D-RATS Training Installation & Configuration

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D-RATS Training Syllabus

- Installation & Configuration
- D-RATS Part I
 - 1. Chat & Files
- D-RATS Part II
 - 1. Messages
- D-RATS Part III
 - 1. Map
- D-RATS Part IV
 - 1. RF Segment With D-STAR Radios
 - 2. Trouble Shooting
 - 3. Resources



OVERVIEW

D-RATS Why D-RATS? Download sites Installation Windows 10 0.3.9, Linux, or Apr 2014 Configuration

WHY D-RATS?

D-RATS - software on all Central Site computers (8), connects activated sites digitally with unique IDs and functions on both Internet (when available) and SFARES 5 GHz Intranet (always available)

D-RATS provides variety of data transmission methods including

- chat instant-message
- messaging including e-mail and memos (ICS Forms supported)
- file transfers with error detection
- GPS position reports and mapping support
- network linking capability for bridging Radio Frequency segments
- interfaces directly with FLDIGI suite of programs
- access to RATflectors

Download sites

- To use <u>groups.io</u> site in following slides, you need to have a groups.io account
- If you don't yet have a groups.io account, create an account

https://groups.io/register

and then join the d-rats group

You need to be logged in and be a member of the "d-rats" group to access the files in the folder "D-RATS Program Files"

• Alternative site – Dropbox (contact N4VIP for access)

D-RATS Installation

Three different installations

- 1. Windows 10 for D-RATS 0.3.9 (current)
- 2. Linux for D-RATS 0.3.9 and
- 3. Windows for D-Rats April 2014

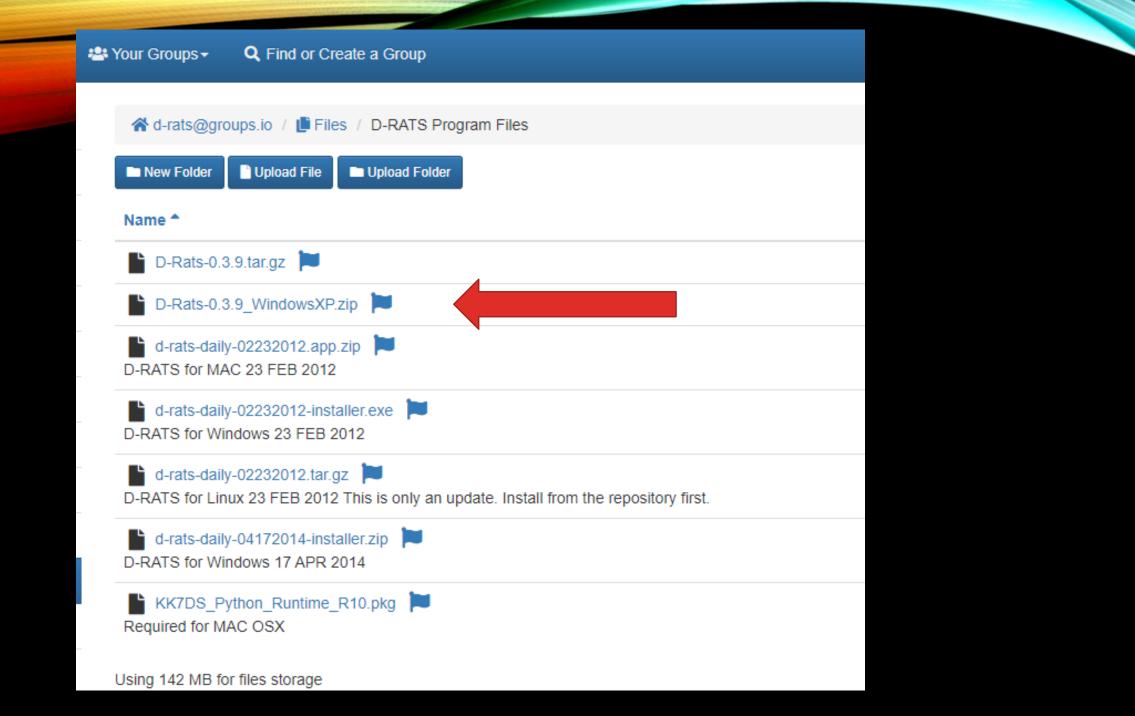
D-RATS 0.3.9 Installation

- First step to install the new D-RATS 0.3.9 (current)
- Go to:

https://groups.io/g/d-rats/files/D-RATS%20Program%20Files

- Select D-Rats-0.3.9_WindowsXP.zip (Windows 10 compatible)
- Copy to new folder in Documents,

My Documents/D-Rats-0.3.9_WindowsXP



D-RATS 0.3.9 Installation (continued)

- Uncompress it and see a new subfolder D-Rats-0.3.9
- In subfolder will be the d-rats application
- Right click d-rats application, make short cut
- Move short cut onto Desktop

Note: Doesn't use a Windows installer

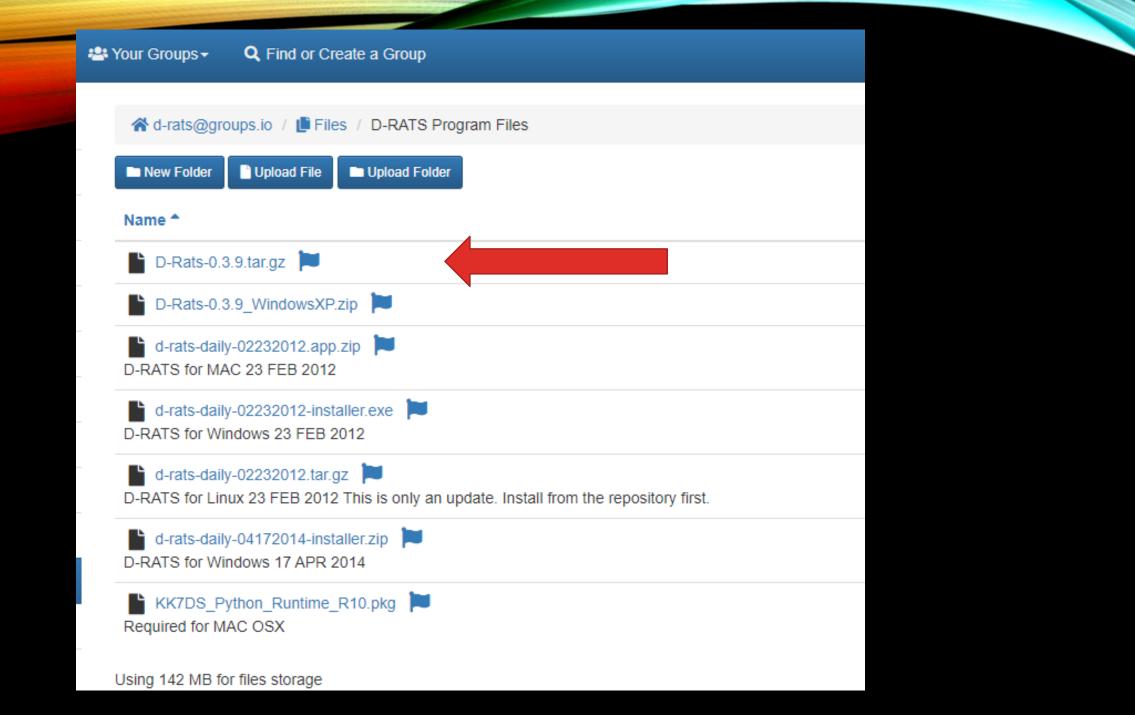
Na	me	Date modified	Туре	Size	
	forms	6/14/2020 8:30 AM	File folder		
	images	6/14/2020 8:30 AM	File folder		
	lib	6/14/2020 8:30 AM	File folder		
	libexec	6/14/2020 8:30 AM	File folder		
	locale	6/14/2020 8:30 AM	File folder		
	share	6/14/2020 8:30 AM	File folder		
	tcl	6/14/2020 8:31 AM	File folder		
	ui	6/14/2020 8:31 AM	File folder		
	_ctypes.pyd	6/14/2020 8:30 AM	PYD File	86 KB	
	_hashlib.pyd	6/14/2020 8:30 AM	PYD File	757 KB	
	_socket.pyd	6/14/2020 8:30 AM	PYD File	45 KB	
	_ssl.pyd	6/14/2020 8:30 AM	PYD File	1,173 KB	
	_tkinter.pyd	6/14/2020 8:30 AM	PYD File	36 KB	
	_win32sysloader.pyd	6/14/2020 8:30 AM	PYD File	8 KB	
	atk.pyd	6/14/2020 8:30 AM	PYD File	204 KB	
	bz2.pyd	6/14/2020 8:30 AM	PYD File	67 KB	
	cairocairo.pyd	6/14/2020 8:30 AM	PYD File	68 KB	
-	d-rats		Application	51 KB	
((g))	d-rats_repeater	6/14/2020 8:30 AM	Application	68 KB	
\$	freetype6.dll	6/14/2020 8:30 AM	Application exten	526 KB	
	giogio.pyd	6/14/2020 8:30 AM	PYD File	257 KB	
	glibglib.pyd	6/14/2020 8:30 AM	PYD File	57 KB	
	aobiect. aobiect.pvd	6/14/2020 8:30 AM	PYD File	111 KB	

D-RATS Linux Installation

Although not covered in this tutorial, a Linux version can be downloaded from:

https://groups.io/g/d-rats/files/D-RATS%20Program%20Files

And select: D-Rats-0.3.9.tar.gz



D-RATS Training Installation & Configuration

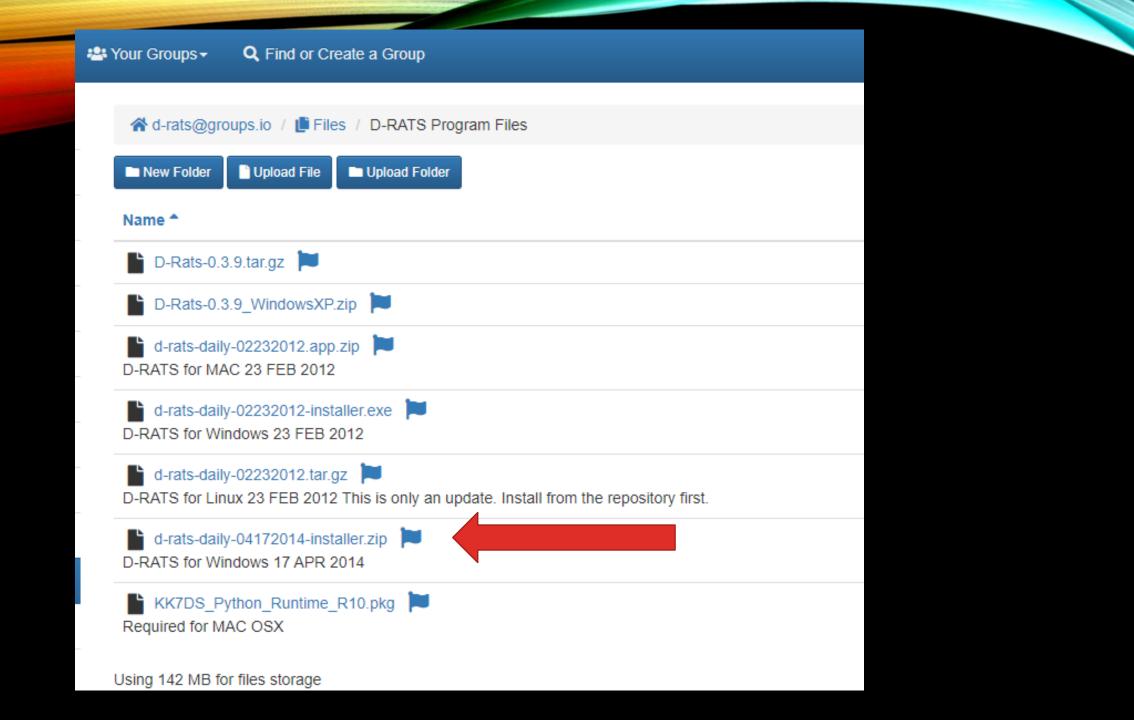
D-RATS Installation If D-RATS 0.3.9 doesn't install

Go to:

https://groups.io/g/d-rats/files/D-RATS%20Program%20Files

- Select <u>d-rats-daily-04172014-installer.zip</u> to download
- Double click
- This uses Windows installer

Most features in daily-04172014 are also in 0.3.9 but 0.3.9 is installed in all SFARES Central Sites



Preferences (Alt+P) in the order they appear top to bottom

Ŵ	Config						×
-	Preferences	Callsign	N4VIP				
	Paths	Name	Don Hinsma	in			
	Maps	Sign-on Message	Enabled	Don in San	ta Fe, NM D	M65xq	
	GPS config	Sign-off Message	✓ Enabled	73 de N4VI	P, going offl	line (D-RATS)	
	Export GPS messages	Units	Imperial				~
	Appearance	Show time in UTC	🗹 Enabled				
	Chat	Ping reply	Don in Santa	a Fe, NM DN	165xq		
	Sounds	Language	English			~	
	Messages		Blink tray on				
-	Radio		Incoming I	-	Enable		
	Transfers		New Chat I Incomin	-	Enable		
-	Network		Received	-			
	TCP Gateway				—	i	
	TCP Forwarding						
	Outgoing Email						
	Email Accounts						
	Email Access						
		,				Save	Cancel
						<u>S</u> dve	Cancer

Paths Note: The File Transfer Path shows the folder on your Desktop where you can send and receive files from other **D-Rats users and** Ratflectors using "Files" tab in D-Rats. These 3 folders must be defined!

🐞 Config				×
Preferences	File Transfer Path	C:\Users\dhins\Desktop\D-RATS Shared		<u>R</u> evert
Paths	Base Map Storage Path	C:\Users\dhins\AppData\Roaming\D-RATS-EV\map		<u>R</u> evert
Maps	Form Logo Path	C:\Users\dhins\AppData\Roaming\D-RATS-EV\logc		<u>R</u> evert
GPS config	-			
Export GPS messages				
Appearance				
Chat				
Sounds				
Messages				
🖃 Radio				
Transfers				
Network				
TCP Gateway				
TCP Forwarding				
Outgoing Email				
Email Accounts				
Email Access				
	r	<u>S</u> ave	<u>C</u> ar	icel

Maps

Note: The Maps function in the updated D-Rats is totally new. It is possible to have different map displays (base, cycle, landscape or outdoors). The Key string for each instance of D-Rats is different. For those D-Rats at Central Sites, the Key string has already been entered. At least initially, all users should select the "base" map to use.

🖗 Config			×			
Preferences	Map to use	base				
Paths	BaseMap server url	https://tile.openstreetmap.de/	<u>R</u> evert			
Maps	OpenCycleMap server url	https://tile.thunderforest.com/cycle/	<u>R</u> evert			
GPS config	Key string to append to CycleMap url	?apikey=e935ebfc907642d8a3af0ae7ef82618c	<u>R</u> evert			
Export GPS messages	Landscape server url	https://tile.thunderforest.com/landscape/	<u>R</u> evert			
Appearance	Key string to append to landscape url	?apikey=e935ebfc907642d8a3af0ae7ef82618c	<u>R</u> evert			
Chat	Outdoors server url	https://tile.thunderforest.com/outdoors/	<u>R</u> evert			
Sounds	Key string to append to outdoors url	?apikey=e935ebfc907642d8a3af0ae7ef82618c	Revert			
Messages	Freshen map after	720				
∃ Radio	Report position timestamps on map					
Transfers						
Network						
TCP Gateway						
TCP Forwarding						
Outgoing Email						
Email Accounts						
Email Access						
		<u>S</u> ave <u>C</u> an	cel			

GPS config

You need to input the lat/lon of your QTH

🏟 Config					×
Preferences	Latitude	35.707071			
Paths	Longitude	-106.061200			
Maps	Altitude	6500			▲ ▼
GPS config	Use External GPS	Enabled			
Export GPS messages	External GPS		\sim	4800	\sim
Appearance	GPS-A Symbol	Table: /	Sym	ool: >	
Chat	Default GPS comment	BN *20		L	DPRS
Sounds					
Messages					
🗉 Radio					
Transfers					
Network					
TCP Gateway					
TCP Forwarding					
Outgoing Email					
Email Accounts					
Email Access					
				<u>S</u> ave	<u>C</u> ancel
				_	_

Export GPS messages

SFARES may use this capability in the future

🍀 Config			×
Preferences	Check to enable export GPS messages as JSON string	✓ Enabled	<u>R</u> evert
Paths	IP address	localhost	
Maps	IP port	5011	
GPS config			
Export GPS messages			
Appearance			
Chat			
Sounds			
Messages			
🗆 Radio			
Transfers			
Network			
TCP Gateway			
TCP Forwarding			
Outgoing Email			
Email Accounts			
Email Access			
		<u>S</u> ave	<u>C</u> ancel

Appearance

Note: Check spelling only if ASPELL has been installed

ASPELL will be installed at a later time. It is installed on my D-RATS and is the reason why it is checked.

		×
Preferences	Notice RegEx	
Paths	Ignore RegEx	
Maps	Incoming Color	
GPS config	_	
Export GPS messages	Outgoing Color	
Appearance	Notice Color	
Chat	Ignore Color	
Sounds	Callsign Color	
Messages	_	
🗆 Radio	Broken Color	
Transfers	Toolbar buttons	Default
Network		Enabled
TCP Gateway	Confirm exit	Enabled
TCP Forwarding	Expire stations after	60 🔹 minutes
Outgoing Email		
Email Accounts		
Email Access		
		<u>Save</u> <u>C</u> ancel

Spell checker

- D-Rats can spell check if a separate program (ASPELL) is installed on your computer
- Spell checking isn't required but if installed, it will check your email drafts
- If not required, don't check Spelling enabled in the Appearance preference
- If desired, download <Aspell-0-50-3-3-Setup> from N4VIP's Dropbox
- Install into <C:\Program Files (x86)\Aspell> and check Spelling enabled

Chat

Note: A new capability has been added to QST to allow weather observations to be displayed for any city. Enter the OpenWeather appid as shown

🏟 Config			×
Preferences	Log chat traffic	✓ Enabled	
Paths	Load log tail	✓ Enabled	
Maps	Chat font	Sans Normal	12
GPS config	Scrollback Lines	1024	•
Export GPS messages	Show status updates in chat	Enabled	
Appearance	Timestamp chat messages	C Enabled	
Chat	QST Size Limit	2048	▲ ▼
Sounds	OpenWeather uri	http://api.openweathermap.org/data/2.5/	<u>R</u> evert
Messages	OpenWeather appid	ce7848d7c861e674c103cb52a6e59c2a	<u>R</u> evert
🖃 Radio			
Transfers			
Network			
TCP Gateway			
TCP Forwarding			
Outgoing Email			
Email Accounts			
Email Access			
		<u>S</u> ave <u>C</u>	ancel

Sounds

🔞 Config								×
 Preferences Paths Maps GPS config Export GPS messages Appearance Chat 	Chat activity Message activity File activity					<u>P</u> lay <u>P</u> lay <u>P</u> lay		Enabled Enabled Enabled
Sounds								
Messages Radio Transfers Network TCP Gateway TCP Forwarding Outgoing Email Email Accounts Email Access								
				<u>S</u> ave	e		<u>C</u> an	cel

Ξ

Outgoing Email Email Accounts

Email Access

Messages Note: D-Rats 0.3.9 now transmits your Password for your Winlink account (your Callsign identified in Preferences) when you send an email via Winlink 2000. Enter your Password here. When you send an email to Winlink.org in D-Rats add "WL2K:" (without the quotes) at the beginning of the address email, for example WL2K:dhinsman@gmail.com

Config		×
Preferences	Automatically forward messages	Enabled
Paths	Queue flush interval	30 seconds
Maps	Station TTL	600 seconds
GPS config	Include original in reply	C Enabled
Export GPS messages	Allow POP3 Gateway	C Enabled
Appearance	Allow WL2K Gateway	Enabled
Chat	WL2K Connection	Network
Sounds	WL2K Network Server	server.winl V Port 8772 Password •••••
Messages	WL2K RMS Station	on port 🗸 🗸
Radio	My Winlink SSID	~
Transfers	POP3 Server	Enabled on port 9110
Network	SMTP Server	Enabled on port 9025
TCP Gateway		
TCP Forwarding		

Save

Radio

It is strongly suggested you add the three Ports listed. You only need to Enable the W5SF Port but the ka8jmw Port is also very useful. The RAT Port is a national Port and there is normally many users and a lot of "Chat" traffic.

Config							
Preferences	Enabled 4	Port	 Sett 	tings 🖣	Sniff ◀	Raw Text 4	Name ·
Paths		net:ae5he.ham-radio-op.net:90	00				El Pasc
Maps		net:D-RATS.ka8jmw.com:9000					KA8J
GPS config		net:ref.d-rats.com:9000					RAT
Export GPS messages		net:w5sf.ratflector.com:9000					W5SF
Appearance							
Chat							
Sounds							
Messages							
Radio							
Transfers							
Network							
TCP Gateway							
TCP Forwarding							
Outgoing Email							
Email Accounts		<u>A</u> dd	dit			<u>D</u> elete	
Email Access	<						>
					<u>S</u> ave	<u>C</u> an	cel

Radio Transfers

🖗 Config					×
Preferences	Block size	512		▲ ▼	<u>R</u> evert
Paths	Pipeline blocks	4		▲ ▼	<u>R</u> evert
Maps	Remote file transfers	🗹 Enabled			
GPS config	Warmup Length	8		•	<u>R</u> evert
Export GPS messages	Warmup timeout	3		▲ ▼	<u>R</u> evert
Appearance	Force transmission delay	-2		▲ ▼	<u>R</u> evert
Chat	Allow file deletes from				
Sounds	Remote admin password				
Messages					
🗆 Radio					
Transfers					
Network					
TCP Gateway					
TCP Forwarding					
Outgoing Email					
Email Accounts					
Email Access					
			<u>S</u> ave	<u>C</u> an	cel

Radio Transfers

🖗 Config					×
Preferences	Block size	512		▲ ▼	<u>R</u> evert
Paths	Pipeline blocks	4		▲ ▼	<u>R</u> evert
Maps	Remote file transfers	🗹 Enabled			
GPS config Export GPS messages	Warmup Length	8		•	<u>R</u> evert
	Warmup timeout	3		▲ ▼	<u>R</u> evert
Appearance	Force transmission delay	-2		•	<u>R</u> evert
Chat	Allow file deletes from				
Sounds	Remote admin password				
Messages					
🖃 Radio					
Transfers					
Network					
TCP Gateway					
TCP Forwarding					
Outgoing Email					
Email Accounts					
Email Access					
			<u>S</u> ave	<u>C</u> an	cel



REVIEW

D-RATS Why D-RATS? Download sites Installation Windows 10 0.3.9, Linux, or Apr 2014 Configuration

End D-RATS Training - Installation & Configuration