Soundcard Setup for Radio-SkyPipe

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1. Introduction

The Radio-SkyPipe II software application most often is used with a PC soundcard for charting signal levels **_**))) detected by a radio receiver. However, setting up an internal or external soundcard can be difficult and confusing in the Windows operating system, partly because of problems with marginally logical and poorly defined nomenclature and partly because of changes made to Windows 7 and Windows 10 in the way they handle audio digital rights management (the problems actually started in Windows Vista).

This article discusses the Windows hardware and software settings and may help a user overcome these problems. The screenshots and settings shown here are for Windows 10 but also apply to Windows 7. The settings in Windows XP are simpler but follow a similar progression. A specific desktop PC and associated internal soundcard are used in the examples but it is expected that the settings are similar for other desktops and laptops. An external USB soundcard also is used for examples and its settings are similar to other soundcards that use the generic Microsoft soundcard driver.

2. Soundcard Drivers

When setting up a soundcard, the first thing to check is the Device Manager. Right-click My Computer or This PC and select Properties. In the window that opens, click on Device Manager. Alternately go to Control Panel – Device Manager. In Device Manager scroll down to Sound, video and game controllers and click on the > or + to expand the list. The left screenshot below shows the Realteck HD Internal Soundcard in a Lenovo M900 Tiny desktop PC running Windows 10. The right screenshot shows an External USB Soundcard after it has been plugged into a USB port on the same PC.





Check the soundcard drivers by right-clicking the soundcard and then selecting *Properties*. The Properties window will have several tabs. Select the *Driver* tab. The left screenshot below shows the latest driver for the Realtek Internal Soundcard dated *6/23/2015* and the right screenshot shows the latest driver dated *7/27/2017* for the Syba SD-AUD20101 External USB Soundcard shown right. When this soundcard is plugged into a USB port and is Enabled, a green LED near its Microphone jack flashes at 1 Hz rate. The LED turns solid On when the soundcard is Disabled.

ealtek High Definition A	Audio Properties X	USB Audio Device Properties		
aeneral Driver Details	Events	General Driver Details Events		
Realtek High D	Definition Audio	USB Audio Device		
Driver Provider	Realtek Semiconductor Corp.	Driver Provider: Microsoft		
Driver Date:	6/23/2015	Driver Date: 7/27/2017		
Driver Version:	6.0.1.7543	Driver Version: 10.0.15063.502		
Digital Signer:	Microsoft Windows Hardware Compatibility Publisher	Digital Signer: Microsoft Windows		
Driver Details	View details about the installed driver files.	Driver Details View details about the installed driver files	S.	
Update Driver	Update the driver for this device.	Update Driver Update the driver for this device.		
Roll Back Driver	If the device fails after updating the driver, roll back to the previously installed driver.	Roll Back Driver If the device fails after updating the driver back to the previously installed driver.	r, roll	
Disable Device	Disable the device.	Disable Device Disable the device.		
Uninstall Device	Uninstall the device from the system (Advanced).	Uninstall Device Uninstall the device from the system (Adv	anced).	

The External USB Soundcard driver is a generic Microsoft driver and the only one available for this soundcard. Click *Update Driver* and follow the prompts to install the latest available driver. Where generic drivers are involved, it is best to allow Windows to find and install the driver, but drivers for internal soundcards should be obtained directly from the PC manufacturer. The importance of having the latest drivers cannot be overstressed.

3. Soundcard Setup

After the soundcard driver has been confirmed, it is necessary to setup the soundcard itself. To access the soundcard properties, right-click the Speaker icon in the Taskbar Notification Area shown right or go to Control Panel – Sound. When accessed from the Notification area, a popup window appears. Select *Recording devices*, which are the input sources to a soundcard.

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Open Volume Mixer
Spatial sound (None)
Playback devices
Recording devices
Sounds
Troubleshoot sound problems

When the Sound Properties window opens, right-click anywhere in the window. Check *Show Disabled Devices* and *Show Disconnected Devices* as shown right.

Show Disabled Devices
 Show Disconnected Devices



The soundcards in many PCs do nothing until a plug is inserted in the Microphone or Line In jack (this is called *jack-presence detection*, although it actually is a plug that is being detected). In the case of the M900 PC, with nothing plugged into the Microphone jack the soundcard is displayed as shown in the left screenshot below. Inserting a Stereo or Mono plug activates the jack as shown in the right screenshot below. Note that the Microphone changed from *Not plugged in* to *Default Device*.



If the Microphone device is Disabled, it will be indicated as shown below-left. To Enable the Microphone device, right-click it and select *Enable* as shown below-right.

layback Recording Sounds Communications	Playback Recording Sounds Communications
Microphone	Microphone
Realtek High Definition Audio	Realtek High Definition Audio
Stereo Mix	Stereo Mi
Realtek High Definition Audio	Realtek H
Disabled	Disabled Set as Default Device Set as Default Device Set as Default Communication Device Show Disabled Devices Show Disabled Devices Properties Properties
Configure Set Default 💌 Properties	Configure Set Default V Properties

If any other Recording Device is Enabled, right-click it and select *Disable* as shown below-left. Repeat for all devices except the one to be used. Double-check that all devices are Disabled except the one to be used, in this case the Microphone. Now, right-click the Microphone Recording Device again and select *Properties* as shown below-right.

☉ Sound X	Sound Sound
Playback Recording Sounds Communications	Playback Recording Sounds Communications
Select a recording device below to modify its settings:	Select a recording device below to modify its settings:
Microphone Restlat High Definition Audio	Microphone Paalfak Hinh Definition Audio
Not plugged in	Default Devic Configure Speech Recognition
Stereo Mix Realtek Hinh Definition Audio	Stereo Mix Realtek High
Defau Disable	Disabled Show Disabled Devices Show Disconnected Devices
Show Disabled Devices	Properties
Show Disconnected Devices	
rioperues	
Configure Set Default 💌 Properties	Configure Set Default Properties
OK Cancel Apply	OK Cancel Apply

The Microphone Properties window will open to the General tab as shown below-left. Note that the *Jack Information* indicates *Front Panel 3.5 mm jack*, which indicates that a plug has been inserted in the jack. This may vary with the soundcard and Recording Device that has been enabled. Select the Listen tab. If *Listen to this device* is checked, the audio is routed to the Playback device selected in the *Playback through this device* dropdown immediately below it. In the screenshot below-right, the *Default Playback Device* is selected. The Default Playback Device itself can be selected in the Playback tab of the Sound Properties window previously shown.

Microphone Properties ×	⅓ Microphone Properties ×
General Listen Levels Enhancements Advanced Microphone Change Icon	General Listen Levels Enhancements Advanced You can listen to a portable music player or other device through this Microphone jack. If you connect a microphone, you may hear feedback.
Controller Information Realtek High Definition Audio Properties Realtek Information	Listen to this device Playback through this device:
Front Panel 3.5 mm Jack	Default Playback Device Power Management © Continue running when on battery power O Disable automatically to save power
Device usage: Use this device (enable) ✓	
OK Cancel Apply	OK Cancel Apply

Select the Levels tab and set the *Microphone* gain. Although the setting shown below-left is 50%, a lower setting of, say, 20 to 25% provides more dynamic range. Some experimentation may be necessary to find the best tradeoff between sensitivity and dynamic range. The *Microphone Boost* should be set to 0.0 dB (move the slider all the way to the left). The boost usually is a nonlinear function and should not be used; otherwise, the Radio-SkyPipe chart may indicate unexpected variations. The Microphone Properties may have an Enhancements tab. If so, select it and check *Disable all sound effects* as shown below-right. Note: The *Immediate mode* apparently applies only to configurations that require latency reduction when a voice microphone is used. It is automatically disabled when the *Disable all sound effects* box is checked.

± Microphone Properties ×	🗄 Microphone Properties 🛛 🗙
General Listen Levels Enhancements Advanced Microphone 50 (1)	General Listen Levels Enhancements Advanced Select the sound effects to apply for your current listening configuration. Changes may not take effect until the next time you start playback. Image: Configuration of the playback of the playba
Microphone Boost	Noise Suppression Acoustic Echo Cancellation
	Sound Effect Properties Provider : Realtek Description : To reduce the echo caused by the front speakers during recording (v2)
	ANDREA
OK Cancel Apply	OK Cancel Apply

The Advanced tab shown below-left selects the *Default Format* for the digital encoding (sample rate and number of encoding bits) to be used by the soundcard. Note that both selections in the *Exclusive Mode – Allow applications to take exclusive control of the device* and *Give exclusive mode applications priority* are checked. These appear to have no direct effect on Radio-SkyPipe but they both probably should be checked to prevent other applications from hijacking the soundcard or audio stream while Radio-SkyPipe is in-use.

Default Format Select the sample rate and bit depth to be used when running in shared mode. 2 channel, 16 bit, 48000 Hz (DVD Quality) Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority	Default Format Select the sample rate and bit depth to be used when running in shared mode. 2 channel, 16 bit, 48000 Hz (DVD Quality) Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority Restore Defaults		en Levels Enhancements Advanced
Select the sample rate and bit depth to be used when running in shared mode. 2 channel, 16 bit, 48000 Hz (DVD Quality) Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority	Select the sample rate and bit depth to be used when running in shared mode. 2 channel, 16 bit, 48000 Hz (DVD Quality) Exclusive Mode. Allow applications to take exclusive control of this device Give exclusive mode applications priority Restore Defaults	Default Fo	ormat
2 channel, 16 bit, 48000 Hz (DVD Quality)	2 channel, 16 bit, 48000 Hz (DVD Quality) Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority Restore Defaults	Select the	e sample rate and bit depth to be used when running I mode.
Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority	Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority	2 chann	el, 16 bit, 48000 Hz (DVD Quality) 🗸 🗸
Allow applications to take exclusive control of this device Give exclusive mode applications priority	Allow applications to take exclusive control of this device Give exclusive mode applications priority Restore Defaults	Exclusive	Mode
Give exclusive mode applications priority	Give exclusive mode applications priority Restore Defaults	Allow	applications to take exclusive control of this device
Durbus Defenitiv	Restore Defaults	Give e	exclusive mode applications priority
	Restore Defaults		
		Restore	Defaults

When an External USB Soundcard is plugged in, its Properties are setup similarly to the Internal Soundcard described above. Inexpensive External USB Soundcards usually have only one input jack and it is marked with a Microphone icon. If the microphone jack in an External USB Soundcard is to be used, Enable it. Disable all other devices by right-clicking each Device and selecting *Disable*. Now, right-click the Microphone device associated with the External USB Soundcard and select *Properties* as shown below.



Most of the tabs for the External Soundcard Microphone Properties are very similar to the Internal Soundcard Microphone Properties previously described. The General tab is shown below-left, and the Listen tab is shown

below-right. Note that the *Jack Information* indicates *No jack information available*. Apparently, this is normal for the generic soundcard driver even when a plug is inserted into the jack.

\pm Microphone Properties $ imes$	± Microphone Properties ×
General Listen Custom Levels Advanced	General Listen Custom Levels Advanced You can listen to a portable music player or other device through this Microphone jack. If you connect a microphone, you may hear feedback.
USB Audio Device Properties (Generic USB Audio) Jack Information	☐ Listen to this device Playback through this device: Default Playback Device ∽
No Jack information Available.	Power Management Continue running when on battery power Disable automatically to save power
Device usage: Use this device (enable) ~	OK Cancel Apply

Select the Custom tab if present. The one shown below-left has an *AGC* (Automatic Gain Control) checkbox. Uncheck the *AGC* and all other features in this tab. Now, select the Levels tab as shown below-right and set the *Microphone* gain as previously described for the Internal Soundcard. There are wide variations in soundcard microphone input gains, so the Radio-SkyPipe chart power amplitude for an internal soundcard likely will be much different than an external USB soundcard with the same gain setting. Some experimentation will be necessary to obtain the best tradeoff in sensitivity and dynamic range as with the internal soundcard.

🖞 Microphone Properties 🛛 🗙	d Microphone Properties	×
General Listen Custom Levels Advanced	General Listen Custom Levels Advanced	
□agc	Microphone	
OK Cancel Apply	OK Cancel	Apply

The Advanced tab shown below will be similar (or identical) to the Internal Soundcard and can be left at its *Default Format* settings with both *Exclusive Mode* items checked as shown.

Default Format Select the sample rate and bit depth to be used when running in shared mode. 2 channel, 16 bit, 44100 Hz (CD Quality) Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority Rectore Defaults	Default Format Select the sample rate and bit depth to be used when ru in shared mode.	
2 channel, 16 bit, 44100 Hz (CD Quality) Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority Rectore Defaults		unning
Exclusive Mode Allow applications to take exclusive control of this device Give exclusive mode applications priority Rectore Defaults	2 channel, 16 bit, 44100 Hz (CD Quality)	~
Allow applications to take exclusive control of this device Give exclusive mode applications priority	Exclusive Mode	
Give exclusive mode applications priority	Allow applications to take exclusive control of this de	evice
Pactors Defaults	Give exclusive mode applications priority	
hestore bergaits	Restore Defaults	

4. Radio-SkyPipe Setup with Internal Soundcard

	🕥 Sound		×			
	Playback Recording Sour Select a recording device Reatek High Not plugged Stereo Mix Battek High Disabled	ds Communications below to modify its s Definition Audio 1 Definition Audio	ettings:			Return to the Sound Properties Recording tab. In the screenshot to left, the Sound Properties for the Internal Soundcard Microphone jack indicates <i>Not plugged in</i> because an audio cable plug has not yet been inserted into the jack.
	Configure	Set Defa	uit 🐨 Properties Cancel Apply			
Radio-SkyPipe Option	IS Data Source	Connection	Strip Chart	Logging		
Advanced Logging	Servers	Sound	Timing	Misc.	1H	
Device: None Available Choose S Buffer Size: 100 Wave File Recordi Power De Left Channel 0 Right Channel 0	Sound Format Ing Prebuffer: 10 secs. tection Factors Unlock Unlock	Sound Backy Input Source Input Sour Sample S	ground Offset Left Rigt ce 0 0 Unlock Sound Offse hift: 0	nt 		Now open Radio-SkyPipe and go to the Options – Sound tab. With no plug in the Microphone jack, the <i>Device</i> window shows <i>None Available</i> . Close Radio- SkyPipe, and see below to correct the problem.

Radio

select a f	ecording devic	te below to	modify its set	tings:	
	Microphor Realtek Hi Default De	ne gh Definitio wice	n Audio		
10-10-	Stereo Mix Realtek Hi	ah Definitio	n Audio		
	Disabled	2			

Insert a plug to activate the Microphone jack as previously described. The indication for the Microphone in the Sound properties Recording tab changes to Default Device because all other devices are disabled.

Reopen Radio-SkyPipe and go to the Options – Sound tab.

Radio-SkyPipe Optio	ns			
Identity	Data Source	Connection	Strip Chart	Logging
Advanced Logging	Servers	Sound	Timing	Misc.
Device:		Input Sourc	e:	
Speakers (Realtek Microphone (Realte	High Definiti k High Defini	Master Vo	ume	
Format: PCM 12.00	10 kHz, 16 Bit, Stereo	- Sound Back	ground Offset	
Choose	Sound Format		Left	Right
Buffer Size: 10	0	Mas	ter 0	0
Wave File Record	ling Prebuffer: 10 sec	:s.	Unlock Sound	Offsets
Power D	etection Factors	Sample 9	Shift: 0	_
Left Channel 20	00 Unlock		,	
Right Channel 20	00 Unlock			
		01	Save	Cancel
	Colored Formula			
	Selectroimat		×	
	Name:		An Domesia	
	Radio-SkyPipe	 Save 	As Remove	

Format

Attributes:

PCM

12.000 kHz, 16 Bit, Stereo

OK

Cancel

With the Microphone jack activated, Radio-SkyPipe Options – Sound tab shows availability of the PC Internal Soundcard in the Device window. Select *Microphone ()* in the *Device* window and Master Volume in the Input Source window.

Some variations may exist in how the Input Source is rendered but for simple internal soundcards, Master Volume usually is the only one shown; a more capable soundcard is shown later.

The audio encoding Format can be set here. Click on Choose Sound Format. See below.

Setup the encoding Format to 12.000 *kHz, 16 Bit, Stereo* as shown here. Other values may be used but these are the recommended settings. The settings may be saved to a custom Name (shown here as Radio-SkyPipe) but this is not necessary. They become the Default values and do not have to be selected each time they are used. Click OK.

46 kb/sec

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Radio-SkyPipe Optior	15			
Identity	Data Source	Connection	Strip Chart	Logging
Advanced Logging	Servers	Sound	Timing	Misc.
Device: SoundMAX HD Audio Virtual Cable 1		Input Source Microphone Line In	8: 	_
Format: PCM 12.000 Choose S Buffer Size: 100 Wave File Recordin	kHz, 16 Bit, Stereo ound Format ng Prebuffer: 10 sec	- Sound Backy Line	ground Offset Left F In 0 0	light
Power Det Left Channel 2000 Right Channel 2000	ection Factors Unlock Unlock	Sample S	hift: 0	
		<u> </u>	Save Ca	incel

The screenshot to the left shows a more capable soundcard. This is the Analog Devices AD1982 soundcard chipset used in the Lenovo A61e desktop, which includes the SoundMAX HD Audio software application. Together they provide *Microphone, Line In* and *Stereo Mix* Input Sources.

The Line In and Stereo Mix Input Sources are accessed through the Line In jack on the PC, and the Microphone source is accessed through a separate Microphone jack.

Also shown here is a Virtual Audio Cable that may be used to connect to different sources but it is not being used.

Other tabs in the Radio-SkyPipe – Options menu may need attention before actually recording a chart. These are described in the next section along with External USB Soundcard settings.

5. Radio-SkyPipe Setup with External USB Soundcard



The screenshot to the left shows the Sound properties for an External USB Soundcard that has been plugged into a USB port. To use an External USB Soundcard, be sure to Disable all other devices as shown.

If changing from an Internal Soundcard to External USB Soundcard, close Radio-SkyPipe, plug in the External USB Soundcard and then re-open Radio-SkyPipe; otherwise, the External USB Soundcard will not be shown as an available Device in Radio-SkyPipe.

Radio-SkyPipe Optio	ns			
Identity	Data Source	Connection	Strip Chart	Logging
Advanced Logging	Servers	Sound	Timing	Misc.
Device:		Input Source	ce:	
Speakers (Healtek) SPDIF Interface (US Speakers (USB Auc Microphone (USB A	High Definiti 58 Audio Devi dio Device) Judio Device)	Master Vo	lume	
Format: PCM 12.00	10 kHz, 16 Bit, Stereo	_ Sound Bac	kground Offset	
Choose	Sound Format		Left	Right
Buffer Size: 10	0	Ma	ster 0 0	
Wave File Record	ting Prebuffer: 10 sec	cs.	Unlock Sound O	ffsets
Power D	etection Factors	Sample	Shift: 0	
Left Channel 20	00 Unlock			
Right Channel 20	00 Unlock			
		0	K Save C	ancel

Open Radio-SkyPipe and select Options – Sound tab to show availability of the External USB Soundcard. To use this soundcard, select the *Microphone (USB Audio Device)*. Select *Master Volume* in the *Input Source* window. Check the encoding *Format* to be sure it is set to the desired values as described previously for the Internal Soundcard.

Radio-SkyPipe Optio	ins			
Advanced Logging	Servers	Sound	Timing	Misc.
Identity	Data Source	Connection	Strip Chart	Logging
Data Source Source of D. CH1 Sound Card CH2 Sound Card CH3 None CH4 CH5 CH6 CH7	ata Source Left v Right v	CH Detection Method Power 💌 Power 💌	ADC Set UNS Set I	I p ∧∰ • ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲
CH8			OK Sa	ave Cancel

Select Radio-SkyPipe Options – Data Source tab to set *Source of Data*. Set Channel 1 to *Sound Card Left* and Channel 2 to *Sound Card Right*. Set *Detection Method* to *Power*.

Note: Even though a Microphone input source may be Mono (and not Stereo), no harm is done by setting up the *Source of Data* for two channels.

Radio-SkyPipe Optio	ins				
Advanced Logging	Servers	Sound		Timing	Misc.
Identity	Data Source	Connection	Ĩ	Strip Chart	Logging
Chart Width secs. Y Axis Min 0.0 Y Axis AutoScale Base Y autoscalin Update Server/Sta Update Client Char One-Click Arrow In Key Press Averagi	120 Y Axis Max Scale Y to Viev g on this channel: 1 andAlone Chart Every 1 t Every 1 Samples crement 25 % (ng Period 5 secs.	1000 v Samples. 2. 1 - 100)	Cha HH:M	Channel Offsets Use Offsets Send Offsets to Clients Axis Labels Channel Labels Ticks/Line Style Colors art Time Format M:SS V OK Save	Cancel

Select Radio-SkyPipe Options – Strip Chart tab. This tab is used to adjust the settings for the vertical scale (Y Axis) and horizontal scale width (X Axis). A *Chart Width* of 120 s (2 minutes) is good for setup and testing purposes and can be changed later if desired.

Uncheck *Y* Axis AutoScale to keep the chart from auto-scaling to very large values by transients during setup testing. The *Y* Axis Min should be set to 0.0.

The Strip Chart tab also allows setting many other chart characteristics such as labels, tick marks and chart colors. The best way to learn these is by experimentation.

Radio-SkyPipe Option	ns			
Identity	Data Source	Connection	Strip Chart	Logging
Advanced Logging	Servers	Sound	Timing	Misc.
Possible Sample P Timing Source: [100 Som 100 Samp 1 Avera 1 Avera	eriod with Averaging: Sound Card V und Card Timing Correcti ole Period (milliseconds) age Server/Stand Alone I age (Client Mode) omic Clock (Pro Version)	10. Samples per Second.	Second Boundary	
		1	OK Save	Cancel

Select Radio-SkyPipe Options – Timing tab to set the *Timing Source* (*Sound Card* timing generally is best). The *Sample Period* also is set in this tab. Most observations are made using 100 ms *Sample Period*.

If Network Time Protocol (NTP) or some other automatic PC time setting method is not used, the *Auto-start Atomic Clock* option should be checked. However, this feature is available only in the Pro version of Radio-SkyPipe.

Network Time Protocol is the preferred PC timing method. NTP is an external process and is not setup in Radio-SkyPipe. See {<u>NTP</u>}.

6. Playback Settings

To access the Windows 10 audio Volume Mixer, right-click the Speaker icon in the Taskbar Notification Area (lower-right corner of Windows screen). To see the Volume Mixer, click on *Open Volume Mixer*.

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Spatial sound (None) Playback devices Recording devices Sounds	Open Volume Mixer
Playback devices Recording devices Sounds	Spatial sound (None)
Recording devices Sounds	Playback devices
Sounds	Recording devices
	Sounds
Troubleshoot sound problems	Troubleshoot sound problems

The Volume Mixer shows all audio input sources that have access to the Mixer and may be routed to the Speakers. The two relevant sources shown in the example below are *SkyPipeII.exe*, which is the Radio-SkyPipe program, and the PC's internal soundcard *Microphone*. Note that disabled Recording Devices will not appear in the Volume Mixer, and Radio-SkyPipe appears only if it is open and is set to an enabled Recording Device in the Options – Sound tab.

evice	Applications					
	1	٢	۳			1
Speakers	System Sounds	Mozilla Firefox	PicPick	Stereo Mix (Realtek High Def	SkyPipell.exe	Microphone (Realtek High Def.
-	-	-	-	-	_	
(1)	(1)	(1)	()	40)	()	4 0)

To view Playback devices, right-click the Speaker icon again and select *Playback Devices*. The Sound properties window will open to the Playback tab. When live audio is being routed to the *Speakers*, the audio level will be indicated on the bar-graph to the right of the Speakers as shown below (one bar of audio volume is shown in this example).



7. Troubleshooting Radio-SkyPipe Soundcard Setup

When Radio-SkyPipe is opened it will display a popup window with the warning shown below if nothing is plugged into the Microphone jack of an Internal Soundcard and if an External USB Soundcard is not equipped. Close Radio-SkyPipe, correct the problem (connect a cable from the receiver to the soundcard input jack or install an External USB Soundcard) and then reopen Radio-SkyPipe.

Radio-SkyPipe II	\times
You have a sound card channel selected as a data source but no sound card is available. Change to another data source under Options / Data Source.	
ОК	

If Radio-SkyPipe is recording from the Internal Soundcard and the plug in the Microphone jack is removed or if it is recording from an External USB Soundcard and it is removed from the USB port or is Disabled, Radio-SkyPipe will display a popup window with the warning shown below. Close Radio-SkyPipe, correct the problem (reconnect the audio cable or plug in the External USB Soundcard) and then reopen Radio-SkyPipe.

Methods.		
8	WaveInGet There is no	tPosition: o driver installed on your system.

If all settings appear to be okay but there is no playback through the Speakers, try disabling the *Speakers* in the Sound Properties *Playback* tab and then re-Enabling them. This problem may occur if both the Internal Soundcard Speakers and External USB Soundcard Speakers are Enabled. Disable one or the other and be sure the Speakers are connected to the enabled output device. Similar advice applies to Recording Devices (toggling Enable and Disable).

If Playback cannot be made to work, it is possible that a Windows registry setting has changed that controls an application's permissions to use the Windows audio processes. In this case, the fix requires a registry edit described at {Registry}.

6. Soundcard Setup Tester

Setup can be more convenient if a known audio signal source is connected to the soundcard input. A separate article has been produced that describes construction of such a device; see {<u>SCT</u>}.

7. References and Web Links

- {NTP}
 Network Time Protocol and Meinberg NTP Time Server Monitor ~ Installation Guide, available at:

 http://www.reeve.com/Documents/Articles%20Papers/Reeve_NTP-MeinMon_Install.pdf
- {Registry} http://www.techsupportforum.com/forums/f217/solved-no-sound-the-unsolvable-problem-takethe-challenge-594113.html#post3401894
- {SCT} Soundcard Tester for Radio-SkyPipe, available at: http://www.reeve.com/Documents/Articles%20Papers/Reeve_SoundcardTest.pdf

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