

# Inside OUT

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## Windows 10

FOURTH EDITION



### Windows 10 Inside Out 4th Edition

Ed Bott Craig Stinson

### Music, photos, and movies

A decade ago, your PC was the indispensable hub of digital media. Music and movies were delivered on shiny discs, and you needed a desktop or laptop PC to rip CDs, watch a movie while traveling, transfer photos from your digital camera, and share your photos on social media.

Today, the increasing sophistication of smartphones and tablets, coupled with cloud-based entertainment services, means the PC is no longer a hub, and shiny discs are now an endangered species. The PC is still uniquely qualified for tasks that involve editing and managing a personal media collection and syncing it with cloud services, but for playing those files, you're more likely to use a smaller mobile device.

The three core media apps included with Microsoft Windows 10—Groove Music, Photos, and Movies & TV—are tightly connected to the cloud, although the demise of the Groove Music Pass at the end of 2017 removes at least one of our favorite cloud connections. Like other apps built for Windows 10, they're touch-friendly but also work well in a window on a conventional PC. And because it's possible to update these apps through the Store, they have evolved significantly since Windows 10 debuted in 2015. In the following sections, we cover the most recent releases of these apps.

If you're worried that the digital media landscape in Windows 10 will be completely alien, we can reassure you that a couple of familiar touchstones remain: Windows Media Player is still available for playing music and movies on a desktop or portable PC and, yes, Paint is still around for basic photo-editing tasks. Both programs are essentially unchanged from their Windows 7 incarnations.

In the living room, it's still possible to connect a PC to a home entertainment system directly, although the experience is less enjoyable than it used to be now that Windows Media Center is no longer available with any edition of Windows 10. (In fact, Media Center is removed from your system when you upgrade from a prior edition.) More modern alternatives include streaming content from a Windows tablet or PC to a large display (like your big-screen TV) by using builtin support for the Miracast standard. And if your living room or rec room includes an Xbox One game console, it's easy to connect to a Windows 10 PC.

### Music

No, you're not seeing double. Windows 10 includes two programs whose primary purpose is to play digital music files:

 Groove Music is a modern Windows app and the default app for playing music files in Windows 10. It's the direct successor to the Xbox Music app from Windows 8.1, and it traces its ancestry (at least indirectly) to the late, lamented Zune Music app. Using Groove Music, you can play music and audio files in various formats.

### NOTE

On January 1, 2018, Microsoft shuttered the Groove Music Pass subscription service and also ended sales of albums and tracks in the Microsoft Store. The Music tab is no longer available in the Microsoft Store app, and tracks that were added to a music collection as part of a Groove Music Pass subscription no longer play. In addition, you can no longer use Groove to stream a personal music collection from OneDrive.

 Windows Media Player in Windows 10 is virtually identical to the version shipped with Windows 7. (The single, very large, exception is support for files saved using formats based on lossless compression.) The most distinctive feature of Windows Media Player compared with Groove Music is its ability to play CDs and rip their contents to digital formats. It can also sync content with some older models of portable music players.

Both programs create indexed libraries from the contents of folders in your Music library. The indexes are stored separately.

Both programs support the same selection of audio formats, most of them compressed. For practical purposes, audio files must be compressed; using the uncompressed WAV format, a typical 60-minute CD will consume more than half a gigabyte of disk space. Compressing the files means you can store more music on your hard disk, and it makes the process of backing up and streaming music files easier and more efficient.

When it comes to compression, Windows 10 supports both lossy and lossless formats. Most popular algorithms used to compress audio (and video) files are lossy, which means that they achieve compression by eliminating data. In the case of audio files in the popular MP3 and AAC formats, the data that's tossed out during the compression process consists mostly of frequencies that are outside the normal range of human hearing. The level of compression is determined by the *bit rate*. Higher bit rates preserve more of the original sound quality of audio tracks but result in larger files on your hard disk or portable player. Lower bit rates pack more music into limited space at a cost in fidelity.

The more compressed a music file is (that is, the lower its bit rate), the more likely you are to notice degradations in audio quality.

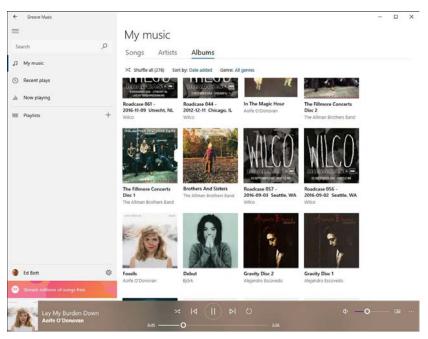
Windows 10 supports three different lossless compressed formats: Windows Media Audio Lossless, Apple Lossless Audio Codec (ALAC), and Free Lossless Audio Codec (FLAC). When you have a choice of formats, we recommend FLAC, which is widely supported and stores music files efficiently without sacrificing any information. In theory, at least, a track saved in any of these lossless formats should be indistinguishable from the original.

### Using Groove Music

Every installation of Windows 10 sets Groove Music as the default music player, unless you choose a different app when you first set up a user profile. If you used this app in its previous incarnations, the basic look and feel should be familiar. One area that has changed repeatedly over the short life of Windows 10 is the primary navigation list at the top of the pane on the left. With the demise of the Groove Music Pass service, this section now contains only three links: My Music, which displays the contents of albums and songs in your music library; Recent Plays, which shows the names of tracks and albums you've been listening to lately; and Now Playing, which shows the currently selected album or playlist.

Below those core navigation links is the Playlists option, which opens a pane where you can create custom playlists from tracks in your library and manage previously created playlists.

The navigation pane—that thin column of icons on the left—follows the same interface conventions as other modern apps. If the app's window is wide enough, the labels for the navigation pane appear automatically; to make those labels visible, or to hide them if you want more room for the current view, click the Maximize/Minimize Navigation Pane (aka "hamburger") button at the top of the pane. Figure 7-5 offers an overview of the Groove interface with the navigation pane expanded to show all its labels.



The Groove Music app's contents pane offers multiple views of your collection, available Figure 7-5 via icons in the navigation pane on the left. Sort or filter the current view using controls at the top.

The design of the Groove Music app isn't difficult to figure out. A menu pane on the left provides a way for you to choose what you want to play from your local music collection. To change the way your collection is displayed, click the My Music tab and then choose Albums, Artists, or Songs. To display the current album or playlist, click Now Playing. Your custom playlists appear at the bottom of the left pane.

Figure 7-6 shows the options that appear when you click to display the contents of an individual album. (A menu of additional options for the album appears when you click the ellipsis to the right of the Add To command.)

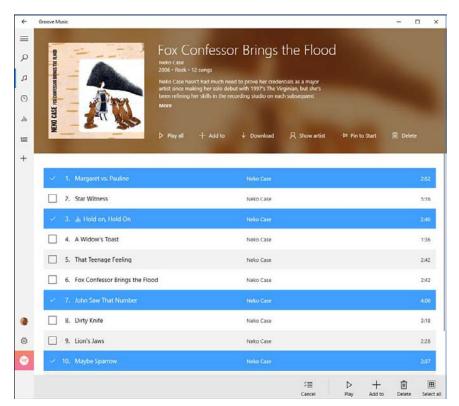


Figure 7-6 The options at the bottom apply only to the current selection. Use the Add To option to send tracks or an entire album to a custom playlist.

The option to select individual songs from an album or playlist (or from the Songs view) isn't immediately obvious. When you select an album, for example, track numbers appear to the left of each song. Move the mouse pointer over the track to reveal a check box where the track number had been, along with Play and Add To buttons. (With songs in a playlist or in the Songs view, the check box appears to the left of the track name.) After you click to select one song, check boxes appear to the left of all other tracks in the current album or playlist.

As we noted earlier, Groove Music no longer integrates with OneDrive. Any compatible files you save to the Music folder in OneDrive must be synced to the local device to be available for playback.

As Figure 7-7 shows, search terms you enter in the box at the top of the navigation pane return results showing artists, albums, songs, and playlists from your collection.

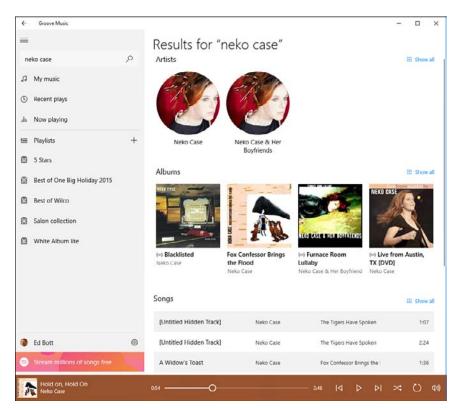


Figure 7-7 Use the search box in the upper left to display results that match artists, albums, and songs from your collection.

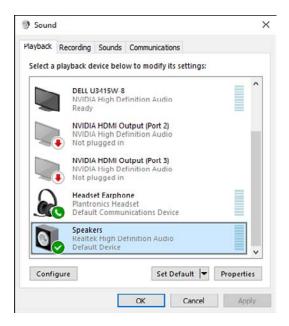
### TROUBLESHOOTING

### You can't hear any sound from your speakers

Modern PCs often have multiple playback channels, in both digital and analog formats. Audio playback hardware can be found in various locations: on your motherboard; as an optional feature on an add-in video card, with multichannel sound typically delivered over an HDMI cable; on an add-in sound card; or through headphones connected physically or wirelessly using a Bluetooth connection. It's not unusual to find multiple audio playback options in a single PC, especially one that has been upgraded extensively.

If your hardware and drivers appear to be installed correctly, but you're unable to hear any sound, click the speaker icon in the notification area and look at the playback device listed above the volume slider. Click the arrow to its right to choose from a list of alternate playback devices.

To change the default device, right-click the speaker icon in the notification area at the right side of the taskbar and click Sounds. This opens the Sound dialog box from Control Panel; select the Playback tab. Look for a green check mark next to the device currently designated as the default playback device. In the following example, the built-in speakers are disabled, and headphones connected via Bluetooth are used for communications programs and for playback. To change the default playback device, click the Speakers/ Headphones option that corresponds to the device you want to use (the exact wording varies depending on how the driver developer chose to implement it) and then click Set Default:



➤ For details on how to configure hardware and install drivers to unlock the functionality of those devices, see Chapter 14, "Hardware and devices."

One new and noteworthy feature that arrived in Groove Music after the release of Windows 10 version 1803 is the playback equalizer. From the Settings page, click Equalizer to open the control shown in Figure 7-8, and then drag the sliders for each of the five frequency ranges up or down. You can choose from several preset arrangements or create a single Custom setting. Choose the Flat option to play back with no adjustments.