A step-by-step walk through of how to use the SDR-Console V3 **Remote Server facility** for popular SDR radios (Rev 2 - Updated Feb 13<sup>th</sup> 2018)

# The instructions are on http://www.sdr-radio.com/Software/Version3/Server and this guide is to help you visualise what to do, screen by screen

# First install the latest version of SDR-Console V3 Beta\*:

http://www.sdr-radio.com/Software/Version3/



\*Make sure it is Version 3118 or newer



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- 1 RF Spectrum Analyzer Made in Germany / up to 20GHz Handheld, USB, Remote & 19" Analyzers LF & RF / 1Hz to 20GHz / -170dBm DANL aaronia.com/rf-analyzers
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## Version 3 Console

The console is the main program in the SDR-radio.com family and the focus of current development. It is designed to be easy to use with all options available on the ribbon bar and user configuration via the program options.

#### Donate

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This software is financed by donations, if you like it then please consider a donation.



**Donations welcome!** 

## Scroll to the bottom



The software will download and you choose "Run" and follow the prompts to get the latest SDR Console V3 beta installed on your PC



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## Introduction

The SDR Server supports one or more SDR radios located at a remote location, the internet is used to connect the SDR Console to the server. Use the Server Manager (below) to configure and start the server (runs as a Windows service).

The server does not require a high-end computer - tests have successfuly concluded on a 32-bit Windows 7 laptop with a 2GHz Core2Duo processor, the CPU load typically less than 2%.

The recommended minimum bandwidth is 2 MBps (two megabits), more is better as it allows a higher sample rate between the server and the console.

#### Transmit

Transmit support using the V3 server is *not* currently planned.



15:51

11/02/2018

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#### Data Format

[[]]

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# Launch SDR Console V3



















And now, if you want to add your own Radio on for others to use...





SDR Server Manage	er version 3.0 build 1051	- 🗆 X
Help Options + Accounts ▲	Add     Edit     Delete     Refresh       Acc     Last     Last 1     Comment	
<ul> <li>+ Radios ▲</li> <li>+ Firewall · X</li> <li>+ Network</li> <li>+ Welcome Text</li> <li>Service · X</li> <li>+ Connections</li> <li>Logfile</li> <li>+ General</li> <li>+ Security</li> <li>On Air</li> </ul>	Account     Username:   public   Password:   public   Show chars   Very Weak     Comment:   this is my public account     Maximum connection time:   1 hour   Interval between     OK     Cancel	Fill in your first accounts with o For public use, a one minute loc
© Screenshot	Don't	forget to press "(

Fill in your first account (you can several accounts with different access controls) For public use, an hour is a sensible limit with a one minute lockout to let others in!

# First select "Radios": we're going to add your particular SDR to make it available

SDR Se alanager	version 3.0 build 1051	— C	x c						
Help Options + Accor + Radios A + Firewall · X + Network + Welcome Text Service · X + Connections Logfile	Definitions Name odel Frequency Serial Address Option Then select "Definitions" To get this screen:			Radio Definitions × Search Add Edit Delete Text viewer Enable Model Frequency Serial Address Option DI Then select "Search" to get the list of supported radiac:					
+ General + Security On Air				Save Cancel					

## Make sure your radio is now connected to your PC via USB (worth checking it out as a local receiver beforehand to make sure no driver issues or antenna connection problems etc...)

SDR Server Manage	er version 3	.0 build 1051	$ \square$ $\times$
Help	Definitio	ins	
Options	Name	Madal Epoquancy Capial Addrace Antion	
+ Accounts · 1		Radio Definitions	×
+ Radios 🛦		Q Search → Add Edit Delete	Text viewer
+ Firewall · X		Afedri-SDR (LAN)	ion DII
+ Network		Afedri-SDR (USB)	
+ Welcome Text		Airspy	
Service · X		Airspy HF+	
+ Connections		ANAN (OpenHPSDR)	
Logfile		FLAD FDM-S1/S2	
+ Caparal		Ettus Research (all models)	
+ General		FUNcube Dongles	
+ Security		HackRF	
On Air		LimeSDR	
		Microtelecom: Perseus	
		RFspace: CloudIQ, CloudSDR, NetSDR, SDR-IP	Then choose your radio from the supported list.
		RFspace: SDR-IQ and SDR-14	In this example we're using an SDRplay RSP2
		RTL Dongle	in this example we're doing ar obripidy for E
		RTL Dongle (TCP)	
Screenshot		SDR MK1.5 Andrus	
		SoftBack (Si52)	
		SoftRock (XTAL)	

# Your SDR should appear "found", so click on "Add"





## Keep the default Firewall "Allow" setting

👿 SDR Server Manager version 3.0 build 1051

Add Delete

Address Location

Help

Options...

+ Accounts - 1

+ Radios ▲ + Firewall · X

+ Network + Welcome Text Service · X

+ Connections

Logfile...

+ General

+ Security

Screenshot

On Air

■ Allow Setting
But you winneed to allow port for PC you are going
■ Allow Ollock

But you will need to open up your broadband router to allow port forwarding to Port 50101 for the specific PC you are going to use as a server:





## Keep the default Network settings to start with – this gives up to 200kHz spectrum visibility

💀 SDR Server Manage	er version 3.0 build 1051 - C ×	
Help	Incoming Connections (TCP/IP)	
Options	Listen on: Any (recommended) Value cannot be changed while the	
+ Accounts · 1	Port: 50101 Default: 50101	
+ Radios 🛆		
+ Firewall · X	Windows Firewall Control Panel	
+ Network	Refresh Add Port Windows firewall is On, Port 50101 is NOT enabled	
+ Welcome Text		
Service · X	Bandwidth	
+ Connections	LAN: Compression Max bandwidth: 1,000 kHz $\checkmark$ ~ 34,000 Kbps (max)	
Logfile	WAN: 🗹 Compression Max bandwidth: 200 kHz 🗸 ~ 3,600 Kbps (max)	
+ General		_
+ Security		
On Air		
Screenshot		

If you can reliably have more than 3.4MB/s up and down, then you can allow more bandwidth

## Now go to the "ON Air" tab and click the Enable Box

💆 SDR Server Manag	er version 3.0 build 1051	- 0
Help	🔒 Home 🔲 Save 🗌 Enable Sta	tion Name required
Options	On-Air Server (Upload)	
+ Accounts · 1	Address: status.sdrspace.com	What is On-Air?
+ Radios 🛦	Port; 50199 Show	uploads On-Air support makes your V3
+ Firewall · X	Code: WelcomeV3 Defaults	server visible on a public (or
+ Network		private) website so other users
+ Welcome Text	Default Server Account (Optional)	can connect with just a few
ervice · X	Username:	keystrokes. When enabled,
+ Connections	Password:	updates are regularly sent to the central server.
ogfile		
+ General	Station Description	For more information visit
+ Security	Name;	
n Air	Lat/Lon: Locator ->	On-Air Server
	Homepage;	The address and port of the computer where the on-air central
	Antenna:	server is running. You will need an
	Location:	upload code which is allocated
	Comment;	administrator. For the current address, port number and upload

¥.

#### SDR Server Manager version 3.0 build 1051

Help	😭 Home	Rave Enable
Options	On-Air Serve	r (Upload)
+ Accounts · 1	Address:	status.sdrspace.com
+ Radios 🛦	Port:	50199 Show uploads
+ Firewall · X	Code:	WelcomeV3 Defaults
+ Network		
+ Welcome Text	Default Serve	er Account (Optional)
Service · X	Username:	SDRtest
+ Connections	Password:	SDRtest
Logfile	Station Descr	intion
+ General	Name	C44R0
+ Security	Lat/ op:	
On Air	Laycon.	
	Homepage:	www.sdrplay.com
	Antenna:	Doublet
	Location:	Central UK
	Comment:	this is a short test - NO antenna - DO not use!
Screenshot		L

#### What is On-Air? On-Air support makes your V3 server visible on a public (or private) website so other users see the status of your server and can connect with just a few keystrokes. When enabled, updates are regularly sent to the central server.

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For more information visit <u>http://www.sdrspace.com</u>.

#### **On-Air Server**

The address and port of the computer where the on-air central server is running. You will need an upload code which is allocated either by the system administrator. For the current address, port number and upload code visit http://v3.sdrspace.com.

## Fill in a username and password others can use Together with Station description. The location will override what otherwise would be your internet point-of-presence.

The description information together with "Welcome Text" will be seen by others browsing the choice of radios on www.sdrspace.com/Version-3

## Go to the "Service" tab and click on Install



## From then on, you can Start and Stop the service from this panel

When someone connects to your radio, you will see a line appear in the "Connections" Tab. Connections will also appear in the right hand columns of the entry in the live updates on <u>www.sdrspace.com/Version-3</u>

SDR Space

#### SDR-RADIO.COM (f) 🎽 🛗

#### At 2/13/2018 4:15:13 PM the On-Air service uptime is 8 07:12:11. The most servers connected was 30, most users 8.

Server (30)	Description	#	Radio	User (5)	Session	Location
.VE7ED. Canada	Location is Sooke BC Canada. Website is <u>www.ve7ed.com</u> . Antenna is Folded Dipole 10-160. ELAD FDM-S1 is attached to my Yaesu FTDX3000 antenna port 3 so depending on the band it may affect the S1 receiver sensitivity. Version 3.0 build 3118	Idle	ELAD S1			
AD8AJ	Location is Grand Haven, MI. Antenna is 40/80/160m Dipole. Version 3.0 build 3118	Idle	SDRPlay RSP1A			
CommSta- NMA	Location is Miami. Antenna is 60 m long wire 10m high N/S direction. Version 3.0 build 3118	Idle	SDRplay RSP1			
db1jj	Location is JO31ME. Antenna is AAA-1C On Airspy switch on Bias tee. Version 3.0 build 3118	Idle	Airspy, Airspy HF+			
Dennis G8IMN Airspy	Location is IO92CN Sutton Coldfield UK. Antenna is UHF 8dB Vertical. Version 3.0 build 3115	Idle	Airspy, RTL Dongle - R820T			
F1HDI	Location is Paris'suburb. Antenna is 2x12m sym. testteam. Version 3.0 build 3115	Idle	Perseus 1.0			
G0MJW	Location is Harwell. Antenna is Loop LF/MF/HF, vertical VHF. Test login username Test, Password: password.Limited to 10 minutes. Version 3.0 build 3115	Idle	Airspy HF+			
Gerard's Station	Location is Park Orchards, Victoria, Australia. Antenna is Hex Beam. Version 3.0 build 3118	Idle	Airspy, B200, CloudIQ			
hamilton scotland vhf/uhf	Cannot access 95.147.224.203 port 8080, (95.147.224.203:8080) Timeout after 2 seconds. Location is Hamilton, South Lanarkshire, Scotland, ML3, United Kingdom, EU. Version 3.0 build 3118	Idle	RTL Dongle - R820T			

Check out the remote SDRplay RSPs or visit <u>www.SDRplay.com</u> for more information The SDRplay family of RSPs receive from 1kHz to 2 GHz with no gaps with 10 MHz visible bandwidth