

# Setup for fldigi Digital Operation

1) Download and install the latest version of the following software from:

<http://sourceforge.net/projects/fldigi/files/>

The fldigi site no longer supports downloads.

- a) fldigi - this is the main program. Note after the program is downloaded your security software may give you a message that this type of software is not usually downloaded. Ignore the message.
- b) flmsg - this is used for the standard message formats used by many emergency services.

2) When you start fldigi for the first time a setup screen will open. Use default settings except for the following.

- a) Enter operator information-
  - i) Call and name is enough
  - ii) Other info can be added later
- b) Audio
  - i) Devices – select Port Audio
  - ii) Settings – no changes
  - iii) Right channel – no changes
- c) Rig
  - (1) Hardware PTT
  - (2) Select – Use separate serial port PTT
  - (3) Select RTS and DTR
  - (4) Device - select same com port as the USB to serial convertor. Use device manager to find port number.
    - (a) initialize
    - (b) Always use the same USB port. Port number will probably be different with different USB port.
- d) Select Finish

3) The fldigi program should now start

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- 4) Change the waterfall scale to 2.
  - a) This will show the waterfall display closer to the audio bandwidth of the radio.
  - b) Use the toolbar just under the waterfall.
  - c) The waterfall scale is the fourth item from the left.
  - d) The default is 1, change it to 2.
  
- 5) Select Configure from top toolbar
  - a) Select Modems from drop down menu.
  - b) Select the MT-63 tab
  - c) In the upper pane only 64-bit (long) interleave and 8-bit extended characters should be selected.
  - d) All three items in the lower pane should be deselected.
  - e) Save
  
- 6) Select the Misc tab
  - a) Select NBEMS in the lower row of tabs
  - b) In the upper pane only Enable should be selected.
  - c) In the lower pane only Open with flmsg should be selected.
  - d) In the lower pane select Locate flmsg
  - e) This should open C:
  - f) Open Program Files (x86)
  - g) Open flmsg folder
  - h) Select flmsg executable file
  - i) Select Open
  - j) Path to flmsg file should appear in the box.
  - k) Save
  
- 7) Select the Waterfall
  - a) Select Always show audio frequencies
  - b) Select Monitor transmitter signal
  - c) Select save and then close

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- 8) Select Op Mode from top tool bar.
  - a) Select MT-63 2000L from drop down menu
  - b) You should see a red bar in the waterfall starting at 500 and extending to almost 2500
  - c) You should see 1500 in box in the tool bar under the waterfall
  - d) You will be locked to this center frequency.
  
- 9) Select CQ from the buttons above the water fall
  - a) You should hear what the signal sounds like if you have your sound on.
  - b) You should see CQ with your call in the blue transmit panel and in the yellow receive panel
  - c) After two CQ's the blue transmit panel should clear itself.
  
- 10) If you want to change the text size on the two panels select configure in the top tool bar
  - a) Select Colors and Fonts in the drop down menu.
  - b) Select the Rx/Tx tab then select the button to change the font size
  - c) 18 is easier to read than the default 12
  
- 11) Set the radio to 146.550 simplex for our testing.
  
- 12) Hardware required for automatic operation
  - a) USB to serial convertor unless you are using an old computer with a serial port. Use processor chip from FTDI or Silabs. Avoid adapters with a low-cost processor chip such as Prolific.
  - b) Cable to connect the USB to serial converter to the interface box
  - c) An interface box such as the Unified Micro Systems SC-6, KF5INZ Easy Digi hardware or home brew.
  - d) Cables to connect the interface box to the radio and computer
    - i) Audio in and out for the radio and computer
    - ii) PTT connection for the radio

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### 13) Miscellaneous

- a) If the PTT will not turn on the radio select Configure in the toolbar at the top and Rig control in the drop down menu and select Initialize. If that does not work got to Device Manager and check the port number for the USB to serial converter.
- b) If you have the USB to serial converter connected when you start the computer and the radio on it might transmit when the converter initializes. You might want to have the radio turned off during boot.
- c) It seems to work better to have the USB to serial converter plugged in when you start the program.
- d) If your internal mike does not turn off when you plug in to the mike input you might want to turn the internal mike level to minimum.