZ1PIF, Peter Frennings proposal is what I prefer

<http://www.frenning.dk/oz1pif.htm>



**OZ1PIF** is NOT CW man, but his design is including CW interface, and the interface for RTTY, PSK31, SSTV and other digital signal transfer with amateur radio, **LINE OUT, and it works !!**

The description will appear as an interface to a FT847, but can easily be changed to any other radio.

**T1** and **T2** is 600: 600 Ohm's transformers for DC separation between the computer and radio, **IC1** and **IC2** are opt couplers, also for DC separation.

My radio happens to be a FT847, so the cable connection on the right side of the diagram refers to 3.5 mm stereo jack with a **TIP** as the tip of the plug, **RING** as the center, and **GND** as ground / earth connection, and this stereo jack goes to FT847 DATA port. How it is connected in your radio, you must look up in your handbook.

**CW** is the normal 6 mm. CW jack plug.

I have been using this diagram through 4-5 years until I got access to a used SignalLink USB MODEM, which is in use today, but actually did not improve anything.

The diagram of this MODEM is simple and straightforward, and is the easiest and cheapest way to get airborne with both CW, RTTY, SSTV, PSK and JT65 ...

## What is my experience

When I retired in 2003, I had been quiet most of the 12-13 year terms to be experimental amateur radio, so I started almost from scratch, equip me with miscellaneous equipment, as well as to find out that I burned most of, and that was **to run CW with the Big Gyes.**

My CW license from the latter half of the 1970s, and at that time it was especially VHF contest that have my interests, in the Club EDR Hvidovre. OZ7HVI ended up being the head of the line, and even beat OZ5TE group, which had top spot for many years.

It was here that I first found out that if we would have a chance to win, we should have some more CW people into the contestgroup, and Henry, OZ3FD was one of the gyes that year, when we won over OZ5TE. Henry was then my teacher in CW same winter, and with CW certificate in hand the following year, it went loose, both on 2 meters and 70 cm, with CW QSO's that could reach Gothenburg, Rostock, northern Germany, with 10 watts on 2 meters, one varactor tribler to 70 cm could provide 4-5 watts, yet.

Retirement gave more time for contemplation, both technically but particularly in the use of CW and other digital forms of communication, and the late 1990s, I started looking at CWGET and CWTYPE, comparing them with other programs, but **I have not yet found a better decoder than CWGET.** The Setting, the way in which virtually everything that matters can be adjusted LIVE, appeals to me very much.

The use of the program over the years has increased my receiving speed to the doublet, and I have no more need to look at the screen if the speed is less than 125 characters per. min.

Contest QSOs I follow fine up to speed 150 on the ear, with the keyboard in use for logging.

This increase in speed may receive, without doubt, refer to the way I use CWGET.

As far as possible, I write NOT something down the second CALL NAME and other QSO data, but just listen with the ear, preferably with eyes closed.

I have in my work van was to write on the machine, so I follow when fine up to speed 200-250 characters per line. minutes, and unlike other amateurs who do NOT use the keyboard CW, I have a perfect and flawless CW every time I sit down to the Keys. Even misspelling is sent correctly.

There are those who think that I'm cheating when I use the keyboard, but who am I cheating? Neither myself or others. On the contrary, the question is usually always raised when the speed of 140 is reached, as it is at that point most people start to make mistakes, and when I still send error-free, I usually get praised for my fine CW, and then I tell, that it is because I use the keyboard.

If I am, on a rare occasion, get hold of my keyer - I got a bunch of them in all sorts of design versions - I prefer my good old ACCU-keyer with built-in memory from a time that goes back to the TTL-time.

It has four memory registers, each of which can have 1024 bits' CW, but the need to program each time it is turned on, so it's not often you turn it on. It consists of 56 units of TTL circuits, and 4 stk.RAM 2112.

I can get it in the air with a max speed of 140 characters per minute, so I may as well sometimes get a little sweat, and cramp in my hand.

Keyboard CW is NOT good for a contester. There must be speedy fingers, and I have seen the really fast CW operators run 8-10 QSOs per minute with speed 180 letters per minutes.

There, I am not. I love a good CHAT with an American or another that allows ample time to talk about himself and his life, and it is fortunately a lot of radio amateurs have to bother.

For that, the keyboard CW is just the ideal, and I believe that I have become quite adept at using 2 to 3 fingers on each hand, and can almost blind touch type, just with these.

The last 5-6 years it has been nearly 4000 logged QSOs, and of those only 3 - 5% on SSB, 1% digital without CW, and the rest is CW QSOs.

Previous winter was 10 meter band open for long periods, and it is a good CW band that goes around the globe when the band is open. That, I took very much of, and having QSO with most of the world, without, however, having figures out how many countries I've made.

If CW appealing you, but you find it hard to get started, try this described method ...

Enjoy and renditions / views on SKYPE / OZMORSE.  
OZ6YM, Low - <http://www.planker.dk>