The Media Streaming Journal

June 2022

Covering Audio and Video Internet Broadcasting

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Welcome to The Media Streaming Journal

Welcome to the latest edition of The Media Streaming Journal.

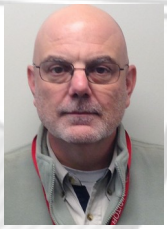
Knowing about your audience is more than guessing; it should be based upon real-time audience data that can be measured. Audience metrics and sampling can provide crucial insight for not only advertising but also program content.

Please feel free to contact either the Publication Director (Derek Bullard) or myself if you have any questions or comments regarding The Media Streaming Journal.

Namaste

David Childers

The Grand Master of Digital Disaster
(Editor In Chief)



www.linkedin.com/pub/david-childers/4/736/72a

David Childers

The Grand Master of Digital Disaster

Current Member: International Association Of Internet Broadcasters

Current Member: Society of Motion Picture and Television Engineers

Published Author

Introduction To Internet Broadcasting
Amazon Publishing

30 Creative Commons Computer, Technical and Internet Broadcasting Guides

Newspaper Interviews

New York Times

Internet TV: Don't Touch That Mouse!
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Rob Holbert
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Cited By

Five Essays on Copyright In the Digital Era
Ville Oksanen
2009

Turre Publishing
Helsinki Finland

Open Source Developer

Developed software architecture to continuously source multimedia content to Youtube Live servers.
Scenic Television – The sights and sounds of nature on the Internet.
http://www.ScenicTelevision.com

Projects

Researched and developed documentation for Peercast P2P multimedia streaming project.
http://en.wikipedia.org/wiki/PeerCast

Researched and developed technical documentation for NSV / Winamp Television.
http://web.archive.org/web/20080601000000*/http://www.scvi.net

MidSummer Eve Webfest

A virtual International festival focusing on Digital art and Free Software that was coordinated by OrganicaDTM Design Studio.

Presentation and discussion regarding Internet multimedia content distribution.
http://web.archive.org/web/20061104230522/http://www.organicadtm.com/index.php?module=articles&func=display&catid=37&aid=61

LinkedIn Contact Information

http://www.linkedin.com/pub/david-childers/4/736/72a

The Media Streaming Journal

What is in this edition of the Media Streaming Journal

Universal Multimedia Aggregator
PHP Audio and Video Streaming Engine

Join our technical discussion on Facebook

http://www.facebook.com/groups/internetradiosupport/

Magazine cover:

https://commons.wikimedia.org/wiki/File:CurrentNew.jpg

RADIOSOLUTION

www.radiosolution.info

Our Mission

Let our friendly, knowledgeable staff assist you to build your project, such as an online radio station using our high end reliable video and audio streaming technologies. We want to become your partner for all your hosting needs, as well as your one stop shop for radio products such as custom DJ drops and radio ID's.

Start An Internet Radio Station

Whatever you need to start Internet radio station, we will deliver! We provide high quality Internet Radio services to make your music radio project a success. We can provide Wowza, Icecast, SHOUTcast hosting and internet radio services to hobbyists, deejays, amateurs and established professionals. No radio station client is too big or too small for Radiosolution.

Choose between complete hassle-free service packages or new features to add to start internet radio station. Benefit from customized services and the latest in internet radio technology. You will receive professional, personalized and better Internet Radio Station services than you have received up till now. If you already have an Icecast or SHOUTcast hosting provider, we can still help you transfer your radio server over to us with no hassle and at no charge.

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Launch your internet, digital, satellite or AM/FM radio station anywhere in the world with all of the right tools. A broadcasting specialist is on standby to help you get started with an SHOUTcast or Icecast hosting package. We have servers ready for reliable streaming in North America and Europe. Our hosting packages have all the features you need to make your radio station project a success.

If you stream live or with an Auto DJ, we can provide you with the latest in web-based Cloud technology. You will love the simple to use control panel. Discover how easy it is to manage live deejays, upload fresh music and create custom scheduled programming. You will be able to track your listeners by getting real time statistics.

Starting your own Internet radio has never been easier. Get in touch with us anytime to start your Internet radio station.

Radiosolution is a SHOUTcast hosting provider located in Quebec Canada. We also offer Icecast, Wowza and Web Hosting services. Contact us to discuss the best option available as you start internet radio station. Radiosolution can provide personalized service in English, Dutch, and French. Starting an internet radio station can be intimidating, many people want to start one, but have no idea where to start. Radiosolution will be there for you every step of the way. Everyday people are searching the internet for free SHOUTcast servers. With Radiosolution SHOUTcast hosting we will allow you to try our services for FREE. By trying our services, you can be confident that you have chosen the best radio server hosting provider. You have nothing to loose because we offer a 30 day satisfaction guarantee. What are you waiting for? Contact us now! Radiosolution offers everything you need to start internet radio station. You will not need to go anywhere else. We can create your website, market your station and help you submit your station to online directories. We also feature the voice of Derek Bullard aka Dibblebee He can create affordable commercials, DJ intros, sweepers, jingles, ids and so much more.

The Order of the Iron Test Pattern is an association of people who have had the opportunity to work in or around the television and broadcast / cable industry. People who have an interest in television broadcasting are also welcome.

https://www.facebook.com/Order-Of-The-Iron-Test-Pattern-103689774780581/

Hey You! Yes, You!
Why Should Anyone Listen to You?!

Do you need compelling, clever copy or catchphrases for your Internet station? If you do, please visit and let's talk!

http://www.ielectrify.com/work-with-me/

I am a professional writer with 15+ years of experience creating high-converting copy, for a variety of radio, broadcasting and marketing applications.

https://www.wpclipart.com/people/professions/professions_3/radio_announcer.png.html

Universal Multimedia Aggregator
PHP Audio and Video Streaming Engine
David Childers

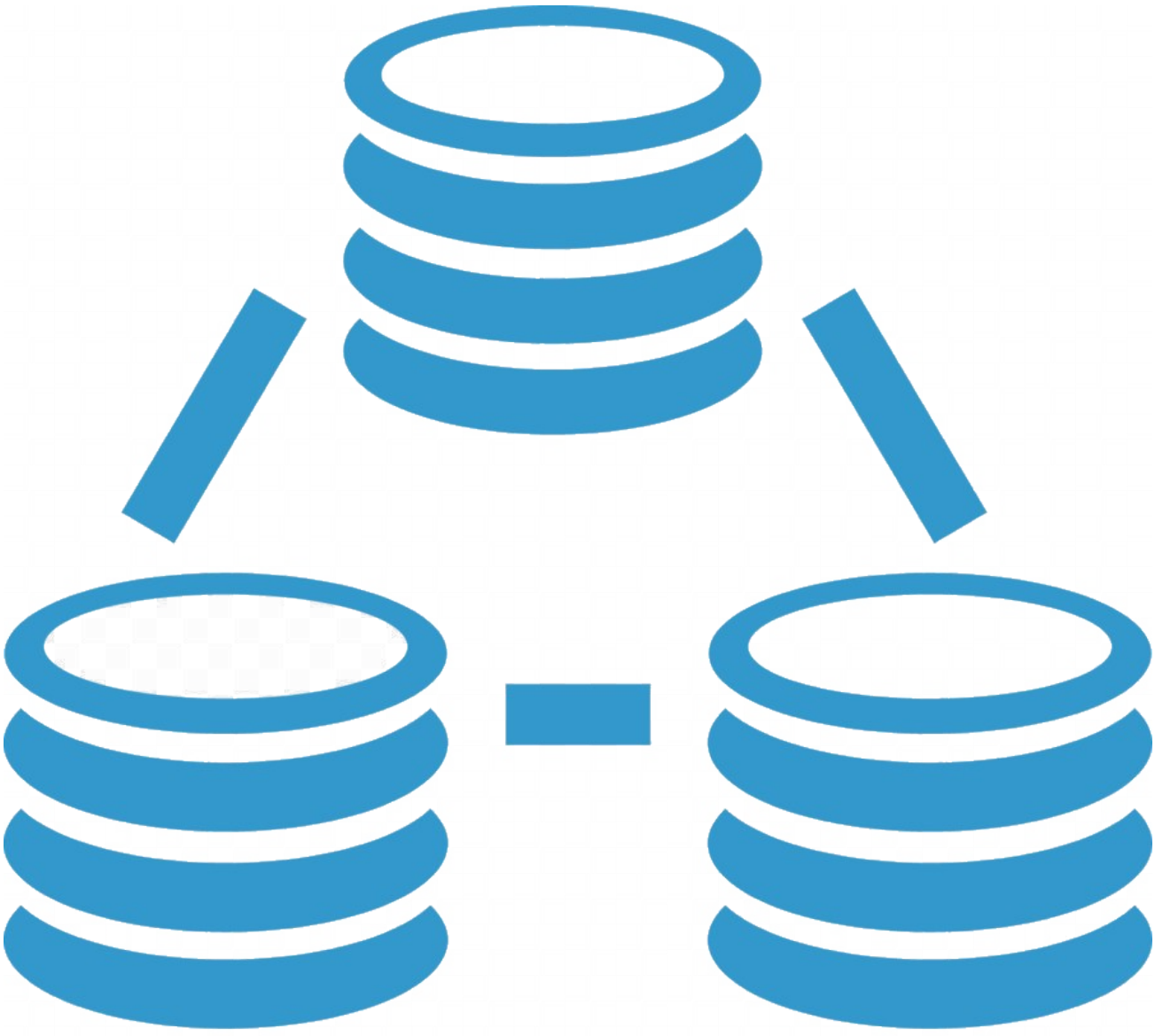
Internet multimedia distribution technology has grown tremendously in the past decades. This technology has also increased in complexity and system requirements which precludes some organizations from having this capability.

The Universal Multimedia Aggregator provides any size organization with the ability to provide a continuous stream of multimedia content, either audio or video. All that is required is a fully functional WebHost account that offers PHP and Cron execution ability.

Universal Multimedia Aggregator

PHP Audio and Video Streaming Engine

David Childers



Forward

Internet multimedia distribution technology has grown tremendously in the past decades. This technology has also increased in complexity and system requirements which precludes some organizations from having this capability.

The Universal Multimedia Aggregator provides any size organization with the ability to provide a continuous stream of multimedia content, either audio or video. All that is required is a fully functional WebHost account that offers PHP and Cron execution ability.

The Universal Multimedia Aggregator software is **OPEN SOURCE** (en.wikipedia.org/wiki/Open_source) and **FREE** to use for **EITHER** commercial **OR** personal projects. The Universal Multimedia Aggregator software is available under the Creative Commons Attribution-ShareAlike 4.0 International license.

I wish you great success using the Universal Multimedia Aggregator for your multimedia content streaming distribution needs.

David Childers
20 February 2022

LinkedIn
www.linkedin.com/in/davidwchilders1563

The mind provides the capacity to fathom the realms of the
of the unresolved, the unexpected, and the unimagined.

Musical Inspiration Provided By

The Silicon Scientist
Outside The Night
Trinity Place

In Memoriam

Aaron Hillel Swartz
-
Alan Mathison Turing

Cover Graphic
www.kissclipart.com/data-aggregation-clipart-computer-icons-data-clip-zrtuzy/

David Childers

Cogito Ergo Sum

Society of Motion Picture and Television Engineers
International Association Of Internet Broadcasters

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www.linkedin.com/in/davidwchilders1563

Open Source Developer

YouTube Live
Software to continuously source multimedia content to YouTube live stream servers.

Debian Linux Desktop System Notes
Guide for optimizing the Debian Linux Desktop.

Project Gibraltar - FreeBSD Desktop Hardening
System security enhancements for FreeBSD release version 8.

Open Access Documentation

Published over 30 Computer, Technical, Internet Broadcasting and Intelligence Information Guides.

Researched and developed technical documentation for Shoutcast / Winamp Television.

Researched and developed documentation for Peercast P2P media streaming project.

Editor and Chief

The Media Streaming Journal

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2009

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License Information

The Universal Multimedia Aggregator documentation
AND
The Universal Multimedia Aggregator PHP software

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BE ADVISED

Copyrighted multimedia content streamed or distributed via the Internet generally requires the copyright holder's consent and payment of Royalty License fees.

It is recommended that you consult with an Intellectual Property Lawyer to determine the consent process and royalty license fee requirements.

Index

Introduction

The introduction of streaming multimedia server software in the 1990s revolutionized the ability of multimedia content creators and producers to distribute media content in real-time. Internet users could access audio or video content feed, similar to regular radio and television broadcasts. However, a significant drawback of multimedia streaming was the need to store multimedia content locally for distribution and considerable processor power for multimedia content processing.

The creation of multimedia hosting sites such as YouTube and open standards playlist specifications made multimedia content accessible and shareable over the Internet. This development also allowed multimedia content to be shared with portable multimedia devices. These breakthroughs allowed access to an incredible variety of multimedia content to a virtually unlimited audience.

The development of open source and open standards multimedia software players also provided users with the ability to listen or view multimedia in a wide variety of formats quickly and efficiently. The Internet now hosts millions of different types of multimedia files that have been placed on the Internet for easy access. Both audio and video multimedia is available for every possible genre of content.

Consider the creation of a content aggregator designed for use with multimedia that can generate a continuous playlist of existing Internet-based multimedia content. An aggregated multimedia playlist can mimic a multimedia content stream created by a Shoutcast, Icecast, Steamcast multimedia server. There would also be no need for hosting the multimedia content locally or requiring the multimedia content to be processed for Internet distribution.

A multimedia content aggregator can allow a content distributor to continuously generate an M3U playlist from a list of HTTP accessible multimedia content files using the open standards M3U playlist file specification, which could be used with any multimedia codec or format. A multimedia content aggregator can also provide the ability to easily broadcast/stream multimedia content via the Dark Web (TOR/ I2P). Using the Dark Web would allow the uncensored distribution of multimedia content. Nation States, Political Organizations, and Extremists Groups would no longer have the ability to strangle the free flow of information.

The Beginning

A project was envisioned that would allow users to access newly published web based content using a standardized content feed system in the early days of the Internet. This project became known as RSS (Really Simple Syndication). RSS allows an Internet user to install a software application to access newly published content from websites that provide RSS content feeds. Publishers and users can use an RSS feed to access text, graphics, and multimedia content.

Imagine syndicating multimedia content into a form that can be easily consumed without requiring special software. The concept of multimedia content syndication was envisioned using existing multimedia content published on the Internet. Content aggregation would allow existing multimedia content files posted on the Internet to be accessible in a universal playlist format.

A content publisher using a multimedia aggregator would create a selected list of existing multimedia content files using the multimedia content's URL web address. The multimedia playlist would be published using a universal playlist format and continuously updated. This syndication method would allow users to access the multimedia content playlist with a compatible multimedia player. The multimedia aggregator would use both existing audio and video multimedia files regardless of how the content was encoded or formatted. The user would place the URL / web address of the multimedia aggregator M3U playlist into the multimedia player and consume the multimedia content at their leisure.

Universal Multimedia Aggregator

This project borrows from the RSS web content system concept. The multimedia content aggregator creates a universal multimedia playlist (M3U) which is continuously updated from an existing list of Internet accessible multimedia content URLs / web addresses. The playlist is also continually randomized and allows the introduction of "spots," which can be used for station identification, promotion, or advertising. If the multimedia content file can be easily downloaded or accessed from the Internet - it can be processed by the Universal Multimedia Aggregator.

The resulting M3U playlist provides a multimedia content feed comparable to accessing multimedia content streamed by a Shoutcast / Icecast multimedia server. The content aggregator can incorporate audio and video multimedia files that use various encoding formats, and the created multimedia playlist uses existing web based multimedia content. Unlike a Shoutcast or Icecast multimedia server, the multimedia content is not encoded or processed by the Universal Multimedia Aggregator. Not encoding or processing multimedia reduces the need for excessive server resources such as CPU power or RAM usage. The content aggregator also does not require any hard drive storage space for multimedia content.

The multimedia aggregator was initially implemented with Bash Shell scripting, which would have required a dedicated Internet based Unix server and knowledge of Unix. The use of Bash Shell scripting would have presented many obstacles for easy implementation and operation.

It was envisioned to allow the end user to install, configure and run the multimedia content aggregator on a standard web host through a different method. The installation and configuration of the application would be simple and easy to implement with PHP. The use of PHP would allow a simple process for implementation using a standard web host - without the need for a dedicated Internet server or Unix knowledge.

The use of sequentially listed data in a text file is the basis for a Flat File DataBase. This method allows the data to be easily queried or sorted without a structured MySQL DataBase. A Flat File DataBase is much easier to maintain and requires fewer system resources. The PHP would act as the control element for querying the data contained in the multimedia Flat File DataBase. The PHP would also incorporate the formatting and publishing of the M3U playlist.

Application Details

Required

* A list of selected multimedia content.
  - The content can be either audio or video multimedia file.
  - The content MUST be comprised of a multimedia file that is directly accessible using HTTP(s).
    * Each entry MUST contain the ENTIRE URL web address linking to the multimedia content.
      - (Example) http://www.myhost.com/music/song.mp3
      - (Example) http://www.myhost.com/video/singing.mp4

    * Youtube multimedia content can also be used.
      - (Example) http://www.youtube.com/watch?v=9fSde2DD8YQ
      - (Example) http://www.youtube.com/watch?v=jfO_sSyqb3c

An example of a list of selected multimedia content

http://www.oneaddress.com/audio/dog.audio.mp3
http://www.twoaddress.com/sound/cat.audio.ogg
http://www.threeaddress.com/show/bird.audio.aac
http://www.fouraddress.com/example/coyote.audio.ogg
http://www.fiveaddress.com/audio/truck.audio.mp3
http://www.sixaddress.com/sound/car.audio.ogg
http://www.sevenaddress.com/show/plane.audio.aac
http://www.eightaddress.com/example/jet.audio.ogg
http://www.nineaddress.com/audio/boat.audio.mp3
http://www.tenaddress.com/sound/fish.audio.ogg
http://www.elevenaddress.com/show/cow.audio.aac
http://www.twelveaddress.com/example/goat.audio.ogg
http://www.thirteenaddress.com/audio/tractor.audio.mp3
http://www.fourteenaddress.com/sound/bus.audio.ogg

The listed multimedia content should be encoded and formatted using universally standard digital methods. This will prevent the need for installing additional specialized software for listening or watching the multimedia content.

This list of multimedia content can be updated as needed.
- Multimedia content can be added.
- Multimedia content can be deleted.

NOTE

It is recommended that 200 or more multimedia content entries be used in the selected multimedia list.

* Fully functional WebHost.
  - Must have the current version of PHP installed.
  - Must have the capability of providing Cron scheduling.
  - Must have the ability to upload files.

* Copy of the Universal Multimedia Aggregator software.

Process

* Create an empty text file and save it.
  - Name this empty text file “media.txt.”
  - Copy and paste the selected multimedia content entries onto the “media.txt” file.
  - Do not leave blank spaces in between the multimedia content entries of the “media.txt” list.
  - Upload the “media.txt” file to the WebHost.

* Create an empty text file and save it.
  - Name this empty text file “playlist.m3u”.
  - Upload the empty “playlist.m3u” file to the WebHost.

* Configure the Universal Multimedia Aggregator software.

* Upload the Universal Multimedia Aggregator software to the WebHost.

* Configure the WebHost Cron for executing the Universal Multimedia Aggregator software at the required times.

* Post the URL web address of the Universal Multimedia Aggregator generated M3U multimedia stream file for all to enjoy!

NOTE

The Universal Multimedia Aggregator PHP file, “playlist.m3u” file, and “media.txt” file should be placed in the same WebHost directory to alleviate the need for extended PHP configuration.

The URL web address of the Universal Multimedia Aggregator generated M3U multimedia stream file should include the entire path to the generated M3U file. This can be placed on a website as a clickable http link.

Example URL web address:

http://www.mywebhostname.com/stream/playlist.m3u

Function

A selected list of web addresses / URLs of existing multimedia files that are easily accessible on the Internet is saved as a text file.

The Universal Multimedia Aggregator opens the text file containing the web addresses / URLs of the existing multimedia files and randomizes the order of multimedia links contained in the text file.

The Universal Multimedia Aggregator opens the blank M3U playlist file.

The Universal Multimedia Aggregator selects a specified number of multimedia web addresses / URLs from the randomized list.

The Universal Multimedia Aggregator adds the specified number of web addresses / URLs to the M3U playlist file.

Two web multimedia file addresses / URLs specified by the Universal Multimedia Aggregator are added before the randomized list of web addresses / URLs within the M3U playlist file.

These two designated multimedia file web addresses / URLs can be used for station identification, promotion, or advertising.

Three web multimedia file addresses / URLs specified by the Universal Multimedia Aggregator are added after the randomized list of web addresses / URLs within the M3U playlist file.

Two of three designated multimedia file web addresses / URLs can also be used for additional station identification, promotion, or advertising.

The third designated multimedia file web address / URL acts as a loopback feature and links to a new M3U playlist file generated by the multimedia aggregator.

This loopback feature allows the end user to access a continuous feed of new multimedia content by generating a new M3U playlist based on randomized multimedia content. This process mimics a "live" stream provided by a Shoutcast, Icecast, or Steamcast multimedia server.

This new M3U playlist file is created in the same method as the previous one and has the same structure.
- Randomizes multimedia addresses / URLs contained in a list.
- Adds a specified number of randomized multimedia addresses / URL's to a M3U playlist file
- Adds specified multimedia addresses / URLs before randomized list.
- Adds specified multimedia addresses / URLs after randomized list.
- Adds loop back web address / URL to a newly generated M3U playlist file.

The Universal Multimedia Aggregator automatically generates this new M3U playlist file at a specified time interval. The generation time interval is configured through the use of the WebHost CRON.

The specified WebHost CRON execution time MUST BE LESS THAN the time required to consume/play/watch/listen to the current multimedia M3U playlist file.

If the execution time of the WebHost CRON is SET GREATER THAN the time required to consume/play/watch/listen to the current multimedia M3U playlist file; the playlist will repeat the existing "old" M3U multimedia playlist without updating to the new M3U multimedia playlist.

Consume The Current
Multimedia M3U Playlist

The End Of The Current
M3U Playlist Directs The
Multimedia Player To Fetch
The Newly Generated
Multimedia Playlist

Randomize Multimedia List
In Preparation For New M3U
Playlist Generation

Add Randomized Multimedia
To New M3U Playlist

Benefits

* The multimedia aggregator does not require special network port configuration for multimedia content distribution.

* The client multimedia player software does not require special network port configuration.

* The multimedia aggregator can create a playlist for any multimedia codec and multimedia format.
  - The multimedia content used must be compatible with the multimedia player used.

* The multimedia aggregator can create a playlist for both audio and video multimedia content.

* The multimedia aggregator is very lite on system resource use and data storage needs.

* The multimedia aggregator is Open Source and Free.

Universal Multimedia Aggregator Configuration

UNIVERSAL MULTIMEDIA AGGREGATOR

* Set the web address location of the station advertisement / promotion multimedia content.
  - **First** URL web address entry.
    * Each entry MUST contain the ENTIRE URL web address linking to the multimedia content.
      - (Example) http://www.myhost.com/music/song.mp3
      - (Example) http://www.myhost.com/video/singing.mp4

    * For Youtube multimedia content.
      - (Example) http://www.youtube.com/watch?v=9fSde2DD8YQ
      - (Example) http://www.youtube.com/watch?v=jfO_sSyqb3c

* Set the web address location of the station advertisement / promotion multimedia content.
  - **Second** URL web address entry.
    * Each entry MUST contain the ENTIRE URL web address linking to the multimedia content.
      - (Example) http://www.myhost.com/music/song.mp3
      - (Example) http://www.myhost.com/video/singing.mp4

    * For Youtube multimedia content.
      - (Example) http://www.youtube.com/watch?v=9fSde2DD8YQ
      - (Example) http://www.youtube.com/watch?v=jfO_sSyqb3c

* Set the web address location of the station advertisement / promotion multimedia content.
  - **Third** URL web address entry.
    * Each entry MUST contain the ENTIRE URL web address linking to the multimedia content.
      - (Example) http://www.myhost.com/music/song.mp3
      - (Example) http://www.myhost.com/video/singing.mp4

    * For Youtube multimedia content.
      - (Example) http://www.youtube.com/watch?v=9fSde2DD8YQ
      - (Example) http://www.youtube.com/watch?v=jfO_sSyqb3c

* Set the web address location of the station advertisement / promotion multimedia content.
  - **Fourth** URL web address entry.
    * Each entry MUST contain the ENTIRE URL web address linking to the multimedia content.
      - (Example) http://www.myhost.com/music/song.mp3
      - (Example) http://www.myhost.com/video/singing.mp4

    * For Youtube multimedia content.
      - (Example) http://www.youtube.com/watch?v=9fSde2DD8YQ
      - (Example) http://www.youtube.com/watch?v=jfO_sSyqb3c

* Set the web address location of the locally generated M3U multimedia stream file.
  - **Fifth** URL web address entry.
    * This entry MUST contain the ENTIRE URL web address linking to the generated M3U file.
      - (Example) http://www.myserver.com/stream.m3u
      - (Example) http://123.456.789/stream.m3u

* Set the number of multimedia entries to be included in the generated M3U.
  - It is recommended to set the number of multimedia entries to a minimum of 30 each.

* The Universal Multimedia Aggregator “stream” PHP file is the source file to be executed by the WebHost Cron.

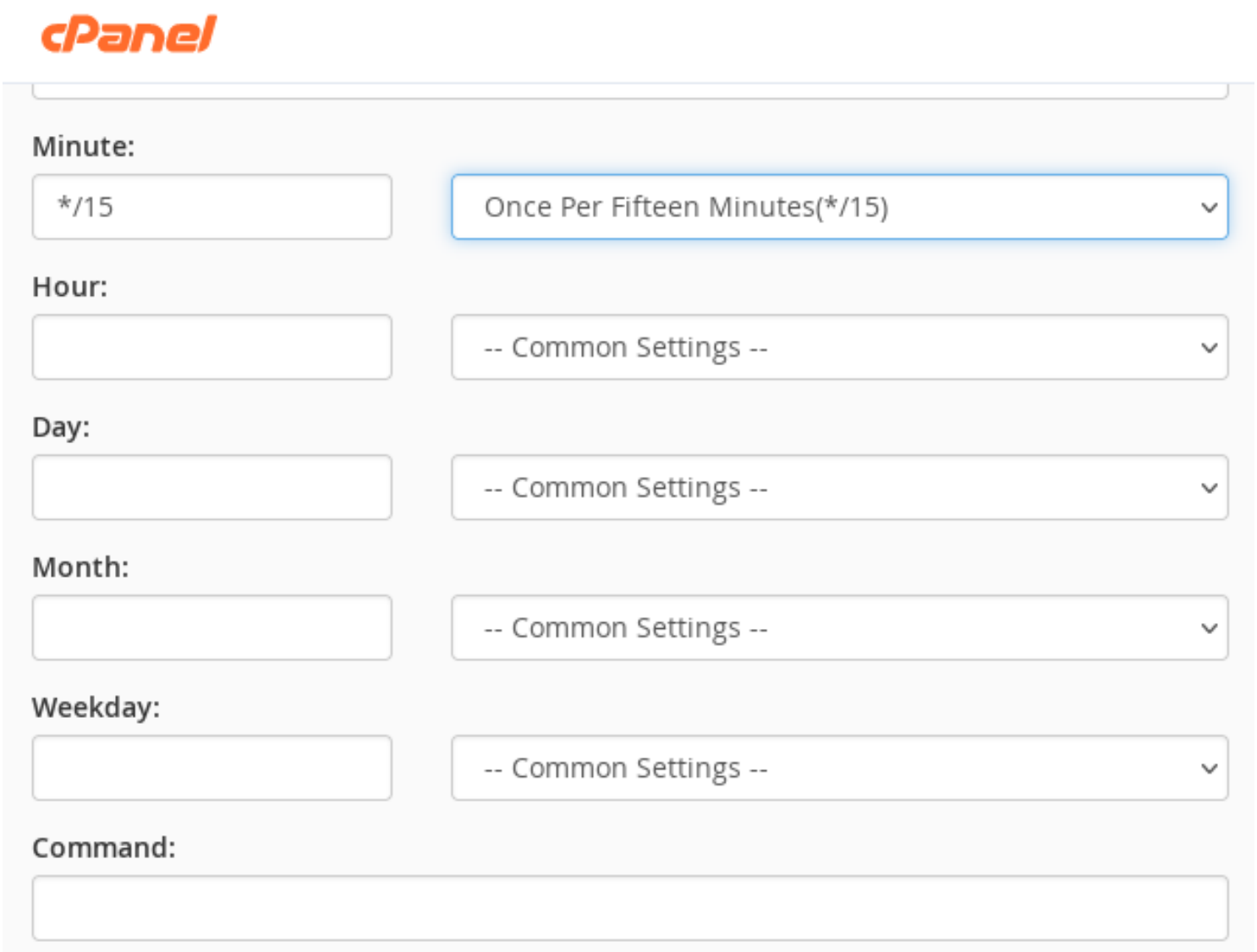
* Adding Cron Job For Execution - General example for PHP:
This information is placed in the <u>Command</u> Box – below the time configuration.
/usr/local/bin/php /home/web_host_account_name/public_html/path/to/cron/script

It is important to include the space between /php /home/ - highlighted in green.

* Set the execution time of the WebHost Cron to execute the PHP file.
  - It is recommended to set the execution time at 15 minute intervals.

<u>NOTE</u>

The configuration of the Cron system is typically accessed through the WebHost CPANEL. Your WebHost provider can assist you with this if you are not familiar with the Cron system.



NOTE

The multimedia playlist rendering time (the total time it takes for the multimedia content to play) MUST be greater than the time configured for Cron to generate a new M3U playlist.

The Universal Multimedia Aggregator PHP file, “playlist.m3u” file, and “media.txt” file should be placed in the same WebHost directory to alleviate the need for extended PHP configuration.

File Permissions

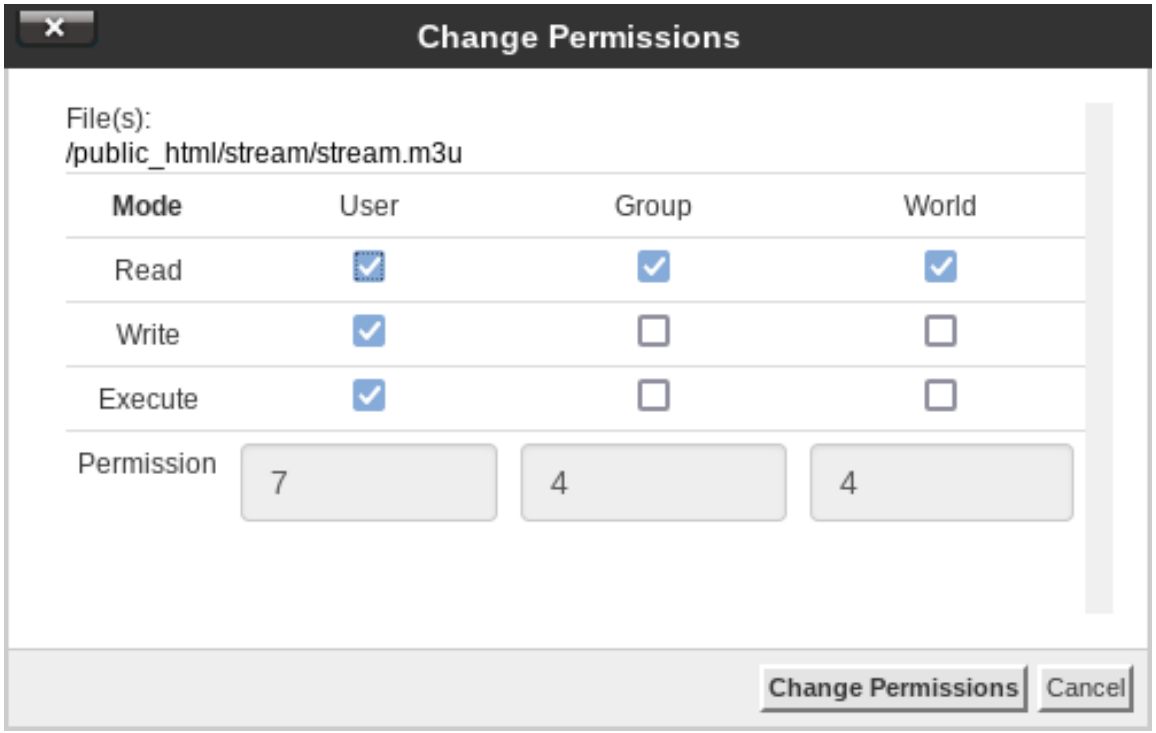
The media.txt file must have the proper file permissions configured.
* The media.txt file must have the **READ** permission set for the local user.

The stream.php file and the playlist.m3u file must have the proper file permissions configured.
* The stream.php and playlist.m3u files must have the **READ/WRITE/EXECUTE** permissions set for the local user.

NOTE

File permissions are typically configured through the WebHost file manager.

Your WebHost provider can assist you with setting or changing relevant file permissions.



YouTube Content

Please advise your audience to use the VLC multimedia player if you incorporate YouTube multimedia content within your broadcast. VLC is a free media player for Windows, Mac OS, Linux, and FreeBSD with built-in codecs to play virtually all video and audio formats, including YouTube content contained within an M3U playlist format. The VLC multimedia player is open source and free to download and install.

www.videolan.org

The latest version of the YouTube playlist LUA system file must also be installed for YouTube content use with the VLC multimedia player.

github.com/videolan/vlc/blob/master/share/lua/playlist/youtube.lua

Update The Lua File According To Your Specific Operating System Requirements

Place the updated Lua file in the appropriate system folder.

* Windows: Program Files\VideoLAN\VLC\lua\extensions\

* Mac OS: /Applications/VLC.app/Contents/MacOS/share/lua/extensions/

* Linux: /usr/lib/vlc/lua/playlist/ or /usr/share/vlc/lua/extensions/

* FreeBSD: /usr/ports/multimedia/vlc/files/

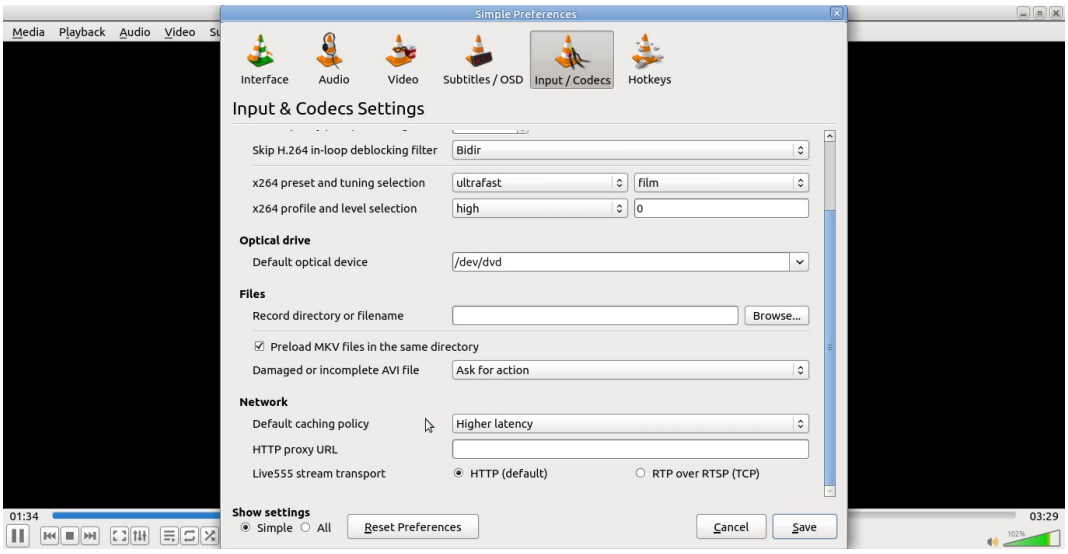
Reference: www.vlchelp.com/install-vlc-media-player-addon/

Reference: forums.freebsd.org/threads/vlc-and-streaming.56150/

The VLC multimedia player stream cache may require configuring the Higher Latency setting depending on the viewer's Internet connection reliability.

Tools Tab → Preferences Tab → Input / Codecs Tab → Default Caching Policy

SAVE any changes made.



Universal Multimedia Aggregator Software

- Create a blank text file.
- Copy the software text to the blank text file.
- Rename the text file to stream.php and save.

These set the pre and post multimedia content URL web addresses

```
$first_line_before = "https://www.youtube.com/watch?v=4MEHCJVhyZ0";
$second_line_before = "https://www.youtube.com/watch?v=connRUHZ8r4";
$first_line_after = "https://www.youtube.com/watch?v=tuOw4CIeP9c";
$second_line_after = "https://www.youtube.com/watch?v=XrPMOyAhG0M";
$third_line_after = "http://www.foo.com/playlist.m3u";
```

These pre and post URL web addresses are set as per your individual station requirements.

Ensure that all associated text files have been properly named

```
$handle = fopen("media.txt", "r");

file_put_contents('playlist.m3u', implode("\n", $final_merge));
```

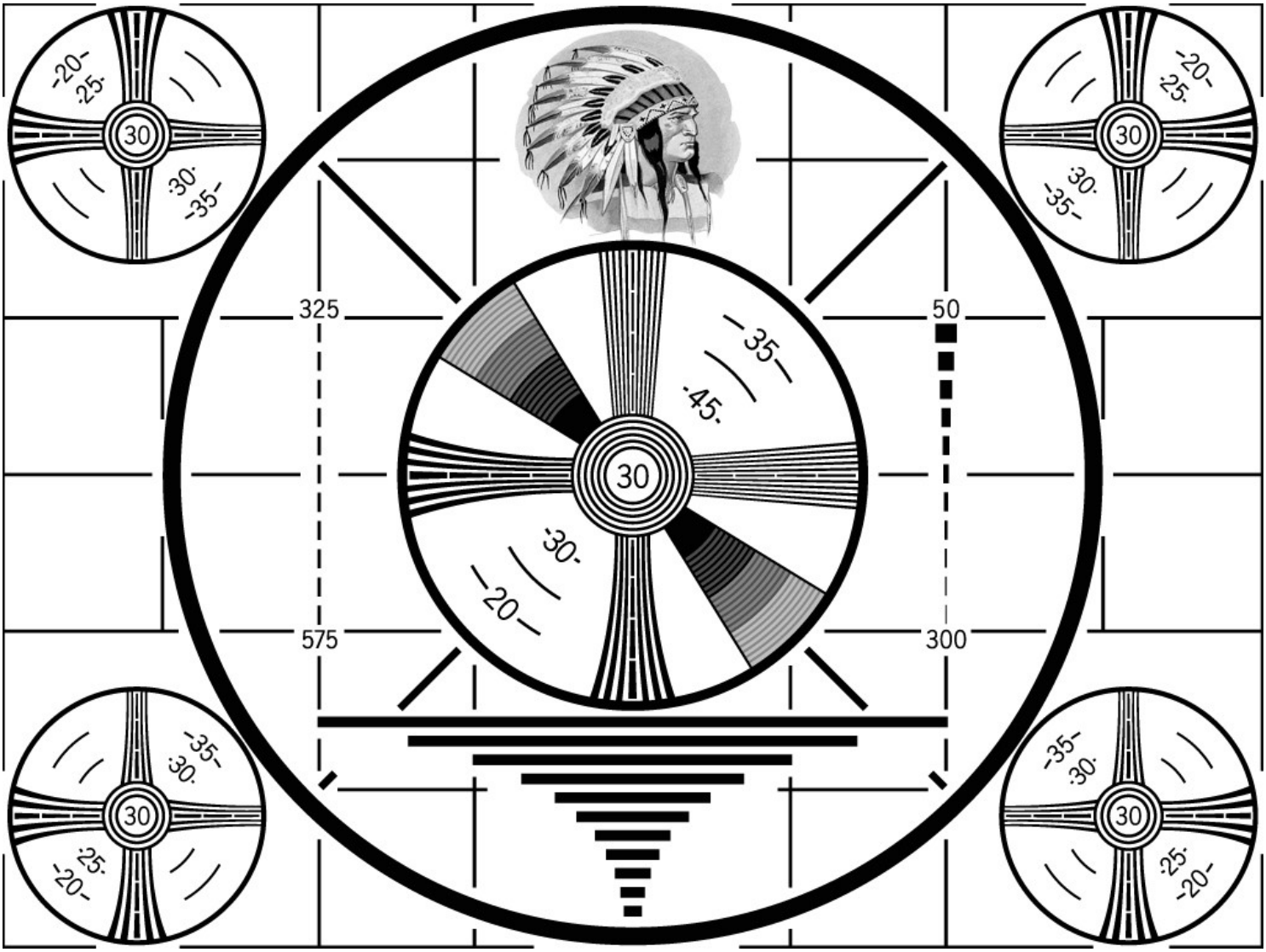
This sets the number of randomized entries that the aggregator places in the playlist multimedia file

```
$get_thirties = array_slice($all_rec, 0, 30);
```

- S O F T W A R E -

```
<?php
/**SETUP YOUR PRE URL AND POST URLS HERE**/
        $first_line_before = "https://www.youtube.com/watch?v=4MEHCJVhyZ0";
        $second_line_before = "https://www.youtube.com/watch?v=connRUHZ8r4";
        $first_line_after = "https://www.youtube.com/watch?v=tuOw4CIeP9c";
        $second_line_after = "https://www.youtube.com/watch?v=XrPMOyAhG0M";
        $third_line_after = "http://www.foo.com/playlist.m3u";

        /**SETUP YOUR PRE URL AND POST URLS HERE ----END**/

        $handle = fopen("media.txt", "r");
        $all_rec = array();
        if ($handle) {
           while (($line = fgets($handle)) !== false) {
              $all_rec[]= str_replace("\n", "", $line);
           }

           fclose($handle);
        } else {
           echo "File does not exists";
        }

   shuffle($all_rec);
   $pre_array = array($first_line_before,$second_line_before);
   $post_array = array($first_line_after,$second_line_after,$third_line_after);
   $get_thirties = array_slice($all_rec, 0, 30);

   $merge_pre = array_merge($pre_array,$get_thirties);
   $final_merge = array_merge($merge_pre,$post_array);

        file_put_contents('playlist.m3u', implode("\n", $final_merge));

?>
```

- S O F T W A R E -



en.wikipedia.org/wiki/Indian-head_test_pattern

commons.wikimedia.org/wiki/File:RCA_Indian_Head_Test_Pattern.svg