

# N1MM Logger+ – Sending QTCs in WAE CW

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The Worked All Europe (WAE) CW contest has a special feature where additional points may be earned by reporting previous QSOs to EU stations. Each message (“QTC”) consists of the QSO time, the EU call sign, and the serial number you received. One QTC adds one point to your total points. Those points multiplied by the appropriate multipliers for your final score. You may send a maximum of 10 QTCs to each EU station you work.

This document explains how to send QTCs in N1MM+ while operating the WAE CW contest. While reading, **Ctrl+click** on a blue underlined link (e.g., [Figure 2](#)) to jump there immediately.

## How it works

After you complete the required two-way exchange (RST + serial number), the EU station might send **QTC?** to ask if you have any QTCs to send. The N1MM main window shows in red how many QTCs you’ve already sent to this station, and how many you have left to exchange ([Figure 1: QTCs: 0 sent/6 left to exch](#)). This red text also shows how many total QTCs you have left to send to other EU stations (**6 total QTCs avail**).

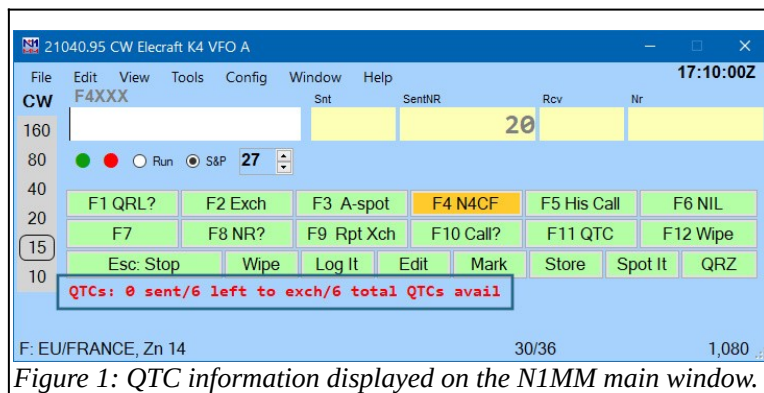


Figure 1: QTC information displayed on the N1MM main window.

If you have no QTCs for this station, or if you simply don’t want to send any at the moment, reply **NIL** or **NO**, and move on. Some operators send **SRI** (sorry). Notice in [Figure 1](#) the F6 function key is programmed to send **NIL**.

## Sending QTCs, step-by-step

If you do have QTCs for this station, do this:

- ◆ Press **Ctrl+Z**. This opens the QTC window plus a dialog window over it asking how many you want to send.

- ◆ Press **Enter** to accept the default and close the dialog and go to the QTC window ([Figure 2](#)) already open under it. N1MM transmits the QTC header. In this example, **QTC 5/5** indicates this is QTC group 5 with five QTCs in that group. Those QTCs are listed in the first five lines below the header.

Each line represents one QTC, and contains QSO data from your log: Time, call sign, and the serial number you received. Next to each line is a **Snd x** button you can click to send that QTC.

Green QTC lines have been sent. The single green **Snd x** button will send that QTC if you click it, or if you press **Enter**.

- If, for any reason, the QTC header was not sent, click the **Snd Hdr** button to send it.
- ◆ The EU station responds with **R** or **QRV** to indicate he is ready to receive QTCs. If he does not respond, click the **R U QRV** button to ask him.
  - If he missed the header, click the **Snd Hdr** button to send it again.
- ◆ After sending the header, the **SND 1** button is colored green, showing that is the first QTC to be send.
- ◆ Click the green button or just press **Enter** to send it. N1MM sends the time, call sign, and serial number, and the next button turns green. Wait for the EU station to send **R** to confirm receipt. Repeat this step for each sequential green button.
- ◆ The EU station will QSL all the QTCs. Press **Enter** one more time to send your brief exit message, usually **TU** or **73** (see [page 3](#) to set this).

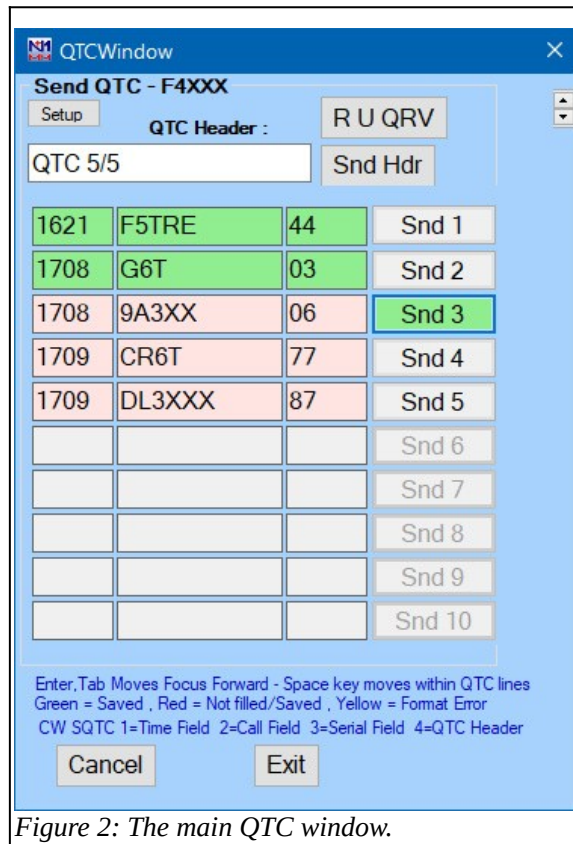


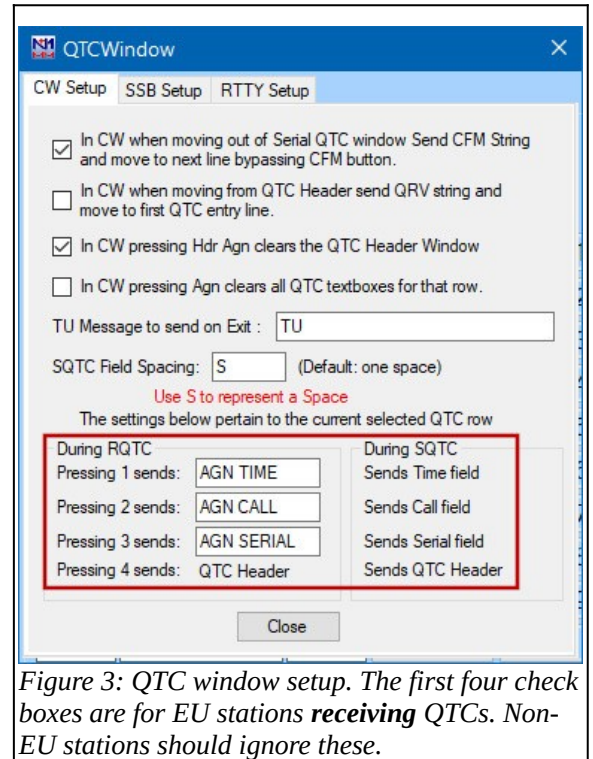
Figure 2: The main QTC window.

## Configuring N1MM+ for CW QTCs

After creating a new log for WAE in N1MM+, use the menu to navigate to **Config/WAE/Open QTC window setup area** (Figure 3). This menu item appears only while WAE is the active log. The term **SQTC** means **Send QTC**, which is what non-EU stations do.

These are the key items to set:

- ◆ Non-EU stations ignore the four check-boxes.
- ◆ **TU Message to send on Exit:** N1MM sends this when you press Enter after the EU station QSLs all your QTCs. Typically it's **TU** or **73**.
- ◆ **SQTC Field Spacing:** Enter an **S** for each space you want to send between the three QTC fields. One space is usually enough.
- ◆ Most of the settings outlined in red are for EU stations receiving QTCs. They specify which numerical key to press to request a repeat. But notice the **During SQTC** list on the right – that's for us. They're information only, not settings. Each line shows what happens if you press the numerical key on that line. So, to send the serial number again, press **3**.
- ◆ Click the **Close** button to close this window and save any changes you made.



## Using the numerical keypad to send QTCs

After you press **Ctrl+Z** to initiate the send-QTC process, as described above, you can do everything else using the numerical keypad. First, press **Num Lock** to put the keypad in the numerical mode vs. cursor keys.

Now press these keys as needed:

- ◆ **Enter** to send the next QTC, as described above for the normal **Enter** key.
- ◆ **1** to re-send the time field of the just-sent QTC.
- ◆ **2** to re-send the call sign field of the just-sent QTC.
- ◆ **3** to re-send the serial number field of the just-sent QTC.
- ◆ **4** to re-send the header. This is extremely rare, but sometimes the EU station misses it.
- ◆ **+** to repeat the entire QTC just sent. It is rare for an EU station to miss the entire QTC. Notice in [Figure 3](#) there is no key for the EU station to send **ALL AGN**, so he has to send that manually. The **+** key is available to you if he asks.

You can place the four fingers of your right hand over the **1,2,3**, and **Enter** keys, and do almost everything right there. If the EU station requests a complete repeat, move a finger up to tap the **+** key.

## Strategy

Here are a few tips to help you use QTCs to double your WAE score.

- ◆ Forget about your overall rate (QSOs per hour). Instead, focus on your **score**. Each QTC counts for one point – the same as a normal QSO. Multipliers apply to those QTC points the same as to QSOs.
- ◆ You can send up to **10 QTCs** in a couple of minutes, equivalent to a rate of **300/hour**. Think about how to divide time between QTCs and QSOs . If you're making QSOs one after another, QTCs can wait. But if QSOs are slow, it makes sense to spend time finding stations taking QTCs.
- ◆ Be proactive. Not all EU stations ask **QTC?** after an exchange so it's okay to tell the op you have some by sending **QTC** immediately following your exchange. Be prepared to press **Ctrl+Z** to begin if he sends **R** or **QRV**.
- ◆ Memorize the keypad keys listed on page [3](#) so you can instantly respond to requests for repeats.
- ◆ Be ready to reduce your CW speed. EU operators' ability to copy QTCs at high speed is legendary, but sometimes band conditions or QRM make that difficult. This might be the case if the EU op asks for multiple repeats, so reduce your speed slightly.
- ◆ When operating search-and-pounce (S&P), open the Telnet window and connect to a cluster to populate the band map with spots. The call signs are color-coded:
  - Gray – Non-EU station or a dupe and you already have sent **10 QTCs** to him. Not an eligible contact.
  - Black – Dupe, but you still have QTCs you can send to him.
  - Red – New multiplier.
  - Blue – New contact, but you have no QTCs to send.
  - Green – New contact, and you have QTCs you can send.
- ◆ Pay attention to the band map colors. In most contests, black means a dupe, so you'd skip those. But in WAE, black still means a dupe, but you can send him QTCs, so *don't* skip him.
  - Notice in [Figure 1](#) my S&P F11 key is programmed to send **QTC**, While sending my call to a known dupe (black), I press F11, so the EU station hears **N4CF QTC**, and knows not to send **DUPE**. Ideally, he'll come back with **R** or **QRV**, or starting calling CQ again if he doesn't want QTCs.
  - Expert testers often work dupes because it's faster than telling the guy he's a dupe. Knowing this, For speed, sometimes I call a known-dupe *without* pressing F11; I just send **N4CF**. If he comes back and sends his report, I press F11 after sending mine. So he hears

**TU 5NN 123 QTC.** As a dupe, the QSO is logged with zero points, but I still get points for all QTCs he takes,

- ◆ When running (calling CQ) let your rate guide how often you send QTCs. If your CQs are getting instant replies or there's a pileup, some of those ops might leave, rather than hang around while you send QTCs. On the other hand, if you're sending several CQs between QSOs, you might as well break often to send QTCs.
- ◆ When you enter a call sign into the main window, look carefully at the QTC status report that appears ([Figure 1](#)).
  - You can see how many QTCs you've already sent to this station, and how many you can still send to him.
  - If you have few QTCs for this station, consider whether it's worth his and your time to send them. He might not be happy to suspend his CQ run to receive just one or two QTCs when he was hoping for more.
  - Every time the QTC status appears, check the *total number* you have left to send. They can build up quickly if you're making lots of QSOs.
- ◆ Toward the end of the contest, for highest score, try to send all remaining QTCs, even if it means calling dupes and asking them to take the QTCs. Ideally, your sent-QTC count will equal your QSO count at the end.
- ◆ **Don't let QTCs pile up!** If you have a bunch close to the end of the contest, you might have trouble finding stations to take them. This could be because there are fewer stations on the air and/or you've already sent the 10 maximum to everyone you hear.