# RESOLVING SOUND ISSUES IN "WINDOWS.." COMPUTERS

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# SUMMARY

"Windows 10", "Windows 8.1", "Windows 7", and "Windows XP" computers have many sound-enabled devices that automatically re-configure themselves as "default" when you do not want them to do so. Here is our explanation of how you can tame this "beast".

# SOUND DEVICES CONFIGURATION IN "WINDOWS.."

- At any given point in time, only one "Playback" device can be the "Default device" and/or the "Default communications device"
- At any given point in time, only one "Recording" device can be the Default device" and/or the "Default communications device" (in the "Recording" tab in the Sound applet of "Windows..)

# SOUND DEVICES CONFIGURATION IN "WINDOWS.." (continued)

- If you attach a "Playback" device to your "Windows.." computer, "Windows.." will automatically make it into the "Default device" and/or the "Default communications device" in the "Playback" tab.

# SOUND DEVICES CONFIGURATION IN "WINDOWS.." (continued)

- If another "Playback" device was the "Default device" or the "Default communication device" when you attached the new device, the original device will no longer be "Default.." but Windows.. will leave the original device in a "Ready" state.
  The original device will be "Ready" but it will not actually be working.

# SOUND DEVICES CONFIGURATION IN "WINDOWS.." (continued)

- If a device in "Playback" or "Recording" inside "Sound" in the "Control Panel" of "Windows.." is not needed, disable it to keep it from causing trouble. This is especially true for higher-end "Windows.." computers such as "business workstation" or "gamers' computers" since these types of computers tend to have lots of sound controllers and multiple playback and recording devices in them.

# SOUND DEVICES CONFIGURATION IN "WINDOWS.." (continued)

- You cannot stop this automatic behavior in "Windows.." so you have to actively compensate for this automated behavior on the part of the "Windows.." operating system
- This "automatic reconfiguration" does not happen in macOS or Linux computers!

# HIDDEN SOUND "PLAYBACK DEVICES" AND "RECORDING DEVICES

- Microphones and speakers hidden inside most laptops
- Microphones and speakers inside some flat-screen monitors
- Microphones hidden inside many USB cameras
- Speakers hidden inside some monitors

# HIDDEN SOUND "PLAYBACK DEVICES" AND "RECORDING DEVICES (continued)

- Sound chipsets ("virtual soundcards") hidden inside many sound controllers and graphics adapters
- Wireless Bluetooth headset can show up in both "Playback" and "Recording"
- Wireless USB headset can show up in both "Playback" and "Recording"

# "SOUND" APPLET IN THE "WINDOWS.." "CONTROL PANEL"

- Default way to get into the "Control Panel": Left-click on the "Start" button, click on "Windows System"
- Easier way to get into the "Control Panel": Right-click on the "Start" button, click on "Run", type in "control", click on "OK"

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !!

- For "Windows 10", "Windows 7", "Windows 8.1", and "Windows XP", when you attach a USB Webcam that has a microphone, the Webcam's microphone is immediately made into the default recording device, if you are not actively speaking into the microphone of your headset at the time that the USB Webcam was attached to a USB port.

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- To turn your existing headset's microphone or a standalone microphone back on, you have to re-enable it by right-clicking on it inside the "Recording" tab in the Sound applet in the "Control Panel":

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

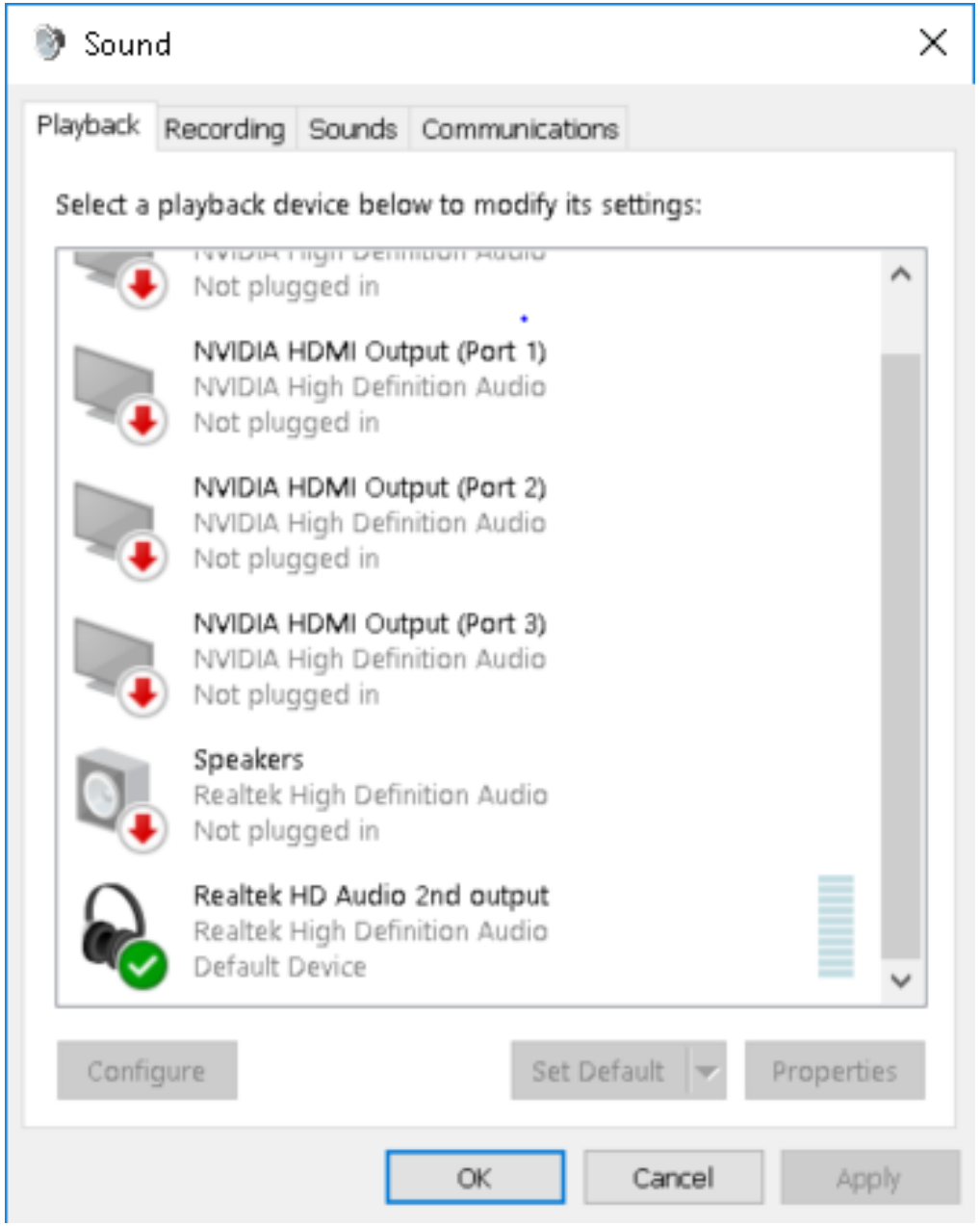
- If you disconnect and then reconnect the HDMI cable of the existing monitor (and this monitor has HDMI sound support) or if you use an HDMI cable to attach a second monitor (that has HDMI sound support) to the computer, "Windows 10" will usually automatically re-configure the newly-attached monitor to become the default device for audio "Playback".

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- If you disconnect the HDMI or DisplayPort cable of the only existing monitor (that has HDMI sound support) or if you use an HDMI or DisplayPort cable to attach a second monitor (that has HDMI or DisplayPort sound support) to the computer, "Windows 10" will usually automatically re-configure the HDMI or DisplayPort-based sound controller inside the monitor to become the default device for audio "Playback".

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- Here is an example of what happens:
  A computer running "Windows 10 Home" was set to send "Playback" audio from a motherboard-based Realtek sound card to a set of Hewlett Packard speakers:


Sound
Playback
Recording
Sounds
Communications
Select a playback device below to modify its settings:
Not plugged in
NVIDIA HDMI Output (Port 1)
NVIDIA High Definition Audio
Not plugged in
NVIDIA HDMI Output (Port 2)
NVIDIA High Definition Audio
Not plugged in
NVIDIA HDMI Output (Port 3)
NVIDIA High Definition Audio
Not plugged in
Speakers
Realtek High Definition Audio
Not plugged in
Realtek HD Audio 2nd output
Realtek High Definition Audio
Default Device
Configure
Set Default
Properties
OK
Cancel
Apply

Realtek HD Audio 2nd output
Realtek High Definition Audio
Default Device

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

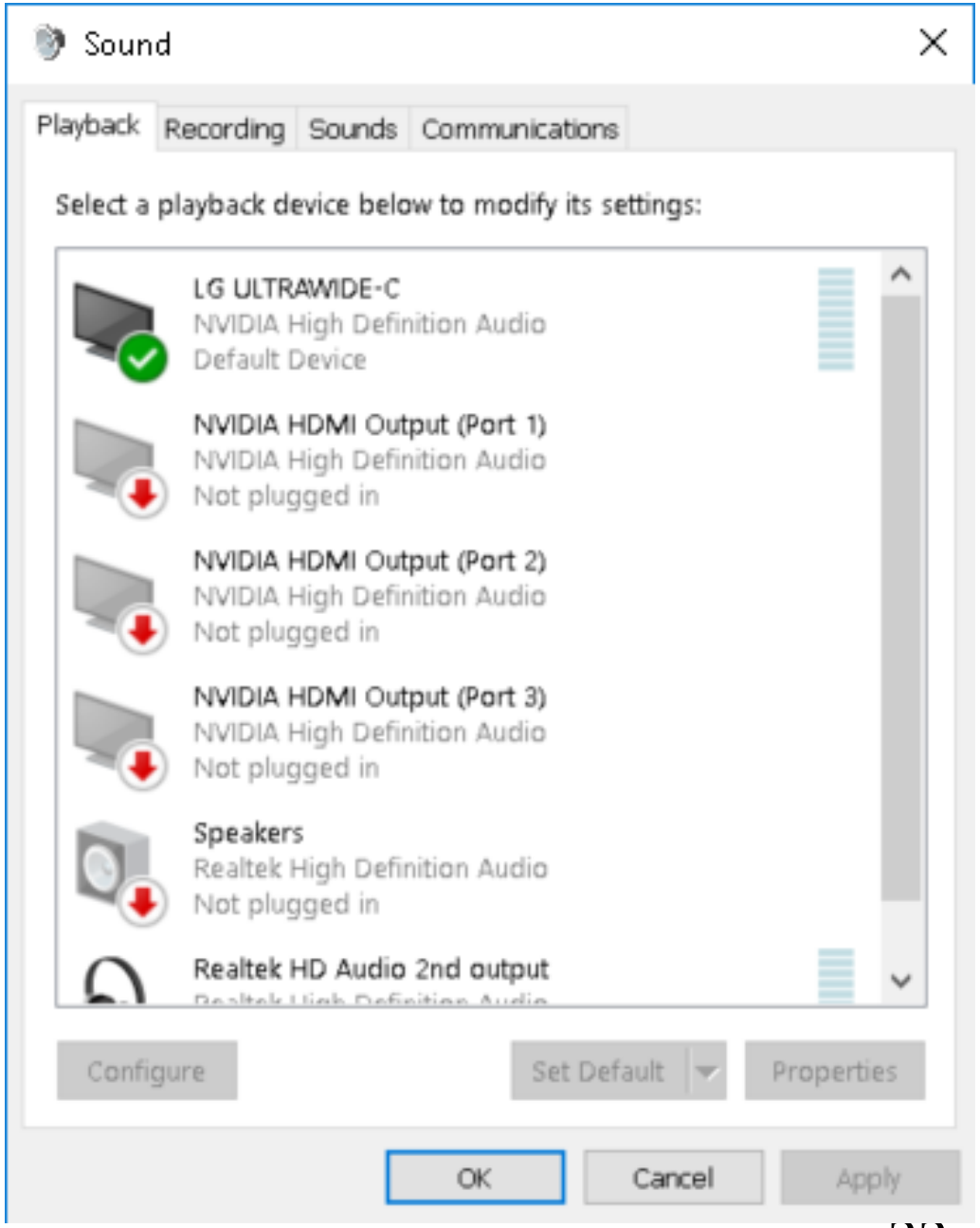
- In this case, we disconnected the HDMI cable that ran from the NVidia graphics adapter to the an older Samsung monitor that did not have audio support for it's HDMI port.
  We disconnected the HDMI cable from the old Samsung monitor.
  Then we connected the HDMI cable to a newer LG monitor that has audio support for it's HDMI port.

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- As soon as we connected the LG monitor, it's audio-capable HDMI port became the "default device" for sound "playback":

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- Then we connected the HDMI cable to a newer LG monitor that has audio support for it's HDMI port.
  As soon as we connected the LG monitor, it's audio-capable HDMI port became the "default device" for sound "playback":


Sound
Playback
Recording
Sounds
Communications
Select a playback device below to modify its settings:
LG ULTRAWIDE-C
NVIDIA High Definition Audio
Default Device
NVIDIA HDMI Output (Port 1)
NVIDIA High Definition Audio
Not plugged in
NVIDIA HDMI Output (Port 2)
NVIDIA High Definition Audio
Not plugged in
NVIDIA HDMI Output (Port 3)
NVIDIA High Definition Audio
Not plugged in
Speakers
Realtek High Definition Audio
Not plugged in
Realtek HD Audio 2nd output
Configure
Set Default
Properties
OK
Cancel
Apply

LG ULTRAWIDE-C

NVIDIA High Definition Audio

Default Device

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- After the LG monitor became the "default device" for sound "playback", the motherboard-based Realtek  sound card was no longer sending audio to the "Hewlett Packard speakers"

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- This often-unwanted re-configuration of the default "Playback" audio device does not occur if the monitor that you connect to
  or
  that you disconnect and re-connect to
  does not have support for sound for their HDMI or DisplayPort jacks.

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- For Windows 7 or 8.1 or 10 (if you have at least two devices in the Playback tab and/or the Recording tab of your Sound applet, and everyone does), when you right-click on an existing device in the "Playback" tab or the "Recording" tab of the "Sound" applet in Windows.., you can either
"Set as Default Device"
and/or
"Set as Default Communications Device".

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- In a Windows 7 or 8.1 or 10 computer, any working audio device in the "Playback" tab or the "Recording" tab of the Sound applet can perform one, both, or none of these two functions (if at least two devices are shown in the "Playback" tab or the "Recording" tab:

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- According to Leo Notenboom at http://ask-leo.com/how_do_i_get_sound_out_of_the_correct_speakers_in_windows_7_and_vista.html:

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

<Start of quote:>

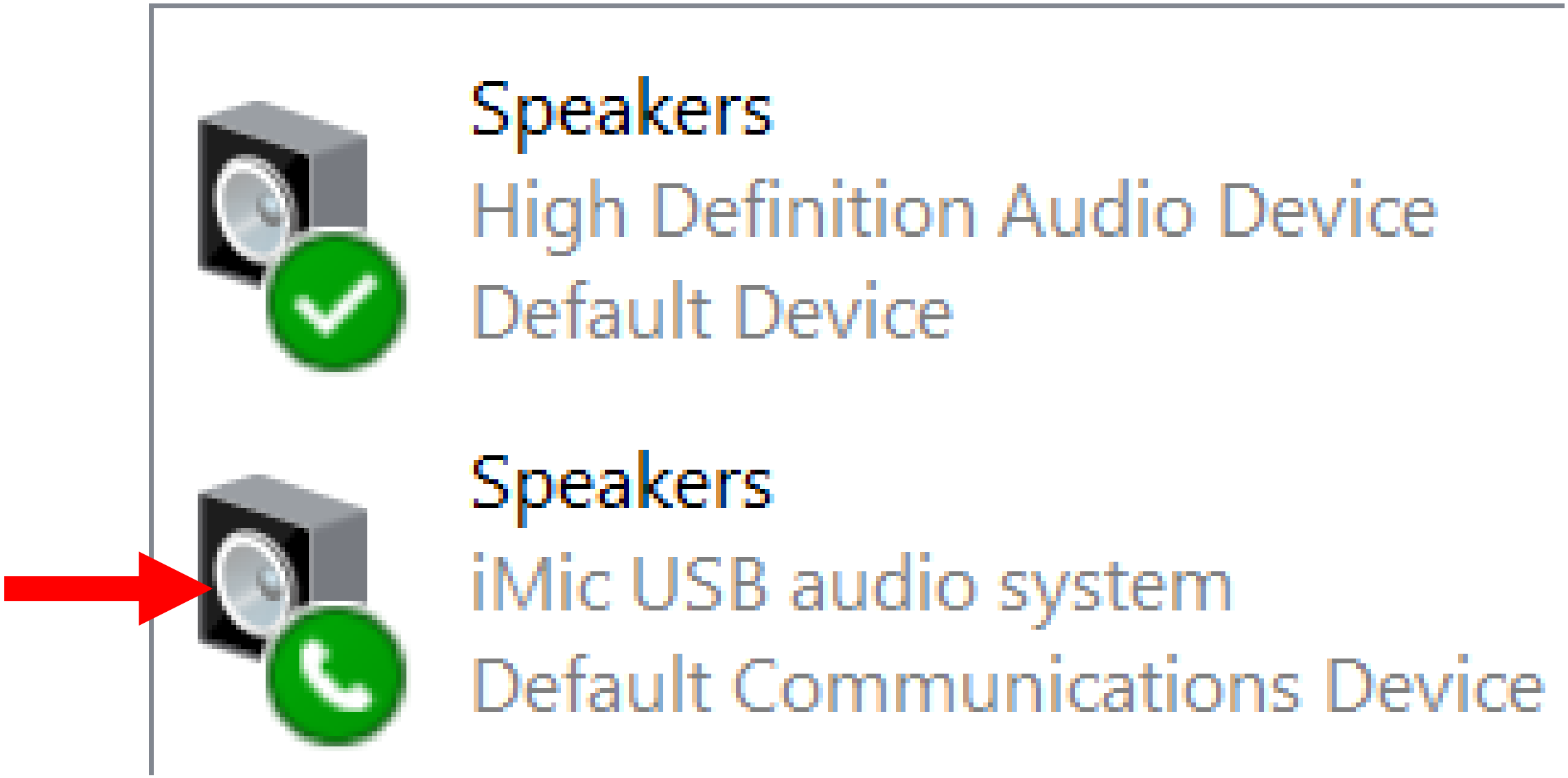
- Default Device: This is the default playback device. If a program that plays sound does not itself explicitly choose one of the other devices, this is where sound will be played.

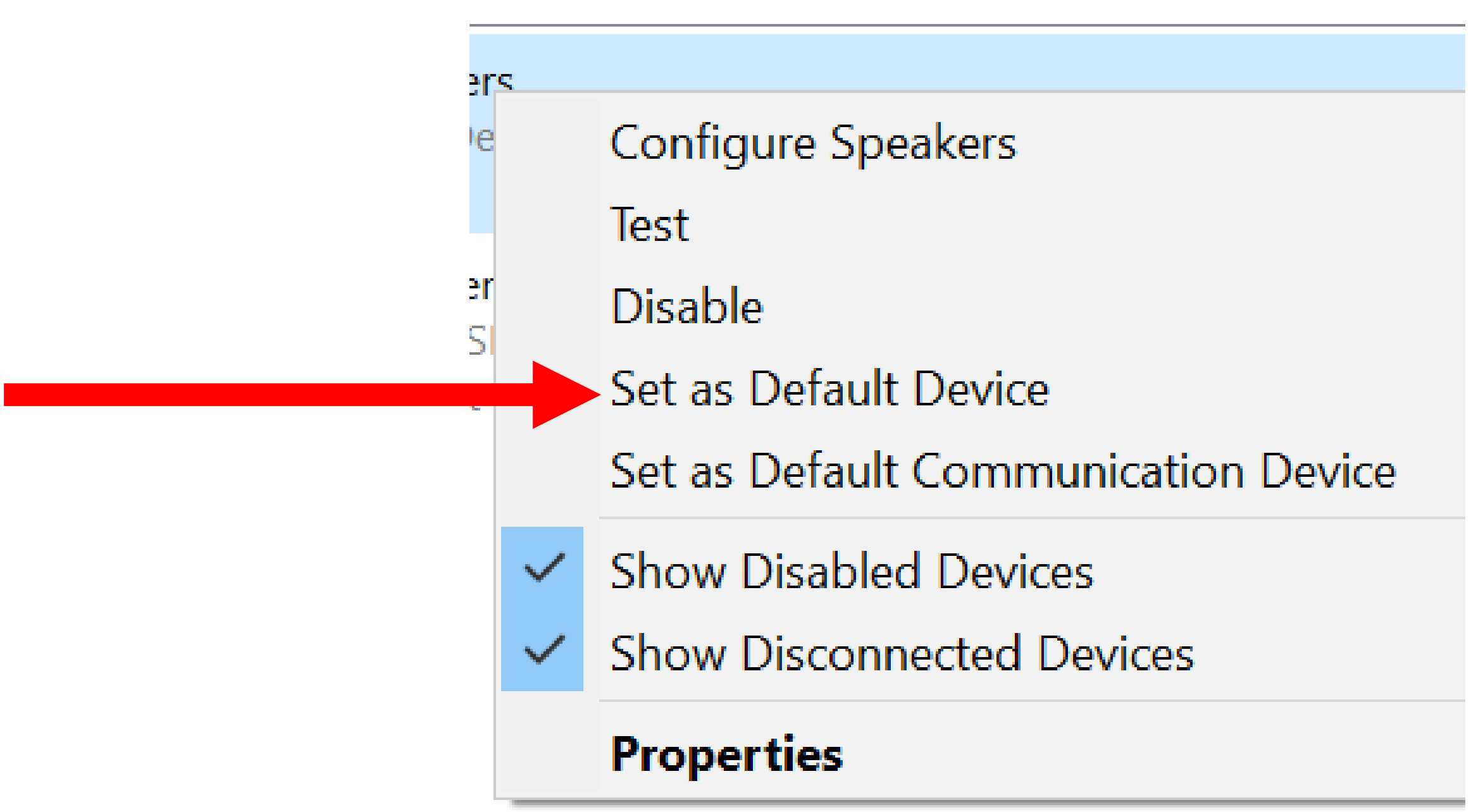
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

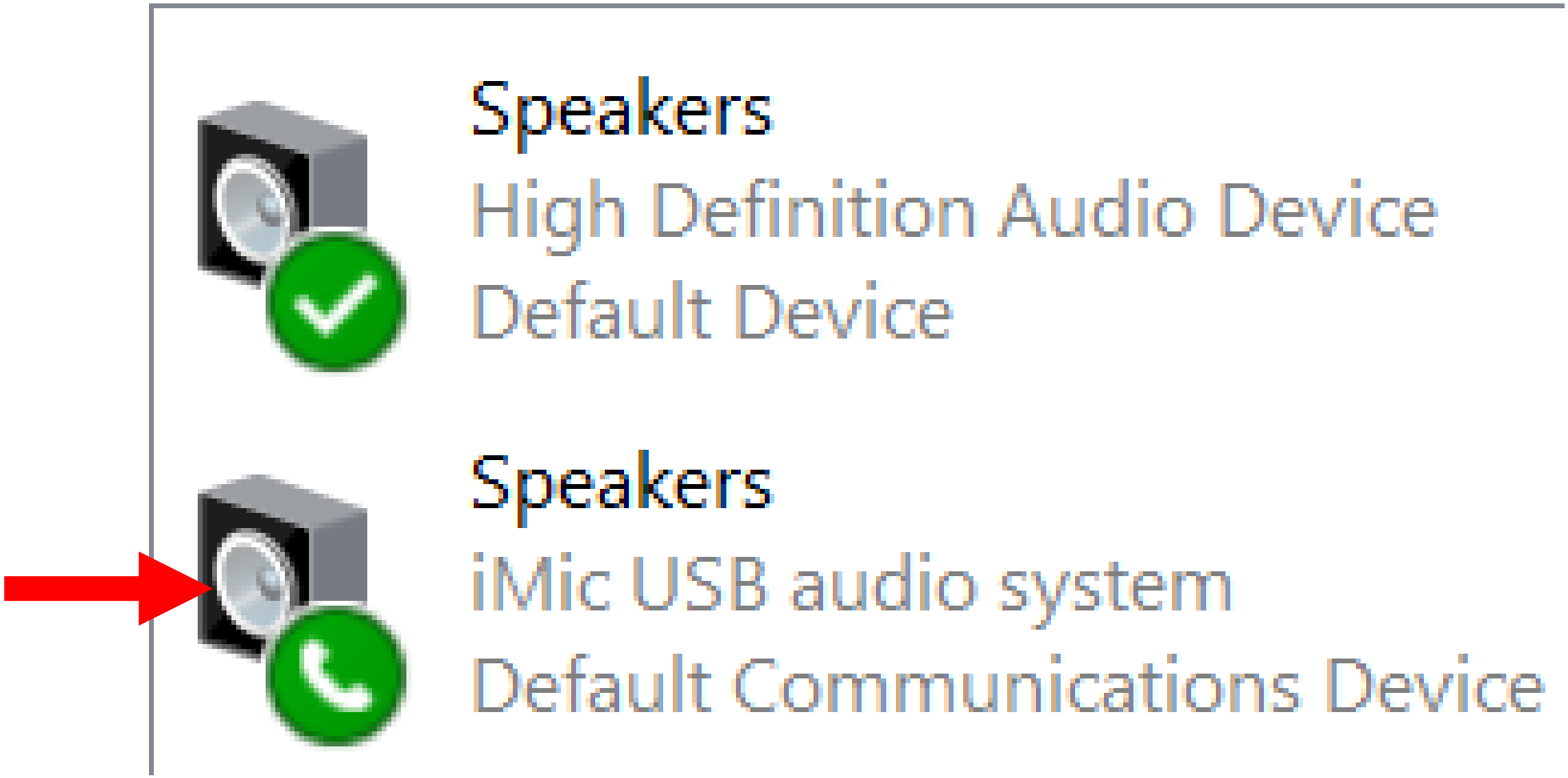
- Default Communication Device: This is a new concept and it represents the device that communications programs, such as Skype, would use to play sound by default. Again, if the program itself allows the user to select a different device, this doesn't apply. But if the program simply uses the default communications device, this is where the sound would go.
<end of quote>

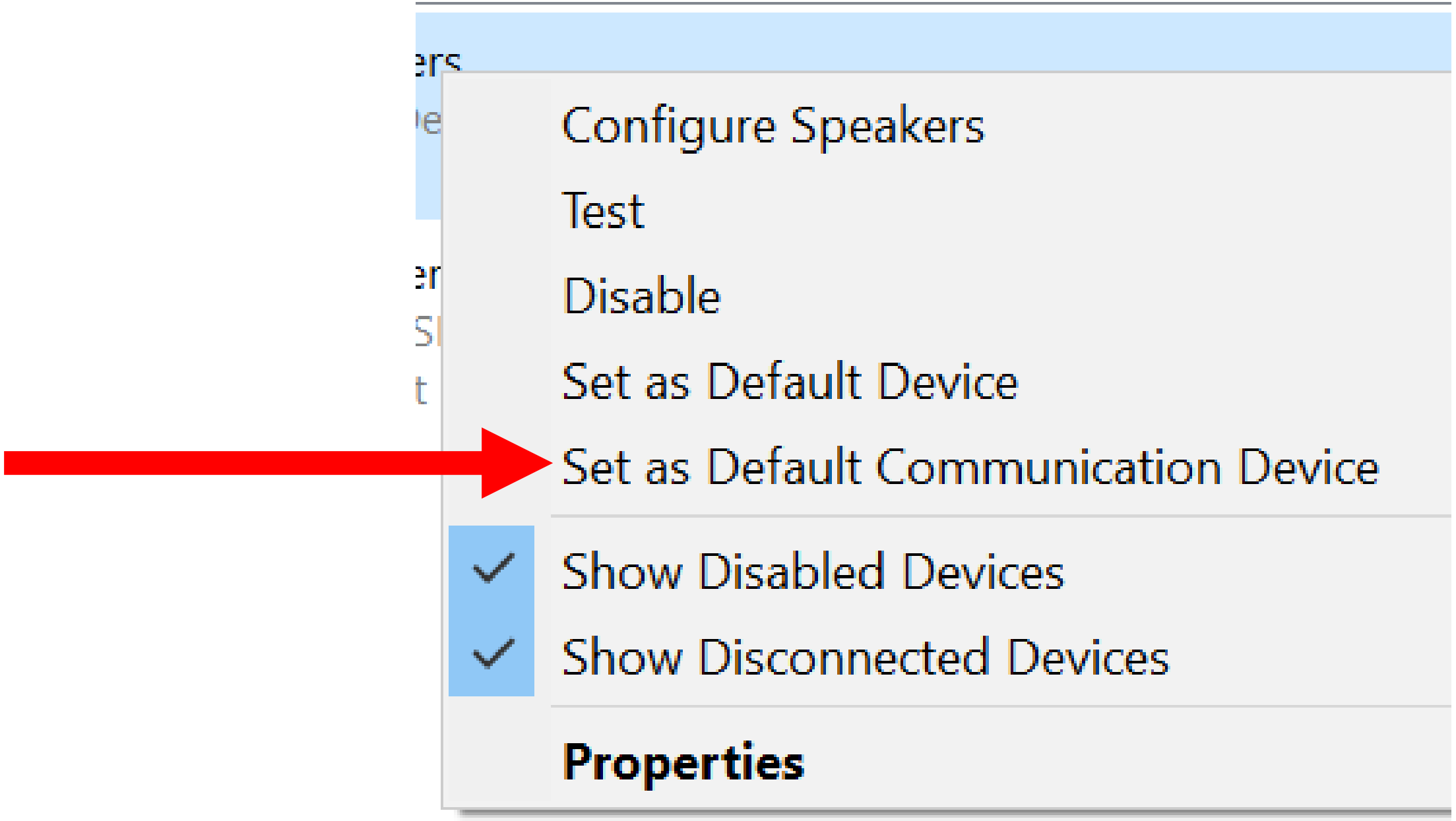
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- When "Windows.." sets your "Default device" and/or your "Default communications device" to the wrong device in the Playback or the Recording tab of the Sound applet, you have to manually set these devices back to the way you want them to be by right-clicking on them:


Speakers
High Definition Audio Device
Default Device
Speakers
iMic USB audio system
Default Communications Device

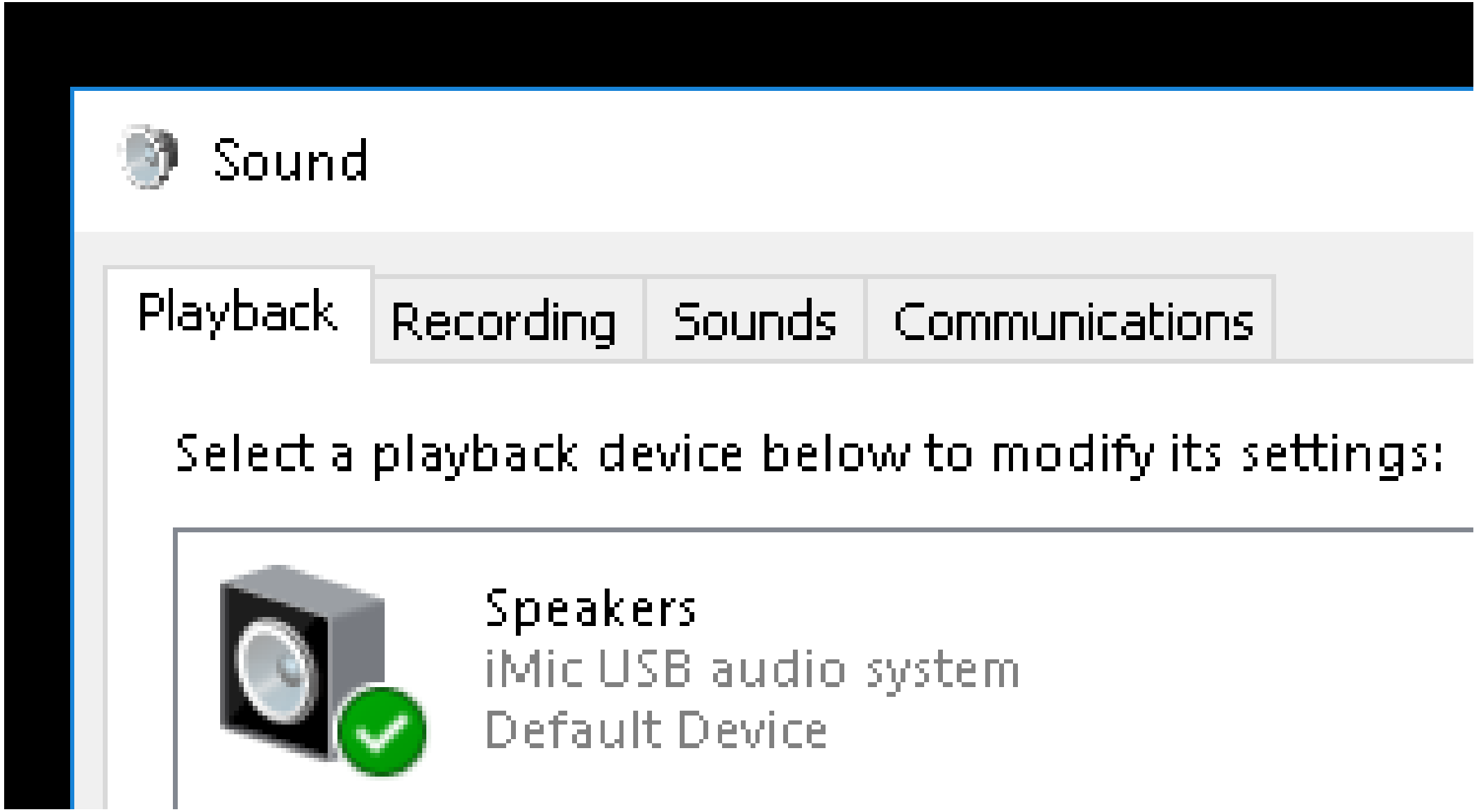

Configure Speakers
Test
Disable
Set as Default Device
Set as Default Communication Device
Show Disabled Devices
Show Disconnected Devices
Properties


Speakers
High Definition Audio Device
Default Device
Speakers
iMic USB audio system
Default Communications Device


Configure Speakers
Test
Disable
Set as Default Device
Set as Default Communication Device
Show Disabled Devices
Show Disconnected Devices
Properties

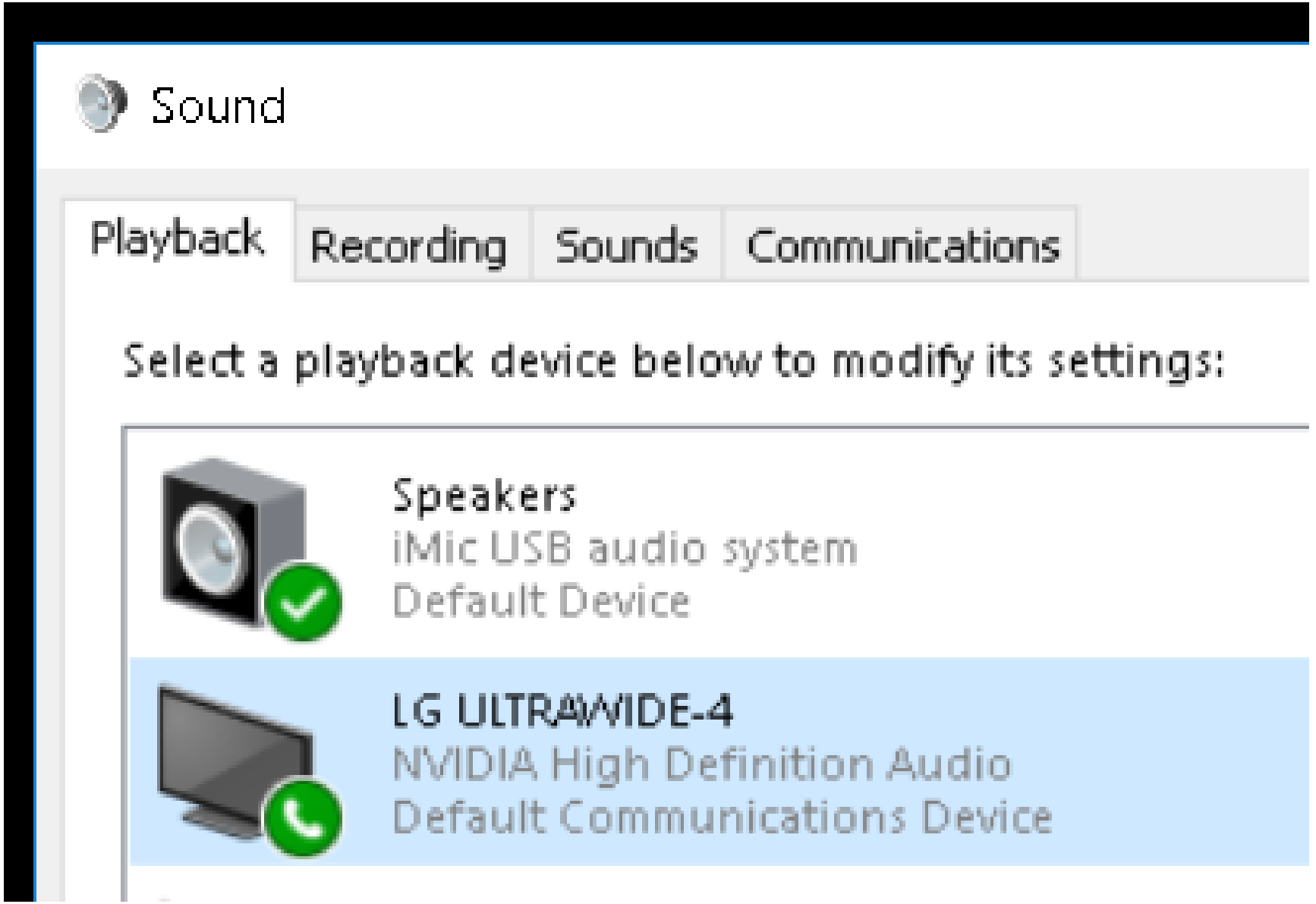
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- Windows.. can be unpredictable on how it reconfigures your "Playback" devices when you plug in a different HDMI monitor:
  In the following case, we were originally using a USB headset as both a "Default Device" and a "Default communications device" as shown in the "Recording" tab of the Sound applet:


Sound
Playback
Recording
Sounds
Communications
Select a playback device below to modify its settings:
Speakers
iMic USB audio system
Default Device

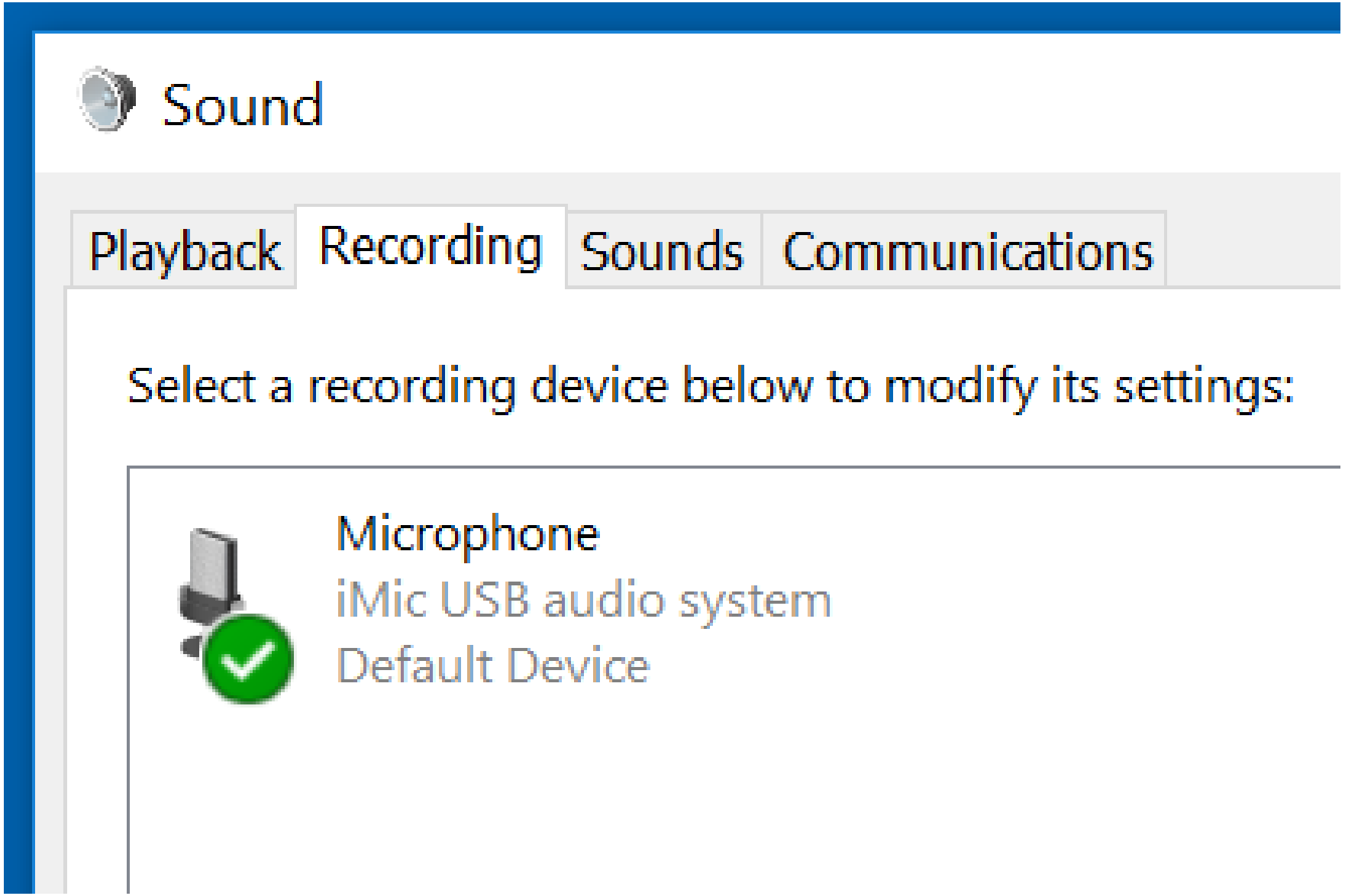
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- After we changed to a different HDMI "LG" monitor, Windows.. left the speakers of our USB headset as the "Default device". However, Windows.. made the LG Ultrawide monitor into the "Default Communications Device" which made our USB headset's speakers useless for communicating by means of Skype, Zoom, Team Viewer, etc.:


Sound
Playback
Recording
Sounds
Communications
Select a playback device below to modify its settings:
Speakers
iMic USB audio system
Default Device
LG ULTRAWIDE-4
NVIDIA High Definition Audio
Default Communications Device

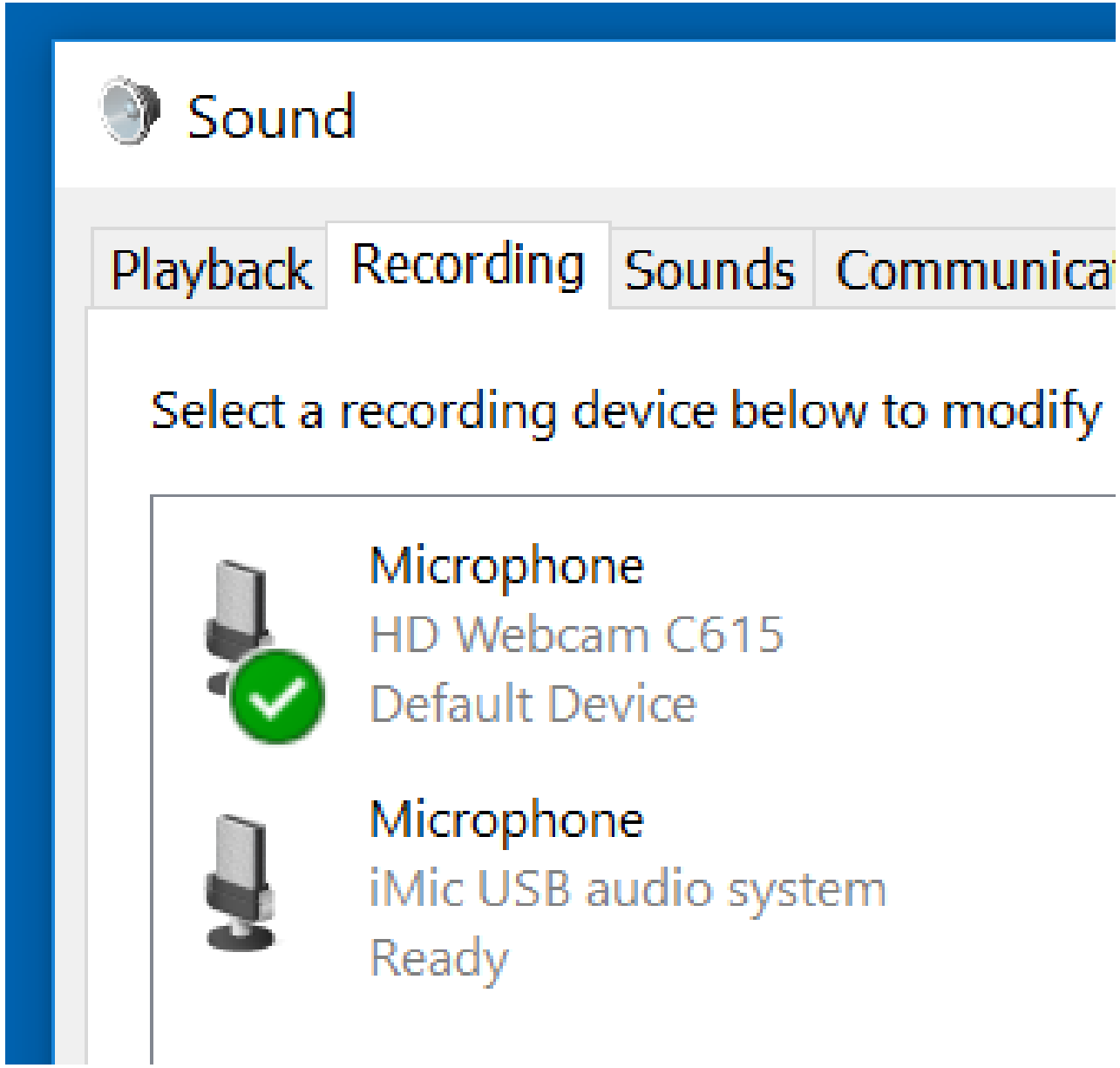
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- Here is an example of what happens when you plug in a Webcam that has a microphone into a "Windows 10", "Windows 7", "Windows 8.1" or "Windows XP" computer:
  A computer running "Windows 10 Home" was originally configured to use the microphone of a Logitech analog headset as the "default device":


Sound
Playback
Recording
Sounds
Communications
Select a recording device below to modify its settings:
Microphone
iMic USB audio system
Default Device

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- As soon as we attached a Logitech USB Webcam to the computer, it's microphone immediately became the default microphone device for the "Recording" tab of the "Sound" applet and the microphone of the headset that we were using became inactivated:

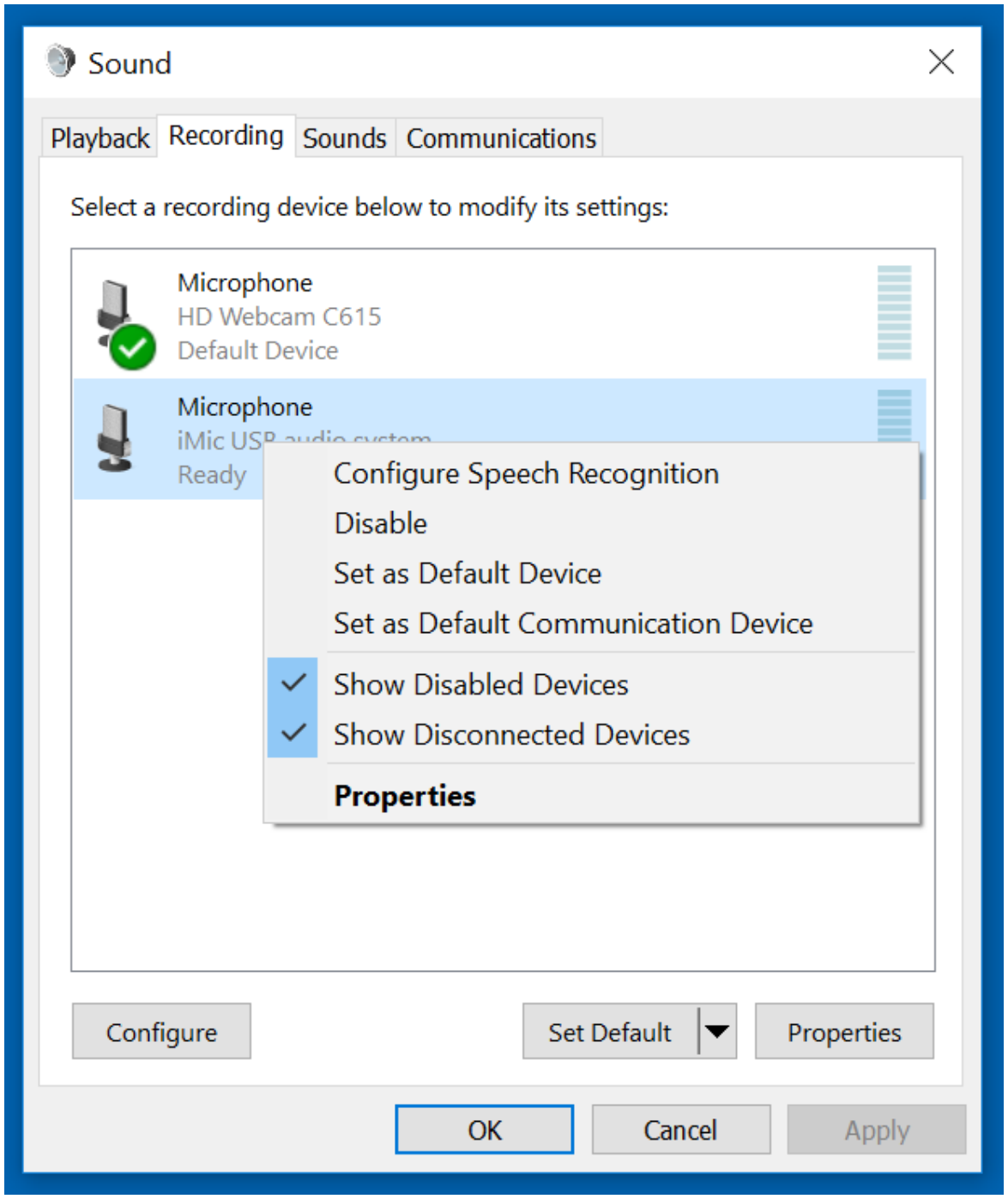

Sound
Playback
Recording
Sounds
Communica
Select a recording device below to modify
Microphone
HD Webcam C615
Default Device
Microphone
iMic USB audio system
Ready

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- As soon as we plugged in the Webcam, Windows.. had made it's microphone into both the "default device" and the "default communications device" for the "Recording" tab of the Sound applet

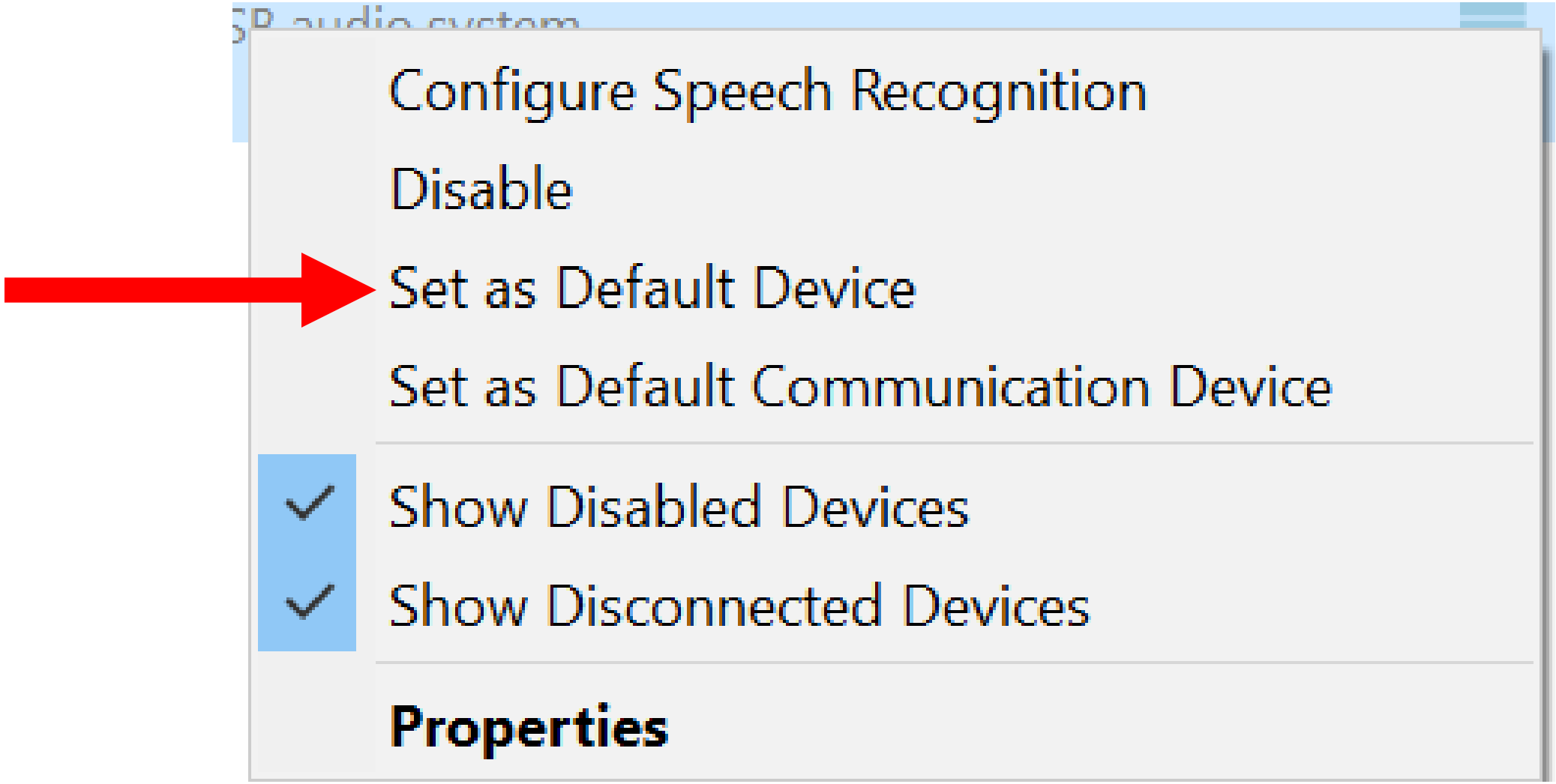
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- To put the microphone of our headset back into service, we had to right-click on it:


Sound
Playback
Recording
Sounds
Communications
Select a recording device below to modify its settings:
Microphone
HD Webcam C615
Default Device
Microphone
Ready
Configure Speech Recognition
Disable
Set as Default Device
Set as Default Communication Device
Show Disabled Devices
Show Disconnected Devices
Properties
Configure
Set Default
Properties
OK
Cancel
Apply

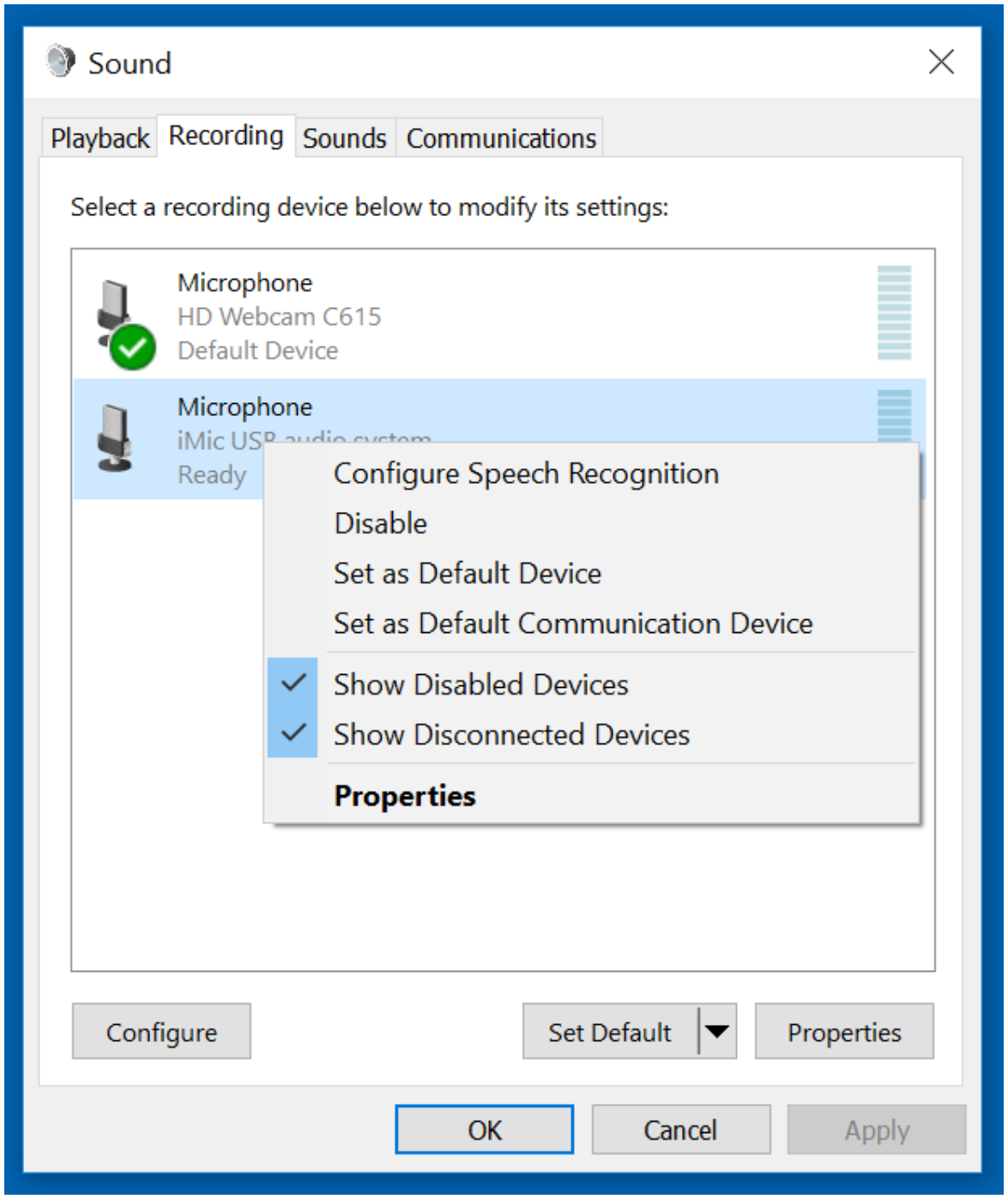
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- From the pop-up, context menu, we clicked on "Set as Default Device".


Configure Speech Recognition
Disable
Set as Default Device
Set as Default Communication Device
Show Disabled Devices
Show Disconnected Devices
Properties

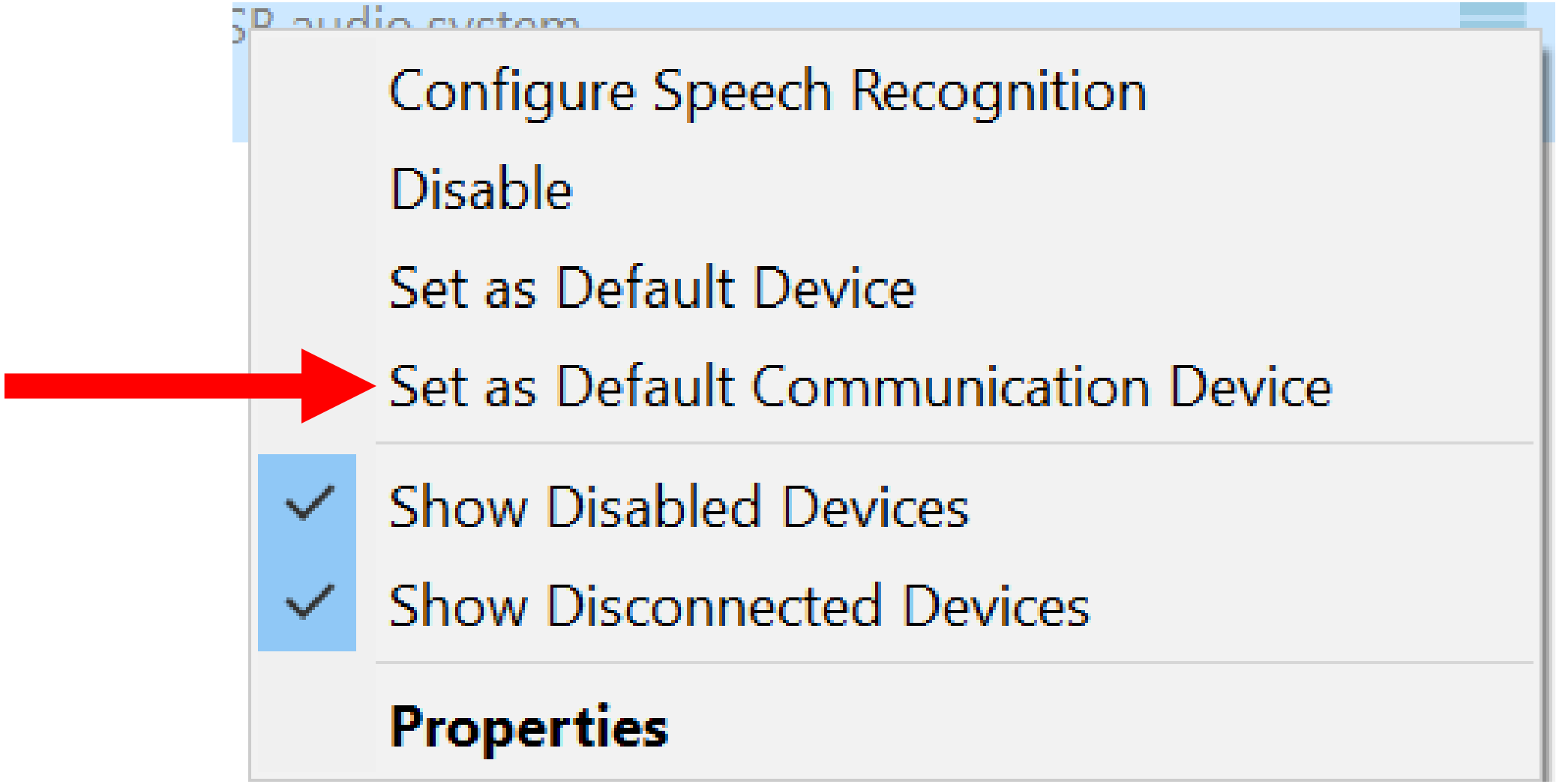
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- Then, we right-clicked on our headset microphone again:


Sound
Playback
Recording
Sounds
Communications
Select a recording device below to modify its settings:
Microphone
HD Webcam C615
Default Device
Microphone
Ready
Configure Speech Recognition
Disable
Set as Default Device
Set as Default Communication Device
Show Disabled Devices
Show Disconnected Devices
Properties
Configure
Set Default
Properties
OK
Cancel
Apply

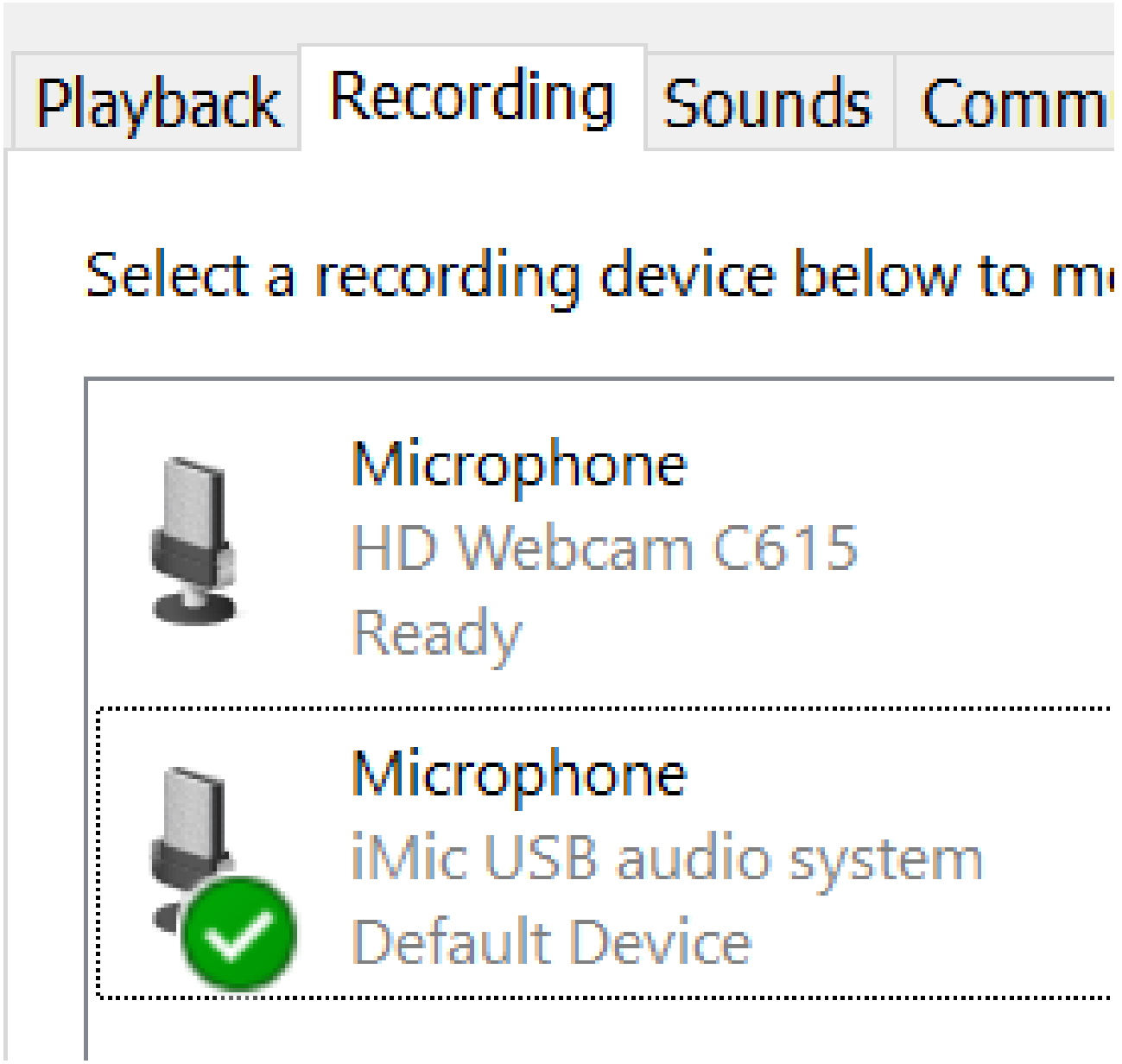
# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- This time, we clicked on "Set as Default Communications Device"


Configure Speech Recognition
Disable
Set as Default Device
Set as Default Communication Device
Show Disabled Devices
Show Disconnected Devices
Properties

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- After we made our headset into both a "default device" and a "default communications device", a green checkmark was shown next to it and the Webcam's microphone no longer had a green checkmark next to it:


Playback
Recording
Sounds
Comm
Select a recording device below to m
Microphone
HD Webcam C615
Ready
Microphone
iMic USB audio system
Default Device

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- When you are in the process of making an audio or video recording, do not plug in or change any additional HDMI monitors or headsets or microphones or Webcams to your computer:
  If you do so, you will end up recording or listening to a different device than the one that you started with!

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- Prior to using any sound devices that are attached to your "Windows.." computer for "Playback" and/or "Recording" activities, it is best for you to right-click and disable any "Playback" and "Recording" devices that you are not using.

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- However, if you attach a different monitor, or a different headset or a different stand-alone microphone or a different USB audio controller, your "Windows.." will usually still make the newly-attached audio-capable device into your "default device" for audio "playback" or "recording"

# WINDOWS.. AUTOMATICALLY CHANGES DEFAULT AUDIO DEVICES !! (continued)

- If a device in "Playback" or "Recording" inside "Sound" in the "Control Panel" of "Windows.." is not needed, disable it to keep it from causing trouble. This is especially true for higher-end "Windows.." computers such as "business workstation" or "gamers' computers" since these types of computers tend to have lots of sound controllers and multiple playback and recording devices in them.