

Some Thoughts on N1MM Function Keys

Version 1.0

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CW Function Keys

Careful thought should be given to defining the function keys used in a CW contest. Consistency in key assignments from contest-to-contest is important to help train the muscle memory so you can hit the right function key without having to look for it on the screen. There is a more or less “standard” layout that is defined in the N1MM configuration so that the Enter Sends Message (ESM) mode picks the right function key at the right time. Figure 1 shows the Function Keys screen and the standard layout. You may choose another layout, for example to use F3 for the CQ key, and if you do you should change these definitions.

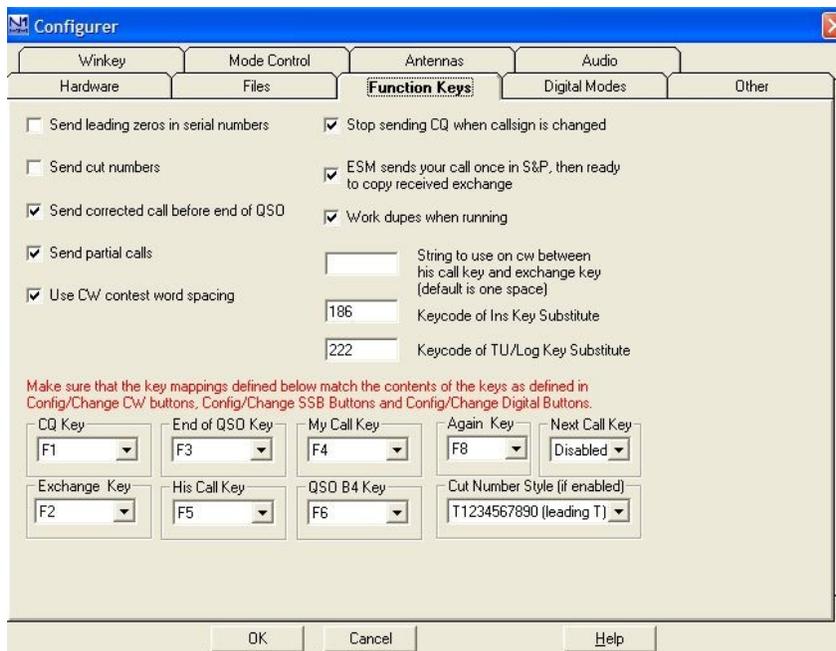


Figure 1. Function key configuration.

Two other things to consider are the optimization of the information content of the message and its transmission length. Consider the End of QSO Key, F3. Many operators send something like “TNX DE KE7X¹ TEST” to say “Thank you for the QSO, I’ve copied your information, my call is KE7X, now I’m ready for the next caller, and I am operating in a contest”. Information theory tells us the information content of a code is inversely proportional to its probability. In this message TEST has virtually no information. Everybody knows you are in a contest. DE KE7X has some information content but if there is a pileup waiting for you to complete a QSO, most in the pileup will know your call all ready, so the information content of that is low. (You do want send your call at least every couple of QSOs when there is a pileup and every time when you know there isn’t a pileup waiting.) DE is not needed either.

¹ KE7X wouldn’t do this!

How about TNX? TU has the same information content and is a lot shorter (7 baud instead of 15). I'll give some more thoughts for the F3 message below.

Function key definitions are kept in a *.mc file in the N1MM program directory. A default or customized message file can be loaded with the contest by defining the file to be used in the *File -> Open Log in Database -> Associated Files* tab (Figure 2). The default function key definitions are shown in Figure 3.

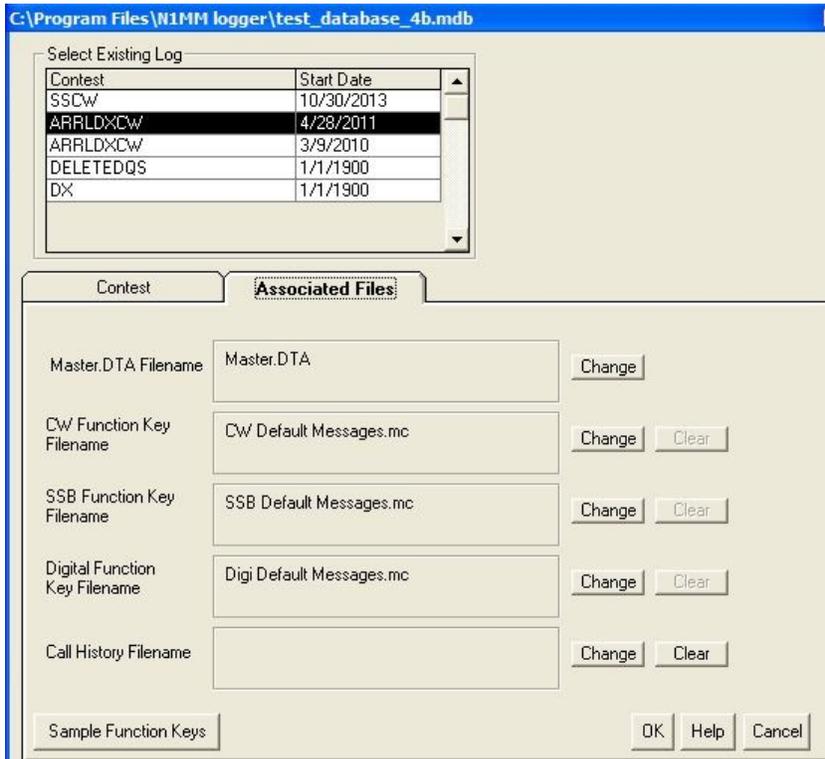


Figure 2. A file can be opened to load default or custom function keys.

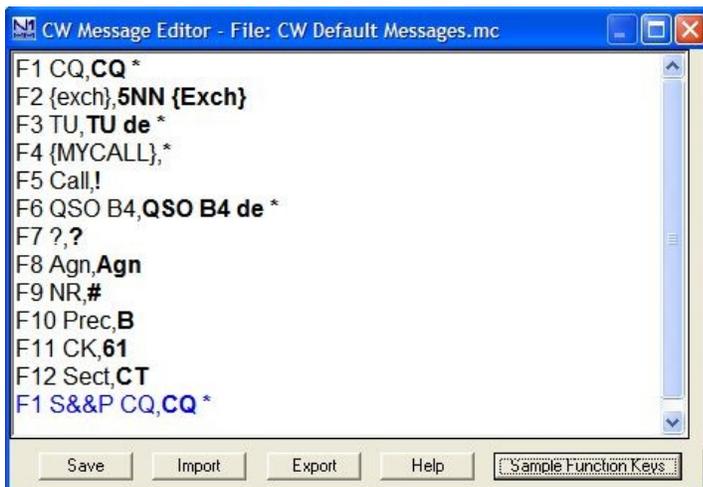


Figure 3. Default CW function keys.

Function keys can be edited (ALT-K, right-clicking on a Fkey button, or in the Configurer) (Figure 4) and if you *Export* them to a *.mc file they can be assigned to the log as the CW Function Key Filename and loaded when the program is started.

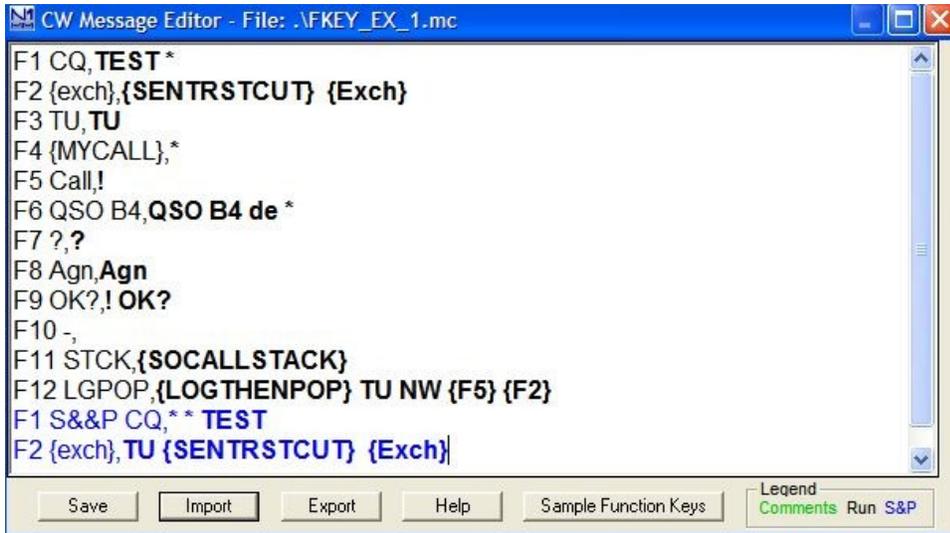


Figure 4. Edited function keys.

Often in a multi-op station preferred function key definitions are a little different for each operator. Multiple *.mc files can be made and imported to change the function key assignments when each operator starts a shift.

Function Key Editor

The editing function is a notepad-like screen, but when it saves files and where they are saved is a little obtuse (and maybe has a bug in how it exports to a new file). Here is how I see it working:

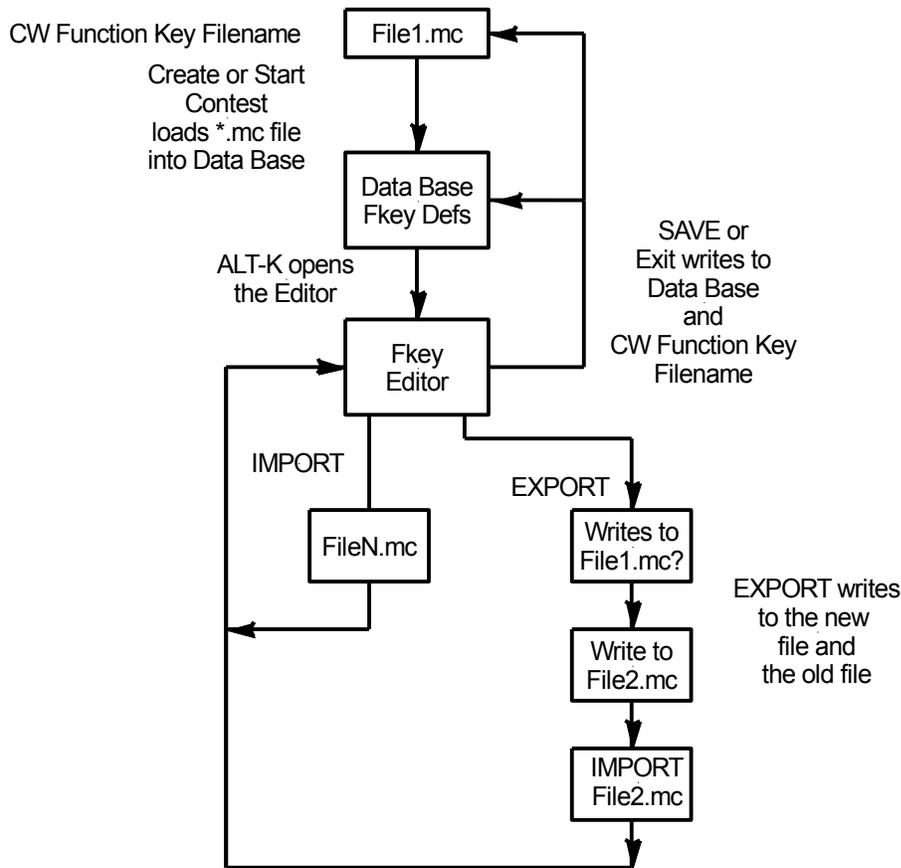


Figure 5. Function key editor.

When you create the contest the CW Function Key Filename is opened and placed into the database. When you edit the Fkeys, you are editing the definitions in the database.

- When you *SAVE* or *Exit*, the changed Fkey definitions are saved to the Data Base and to the CW Function Key Filename (shown on the title bar of the editor).
- When you *EXPORT*, the editor saves changes to both the new file AND to the old file (I think that is a bug).

Here is a procedure to create different function key definition files for different operators:

- Type ALT-K to enter the Function Key Editor.
- BEFORE making any changes, *EXPORT* to a new filename.
- Now *IMPORT* the new filename.
- Make your changes.
- *SAVE* the changes to the data base and to the file.

Once you have each operator's function key file set up, when the operator comes on shift:

- Type ALT-K.
- Click *Import*.

- Double click the new function key file name.
- Click **Yes** to change the CW associated messages.
- Click **Save** to change the Fkey definitions in the data base.

The format for each Fkey is the [Fkey] [Text for the Data Entry Window],[Text to be sent].

The first 12 function keys, F1 – F12, apply when running and any F1 – F12 definitions after that are for S&P.

The function key examples in Figure 3 and Figure 4 contain macros ({...}, *, !) that I'll define for the function keys I recommend below.

If function keys are edited after an import, when you save them to the data base the file will be updated as well.

Note that in multi-transmitter operations, each operator's function keys will have to be defined for each computer.

Macros

There are a ton of macros. The examples below are just a few. Have a look at the *N1MM Digging Deeper* documentation to learn more.

Function Key Recommendations

I think F1 – F5 should be same function for all contests (and operators) to enhance the muscle memory.

F1 – CQ Message:

F1 CQ, * TEST or

F1 CQ, ** TEST or

F1 CQ, TEST * * TEST

I don't know of any big gun ops that actually send CQ. TEST is faster (10 baud versus 18). It contains the same information (by convention), and the skimmers pick up TEST as well as CQ. I go back and forth among the choices above, even during the contest. If calling CQ and the stations are coming back slowly a longer "CQ" can be effective to give the S&Pers more time to find you as they are tuning. Note you can chain function keys together and get a longer "CQ" by doing F4 F4 then F1 (or F4 F4 enter). In general I like sending my call twice with TEST at the end.

The macro * means your call as entered in the *Config -> Change your Station Data*.

F2 – Report:

F2 {EXCH}, <<<<<{SENTRSTCUT}>>>>> {EXCH} (for running)

F2 {EXCH}, TU <<<<<{SENTRSTCUT}>>>>> {EXCH} (for S&P)

{EXCH} is a macro that pulls the contest exchange from the *Sent Exchange* file when you open the contest in the database. It is different for each contest – section, age, power, etc. – so using the {exch} macro lets you use the same Fkeys definition for different contests.

{SENTRSTCUT} is a macro that sends the RST from the data entry window. This allows you to put in some other signal report if you wish (but who does?). The CUT means that 9 will be sent as N. So if the Snt signal report is 579, 57N will be sent. 599 is 5NN.

< is a macro that increases CW speed 2 WPM and > decreases it. Note that it is not wise to use speed changes in the CQ message because that messes up the skimmer's decoding.

I use a different report (adding TU) for S&P than for running.

F3 – End of QSO:

F3 TU, TU or

F3 TU, TU *

As mentioned above, there are variations between operators for the End of QSO message. I like just TU that will be sent without my call if there are stations waiting in the pileup. If I want to add my call, I can use Enter F4, to send TU KE7X.

You can also truncate the second form, TU *, after the TU after the TU is sent and before you call by hitting <ESC> to stop sending.

It seems these days that more operators are just using E E (dit dit) or even E (dit) as the End of QSO message. I think that is a bit extreme.

F4 – My Call

F4 {MYCALL}, *

{MYCALL} is a macro that pulls the call from the *Config -> Change your Station Data* screen and * is the macro that sends it.

F5 – His Call

F5 Call,!

! is the macro that pulls his call from the Data Entry Window.

Function keys F6 – F12 are somewhat an operator's choice.

F6

The "standard" is the QSO B4 message. I have never used that although for sweepstakes I'm beginning to think I should. What I have been doing is if I detect a Dupe before send the call/report I just hit F1 to send CQ in their face (eh, eh). Usually they get the message after a while.

In CQWW I started using this:

F6 OK?, ! OK?

If I'm not sure of a call, sending ? usually causes them to send the report again. Their Call then OK? works pretty well to get them to just confirm the call. Worth it to cut down on busted call penalties.

F7 ?

F7 ?,?

I like the ? message here at F7 because of my muscle memory.

F8 Again

F8 AGN, AGN

This is a pretty standard place for the again message. I don't think you need to send ? after AGN. Send F7 (?) or F8 (AGN) to get them to repeat the report. Or if you want to send AGN?, hit F8 followed by F7.

F9, F10, F11, F12 – Customizable

You can use these for most anything. A strategy for sweepstakes for the running Fkeys is the following:

F9 – Send number

F9 NR,NR >>#<<

The # is a macro that sends the current number or the last logged number.

F10 – Send Precedence

F10 PR,PR A

F11 – Send Check

F11 CK,CK 59

F12 – Send Section

F12 SEC, MT

The S&P keys would do the same except ask for the information again:

F9 NR?,NR?

F10 PR?,PR?

F11 CK?,CK?

F12,SEC?, SEC?

Other F Keys

I have been experimenting with stacking call signs when I am able to copy two call signs. The idea is to copy a call sign, stack it, and then copy another into the data entry window. Then work the second station and then unstack the first and work it (assuming it stays around while you work the other).

F11 – Stack a Call

F11 STCK,{SOCALLSTACK}

{SOCALLSTACK} takes the call in the Callsign Text Box and moves it up into the Call Frame. After doing this the next call typed is entered in the Callsign Text Box and the QSO is completed. Instead of Enter to log and send the End of QSO message, hit F12.

F12 – Log Then Pop

F12 LGPOP,{LOGTHENPOP} TU {F5} {F2}

{LOGTHENPOP} logs the completed contact, sends TU, and then pops the stacked call off the Call Frame, sends the new call {F5} and the report {F2}.