

The MMTTY Plug-in for WriteLog

Page 1 - Installing MMTTY & the MMTTY Plug-in

If you are new to RTTY, I recommend you first print & read a copy of the "Getting Started on RTTY" tutorial located on the [AA5AU RTTY Page](#). There are detailed instructions there on downloading & installing the MMTTY program which is required in order to use MMTTY with WriteLog. Another excellent source of information is the "WriteLog RTTY Starter" located here on [rttycontesting.com](#).

MMTTY and the MMTTY Plug-in for WriteLog are two separate items. MMTTY is a program which transmits & receives RTTY. The MMTTY Plug-in for WriteLog, written by Jorgen SM6SRW, is a driver which allows MMTTY to be used with WriteLog.

Installing MMTTY

The first step in running MMTTY with WriteLog is to install the MMTTY program written by Mako, JE3HHT. It is strongly recommended that you install the entire full MMTTY program in its default directory C:\Program Files\MMTTY\. Failure to install the full MMTTY package could result in problems running the MMTTY plug-in for WriteLog.

To obtain the latest version of MMTTY, go to <http://mmhamsoft.ham-radio.ch/mmtty/>. The file you need looks like this on the page (please note that when this tutorial was last updated, the latest version of MMTTY was 1.65D. It's possible there could be later version showing on the Downloads section of the MMTTY website.

Downloads

WEBMASTERS: PLEASE LINK TO THIS SITE AND NOT DIRECTLY TO FILES

NEW MMTTY V1.65D NEW

January 25, 2005

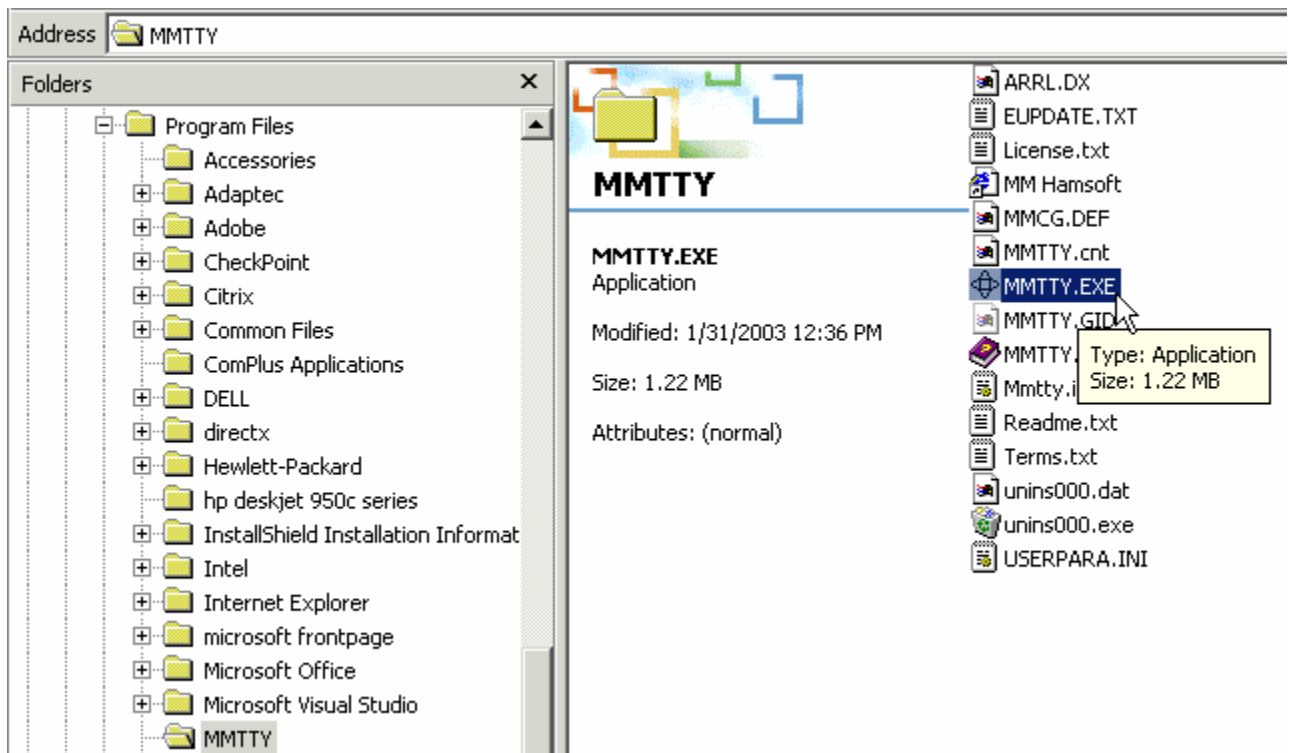
[What's New in Ver. 1.65D](#)

[Inno Installer Info](#)

[MMTTY165D.ZIP](#)
(Full Version - 2.5mb)

The file MMTTY165D.zip is a zipped file which contains the installation file MMTTY165D.exe. MMTTY165D.exe is the file that needs to be "run" in order to install MMTTY. For detailed instructions on downloading and installing MMTTY, click [here](#).

Follow the instructions in the Setup program. It is recommended the program be installed to the default location C:\Program Files\MMTTY\. Once you have finished installing MMTTY, the MMTTY folder will look like this as seen in Windows Explorer and MMTTY.EXE is the actual MMTTY program (MMTTY.EXE is also referred to as the MMTTY Engine).



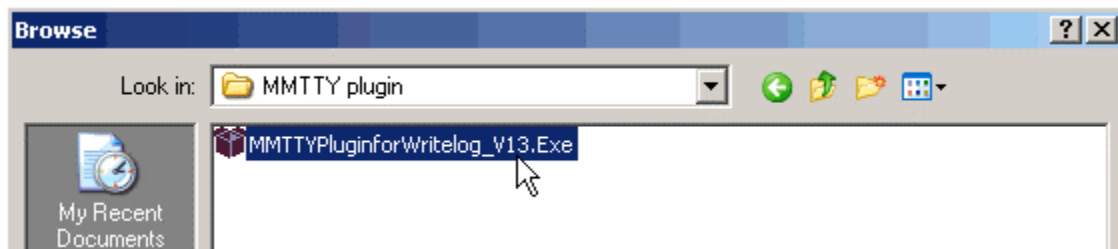
This completes the installation of the MMTTY program. Although not absolutely necessary, it is recommended that you learn the MMTTY program before using it with WriteLog. It comes with an excellent help file. There is also an MMTTY reflector where you can obtain answers to your questions. Be sure you can transmit and receive using MMTTY before you attempt to use it with WriteLog. The next step is to install the MMTTY Plug-in for WriteLog which will allow you to use the fine features of MMTTY within WriteLog.

Installing the MMTTY Plug-in for WriteLog

Once you have the MMTTY program installed and running on your PC, you are ready to install the MMTTY plug-in for WriteLog. Download the MMTTY Plug-in for WriteLog from the [Third Party Download page](#) on the WriteLog for Windows web site to your hard drive.

Description	Size
<p><u>MMTTYPluginforWritelog_V13.Exe</u></p> <p>This is a self-installing plug-in for WriteLog that adds MMTTY support to WriteLog. WriteLog version 10.27 or newer is required. You will also need to install MMTTY, which is available at http://www.qsl.net/mmhamsoft/mmtty/index.html.</p> <p>010824: Release 1.2 Added profile panel for Quick profile selection Added new profile panel preferences for NET and AFC in CQ and S&P mode to the TNC-settings dialog More fixes on focus</p>	1.1 MB

Run the plug-in setup program MMTTYPluginforWritelog_V13.Exe. (NOTE: If you have recently installed WriteLog or an upgrade to WriteLog or any other program, be sure to reboot your PC before installing the MMTTY Plug-in for WriteLog. Likewise, it's a good idea to restart your PC after installing the plug-in.)



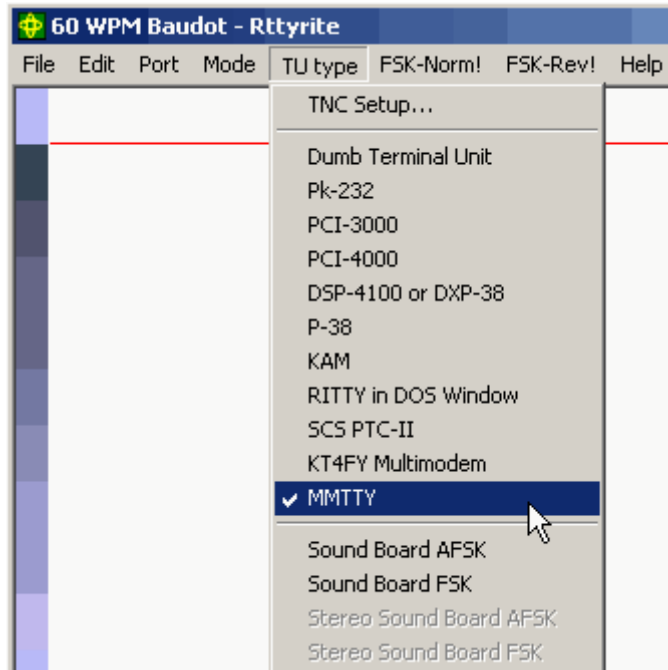
Follow the installation instructions until the installation is completed. If you have any problems during the installation procedure, refer to the MMTTY Plug-in for WriteLog Troubleshooting Page (Page 7).

Page 2 - Starting MMTTY

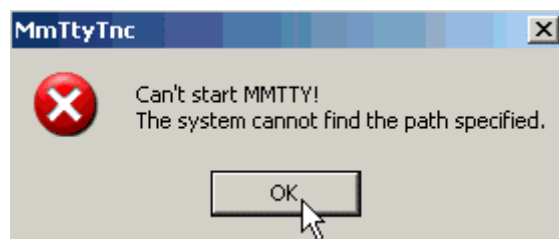
Starting MMTTY in WriteLog for the First Time

Start WriteLog the normal way. Choose a RTTY contest module such as "CQ World Wide RTTY Contest" and activate a Rttyrite window if there is not one already showing. A Rttyrite window is activated by going to the Window pull-

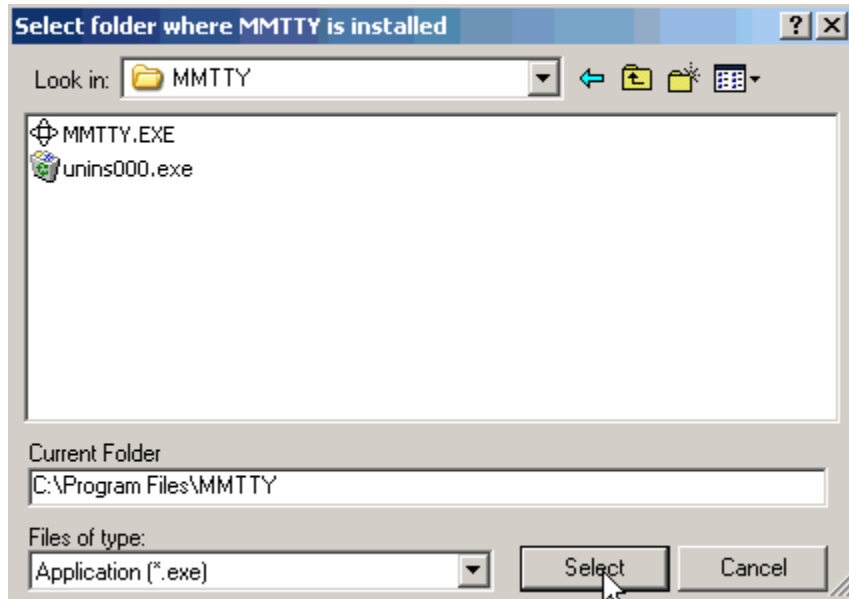
down menu on the main WriteLog screen and choosing RTTY Window. A Rttyrite window will appear. Resize it so that it does not overlap the main WriteLog screen. In the Rttyrite window activate MMTTY by going to the TU type pull-down menu and choosing MMTTY.



The first time you activate MMTTY within the WriteLog Rttyrite screen, you will receive an error message. This is normal.

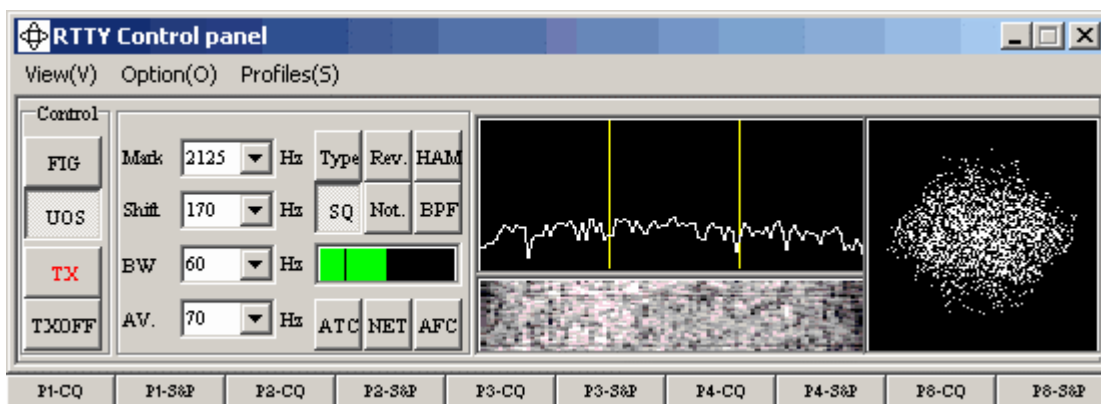


The reason for this error message is because WriteLog does not know the path to MMTTY on your hard drive. If you click the OK button, a browse window will appear where you need to navigate to the folder where the full MMTTY program and MMTTY engine MMTTY.EXE is located. If MMTTY was installed in its default location C:\Program Files\MMTTY\, then navigate to that location on your hard drive. Once you have the MMTTY folder open showing the location of MMTTY.EXE, click the Select button.



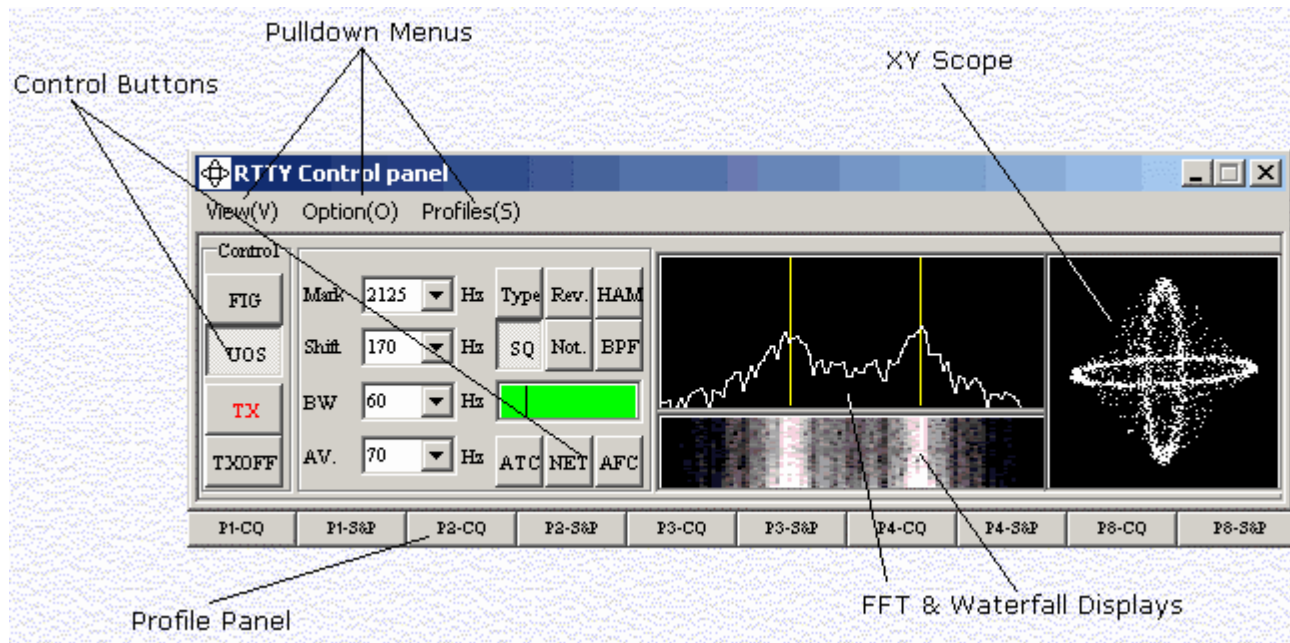
If you to get a Rttyrite9 error message, don't worry. Just click OK on the error message and restart the RTTY Window again from the main WriteLog screen. I've received this error message before, but each time it's worked on the next try. Remember, the plug-in comes in beta form. If you encounter other errors that you cannot resolve, check the Troubleshooting Guide on Page 7.

An MMTTY RTTY Control Panel will appear. It should look something like the screen shot below. If it looks different, that's OK. You can change the way the RTTY Control Panel is viewed and the first time it appears, it may not come up exactly as shown here. Move the RTTY Control Panel so it does not overlap either the Rttyrite window or main WriteLog window by dragging it with the mouse.



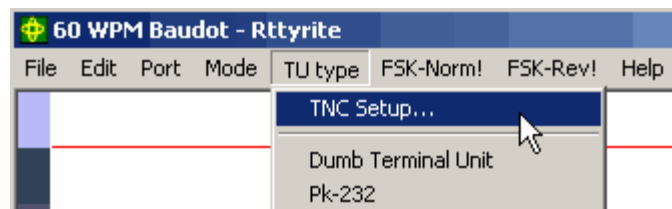
The RTTY Control Panel

The RTTY control panel is divided into five areas - pulldown menus, control button area, profile panel, XY scope, and FFT & waterfall displays.

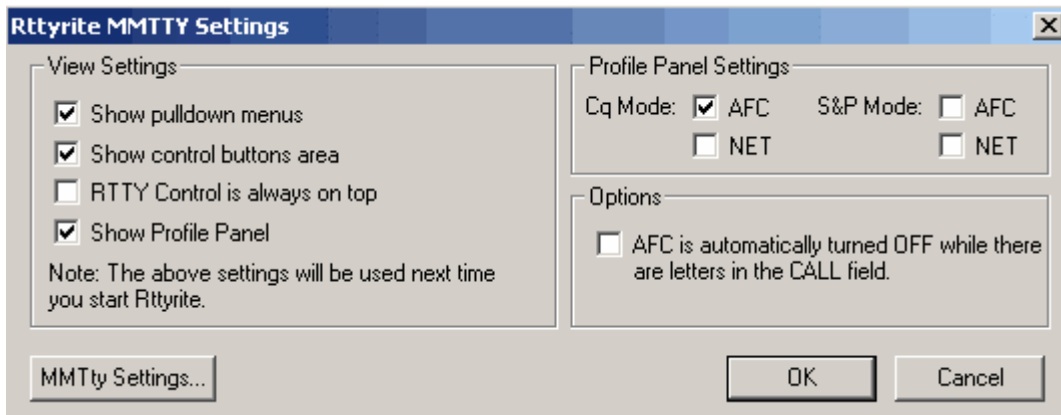


The RTTY Control Panel above shows all available viewable options. However, you can make radical changes to how the control panel is viewed. If you are familiar with MMTTY, you already know the XY Scope can be made large, as shown above, or smaller. This option is changed in the View(V) pulldown menu on the RTTY Control Panel itself. You also have the option to turn the XY Scope off if you choose. You can also remove all other viewable areas except the FFT & waterfall displays.

If the control panel does not appear as shown or you want to make changes, go to the TU type pulldown menu in the Rttyrite window and select the first option - TNC Setup.



When you select TNC Setup in the Rttyrite window, the Rttyrite MMTTY Settings screen will appear. This is a very important screen with some valuable options.



In the upper left hand corner are the View Settings. These settings control which parts of the control panel are viewed as previously discussed. Below View Settings is a button that takes you to the MMTTY Settings screen (discussed on Page 4). In the upper right hand corner are the Profile Panel Settings. The Profile Panel Settings are only available if you have Show Profile Panel enabled in View Setting. Below the Profile Panel Settings is an Options checkbox that allows you to enable a feature that turns AFC automatically off when there are letters in the Call field of the WriteLog entry window.

The "RTTY Control is always on top" checkbox in View Settings enables the control panel to always be the top window if for some reason it overlaps another window. However, this option behaves differently depending on which Windows operating system is being used.

The Profile Panel

The Profile Panel is unique to the MMTTY Plug-in for WriteLog. It is used to change profiles on-the-fly. The Profile Panel is located at the bottom of the RTTY Control Panel and consists of ten buttons labeled P1-CQ, P1-S&P, P2-CQ, P2-S&P, P3-CQ, P3-S&P, P4-CQ, P4-S&P, P8-CQ, and P8-S&P. CQ buttons are used when calling CQ and running a frequency. S&P buttons are used when in the search & pounce mode of operation.



P1, P2, P3, P4 and P8 stand for profile #1, profile #2, profile #3, etc. The reason they are numbered 1, 2, 3, 4 and 8 are because those are the profiles that come standard with MMTTY. Profiles are best described in the MMTTY help files. A profile is simply a set of parameters which have been defined to receive RTTY signals with different characteristics. For example, profile #1 is for standard RTTY signals. This profile will be used nearly all the time. Profile #2 is for fluttered signals. Profile #3 is for fluttered signals using an FIR (Finite Impulse Response) filter. Profile #4 is for multi-path signals. Profile #8 is for

23hz RTTY (23hz RTTY is a narrow band mode and rarely seen on the Amateur bands).

MMTTY allows users to change parameters and define profiles as needed. However, the profiles P1 through P4 are adequate for RTTY contesting. Profile P8 for 23hz RTTY is not needed and can be removed if desired. Profiles are defined, added & deleted from the Profiles(S) pulldown menu of the RTTY Control Panel.

The behaviors of the CQ and S&P buttons for each profile are defined in the Rttyrite MMTTY Settings screen under Profile Panel Settings. Before further discussion on this subject, be aware of three no-no's on RTTY - never use NET when CQ'ing, never use AFC when S&P and never activate NET and AFC at the same time. NET is only available when transmitting RTTY with AFSK. NET allows the transmit audio RTTY tones from the sound card to change to match the frequency of the received tones. AFC (automatic frequency control) is available regardless of how you are transmitting. AFC is used while receiving. When activated, AFC allows MMTTY to "track" onto a signal. Therefore if a signal is slightly off frequency, MMTTY will adjust its receive frequency in order to match the RTTY tones being received.

As nice as the Profile Panel seems, it's not that great of a feature. The main problem with using the Profile Panel is that nowhere does it show which profile is being used at any given time. If you set the CQ mode to activate AFC in the Profile Panel Settings, you can tell whether or not you are in the CQ mode by looking at the AFC button on the RTTY Control Panel. If the AFC button is pushed in, then you know you are in a CQ mode. Also, the Profile Panel operation is sluggish. When a profile button is activated, it takes a couple of seconds for the profile to change. And if a button is selected while transmitting, the RTTY Control Panel has been known to lock up.

Since most RTTY contest QSO's are made with the Standard profile active, it makes better sense to use the AFC and HAM buttons on the RTTY Control Panel instead of the Profile Panel. Pressing and depressing the AFC and HAM buttons on-the-fly does not show the same undesired characteristics of the Profile Panel. The AFC and HAM buttons react immediately and can be changed while transmitting with no harmful effects. With that said, it may be wise not to use the Profile Panel when first starting to use and learn the MMTTY Plug-in for WriteLog.

The Options Checkbox

The Options checkbox in the Rttyrite MMTTY Settings screen allows the opportunity to turn AFC off when there are letters in the CALL field of WriteLog's entry window. This can be useful at times but not recommended. To show how it is used, take for example, station A is CQ'ing and is answered by

station B who is transmitting off frequency. If station A has AFC turned on and has the Options checkbox checked, as soon as station A captures the station B callsign (or partial callsign) in the entry window, AFC will automatically be turned off. When this happens, MMTTY will stay locked on the same frequency it initially "tracked" onto during the entire QSO until the contact is logged. This way, MMTTY does not have to "track" back to the signal when it's time to receive station B's report. Once the contact is logged, MMTTY returns the receive Mark frequency to 2175 hz.

Although this appears to be a nice feature, it's not needed. MMTTY is fast enough to track onto nearly any signal within the passband quickly enough not to lose copy on exchanges. Also, one disadvantage to have this feature active would be in the station answering the CQ would come back on a frequency different from the one he was on when he made the initial call. If this happens, copy would be lost because MMTTY would be "stuck" on the original transmit frequency of the calling station.

Page 4 - MMTTY Settings

MMTTY Settings

The MMTTY Settings button on the Rttyrite MMTTY Settings screen will take you to the Setup screen for MMTTY. You can also get to the Setup screen by way of the Option(O) pulldown menu on the RTTY Control Panel.

The Setup screens in the MMTTY Plug-in for WriteLog are similar to the the ones that comes with the MMTTY stand-alone program but with some very important differences. The reason they are different is because WriteLog handles certain setup functions in a different manner which is native to WriteLog. Therefore, if WriteLog handles a certain setup function differently from the stand-alone program, then that setup function will not be available in the Plug-in version of the Setup screen. For example, the COM port assignments for FSK & PTT are set on the TX tab screen of the stand-alone MMTTY program. In WriteLog, the FSK & PTT COM port assignments are set in the Ports menu of the Rttyrite window. Therefore, that area of the TX tab screen is completely gone in the plug-in version of Setup. This is explained in detail in the next section.

The biggest differences between the MMTTY Plug-in for WriteLog Setup screens and the stand-alone MMTTY program setup screens are on the TX, Font Window and Misc screens. These differences will be shown in the next three Sections - [Setup TX Screen](#), [Setup Font/Window Screen](#), and Setup Misc Screen (shown on

page 5). In each of these sections you will be shown side-by-side screenshots to compare the differences between the screens. In each example, the MMTTY plug-in screen will be shown on the left and the MMTTY stand-alone program screen will be shown on the right.

Setup TX Screen

The Setup TX Screen from the MMTTY Plug-in for WriteLog (Fig. A) differs greatly from the Setup TX Screen in the MMTTY stand-alone program (Fig. B).

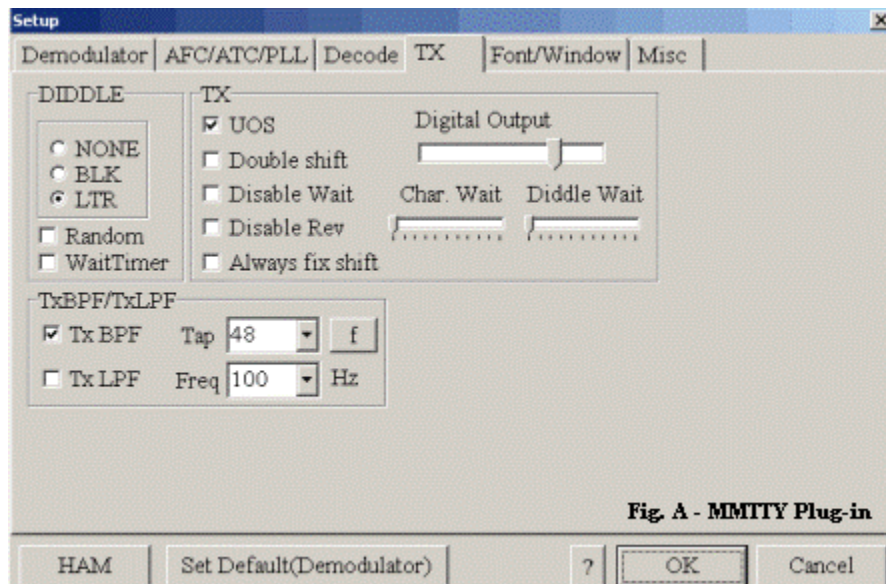


Fig. A - MMTTY Plug-in

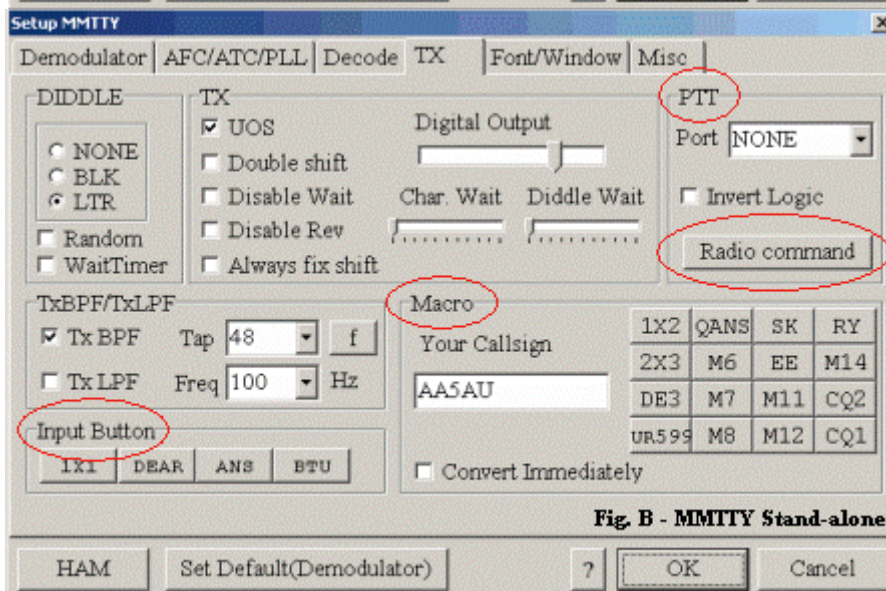


Fig. B - MMTTY Stand-alone

The Setup TX Screen from the plug-in does not contain the Input Button, Macro or PTT (including Radio command) areas that are available in the MMTTY stand-alone program. The Input Button and Macro areas are not needed in the plug-in because macros (called RTTY messages in WriteLog) are created in WriteLog on the main WriteLog window under the Setup menu (see Fig. C).

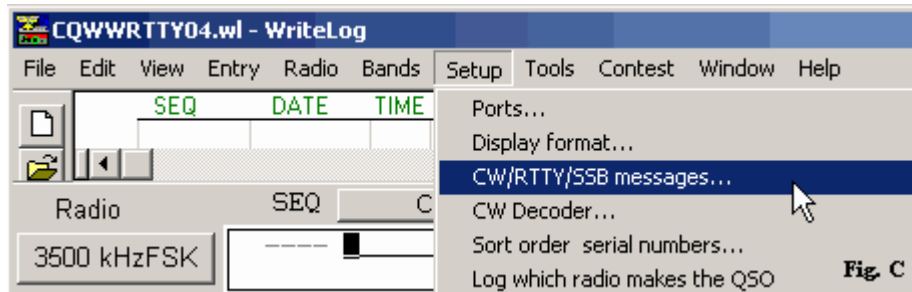


Fig. C

The PTT area of the TX screen is not needed in the plug-in because the PTT (and FSK) COM port is set in the Rttyrite window when using WriteLog (see Fig D). The Radio Command button is not needed in the plug-in because Radio Command is handled differently with WriteLog. Radio Command in WriteLog is set in the Ports option of the Setup menu in the main WriteLog window (not shown).

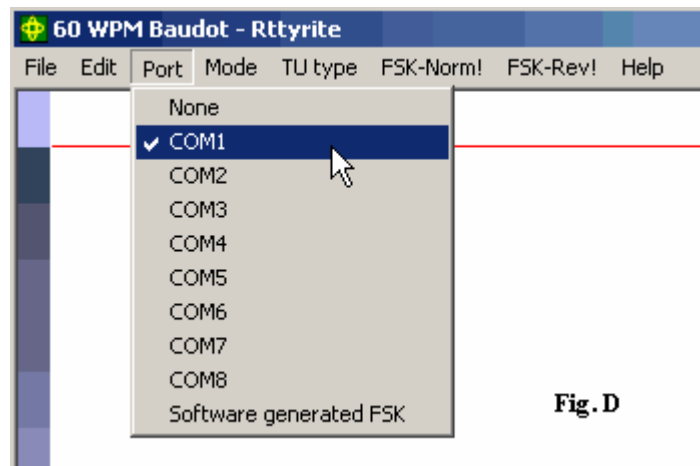


Fig. D

It should be understood that in FSK operation, the PTT and FSK COM ports are the same. When operating RTTY, we know we must activate PTT in order to key the radio. PTT can be activated three different ways depending on several factors. When using AFSK transmission (audio out of the sound card going to the audio input of a transmitter), PTT can be keyed by VOX. But keying PTT by VOX is undesirable because any sounds generated by Windows can accidentally be transmitted over the air. The two other methods of keying PTT, using either AFSK or FSK transmission, are PTT via an external interface connected to a COM port or via Radio Control.

Keying PTT via Radio Control is only available in those radios that support this option. Refer to your radio's operating manual to determine if your radio supports PTT via Radio Control. In order to key PTT via Radio Control, you must have your radio connected to your computer.

Keying PTT via a COM port requires an external interface. This external interface can be either a [simple transistor circuit](#) or included in a commercial-type sound card interface such as a RIGblaster, MFJ Sound Card Interface or RASCAL interface. If you are going to key PTT via an external interface, you must set the COM port in the Rttyrite window under the Port menu as shown in Fig. D above.

The last option in the Rttyrite Port menu is "Software-generated FSK". If you are going to use a USB-to-serial port adapter to generate FSK, you will need to select this option after you select your port number. Software-generated FSK acts in a similar fashion to [MMTTY's EXTFSK](#), in that it allows 5-bit Baudot FSK to be generated on the TxD line of a USB-to-serial port adapter. It must also be noted that unlike EXTFSK, FSK generation on an LPT port is not possible. It is also not possible to generate FSK on any other pin of a serial port other than TxD. Thus, you cannot generate FSK in WriteLog using a [Microham "USB Interface II"](#) model which only keys FSK on the DTR pin.

Software-generated FSK will work with either a simple homebrew transistor FSK keying circuit or with commercial interfaces that offer FSK keying. For more information on Software-generated FSK, click [here](#).

Setup Font/Window Screen

The only options available on the Plug-in Font/Window Setup screen (fig. E) are the Waterfall and XY Scope options. The reason for this is because fonts for the Rttyrite window are set in the Fonts... option in the File menu (see fig. G)

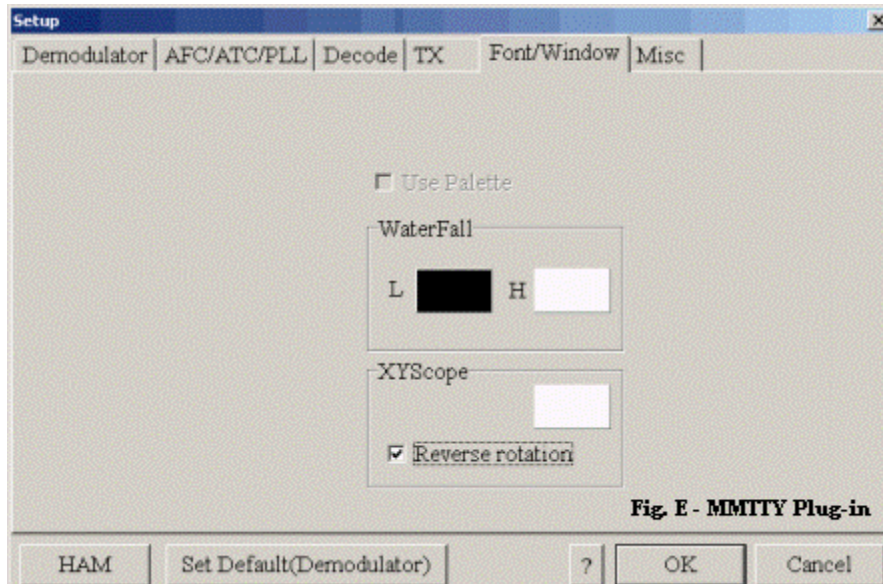


Fig. E - MMITY Plug-in

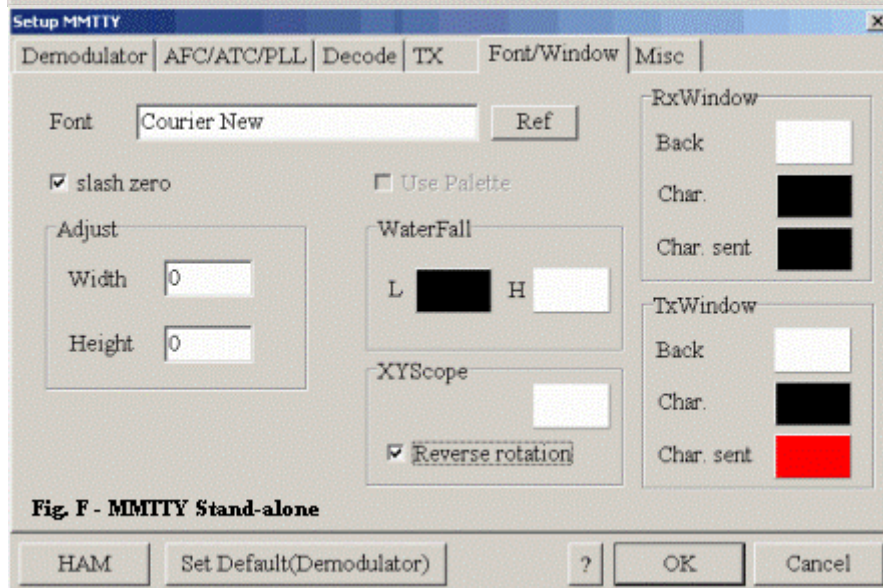


Fig. F - MMITY Stand-alone

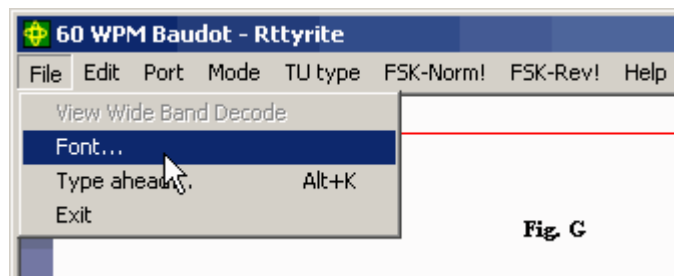


Fig. G

The only options are to change the color of the Waterfall, change the colors of the XYScope and Reverse rotation of the XYScope. Changing colors is simple enough, but what is "Reverse rotation"? This option allows you to reverse the rotation of the pattern in the XYScope. This can be a very helpful tool when tuning RTTY using the XYScope. When tuning up or down the band with your

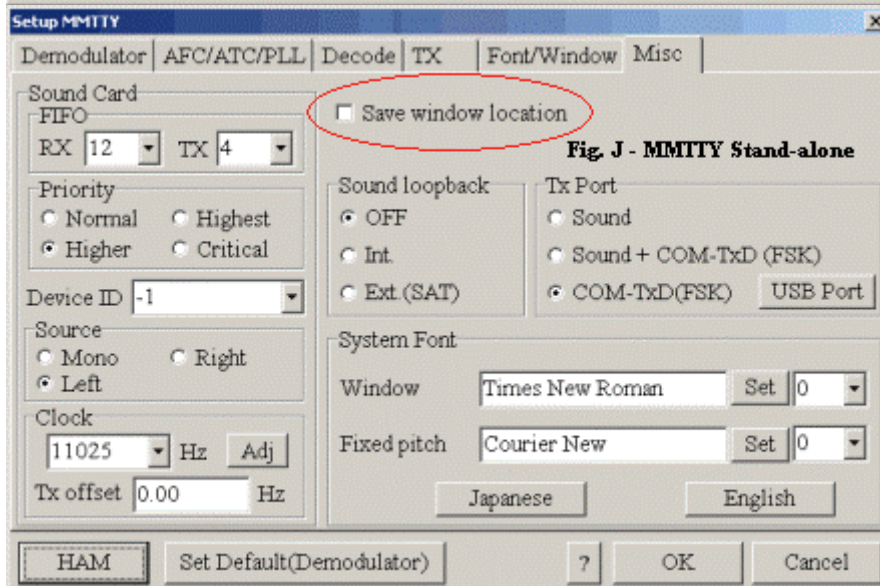
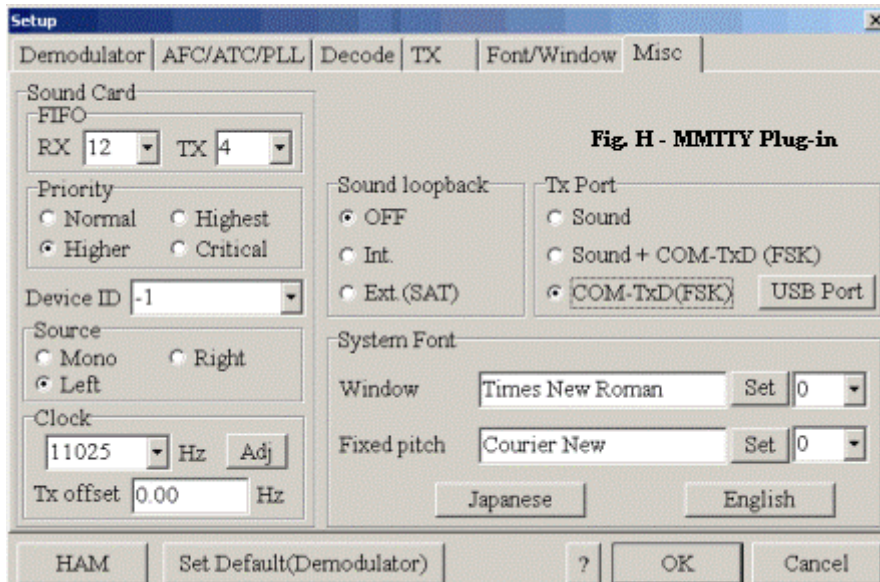
VFO and you come upon a RTTY signal, the XYScope will show the pattern "sloped" one way or the other until you have the signal tuned on frequency. If you are tuning left to right on your VFO knob but the pattern on the XYScope starts out right to left, click the Reverse rotation check box. This way as you tune left to right, or vice versa, the slope of the pattern in the XYScope will change in the direction you are moving your VFO. I find this helpful when tuning RTTY signals while in the S&P contesting mode.

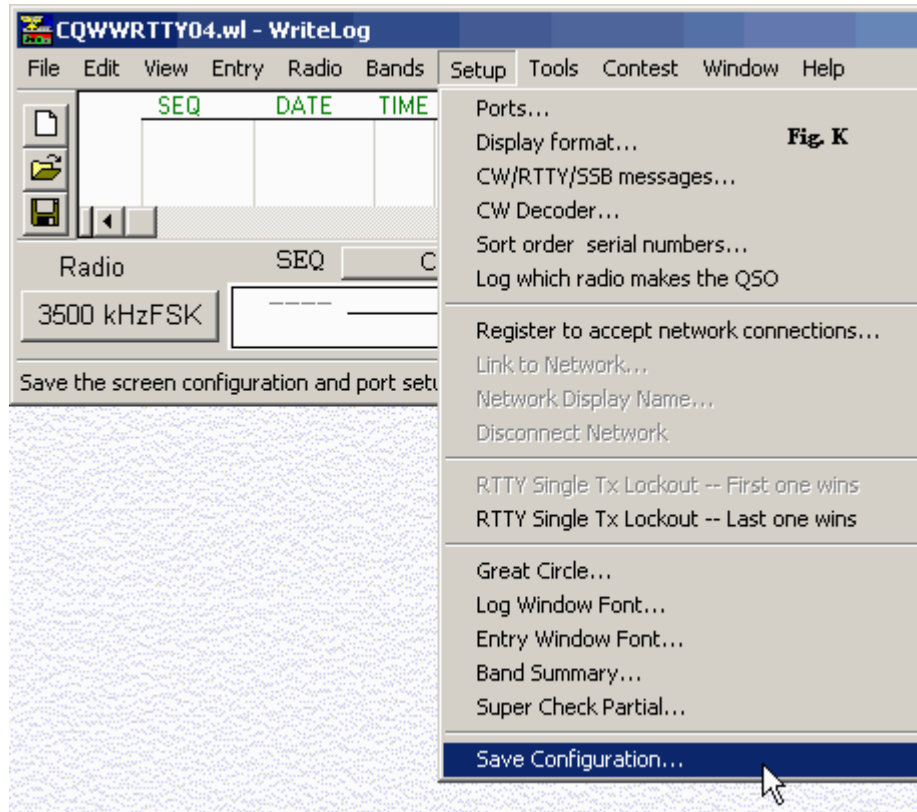
The Setup Misc Screen is discussed on the next page.

Page 5 - Setup Misc Screen

Setup Misc Screen

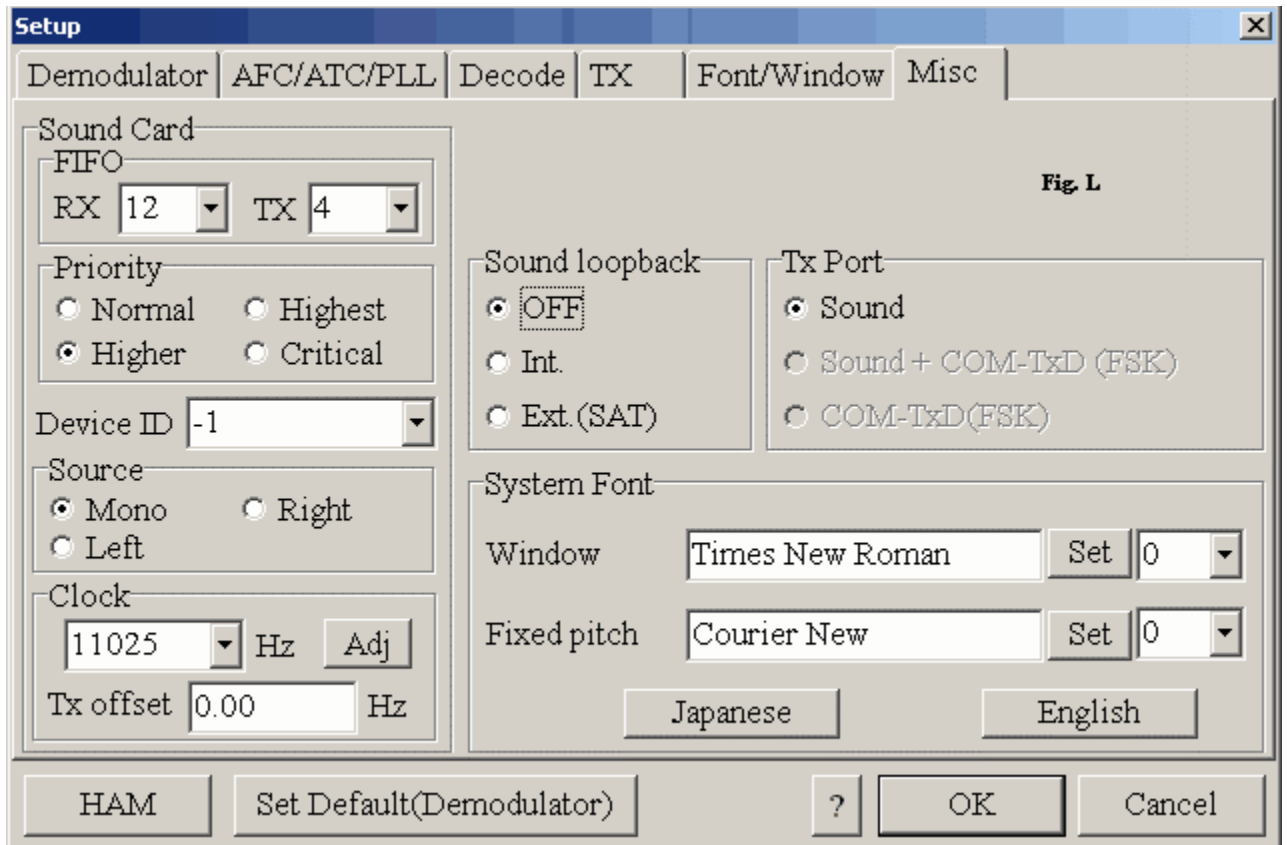
The only difference between the Plug-in Misc screen (Fig. H) and the Stand-alone Misc screen (Fig. J) is the "Save window location" check box. The reason it is not needed when running the MMTTY Plug-in for WriteLog is because with WriteLog, the window locations are saved by the Save Configuration option in the Setup menu of the main WriteLog window (see figure K).





FSK Reminder

One trouble spot for many is remembering to set the port used for FSK in the Rttyrite window under the Ports menu. When running FSK, if you do not set a port in the Ports menu of Rttyrite, the FSK options in the Misc screen will not be available as shown in fig. L. If you see the "Sound + COM-TxD (FSK)" and "COM-TxD (FSK)" options grayed-out in the Tx Port area of the Misc screen, then you know you have not set the port in the Rttyrite Ports menu.



Page 6 - MMTTY Commentary

MMTTY Commentary

Since the advent of using sound cards as TNC's, many operators have joined the HF digital ranks. Programs such as MMTTY and the MMTTY Plug-in for WriteLog have become quite popular. This has given a tremendous boost to RTTY contesting. Jorgen, SM6SRW, by creating the MMTTY Plug-in for WriteLog and Wayne, W5XD, by making changes to WriteLog to accept the Plug-in, have done a great service to RTTY contesters who use WriteLog.

However, problems can arise when the software is not used properly, resulting in poor operation. The main complaint after RTTY contests is that many stations are calling off frequency. More and more of this is being seen as more sound-card operators join in RTTY contests. The main reason for this is that many operators are not using AFC and NET correctly when using AFSK (or misusing AFC with FSK). Many RTTY operators run very tight filters in crowded band conditions, some as narrow as 250 hz. A station using MMTTY could very easily forget to turn off AFC and end up calling someone several hz or several hundred hz off frequency while in the S&P mode. The CQ'ing station may never

even know someone was calling. It's up to us, the operators, to make sure we use the software correctly with proper use of AFC and NET.

For general purpose sakes, it's best to turn AFC off while in the S&P mode and turn NET off when calling CQ. If you are confused or uncomfortable with the operation of AFC or NET, simply turn them off and tune manually with your VFO or RIT. This is completely acceptable. You may not gain the advantages of using AFC or NET, but if used incorrectly, they are not advantages at all. RTTY operators have been tuning manual for many years before sound cards and software such as MMTTY gave us AFC and NET capabilities.

AFC is a wonderful thing, but forgetting to turn it off while in the S&P mode is not. Fortunately for me, I run FSK and do not use the NET function so it leaves less for me to have to remember and I can be more efficient with my SO2R operation. It took me over a year to finally get comfortable with using AFC and to remember to turn it off when I S&P (occasionally I still forget).

The one thing you cannot do with the MMTTY Plug-in that you can with the Standard WriteLog RTTY Receiver is to operate SO2R using a single sound card. Other than that, I have found that MMTTY is consistently better than the Standard WriteLog RTTY Receiver. With the different combinations of screen views, choice of 3 tuning indicators and the availability of different operating profiles, it's certainly more versatile.

MMTTY totally caught me by surprise. I promised to test it when the first beta version of the plug-in came out several years ago and was very pleased at how it copied. It ran circles around my PK232 with ease and I am convinced it is better than the HAL DXP-38 I use for backup. I used to think that it didn't matter much in contesting what TNC you used, external or sound card, because in RTTY contesting you need only to receive a call sign or report. However, since using the MMTTY Plug-in for WriteLog, I can see how important it is that you have the best demodulating capability possible and you use the best RTTY receiver you can. Using the MMTTY Plug-in for WriteLog assures you have one of the best RTTY engines available. And it's free of charge!

No matter how good your TNC or sound card program is, there are going to be times when it will not copy due to QRM, QRN, QSB or other factors. A technique I have used for several years now is "Dual Receive". By using a TNC and sound card in parallel on the same receive signal, each with their own Rttyrite window, you create a situation where if the TNC or sound card misses print, the other usually captures it. This "Dual Receive" configuration on a single radio is by far more effective than using a single TNC or sound card program alone. WriteLog now comes with a "Clone" feature which is accessible through the File menu of the Rttyrite screen. This "Clone" feature allows multiple "cloned" Rttyrite windows to be activated and tied to the same receive signal as the "main" Rttyrite screen.

The MMTTY Plug-in for WriteLog is now an integral part of my RTTY contest station. Thanks to Jorgen, SM6SRW, and Wayne, W5XD, for their hard work in producing this excellent feature to WriteLog.

73, Don AA5AU

Thanks to W5XD, SM6SRW, WA9ALS, K1US sk, K6EP & AD1C for their contributions.

Page 7 - MMTTY Plug-in Troubleshooting Guide

Overview

It is important to remember that the MMTTY Plug-in for WriteLog comes in beta form. This means it may or may not work with your system. It is rare that the plug-in will not work if the stand-alone MMTTY program works. However, it's possible the plug-in could have problems with particular PC or sound card. In most cases, problems with the MMTTY plug-in can be corrected. It is extremely important that you have the full MMTTY program installed in its default location C:\Program Files\MMTTY\ and that you navigate to this directory the first time you activate MMTTY with the WriteLog Rttyrite window (thanks to Lloyd NX4W for pointing this out).

It is important that you get the stand-alone MMTTY program working correctly first before using the plug-in for WriteLog. If the stand-alone MMTTY program doesn't work, the plug-in will not work either. Once the stand-alone program is working, you can rest assured that any problems that appear when using the plug-in are associated with the plug-in and not with MMTTY itself. Problems listed here are associated with the plug-in.

Problems Installing the MMTTY Plug-in for WriteLog

The InstallShield Wizard is used when installing the MMTTY Plug-in for WriteLog. There are known issues with the InstallShield Wizard that could result in error messages and the inability for the program to be installed. If you have problems installing the Plug-In, refer to the following URL on the InstallShield website (thanks to Dean, N6DE, and Steve, W1SRD):

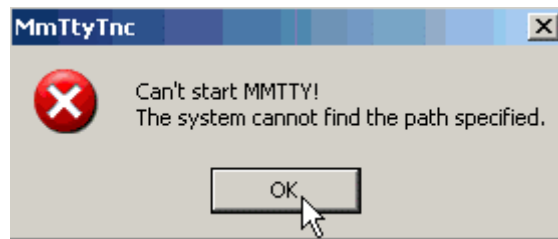
www.support.installshield.com/kb/view.asp?articleid=Q104985

It is highly recommended that you reboot your computer immediately after installing an upgrade to WriteLog. If you perform a new installation of WriteLog or upgrade to a newer version of WriteLog, then immediately try to install the MMTTY plug-in, it may not install because the InstallShield Wizard leaves information in memory which remains from previously installed

programs. Since WriteLog upgrades also use InstallShield, you need to clear your computer's memory by re-booting before attempting to install any other program using InstallShield.

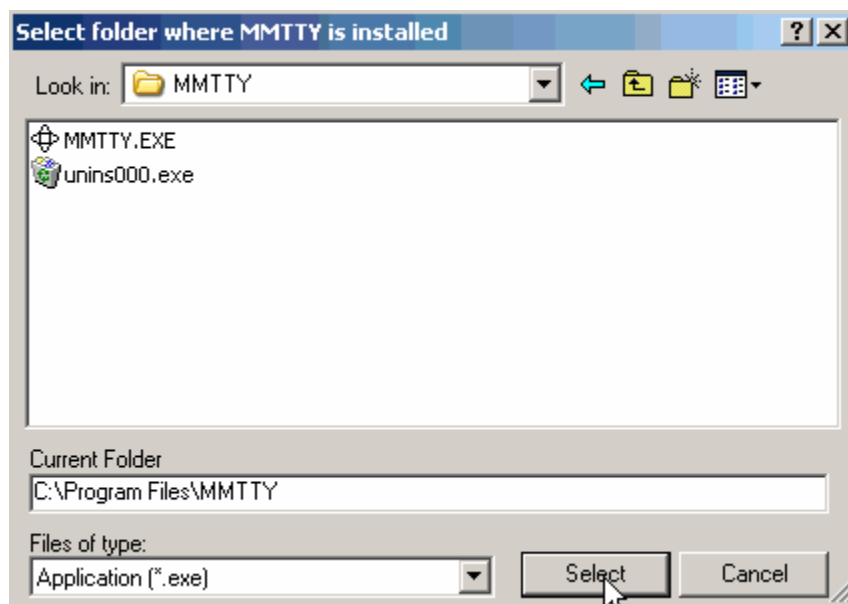
Mike, KH6ND, spent countless hours troubleshooting a problem with installing the plug-in. He determined the problem was caused by having McAfee VirusScan installed on his computers. Check out his excellent write-up on how to resolve this problem [here](#).

MMTTYTNC Error message - Can't start MMTTY!



The plug-in cannot find the location of mmtty.exe. If you are starting MMTTY for the first time from Rttyrite or the path specified in your writelog.ini file is not the same as the actual location of mmtty.exe, you will get this message. Just click on the OK button.

When you click OK, a window will open where you need to navigate to the location of mmtty.exe. If the MMTTY engine (mmtty.exe) was installed in its default location, the path will be C:\Program Files\MMTTY\.



It is possible that you may have installed the MMTTY program in a different location other than the default location C:\Program Files\Mmtty\. This is OK.

If this is the case, by navigating to the correct location, the writelog.ini file will be updated to the correct location automatically.

Using EXTFSK or LPT Keying

If you use EXTFSK or LPT keying for FSK with the MMTTY stand-alone program, they will not work when using the MMTTY plug-in for WriteLog. As you will notice, there is no LPT option in the Ports menu of the Rttyrite screen. I would like to see this added in the future.

WriteLog.ini Problems

If you encounter errors while installing or running the MMTTY Plug-in then you may have problems with entries in the writelog.ini file. Bring up the [writelog.ini file using Notepad](#) and check to make sure the paths are correct for your Datafiles and for the location of MMTTY. The procedure above should take care of the MMTTY location. Also check to make sure there are no double backslashes \\ where there should be single backslashes \.

```
[Configuration]
Datafiles=C:\ham\programs\
```

```
[Rttyrite]
MMTTY_LOCATION=C:\Program Files\MMTTY\
```

If you run MMTTY in a 2nd Rttyrite window, check that one also:

```
[Rttyrite2]
MMTTY_LOCATION=C:\Program Files\MMTTY\
```

The above locations are the default locations. If your locations are different, edit the above writelog.ini entries to reflect the correct paths. Also, if you run two Rttyrite windows and for some reason see the MMTTY_LOCATION entry shows under both [Rttyrite] and [Rttyrite2], that is OK. That only means that you can start MMTTY from either Rttyrite window and WriteLog already knows the path. If you use another TNC for either of the Rttyrite windows, the MMTTY_LOCATION entry will be ignored for that particular Rttyrite window.
Thanks to Jon, K1US SK.

If the plug-in installed successfully, but you have problems running it with WriteLog, an easy way to start fresh is to go into the writelog.ini file and delete everything under [Rttyrite] and [Rttyrite2], save the file and try again (note Rttyrite2 will only show up in the writelog.ini file if you opened two instances of Rttyrite at the same such as using SO2R with WinRTTY or cloned a Rttyrite window).

Please note that the entire MMTTY stand-alone program must be installed and that the Writelog.ini file must point to the correct location of MMTTY. You cannot just place the MMTTY engine in a folder and direct WriteLog to that folder. Do a full install of MMTTY.

Thanks to Keith, K7KAR, for the following information regarding correcting a problem with audio going to the sound card:

"MMTTY standalone worked fine, but when I got to the plug-in I ran into a problem.

I had been using WriteLog on a single computer with two radios, although I only use one in contests. I was set up for Sound Board FSK. After installing the plug-in I set the TU type to MMTTY on one of the radios.

Problem: no audio to MMTTY. After a little head scratching and playing around I used Task Manager and saw WLSound.exe was running. That made me decide to set WriteLog to one radio only. Shut down WriteLog, rebooted and restarted WriteLog. No sound to MMTTY. Task Manager still shows WISound.exe running. I killed it and MMTTY gets audio. After a little head scratching I opened writelog.ini and deleted [Rttyrite2] (also deleted the other ... 2 sections. Restart WriteLog and presto MMTTY works. It seems if you EVER had two radios and used Rttyrite on the (stereo) soundboard, WISound.exe wants to play. I then added a second radio set to MMTTY and WISound.exe didn't try to start (the second MMTTY doesn't work either unless I set it to the second sound card).

Bottom line seems to be if you have a two radio setup using the soundboard and Rttyrite (WinRTTY), and you want to try MMTTY, you should reset to one radio and clean [Rttyrite2] out of the .ini file before you try to use the MMTTY plug-in or you will face problems."

Thanks Keith!

Unable to select FSK in Setup

If you wish to key FSK directly to your radio and you go to the Misc tab in MMTTY Setup and the two FSK options are grayed out and unavailable, then you need to set your COM port under the Ports pull-down menu in Rttyrite first. Once you have set your COM port in Rttyrite, go back to MMTTY Setup and the two FSK options will then become available. If you get an error message when you try to set your COM port in Rttyrite, see below.

Rttyrite Error - Cannot open 'COMx'

Where "x" is the number of the COM port you are trying to select in the Port pull-down menu in Rttyrite. You will get this message if the COM port you are trying to select is already in use. To check to see if the COM port is already in use by WriteLog, go to the main WriteLog window and choose Ports... under the Setup pulldown menu. Check to see if the port is already specified by CW, Rig or the Rotator control. If the COM port is in use by CW, then click on the circle all the way to the bottom of the CW column. This clears CW from all COM ports. Click on OK and the COM port will now be available for Rttyrite.

If you still get this error when trying to open the COM port in Rttyrite, check to make sure no other programs are running that is using that port.

MMTTY Settings Affecting Operation

There are a number of settings which affect the operation of MMTTY. One of the most important is the Priority setting on the Misc. tab in MMTTY Setup. Many operators have reported that MMTTY runs better with the Priority set to Higher or Highest.

Another common problem some experience is a delay between the time the radio is keyed and when the buffer message is sent. Some have reported delays as much as 1-2 seconds. The most common fix for this is to change the TX FIFO Setting on the Misc. Tab in MMTTY Setup.

Another cause of delay between PTT and when the buffer is sent has been attributed to having both software PTT and hardware PTT enabled at the same time. In other words, running PTT through Radio Control and also have PTT wired externally from a COM port interface to the radio (this one was found by Bill, W7TI).

Check the PTT timer too (open MMTTY stand alone program, look under Options menu). Set the timer to zero (not sure if this affects the plug-in or not but some say it does).

If you see characters added to the beginning or end of your transmissions in the Rttyrite screen, they aren't actually being transmitted. You can eliminate these characters by turning "Sound loopback" OFF. This option is located on the Misc tab in Setup.

It is highly recommended that you refer to the MMTTY Help Files on other troubleshooting steps and important settings.

MMTTY Locks Up on Transmit

I had this very problem occur to me. I was using a Compaq Deskpro 333 MHz Pentium II computer that would lock up while transmitting FSK using the MMTTY Plug-in. It would not happen on every transmission but it happened enough that I no longer could use the PC for RTTY contesting. The solution was to install a separate sound card in the PC and use the new sound card with the plug-in.

Then later I received an E-mail from someone who was having trouble with MMTTY lock-up problems. His solution was to install updated drivers for his sound card. So I tried that with my Compaq Deskpro and it cured the problems of MMTTY locking up while using the original sound card. I found that the PC was using the generic Windows sound card driver. I went on the Web and found specific drivers for the sound card. I installed the new driver and it appears to have fixed the problem. So check to make sure you have the correct and most up-to-date driver for your sound card. To find out which sound card you have, go to the Device Manager and check the properties of your Sound controller.

Issues with MMTTY Version 1.63 & 1.64

The MMTTY "engines" that came with versions 1.63 and 1.64 have known problems when used with WriteLog and other programs. On rare occasion, pressing an F key to send a buffer message would cause the transmitter to key, then suddenly un-key. In the 2003 NAQP RTTY contest, I beta tested MMTTY engine 1.64b and experienced no drop outs in 600 QSO's. It was a good test and I feel that perhaps this engine may be the upgrade we are looking for.

In any case, the 1.62 "engine" has proved to be rock solid and is a good one to use in case of problems with present or future versions of the MMTTY "engine". The "engine" is basically just the program Mmty.exe and nothing more.

If you have MMTTY162.exe which is the full version 1.62 program, you can re-install it over any existing MMTTY installation.