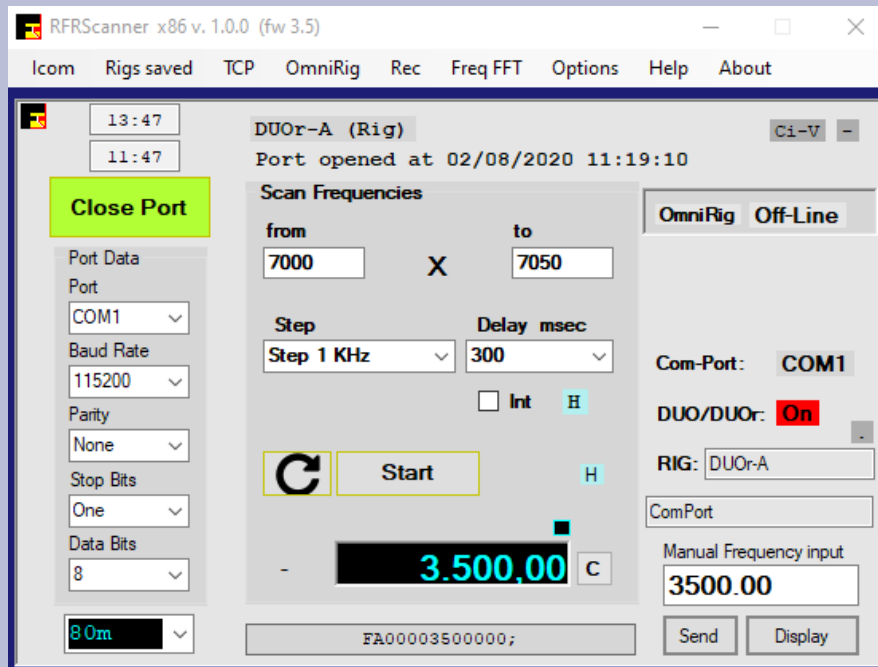


RFRScanner

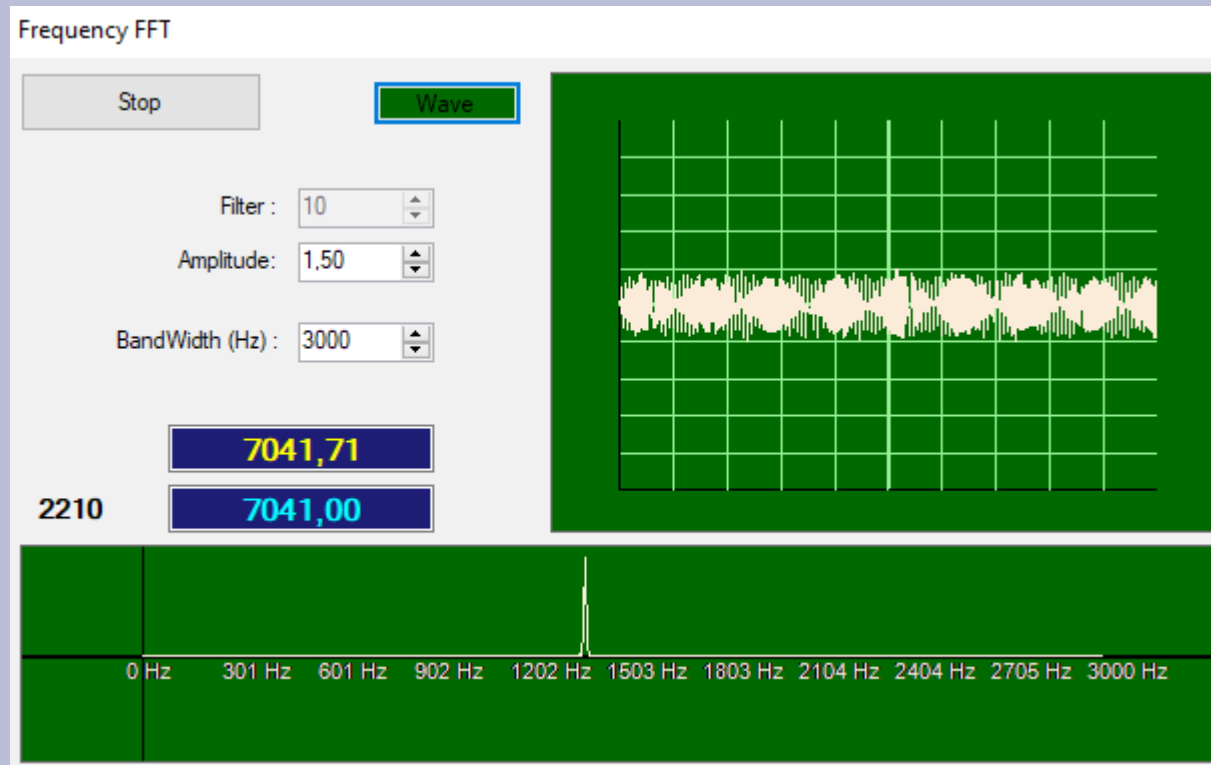
<http://www.intrasystem.it/Frequency/Frequency.html>



- RFRScanner replaces all previous RadioFrequency programs.
- Included:
 - The dBase Converter
 - New Frequency Analyzer.
 - Rig-Cat Control Editor

- dB, dBase = Database Elad Rig user: SW2-Menu > [Remote Ctrl] > Enable OmniRig + TCP
- RFR = RFRScanner

The new Frequency Analyzer



Bandwidth: 1000 to 20000 Hz – Default 3000 Hz
Amplitude: 1,50 Default value

[2210] Mouse-Pointer Hz position

[7041,71] Mouse-Pointer Hz position = Frequency 10Hz precision
Mouse-Click, tune the Radio to this Frequency.

[7041,00] actual tuned Radio frequency

The new RIG Editor CAT Control x any Rig

CAT Control for any RIG

PC control commands - SerialPort (RS-232)

SET Frequency Command

Invert
 Frequency as BCD-String ? 5 Byte Standard
 Frequency as BCD-String ? 4 Byte Example: IC-735

Rig Name Rig Type **Icom** >> **Operating Mode**

Alphabetical Start-Command

CI-V Radio Address number

Address + Command N° **Set Command**

Frequency Mask
 11 >

Char Terminator

Baud Rate **H**

Transmission type **H** Select 9

Set Frequency Command

Clear Fields **Load Files** **H** **Save**

Simulate Receiver

Get Receiving Frequency

Alphabetical Start-Command

Address	CI-V	Command
<input type="text" value="E0"/>	<input type="text" value="66"/>	<input type="text" value="03"/>

Frequency Mask
 11

BCD Mask
 14

FD Char Terminator

Receiver answer

Read Frequency Byte Digit

> **Get Freq**

Get Frequency **Read Start**

Prefix in answer Digit

Confirm Data **H**

Operating Mode Controls x single Rig's

Any Operating Mode is using 3 commands. Set, Read, Answer.
 You supply the Set, Read and Answer Parameters.
 The Read command is returning the Answer.

Ready examples: **Kenwood_ts990 IC-7300 IC-R8500 DUO/r**

Comment Char Terminator **Rig Name**

Set

Prefax	P1	P2
<input type="text" value="FE_FE_66"/>	<input type="text" value="_E0_"/>	<input type="text" value="01:USB
02:AM
03:CW
04:RTTY
05:FM
07:CW-R
08:RTTY-R"/>

+

Read

Prefax	P1	P2
<input type="text" value="FE_FE_66_E0"/>	<input type="text" value="_04_"/>	<input type="text"/>

+

Answer

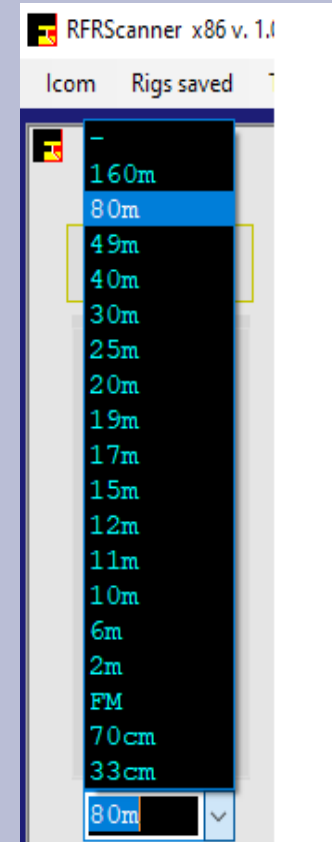
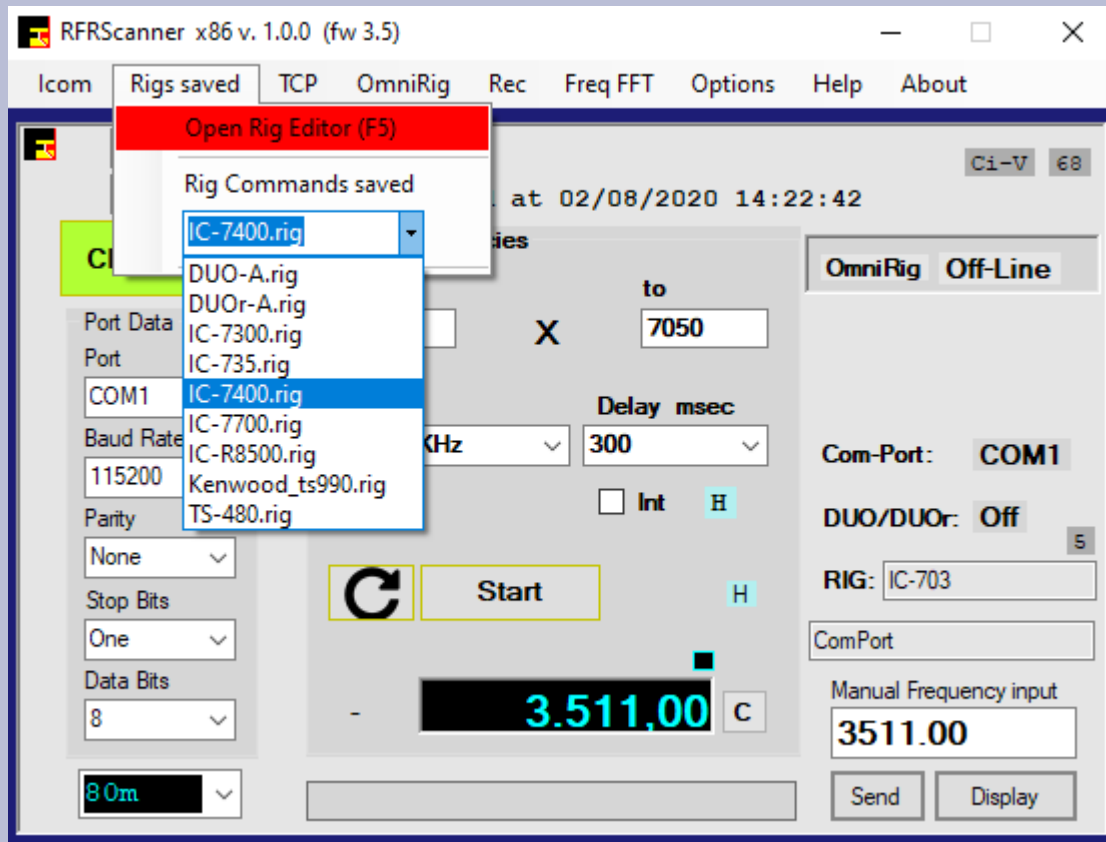
Prefax	P1	P2	Length
<input type="text" value="FE_FE_E0_66_"/>	<input type="text" value="04_"/>	<input type="text" value="01:USB
02:AM
03:CW
04:RTTY
05:FM
07:CW-R
08:RTTY-R"/>	<input type="text" value="20"/>

+

Clear Fields **H**

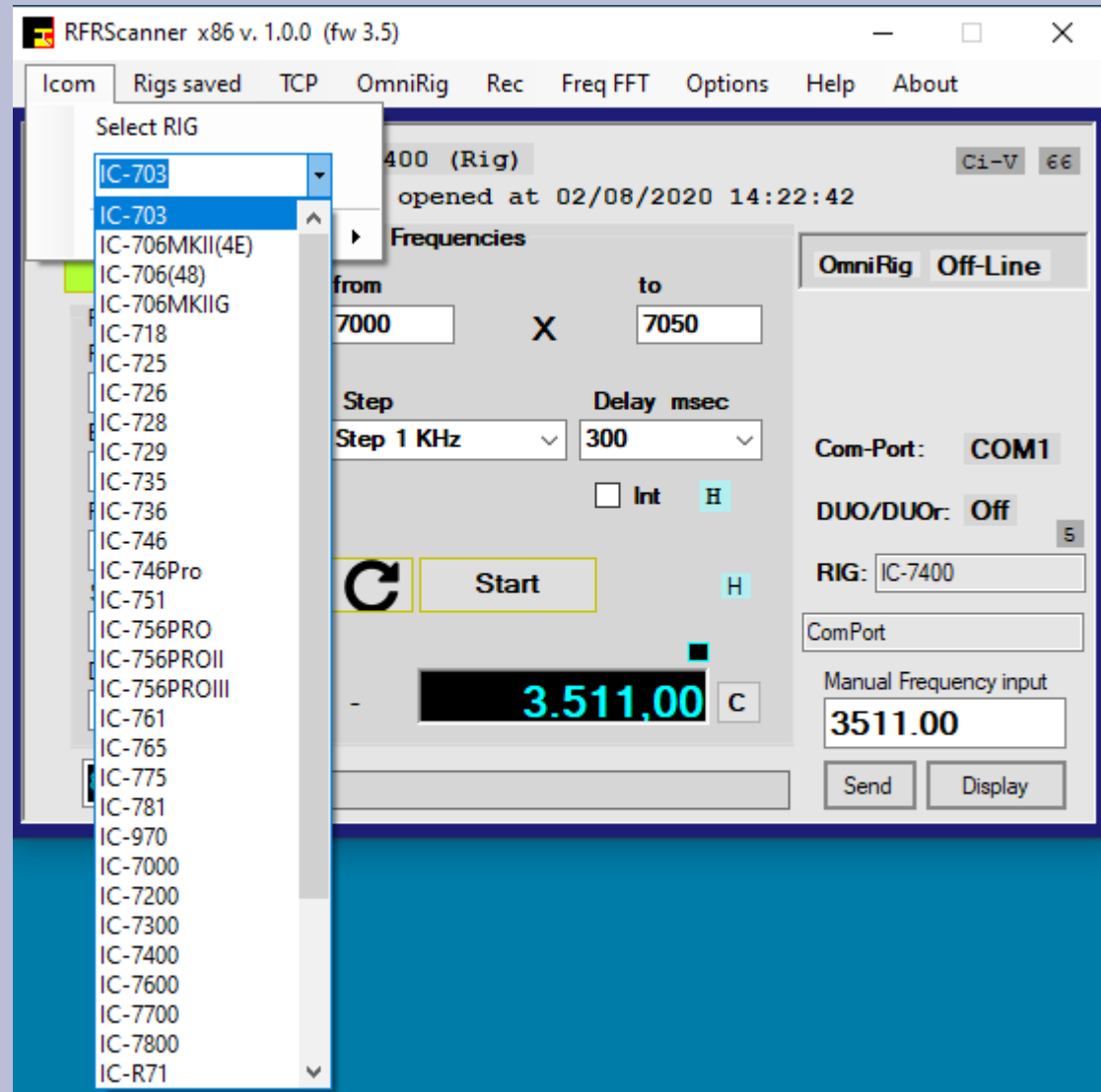
The underline Char (_) is a visible space distance. (BCD)

Rig's Cat control added. You can add any Rig with the RIG Editor.



The Frequency Band Selection is tuning the Radio to the Start-Frequency.

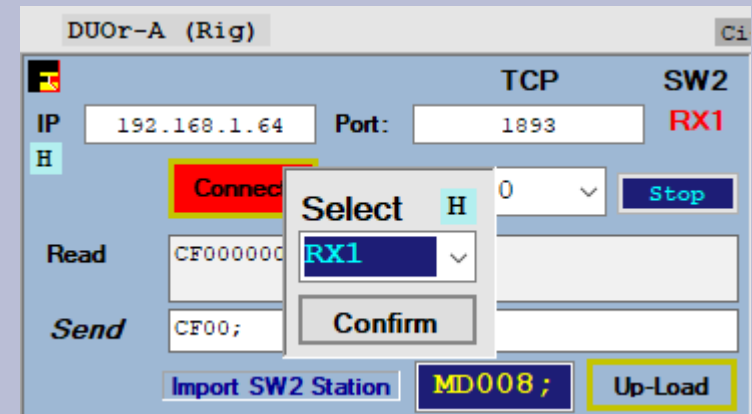
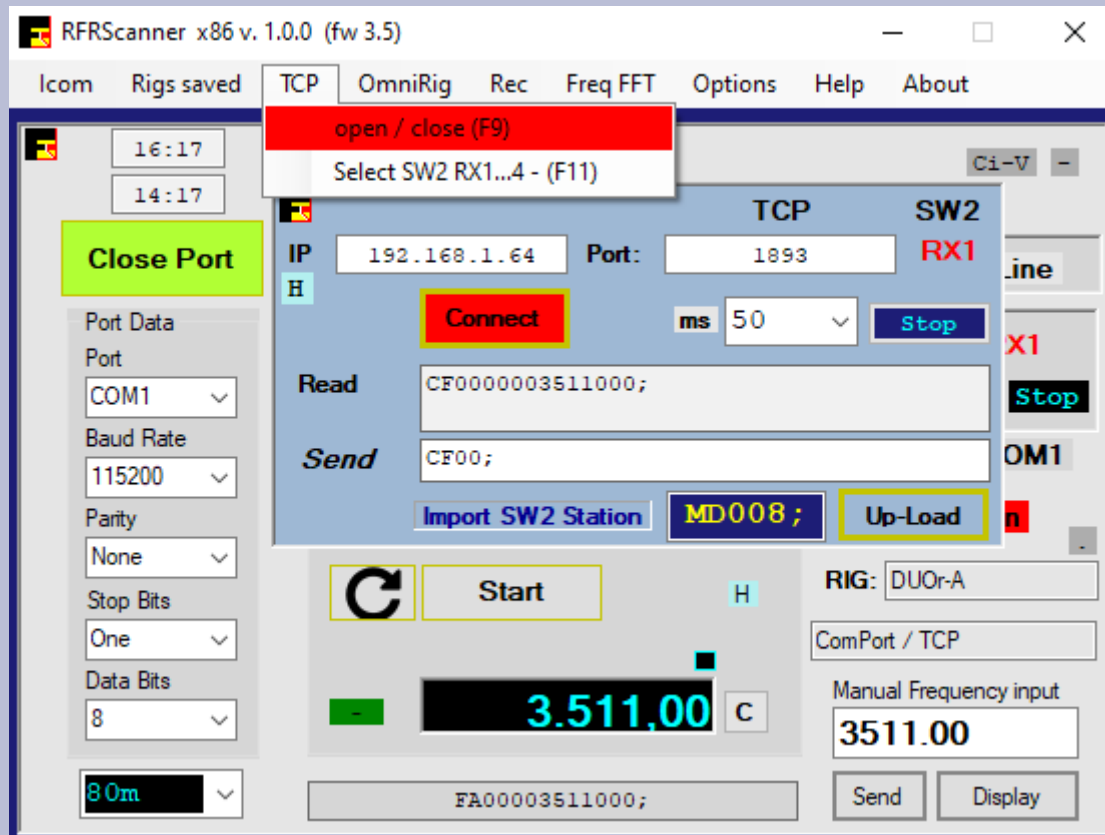
Icom Rig's Cat control included



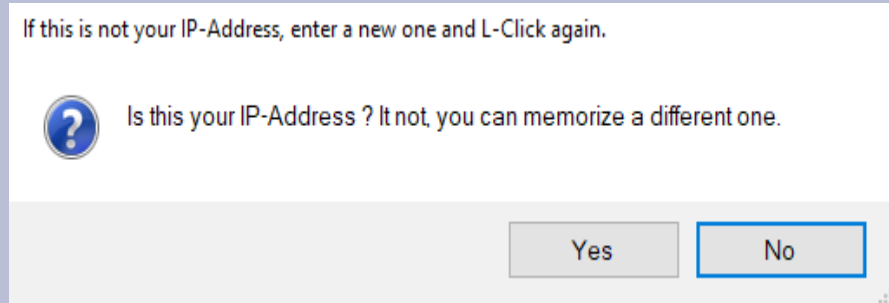
37 Icom Rig's are included. (Frequency + Mode)
The Rig's Editor is including Icom Radios as example only.

The examples are useful in case the Mode-Parameters are different from the general Icom parameters.

Import/Download SW2 Stations Memory into RFRScanner Frequency dB (SW2) you connect any Rig with SW2



Only the xml-File SW2 is using is imported!



Import SW2 Frequencies + UpLoading to SW2 Station Memory is automatic.
Import SW2 xml-file

When downloading a SW2 *.xml Station File the RFRScanner **(SW2) Local Frequency dBBase is replaced !**
(Backup is done in automatic)

When the download procedure is terminated **check the CHECKSUM.**
If you download 140 records the final message must state: 140/140.
In case of Error: Repeat the procedure.

If you want a different xml file, NOT the one SW2 is actually using, you must first load that file into the SW2 Station Memory.
Download is only reading the actual xml-file SW2 is using.

Make sure: TCP interrupted [Stop], Com-Port closed, RFRScanner OmniRig closed !

Download Records SW2 LIMITATION !

Read the Elad SW2 TCP Bugs explanation > RFRScanner > Help >TCP Bugs

Record start reading at digit 10 MS0000002>>>>> (2 Records)

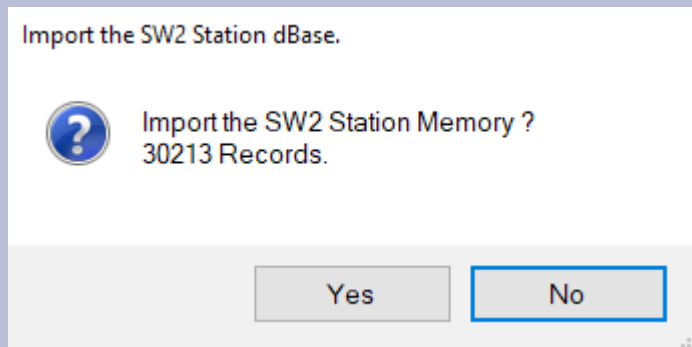
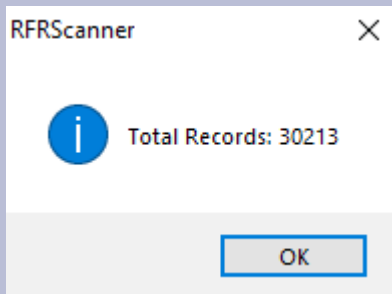
Frequency	digits = 11	'Mask	
Station Name	digits = 16	'0000000000000000000'	Bug
Mode digits	= 6 reserved. Used 1 digit only.	'000000'	Bug

MS0000002 Prefax + Nr. of Records (max. 60 Rec x each request) Max Read-Records = 9999

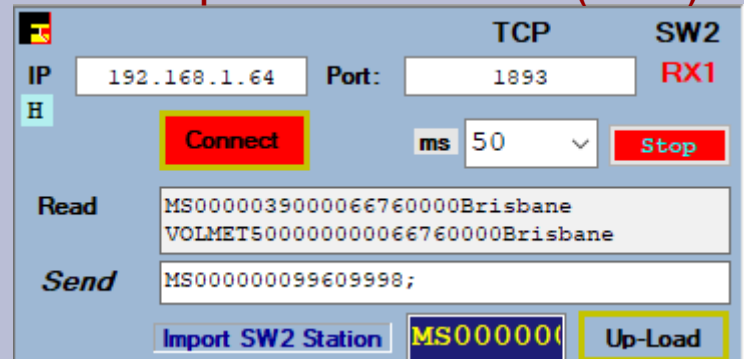
Get Rec From...To is limited to 4 digits = 9999. SW2 TCP Manual is indicating 99999.

00007646000 Frequency
 0Deutscher Wette Station Name (Deutscher Wette)15 digits (with 16 digits BUG/Error) 1 Mask-zero in front.
 X00000 X = No Mode

You download/import max 9999 records.



|4 digits
MS000000099609998;
Last Rec request from 9961 to 9999 (39 rec)



Make sure: TCP interrupted [Stop], Com-Port closed, RFRScanner OmniRig closed !

Next >>>

Import/Download

PC / TCP Interference

TCP Import + Upload is quite sensitive.

Close other programs.

RFRScanner does not create any errors!
Hundreds of tests confirm Bug free.

The Import procedure is the most sensitive.

The program executes the request for data from SW2 100 times if the answer is not correct. Only after 100 continuous reading errors the procedure ends with error.

When the procedure starts, a clear message appears:

Translating Wait. Don't Interrupt!

Only confirm the first "OK" information messages.

The procedure starts automatically.

Now wait and don't use the mouse or keyboard.

Any procedure interruption is due to PC and programs interferences.

Any SW2 data change can compromise the TCP connection for these 2 procedures.

Close RFRScanner + SW2. ReOpen SW2 and RFRScanner .

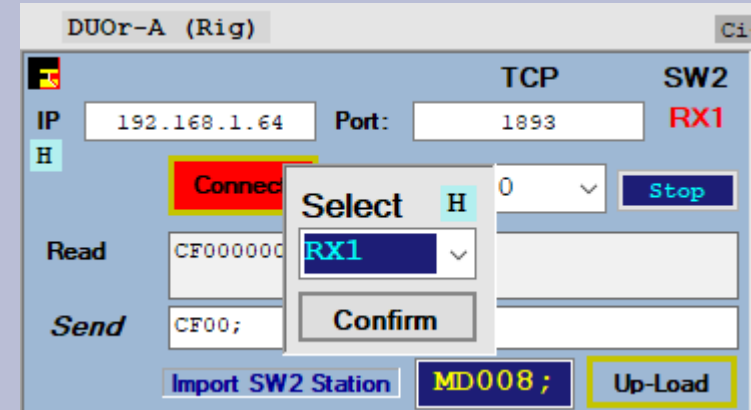
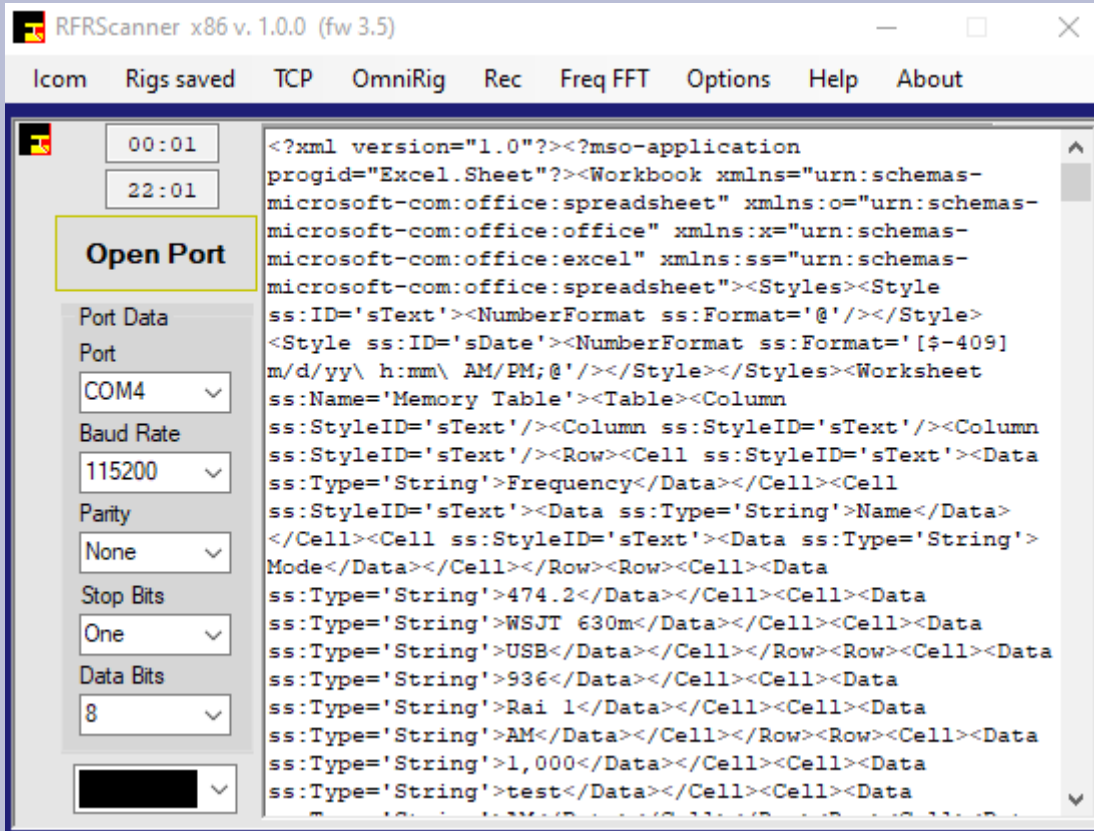
If after a closure and reopening, RFRScanner and the SW2 software, the procedure does not end correctly, it is advisable to do a PC Reboot!

Make sure: TCP interrupted [Stop], Com-Port closed, RFRScanner OmniRig closed !

TCP connection to the Elad SW2

Upload actual RFRScanner Frequencies to SW2 Station Memory (*.xml)

New FileName/File or Add records to a existing xml-file.



[MD008;] = Input Field

Input the FileName (no extension) only if you create a New xml Database File.

When the Up-Load procedure is terminated **check the CHECKSUM.**

If you Up-Load 140 records the final message must state: 140/140.

Error: Repeat the procedure.

TCP must be **interrupted**. [Stop] button.

Com-Port should be **closed**.

OmniRig should be **closed**. (local RFRScanner Omnirig)

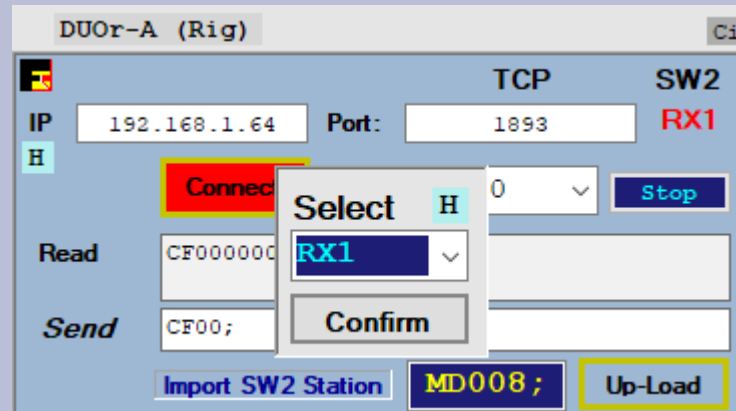
UpLoading the local RFRScanner frequency dbase (SW2).

You can select:

- Add to a existing xml-file (**select Filename**)
- Add to the actual file SW2 is using (**select Filename**)
- Create a new one (**Filename – No extension**)

Uploading is adding Rec with same Frequencies !
The procedure is running in automatic.

TCP SW2 connection SW2 commands



[MD008;] = Input Field

The Input Field x FileNames and TCP commands.

You can simulate the TCP commands.

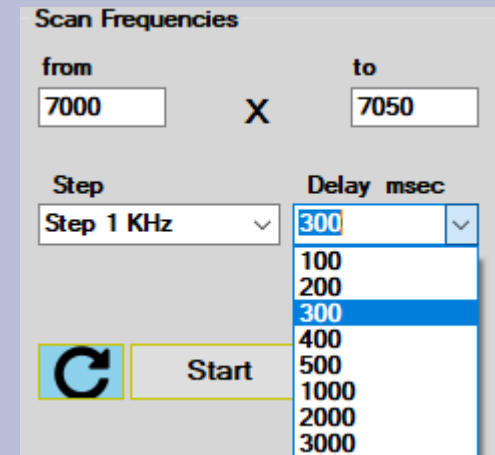
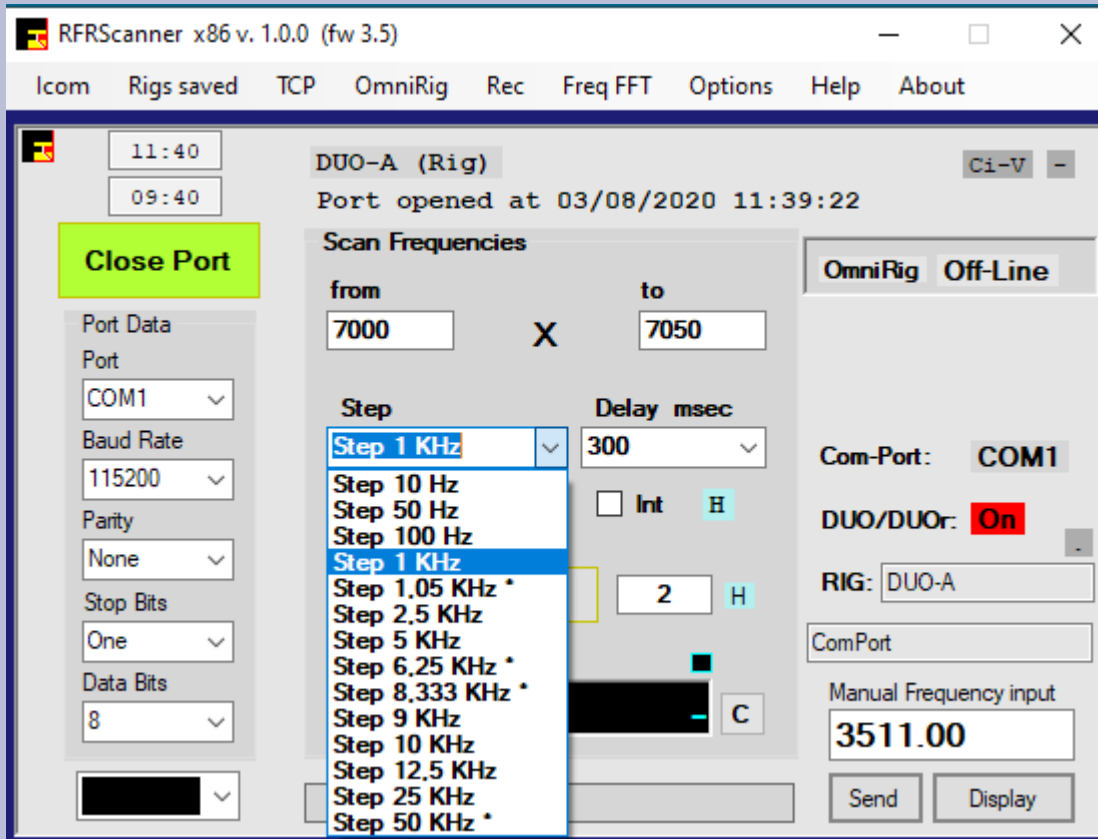
Input a **command** and then click on the [**Send**] Button.

F9 ShortCut TCP View

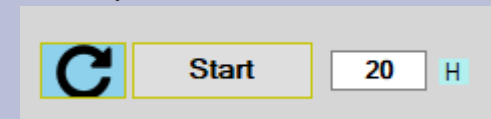
F11 ShortCut Select RX1..4

RFRScanner Scan Frequencies

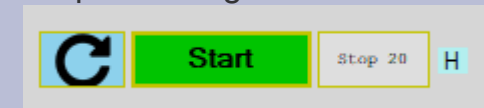
Using only internal procedures not the Rig scanner commands.



Repeat 20 times



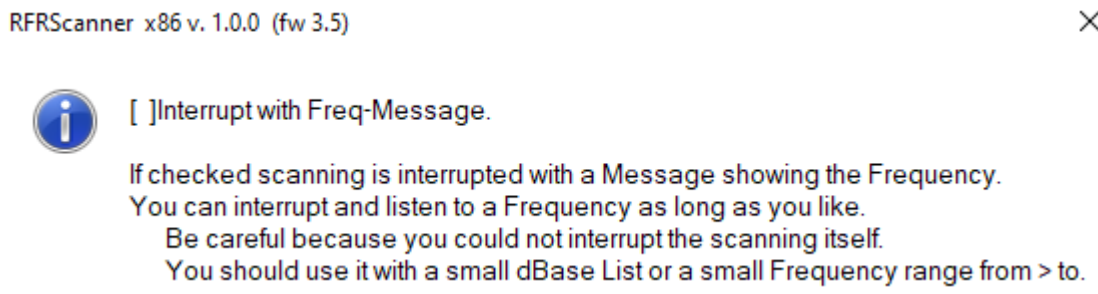
Stop scanning. Double click 'Stop'.



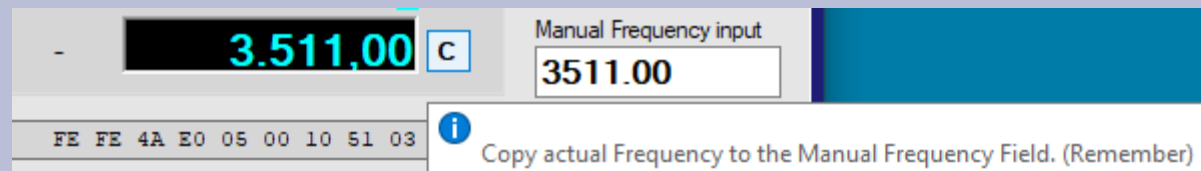
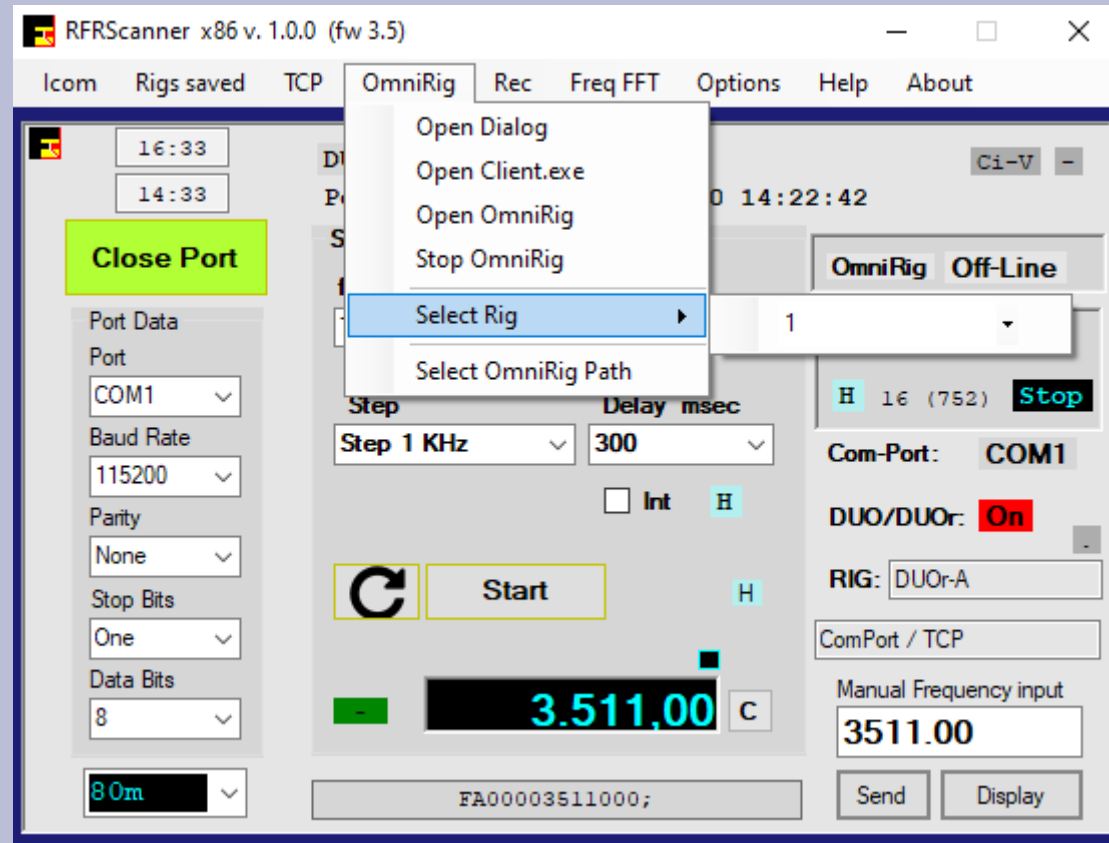
[x] Int is interrupting

[x] RFR List

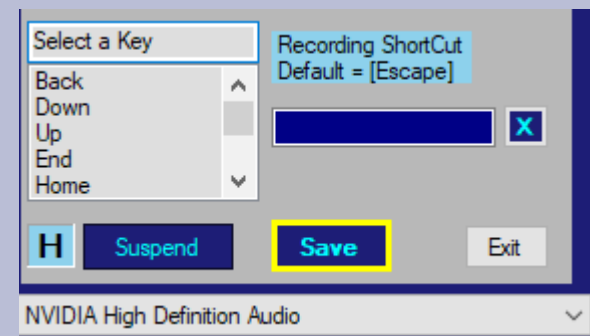
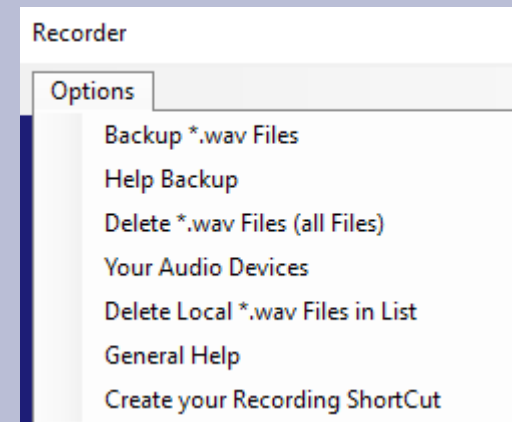
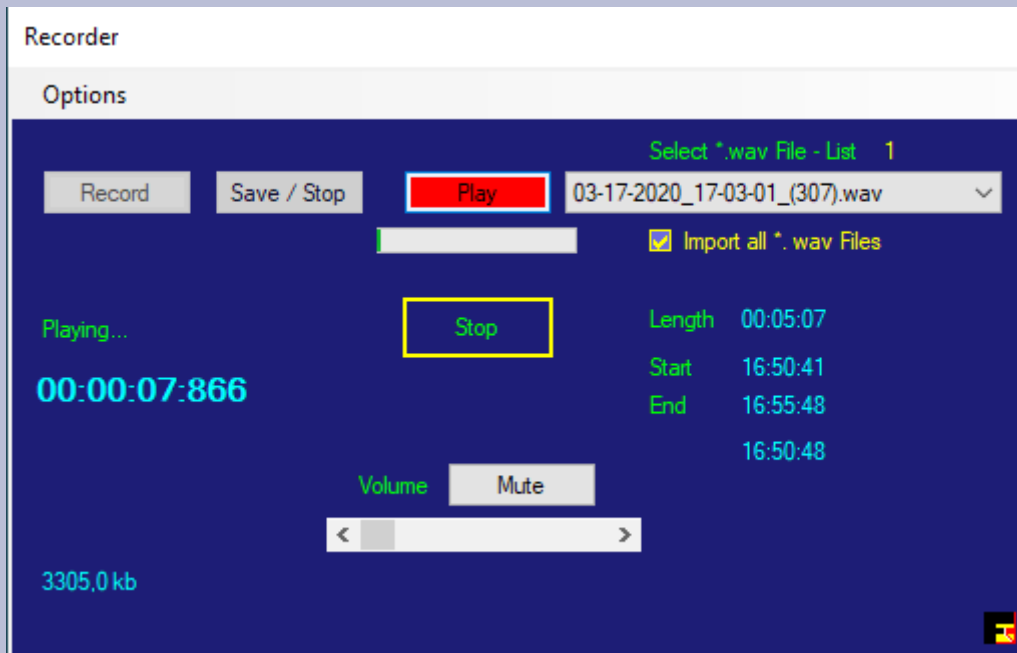
Scan the saved Frequencies. (RFR)



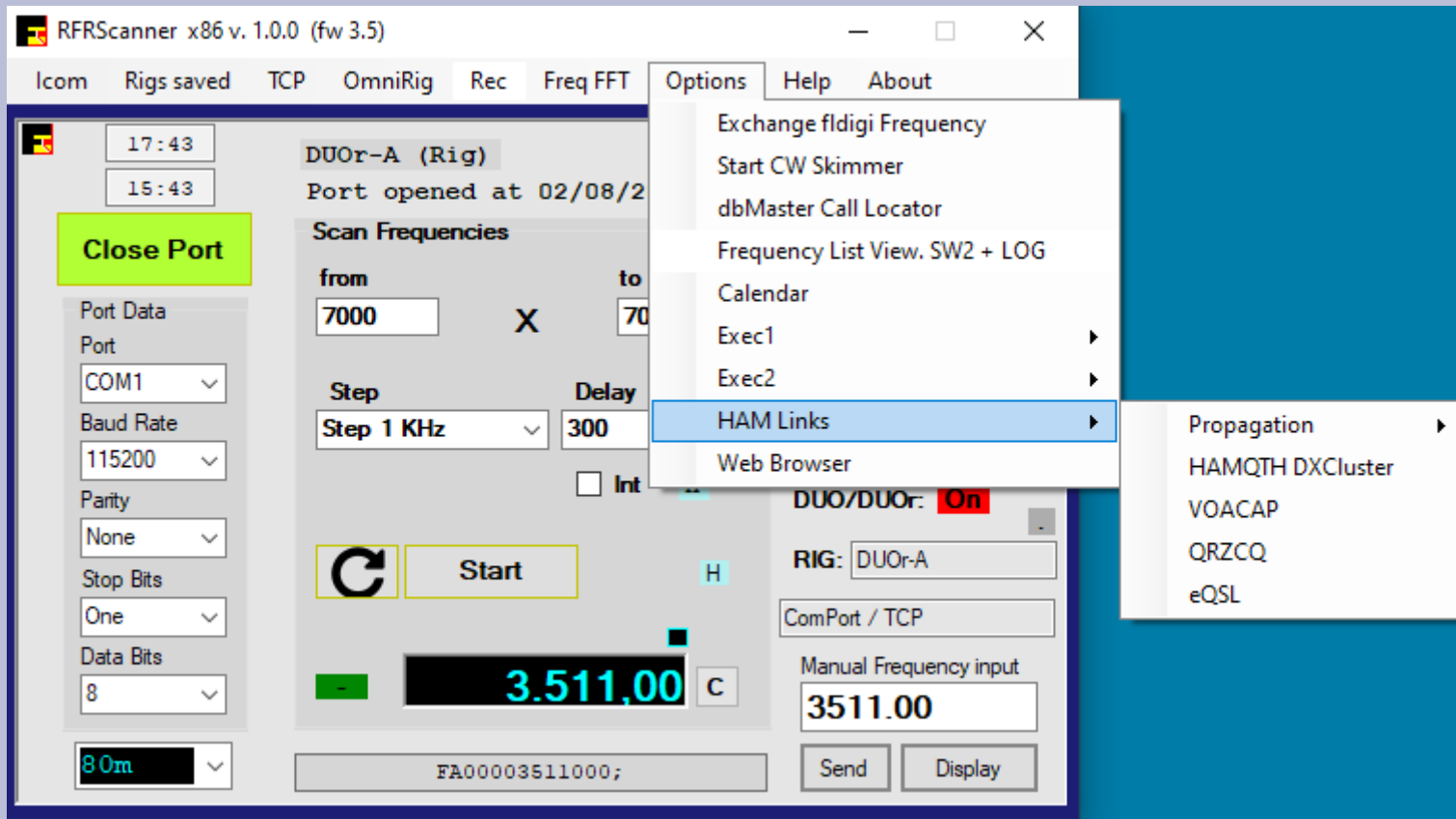
OmniRig



Audio Recorder



Menu Options



Input your Web Browser. Default = Internet Explorer.

Example: Internet Explorer, Firefox, Chrome.

Actual:

Exit

Confirm

CWSkimmer is opening/running in automatic.

Exec1 (2) Run external programs.

The dbMaster Callsign database

dbMaster Callsign + Locator

2E0AOZ IO93IQ
2E0BPP IO83SS
2E0CEA
2E0CEY
2E0CNL
2E0CON
2E0CVN
2E0CZE
2E0DSQ
2E0EMF
2E0EMU
2E0FCH
2E0FFT
2E0FPC
2E0FQT
2E0GBK
2E0GEL
2E0HAG
2E0HCL
2E0HES
2E0HPI
2E0IFC
2E0IKM
2E0IMD
2E0JOF
2E0KBL
2E0KDN
2E0KDT
2E0KDT/P
2E0KFH
2E0KGX
2E0KHW
2E0KPD
2E0KVJ
2E0LJZ
2E0LKC
2E0LPA

Input CallSign x Search. (partial)
Input CallSign to Add.

2E0BPP X

Locator Km Nm
? IO83SS 1386 748

Find a Locator.

Search > Next

Add/Save H

Delete

Selected Item
Country 2E0BPP IO83SS

My Locator H
Loc JN55WJ F6 X

45668

My Locator
JN55WJ

Input your Locator

Input CallSign x Search. (partial)
Input CallSign to Add.

X

Locator Km Nm
? X

Calc Distance 2 Char search

2E England G
2I Northern Ireland GI
2J Jersey GJ
2M Scotland GM
2U Guernsey and Dependencies GU
2W Wales GW
3A Monaco
3B6 Agalega Is
3B7 Cargados Carajos (St Brandon) 3B6
3B8 Mauritius
3B9 Rodriguez I.
3C Equatorial Guinea
3C0 Annobon I.
3D2 Conway Reef
3D2 Republic of Fiji
3D2 Rotuma I.
3DA0 Swaziland

Selected Item
Country 2E0BPP IO83SS

My Locator H
Loc JN55WJ F6 X

Frequencies saved (RFR)

Elad SW2 Stations imported and added (SW2)

(SW2) local Frequency dBase

(RFR) ShortCut – memorize a Frequency

dbStations + Log-Data

Log Entry Delete Frequencies Help

Frequency	Utc Date Time	Band	Mode	Rig	(RFR)
7022.64	02/08/2020 09:17:03	40m	LSB	DUOr-A	
7022.31	02/08/2020 09:23:03	40m	CW	DUOr-A	
7022.34	02/08/2020 09:37:38	40m	CW	DUOr-A	

dbStations + Log-Data

Log Entry Delete Frequencies Help

Frequency	Utc Date Time	Band	Mode	Rig	(RFR)
7022.64	02/08/2020 09:17:03	40m	LSB	DUOr-A	
7022.31	02/08/2020 09:23:03	40m	CW	DUOr-A	
7022.34	02/08/2020 09:37:38	40m	CW	DUOr-A	

Frequency	Station	Mode	Band Ham	(140)	(SW2)
474.20	WSJT 630m	USB	-		
936.00	Rai 1	AM	-		
1000.00	test	AM	AM		
1000.01	-	RTTY	AM		
1827.45	Saved Frequency	USB	160m		
1836.60	WSJT 160m	USB	160m		
1838.00	-	LSB	160m		
1838.15	-	LSB	160m		
1839.00	WSJT 160m	LSB	160m		

Frequency	Station	Mode	Band Ham	67	(SW2)
474.20	WSJT 630m	USB	-		
1836.60	WSJT 160m	USB	160m		
1839.00	WSJT 160m	LSB	160m		
1840.00	WSJT 160m	LSB	160m		
2500.00	WSJT OOB	LSB	-		
3330.00	WSJT OOB	LSB	-		
3568.60	WSJT 80m	USB	80m		
3570.00	WSJT 80m	USB	80m		
3572.00	WSJT 80m	USB	80m		

Frequency Station Mode (SW2)

Save

Frequency Station Mode (SW2)

Save

From Freq To Freq Station Text

H Search

From Freq To Freq Station Text

WSJT H Search

RFRScanner LogData Input (LOG)

dbStations + Log-Data

Log Entry Delete Frequencies Help

Spotter	Utc Date Time	Band	Frequency	Mode	T-Type (LOG)
2E0BPP	02/08/2020 16:20:00	80m	3511.00	LSB	
HB9CVQ	10/06/2020 00:19:16	80m	3700.00	LSB	SSB
IK0PRP	03/08/2020 10:15:34	80m	3511.00	CW	

Frequency		Check	<input type="text" value="3511,00"/>	Frequency	X	(SW2)
474.20						
936.00						
1000.00						
1000.01						
1827.45						
1836.60						
1838.00						
1838.15						
1839.00						

Spotter:

km: Save > F7 Type:

Frequency	Station	Mode	(SW2)
<input type="text"/>	<input type="text"/>	<input type="text"/>	Save

From Freq	To Freq	Station Text	H	Search
<input type="text"/>	<input type="text"/>	<input type="text"/>		

Transmission **Type** – not requested

-
- AM
- ARDOP
- ATV
- C4FM
- CHIP
- CHIP128
- CHIP64
- CLO
- CONTEST
- CW
- PCW
- DIGITALVOICE
- DOMINO
- DOMINOEX
- DOMINOF
- DSTAR
- FAX
- FM
- FSK31
- FSK441
- FT8
- HELL
- FMHELL
- FSKHELL
- HELL80
- HFSK
- PSKHELL
- ISCAT
- ISCAT-A

Type:

RFRScanner

Edit / Modify LogData

Modify / Edit Log-Data

Spotter	Utc Date Time	Band	Frequency	Mode	Transm. Type	Distance Km	Master
2E0BPP	02/08/2020 16:20:00	80m	3511.00	LSB	-	1386	*
HB9CVQ	10/06/2020 00:19:16	80m	3700.00	LSB	SSB - LSB	346	*
IK0PRP	14/06/2020 06:01:05	40m	7042.30	USB	RTTY	413	*

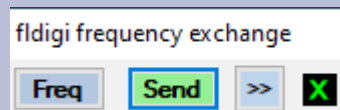
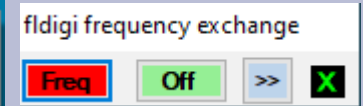
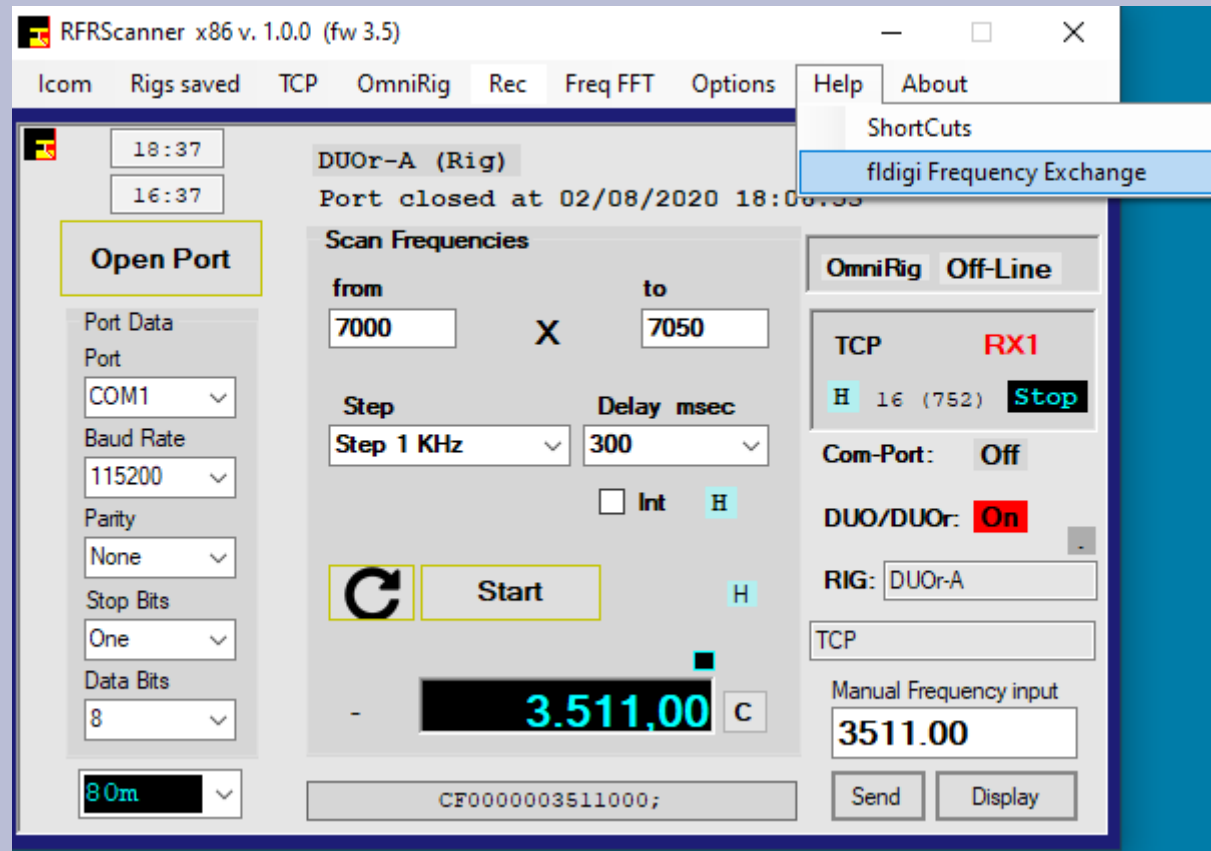
Distance Km Master

* = present in Master CallSign dBase

Distance is indicated if the Spotter Locator is present.

Editable: Spotter, Band, Mode, Transmission Type

Fldigi Frequency exchange Semiautomatic



Is doing it in automatic.

Fldigi Audio history and “casual tuning”

You can temporarily “monitor” a different signal by right-clicking on it.

As long as you hold the mouse button down, the signal under it will be decoded;

as soon as you release the mouse, decoding will revert to the previously tuned spot (where the red marks are).

If you also hold the Control key down before right-clicking, Fldigi will first decode all of its buffered audio at that frequency.

RFRScanner Database Converter

*.txt, cvs, eibi ecc... are allText Files, extract + position any field
create a new database for your application
convert and translate to *.xml for the Elad SW2
test: connect to your Rig using OmniRig
Tested, ILG db with +30000 Records

RFRConverter x86 v. 1.0.0 (fw 3.5) - Copyright by Raimund Forstmeier, Padova/Italy

Translate x Elad Save OmniRig Field Position Help About

Frequency	Station	Time	Transmission Data	Place	Transmit >>> (EU AF ...)	Country	Transmission type
212.01	BCY (Thorp Boise C			BCY (Thorp Boise City, OK)		US	
212.01	BCY (Thorp Boise C			BCY (Thorp Boise City, OK)		US	

Select Read by Delimiter or by-Positions

Field Divisor (. _ space ecc..)

By Positions

Local Field	Field Length	MaxLe. Le. distance
6,13	1	10,9,2
22,41	2	22,22,2
81,92	3	9,9,2
	4	16,16,2
22,52	5	32,32,2
	6	20,20,2
18,21	7	20,20,2
	8	20,20,2

Actual Field Pos: 94 / 1

Your Record Fields	Local Fields Translated	Default Field Length
28230	Frequency	10
IQ8CZ (Catanzaro)	Station	22
	from Time to (Default 0000-2400)	9
	Transmission Data	16
IQ8CZ (Catanzaro)	Place	32
	Transmit to >>> (EU AF ...)	20
	Country	20
	Transmission Type	20.....

Rec_Length: 145

FieldPos: 136

171 171.0001 MRC Medi 1 (Nador (LW)) 0000-2400 [171.0000:] 20120205

219.00 W7 (Pabok du Roche) W7 (Pabok du Rocher-Perce, QC) CA

Input FileName:

Translate "Mode-Type" to RIG-Mode

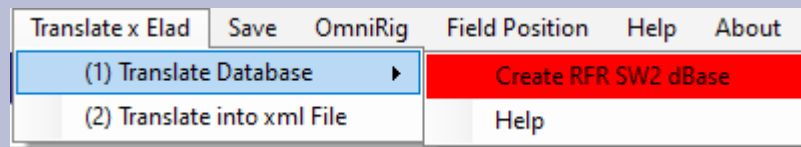
CLOSE

RFRScanner update v 1.0.3 Database Converter

Translate any dBase into a RFRScanner dBase (SW2)

Following the latest update v 1.0.2 this update is a logical sequence.
Read the Help Menu > Help > [Create a RFR SW2 dBase]

1. Select



Useful



Read the [H]elp

Example: MW_Complete.cfg

2. Select: (1) Translate Database

Before translating and After Translating.

Translating Field 1, 2, 8

Select Read by Delimiter or by-Positions

Field Divisor (. _ space ecc..)

By Positions

Local Field	Field Length
6,13	1
22,41	2
81,92	3
	4
22,52	5
	6
18,21	7
	8

Default X

Your

Field Length

MaxLe, Le, distance

10,9,2

22,22,2

9,9,2

16,16,2

32,32,2

20,20,2

20,20,2

20,20,2

Default X

Select Read by Delimiter or by-Positions

Field Divisor (. _ space ecc..)

By Positions

Local Field	Field Length
6,13	1
22,41	2
	3
	4
	5
	6
	7
	8

Default X

Your

Field Length

MaxLe, Le, distance

10,9,2

15,15,4

0,0,0

0,0,0

0,0,0

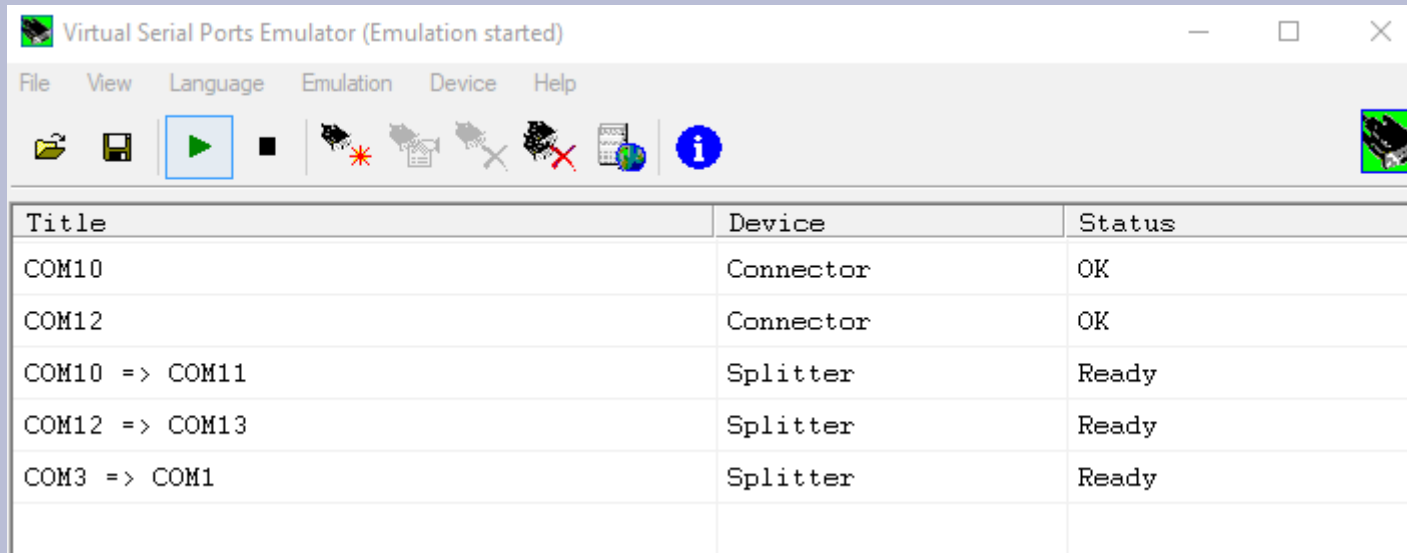
0,0,0

0,0,0

10,10,0

Default X

Virtual Com-Ports VSPE



Avoid common troubleshooting

Make sure that all connected devices are set with the same parameters.
Com-Port, Baud Rate and Rig where requested like fldigi, CWSkimmer, HRD.

VSPE should be Re-Opened after Com-Port changes.
Close your Rig and Re-Open it.

Don't forget the right Audio Settings.

If you use HRD, HRD must always be opened first.
HRD does not connect if a device is already in use.
Now you can open the RFRScanner Com-Port.

Using

fldigi

CWSkimmer

HAM Radio Deluxe

others...

- Check and set the right Parameters. Avoid unnecessary complaints.
 - Rig
 - Device Com-Port
 - Baud Rate
 - Audio Capture and Playback

fldigi: you can use the RFRScanner “fldigi exchange frequency”.

CWSkimmer: Menu [Options] open SWSkimmer in automatic.

HRD: Always open HRD “first” then other programs.

HRD is not connecting to Com-Port ecc... if a device is already in use.

VSPE: Virtual Com-Port emulator

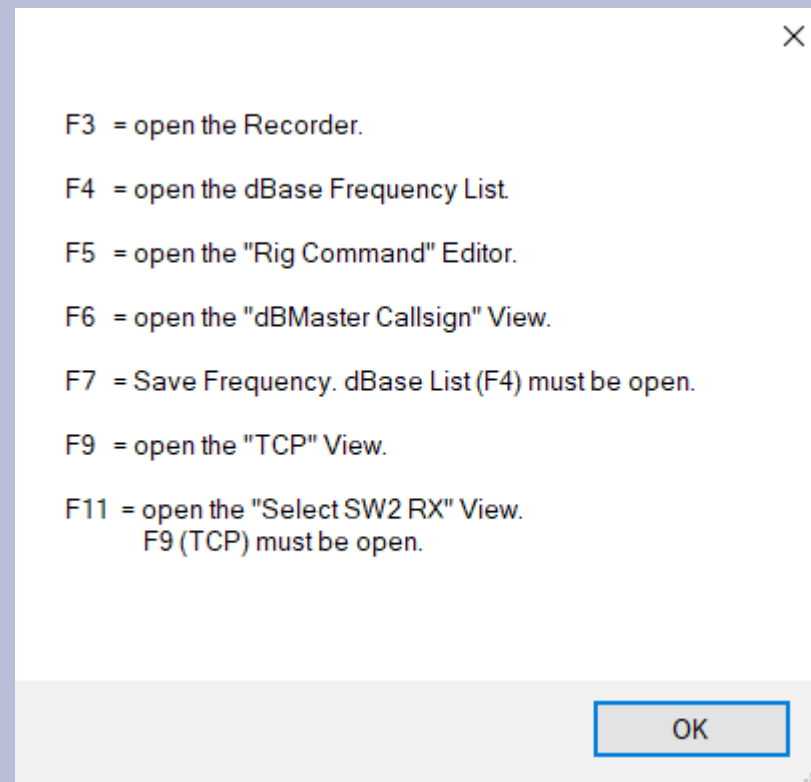
VAC: Virtual Audio Cable

RFRScanner is setting the Baud Rate in automatic

- Icom 19200 default (the included Icom Rig's – hard coded) Menu [Icom]
- All saved Rig's (Rig-Editor) are set to the Baud Rate you indicate/input.

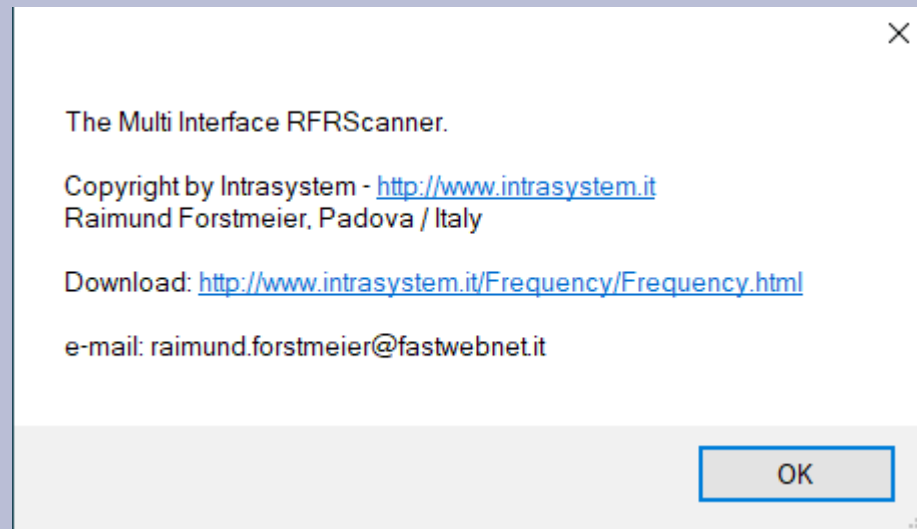
RFRScanner

ShortCuts



Intrasystem RFRScanner

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The specific Help.

RFRScanner Menu > Help