NBEMS Software… 2014 Winner of the ARRL Technical Excellence Award!

The Wellington Radio Club Guide

For The

Installation and Configuration Of NBEMS…

NARROW BAND EMERGENCY MESSAGING SYSTEM

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For The Reliable and/or Rapid Transfer of
Lengthy Text, Formatted Messages, and List and Table Files
Primarily Utilizing Acoustical Coupling
And Certain Digital Interfaces

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Otherwise known as

The NBEMS Guide for Digital Dummies!

Version 3 – 2/17/14

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The purpose of this install & configuration guide is to help ensure simplicity, uniformity and success in basic NBEMS communications primarily for FM emergency use.

The Wellington Radio Club's goal is to empower the emergency communicator to send & receive information reliably and rapidly… with little technical background. Our approach is to simplify and streamline the steps needed to get on the air with NBEMS. This immensely helps people move up the operating learning curve and maintain critical basic skills. For example, the focus is on just one or two digital modes, known to be reliable with acoustical coupling, rather than looking at the entire, bewildering array of a dozen+ modes and a hundred variations.

PBC Basic NBEMS permits operation with almost all base stations or handhelds using a computer configured and setup according to this Guide. This is invaluable when operating from EOCs, Shelters, Points of Distribution, CERT Command Posts, NGO offices, and similar emergency/disaster locations.

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For assistance setting audio levels, in PBC Basic NBEMS operations, or configuring a Digital interface, contact the WRC Elmers below.

For practice and on-the-air training join the WRC NBEMS Net:

THE WRC NBEMS NET

SUNDAYS 6:30pm 147.285+ PL 103.5 <<<>>> ELMERS are usually available at 6PM

AC4FC – Chris   chris_hite@bellsouth.net
AF4RL – Rich   rich@lucibella.com   (Mac literate)
K4MGW – Marc   bornannoyed@gmail.com
K4WAG – David david@theftcontrol.com
KS4NB – Larry   larry33414@aol.com

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This Guide was developed by the above Elmers and edited by Larry KS4NB.

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Downloading NBEMS Files

Go to **www.w1hkj.com**

Look for the FLDIGI and FLMSG download page…
these are the only two files necessary for *basic* NBEMS operations to send & receive text, pre-formatted message forms and files containing lists or tables.

Make sure to download the versions for your operating system. The same steps apply to the earlier version of Fldigi, 3.21.77

<center>**<>**</center>

Program Installation
(Installation steps with version fldigi-**3.21.78**)

FLDIGI

> Click on fldigi-3.21.78_setup.exe where saved on your computer

> (Will be different filename for Apple or Linux)

> Follow prompts

> You will be asked where to install, please use the default setting.

FLMSG – Same

> IMPORTANT NOTE: Write down the folder location where you have saved FLMSG.

> You will need that info during the configuration process.

When finished, you should end up with shortcuts to each of the programs on your desktop.

Shortcuts can be moved to a different location at a later date if desired.

<center>**<>**</center>

BEFORE YOU CONTINUE TO THE CONFIGURATION PAGE PLEASE READ THIS:
USE ONLY THE SETTINGS SPECIFIED

Most of the settings used will be pre-set "default" settings. There are a very confusing number of possible Fldigi settings and many setting combinations will NOT allow you to be compatible with other stations. After you have gained a familiarity with NBEMS and its on the air behavior, there maybe other settings you may wish to change.

Example: The default configuration activates only the *left* computer speaker. For some, enabling the *right* speaker, or both, maybe be more convenient if you are right-handed. Also, earbud performance maybe improved during transmit. Options are described at the end of the Guide.

MAC USERS - May wish to read page 4 for added FLMSG info. _{WRC}

FLDIGI Configuration

This procedure will ensure that all members using acoustical coupling have the same settings.

Click on FLDIGI Shortcut on desktop... the config Wizard will appear.

      For now, only complete whatever Operator/Station info you know, then –> SAVE+CLOSE

Click "Configure" On Tool bar:

Click UI, <u>General</u> Tab

      Check all 4 circles under exit prompts

      Check show tooltips

      Check show menu icons

      Leave all else at default

      Click Save

(Click "<u>Save</u>" anytime changes are made)
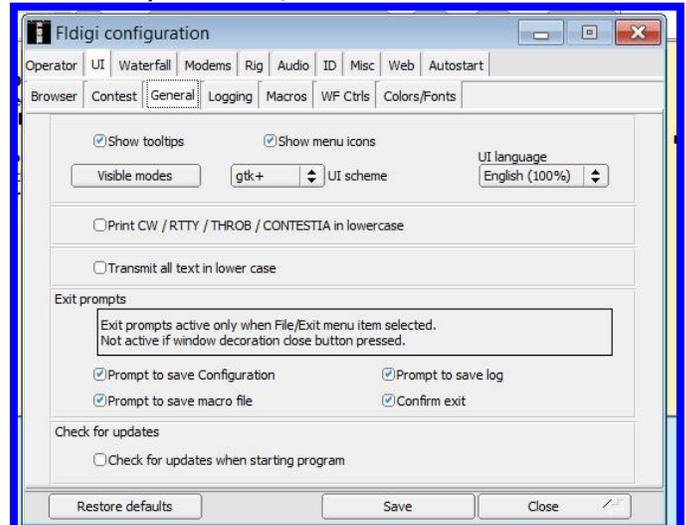
Click Operator

(Usually completed with the Wizard)

      Fill all fields you can

      (Look up location later on QRZ.COM)

      Click save
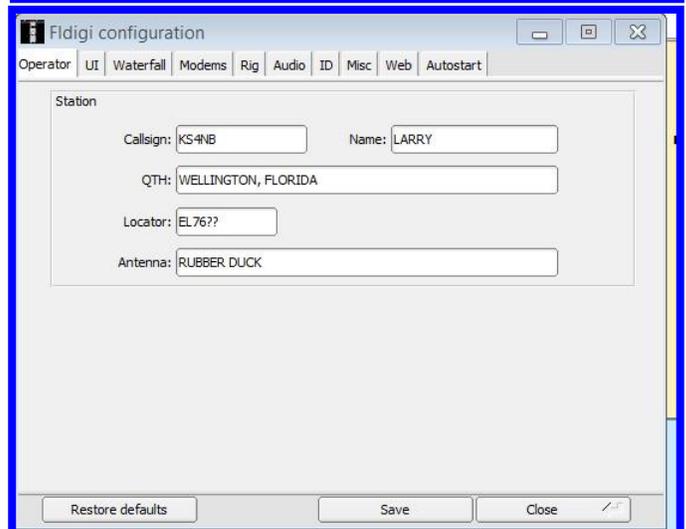
Click MODEMS, <u>MT63</u> Tab

      Check first 4 selections

      <u>Un</u>check Allow Manual Tuning

      Save
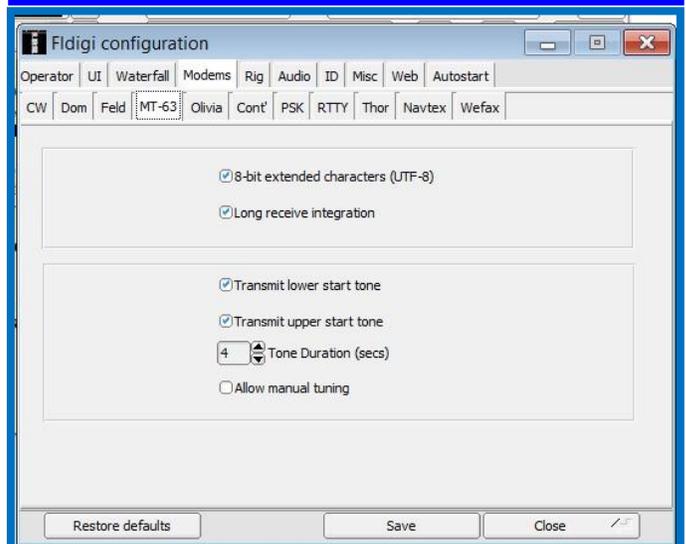
Click Audio, <u>Devices</u> tab

    Make sure port audio is checked

    Make sure that your computer's mike and speakers are selected

    Save
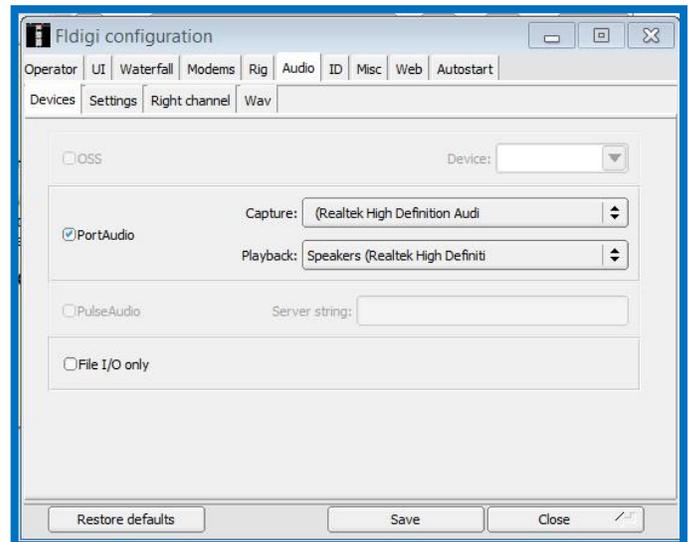
Click ID, RsID tab

    Set the *Pre-Signal Tone* to 2 seconds

    Save

    (Some of the unexpected benefits of the pre-signal tone were as an alert to remind operators to properly position mics/speakers, etc. and as a visual signal strength indicator to permit a quick radio volume adjustment).
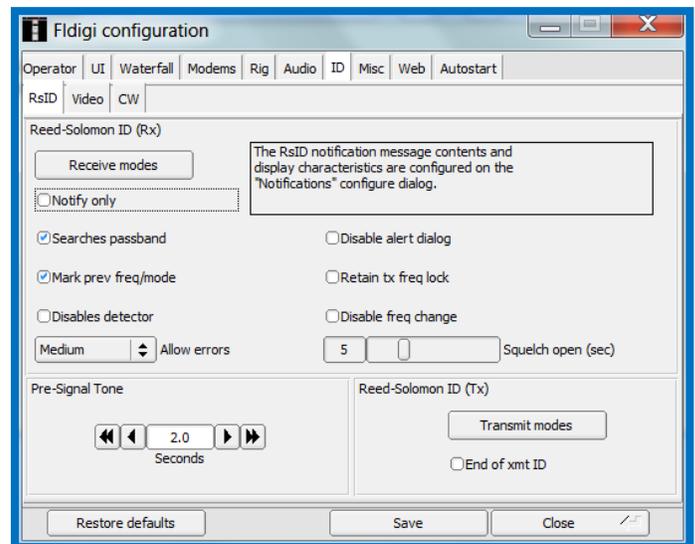
Click Waterfall, Display tab

    Enable/click on *Monitor transmitted signal* in the Transmit signal bottom area.

    Save
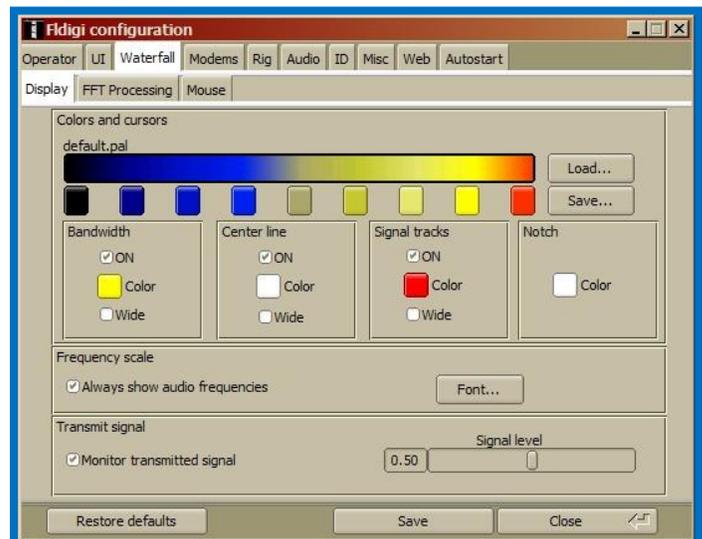
== Many people have a problem with the next step. ==

== It's <u>critical</u> to Auto Receive. ==

== PLEASE... *DOUBLE CHECK THE LOCATION OF <u>FLMSG.EXE</u>* **==**

Click Misc, <u>NBEMS</u> Tab

> Check Enable in *NBEMS Data File Interface*

> <u>Un</u>check open message folder

> Save

> Check Open with FLMSG in *Reception of messages*

> Fill the "flmsg:" box by entering the location you wrote down earlier. You can also locate it by using the "Locate flmsg" button.
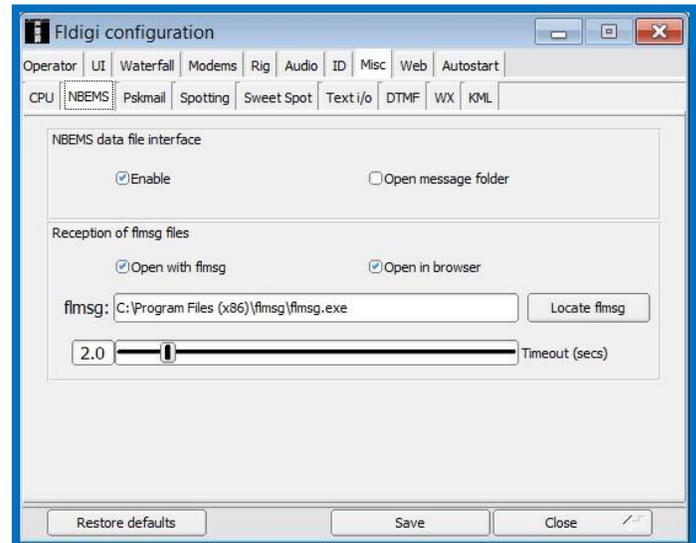
For **Windows 7** it is usually: *C:|Program Files (x86)|flmsg-1.1.33|flmsg.exe*

For **Windows XP** it is usually: *C:|Program Files|flmsg-1.1.33|flmsg.exe*

> Save and then close the configuration window.

============ MAC USERS FLMSG PROCEDURE ============

For **Apple/Mac OS X (From Rich, AF4RL):**

Click on "*Locate Message*".   A file browser is opened to the "Applications" folder.

Right click on the flmsg icon, .

Select "*Show Package Contents*".

Double click "*Contents*".

Double click on " *MacOS* ".

You will be viewing an icon labeled "flmsg".

> Drag and drop the icon onto the "flmsg:" entry box and the value will be correctly entered.   wc

Congratulations... You have completed the initial steps in setting up PBC Basic NBEMS for FM and MT63 communications. Now the computer and radio audio levels must be adjusted.

The quickest and best way is to work on-the-air with an experienced NBEM user.

This Guide's cover page lists Elmers and how to contact them.

OPTIONAL SETTINGS

COMPUTER SPEAKER OPTIONS: To operate with the simple acoustical coupling method and to implement an option below, you MUST know where the computer speakers are located. Contrary to common sense, some speakers are even located underneath the computer!

LOCATING YOUR LEFT COMPUTER SPEAKER*:* On the FLDIGI main screen, click on the uppermost right button: TUNE. It should turn **RED** and a tone should come through the speaker that is currently selected. To turn off the test tone, click on the TUNE button once again.
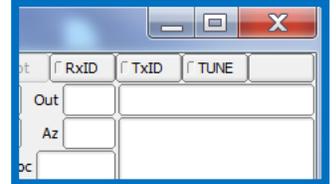
The optional settings are made from the "Fldigi configuration" windows as shown

OPTION 1: COMPUTER SPEAKER SELECTION

The default configuration activates the <u>left</u> computer speaker. Some operators may prefer to enable the <u>right</u> speaker for convenience when transmitting. That is when the radio mic is held near the computer speaker.

    Click AUDIO, Right channel tab

    Check the *Reverse Left/Right channels* box.

    Save

Test this feature: Click the **TUNE** for the tone. It will come from the speaker that is currently selected. Now check or uncheck the *Reverse* box. The tone will switch back and forth between speakers.
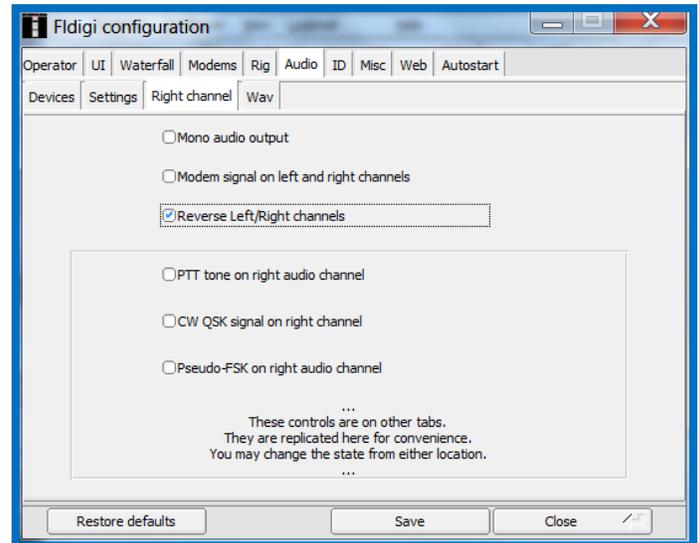
OPTION 1: USING <u>BOTH</u> COMPUTER SPEAKERS

Multi-NBEMS operators: When they will use the same computer at the same or different times, it may be useful to enable BOTH computer speakers.

The WHISPER coupler or earbuds: Their performance maybe enhanced by choosing to use BOTH speakers.

    Click AUDIO, Right channel tab

    Check the *Modem signal on Left and Right channels* box.

    Save

Test this feature: Click the **TUNE** to get the test tone. It will come from both speakers. To check Whisper unit or earbud performance, plug-in them in. Check or uncheck the *Modem signal* box. Choose the setting producing the loudest tone.