FLDIGI and Winlink Discussion 21MAY2023

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Overview

Fldigi (short for **Fast light digital**) is a free and open-source program which allows an ordinary computer's sound card to be used as a simple two-way data modem.

Fldigi is multi-mode, which means that it is able to operate many popular digital modes without switching programs, so you only have one program to learn. Fldigi includes all the popular modes, such as WEFAX (Weather FAX) , MFSK16, PSK31, and RTTY.

Standard is for FLDIGI Communications to occur on **USB-Digital Upper Side Band- Digital**

FLDIGI can be configured where the Sender automatically sends the Mode being used so that the Receiver can automatically adjust to simplify ability to communicate with one another.

FLDIGI can be combined with additional Applications including but not limited to:
FLRIG- Used to manage Radio's Frequency and various settings.

FLMSG- FLMSG is a separate program that can be used alongside fldigi to send and receive messages in document form that can then be saved, printed, or if necessary, retransmitted via FLDIGI or emailed using Winlink or standard Email... This is a very common way of using fldigi.

Winlink-

1. Pro: Reliable method to retrieve stored messages when you are online.
2. Pro: Ability to perform retries to send or receive at your discretion.
3. Pro: Ability to send/receive over Internet (Telnet), PACKET, VARA HF or Vara FM, ARDOP, Radio Only, etc…
4. Con: must routinely keep checking to see if there is a new message waiting for you adding a delay in time if immediate action/response is needed.

FLDIGI

1. Pro: Support VHF, UHF, and HF modes of Communications (No Digipeaters)
2. Pro: Method to perform Keyboard to Keyboard, real-time communications.
3. Pro: Method to send/receive real-time forms or messages.
4. Pro: Can be used to send Forms, Text, Pictures, WEFAX, etc
5. Con: Must be online to retrieve message, similar to DRATS, if you don't catch the message, then you won't have access to it unless retransmitted.
6. Con: Depending on Mode, Error Correction not same as Winlink. If you miss the message, then it must be resent by the sender.
7. There are modes especially when sending between two stations that packet correction can be made or manually requested.

Usage

1. During Field Day, we will setup FLDIGI at GOTA station. Provide Demonstration, Training, and Assistance for you to add this tool to your tool kit, assuming you have ability to send RF Communications today between your computer and radio.

2. If Internet/Cell is not available to run DRATS, we have a method for NCS, ANCS, and members to augment any voice net we run and communicate real-time of digital to share information, NCS Rosters, etc.
3. We can incorporate into our Voice Nets and Augment Digital communications for example on WA4EOC to leverage repeater for NCS to send data during our NETS to each of you near-real-time. (This will be a training and experiment we will conduct in the near future). This becomes critical we exercise NET Discipline, Procedures, and understand PROWORDS before Transmitting on same NET we are talking on. Advantage is that we can leverage the same Repeater and Frequency.
    a. Common Usage of having a Combined VOICE and DATA NET is to share for example:
        i. Current Roster of Who is on the NET
        ii. Critical information that would take too long to say and properly write.
    b. GA ARES practices FLDIGI every Sunday per the GAARES.ORG website

Next Steps

1. Install FLDIGI
2. Install FLMSG
3. Install FLRIG
4. Configure to work with your radio following instructions from http://w1hkj.com
5. Many Youtube Video's available to help you configure and learn, else Field Day great opportunity to learn.
6. If you are installed I am monitoring on Frequency xxxxxxx, Mode: xxxxxxxxxxxx

References: http://www.w1hkj.com/

FLDIGI Testing

- **(2M) 147.585 Simplex USB-D/PKTUSB Mode: MT63-1000 Short 1500 on Waterfall**

- **(10M) 28.100 USB-D/PKTUSB Mode: MT63-1000 Short 1500 on Waterfall**