Application Note



## Perseus, VAC and W-CODE Decoder

### Installation and Setup VAC

Use the Virtual Audio Cable Control Panel to check the settings of VAC. Installation details can be found in the VAC documentation

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able Max instances M 1 20	Мс		S,PODF   BPS range 816		k corr % 100.00 Stream fint limit Cable range		SR 44100	BPS 16	NC 2	Rc stms 1	Pb stms 1	
								Abo		Help		Exit

### Start decoding

- Close all decoder windows
- For W-CODE open Setup and W-CODE Device. For W61PC open Setup, Custom Input... to create a Custom Input

C Init Computer Remote Computer   C Bemote Computer 127.0.0.1			Name or IP Address ICP Por 33243			nit (Baud)	W
evice l	nlo						
с.	Device Name	Connections	Device		Serial #	Lice	nse
C 1	DeviceA		Microphone (High Definition A	IV bu	1193920122	Vie	
6 2	DeviceB	1	Line 1 (Virtual Audio Cable) Vi	1.1	1193920222		
C 3	DeviceC		No Device				
C &	DeviceD		No Device	_			
C 5	DeviceE		No Device	_			
C 6	DeviceF		No Device				
C 1	DeviceG		No Device				
C 8	DeviceH		No Device	_			

Application Note



## **Start Perseus**

PERSEUS is a software defined VLF-LF-MF-HF receiver based on a direct sampling digital architecture. It features a 14 bit 80 MS/s analog-to-digital converter, a high-performance FPGA-based digital down-converter and a high-speed 480 Mbit/s USB 2.0 interface.

Start and use Perseus as normal. By default Perseus sends the output to two different devices

- Audio Device defined as the default output in the Windows audio settings (normally a speaker)
- VAC#1
- Select Line 1 (Virtual Audio Cable)
- Start FFT
- Select the correct Signal Input (in this sample AF Left+Right)
- Adjust the signal gain



Application Note



### **VAC Settings for Perseus SDR**

As the VAC and the Perseus specifications may change, please consult the corresponding user manuals.

At the time of writing these VAC settings were valid:

- SR: 22050 .. 192000
- BPS: 8..32
- NC: 1..2
- Max inst: 20
- Mspe int: 10
- Stream fmt: Cable format
- Connected source: Line
- Clock corr: 100%

## **Trouble Shooting**

If the Virtual Audio Cable does not appear in the device list

- Close W-CODE
- Restart the Wavecom Server (the server will refresh the list of available input devices)
- If no signals are displayed in the FFT restart the Wavecom Server (the server will refresh the list of available input devices) and try again
- Remove VAC
- Clean all registry entries of VAC with CCleaner (CCleaner is a freeware system optimization)
- Re-install VAC
- Restart your computer
- Try again to select VAC from the device list
- If the problem is not fixed, try to remove computer specific sound card tools, which could be preventing VAC from "picking-up" samples

Application Note



Since more than thirty years Wavecom Elektronik AG has developed, manufactured and distributed high quality devices and software for the decoding and retrieval of information from wireless data communication in all frequency bands. The nature of the data communication may be arbitrary, but commonly contains text, images and voice. The company is internationally established within this industry and maintains a longstanding, world-wide network of distributors and business partners.

### **Product Information**

Products	http://www.wavecom.ch/product-summary.php
Datasheets	http://www.wavecom.ch/brochures.php
Specifications	http://www.wavecom.ch/product-specifications.php
Documentation	http://www.wavecom.ch/manuals.php
Online help	http://www.wavecom.ch/content/ext/DecoderOnlineHelp/default.htm
Software warranty	One year free releases and bug fixes, update by DVD
Hardware warranty	Two years hardware warranty
Prices	http://www.wavecom.ch/contact-us.php

#### **System Requirements**

	Minimum	Recommended
CPU	Core i5 or Core i7 2.8 GHz	Core i7-6700 3.4 GHz
Memory	4 - 8 GB RAM	16 - 32 GB RAM
OS	Windows 7	Windows 10 32-bit or 64-bit

### **Distributors and Regional Contacts**

You will find a list of distributors and regional contacts at <a href="http://www.wavecom.ch/distributors.php">http://www.wavecom.ch/distributors.php</a>



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