

## Audio Software for Computers (Others available for Apple computers)

### JRiver:

<http://www.jriver.com/>

Juke box: Free, but does not allow 24-88 upsample encoding. You can Rip CD's  
Has limited capabilities (fewer options) for use with external DACs  
Fine to use with your built-in computer sound card.

Media Center 20: Full featured program. Download and use free for 30 days.

Permanent license is \$50

Available for Windows, Apple, and Linux computer platforms. You can install on 3 of your personal computers if they are using the same platform, e.g. all windows or all Apple.

A more expensive license is available if you want to install on multiple computers in your home that have different operating systems, e.g. a Windows computer and an Apple computer.

### foobar 2000:

<http://www.foobar2000.org/download>

Free - full featured program. It takes a little more computer knowledge to use.  
Have to download separate modules to accomplish different tasks.

### Audacity Sound Editor:

<http://sourceforge.net/projects/audacity/>

Free - multi-track audio editor and recorder for Windows, Mac OS X, GNU/Linux and other operating systems.

Will rip CD's and upsample files. Also lets you edit the sound wav, e.g. you could delete clapping at beginning or end of a song, change the pitch, change loudness, etc.

**Soundforge, Izotope, and Protools** are professional sound editing tools.

Not Free - \$250-\$1000.

<http://www.sonycreativesoftware.com/soundforgepro>

\$400 Includes many of the Izotope resampling tools

[https://www.izotope.com/en/products/mixing-mastering/ozone/?gclid=CLbY\\_ujlrcUCFSYV7AodRVAAKw](https://www.izotope.com/en/products/mixing-mastering/ozone/?gclid=CLbY_ujlrcUCFSYV7AodRVAAKw)

\$250 to \$1000

<http://www.sweetwater.com/c1108--Avid--Pro Tools Software>

Many Packages to choose from

Fig01 JRiver Download site

iPad 2:55 PM 64%

< > jriver.com

# JRiver MediaCenter

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home **download** purchase support company

2:57 PM jriver.com 63%

## The

### Download a Free Trial of JRiver Media Center

**How this works**  
If you've downloaded before, jump to the Download section below. If you're new to this, you might read the "Getting Started" topic on our wiki.

**Install**  
When the download finishes, click on the downloaded file to install. MC will ask a few questions and will then begin importing your media files. You can stop the import and specify where to look if you prefer. During import, MC may be less responsive, but it will speed up when import finishes. During this time, you can click around to try things. Many options are available with a right click.

**Purchase**  
Please purchase from the Help menu in the program. You have 30 days to try the full feature set.

**Prices and details**

**Download (Windows)**  
If you leave your e-mail address (optional), we'll let you know when upgrades are available. We don't share your details. [Privacy policy](#)

Email:  (Optional)

JRiver Media Center 20.0.93 . Windows 8, Windows 7, Vista, XP, and Windows Home Server.

**WINDOWS DOWNLOAD**

Click [here](#) if you are unable to download using the button above.

**Now**  
free trial!

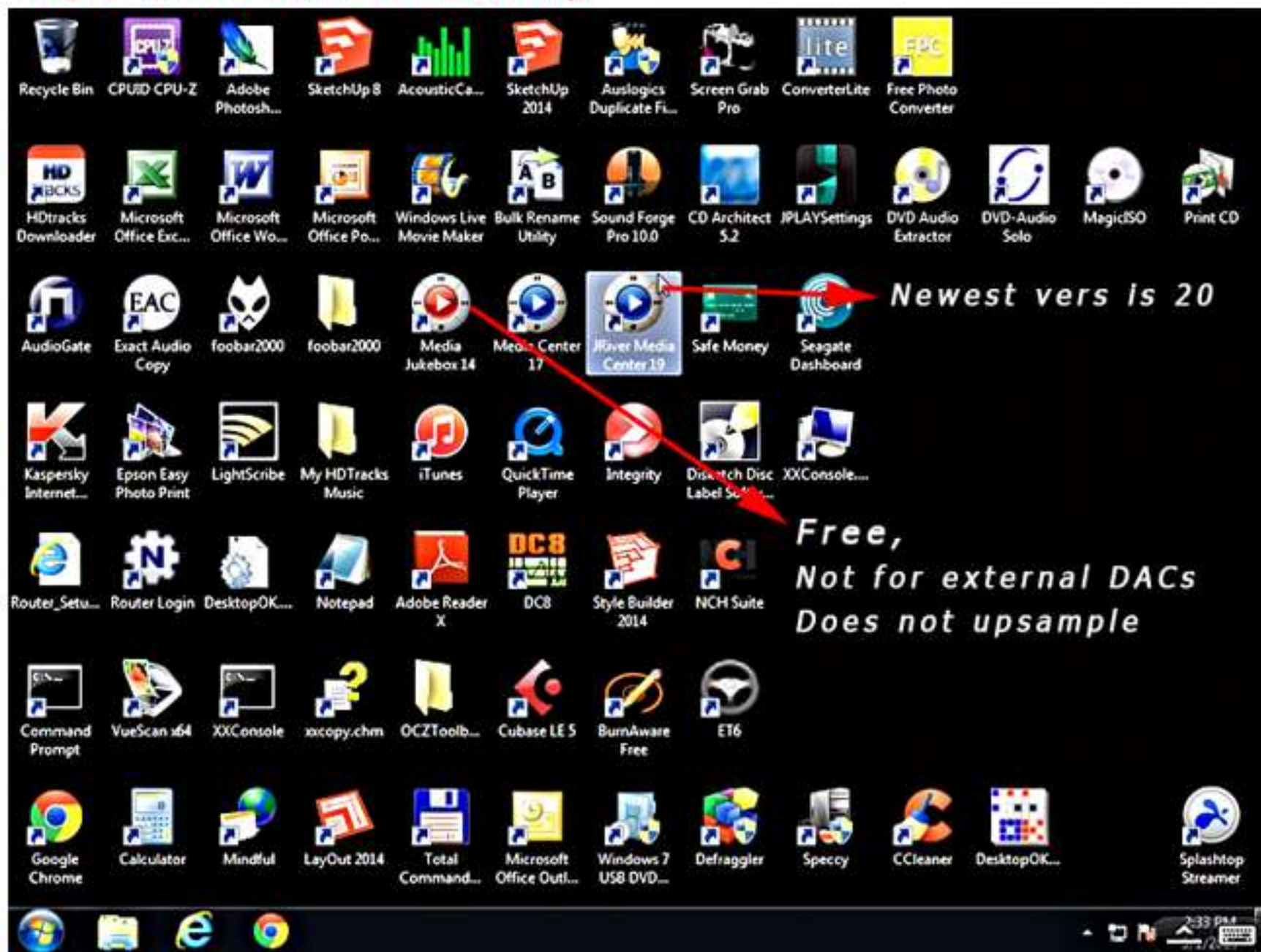
30...

**ROS.**

images.

**Network**  
You can enjoy any media place. Phones and

*Fig02 JRiver Icons on Desktop*



# Jriver Initial Setup for Audio:

Settings made under the TOOLS/OPTIONS menus need only be done once for most playback, ripping, and upsampling sessions.

Occasionally you may output rips or resampled files to a different Drive/Folder Location.

Occasionally you will Change the Folder label Style, especially if you rip a CD that is a collection of many different artists or symphonic pieces.



Fig03 Audio and DAC settings

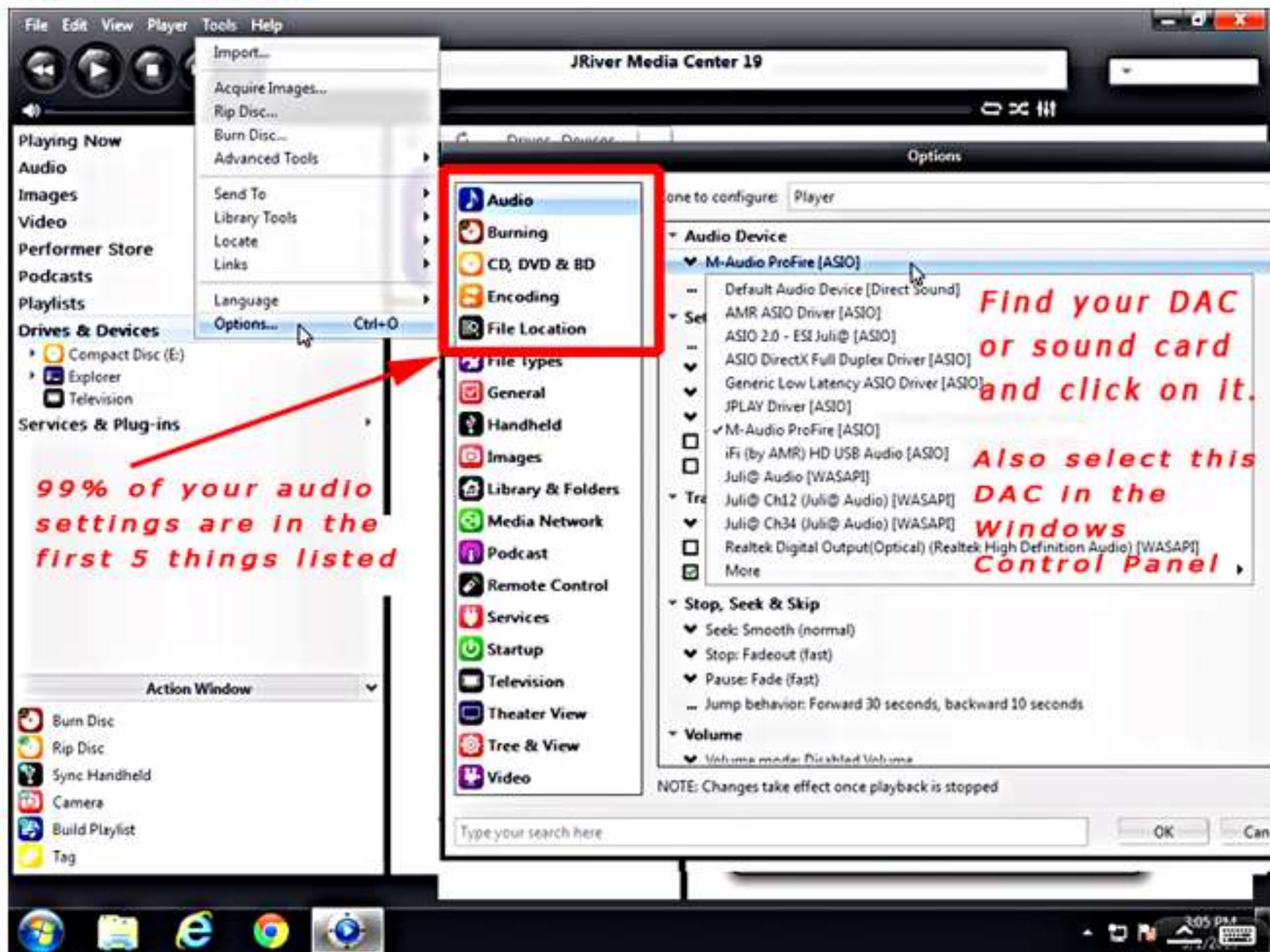


Fig04 Audio DSP settings

**DSP settings:**  
I do not check any boxes  
I do not upsample on playback  
(no change).

**Output Format**  
Not enabled (use checkbox on left to enable)

Sound can be output in any format. For example, you can listen to an audio CD in 5.1 surround at 32-bit / 192 kHz. Advanced settings like multi-channel output or high sample rates require a sound card capable of these modes.

**Output Encoding** (more info)  
None

**Sample rate** (more info)  
Click in the output column to select a sample rate for each input sample rate. Right-click to set all at once.

Input	Output
Less than 44,100 Hz	No change
44,100 Hz	No change
48,000 Hz	No change
88,200 Hz	No change
96,000 Hz	No change
176,400 Hz	No change
192,000 Hz	No change
352,800 Hz	No change

**Channels** (more info)  
Channels: Source number of channels  
Mixing: JRS™ mixing (recommended)  
☐ For stereo sources, only mix to 2.1  
☐ Move center to front L/R  
☒ Detect stereo sources as surround (pseudo-surround)

**Subwoofer** (more info)  
When source has no subwoofer (CD audio, etc.) and 'Channels' selection includes a subwoofer:  
JRS Subwoofer (80 Hz lowpass)  
☒ Subclarity™ for cleaner, tighter subwoofer output

Peak Level: n/a Source: n/a Internal: n/a Help



Fig05 CD rip settings

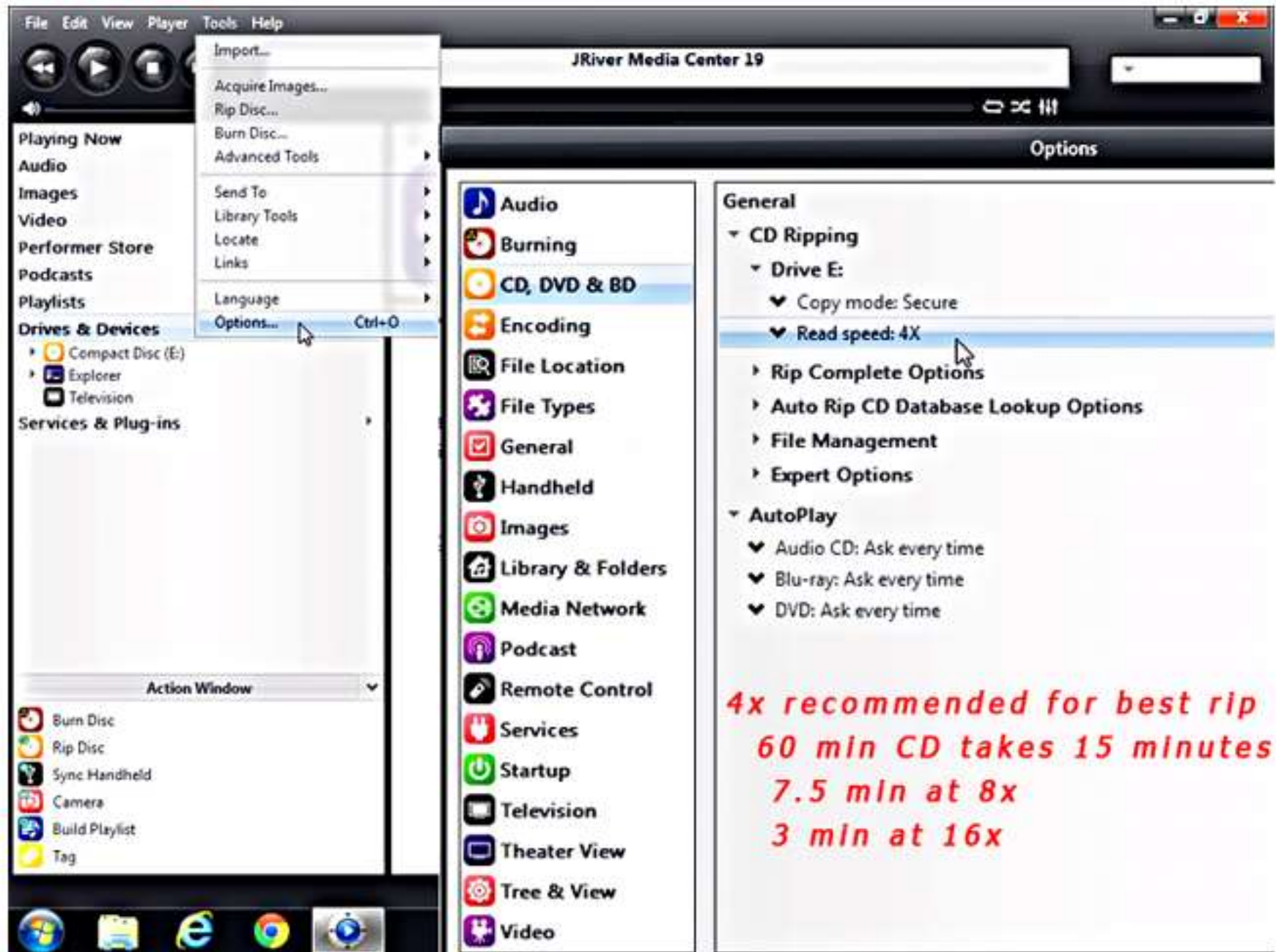


Fig06 Encode - Select Uncompressed WAV

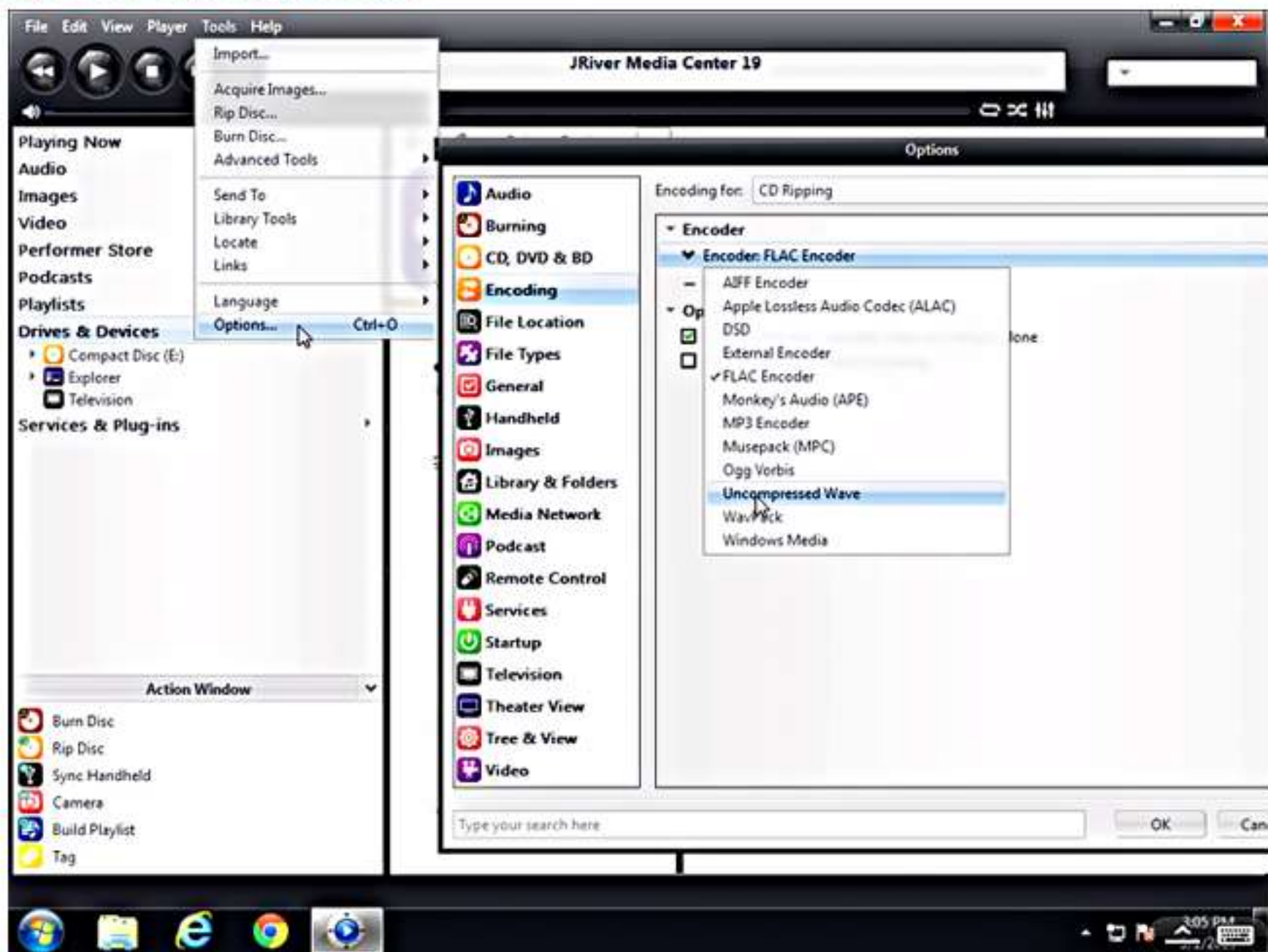




Fig07 File location

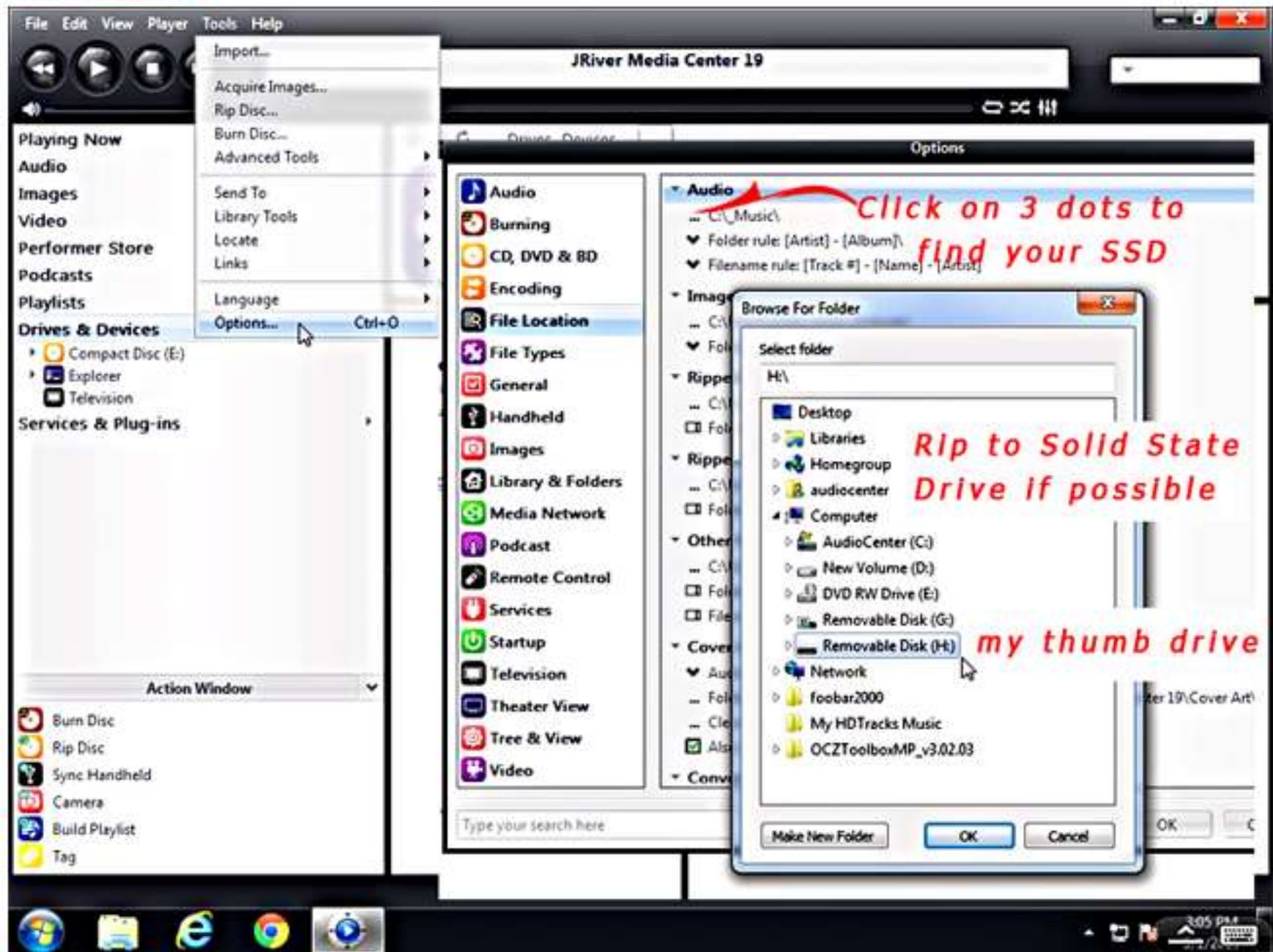


Fig08 Save Changes in Options



## Jriver CD Ripping Process:



### Optimizing Computer and House Electrical Circuit for best rips:

You will get listenable rips if you do none of the things below. But the rips will be noticeably better if you follow guidelines below.

The most import thing to do is Rip to a Solid State Drive (SSD). This can be an internal SSD drive or a USB thumb drive. After you have made the rip, you can copy files to a spinning hard drive (e.g. 1-2 terabyte drive) with no loss of quality.

Rip at 4x or 8x speed. Most computers default to a 16x or 24x speed.

For your first rip of the day, I suggest that you rip one or two tracks to your SSD and then delete them. This will warm up the laser and electronics involved in ripping .

Unplug or turn off any external USB (other than the SSD you are ripping to) or other devices attached to your computer, e.g. external USB spinning drives, scanners, printers, etc. Any device drawing power from the computer at the time of ripping may affect rip quality.

If you use a laptop for ripping, unplug the AC cord and rip using the battery.

Leave internet and antivirus on. (need internet on to enable software to collect metadata)

Household variables: Please keep in mind that household variables may affect the quality rips.

A number of things in your home may add noise to the AC circuit or add vibration to the floor that could affect the accuracy of the laser in the optical drive when ripping. Listed below are some things to be aware of.

- Air conditioners and Furnaces running or other large motors running – affect electric grid & cause vibrations.

- Washer and Dryers running– affect electric grid & cause vibrations.

- Dimmer switches – especially those running halogen lamps, but possibly others – turn them off

- Large Screen TV's – Turn them off.

- Large banks of Florescent lights – especially the 4 & 8 foot long variety such as those use in a garage or shop – Turn them off.

- Time of Day or Night – AC power grid is “dirtier” during the day and evening. Rips at night are likely to be cleaner

Fig09 Ripping Step 1

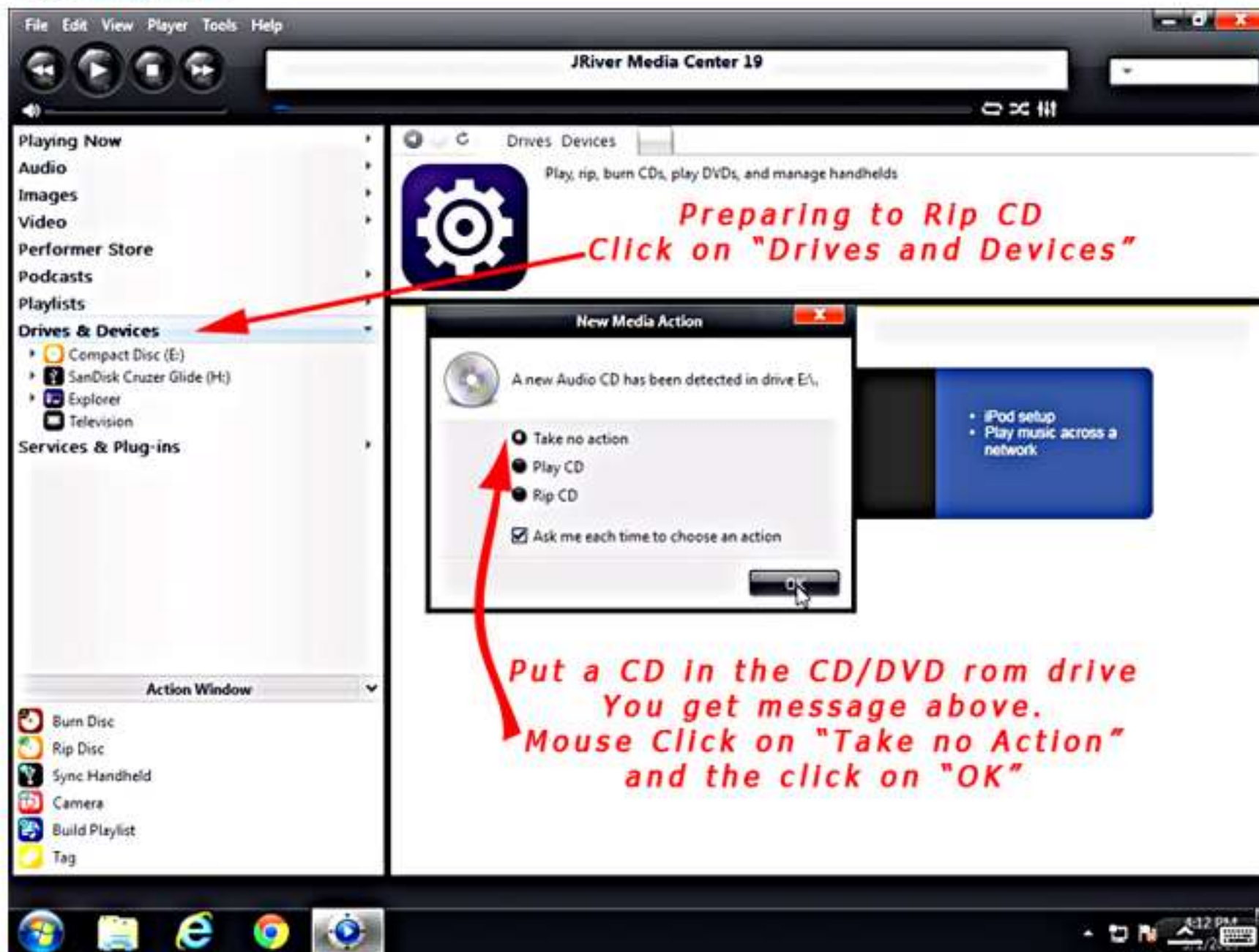


Fig10 Ripping step2

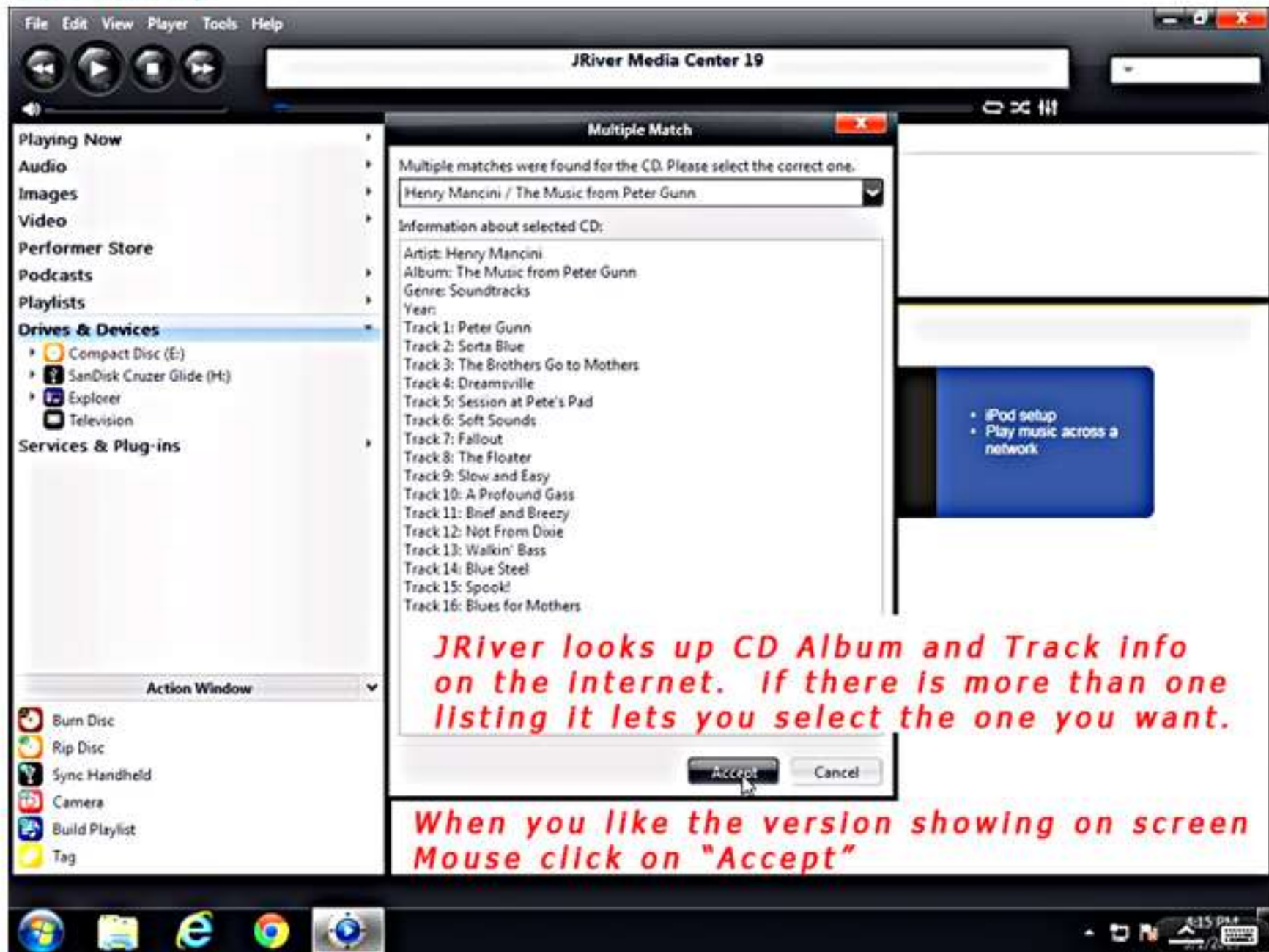




Fig11 Ripping step3

The screenshot shows the JRiver Media Center 19 interface. On the left, the 'Drives & Devices' pane lists 'The Music from Peter Gunn (E:)' as the selected drive. A red arrow points from this drive to the 'Action Window' at the bottom, which contains options like 'Burn Disc', 'Rip Disc', 'Sync Handheld', 'Camera', 'Build Playlist', and 'Tag'. The main window displays the album 'The Music from Peter Gunn' by Henry Mancini, with 16 tracks listed. A table of tracks is shown with checkboxes in the 'Rip' column. A red arrow points from the 'Rip' checkbox for track 13 to the 'Action Window'.

Rip	Track...	Name	Artist
<input checked="" type="checkbox"/>	1	Peter Gunn	Henry Mancini
<input checked="" type="checkbox"/>	2	Sorta Blue	Henry Mancini
<input checked="" type="checkbox"/>	3	The Brothers Go to Mothers	Henry Mancini
<input checked="" type="checkbox"/>	4	Dreamsville	Henry Mancini
<input checked="" type="checkbox"/>	5	Session at Pete's Pad	Henry Mancini
<input checked="" type="checkbox"/>	6	Soft Sounds	Henry Mancini
<input checked="" type="checkbox"/>	7	Fallout	Henry Mancini
<input checked="" type="checkbox"/>	8	The Floater	Henry Mancini
<input checked="" type="checkbox"/>	9	Slow and Easy	Henry Mancini
<input checked="" type="checkbox"/>	10	A Profound Gass	Henry Mancini
<input checked="" type="checkbox"/>	11	Brief and Breezy	Henry Mancini
<input checked="" type="checkbox"/>	12	Not from Dixie	Henry Mancini
<input checked="" type="checkbox"/>	13	Walkin' Bass	Henry Mancini
<input checked="" type="checkbox"/>	14	Blue Steel	Henry Mancini
<input checked="" type="checkbox"/>	15	...	Henry Mancini

**(Note: to uncheck all boxes, right click on a box.)**

**Click on the icon for CD drive and the above screen opens to show list of songs. Everything checked will be ripped. We are going to rip only track 13 in demo. To uncheck or check a single box left click on it again.**

Fig12 Ripping step4

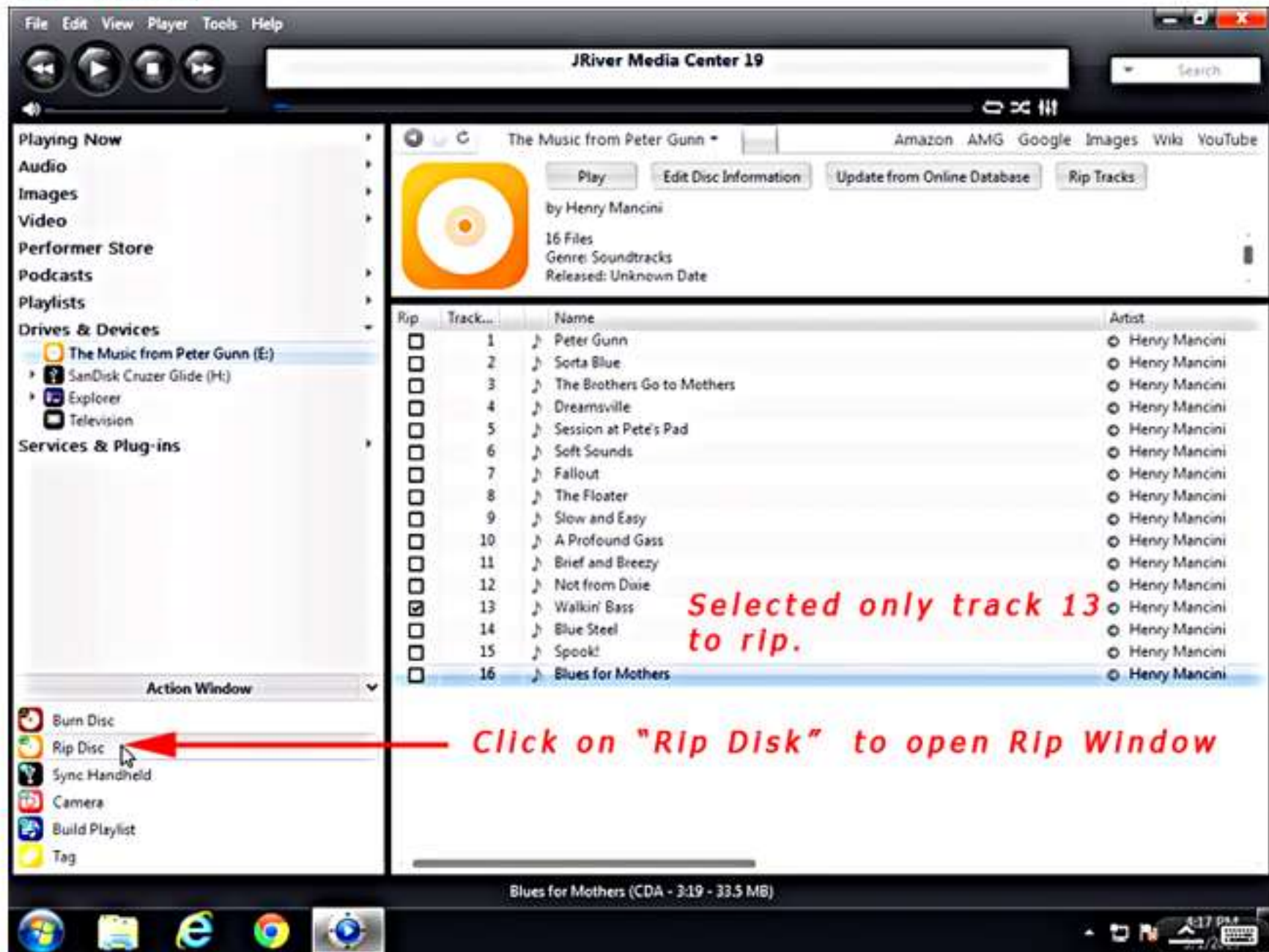


Fig13 Ripping step5

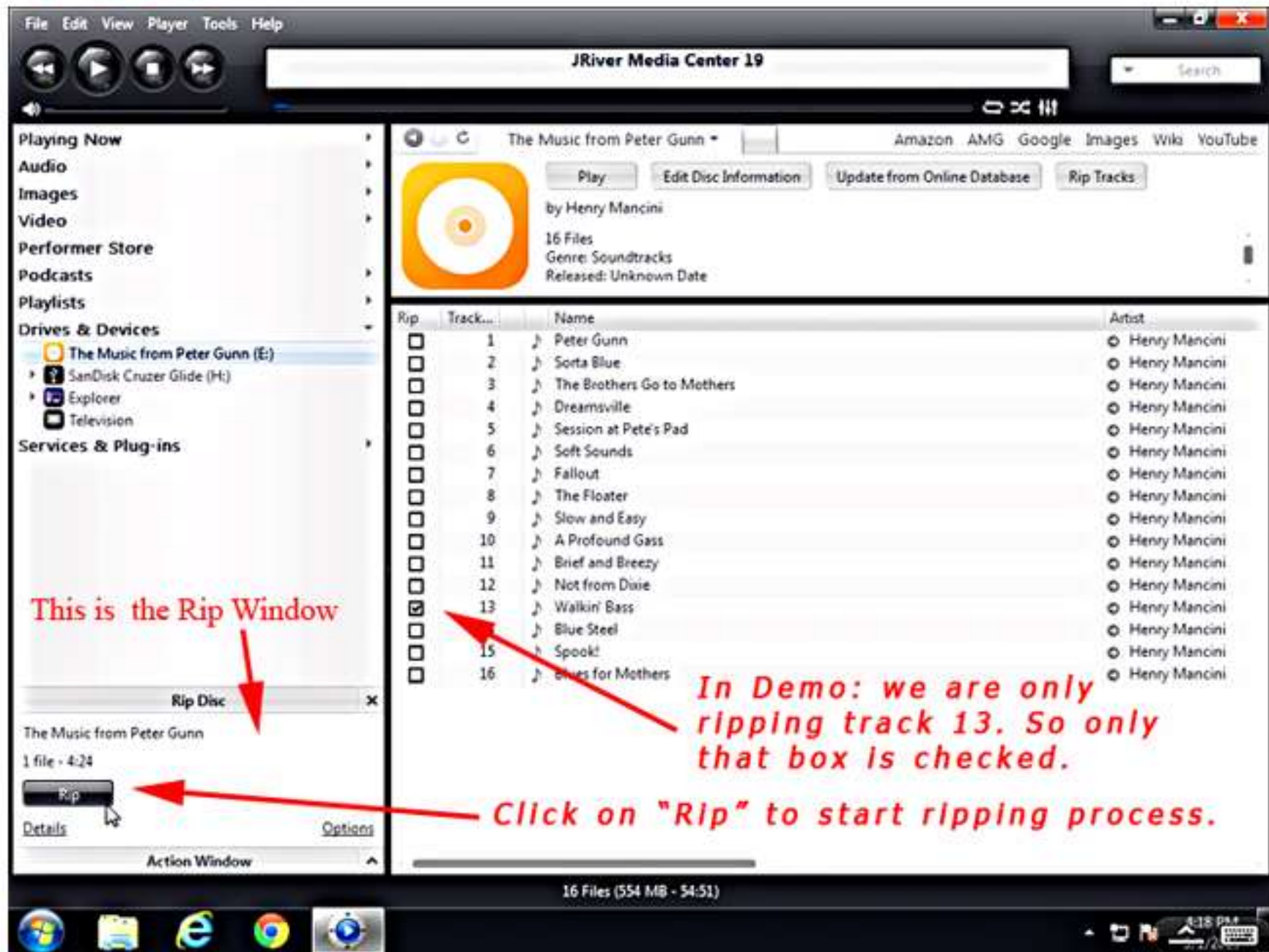




Fig14 Ripping step6

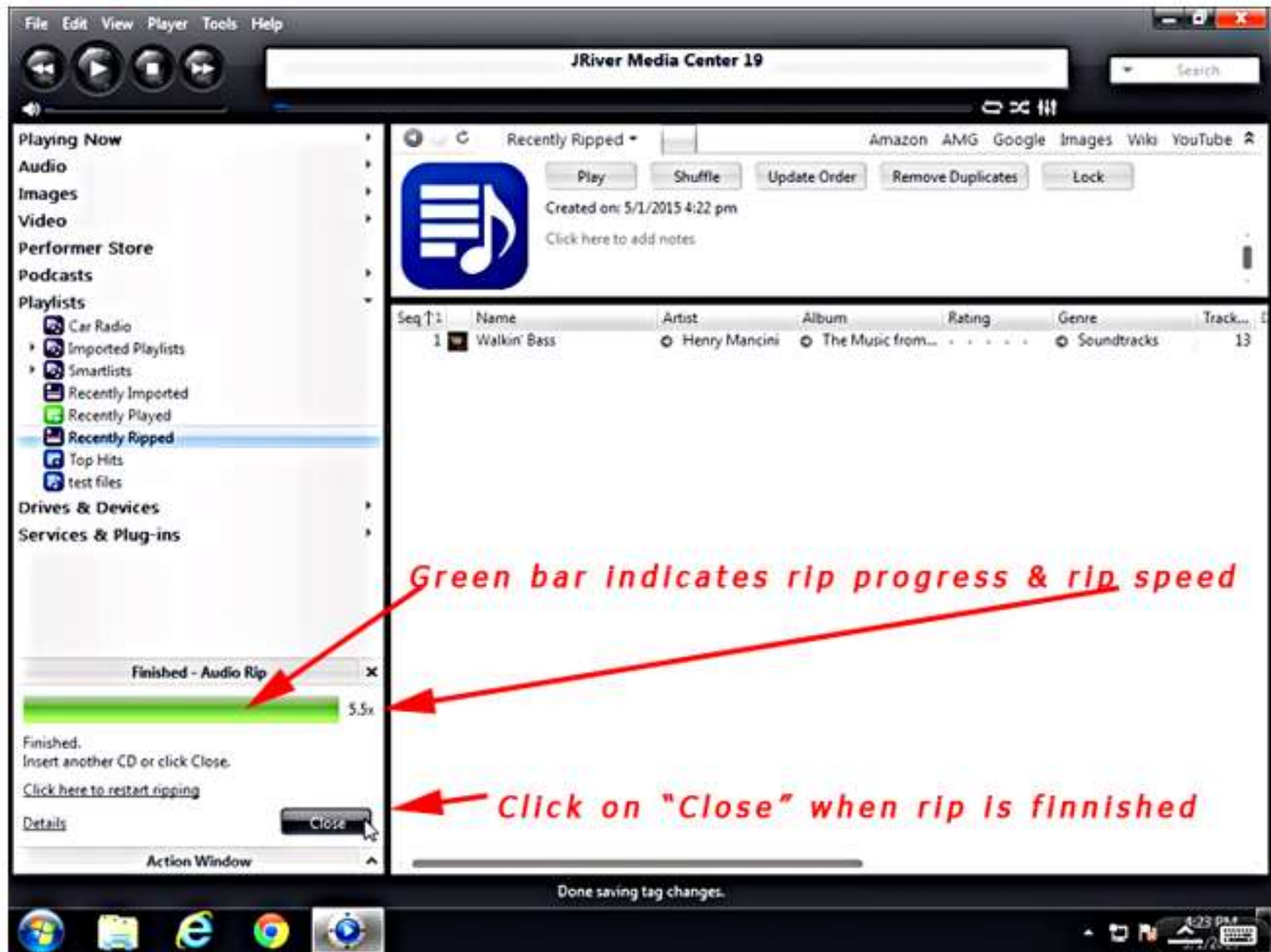
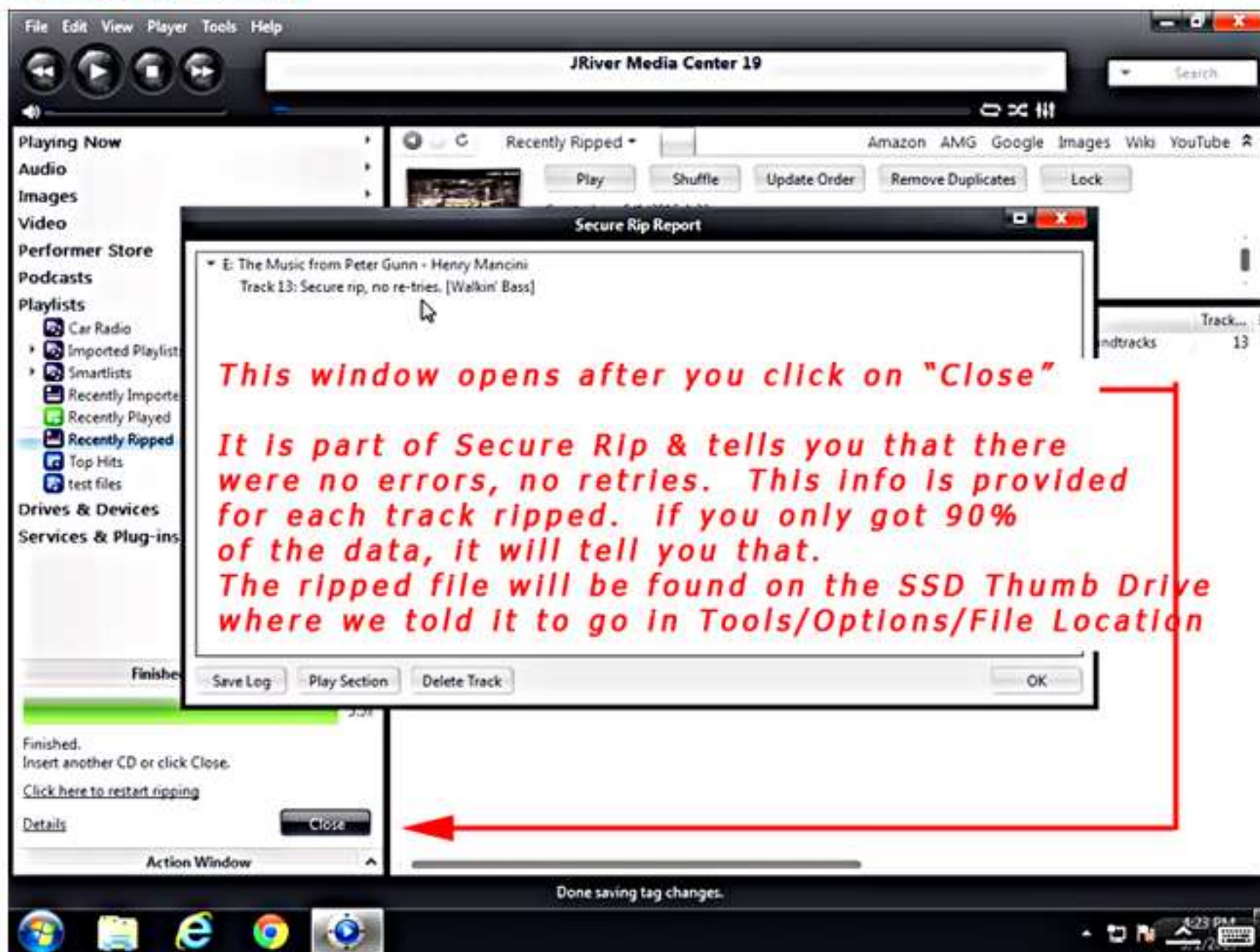


Fig15 Ripping step7 secure rip



# Jriver Upsampling/Transcoding Process:

In Demo we are changing a 16 bit - 44.1K samples/second file to a new file with a 24 bit word length and 88.2k samples/second.

These permanently upsampled files sound better than 16-44.1 files upsampled to 24-88 "on the fly" during playback. Upsampling to 24-88 or higher often smoothes out some of the piercing high frequency sounds often heard on older CD's and usually makes the sound stage sound broader.



Fig16 24-88 Upsampling tracks

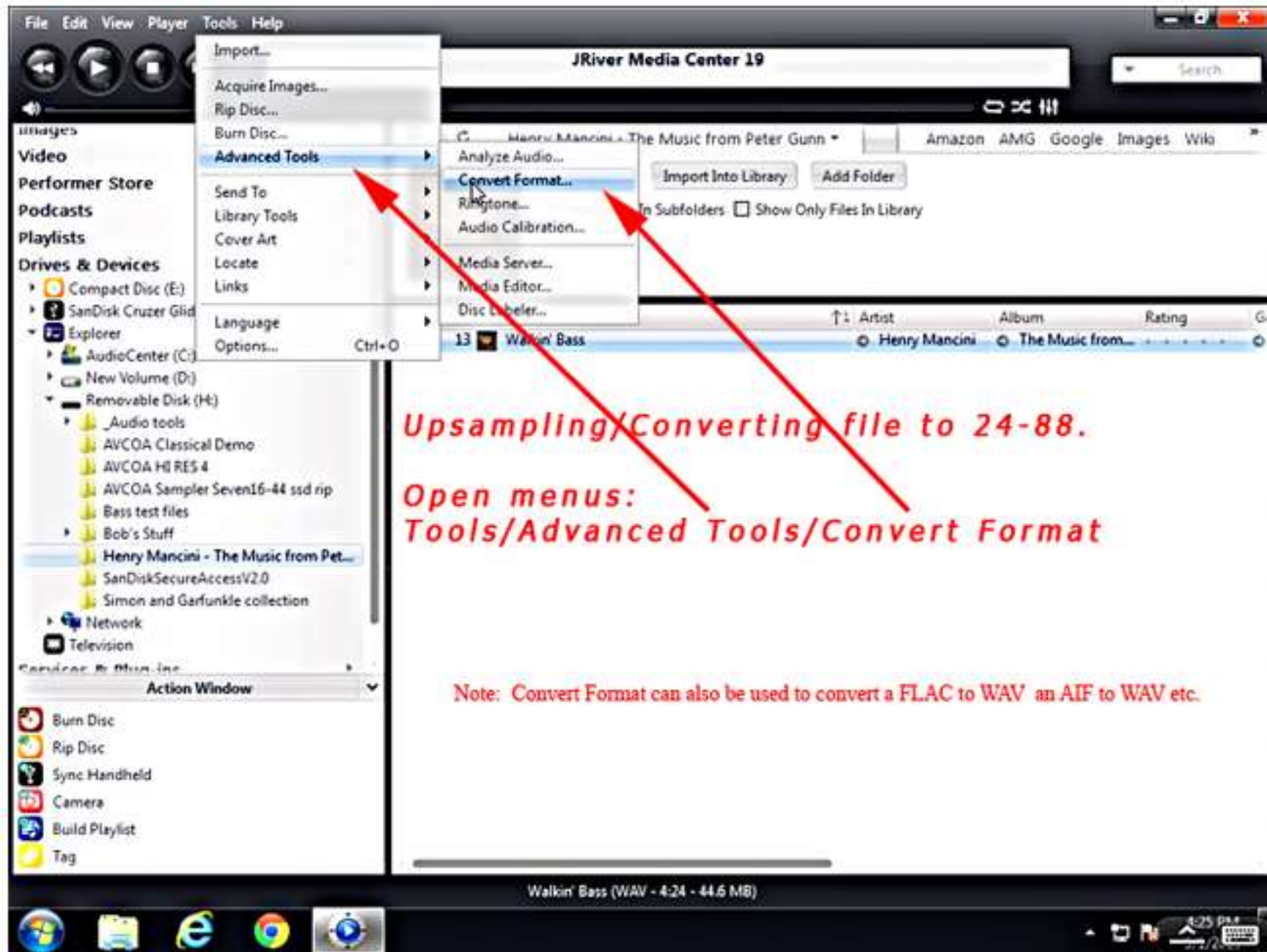


Fig17 24-88 Upsampling selected tracks

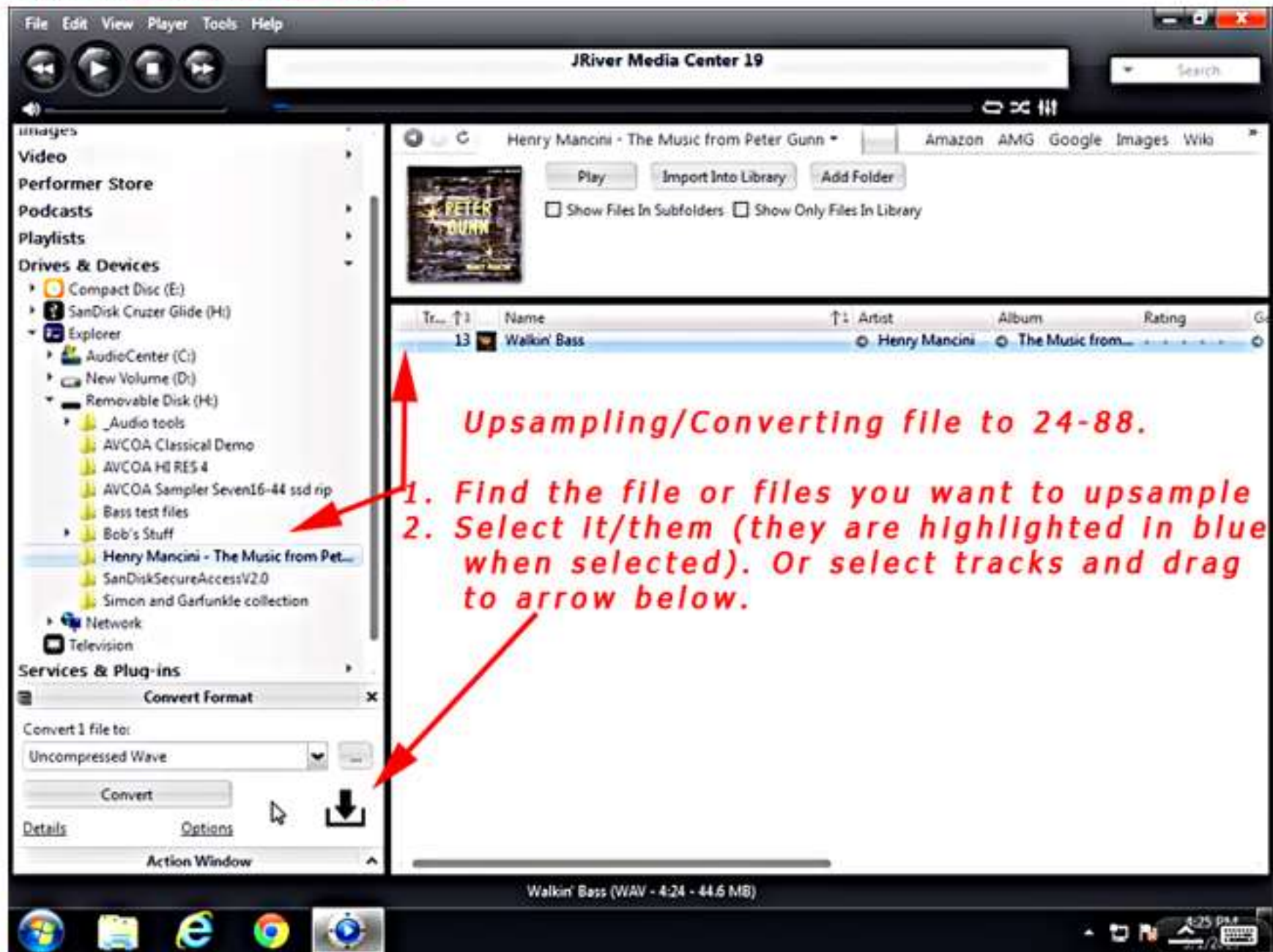


Fig18 24-88 Upsampling select Wav format

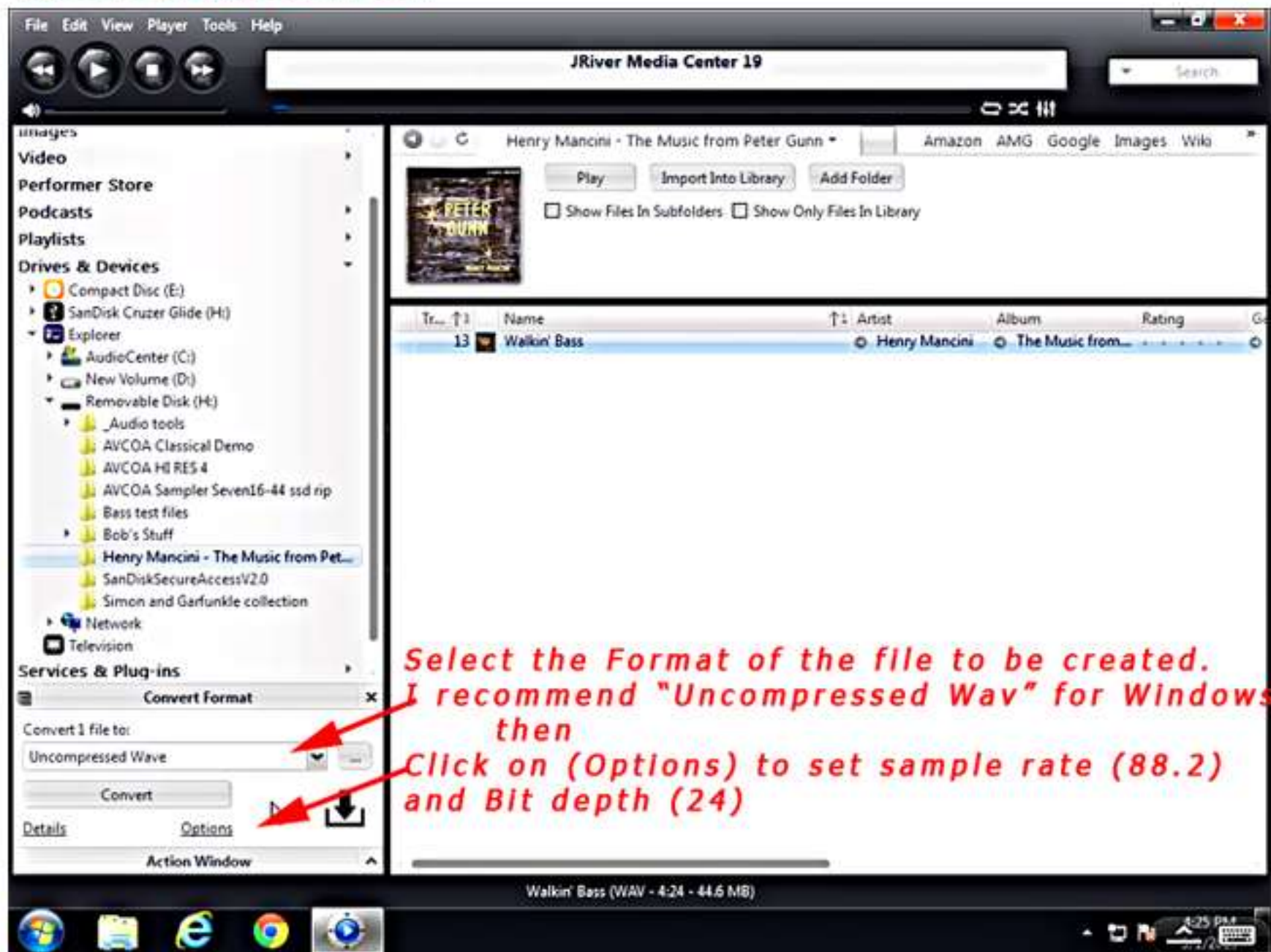




Fig19 24-88 Upsampling set output file

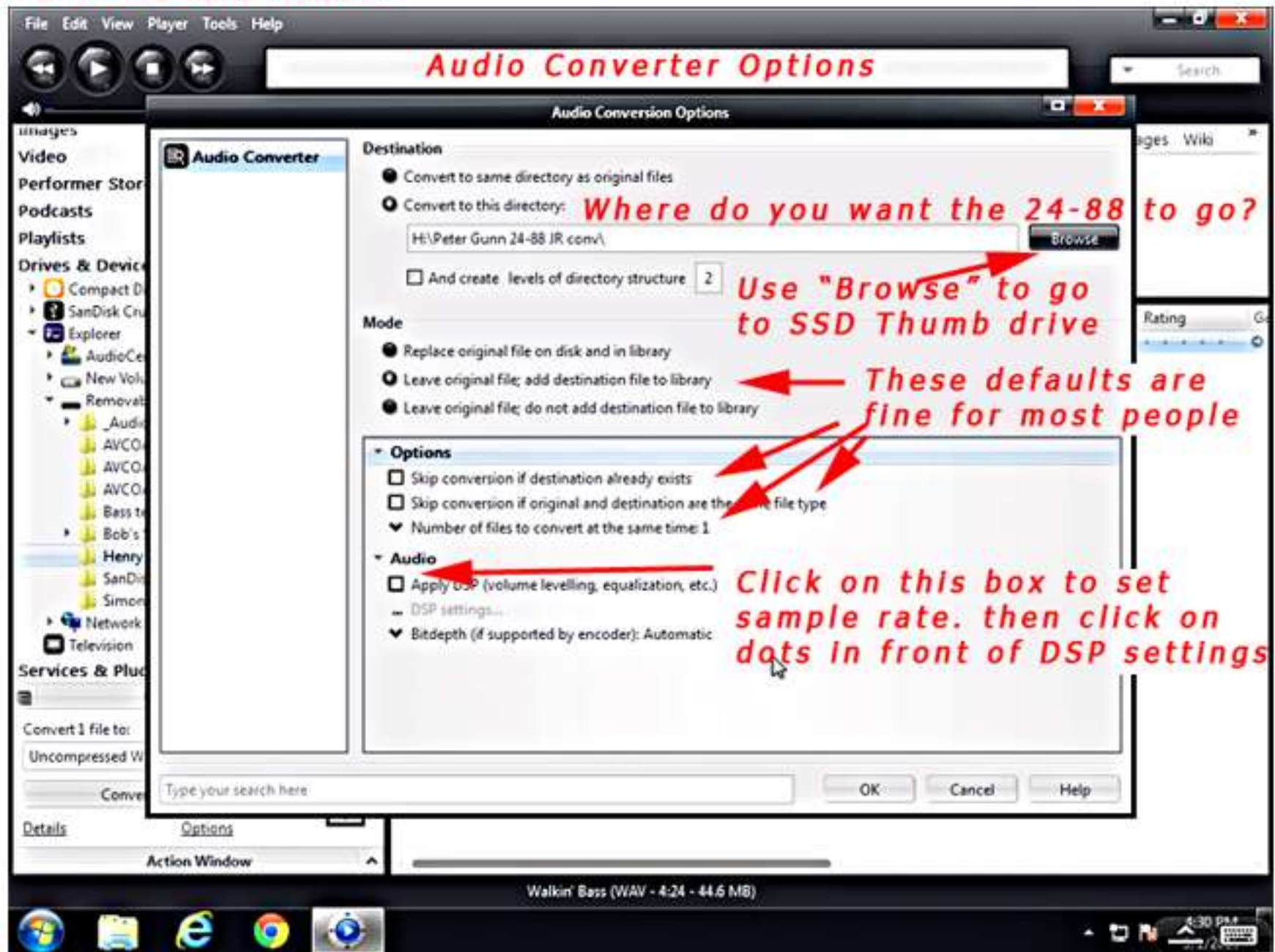


Fig20 24-88 Upsampling set sample rate

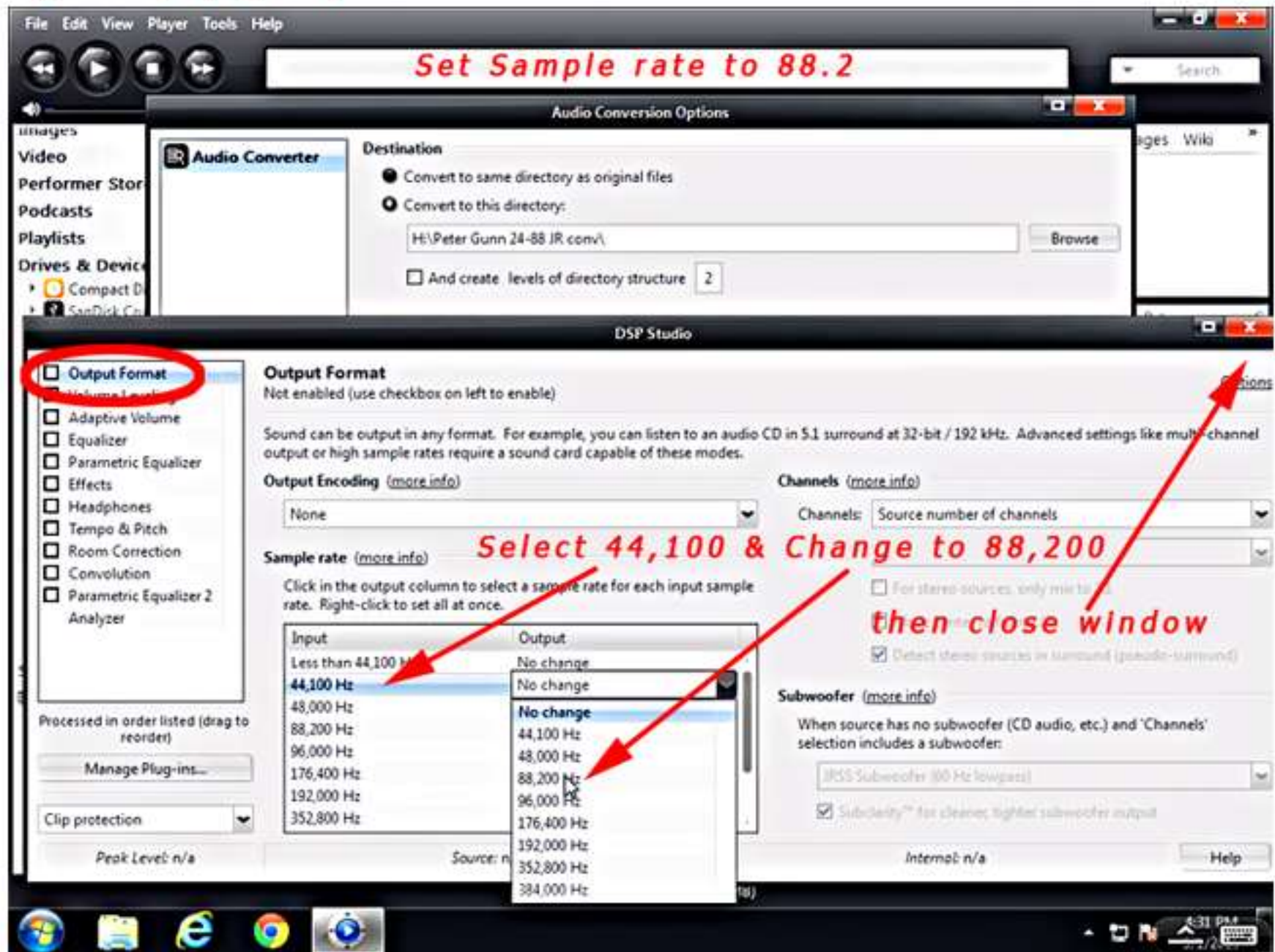




Fig21 24-88 Upsampling set Bit depth

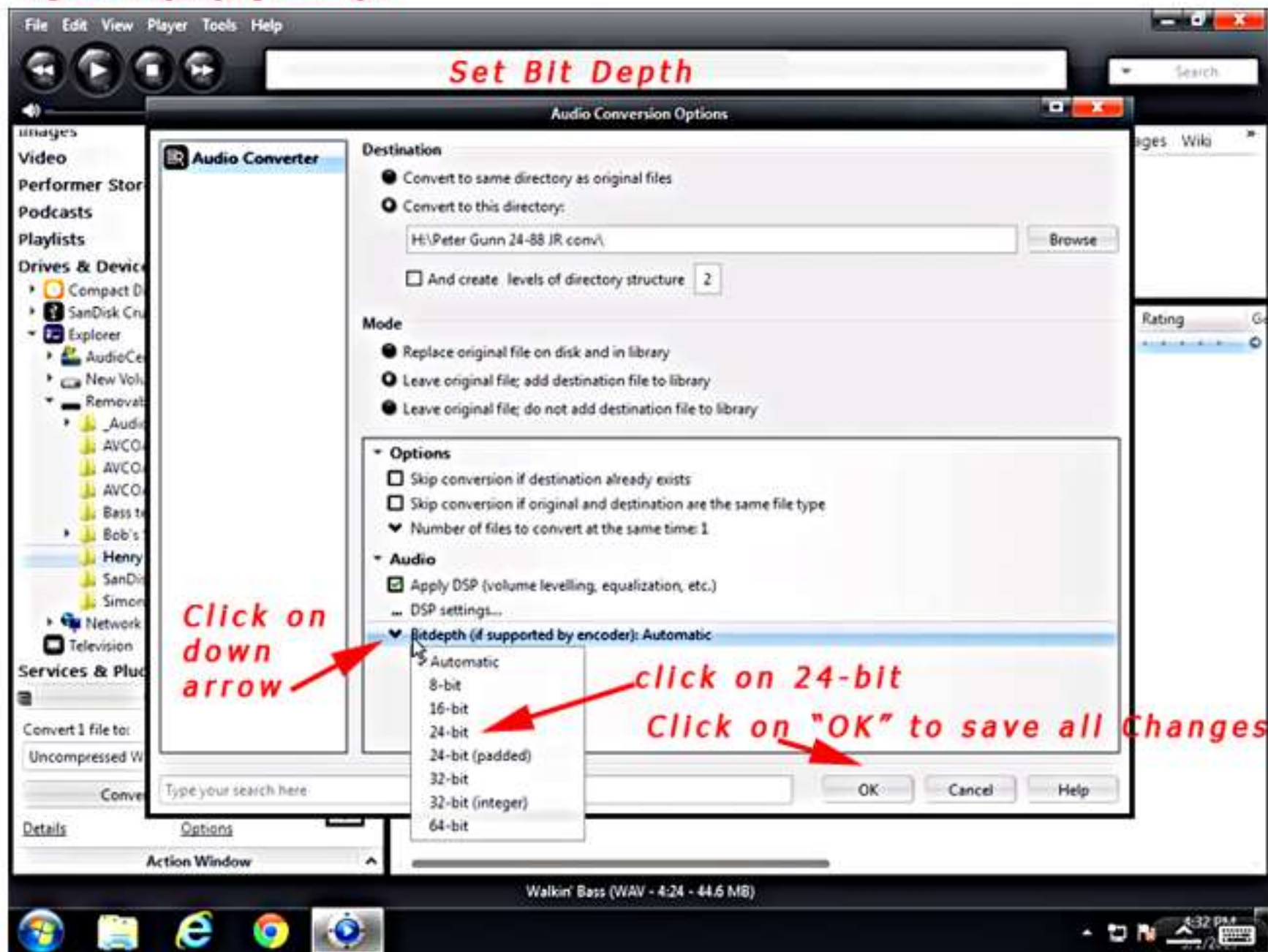




Fig22 24-88 Upsampling Start Conversion process



Fig23 24-88 Upsampling Finnish Conversion process

