



NBEMS:

Basic Operation



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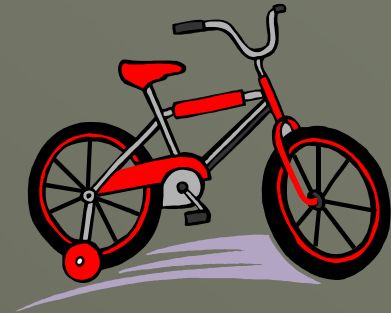
TRYON

Amateur Radio Club

www.K2JJI.org



Training Goal



Be able to create, send and receive digital messages using NBEMS.

Please hold questions until the end.
We will step through NBEMS together.

What is NBEMS?

Narrow Band Emergency Message System.

- Suite of software programs used together that allows the creation and distribution of digital messages.
- Only need a computer and any radio. Laptop allows you to be portable (shelters, hospital, mobile, etc...).

Where can you get the software?

<http://www.w1hkj.com/download.html>

Download page: updated 8 August 2012

	Linux Binary	Windows Setup	OS X dmg	Puppy Pet (1)	Source	Help	Release Info
Fldigi / Flarq:	fldigi-3.21.50.bin README	fldigi-3.21.50 setup	fldigi-3.21.50 dmg	fldigi-3.21 flarq-4.3 pet libs	fldigi-3.21.50 required for all fl__ applications	Fldigi-Help Flarq-Help fldigi manual (pdf)	Maint'
RigCat Xmls	xml archives						
Flwrap:	flwrap-1.3.4.bin	flwrap-1.3.4 setup	flwrap-1.3.4 dmg	flwrap	flwrap-1.3.4	Flwrap-Help	Maint'
Flmsg:	flmsg-1.1.23.bin	flmsg-1.1.23 setup	flmsg-1.1.23 dmg	flmsg	flmsg-1.1.23	Flmsg-Help Flmsg-Help-PDF	Maint'
Flwkey:	flwkey-1.1.3.bin	flwkey-1.1.3 setup	flwkey-1.1.3 dmg	flwkey	flwkey-1.1.3	Flwkey-Help	Maint'
Flrig: Supported rigs	flrig-1.3.07.bin	flrig-1.3.07 setup	flrig-1.3.07 dmg	flrig-1.3.07	flrig-1.3.07	flrig-help	Maint'
Flllog:	fllog-1.1.5.bin	fllog-1.1.5 setup	fllog-1.1.5 dmg	fllog-1.1.5	fllog-1.1.5	fllog-help	Maint'
Net	net 6.0.04 bin	net 6.0.04 setup	net 6.0.04 dmg		net 6.0.04	net help	
Kcat	kcat-1.1.01 bin	kcat-1.1.01 setup	kcat 1.1.01 dmg		kcat-1.1.0	kcat help	

Where can you get the software cont...

- Minimum files needed:

FIDigi, FIMsg, FIWrap and CheckSR.

Tips

- Be aware where you download the installation files.
- Be aware where you install the program files.
- Take the defaults when installing.
- <http://www.pa-sitrep.com/NBEMS/>

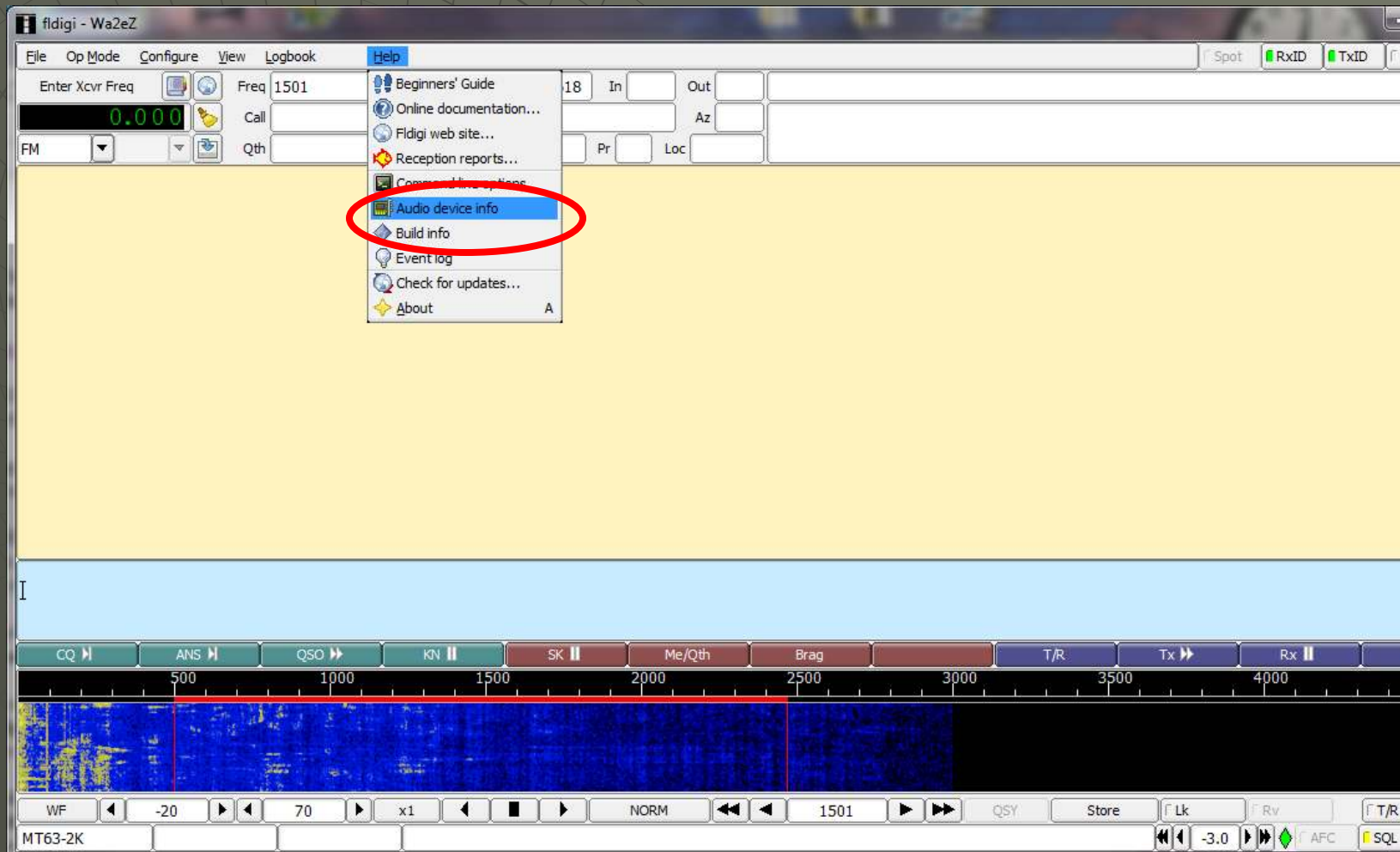
Install your programs.

Everyone has different computers with different audio devices and settings, so...

“We” all agree to help each other with your unique settings if you need it.

CheckSR

Find your Audio Default Sample Rate:



CheckSR cont...

fldigi Help

← → F F 🔍

Capture device

index	1
name	Microphone (Realtek High Defini
host API	MME
max input channels	2
max output channels	0
default sample rate	44100
supported sample rates	8000 9600 11025 12000 16000 22050 24000 32000 44100 48000 88200 96000 192000
input only	true
output only	false
full duplex	false

CheckSR cont...

This is a small, standalone, application that consist of a single exe file. When you double click on it, once it's saved to your desktop, it provides the capability of analyzing your sound card offsets and gives you the corrections in parts per million (ppm):

Sound card sample rate checker ver. 1.0

Sound card settings:

Input: Default sound card

Output: Default sound card

Sample rate, Hz: 11025

Start

Stop

Help

Close

Measured sample rate - wait for the data to stabilize

	Input:	Output:
Sample rate, Hz:		
Difference, ppm		

Sound card sample rate checker ver. 1.0

Sound card settings:

Input: Microphone (Realtek Hig...

Output: Speakers (Realtek High...

Sample rate, Hz: 44100

Start

Stop

Help

Close

Measured sample rate - wait for the data to stabilize

	Input:	Output:
Sample rate, Hz:	44101.72	44127.01
Difference, ppm	39	612

FIDigi

... is a computer program intended for Amateur Radio Digital Modes operation using a PC. Fldigi operates in conjunction with a conventional VHF FM & HF SSB radio transceiver, and uses the PC sound card as the main means of input from the radio, and output to the radio. These are audio-frequency signals. The software also controls the radio by means of another connection, typically a serial port.

FIDigi

fldigi - Wa2eZ

File Op Mode Configure View Logbook Help

Enter Xcvr Freq Freq 1500 On Off 1811 In Out

0.000 Call Op Az

FM Qth St Pr Loc

RxID TxID TUNE

This is the receive pane

This is the transmit pane

This is the Waterfall Area

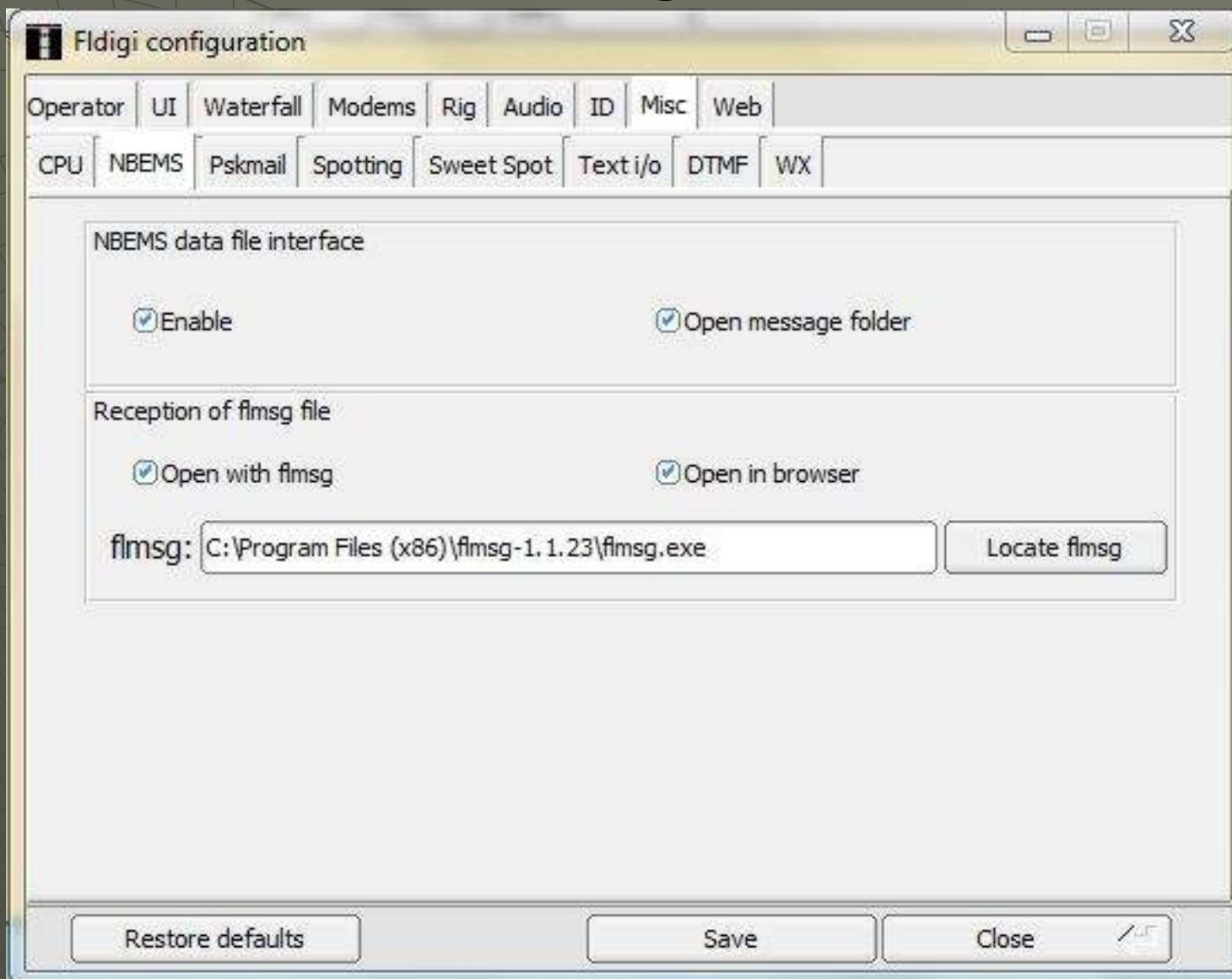
CQ M ANS M QSO M KN M SK M Me/Qth Brag T/R Tx Rx TX M

500 1000 1500 2000 2500 3000 3500 4000 4500 5000

WF -20 70 x1 NORM 1500 QSY Stop LK Rv T/R

MT63-2K -3.0 SQL

FIDigi



FIMsg

FLMSG: 1.1.23

ARRL radiogram file: new.m2s

Message Records

SVC *NR 2 *PREC ROUTINE HX hx *STN ORIG CK ck

PLACE OF ORIG TIME FILED *MON DY

*TO TEL: OP NOTE: Standard Format ARL MSG

TXT:

SIG: OP NOTE:

FIMsg

flmsg is a simple forms management editor for the amateur radio supported standard message formats. These current include:

[ICS-203](#) - Organization Assignment List

[ICS-205](#) - Incident Radio Communications Plan

[ICS-205A](#) - Comms List - special USCG Plan

[ICS-206](#) - Medical Plan

[ICS-213](#) - General Message Form

[ICS-214](#) - Unit log

[ICS-216](#) - Radio Requirements Worksheet

[HICS-203](#) - Hospital Organization Assignment List

[HICS-206](#) - Hospital Staff Medical Plan

[HICS-213](#) - Hospital Incident Message Form

[HICS-214](#) - Hospital Operational Log

FIMsg

[MARS Daily](#) - Military Auxiliary Radio System Daily report

[MARS IN/EEI](#) - Military Auxiliary Radio System IN/EEI report

[MARS Net](#) - Military Auxiliary Radio System net report

[MARS Army](#) - Military Auxiliary Radio System Army formatted message

[MARS Navy](#) - Military Auxiliary Radio System Navy formatted message

[IARU](#) - International Amateur Radio Union standard message

[ARRL Radiogram](#) - NTS message

[Red Cross Safety & Welfare](#) - standard report

[Red Cross 5739](#) - On Site Detailed Damage Assessment

[Red Cross 5739A](#) - Detailed Damage Assessment Supplemental Worksheet

[Red Cross 5739B](#) - Area Assessment Worksheet

[Plaintext](#) - generic message format

[CSV-text](#) - Comma Separated Value text file (spreadsheet)

[Blank](#) - very simple text format with no preset fields

[Drag and Drop](#) - target control (widget) that accepts either a data file (.203 etc), a wrapped data file (.wrap), or the text associated with a data file. The later may be a copy and paste from another application such as fldigi or a text editor.

Summary

Steps to create a message:

1. Open FIMsg.
2. Select the message form you want to create.
3. Choose File/Wrap/Export. Name the file something that makes sense so you can find it later if asked to resend it.

Steps to send a message:

1. Open Fldigi and the folder where you saved your created message.
2. Drag the message file to the Transmit Pane in FIDigi and drop it.
3. Choose the OpMode (MT-63 2K) you want to use.
4. Click on the TX button farthest to the right just above the Waterfall area and hold your radio microphone near the computer speaker.

Steps to receive a message:

1. Choose the OpMode needed to receive the intended message. This should be discussed prior to attempting this step.
2. Once the OpMode is coordinated, all you should need to do is have the radio speaker close enough to be heard by the FIDigi program.

What I don't know...

- How to send files like lists and spreadsheets.
- The best or easiest way to do this...
- All the things this software can do that I have not seen YET...

Grand Finale



With built-in Questions and Answers