# Fldigi

Setup & Update Instructions

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# **Abstract**

This document contains the minimal steps needed to setup Fldigi and provides instructions on how to complete future software updates.

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# Purpose

This document is designed to help a user install and setup Fldigi on a computer running Windows OS 10. It is NOT an exclusive be all instructional document, but a small listing of some of the settings used in Fldigi that should allow a user to get started in using Fldigi. It also contains update instructions for when an updated version of code is released, and all the steps needed to complete the update. **NOTE:** This document does not include settings for interfacing Fldigi with any type of radio or sound card device. Those will be specific to each type of radio.

# Assumptions

This document assumes you know how to download and install files on a computer. It assumes you know how to navigate the internet to search for and download files.

## Reference Links

If you would like to read more about Fldigi, see the Wiki links below.

Wiki Link: <a href="https://sourceforge.net/p/fldigi/wiki/Home/">https://sourceforge.net/p/fldigi/wiki/Home/</a>

Wikipedia Link: <a href="https://en.wikipedia.org/wiki/Fldigi">https://en.wikipedia.org/wiki/Fldigi</a>

#### **Downloads**

You can download the software from either of the two websites listed below. I Prefer the W1HKJ website.

W1HKJ Link: http://www.w1hkj.com/

Source Forge Link: <a href="https://sourceforge.net/projects/fldigi/files/">https://sourceforge.net/projects/fldigi/files/</a>

Operating system Compatibility: <a href="https://en.wikipedia.org/wiki/Fldigi">https://en.wikipedia.org/wiki/Fldigi</a>

# What to download to get started

You will need to download the following software components to get started using Fldigi.

1. Fldigi/Flarq <a href="https://en.wikipedia.org/wiki/Fldigi#The-Fldigi-Suite">https://en.wikipedia.org/wiki/Fldigi#The-Fldigi-Suite</a>

2. Flmsg

3. Flamp

### **Optional Downloads**

- 1. Flwrap
- 2. Fllog
- 3. Flrig

Download the desired components and install each of them onto your computer. I suggest using the default installation options for each component. Download the \*Setup.exe file(s) for each component you wish to install. To install the component, double click on the \*Setup.exe file in the folder that the file was downloaded to on your computer. After all the components you wish to install have been installed on your computer, proceed to the next step.

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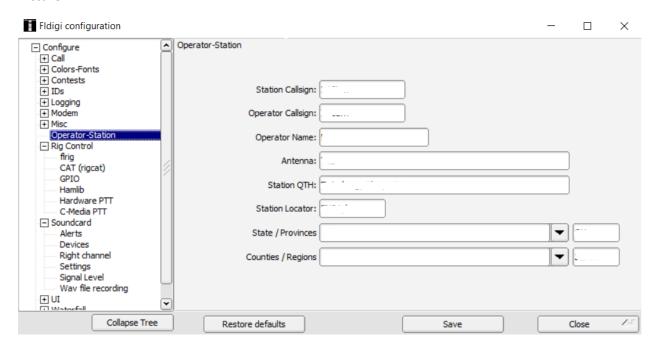
# Starting Fldigi.

If this is the first time you are installing Fldigi, there are some initial setup values you will need to supply. The first is the Operator Station Information. The Operator Station information can be found by following the navigation steps listed below. All application navigation starts with the top menu bar and then uses the navigation options listed in the left-hand navigation windowpane.

### Navigation:

- 1. Click on the "Configure" Menu option.
- 2. Select the "Config Dialog" option.
- 3. Locate the "Misc" option.
- 4. Under the "Misc" option, click on the "Operator-Station" option.
- 5. The Operator-Station window should be displayed. (See Picture #1)

#### Picture #1



6. You will need to supply the Operator & Station information before you can use Fldigi. Use the link below to help you find your 6-digit Station Locator - Grid value.

Link: https://www.levinecentral.com/ham/grid square.php

7. After supplying the needed information, click on the "Save" button and then the "Close" button.

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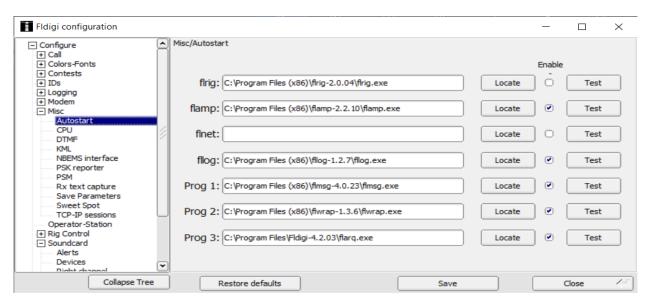
# Setting up Auto Start for other Fldigi Components.

You can configure Fldigi to automatically start other components when you start the Fldigi tool. This will save you time when starting Fldigi but will require extra maintenance each time you upgrade an Fldigi component.

### Navigation:

- 1. Click on the "Configure" Menu option.
- 2. Select the "Config Dialog" option.
- 3. Locate the "Misc" option.
- 4. Expand the "Misc" option by clicking on the + sign preceding the Misc menu option.
- 5. Click on the "Autostart" option.
- 6. The Misc/Autostart window should be displayed. (See Picture #2)

#### Picture #2



- 7. You may want to setup each additional Fldigi component to automatically start when you open Fldigi. Use the "Locate" button to navigate through your computer to find the folders where the component has been installed. Look for each \*.exe file. The file locations shown above are the default windows folders. Use the "Test" button to verify you have selected the correct file to auto start. If the Fldigi component window opens successfully, you correctly have set up the auto start for that component.

  NOTE: it is suggested that at the minimum you autostart Flarq, Flmsg and Flamp because these would be the apps most likely to be used and good to have pre-loaded.
- 8. To enable auto start for that component, check the "Enable" checkbox for that component.
- 9. After supplying the needed information, click on the "Save" button and then the "Close" button.
  NOTE: When an updated version of any component is released and installed on your computer, you will need to return to this menu and update the location for that component. Each updated version gets a new folder name with the version number in the folder name. If you do not update the location, you could still be auto starting the older version of the component.
- 10. To Test you have configured all the Fldigi components for Autostart, close all Fldigi Component windows. Wait for all Fldigi components to close and then double click on the Fldigi Icon. All the Fldigi components you set up for Autostart, should launch.

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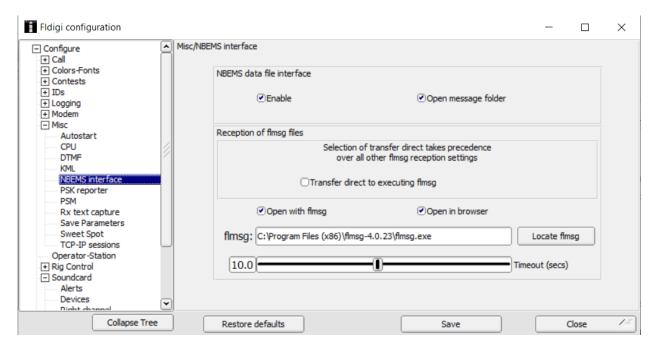
# Setting UP Flmsg to launch a Browser for an Incoming message.

You can configure Fldigi to launch your default web browser to display an incoming Message if you desire. Follow the steps below:

## Navigation:

- 1. Click on the "Configure" Menu option.
- 2. Select the "Config Dialog" option.
- 3. Locate the "Misc" option.
- 4. Expand the "Misc" option by clicking on the + sign preceding the Misc menu option.
- 5. Click on the "NBEMS Interface" option.
- 6. The Misc/NBEMS Interface window should be displayed. (See Picture #3)

#### Picture #3



- 7. Apply the settings shown above to your NBEMS Interface settings.
- 8. After supplying the needed information, click on the "Save" button and then the "Close" button.
- 9. **NOTE:** When an updated version of Flmsg is released and installed on your computer, you will need to return to this menu and update the location for that component. Each updated version gets a new folder name with the version number in the folder name. If you do not update the location, you could still be using the older version of the component.

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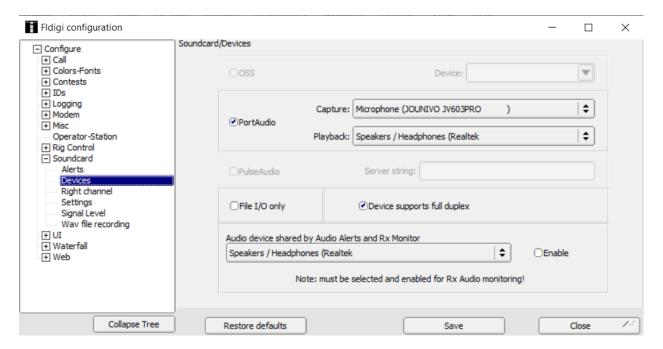
# Setting up the Speaker and Microphone Defaults.

You can configure which speakers and microphone are used by default with Fldigi.

### Navigation:

- 1. Click on the "Configure" Menu option.
- 2. Select the "Config Dialog" option.
- 3. Locate the "Soundcard" option.
- 4. Expand the "Soundcard" option by clicking on the + sign preceding the Soundcard menu option.
- 5. Click on the "Devices" option.
- 6. The Soundcard/Devices window should be displayed. (See Picture #4)

#### Picture #4



- 7. Select the Capture (Microphone) and Playback (Speakers) you wish to use with your computer.
- 8. After supplying the needed information, click on the "Save" button and then the "Close" button.

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# Setting up the default Operation Mode.

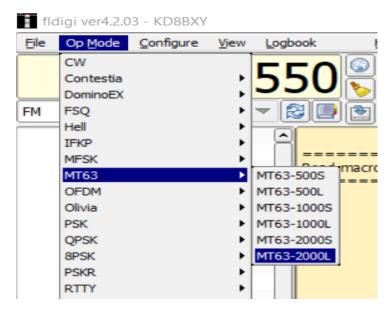
You can configure what Operation mode you wish to default Fldigi to when the software opens.

NOTE: The Summit Couty ARES Net uses MT63-2000L (aka MT63-2KL) with a Passband of 1500.

# Navigation:

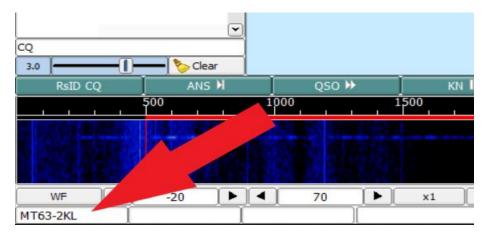
- 1. Click on the "Op Mode" Menu option.
- 2. Locate the "MT63" option.
- 3. Hover your mouse pointer over the "MT63" option until additional values are displayed.
- 4. Move your mouse to the right and scroll down until the "MT63-2000L" option is highlighted.
- 5. Select the "MT63-2000L" operation mode option.
- 6. See Picture #5

#### Picture #5



- 7. The operation mode selected will be displayed in the Lower Left-hand corner of the Fldigi Main screen.
- 8. See Picture #6

#### Picture #6



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# Setting up the Passband value.

Each Operation mode can be set up to use a Passband.

**NOTE:** The passband value is the center frequency of the audio frequency range used by the mode selected. This audio frequency range changes depending upon the actual operational mode in use. The audio frequency range also shifts depending upon the center frequency (passband) being used. So, as an example, the Summit County ARES net uses MT63-2000L (aka MT63-2KL) which uses a wide audio bandwidth of almost 2KHz with a Passband of 1500 (or 1.5 KHz). When the center frequency is set to 1500 (on Fldigi's scale) the actual audio frequency range is from about 500Hz to 2.5KHz. So, you can see if your passband (center frequency) is not properly set to match what others are using Fldigi will be looking for a different set of audio frequencies to use for decoding and encoding the data and will fail to operate correctly. This is also how, on some very narrow audio modes like BPSK-31, there can be multiple stations on the same frequency each using a different passband and will not bother each other because Fldigi will only respond to the frequency range set by the passband frequency. Using a narrow mode like BPSK-31 that only uses 31.25Hz of audio bandwidth contacts can be conducted in less than 100Hz separation so with a total audio bandwidth of 2.5KHz in SSB mode there could easily be a total of at least twenty simultaneous digital contacts on one frequency.

### Navigation:

- 1. Coarse tuning of the passband (center) frequency can be accomplished by hovering your mouse over the waterfall display. When you do this a box will pop up in the waterfall with three white vertical lines, one to the left, one in the center and one to the right. Move your mouse right or left to get the arrow at the top of the middle line (passband) centered directly below the passband frequency on the scale directly above it. When you have the passband frequency right on (in some modes this will be tricky because the total audio bandwidth of the mode is very narrow) click on the left mouse button to "anchor" the passband frequency at that point.
- 2. You can then fine tune the passband frequency to the correct frequency using the arrow buttons to the left and right of the currently set passband frequency shown in the middle screen directly below the waterfall screen. See Picture #7.

# Picture #7



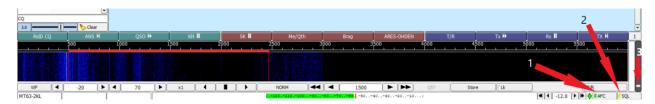
Doc Name: Fldigi Setup and Update Instructions.docx

# Other Values I recommend setting to making using Fldigi easier.

Navigation: (Lower righthand corner of window)

- 1. AFC turned on. Press the AFC button to toggle it. (on = Green)
- 2. SQL (Squelch) turned on. Press the SQL button to toggle it. (on = Yellow or Green)
- 3. Squelch adjustment/elevator bar, lowered.
- 4. See Picture #8

#### Picture #8



Navigation: (Upper righthand corner of window)

- 1. RxID turned on. Press the RxID button to toggle it. (on = Green or Yellow))
- 2. TxID turned on. Press the TxID button to toggle it. (on = Green)
- 3. See Picture #9

### Picture #9

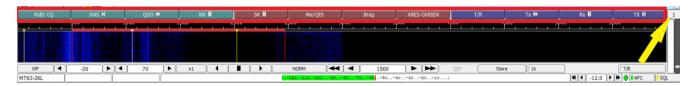


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# Using macros to automate regularly used tasks in Fldigi.

Just above the "Passband" window you will find a row of 12 buttons colored green, red, and blue, which are labeled with various "functions". (See the red highlighted area in Picture #10 below). These buttons launch "macros" (macro = a list of multiple operations that are automatically performed one by one). When you left click on the corresponding button, this will start/execute the macro. In total there are 48 macros available that can be used/defined to automate tasks that you regularly use such as calling CQ or checking into a net. It is possible to add new macros or modify the macros that already exist with a button. To see all the buttons available, you can use the "View" option in the top ribbon of Fldigi and click on "View/Hide 48 Macros" or use the "ALT" & "V" keys and then "M". These options toggle the button view on and off. You can also see a single row of 12 buttons (row 1 through row 4) by left or right clicking on the small number to the far right of the macro buttons. (See the yellow arrow, in Picture #10 below) when Fldigi starts it defaults this value to "1". Left clicking on the number will take you forward through the list of macros while right clicking on the number will take you back through the list of macros. Each time you click the number (1,2,3 or 4), 12 different macro buttons are displayed. To modify a macro, you simply right click on a button that is already labeled, or to create a new macro simply right click on a "blank" button.

#### Picture #10



As mentioned previously, macros can be very helpful for running repetitive tasks like checking into a net. On the next pages are a couple of examples of macros that are needed to log into digital nets in our area.

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# Ohio Digital Emergency Net (Fldigi macro)

The first is the Ohio Digital Emergency Net (OHDEN) on Tuesday evenings at 7:45 PM, 3584.5KHz USB (HF Upper Side Band) using Olivia 8-500, use these steps to create a macro for this net:

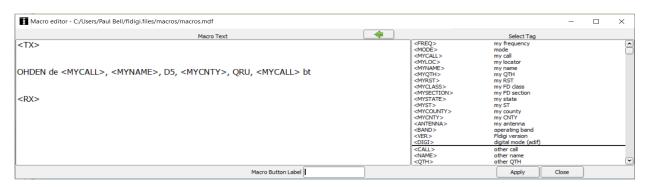
- $1.\,$  Find an unused macro button, one with no label/name, and right click on it to open the macro editor.
- 2. We are going to make it easy for you, copy the BOLD text below from <TX> through <RX> and paste it into the macro editor (NOTE: Make sure you copy the blank lines too as they are carriage returns/line feeds and need to be in the macro.) If you choose you can type the text into the macro editor but don't forget the carriage returns/line feeds. Copy or type in the information exactly as it is shown below. You do not need to fill-in values for <MYCALL>, <MYNAME> or <MYCNTY> this information will be automatically pulled from the information you provided when you configured the "Operator Information" in Fldigi. See Picture #11 below.

Copy ALL the **BOLD** text below including the blank lines: **<TX>** 

OHDEN de <MYCALL>, <MYNAME>, D5, <MYCNTY>, QRU, <MYCALL> bt

<RX>

#### Picture #11

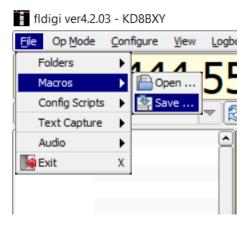


- 3. Once you have created the macro by either copying and pasting the text or typing the text into the macro editor box, you will see below the macro, a text box a box labeled "Macro Button Label". Enter the name you wish to give this macro into "Macro Button Label" field, and it will show on the button. Use a name that helps you remember the function that this macro performs. For this button we suggest using "OHDEN" since it is a macro for logging into the OHDEN net.
- 4. Click on the "Apply" button and then the "Close" button to finish the macro. That's it you are done, to run the macro all you need to do is left click on the OHDEN button and the information needed by the net will automatically be transmitted and Fldigi will return to "receive mode" when the last command "<RX>" in the macro is executed.

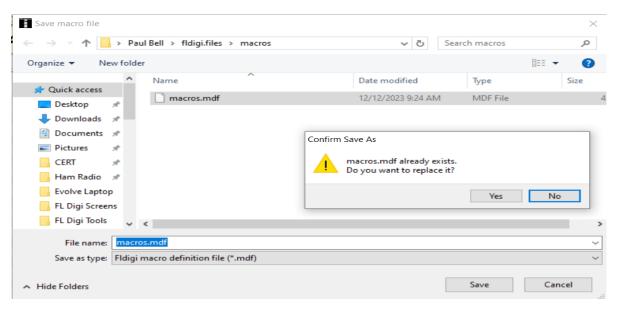
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- 5. Now that you have created a macro, you need to save it in Fldigi. To do this follow the steps outlined below:
  - a. Click on the File menu option.
  - b. Hover over the Macros Option until the Open/Save option is displayed to the right.
  - c. Then click on the Save option. (see Picture A below)
  - d. A pop-up window will be displayed with the file name: macros.mdf
  - e. Select/click on the file "macros.mdf"
  - f. Click on the save button.
  - g. If you are prompted with a message to replace the existing file, click on the "Yes" button. (See Picture B below)

### **Picture A**



### **Picture B**



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# Summit County ARES Net (Fldigi macro)

The second is the Summit County ARES Monday night Digital Net Monday evenings at 7:00 PM, 444.550 ARES repeater system using MT63-2000L (MT63-2KL), use these steps to create a macro for this net:

- 1. On your root drive (C:\), create a new folder and name it "FLDIGI FILES" (all caps). **Note:** You can use other file folders on your hard drive, using the root drive makes it easier. If you use a network drive, your network drive must be available/on-line for the file to be read into Fldigi.
- 2. Open notepad and on the first line type the name of the Summit County ARES repeater you use to check into the digital net, either Akron, Norton, Green or Twinsburg, then save the file to the FLDIGI FILES folder you just created with the filename of "ARES.txt" (ARES needs to be all caps).
- 3. Find an unused macro button, one with no label, and right click on it to open the macro editor.
- 4. We are going to make it easy for you, copy the BOLD text below from <TX> through <RX> and paste it into the macro editor (NOTE: Make sure you copy the blank lines too as they are carriage returns/line feeds and need to be in the macro.) If you choose you can type the text into the macro editor but don't forget the carriage returns/line feeds. Copy or type in the information exactly as it is shown below. You do not need to fill-in values for <MYCALL>, <MYNAME> or <MYCNTY> this information will be automatically pulled from the information you provided when you configured the "Operator Information" in Fldigi. See Picture #12 below.

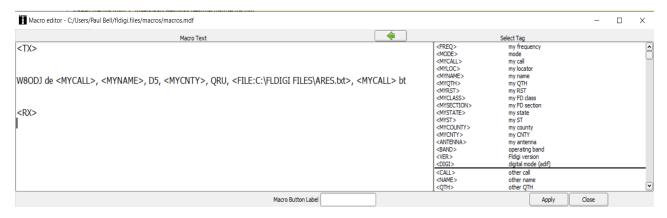
Copy ALL the **BOLD** text below including the blank lines:

<TX>

W8ODJ de <MYCALL>, <MYNAME>, D5, <MYCNTY>, QRU, <FILE:C:\FLDIGI FILES\ARES.txt>, <MYCALL> bt

<RX>

### Picture #12



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- 5. Once you have created the macro by either copying and pasting the text or typing the text into the macro editor box, you will see below the macro, a text box a box labeled "Macro Button Label". Enter the name you wish to give this macro into "Macro Button Label" field, and it will show on the button. Use a name that helps you remember the function that this macro performs. For this button we suggest using "ARES" since it is a macro for logging into the ARES net.
- 6. Click on the "Apply" button and then the "Close" button to finish the macro. That's it you are done, to run the macro all you need to do is left click on the ARES button and the information needed by the net will automatically be transmitted and Fldigi will return to "receive mode" when the last command "<RX>" in the macro is executed.
- 7. Now that you have created a macro, you need to save it in Fldigi. To do this follow the steps outlined below:
  - a. Click on the File menu option.
  - b. Hover over the Macros Option until the Open/Save option is displayed to the right.
  - c. Then click on the Save option. (see Picture A on the previous pages)
  - d. A pop-up window will be displayed with the file name: macros.mdf
  - e. Select/click on the file "macros.mdf"
  - f. Click on the save button.
  - g. If you are prompted with a message to replace the existing file, click on the "Yes" button. (See Picture B on the previous pages)

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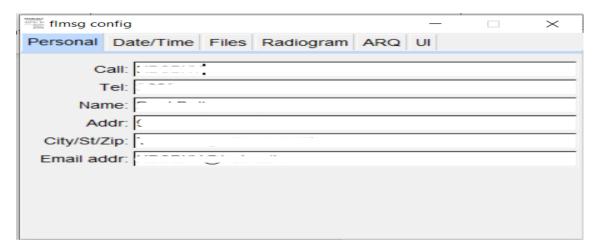
# Flmsg Configurations

Locate the Flmsg window and open/view it.

#### Navigation:

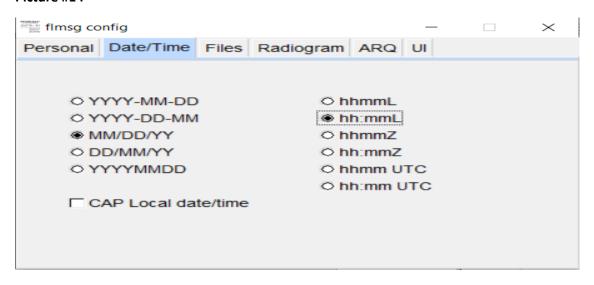
- 1. In the Flmsg window menu bar look for the "Config" option and click on "Config"
- 2. A second menu will be displayed.
- 3. Locate the "Personal Data" menu option and click on it.
- 4. The Flmsg Config window will be displayed with the "Personal Data" pop-up window open.
- 5. See Picture #13

#### Picture #13



- 6. Enter in your personal data to support Messages.
- 7. Next Click on the Date/Time Tab.
- 8. The Date/Time Window will be displayed.
- 9. See Picture #14

#### Picture #14



10. Select the Date & Time format you wish to use.

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- 11. Next Click on the "UI" Tab.
- 12. The UI Window will be displayed.
- 13. See Picture #15

### Picture #15



- 14. Make sure "User Interface = Expert" is checked.
- 15. When you are done, click the X in the top Right corner of the Flmsg Config pop=up window.

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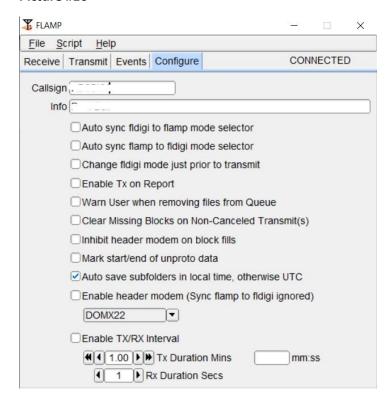
# Flamp Configurations

Locate the Flamp window and open/view it.

### Navigation:

- 1. In the Flamp window look for the "Configure" Tab and click on "Configure"
- 2. The Flmsg Config window will be displayed with some data.
- 3. Ensure your Call Sign and Name/Info are supplied.
- 4. See Picture #16

#### Picture #16



5. When you are done entering the needed data, click on the – near the Top Right of the Flamp pop-up window.

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# Installing Fldigi Software Updates.

Periodically the creators of Fldigi will publish updates to any of the Fldigi tools. Those updates can be downloaded from the websites noted on <u>page two of this document</u>. Fldigi may notify the user when an update is available for downloading.

There are five main steps to installing software revision to any Fldigi component.

- 1. Download the newer version of software from a website.
- 2. Install the newer versions of software on your computer.
- 3. Update Fldigi AutoStart options and NBEMS Interface (If Flmsg is updated).
- 4. Remove old Fldigi Components from your computer.
- 5. Update any Desktop Icons or shortcuts to use the newer versions of software.

If you have been using Fldigi or followed these instructions to install Fldigi, I can assume you can complete Steps #1 and #2 listed above.

**NOTE:** At this time, please record both the old software versions you have on your computer and the newer versions you have downloaded and installed. These will be important in the later steps.

### Step #3a

Go back to page four of this document and replace the old versions of software with the newer ones in the Fldigi Autostart option.

Click this link to be taken back to page four.

#### Step #3b

If you downloaded and installed a newer version of Flmsg, Continue, else move on to Step #4.

Go back to page five of this document and replace the olde version of Flmsg with the newer version of Flmsg on the Misc/NBEMS Interface setup window.

Click this link to be taken back to page five.

### Step #4

Now you should remove any old versions of Fldigi and its FL components from your computer. You can keep one older version around if you feel better about having a backup. Fldigi keeps archives of older versions if you need them. See Step #5 below for an Archive link.

- 1. Click on the Windows Icon in the bottom left corner of your computer and click on the settings option.
- 2. On the screen that is displayed, locate, and click on the "Apps" option.
- 3. The settings (Apps & Feature Window) should be displayed.
- 4. Make sure you are Sorting by "Name" and filtering by "All Drives."
- 5. In the Search list you can enter "FL" to filter out any non-Fldigi tools.
- 6. Scroll down until you can see the Fldigi and other FL Components.
- 7. Using your list of old vs new Fldigi software versions created earlier (in step #2 above) single click on any OLDER version of FL Tools you do not want.
- 8. A grey button with the words "Uninstall" should be displayed.

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9. Click on the Uninstall button and follow the prompts to remove this old software.

### Step #5

1. Now check any Desktop shortcuts or Shortcuts pinned to your Start Menu or Task bar, to be sure they are pointing to the newest version of the Fldigi Tools. Most of the Fldigi Tools replace/update the Icons appropriately.

Note: you can retrieve older versions of the Fldigi Tools from the Fldigi Website you downloaded the newer tools from. A link to the Archive Fldigi tools is provided below.

Fldigi Archives link: <a href="http://www.w1hkj.com/files/archives/Windows/">http://www.w1hkj.com/files/archives/Windows/</a>

# Additional document contributions by:

1. Ken Dorsey, KA8OAD

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