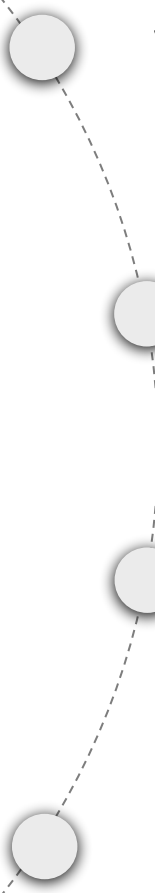
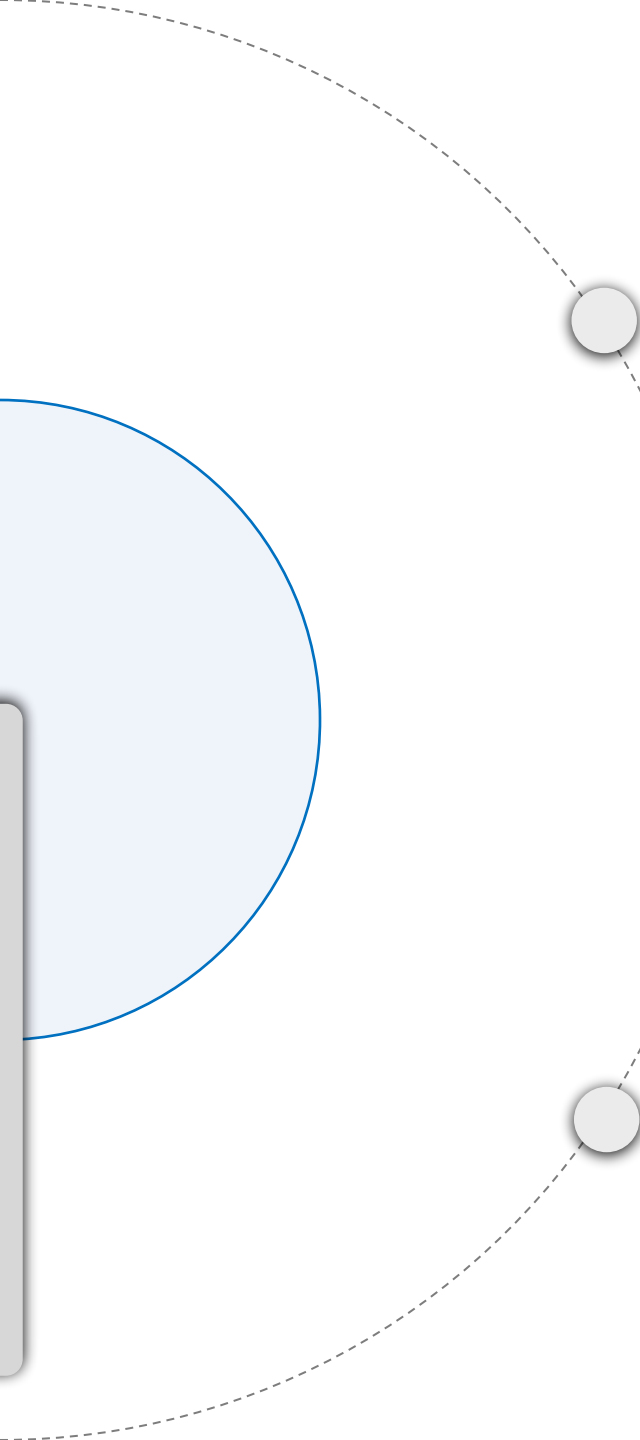


System Fusion In a Nutshell

Steven DeWolfe, VA6 DWF

April 9th, 2018

Presented to: CARA Advanced Amateur Class



What is C4FM Digital Fusion and Wires-X?

How to Setup a Wires-X Node?

Live Demonstration via VE6FIL FARS Repeater

- Group Photo? Posted to CQ-Calgary Room

Questions, Comments, Contact Info

C4FM Digital Fusion

What is it? <http://systemfusion.yaesu.com/what-is-system-fusion/>



Wires-X

What is it?

<https://www.yaesu.com/jp/en/wires-x/index.php>

How to use it?

<https://www.yaesu.com/jp/en/wires-x/user/index.php>

Who and Where Can I Talk to?

https://www.yaesu.com/jp/en/wires-x/id/id_usa.php

Opening Your Own Node

<https://www.yaesu.com/jp/en/wires-x/node/index.php>

VA6DWF-ND

Station Components

1. [Power Supply](#)
2. Computer with Wires-X Software ← RF Linked Here
3. [HRI-200](#)
4. [FTM-100DR Node Radio](#)
5. [VHF/UHF SWR Meter](#)
6. [Feedline](#)
7. [Lightning Arrestor](#)
7. [Antenna](#)

*RF Linked to VE6 FIL FARS Repeater, Thank you!
Which technically makes this Node a “Gateway” (VA6DWF-GW)

Wires-X Hardware Considerations

What Digital Yaesu Radios Can Connect? Analog?

<http://systemfusion.yaesu.com/products-technology/>

Amateur Radio Digital Hotspots

<http://arrl-ohio.org/digital/Amateur%20Radio%20Digital%20Hotspot%20Comparison.pdf>

Can you think of Advantages and Disadvantages of:

- Sharing (or Accessing) a Node Through a Repeater
- Having a Hotspot (i.e. Travel)

Wires-X Software Considerations

- Growth – Recent introduction of DG_ID (Digital ID)
- “2018 will be an exciting year for System Fusion.” – John Kruk, Sales Manager

Cross Canada Weekly C4FM Net
Special Guest: John Kruk - N9UPC

C4FM Digital Lineup

9PM ET - Hosted By: VE3BF
Mar 28, 2018

Enhanced Digital Group ID Feature

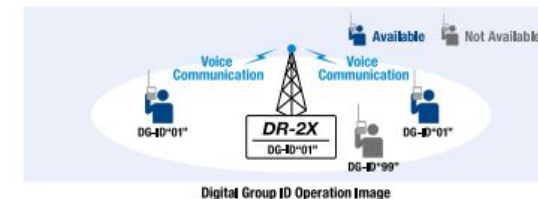
The revolutionary Digital Group ID feature allows tracking multiple communications resources quickly and efficiently by displaying the telemetry and signal strength information of the members that share the same Digital Group Identification number.

DG-ID (Digital Group Identification)

A Group ID of 0 to 99 can be assigned to operators that participate in group communications.

DP-ID (Digital Personal Identification)

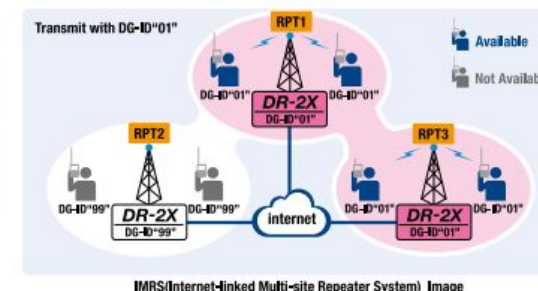
A unique ID can be assigned to each radio for individual operator identification.



IMRS (Internet-Linked Multi-site Repeater System) for Wide Coverage Operation (Option*)

The IMRS (Internet-Linked Multi-site Repeater System) allows the repeater operator to link multiple repeaters over a Wide-Area-Network (WAN), or a Local-area-network (LAN). Because of the reliability shortcomings inherent with WAN (Wide Area Network) connections, such as the Internet, the new DR-2X incorporates direct connectivity between repeaters, permitting a variety of networking environments, and providing high quality Digital communication, even when "All Else Fails". The Repeater activation can be controlled by Digital Group Identification number (DG-ID/DP-ID).

* Requires optional LAN unit (LAN-01A)



Improved "News Station" Feature

Groups or individuals can quickly store and retrieve digital audio. The users can then access the messages on demand, any time of the day.

* Requires optional LAN unit (LAN-01A)



User Friendly Set-up (3.5-inch Full Color Touch Panel Display)



Advanced Operation

The rear panel Control I/O port is connectable to the "S-COM 7330" repeater controller. This controller can manage up to three (3) DR-2X units, providing control of the programmable beep, the timer, access mode, and other features.



Other Features

- Internal AC power supply (US, Asia)
- 19" Rack Mount Capable
- High Stability ± 2.5 ppm TCXO
- DSS (Digital Squelch Code) Signaling
- CTCSS and DCS Signaling
- ID announcement (Voice Mode: Requires FVS-2)
- Base Station Operation
- TOT (Time Out Timer)
- Firmware Updates

Live Demonstration



Questions, Comments, etc.

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