

NBEMS BASIC WINDOWS INSTALLATION, SETUP, & TEST

Northwest Riverside County ARES – Bob Morris, KK6BXJ (9/1/2014)

NOTE: These are step-by-step instructions to install, setup, and test FLDigi and FLMsg for basic NBEMS acoustic use (no cables needed) on a Windows based computer. This will not cover all settings and the full use of these programs which has a lot more “under the hood” for more advanced digital communications. However, you should download and read the following document at ARRL for a basic understanding of what NBEMS is and how to use it.

- Link: <http://www.arrl.org/nbems>
 - **Introduction to NBEMS** – Good overview of NBEMS
 - Optional: **Advanced NBEMS** – For those wanting to go beyond the basics

1. Download the NBEMS FastLight software

1.1. Download the following from <http://www.w1hki.com/> select top Download Page

1.2. Under the “Windows Setup” column

1.2.1. fldigi-#.#.#_setup.exe (where # = current version number)

1.2.2. flmsg-#.#.#_setup.exe

1.3. **NOTE:** These instructions were based on *Fldigi-3.21.81* and *Flmsg-2.0.3*, but should work for newer and recent versions.

2. Install the FL programs

2.1. **NOTE-2:** Accepting the defaults settings is the best choice – change only if necessary

2.2. Run (double-click) fldigi-#.#.#_setup.exe (where # = version numbers)

2.2.1. Setup Installation steps

2.2.1.1. Leave selected components checked

2.2.1.1.1. Optional – Check Quick Launch shortcuts if you use them, otherwise leave unchecked

2.2.1.2. Select Next

2.2.1.3. Accept Destination Folder entry - Select Install – takes 10-30 seconds depending on speed of your computer

2.2.1.4. Select Close when Completed

2.3. Run flmsg-#.#.#_setup.exe

2.3.1. Setup Installation steps

2.3.1.1. Select Continue on License window

2.3.1.2. Leave selected components checked

2.3.1.2.1. Optional – Check Quick Launch shortcuts if you use them

2.3.1.3. Select Next

2.3.1.4. Accept Destination Folder entry – Select Install (~10 seconds)

2.3.1.5. Select Close when Completed

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3. Configure Fldigi

3.1. Note-1: *These instructions assume you are doing a first time installation with the Setup Wizard. However you can use these instructions to check the configuration, but you will have to select the Op Mode and Configure top menu options for the settings.*

3.2. NOTE: *If you are prompted by your computer's firewall security software to allow FLDigi access to the Internet, you should allow it so it can check for updates and other functions when connected.*

3.3. On Windows desktop, start Fldigi to run the Configuration Wizard (runs the first time)

3.4. Select Next

3.5. Operator Information

3.5.1. Enter at least your Callsign and Name, the rest are optional and can be entered later when you know them.

3.6. Select Next

3.7. Audio Devices – Devices tab

3.7.1. Select PortAudio

3.7.1.1. **NOTE:** *These settings can be a little tricky if you not sure what your computer has. If you cannot find the right ones, seek help from a computer savvy Ham.*

3.7.1.2. Capture:

3.7.1.2.1. If you're using an internal mic (laptops): Internal Mic

3.7.1.2.2. If you're using an external mic: Microphone/Line In

3.7.1.3. Playback: Speakers/Headphones

3.7.2. Skip other settings - Select Next

3.8. Transceiver Control – skip, select Next

3.9. Tabular data sources – skip, select Finish

3.10. Select Op Mode from top menu

3.10.1. Select MT63-2000L from drop-down menus

3.11. Select/click on ~1500 frequency in the bottom black Waterfall section to center the red bandwidth bars between 500 – 2500. You do not have to be exactly on 1500, and you can adjust the frequency +/- with the arrow buttons just below the waterfall. Hover you mouse over each button for a brief description of each. Look for the “Adjust cursor frequency” left/right buttons.

3.12. NBEMS settings

3.12.1. Add the FLMSG program path as follows:

3.12.1.1. On the Windows desktop (main window), right-click the flmsg-#.#.# shortcut and Select Properties

3.12.1.2. Right-click the blue highlighted text in the Target field and Copy text

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- 3.12.1.2.1.1. Text will be: “C:\Program Files\flmsg-#.##\flmsg.exe” or similar
- 3.12.1.2.2. Cancel/close Properties window
- 3.12.2. In FLDigi, select Configure from the top menu
- 3.12.3. Select Misc
- 3.12.4. Select the NBEMS tab
 - 3.12.4.1. Check the “Open message folder” box
 - 3.12.4.2. Verify all boxes are checked. This can be changed later as you learn what they do.
 - 3.12.4.3. Right click in the “flmsg:” and select Paste to paste the copied FLMsg program path.
 - 3.12.4.3.1. This assumes there is not already an entry there. If there is and you’re not sure it’s correct, delete it and past the copied path.
 - 3.12.4.4. Select Save, Close
- 3.13. IMPORTANT: Save your configuration settings as follow!**
 - 3.13.1. Select Configure from top menu
 - 3.13.2. Select “Save Config” on the bottom of drop-down menu
- 3.14. Quick Tests
 - 3.14.1. *Receive Test*: FLDigi is always receiving when it’s not transmitting. If you audio settings are correct for your computer and there is an active mic, you should see blue data marks streaming down in the Waterfall section depending on the volume of the sounds. As you speak or tap on the mic, you should see some yellow data marks streaming by indicating a louder noise is being heard. Red data is very loud noise, which you want to avoid to prevent distortion and data loss.
 - 3.14.1.1. If nothing is being heard, you do not have the right Audio Capture setting for your mic. Select “Configure, Sound Card” from top menu and try another mic setting or contact a computer savvy Ham.
 - 3.14.2. *Transmit Test*: Click on the first button on the left above the Waterfall labeled “CQ >|”, you should hear the start tones followed by MT63 tones (sounds like a buss saw) and see text appear (with your callsign you entered above) in the middle blue Transmit section and top orange Receive section. When completed, the text in the Transmit section is cleared. If you can’t hear anything but see the CQ text, try tuning up you sound. If still no sound, plug in a headset try again. Nothing heard? Check/change your audio settings.
- 3.15. Minimize FLDigi

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4. Configure Flmsg

4.1. First Time Setup (Note: You can change settings later under the top Config menu if necessary)

4.1.1. Start Flmsg

4.1.2. Personal Tab: Enter your Personal Information (used in forms)

4.1.3. Select Date/Time Tab

4.1.3.1. Set Date format to: MM/DD/YY or preferred format

4.1.3.2. Set Time format to: hh:mml (L is for local time) or preferred format

4.1.4. Select Files Tab

4.1.4.1. Check Date-Time under Naming Files

4.1.5. Close FLMsg Config windows

4.2. Set Default FLDigi Modem protocol

4.2.1. On the bottom of the FLMsg screen, select the drop-down menu to change the FLDigi Modem Type to MT63-2KL

4.3. Exit and Reopen FLMsg to saving settings

5. SEND YOU FIRST NBEMS TEST MESSAGE

5.1. Be sure both FLDigi and FLMsg are running and open side-by-side so you can see both windows.

5.2. In FLMsg, select Form, ICS, ICS213 from top menu to open the standard ICS-213 General Message form

5.3. Select Originator tab

5.4. Fill in the To, From, Sub Pos fields with any names you like

5.4.1. Sub. is the Subject

5.4.2. Pos. is the Position of the person the message is from, i.e. Site Leader, Manager etc.

5.5. Select the three dots (...) next to Date to enter today's date

5.6. Select the three dots next to Time to enter current time

5.7. Enter your test message: "We need 25 more cots", or whatever you like

5.8. Add your name in Bottom Sig. (signature) field and Operator in the Pos. field

5.9. Select AutoSend on top menu

5.10. The "Save Data file" windows opens,

5.10.1. Note the Directory where the file will be saved and named with your callsign-datecode-filecode automatically generated. Select Save

5.11. FLMsg should automatically activate FLDigi and transmit you message, displayed in the top transmit and receive window. If you sound is on, you should also here the MT63 audio tones of the message. If you see and hear it, then congratulations, you have successfully configured and verified your FLDigi and FLMsg apps are ready for use.