Windows Media Player and Internet Radio

A presentation by
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for PATACS Arlington
Wednesday June 5, 2024

Agenda

- How Streaming Media differs from YouTube, Netflix etc.

- Streaming Uniform Resource Locators (Streaming URLs)

- How to Use Windows Media Player to listen to streaming audio URLs

- Why and how to save and update streaming audio URLs for later resumption of listening.

What is streaming media?

- Streaming media on the Internet acts like a broadcast TV or radio station.

- Each station provides more-or-less constant program material, and can be received across the world using an Internet connection.

- Internet Radio stations stream audio and sometimes include DJs and station announcements, like broadcast radio stations.

- Advertising is heard on Internet Radio stations that also are broadcast stations, such as WTOP.

Relevant Prior Presentations

- My April 2022 PATACS+OPCUG presentation titled **Internet Radio on the Road, Safely**

- My August 2022 PATACS+OPCUG presentation titled **Stream Audio From Your Computer Using VLC** (make your own radio station, and listen to yoour station using any device connected to your Local Area Network)

- You can review the slide decks and videos for those prior presentations on: **https://www.patacs.org/recmtgspat.html**

Some broadcast TV and radio stations also stream online

- **WUSA-TV9** In Washington DC has a Roku app

- **WTOP News radio** in Washington DC provides Internet Radio streaming of its audio through the VRadio app.

- If you have a favorite radio station, then the station's Web site may provide a streaming URL so you can listen anywhere in the world where your device can obtain an Internet connection.

- WTOP's Web site does NOT provide its streaming URL.

How Streaming Media differs from pay-for-play services

- YouTube acts much like an online library of pre-recorded videos.

- You can search for topics of interest, and play the videos you like at any time.

- Netflix, Amazon Prime Video, Disney+, Paramount+ and most other pay-for-play services act in exactly the same way.

- All of those services are optimized for playing using Roku apps and using a web browser.

Economics of audience appeal

- The main reason many broadcast radio music styles have disappeared from US radio is the popularity of MP3 players as a personal substitute.

- Each player user puts his or her favorite tunes on the player. My phone has over 1,600 songs on it.

- Especially for niche musical styles, the world-wide reach of Internet Radio allows any station to reach an audience of thousands or more, no matter how thoroughly scattered.

Micro Economics
of station operation

- Internet Radio stations have costs to pay:
  - Copyright royalties
  - Internet Service Provider

- Donations appear to be the primary income source.

- Some Music Internet Radio Stations charge a subscription fee for higher bitrate service.

- Some sell products via their Web sites, such as music CDs and radio station t-shirts.

Windows Media Player (WMP)

- WMP is bundled with Windows.

- WMP has become my default player for playing unfamiliar audio CDs

- The key info for connection to an Internet Radio Station is called a **Streaming URL**. Such URLs are not necessarily compatible with web browsers.

- Here is an example of a Streaming URL for **Fusion101**, a jazz-rock station**:**
  http://quincy.torontocast.com:2040/stream

How to obtain Streaming URLs

- Many Internet Radio stations provide their own Web sites.

- The Web Site might state the station's Streaming URL. WTOP's site is an exception.

- If so, then you can copy&paste the station's Streaming URL into WMP.

- The VRadio app provides a wonderful categorized list of Internet Radio Stations, but hides the streaming URL of each station in its list.
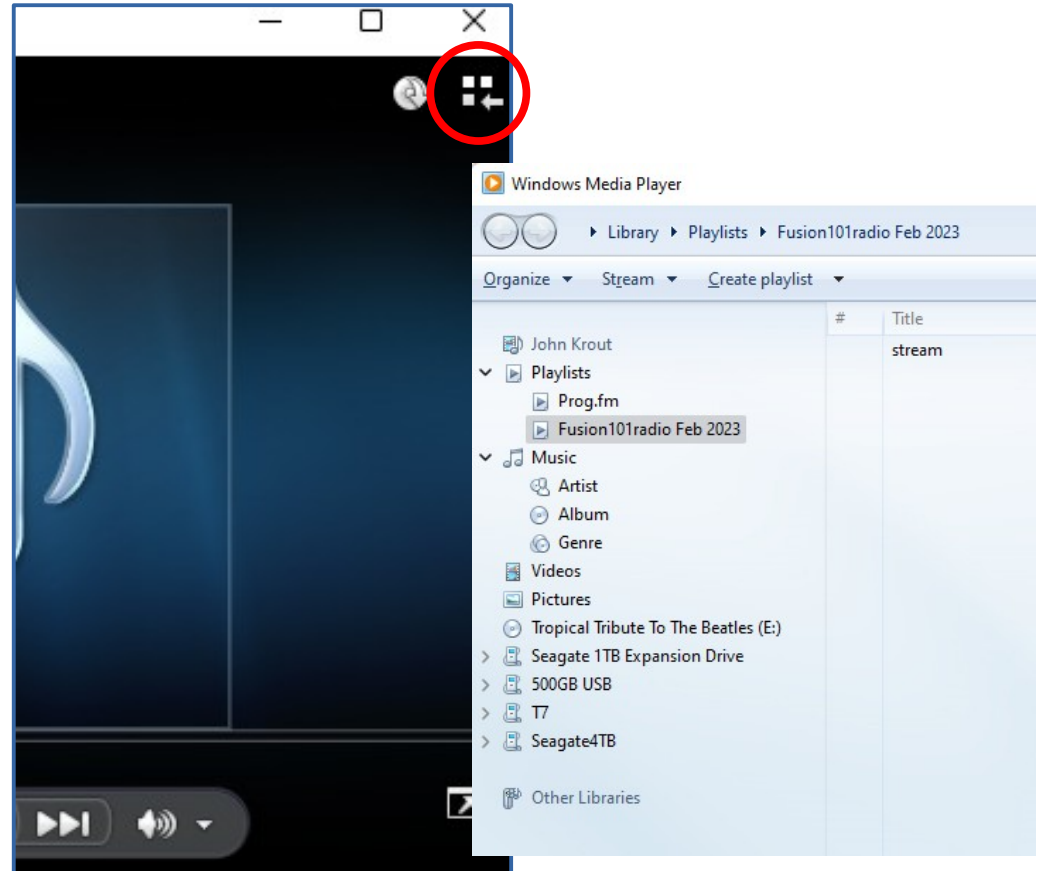
There's an app for a station?

- The latest trend is to create and promote a **station app** that plays only that one station and no other.

- This may have been egged on by Generative Artificial Intelligence (AI) that can literally write code to create an app, reducing the cost and time required to create an app.

- After creating and promoting a station app, a station might ***stop promoting the streaming URL*** for the station.

Key WMP behaviors

- Enter the Streaming URL of an Internet Radio Station, ether by typing or by copy&paste.

- Play the Internet Radio Station.

- Save that Streaming URL in WMP for use later, so you never have to type it again.

Start WMP and switch its window layout

- The usual WMP style is a dark blue window.

- Click the circled button.

- The style changes to the light blue two-pane style shown in the second screen image.

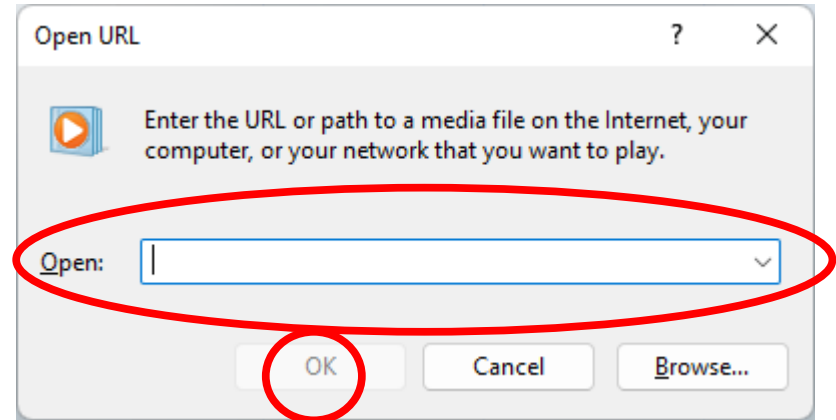# Assuming you have obtained a Streaming URL

- In the WMP window, tap this keystroke combo: **CTRL+U**

- This dialog box opens.

- Type or copy&paste the Streaming URL into the field of the dialog box.

- Click the **OK button** at the bottom of the dialog box. WMP begins to play the Internet Radio Station.

Open URL   ?   ✕

Enter the URL or path to a media file on the Internet, your computer, or your network that you want to play.

Open: [⌄]
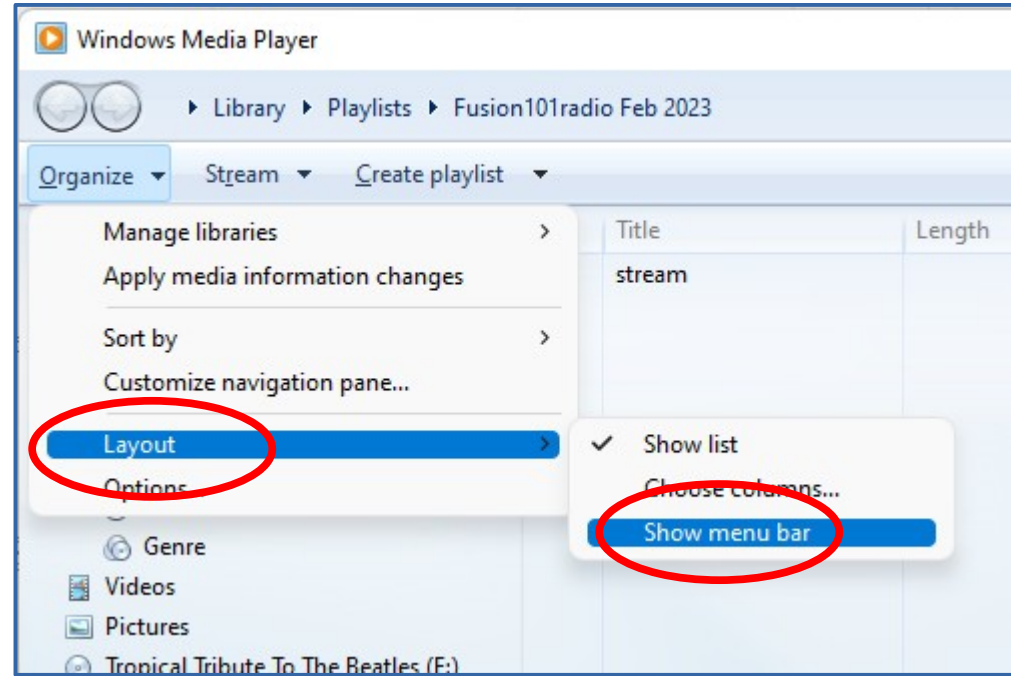
OK   Cancel   Browse...

WMP audio controls

- At the bottom center of the WMP window, you will find these controls:

- The large **|| button** in the center is PAUSE; when clicked, it changes to a PLAY button.

- The **square button** to the left of PAUSE/PLAY is STOP.

- On the right, the **horizontal slider bar** controls VOLUME.

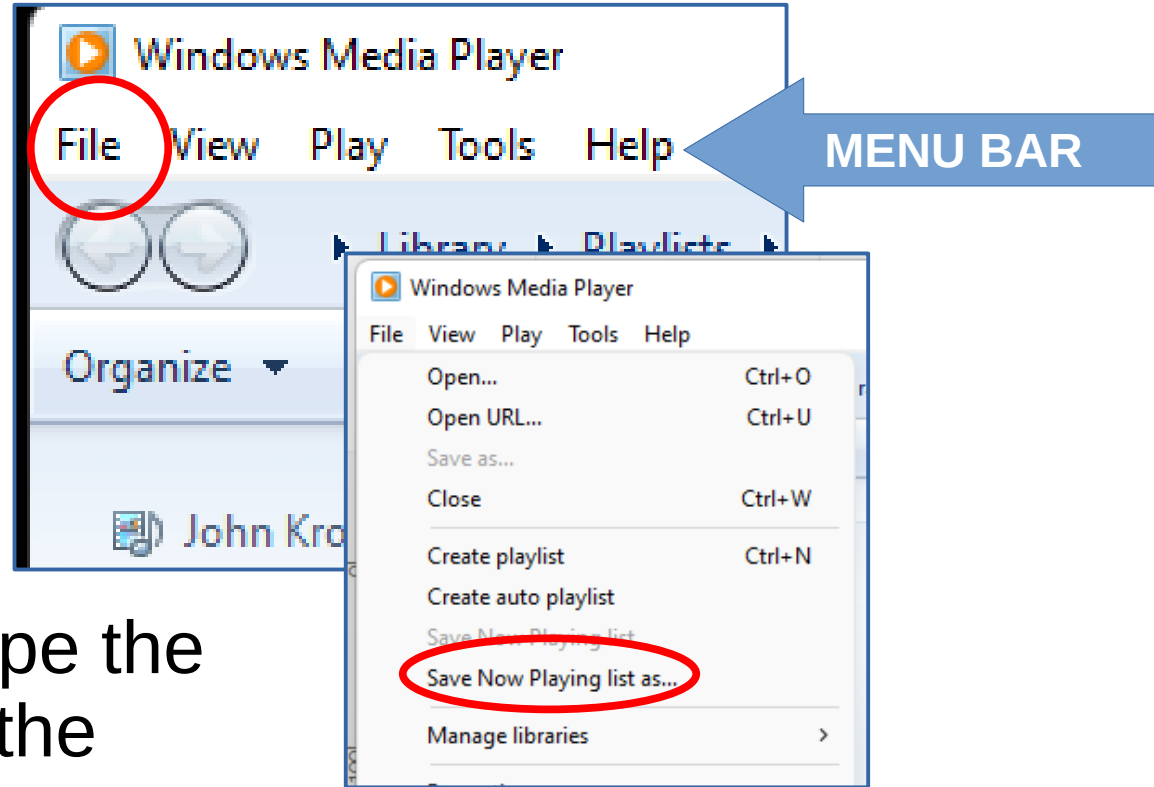- Windows also provides its own master VOLUME control.

How to save a streaming URL

- You will use the WMP **File menu**. By default, that menu is *not visible.*

- To make the File menu visible, click the **Organize menu**. It looks like this.

- In the menu, select **Layout**. A sub-menu appears.

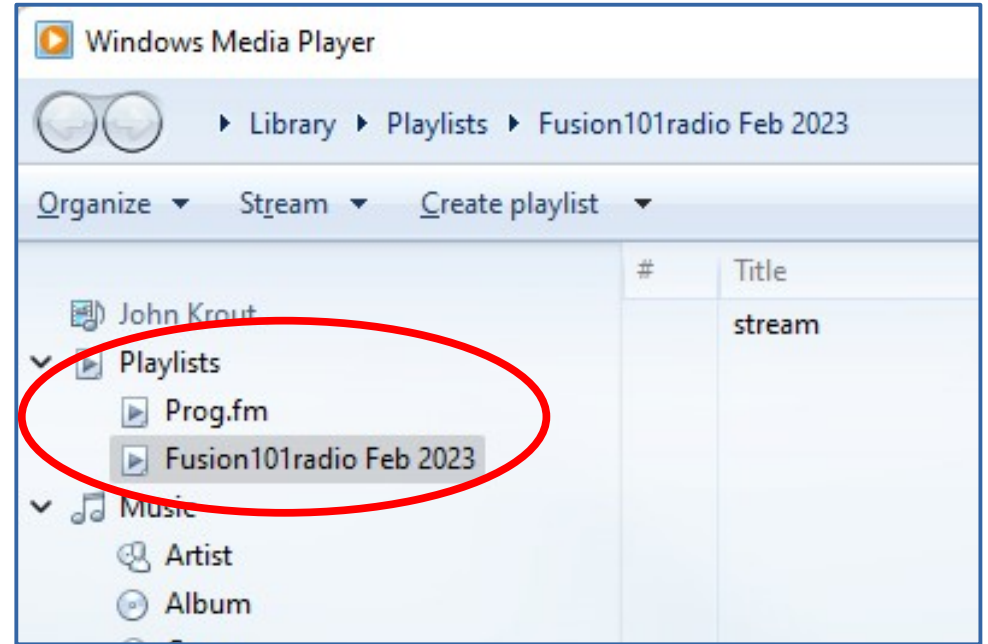- In the sub-menu, select **Show menu bar**.

How to save a streaming URL

- The WMP menu bar appears above the word Library.

- Click the word **File**.
  A menu appears.

- In the menu, select
  Save Now Playing list as…

- A standard **Save file dialog box** appears. Type the station name, and click the **Save button.**

How to listen to that saved station

- In the WMP left pane, all saved station names appear below the word **Playlists**.

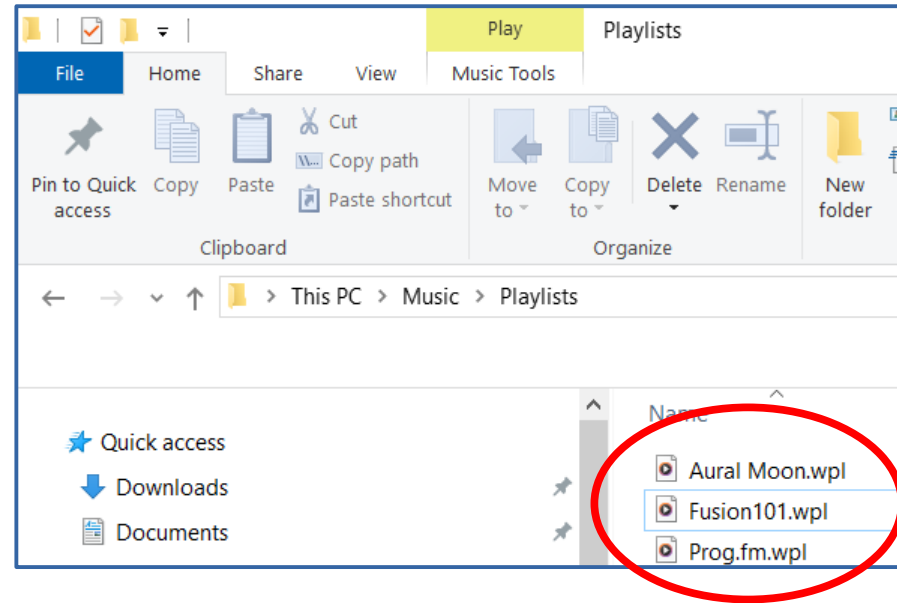- To resume listening to a saved station, click its name.

- If you instead click the word Playlists, then every station name appear with an icon in the right pane. Click any station name to resume listening to that station.

An Internet Radio Station can seem to go off the air

- I initially suspected that such stations suffered tech issues or went bankrupt.

- I found that most simply changed their streaming URL.

- Check the station's Web site to see if the URL has changed.

How to update a saved station

- WMP saves each station in a file format called WPL.

- The file name is the station name you specified when you saved the station using WMP

- Those WPL files are stored in the **Music/Playlists folder** on your Windows computer.

- Here you see a Windows File Explorer list of the WPL files stored on my laptop.

The Fusion101.wpl file

- You can open, update and save any WPL file using a text editor app such as the built-in Notepad app.

- The streaming URL is enclosed in double-quotes in the WPL file and is easy to spot and update.

```
<?wpl version="1.0"?>
<smil>
    <head>
        <meta name="Generator" content="Microsoft Windows Media Player --
12.0.19041.4355"/>
        <meta name="ItemCount" content="1"/>
        <title>Fusion101</title>
    </head>
    <body>
        <seq>
            <media src="http://quincy.torontocast.com:2040/stream"/>
        </seq>
    </body>
</smil>
```

Critique of WMP for listening to Internet Radio Stations

- For music stations, WMP does not but should show the artist name, album title, and song title, all transmitted by the Internet Radio Station.

- The VRadio app for iPhone and Android does that.

- WMP should add a convenient way to update the WPL file.

Other interesting uses of Internet Radio Stations

- If you are learning or brushing up on a foreign language, then you can listen to news stations in that language for additional practice.

- You can also listen to Voice of America (VOA) transmissions to other countries. Federal law prevents VOA from broadcasting inside the US.

- I find the music on Internet Radio Stations more appealing than music on any local broadcast radio station.

PREVIEW OF A
COMING ATTRACTION

- On Wednesday, June 12, I will present **Get Ready for Aerial Fireworks Photos** during the APCUG Wednesday Workshop.

- You can attend for free using Zoom.

- The Wednesday Workshop registration URL will be sent early that week by email.

- Register by Tuesday at 11:59 PM ET.

- Registered attendees will receive Zoom details overnight.

THE END