

Platinum Coast Amateur Radio Society Narrow Band Emergency Messaging System (NBEMS) Presentation



Thanks to the Wellington Radio Club for their interest and support of NBEMS implementation and training.

Much of the information in this presentation was extracted and updated from their NBEMS presentation.

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A special thanks to Larry Lazar KS4NB for presenting NBEMS to PCARS Members and being available to answer any related questions.

To use the Basic NBEMS program one only needs to download and configure two free programs.

This presentation will guide you in the process of downloading, installing and configuring both fldigi 4.0.x and flmsg 4.0.x

Download fldigi 4.0.x and flmsg 4.0.x

Go to: https://sourceforge.net/project s/fldigi/ to download fldigi

Click on the green **Download** fldigi-4.0.x_setup.exe button

NOTE: The fldigi and flmsg files may also be obtained from: http://www.w1hkj.com/files/fldi gi/

When the download is completed, your computer will give you a warning

Click on the **Keep** button

Navigate to your computer Download folder and double click on fldigi-4.0.x_setup. The fldigi-4.0.x_setup: License Information popup will appear



On the **fldigi-4.0.x_Setup: License Information** popup, Click the **Continue** button.

The fldigi 4.0.x Setup: Installation Options popup will appear

Uncheck the Start Menu Shortcuts.

Click the **Next** button

The fldigi 4.0.x Setup: Installation Folder popup will appear

📸 Fldigi 4.0.8 Setup: License	Information — 🗌	\times								
Fldigi is distributed under the GN terms of this license if you modif	NU GPL as detailed below. You must abide b fy or redistribute the program.	y the								
GNU GENERAL PUE Version 3, 29 Jun	BLIC LICENSE ne 2007	^								
Copyright (C) 2007 Free Software Foundation, Inc. < <u>http://fsf.org/</u> > Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.										
Preamble										
The GNU General Public Licens software and other kinds of wo	se is a free, copyleft license for orks.									
The licenses for most software	e and other practical works are designed	~								
Cancel	Con	tinue								
🚏 Fldigi 4.0.8 Setup: Installati	ion Options —	×								
Check the components you wan want to install. Click Next to cor	at to install and uncheck the components you	u don't								
	Tunue.									
Select components to install:	Fldigi Flarq Start Menu Shortcuts Oesktop Shortcuts Quick Launch Shortcuts									
Select components to install: Space required: 17.5MB	Fldigi Flarq Start Menu Shortcuts Desktop Shortcuts Quick Launch Shortcuts									

On the **fldigi-4.0.x_Setup: Installation folder** popup, We will accept the default destination folder, C:\Program Files (x86)\Fldigi-4.0.x

Click the **Install** button.

Fldigi 4.0.x will be installed and **the Fldigi 4.0.x Setup: Completed** popup will appear

Click the **Close** button

This completes the installation of Fldidi 4.0.x on your computer.

Next let's download and install Flmsg 4.0.3

🚏 Fldigi 4.0.8 Setup: Installation Folder	_		×
Setup will install Fldigi 4.0.8 in the following folder. dick Browse and select another folder. Click Install t	To install in a constant the in	different fold stallation.	ler,
Destination Folder C:\Program Files (x86)\Fldigi-4.0.8		Browse	
Space required: 17.5MB Space available: 20.8GB			
Cancel	< Back	Insta	ll
Bidigi 40.8 Setup: Completed			~
Fldigi 4.0.8 Setup: Completed	-		×
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Fldigi 4.0.8 Setup: Completed Completed Show details	_		×
Fldigi 4.0.8 Setup: Completed Completed Show details	_		×
Fldigi 4.0.8 Setup: Completed Completed Show details	_		×
Fldigi 4.0.8 Setup: Completed Completed Show details	_		×

Go to: https://sourceforge.net/projects/fldigi/ files/flmsg/

Click flmsg-4.0.x_setup.exe

When the download is completed, your computer will give you a warning

Click on the **Keep** button

Navigate to your computer Download folder and double click on **flmsg-4.0.3_setup.** The **flmsg-4.0.3: License Information** popup will appear Fldigi Ham Radio Digital Modem Application Brought to you by: dave-w1hkj, sb42

Summary Files Reviews Support Mailing Lists Git •

Looking for the latest version? Download fldigi-4.0.8_setup.exe (5.5 MB)

Home / flmsg				ッ
Name +	Modified +	Size +	Downloads / Week +	
↑ Parent folder				
templates	2017-04-14		8	
readme.txt	2017-07-19	1.3 kB	27	i
flmsg-4.0.3_i386.dmg	2017-07-19	1.9 MB	67 🔔	i
flmsg-4.0.3_ppc.dmg	2017-07-19	1.9 MB	8	1
flmsg-4.0.3_setup.exe	2017-07-19	1.3 MB	639 📐	i
flmsg-4.0.3.tar.gz	2017-07-19	898.2 kB	72	i
flmsg-help.zip	2017-04-18	3.0 MB	16	6
flmsg-help.pdf	2017-04-18	2.6 MB	29	6
Totals: 8 Items		11.6 MB	866	

A

This type of file can harm your computer. Do you want to keep flmsg-4.0.3_setup.exe anyway?

Keep [

Discard

On the flmsg-4.03 Setup: License Information popup, click continue.

The fldigi 4.0.3 Setup: Installation options popup will appear.

Select desired components as shown and then click **Next**.

The fldigi 4.0.3 Setup: Installation folder popup will appear.

🚏 flmsg 4.0.3 Setup: License Info	rmation	_		\times							
fimsg is distributed under the GNU GPL as detailed below. You must abide by the terms of this license if you modify or redistribute the program.											
GNU GENERAL PUBLIC Version 3, 29 June 2	LICENSE 007			^							
Copyright (C) 2007 Free Software Foundation, Inc. < <u>http://fsf.org/</u> > Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.											
Preamble											
The GNU General Public License is software and other kinds of works.	a free, copyleft	license for									
The licenses for most software an	d other practica	l works are de	sioned	~							
Cancel			Cont	tinue							
滑 flmsg 4.0.3 Setup: Installation	Options	_		×							
Filmsg 4.0.3 Setup: Installation Check the components you want to want to install. Click Next to continu	Options install and unche	eck the compo	nents you	× don't							
flmsg 4.0.3 Setup: Installation Check the components you want to want to install. Click Next to continu Select components to install:	Options install and unche e. FLMSG Start Menu Ø Desktop Sh Quick Laund	eck the composition of the compo	nents you	× don't							
Filmsg 4.0.3 Setup: Installation of Check the components you want to want to install. Click Next to continue Select components to install:	Options install and unche e. FLMSG Start Menu Ø Desktop Sh Quick Laund	ck the composition of the compos	nents you	× don't							

On the flmsg-4.03 Setup: Installation Folder popup,

Accept the destination folder "C:\Program Files (x86)\flmsg-4.0.3

Click the **Next** button.

When the installation is completed the **flmsg-4.03** Setup: Completed popup will appear.

Click **Close** button.

This completes the installation of Flmsg 4.0.3 on your computer.

Now let us configure Fldigi.

🚏 flmsg 4.0.3 Setup: Installation Folder	—		\times
Setup will install flmsg 4.0.3 in the following folder. To click Browse and select another folder. Click Install to	install in a diff start the insta	ferent fold llation.	der,
Destination Folder			
C:\Program Files (x86)\flmsg-4.0.3	E	Browse	
Space required: 4.3MB			
Space available: 21.1GB			
Cancel	< Back	Insta	all
🕞 flmsg 4.0.3 Setup: Completed	—		\times
Completed			
Show details			

	< Back	Clo

Cance

On your desktop click the fldigi 4.0.x Icon

The fldigi main screen will appear.

On the fldigi 4.0.x main screen click **Configure**, **UI, User Interface**

The fldig configuration screen will appear



Click the **UI**, General tab

Check Show Tooltips and Show menu icons check boxes

Check all 4 boxes under "Exit Prompts"

Leave all else at default

Click **Save**

Click the **Operator** tab

The fldigi Station/Operator configuration screen will appear

FIdigi configuration —		×						
Operator UI Waterfall Modems Rig Audio ID Misc Web Autostart IO PSM								
Browser General Log Contest Macros WF Ctrls Clrs/Fnts Touch								
Browser General Log Contest Macros WF Ctrls Clrs/Fnts Touch Image: Show tooltips Image: Show menu icons Image: UI language Image: Visible modes Image: I								
 Prompt to save Configuration Prompt to save macro file Confirm exit Check for updates Check for updates when starting program 								

Restore defaults

Save

(Click "Save" anytime changes are made)

Fill all fields you can (Look up location on QRZ.com)

Click **Save**

Now click the **Modems** tab

The FLDIGI **Modems** configuration window will appear

Fldigi configuration			_		\times
Operator UI Waterfall Modems F	ig Audio ID Misc We	b Autostart IO PSM			
Station / Operator					
Station Callsign:	KA4JRY				
Station QTH:	Satellite Beadh, Florida				
Station Locator:	EL98qe				
Operator Callsign:	KA4JRY				
Operator Name:	GORDON]			
Antenna:					
Restore defaults		Save	d	ose	<u><</u>

On the Modem configuration screen

Click the MT63 tab

Check the first 4 selections

Set "Tone Duration" to 2 sec

Uncheck "Allow manual tuning"

Click **Save**

Now click the Audio, Devices tab

The Audio Devices configuration screen will appear

Fldigi configuration		—	\times
Operator UI Waterfall Modems	Rig Audio ID Misc Web Autostart IO PSM		
CW Dom Feld FSQ IFKP MT-6	3 Oliv Cont PSK TTY Thor Other		
	I ong receive integration		
	 Transmit lower start tone 		
	✓Transmit upper start tone		
	2 Tone Duration (secs)		
	O Allow manual tuning		

|--|

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On the Audio Devices configuration screen

Make sure **Port Audio** and **Device supports full duplex** boxes are checked

Make sure your computer's mike and speakers are selected

Click Save

NOTE: Write down the Capture and Playback devices you have selected. That info will be used in the testing and calibration procedure

Now click the ID, RsID tab

Fldigi	i configur	ration									—		\times
Operator	UI Wa	terfall	Modems	Rig	Audio	ID Misc	Web	Autostart	IO	PSM			
evices	Settings	Right	channel	Wav	Alerts								
	⊖oss)						De	evice:				
	€Port	Audio		Ca	pture:	Microphone	(Realte	k High Defir	ni			≑	
				Play	/back:	speakers (i	Realtek	High Definit]				
	OPuls	eAudio			Se	rver string	:						
	□File	I/O only	/										
	Oevice supports full duplex												
R	estore de	faults						Sa	ve			Close	<u></u>

On the ID, RsID screen,

Click the check boxes as shown in the red rectangle. A FLUE A CONTRACT

Set the **Pre-Signal Tone** to 2 seconds

Click **Save**

Now click the Waterfall, **Display** tabs

The Waterfall, Display configuration screen will appear

FIdigi configuration													_	-		×
Opera	operator UI Waterfall Modems Rig Audio						ID	Misc	Web	Autostar	t IO	PSM				
RsID	Vide	0 CV	V													
	Reed-Solomon ID (Rx) The RsID no display char								ion mes stics are	sage cont e configur	tents a ed on t	nd he				
		otify o	nly			"Notific	cation	ns" cor	nfigure (dialog.						
	⊘s	earche	es passba	and				⊘Dis	able ale	ert dialog						
		iark pr	ev freq/r	r				○Retain tx freq lock ✓Disable freq change								
	Med	dium	[-	Allow err	ors		5 Squelch open (sec)									
	Pre-Signal Tone								Reed-S	olomon ID	(Tx) Tra	nsmit m	odes			
	Res	tore d	efaults								ave			Clos	e	/-

On the Waterfall screen, Check Transmit signal **Monitor transmitted signal** box

Click **Save**

Click Misc, NBEMS Tab

The **NBEMS** configuration screen will appear

Operator	UI Waterf	all Modem	s Rig	Audio	ID	Misc	Web	Autostar	t IC	PSM			
Display	FFT Processing	Mouse											
	Colors and cu	rsors											
	default.pal	_								_		_	
											Load		
											Save		
	Bandwidth		Cent	er line			Signal	tracks		Note	h		
	⊘ ON		0	N			⊘ON						
	Color			Color			Co	olor			Color		
	Wide		Ow	/ide			Wid	e					
	Frequency sc	ale								-			
	Always st	now audio fr	equenc	ies				Fo	nt				
	Transmit signa	al							Sign	allevel			
	Monitor t	ansmitted s	ignal				0.2	0)				

= = Many people have problems with the next step = = = Double check the location the location of flmsg.exe on you computer Under NBEMS data file interface, check **Enable**

Uncheck **Open message** folder

Make sure **Transfer direct to executing flmsg** is unchecked

Fill the "flmsg: box by entering the flmsg.exe location on you computer. You can also locate the file by using the "Locate flmsg button.

Click Save

												r
Fldig	gi configur	ation								—		×
Operato	r UI Wa	terfall M	odems Rig	Audio	ID M	isc Web	Auto	start IO	PSM			
CPU NE	BEMS Psk	mail Spot	tting Sweet	t Spot	Text i/o	DTMF	wx [ĸ	ML				
	NBEMS da	ata file inte	rface									
		€Enable	•			0	pen me	ssage fold	er			
	Reception	n of fimsg f	files									
			Sele	ection o over all	f transfer other fim	direct ta sg recept	kes pre ion sett	cedence tings				
			□Transfe	er direct	to execu	iting fims	,					
		⊘Open v	with flmsg			Ø	pen in b	rowser				
	flmsg:	C:\Progra	am Files (x86	5)\flmsg	-4.0.3 <mark>.</mark> fn	ame				Locate fime	sg	
	2.0	-0-							Time	out (secs)		
F	Restore de	faults				(Save		0	lose	<u><</u> -

On the FLDIGI Main screen Click **Op Mode**, **MT63**, **MT63-2000L**



Now we can configure flmsg

Before configuring flmsg, make sure the correct file location has been entered on the "**flgmsg**": box on the NBEMS screen Double click the **flmsg 4.0.3 icon** on the desktop.

On the FLMSG 4.0.3 pop-up Click Tools, Expert Dialog

The **FLMSG: 4.0.3** configuration screen will appear

Most of the traffic using Basic NBEMS on FM will be local. For that reason, we will use local date and time to reduce confusion about dates because Zulu date is often different than the local date.

FLN	1SG: 4.().3	_	×
File	Tool	S		
	Upda	ate template	es	
	Expe	rt Dialog	sage	
		Edit M	lessage	
	[View N	lessage	

On the FLMSG configuration screen, Click **Confg, Personal data**

The flmsg **Personal** data pop-up will appear

FLMSG: 4.0.3	—	
<u>File Form Template</u>	Config AutoSend ARQ	Help
JCS-213 report	Personal data w.213	
Originator Responder	Date/Time Files/Formatting	
Inci	Radiogram	
	ARQ interface	
То	User interface	
Fm	Pos.	
Sub.		
Message:	Date 🔟 Time	
		() ())
App'd	Pos.	
Comp 8PSK125		
ARQ Send	NOT CONNECTED	

Personal data

Your call sign is required. Depending upon your net protocol or your assignment, you may wish to add you "Tactical Call" such as PCARS EOC-W4MLB.

Enter the required data

Click the **Date/Time** tab

The flmsg **Date/Time** configuration pop-up will appear

flmsg config		×					
Personal Date/Time Files Radiogram ARQ UI							
Call:							
Tel:	321-773-6273						
Name:	GordonJohnson						
Addr:							
City/St/Zip:							
Email addr:	ka4jry@gmail.com						

Date/Time

Select the Date and time format as shown. This is the most common local time and date formats

Select the **Files** tab

The flmsg Files pop-up will appear

📲 flmsg config Personal Date/Time Files Radiogram ARQ UI OYYYY-MM-DD ○YYYY-DD-MM MM/DD/YY

CAP Local time

∋hhmmL hh:mmL hhmmZ ⊖hh:mmZ hhmm UTC) hh:mm UTC \times

Files and Formating

Verify Files pop-up is configured as shown.

Radiogram & FLDIGI Connections: No Changes: For now use the default selections.

Click the Close X at the upper right corner of the flmsg config screen.

flmsg config	_		Х				
Personal Date/Time Files Radiogram ARQ	UI						
Wrap Open folder when exporting							
Naming FilesDate-timeCallsignLocal time, LSerial #1							
MARS roster file							
MARS_ROSTER.csv		Fin					
Html message text Word wrap at 12 Characters							

CONGRATULATIONS!!!

You have completed the initial steps in setting up Basic NBEMS for FM and MT63 communications.

Now the computer and radio audio levels must be adjusted. The quickest and best way to adjust is with another NBEMS user.