

The Wellington Radio Club Guide

Installation and Configuration Of NBEMS...

NARROW BAND EMERGENCY MESSAGING SYSTEM

Lengthy Text, Formatted Messages, and List and Table Files Primarily Utilizing Acoustical Coupling **And Certain Digital Interfaces** 

> <> Otherwise known as

<>

# The NBEMS Guide for Digital Dummies! Version 3 – 2/17/14

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

rich@lucibella.com (Mac literate) AF4RL – Rich

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, preformatted 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



## **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.

## <>

## 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 <u>left</u> computer speaker. For some, enabling the <u>right</u> 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.

## **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, General Tab

Check all 4 circles under exit prompts

Check show tooltips

Check show menu icons

Leave all else at default

Click Save

#### (Click "Save" 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, MT63 Tab

Check first 4 selections <u>Un</u>check Allow Manual Tuning Save

Fldigi configuration							
Operator UI Waterfall Modems Rig Audio ID Misc Web Autostart							
Browser Contest General Logging Macros WF Ctrls Colors/Fonts							
Show tooltins							
UI language							
OPrint CW / RTTY / THROB / CONTESTIA in lowercase							
○Transmit all text in lower case							
Exit prompts							
Exit prompts active only when File/Exit menu item selected. Not active if window decoration dose button pressed.							
Prompt to save Configuration Prompt to save log							
Check for updates							
Check for updates when starting program							
Restore defaults Save Close /							
operator   U   waterfail   Modems   Rig   Audio   ID   Misc   Web   Autostart							
Station							
Callsign: KS4NB Name: LARRY							
QTH: WELLINGTON, FLORIDA							
Locator: EL76??							
Restore defaults Save Close Z							
Fldigi configuration							
Operator UI Waterfall Modems Rig Audio ID Misc Web Autostart							
CW Dom Feld MT-63 Olivia Cont' PSK RTTY Thor Navtex Wefax							
Ø8-bit extended characters (UTF-8)							
CLong receive integration							
⊘Transmit lower start tone							
⊘Transmit upper start tone							
4 Tone Duration (secs)							
◯ Allow manual tuning							
Restore defaults Save Close							

#### Click Audio, Devices tab

Make sure port audio is checked

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

Save

Operator	UIW	aterfall	Modems	Rig	Audi	0 ID	Misc	Web	Autost	art	
Devices	Setting	Right	channel	Wav							
0	DSS								Devi	tet 🗌	V
				Capt	ure:	(Realt	ek Hig	n Defini	tion Aud	i	\$
(C)	'or taudio			Playb	ack:	Speake	rs (Rei	altek Hi	g <mark>h Def</mark> in	iti	\$
OF	PulseAudi	0			Servei	string					
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4

Fldigi configuration							
Operator UI Waterfall Modems Rig	J Audio ID Misc Web Autostart						
RsID Video CW							
Reed-Solomon ID (Rx)							
Receive modes The RsID notification message contents and display characteristics are configured on the "Notifications" configure dialog.   Notify only Notifications" configure dialog.							
C Searches passband	⊖Disable alert dialog						
☑ Mark prev freq/mode	○Retain tx freq lock						
ODisables detector	○Disable freq change						
Medium 🖨 Allow errors	5 Squelch open (sec)						
Pre-Signal Tone	Reed-Solomon ID (Tx)						
Econds	Transmit modes						
Restore defaults	Save Close Z						



#### Click ID, RsID tab

Set the *Pre-Signal Tone* to 2 seconds

Save

(Some of the unexpected benefits of the presignal 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 <u>Monitor transmitted signal</u> in the Transmit signal bottom area.

Save

## == Many people have a problem with the next step. == == It's critical to Auto Receive. == == PLEASE... DOUBLE CHECK THE LOCATION OF FLMSG.EXE ==

#### Click Misc, NBEMS Tab

Check Enable in NBEMS Data File Interface

Uncheck 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.

erator UI	Waterfall   Modems   Rig     Pskmail   Spotting   Sweet	Audio   ID   Misc   Web   Autostart   Spot   Text i/o   DTMF   WX   KML	
NBEMS da	ita file interface	Open message folder	
Reception	of fimsg files @Open with fimsg C:\Program Files (x86)\fimsg	⊘Open in browser	Locate flmsg
2.0	0		Timeout (secs)
2.0	]U		Timeout (secs)
Resto	re defaults	Save	Close Z

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.

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.

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# 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 <u>Reverse Left/Right channels</u> 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 <u>Modem signal on Left and Right</u> <u>channels</u> 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.

Flo	digi configuratio	on				X			
perato	r UI Waterfall N	Modems Rig Audio	ID Misc Web	Autostart					
Device:	vevices Settings Right channel Wav								
⊖Mono audio output									
	○Modem signal on left and right channels								
	<b>W</b> Re	everse Lett/Right chann	IEIS						
	OPTT tone on right audio channel								
	○CW QSK signal on right channel								
	OPseudo-FSK on right audio channel								
These controls are on other tabs. They are replicated here for convenience. You may change the state from either location. 									
	Restore defaults		Save		Close	<u>(-</u>			

